

"A wise man builds his house upon the Rock" Mat. 7:24

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SC License #: 1736 / NC License #: 2240 / NACHI #: NACHI05120170

# **Confidential Inspection Report**

Property Address: 136 Anystreet St. MyTown SC



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The World's Elite Inspectors De hunden buckt CMI National Association of **Certified Master** NACI INSPECTOR **Certified Home Inspectors** 

Date: 6/3/2010	<b>Time:</b> 02:15 PM	<b>Report ID:</b> 1912 House Sample
<b>Property:</b> 136 Anystreet St. MyTown SC	Customer:	Real Estate Professional:

Any locations given, such as "left front", are oriented as if looking at the house from the front yard.

This is an actual report for a real client performed on a 100 year old house in 2010. All identifying information has been removed, including the cover page photo which is for illustration purposes only. This is not the full report! Some of the informational items have been excluded for the sake of making the report smaller while trying to give you a 'big picture' overview. This report is the exclusive property of Alpha & Omega Home Inspections, LLC and may not be copied or reproduced in any manner without our written consent.



		И	N	I NP	RR	Styles & Materials Siding Material:				
1.0	GRADING, DRAINAGE & VEGETATION				Х	Metal				
1.1	DRIVEWAYS & WALKWAYS	Х				Trim Material: Wood trim				
1.2	TRIM				Х	Door Material:				
1.3	SIDING / WALL COVERINGS				Х	Wood Storm door				
1.4	EAVES, SOFFITS AND FASCIAS				Х	Window Type:				
1.5	STEPS & HANDRAILS				Х	Wood single glazed Storm windows				
1.6	PAINT	Х				Appurtenance:				
1.7	WINDOWS			Γ	Х	Covered porch Patio				
1.8	DOORS (Exterior)				Х	Screened porch Sidewalk				
1.9	STORM WINDOWS & DOORS				Х	Driveway:				
1.10	SCREENS	Х				Concrete				
1.11	PORCHES			Γ	Х					
1.12	DECKS, PATIOS, AND BALCONIES	Х								
1.13	CHIMNEY				Х					
1.14	HOUSE ADDITIONS OR ALTERATIONS	X		Ĩ						
1.15	OTHER	Х		Ĩ						
			N	I NP	RR					

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate **Comments:** 

**1.0** (1) The roots of mature trees may have an adverse effect on the house, and you may wish to have the tree removed.



(2) Vegetation is in contact with the house roof. The vegetation should be trimmed to prevent damage to roof shingles. More about the hazards of trees close to the home can be read at <u>our website</u>.

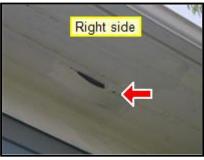
Vegetation is in contact with the house exterior, which may damage the siding and/or windows. Vegetation close to the foundation will limit ventilation of the crawl space, if present. The vegetation should be trimmed to prevent these issues.

Vines are overgrowing the house walls and although they are attractive they can introduce pests and rodents and accelerate deterioration of the brick and mortar. Therefore, you may wish to consider having them removed.

**1.2** The trim was deteriorated at the base of the crawl space entry door and service is needed. An evaluation of the house trim by a licensed contractor and repair as deemed necessary is recommended.

**1.3** The siding at the left side has a small hole that may expose the sheathing to moisture. Repair or replacement of the affected sections is recommended.

**1.4** The fascia board, soffits, and eaves are in a generally acceptable condition, but minor maintenance is needed to secure loose sections.



**1.5** As a safety precaution, we recommend installing handrails on steps that have four or more risers, and particularly if children or the elderly visit or occupy the property.



**1.7** (1) One window(s) or their components (frames, trim or sills) at the right side is deteriorated. The condition is conducive to allowing water infiltration and eventual decay to window components, and walls studs. We therefore recommend an evaluation and repair as deemed necessary by a licensed contractor.



(2) Some of the wood framing around the attic windows was black, as if there may be a leak. The window was dry at the time of the inspection. We recommend an evaluation of them during a period of heavy or prolonged rain. Note that it may be due to an old leak that has been repaired.



**1.8** (1) No dead bolt lock was provided at one or more exterior doors, and a latch-type dead bolt is recommended for security reasons.

(2) The rear entry door opens over a step, or has no landing, and poses a fall hazard. According to today's commonly accepted construction standards, the width of each landing should not be less than the door served and every landing should have a minimum dimension of 36 inches measured in the direction of travel.



**1.9** The glass in a storm window at the lower level stairs (left side of home) had a small break and you may wish to have it replaced.

**1.11** (1) We did not see a method for water that may enter the rear screened porch to drain out. We saw no evidence of adverse conditions and water may not enter the area except under extreme weather conditions. You should monitor the porch and insert drain holes if a problem is revealed. FYI.

(2) Wood planks at the front porch steps are 'ragged' because they overhang too far and effectively reduce the top step tread depth to an unacceptably short length. We recommend service to repair and trim the porch planks and to ensure the porch steps have safe dimensions. (The minimum depth should be 10 inches. The greatest tread depth should not exceed the smallest by more than 3/8 inch.)



(3) A baluster or picket is loose at the front porch guard rail or stair rail and should be serviced for safety reasons.

4) The front porch post/pier has missing or loose bricks. Service by a masonry contractor is recommended.

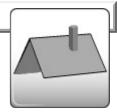


**1.13** The chimney has a weather cap but no spark arrestor, which is recommended but not required by any building standard. The lack of it will allow the entry of birds and animals into the chimney.

**1.14** Additions or alterations have been made to this property (rear porch). Therefore, you should request documentation that should include permits and any warranties or guarantees that might be applicable, because we do not approve of, or tacitly endorse, any work that was completed without permits or by unlicensed contractors, and latent defects could exist. For more information about the importance of permits, see <u>our website</u>.

**1.15** A metal pipe sticks out of the left rear corner wall. We could not determine the reason for it, but think it is an old water pipe no longer in use. You may wish to have it removed.

# 2. Roofing, Guttering & Other Roof Components



		II NP	RR	Styles & Materials Roof-Type:			
2.0 ROOF COVERINGS			Х	Нір			
2.1 VISIBLE FLASHINGS			Х	Roof Covering: 3-Tab fiberglass			
2.2 SKYLIGHTS		Х		Estimatd number of s			
2.3 ROOF PENETRATIONS	Х			<b>layers:</b> Two			
2.4 FIREPLACE CHIMNEYS	Х			One asphalt composition			
2.5 GUTTERS & DOWNSPOUTS			Х	Roof sheathing:			
	IN N	II NP	RR	Wood 'skip' planks			

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## oof Covering: Tab fiberglass

stimatd number of shingle yers: NO

ne asphalt composition layer ne wood shingle layer

### oof sheathing: lood 'skip' planks

# Method of roof observation:

From within the attic Walked 1st level Observed 2nd level with binoculars Through 2nd level windows

**Chimney (exterior):** Brick Chimney cavity not visible

# **Comments:**

5 2.0 (1) The roof is in a state of decomposition (loss of shingle granules, etc.), which means that the roof is in decline and susceptible to leaks. It will need to be maintained and closely monitored, because it is at or near the end of its serviceable life. We recommend an evaluation of the roof by a competent roofing contractor before the close of escrow because the cost of replacement may affect your valuation of the property.

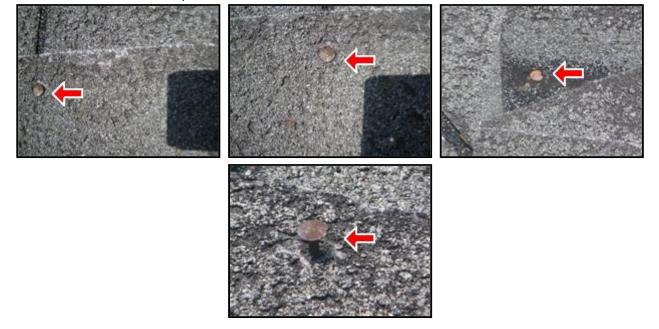


(2) One or more shingles or shingle tabs were missing or damaged at the front of home. A thorough evaluation of the roof and repair by a competent roofing contractor is recommended.



(3) A patched area of shingles was observed at the front of home. You should confirm that the repairs were performed by a competent roofing contractor.

(4) Nail heads were observed at the front of home. This is indicative of an improper installation and/or poorly secured nails that have penetrated the shingles above them. An evaluation and repair by a competent roofing contractor is recommended to prevent future leaks.



4 2.1 The drip edge flashing at the front of the home was loose.



**2.4** You may wish to have unused chimneys removed at the next re-roof to reduce the potential for roof leaks. FYI.



**2.5** (1) Every gutter downspout does not effectively discharge water 4 to 6 feet away from the house foundation. Although we rarely see it, we always recommend that downspout extensions be installed for the general welfare of the residence and its foundation.



(2) The gutters and/or downspouts need to be cleaned and serviced to drain properly. The debris in gutters can also conceal rust, deterioration or leaks that are not visible until cleaned. Left unaddressed, clogged gutters will allow water to penetrate unintended areas and may result in decay to wood structures behind the gutters.

# 3. Electrical System

3.0 INCOMING SERVICE

3.5 GROUNDING CABLE

SMOKE ALARMS

3.6 FIXTURES & OUTLETS

3.3 OVER-CURRENT PROTECTION

3.4 MAIN & BRANCH CIRCUITS

3.1 MAIN PANEL

3.2 SUB-PANELS

3.7

3.8



## **Styles & Materials**

Electrical Service Conductors: Overhead service Aluminum

Visible branch wire 15 and 20 AMP:

# Copper

IN NI NP RR

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Х

Х

Х

Х

Х

IN NI NP RR

Х

Х

Х

Wiring Type: Modern non-metallic sheathed cable Early non-metallic ungrounded sheathed cable (used between 1930 & 1965) Early non-metallic sheathed cable (Circa 1960s)

Over-current protection: Circuit breakers

Main Panel Location: Back porch

Main Panel Manufacturer: GE

Panel Estimated Capacity & Voltage: 100 AMP

GFCI present at: Some outdoors

## Smoke Alarms:

Not in Bedrooms Not Interconnected Not hardwired

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GROUND-FAULT-CIRCUIT INTERRUPTER (GFCI)

# **Comments:**

**3.1** (1) The service entrance amperage is estimated to be 100 amps. Generally speaking, 100 amps is the minimum amperage necessary by today's modern homes. You should confirm the amperage prior to close of escrow and consult with a licensed electrician about the limitations of this size service.

(2) The main panel cover includes pointed or improper screws which should be replaced with ones appropriate for electrical use.

(3) A common defect exists in that one or more neutral wires are incorrectly connected under a single screw on the grounding or neutral bus bar at the main panel, and should be serviced. (Unless the manufacturer states otherwise, bus bars are only designed for one current carrying conductor per terminating screw.)



4) White conductors were used as ungrounded conductors (hot wires) at the main panel. This is a common

defect, but the conductors should be identified with black tape or ink markings.

**3.4** (1) The residence was once wired with suspect knob-and-tube wiring, which was commonly installed prior to 1950. This system is ungrounded and over time the wire's insulation may become brittle and fall apart or wear thin, resulting in exposed conductors and a risk of shock and/or fire. The hazard is increased by covering it with insulation (a common practice), and incorrectly tapping new wiring into it. We tested many areas of the visible K&T wiring in the attic and crawl space and did not find any of it energized. Yet, we cannot guarantee that <u>all</u> the suspect knob-and-tube wiring throughout the house has been de-energized and replaced. We recommend that a qualified licensed electrician make that determination. Another recommendation is to remove all the unnecessary and de-energized wiring.



 $\sim$  (2) At the exterior rear of the home an extension cord is used as permanent wiring, and needs to be replaced with permanent wiring.



(3) One electrical connection(s) (in the attic or wall cavity adjacent to the upstairs bathroom) have been incorrectly made outside of junction boxes, which is a potential fire hazard. All such connections should be made within junction boxes in order to contain any arching or sparking that could occur, a task that should be completed by a licensed electrician.



(4) Two open electrical junction box(s) were observed in the attic space which should be sealed to contain any arcing or sparking that might occur.



(5) Branch circuit wiring in the attic is susceptible to damage because it has been covered by floor decking. Abraded wires can be a shock or fire hazard. Service to re-route the wiring or remove the decking is recommended.



(6) No romex connector or strain relief bushing was provided to prevent a wire from making direct contact with the sharp edges of the junction box at the attic fan.



(7) There are unprotected electrical conductors within six feet of the attic access. Today's commonly accepted construction standards prohibit this practice and we recommend that they be relocated for safety reasons.

(8) A wire in the crawlspace has been improperly terminated. Removal or enclosing it in a junction box is recommended.



4 (9) In the crawl space, one or more electric cables was on the ground or dangled overhead. Electric cables

are required to be supported overhead every 4.5 feet.



(10) Much of the original wiring and equipment has apparently been de-energized and replaced. However, most of it was left in place. Or recommendation is to remove all unnecessary wiring and equipment to eliminate any possibility of inadvertant energization.



**3.6** (1) The doorbell at the main entry does not work (note that a door knocker is provided).

(2) One or more exterior outlets at the front of home has an open ground, and should be serviced.

(3) One exterior outlet(s) at the front of the home was missing a weather-proof cover, the cover was damaged, or was not approved for outdoor use. Replacement or installation of a functional and approved weather-proof outlet is recommended.

(4) The front porch ceiling fan and light (left side) would not respond to the switches at the front door or to the pull chains. Service is recommended. Note: this fan/light globe broke during testing and will need to be replaced.

(5) One or more outlets at the rear porch has an open ground, and should be serviced.

(6) There are not as many outlets as would be required by current standards, and you may wish to consult an electrician about the possibility of adding more.

(7) A floor outlet or faceplate in the rear porch is not approved for such use and should be replaced.

(8) An outlet in the kitchen cabinet (over the range) was missing a faceplate, which should be replaced for safety reasons.

4 (9) An outlet in the kitchen was missing a faceplate, which should be replaced for safety reasons.

(10) A ceiling light in the kitchen does not respond, and should be serviced or demonstrated to be functional. (The bulb may simply be burned out.)

4 (11) A ceiling light in the kitchen needs a 3-way switch in order to function properly from multiple locations.

(12) A ceiling light in the dining room needs a 3-way switch in order to function properly from multiple locations.

(13) One outlet(s) in the dining room has/have an open ground, and should be serviced.

(14) One outlet(s) in the living room was loose in the wall and should be serviced.

(15) We could not confirm that the 1st level den was equipped with a switched outlet, which is required by commonly accepted standards and is generally recommended no matter the age of the home whenever an overhead light fixture is absent.

(16) One outlet(s) in the den has/have an open ground, and should be serviced.

(17) We considered the stairway to have inadequate lighting. Today's commonly accepted construction standards specify that interior stairways should be provided with a means to adequately illuminate the stairs, including the landings and treads. While we did not take light measurements, our judgement is that the lighting was inadequate and suggest that it be improved for safety reasons.



(18) The 2nd level front right bedroom closet employs a light fixture that should have a cover for fire safety reasons.

4 (19) An outlet in the 2nd level office was missing a faceplate, which should be replaced for safety reasons.

4 (20) The master bedroom closet employs a light fixture that should have a cover for fire safety reasons.

(21) A ceiling fan/light in the master bedroom does not respond to a wall switch, and should be serviced or demonstrated to be functional. (It is probably remote controlled and there was no remote control that we could find.)

(22) A ceiling fan/light in the front left & right bedrooms and the upstairs office was only operational by the supplied pull chains. You may want to consider having a wall switch installed for your convenience. FYI.

**3.7** (1) None of the kitchen counter receptacles were provided with ground-fault protection. For safety reasons, we recommend that all outlets be protected with ground fault protection, which is required by today's commonly accepted construction standards (there is no regulatory requirement to upgrade a home built before the dates of compliance). GFCI receptacles are life saving devices and have been required within 6 feet of the sink since 1987 and at all kitchen counter receptacles since 1996.

(2) The downstairs hall bathroom outlets were not provided with ground fault protection, which is required by today's commonly accepted construction standards and is an important safety feature. Ground fault circuit interrupter (GFCI) receptacles have been required in bathrooms since 1975 and they are recommended here as a life saving device.

(3) The 2nd level hall bathroom outlets were not provided with ground fault protection, which is required by today's commonly accepted construction standards and is an important safety feature. Ground fault circuit interrupter (GFCI) receptacles have been required in bathrooms since 1975 and they are recommended here as a life saving device.

**3.8** (1) One or more smoke alarms did not respond. The batteries should be replaced or the unit replaced upon the first day of occupancy. If applicable, the smoke detectors should be confirmed to be interconnected throughout the house.

(2) One or more of the smoke alarms is chirping, and should be serviced, which probably involves changing the battery.

# 4. Basement, Crawl Space, Slab, Structure



# IN NI NP RR Styles & Materials

Х

Х

Х

Х

Х

Х

Foundation Type: Raised Foundation

Crawl Space Entrance: Rear of home

Method used to observe crawlspace:

Crawled Used hand-held flashlight and a small probe

## **Crawl space inspection**

limitations: Electrical hazards HVAC ducts HVAC equipment Plumbing pipes Sub-floor insulation

# Crawl Space Moisture Barrier: 40%

Floor System Insulation: Fiberglass batts Equivalent to R-19

Foundation Walls: Brick

Foundation columns or piers: Brick piers Wood piers Conrete piers Steel lally columns Dry stacked block

### Exterior columns or piers: Porch columns-wood & brick

Floor Structure: Wood girders and joists standard dimension Wood tongue & groove floor

## Wall Structure:

Structure not visible due to finished areas Presumed to be wood studs

Ceiling Structure: Standard dimension wood joists

## **Roof Structure:**

Stick-built w/standard dimension lumber Wood slats for sheathing Wood shake shingles

## **Comments:**

**4.0** (1) This residence has a raised foundation, commonly called a crawl space. Such foundations permit access, and provide a convenient area for the distribution of water pipes, drain pipes, vent pipes, electrical conduits, and ducts. However, although raised foundations are far from uniform, most include concrete footings and walls that extend above the ground with anchor bolts or straps that hold the house onto the foundation, but the size and spacing of the bolts or straps vary. In the absence of major defects, most structural engineers agree that the one critical issue with modern raised foundations is that they should be bolted or strapped. Our inspection of these foundations conforms to industry standards, which is that of a generalist and not a specialist, and we do not use any specialized instruments to establish that the structure is level. We typically enter all accessible areas to look for any evidence of structural deformation or damage, but we may not comment on

# IN NI NP RR

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4.0 CRAWL SPACE

4.1

4.2

4.3

4.4

4.5

4.6

COLUMNS OR PIERS

FOUNDATION WALLS

SUB-FLOOR INSULATION

EVIDENCE OF WATER SEEPAGE

VISIBLE FRAMING

SUMP & PUMP

minor deficiencies, such as on commonplace settling cracks in the stem walls and slight deviations from plumb and level in the intermediate floor framing, which would have little structural significance. Interestingly, there is no absolute standard for evaluating cracks, but those that are less than  $\hat{A}^{1/4}$ " and which do not exhibit any vertical or horizontal displacement are generally not regarded as being structurally relevant. Nevertheless, all others should be evaluated by a specialist. However, in the absence of any major defects, we may not recommend that you consult with a foundation contractor, a structural engineer, or a geologist, but this should not deter you from seeking the opinion of any such expert.

(2) The crawl space is considered to have inadequate ventilation (which contributes to the high moisture in the wood discussed elsewhere). We observed no vents for the sides or rear of the crawl space. Today's commonly accepted standards require ventilation openings of not less than 1 square foot for each 150 square feet of crawl space and 1 vent within 3 feet of each corner of the building. A 1500 sq. ft. crawl space, for example, would require 10 sq. ft. of ventilation. The size of the average vent is 16 x 8 inches. Therefore, a 1500 sq. ft. home would require approximately 11 average size vents. We did not conduct sizing calculations on this home, but an increase in crawl space ventilation or encapsulation of the crawl space is recommended and you should consult with a crawl space specialist or licensed general contractor about this issue. Inadequate ventilation can lead to high moisture content in the wood floor structure, which can contribute to the fungi growth and decay in the long term.

(3) Wood and/or other organic material was in the crawl space, which attracts wood destroying organisms. While we did not perform a pest control inspection, removal of all wood and similar materials from the crawl space is generally recommended.



**4.1** (1) One or more crawl space piers were cracked, leaning, or damaged. We recommend an evaluation and repair as deemed necessary by foundation specialist.



(2) The foundation footings have been undermined by trenching or soil excavation in one or more areas. An evaluation by a foundation specialist or structural engineer and repair as deemed necessary is recommended.







(3) Various portions of the floor structure was supported by various make-shift piers. Those floor supports exhibit poor workmanship are thought to be inadequate to provide permanent support to the floors. It is recommended that a competent and licensed general contractor or foundation specialist be consulted to provide a further evaluation of the adequacy of the floor supports and make necessary repairs.









**4.2** (1) Heavy vegetation limited our observation of the house siding and/or foundation.

(2) The bricks that form the foundation wall are loose at the left side and front of the home. Service by a foundation or masonry contractor is recommended.

At the front of the home and rear of the home, mortar has deteriorated between the bricks that form the foundation wall. Service by a foundation or masonry contractor is recommended.



**4.3** (1) Repairs and new wood (joist, beams, sub-floors) were observed in various areas. You should ensure the repairs were performed by licensed contractors with the benefit of a permit and you may want to view the condition for yourself. If you cannot confirm the work was performed by a licensed contractor with the benefit of permits, then we recommend that you have a licensed contractor evaluate the work and current condition. Note: generally speaking, structural repairs (band sill replacement, etc.) requires a permit.

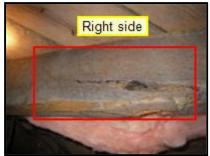
(2) Moisture content greater than 25% was measured in the wood structures. No decay or fungi was observed due to the moisture content, but wood will decay at moisture levels > 28% and will support fungi growth at levels in the low-20s. Options to reduce the moisture levels include, but are not limited to, increasing ventilation, installation of a vapor barrier, installation of a humidistat controlled fan, or total encapsulation of the crawl space. You should consider the services of a crawl space specialist to remedy this adverse condition.



(3) A floor joist has been cut at the left side of the home. An evaluation and repair as deemed necessary by a licensed contractor is recommended.



(4) A floor joist was split. An evaluation and repair as deemed necessary by a licensed contractor is recommended.



(5) Decay to a small section of the wood floor structures (band sill at the front of the home) inside the crawl space was observed. New wood was attached to the damaged band sill, when total replacement would have been the better option. Repair by a licensed general contractor is recommended.

Some decay to a small section of the wood floor structures (band sill at the right side of the home) inside the crawl space was observed. An evaluation by a licensed general contractor is recommended.



4.4 Some pieces of insulation are hanging or have fallen from between the floor joists. This does not have

any serious consequences, but negatively affects thermal efficiency and you may wish to have it serviced.



**4.5** The soils in the crawlspace were moist and the sump was full of water, which could indicate a chronic drainage problem. Moisture can adversely affect the house foundation and can facilitate the growth of a variety of molds that can promote unhealthy conditions. Therefore, you should consult a grading and drainage contractor or a licensed general contractor with experience in crawl space drainage and moisture to determine the extent of the concerns and necessary repairs. We also recommend that you observe the crawl space during a period of heavy or prolonged rain prior to the close of escrow or within the contingency period.

**4.6** (1) The crawlspace could be subject to moisture intrusion, but is equipped with a float-activated sump pump. Common sense dictates that moisture should be handled before it even enters a residence, but some residences do have sump pumps. Nevertheless, the sump-pump should be tested periodically monitored to ensure proper operation.

(2) The sump pump was not tested, as it was scheduled to be replaced according to the buyer and their agent.

# 5. Plumbing System



		IN	NI	NP	RR	Styles & Materials Water Source:			
5.0	VISIBLE WATER SUPPLY PIPING				Х	Public			
5.1	VISIBLE WASTE PIPING				Х	Waste Disposal Type: Thought to be public			
5.2	VISIBLE VENT PIPING				Х	Plumbing Water Supp			
5.3	WASTE DISPOSAL SYSTEM	Х				building): Polyethylene (black pip			
5.4	MAIN WATER SHUT-OFF (describe location)	Х				Plumbing Water Distr			
5.5	WATER HEATER (describe date of manufacture)				Х	(inside building): Copper			
5.6	SHOWERS & ALL FIXTURES				Х	Galvanized PEX in limited areas			
5.7	EXTERIOR FAUCETS		Γ		Х	Plumbing Waste:			
5.8	DRAINS	Х				PVC ABS			
5.9	WATER PRESSURE	Х				Cast iron Chromed steel beneath			
5.10	WASHER & DRYER CONNECTIONS	Х				Plumbing Vents:			
5.11	GAS PIPING				Х	Cast Iron			
5.12	OTHER EQUIPMENT (waste ejection systems, laundry tubs, wet bars, etc.)			Х		Water Heater Power S Natural Gas			
			L			Water Heater Capacity			

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# 

### ste Disposal Type: ought to be public

Imbing Water Supply (into ilding):

lyethylene (black pipe)

Imbing Water Distribution side building): pper lvanized X in limited areas

## Imbing Waste:

C S st iron romed steel beneath sinks

ter Heater Power Source: tural Gas

ter Heater Capacity: 40 Gallons

Water Heater Location: Laundry room

Water Temperature: Water heater was off

Supply system functional flow: Limited at certain fixtures

Waste system functional drainage: Yes

Laundry room location: Adjacent to kitchen

Dryer power source: Electric

Dryer vent to exterior: Smooth Wall Metal Pipe Vents out rear wall

## Gas plumbing system:

Copper tubing Black steel pipe Corrugated stainless steel tubing (CSST)

Water Pressure: 50 to 60 psi (acceptable)

## **Comments:**

5.0 (1) No shut-off valve was provided inside the home for a freezer ice maker and you may wish to have one installed.

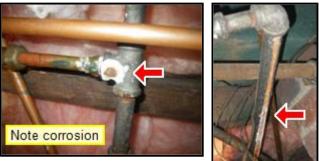
🔨 (2) Little to no water flow was present at the downstairs hall bathroom sink. We recommend that a licensed plumbing contractor evaluate the functional flow prior to the close of escrow, as the repair may be relatively simple or something more serious.

# IN NI NP RR



(3) There is a water supply pipe leak beneath the 2nd level hall bathroom sink shut-off valve, which should be repaired by a licensed plumber within the contingency period, or before the close of escrow. This is particularly important because leaks can lead to the growth of molds and fungi, which can have an adverse influence on health.

(4) Some of the potable water pipes within this residence galvanized, and are assumed to be original. By their nature, they will produce rusty looking water from time to time, and because the water volume in such pipes will gradually be reduced by a build-up of minerals within them, we do not fully endorse them. We recommend that you have a plumber evaluate them and apprise you of the cost of re-plumbing the home.



(5) A deteriorated or corroded plumbing fitting was observed near the rear left of the crawl space. While no visible leaks were observed, we believe the fitting is in danger of leaking at any time. Service by a licensed plumbing contractor is recommended.



**5.1** (1) The visible portions of the drain pipes include an older cast-iron type, which are not as dependable as modern PVC drainpipes.

(2) There is a waste pipe leak at the kitchen sink, which should be repaired by a licensed plumber within the contingency period, or before the close of escrow. This is particularly important because leaks can lead to the growth of molds and fungi, which can have an adverse influence on health.

(3) The 2nd level hall bathroom sink drain employs an obsolete, or suspect, s-trap. Such traps are not approved because their water seals can be easily siphoned away, which would allow sewer gases to contaminate the residence.



(4) A waste drain line flows uphill in the crawl space, which limits proper drainage. The minimum slope toward the sewer or septic system is 1/4" per foot. The maximum slope is 1/2" per foot. An evaluation by a licensed plumbing contractor is recommended.



**5.2** The plumbing waste drainage system appears to vent near an operable window. Vents are normally designed to vent outside the residence, and usually vent above the roof eave. Venting near a window may introduce odors into the home. We recommend that this method of venting be evaluated by a licensed plumbing contractor.



**5.4** The main water shut-off valve is located inside the crawl space. Note that this shutoff valve is not near the crawl space entrance; it is not easily accessible.

**5.5** (1) Water heater estimated date of manufacture: 2002.

(2) The gas was turned off at the water heater, and the water heater could not be tested. You are advised to test the functionality of the water heater and to ensure that hot and cold water supplies are correct at each fixture prior to close of escrow.

(3) The water heater does not have an approved device for thermal control installed (an expansion tank or pressure relief valve) to prevent a possible leak at the temperature-pressure relief valve. Recent changes in today's commonly accepted plumbing standards require one when a new water heater is installed. There were no leaks or drips at the TPR valve during the inspection. If your water heater does begin to drip or leak, then a

thermal expansion control device may be needed. We definitely recommend one whenever the current water heater is replaced.

(4) The water heater temperature-pressure relief valve on the water heater does not have a discharge pipe. The discharge pipe should should be plumbed to a conspicuous location at the exterior, to an indirect waste receptor in the same room as the water heater, or to a concrete floor in a conspicuous area where no damage would result. We recommend that the discharge to a floor or the exterior terminate no more than twenty-four inches above grade and no closer than six inches to it.

(5) Combustion air ("make-up air") is required for gas burning appliances at a rate of 50 cu ft / 1000 BTU or else external ventilation is required. Due to the room size, that requirement may not be met (formal sizing calculations were not conducted). External ventilation openings should be within 12 inches (305 mm) of the top of the enclosure, and one within 12 inches (305 mm) of the bottom of the enclosure. No external ventilation was provided. Inadequate supply of combustion air results in incomplete combustion; products of incomplete combustion include carbon monoxide. The room housing the water heater may be inadequately ventilated for the purposes of providing combustion air and we recommend an evaluation and repair by a licensed plumbing contractor.

**5.6** (1) The drain stop at the downstairs hall bathroom sink does not engage or is missing, and should be serviced.

(2) The downstairs hall bathroom toilet would not flush as designed, which may be due to a defective handle, flapper valve or chain. Service by a licensed plumbing contractor is recommended.

 $\sim$  (3) The drain stop at the 2nd level hall bathroom sink does not engage or is missing, and should be serviced.

(4) Water leaks between the 2nd level hall bathroom sink and sink fixture into the cabinet below. Sealant is recommended to prevent long term damage to the cabinet interior.

(5) The 2nd level hall bathroom tub/shower head is missing and should be replaced.

(6) The drain stop at the 2nd level hall bathroom tub/shower does not engage or is missing, and should be serviced.

(7) The flapper valve, fill valve, or handle at the 2nd level hall bathroom toilet tank sticks or otherwise needs service because the toilet free-flows resulting in wasted water and energy.

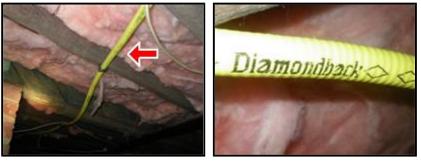
**5.7** (1) A common defect exists in that one or more exterior faucets was not equipped with back-flow prevention. These anti-siphon devices are required for by today's commonly accepted construction standards and are recommended to prevent suctioning non-potable water into the drinking water system if the house pressure suddenly drops.

(2) Water leaked heavily at the rear exterior faucet during use. An evaluation and service as deemed necessary by a plumber is recommended.

(3) One faucets at the rear of the home is not functional and should be serviced.

**5.11** A common gas piping system called Corrugated Stainless Steel Tubing or CSST is present in this home (*installed at the new furnace only*). OmegaFlex's product is known as "TRACPIPE" or "COUNTERSTRIKE," Titeflex's CSST product is known as "GASTITE," Ward's CSST product is known as "WARDFLEX," and Parker Hannifin's CSST product is known as "PARFLEX." A lawsuit in 2005 claimed that CSST poses an unreasonable risk of fire due to lightning strikes. The lawsuit was settled and the manufacturers agreed to require additional electrical bonding above the minimum requirements set by the National Electric Code. In most circumstances, the bonding is required to be connected to the house electrical system. We could not confirm that such bonding was present. We recommend a further evaluation and repair as deemed necessary by a competent, licensed electrician familiar with the requirements of this type of gas piping. More

information regarding the suit is available at www.csstsettlement.com and http://www.charmeck.org/Departments/LUESA/CodeEnforcement/Electrical/CSST+Bonding.htm. A reference document is attached for your information.





				NР	ΠΠ
6.0	HEATING EQUIPMENT	Х			
6.1	AC CONDITION & OPERATION				Х
	AIR DISTRIBUTION SYSTEMS (observed condition of the visible supply and return air ducts & return openings)				Х
6.3	VENTS	Х			
6.4	FILTERS	Х			
6.5	THERMOSTATS				Х
6.6	6.6 OTHER (observed condition of fixed units used for supplementary heat)		Х		

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate

IN NI NP RR Styles & Materials

IN NI NP RR

Equipment Type: HVAC Split System

## Locations:

Air handler in crawl space and condensing coil in right side yard

Number of Heat Systems (excluding wood): One

Number of AC units:

One

System Energy Source: Electric AC

Natural gas heat

Furnace Manufacturer: GOODMAN

Central Air Manufacturer: GOODMAN

AC System BTUs: 60,000

Heating system BTUs: 115,000

Condensate Drain Discharge: Crawl space sump pump

### Distribution System: Insulated flexible ducts

Insulated metal ducts Non-insulated metal ducts

# Comments:

6.0 Furnace estimated date of manufacture: 2009.

6.1 (1) AC condenser estimated date of manufacture: 2010.

The HVAC system is not original and you should obtain documentation for your records, which would reveal its exact age and confirm that the installation was made by licensed specialists, and could include a transferable warranty or guarantee.

(2) Heavy vegetation resulted in inadequate clear space around the HVAC system condenser. We recommend three feet of clearance. Trimming the surrounding vegetation is recommended.

(3) The condensate pipe discharges into the crawl space sump. While we can think of no rule against it, generally accepted practice is to limit the amount of moisture present in a crawl space. Discharging outside the crawl space would also allow for routine observation of its function. We therefore recommend that it should be extended to discharge outside the residence.



**6.2** (1) There was no apparent air return for the upstairs of this two-story residence, and this is as the system was originally designed. However, normally there is an air return at each thermostat and an additional air-return on the second floor that would optimize performance. Therefore, you may not be entirely satisfied with the year-round performance of the air-conditioning system on the 2nd level and may wish to consult with a licensed HVAC contractor about the design.

(2) Portions of the metal supply ducts were uninsulated or had deteriorated insulation, which will have an impact on thermal efficiency and condensation. We suggest that you consult with a licensed HVAC contractor about the ramifications of using the ducts in their current condition. (Note that the return air ducts were completely uninsulated, which is contrary to today's modern installation practices.)



(3) There is no central heat or AC provided for the laundry room or downstairs bathroom. FYI.

(4) There is only one supply air vent in the master bedroom. FYI.

6.4 The filter(s) are located in the crawlspace (FYI).

**6.5** (1) The home is two stories and is served by one HVAC system with one thermostat. While functional, this is not the optimum design. Warm air rises while cold air sinks, leaving upstairs rooms six to ten degrees warmer and basements six to ten degrees cooler than ground level rooms. A single thermostat keeps the temperature balanced in the room where it is located, but it cannot tell if the temperature has changed in other rooms of the house. Zoning helps maintain a consistent temperature throughout the house by providing different levels of air distribution to different areas of the home. You may want to consider a consultation with a HVAC contractor to see if the system can be zoned and controlled by both an upstairs and downstairs thermostat.

(2) The thermostat would not function as designed and needs service. It failed during the testing of the furnace and would not display anything on the LCD screen.

7.0 ACCESS

7.1 INSULATION IN ATTIC

7.3 WHOLE HOUSE FAN

7.4 VENTILATION OF ATTIC

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate

7.2 VENTILATOR FAN

7.5 ATTIC FRAMING



# Styles & Materials

IN NI NP RR

Х

Х

IN NI NP RR

Х

Х

Х

Х

Х

Attic info: Attic hatch Light in attic Portions available for storage

Method used to observe attic: Direct access

Insulation type: Loose fiberglass

Fiberglass batt

# Insulation depth:

10 - 12 inches Equivalent to R30 Some areas are compressed and < R30 Some areas missing insulation

Ventilation:

Turbines Thermostatically controlled fan(s)

Attic entrance(s) insulated: Yes

## **Comments:**

7.6 LEAKS

**7.1** (1) Small areas of the ceilings are uninsulated. For thermal efficiency, you may want to add insulation to bring the attic up to today's standard of R30. Note: R30 would be approximately 12 inches of fiberglass and 10 inches of cellulous.

(2) There is a 'mess' of insulation in one area of the attic that may make traversing and servicing of the attic difficult. We recommend removal of the unnecessary insulation or evenly distributing it.



**7.2** (1) An attic power ventilator would not respond to the thermostat and should be professionally repaired or replaced. Improper ventilation of the attic may result as a result of the inoperable fan. If you choose to remove the fan, then you should consult with a licensed contractor to determine if additional ventilation should be added.

(2) The turbine vent(s) on roof is rusted or damaged and no longer turns freely. We recommend repair or replacement to ensure proper ventilation.

7.4 (1) We recommend increasing the ventilation with the installation of a ridge vent when the roof covering is

# replaced.

(2) The attic space is considered to have inadequate ventilation. An exhaust ventilator only provides ventilation for the structure. For venting to be effective the air has to be able to move. It is recommended that the structure be ventilated with both: A) An air intake preferably located as close to the eaves as possible. (Most often this is done through soffit vents. Ensure the soffit vents are not obstructed by insulation.) B) An air exhaust preferably located as close to the eaves as possible. "The total net free ventilating area should not be less than 1 to 150 of the area of the space ventilated except that the total area is permitted to be reduced to 1 to 300..." provided mechanical ventilators are used. Area calculations were not conducted; it is recommended that a state licensed general contractor evaluate the adequacy of attic ventilation and add ventilation as deemed necessary. Failure to address this issue will result in higher utility bills and may shorten the life of the shingles. Note that the ventilator may draw conditioned air from the home into the attic space since there is no other source of makeup air.

**7.5** (1) The composition shingles have been installed over an existing wood shingle roof. There is no other roof sheathing, which means that when the current layer of shingles is removed, the roof structure will likely have to be totally re-sheathed with plywood or oriented strand board (OSB), which will significantly affect the cost of re-roofing the house. We suggest that you have the roof and attic structure evaluated by a licensed roofing contractor prior to close of escrow because the cost of re-roofing could affect your budget.



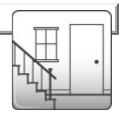
(2) A ceiling joist at the attic entrance has been cut and was not braced to compensate for the opening. Service by a licensed contractor is recommended.



**7.6** Roof sheathing is water damaged around the chimney. Other areas had small portions that appeared to be water damaged. An active leak may exist and we recommend an evaluation and repair as deemed necessary by a competent roofing contractor unless the current owner can demonstrate that repairs have been performed. The areas were dry at the time of the inspection.



# 8. General Interior



		IN N	II NP	RR	Styles & Materials Wall Material:				
8.0	WALLS	Х			Plaster Tile				
8.1	CEILINGS			Х	Wood				
8.2	FLOORS & FLOOR COVERINGS			Х	Floor Covering(s): Carpet				
8.3	STAIRS & RAILINGS			Х	Tile				
8.4	DOORS			Х	Vinyl Wood				
8.5	WINDOWS			Х	Doors: Solid				
8.6	BATHROOM VENTILATORS			Х	Types of Fireplaces:				
8.7	BATHROOM CABINETS	Х			Solid Fuel Gas heater				
8.8	FIREPLACES			Х	Operable Fireplaces:				
<ul><li>8.5 WINDOWS</li><li>8.6 BATHROOM VENTILATORS</li><li>8.7 BATHROOM CABINETS</li><li>8.8 FIREPLACES</li></ul>	IN N	II NP	RR	Two					

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate **Comments:** 

# **8.1** There is a moisture stain on the 2nd level front right bedroom ceiling, which you should ask the sellers to explain or have explored further. It was dry at the time of the inspection.

**8.2** (1) There is a small hole in the living room floor that should be covered, closed, or sealed.



(2) The floor in the 1st level den has apparently dropped about one inch. We can elaborate, but you should consider an evaluation by a licensed general contractor or structural engineer.



**8.3** (1) The main stairs rails do not meet today's commonly accepted standards. Those standards specify that the rail height, measured vertically from the sloped plane, should be between 34 inches and 38 inches.

(2) The main stairs did not have a continuous handrail. Today's commonly accepted construction standards require a handrail for 4 or more risers. Additionally, "handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight." Although this defect is quite common, for safety reasons a railing meeting the standard as quoted above is recommended. Information about proper stair rail construction and illustrations are available on <u>our website</u> (see page 9).



(3) No handrail is provided at the main stairs. Today's commonly accepted construction standards require a handrail for 4 or more risers. Additionally, "handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight." For safety reasons, a railing meeting the standard as quoted above is recommended. Information about proper stair railing and illustrations can be obtained here: www.aohomeinspection.com/pdf/IRC\_interpretation.pdf.



(4) The main stairs were not equipped with a standard, graspable, handrail. A standard handrail meeting today's standards is recommended for safety reasons. Information about proper stair railing and illustrations can be obtained here: www.aohomeinspection.com/pdf/IRC\_interpretation.pdf. (See page 10.)



(5) The guardrail post at the top of the main stairs is not firm. Service is recommended to firmly attach the railing to the floor.

**8.4** (1) The dining room door was not installed.

(2) The 2nd level front right bedroom closet door striker plate needs to be adjusted for the door handle striker pin to engage and latch properly.

(3) The master bedroom door striker plate needs to be adjusted for the door handle striker pin to engage and latch properly.

**8.5** (1) The windows appear to be the same age as the house, and may not function smoothly.

(2) Windows throughout the house will need service to work well, such as servicing the hardware latches. Many latches were broken, which is a security concern if the window cannot be locked, and is a safety concern if the window cannot be unlocked and opened in the event of a fire.

(3) Windows throughout the house were stuck or painted shut, and should be serviced. Service to those in the bedrooms is of utmost importance for fire safety reasons.

4) A window pane in the living room is cracked, which you may wish to have repaired.

(5) One windows(s) in the dinette area would not remain in the open position because the metal weight counter-balance cord was disconnected. Service is recommended.

(6) Two windows(s) in the living room would not remain in the open position because the metal weight counter-balance cord was disconnected. Service is recommended.

(7) One windows(s) in the 2nd level front right bedroom would not remain in the open position because the metal weight counter-balance cord was disconnected. Service is recommended.

(8) Two windows within sixty inches of the stair surface could not be verified as being tempered or safetyglazed, which is required by today's commonly accepted construction standards. Replacement with tempered glass or safety glass is recommended for safety reasons.



**8.6** One bathroom vent(s) exhausts directly into the attic. The bathroom exhaust duct(s) should be extended to an exterior vent port to prevent moisture damage to structure or ceilings. They should all be verified to be installed correctly.

**8.8** (1) The interior of the fireplace flue was not visible and could not inspected. You should not burn any combustible materials or vented gas logs in this fireplace until it is inspected by a fireplace specialist.

(2) We were unable to light the gas heater. It is very old and we do not know if it is designed to be vented or un-vented. We recommend that it be inspected by a fireplace specialist prior to use to ensure it doesn't discharge excessive carbon monoxide (CO) amounts. CO is a deadly gas!. (The flue for this fireplace was filled with concrete and is not functional for combustible materials or vented gas logs. FYI.)



Styles & Materials Cabinet condition: Probably same age as residence

		IN NI NP RR				
9.0	CABINETS				Х	
9.1	DISHWASHER				Х	
9.2	BUILT-IN MICROWAVE			Х		
9.3	GARBAGE DISPOSER			Х		
9.4	EXHAUST FAN OR HOOD			Х		
9.5	ELECTRIC RANGE			Х		
		IN NI NP RR				

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate **Comments:** 

9.0 (1) The kitchen cabinets are likely the same age as the residence, and may not function as well as newer ones.

(2) The floor of the kitchen sink cabinet is moisture damaged and/or moldy, and should be replaced.

(3) The lazy Susan needs service to work properly.

🔨 9.1 The dishwasher discharges without a visible anti-siphon valve or high drain loop (where the drain line rises above the sink drain and is securely fastened to the underside of the counter). While a common defect, this installation is contrary to most installation instructions, and also creates a potential drainage problem and a health hazard if waste water were to siphon back into the dishwashing machine. An evaluation and service by a licensed plumbing contractor is recommended.

5 9.4 The range hood exhaust duct is corrugated plastic material. Commonly accepted standards state that the duct should have a smooth interior surface, be air tight and vented to the exterior, be equipped with a backdraft damper, and be constructed of galvanized steel, stainless steel or copper. This is what we recommend. Note: when you install a new range hood, you may wish to use the vent-free type and the duct material would be irrelevant.



"A wise man builds his house upon the Rock" Mat. 7:24

# 2992 Howell's Ferry Rd., Hickory Grove, SC Tel: 803-925-1502 / Fax: 803-925-2853 / Mobile: 704-351-8989 www.aohomeinspection.com / jfunderburk@aohomeinspection.com

SC License #: 1736 / NC License #: 2240 / NACHI #: NACHI05120170

# **Summary Section**

# Customer

Address

136 Anystreet St. MyTown SC

The items or discoveries listed in the Summary Section indicate that these systems or components **do not** function as intended, adversely affects the habitability of the dwelling, requires repair or subsequent observation, or warrants further investigation by a qualified specialist. This summary is not the entire report. The full report may include additional information of interest or concern to the client. It is strongly recommended that the client promptly read the complete report. For information regarding the negotiability of any item in this report under a real estate purchase contract, contact your real estate agent or an attorney. Regardless, in recommending service we have fulfilled our contractual obligation as generalists, and therefore disclaim any further responsibility. However, service of the following items prior to close of escrow is essential, because a specialist could identify further defects or recommend some upgrades that could affect your evaluation of the property. Note: any locations given, such as "left front", are oriented as if facing the front of the house from the front yard. We report what was visible and other defects may exist (beneath insulation, behind walls, floors, etc.) which were not visible. Also, photographs may be included as examples, but do not necessarily illustrate all defects observed. When two or more defects are found in a certain system (electrical for example), we strongly recommend having the entire system evaluated by a specialist. This inspection service reserves the right to amend the inspection report within 24 hours of completion. The cost for a re-inspection to verify repairs were conducted is posted on our website.

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# 1. Exterior





# 1.0 GRADING, DRAINAGE & VEGETATION

# Repair or Replace or Investigate

- (1) The roots of mature trees may have an adverse effect on the house, and you may wish to have the tree removed.
- (2) Vegetation is in contact with the house roof. The vegetation should be trimmed to prevent damage to roof shingles. More about the hazards of trees close to the home can be read at <u>our website</u>.

Vegetation is in contact with the house exterior, which may damage the siding and/or windows. Vegetation close to the foundation will limit ventilation of the crawl space, if present. The vegetation should be trimmed to prevent these issues.

Vines are overgrowing the house walls and although they are attractive they can introduce pests and rodents and accelerate deterioration of the brick and mortar. Therefore, you may wish to consider having them removed.

# 1.2 TRIM

# Repair or Replace or Investigate

The trim was deteriorated at the base of the crawl space entry door and service is needed. An evaluation of the house trim by a licensed contractor and repair as deemed necessary is recommended.

# 1.3 SIDING / WALL COVERINGS

# **Repair or Replace or Investigate**

The siding at the left side has a small hole that may expose the sheathing to moisture. Repair or replacement of the affected sections is recommended.

# 1.4 EAVES, SOFFITS AND FASCIAS

# Repair or Replace or Investigate

The fascia board, soffits, and eaves are in a generally acceptable condition, but minor maintenance is needed to secure loose sections.

# 1.5 STEPS & HANDRAILS

# Repair or Replace or Investigate

As a safety precaution, we recommend installing handrails on steps that have four or more risers, and particularly if children or the elderly visit or occupy the property.

# 1.7 WINDOWS

# **Repair or Replace or Investigate**

- (1) One window(s) or their components (frames, trim or sills) at the right side is deteriorated. The condition is conducive to allowing water infiltration and eventual decay to window components, and walls studs. We therefore recommend an evaluation and repair as deemed necessary by a licensed contractor.
- (2) Some of the wood framing around the attic windows was black, as if there may be a leak. The window was dry at the time of the inspection. We recommend an evaluation of them during a period of heavy or prolonged rain. Note that it may be due to an old leak that has been repaired.

# 1.8 DOORS (Exterior)

# **Repair or Replace or Investigate**

(2) The rear entry door opens over a step, or has no landing, and poses a fall hazard. According to today's commonly accepted construction standards, the width of each landing should not be less than



the door served and every landing should have a minimum dimension of 36 inches measured in the direction of travel.

#### 1.9 STORM WINDOWS & DOORS

#### Repair or Replace or Investigate

The glass in a storm window at the lower level stairs (left side of home) had a small break and you may wish to have it replaced.

#### 1.11 PORCHES

#### Repair or Replace or Investigate

- (2) Wood planks at the front porch steps are 'ragged' because they overhang too far and effectively reduce the top step tread depth to an unacceptably short length. We recommend service to repair and trim the porch planks and to ensure the porch steps have safe dimensions. (The minimum depth should be 10 inches. The greatest tread depth should not exceed the smallest by more than 3/8 inch.)
- (3) A baluster or picket is loose at the front porch guard rail or stair rail and should be serviced for safety reasons.
- (4) The front porch post/pier has missing or loose bricks. Service by a masonry contractor is recommended.

#### 1.13 CHIMNEY

#### Repair or Replace or Investigate

The chimney has a weather cap but no spark arrestor, which is recommended but not required by any building standard. The lack of it will allow the entry of birds and animals into the chimney.



# 2.0 ROOF COVERINGS

# **Repair or Replace or Investigate**

- (1) The roof is in a state of decomposition (loss of shingle granules, etc.), which means that the roof is in decline and susceptible to leaks. It will need to be maintained and closely monitored, because it is at or near the end of its serviceable life. We recommend an evaluation of the roof by a competent roofing contractor before the close of escrow because the cost of replacement may affect your valuation of the property.
- (2) One or more shingles or shingle tabs were missing or damaged at the front of home. A thorough evaluation of the roof and repair by a competent roofing contractor is recommended.
- (4) Nail heads were observed at the front of home. This is indicative of an improper installation and/or poorly secured nails that have penetrated the shingles above them. An evaluation and repair by a competent roofing contractor is recommended to prevent future leaks.

# 2.1 VISIBLE FLASHINGS

#### **Repair or Replace or Investigate**

The drip edge flashing at the front of the home was loose.

# 2.5 GUTTERS & DOWNSPOUTS

#### **Repair or Replace or Investigate**

(2) The gutters and/or downspouts need to be cleaned and serviced to drain properly. The debris in gutters can also conceal rust, deterioration or leaks that are not visible until cleaned. Left unaddressed, clogged gutters will allow water to penetrate unintended areas and may result in decay to wood structures behind the gutters.

# 3. Electrical System

# 3.1 MAIN PANEL

#### **Repair or Replace or Investigate**

- (2) The main panel cover includes pointed or improper screws which should be replaced with ones appropriate for electrical use.
- (3) A common defect exists in that one or more neutral wires are incorrectly connected under a single screw on the grounding or neutral bus bar at the main panel, and should be serviced. (Unless the manufacturer states otherwise, bus bars are only designed for one current carrying conductor per terminating screw.)
- (4) White conductors were used as ungrounded conductors (hot wires) at the main panel. This is a common defect, but the conductors should be identified with black tape or ink markings.

# 3.4 MAIN & BRANCH CIRCUITS

# Repair or Replace or Investigate

- (2) At the exterior rear of the home an extension cord is used as permanent wiring, and needs to be replaced with permanent wiring.
- (3) One electrical connection(s) (in the attic or wall cavity adjacent to the upstairs bathroom) have been incorrectly made outside of junction boxes, which is a potential fire hazard. All such connections should be made within junction boxes in order to contain any arching or sparking that could occur, a task that should be completed by a licensed electrician.
- (4) Two open electrical junction box(s) were observed in the attic space which should be sealed to contain any arcing or sparking that might occur.
- (5) Branch circuit wiring in the attic is susceptible to damage because it has been covered by floor decking. Abraded wires can be a shock or fire hazard. Service to re-route the wiring or remove the decking is recommended.
- (6) No romex connector or strain relief bushing was provided to prevent a wire from making direct contact with the sharp edges of the junction box at the attic fan.
- (7) There are unprotected electrical conductors within six feet of the attic access. Today's commonly accepted construction standards prohibit this practice and we recommend that they be relocated for safety reasons.
- (8) A wire in the crawlspace has been improperly terminated. Removal or enclosing it in a junction box is recommended.
- (9) In the crawl space, one or more electric cables was on the ground or dangled overhead. Electric

3. Electrical System



cables are required to be supported overhead every 4.5 feet.

 (10) Much of the original wiring and equipment has apparently been de-energized and replaced. However, most of it was left in place. Or recommendation is to remove all unnecessary wiring and equipment to eliminate any possibility of inadvertant energization.

# 3.6 FIXTURES & OUTLETS

#### Repair or Replace or Investigate

- (2) One or more exterior outlets at the front of home has an open ground, and should be serviced.
- (3) One exterior outlet(s) at the front of the home was missing a weather-proof cover, the cover was damaged, or was not approved for outdoor use. Replacement or installation of a functional and approved weather-proof outlet is recommended.
- (4) The front porch ceiling fan and light (left side) would not respond to the switches at the front door or to the pull chains. Service is recommended. Note: this fan/light globe broke during testing and will need to be replaced.
- (5) One or more outlets at the rear porch has an open ground, and should be serviced.
- (7) A floor outlet or faceplate in the rear porch is not approved for such use and should be replaced.
- (8) An outlet in the kitchen cabinet (over the range) was missing a faceplate, which should be replaced for safety reasons.
- (9) An outlet in the kitchen was missing a faceplate, which should be replaced for safety reasons.
- (10) A ceiling light in the kitchen does not respond, and should be serviced or demonstrated to be functional. (The bulb may simply be burned out.)
- (11) A ceiling light in the kitchen needs a 3-way switch in order to function properly from multiple locations.
- (12) A ceiling light in the dining room needs a 3-way switch in order to function properly from multiple locations.
- (13) One outlet(s) in the dining room has/have an open ground, and should be serviced.
- (14) One outlet(s) in the living room was loose in the wall and should be serviced.
- (15) We could not confirm that the 1st level den was equipped with a switched outlet, which is required by commonly accepted standards and is generally recommended no matter the age of the home whenever an overhead light fixture is absent.
- (16) One outlet(s) in the den has/have an open ground, and should be serviced.
- (17) We considered the stairway to have inadequate lighting. Today's commonly accepted construction standards specify that interior stairways should be provided with a means to adequately illuminate the stairs, including the landings and treads. While we did not take light measurements, our judgement is that the lighting was inadequate and suggest that it be improved for safety reasons.
- (18) The 2nd level front right bedroom closet employs a light fixture that should have a cover for fire safety reasons.
- (19) An outlet in the 2nd level office was missing a faceplate, which should be replaced for safety reasons.
- (20) The master bedroom closet employs a light fixture that should have a cover for fire safety reasons.
- A ceiling fan/light in the master bedroom does not respond to a wall switch, and should be serviced or demonstrated to be functional. (It is probably remote controlled and there was no remote control that we could find.)

# 3.7 GROUND-FAULT-CIRCUIT INTERRUPTER (GFCI)

#### Repair or Replace or Investigate

(1) None of the kitchen counter receptacles were provided with ground-fault protection. For safety

# 3. Electrical System



reasons, we recommend that all outlets be protected with ground fault protection, which is required by today's commonly accepted construction standards (there is no regulatory requirement to upgrade a home built before the dates of compliance). GFCI receptacles are life saving devices and have been required within 6 feet of the sink since 1987 and at all kitchen counter receptacles since 1996.

- (2) The downstairs hall bathroom outlets were not provided with ground fault protection, which is required by today's commonly accepted construction standards and is an important safety feature. Ground fault circuit interrupter (GFCI) receptacles have been required in bathrooms since 1975 and they are recommended here as a life saving device.
- (3) The 2nd level hall bathroom outlets were not provided with ground fault protection, which is required by today's commonly accepted construction standards and is an important safety feature. Ground fault circuit interrupter (GFCI) receptacles have been required in bathrooms since 1975 and they are recommended here as a life saving device.

#### 3.8 SMOKE ALARMS

#### **Repair or Replace or Investigate**

- (1) One or more smoke alarms did not respond. The batteries should be replaced or the unit replaced upon the first day of occupancy. If applicable, the smoke detectors should be confirmed to be interconnected throughout the house.
- (2) One or more of the smoke alarms is chirping, and should be serviced, which probably involves changing the battery.



# 4.0 CRAWL SPACE

# **Repair or Replace or Investigate**

- (2) The crawl space is considered to have inadequate ventilation (which contributes to the high moisture in the wood discussed elsewhere). We observed no vents for the sides or rear of the crawl space. Today's commonly accepted standards require ventilation openings of not less than 1 square foot for each 150 square feet of crawl space and 1 vent within 3 feet of each corner of the building. A 1500 sq. ft. crawl space, for example, would require 10 sq. ft. of ventilation. The size of the average vent is 16 x 8 inches. Therefore, a 1500 sq. ft. home would require approximately 11 average size vents. We did not conduct sizing calculations on this home, but an increase in crawl space ventilation or encapsulation of the crawl space is recommended and you should consult with a crawl space specialist or licensed general contractor about this issue. Inadequate ventilation can lead to high moisture content in the wood floor structure, which can contribute to the fungi growth and decay in the long term.
- (3) Wood and/or other organic material was in the crawl space, which attracts wood destroying organisms. While we did not perform a pest control inspection, removal of all wood and similar materials from the crawl space is generally recommended.

# 4.1 COLUMNS OR PIERS

#### **Repair or Replace or Investigate**

(1) One or more crawl space piers were cracked, leaning, or damaged. We recommend an evaluation and repair as deemed necessary by foundation specialist.

# 4. Basement, Crawl Space, Slab, Structure (2) The foundation footings have been undermined by trenching or soil excavation in one or more areas

- (2) The foundation footings have been undermined by trenching or soil excavation in one or more areas. An evaluation by a foundation specialist or structural engineer and repair as deemed necessary is recommended.
- (3) Various portions of the floor structure was supported by various make-shift piers. Those floor supports exhibit poor workmanship are thought to be inadequate to provide permanent support to the floors. It is recommended that a competent and licensed general contractor or foundation specialist be consulted to provide a further evaluation of the adequacy of the floor supports and make necessary repairs.

# 4.2 FOUNDATION WALLS

#### Repair or Replace or Investigate

(2) The bricks that form the foundation wall are loose at the left side and front of the home. Service by a foundation or masonry contractor is recommended.

At the front of the home and rear of the home, mortar has deteriorated between the bricks that form the foundation wall. Service by a foundation or masonry contractor is recommended.

# 4.3 VISIBLE FRAMING

#### Repair or Replace or Investigate

- (2) Moisture content greater than 25% was measured in the wood structures. No decay or fungi was observed due to the moisture content, but wood will decay at moisture levels > 28% and will support fungi growth at levels in the low-20s. Options to reduce the moisture levels include, but are not limited to, increasing ventilation, installation of a vapor barrier, installation of a humidistat controlled fan, or total encapsulation of the crawl space. You should consider the services of a crawl space specialist to remedy this adverse condition.
- (3) A floor joist has been cut at the left side of the home. An evaluation and repair as deemed necessary by a licensed contractor is recommended.
- (4) A floor joist was split. An evaluation and repair as deemed necessary by a licensed contractor is recommended.
- (5) Decay to a small section of the wood floor structures (band sill at the front of the home) inside the crawl space was observed. New wood was attached to the damaged band sill, when total replacement would have been the better option. Repair by a licensed general contractor is recommended.

Some decay to a small section of the wood floor structures (band sill at the right side of the home) inside the crawl space was observed. An evaluation by a licensed general contractor is recommended.

#### 4.4 SUB-FLOOR INSULATION

#### **Repair or Replace or Investigate**

Some pieces of insulation are hanging or have fallen from between the floor joists. This does not have any serious consequences, but negatively affects thermal efficiency and you may wish to have it serviced.

#### 4.5 EVIDENCE OF WATER SEEPAGE

#### **Repair or Replace or Investigate**

The soils in the crawlspace were moist and the sump was full of water, which could indicate a chronic drainage problem. Moisture can adversely affect the house foundation and can facilitate the growth of a variety of molds that can promote unhealthy conditions. Therefore, you should consult a grading and drainage contractor or a licensed general contractor with experience in crawl space drainage and moisture to determine the extent of the concerns and necessary repairs. We also recommend that you observe the crawl space during a period of heavy or prolonged rain prior to the close of escrow or within

4. Basement, Crawl Space, Slab, Structure



the contingency period.

# 5. Plumbing System



#### Repair or Replace or Investigate

- (1) No shut-off valve was provided inside the home for a freezer ice maker and you may wish to have one installed.
- (2) Little to no water flow was present at the downstairs hall bathroom sink. We recommend that a licensed plumbing contractor evaluate the functional flow prior to the close of escrow, as the repair may be relatively simple or something more serious.
- (3) There is a water supply pipe leak beneath the 2nd level hall bathroom sink shut-off valve, which should be repaired by a licensed plumber within the contingency period, or before the close of escrow. This is particularly important because leaks can lead to the growth of molds and fungi, which can have an adverse influence on health.
- (4) Some of the potable water pipes within this residence galvanized, and are assumed to be original. By their nature, they will produce rusty looking water from time to time, and because the water volume in such pipes will gradually be reduced by a build-up of minerals within them, we do not fully endorse them. We recommend that you have a plumber evaluate them and apprise you of the cost of re-plumbing the home.
- (5) A deteriorated or corroded plumbing fitting was observed near the rear left of the crawl space. While no visible leaks were observed, we believe the fitting is in danger of leaking at any time. Service by a licensed plumbing contractor is recommended.

# 5.1 VISIBLE WASTE PIPING

#### **Repair or Replace or Investigate**

- (2) There is a waste pipe leak at the kitchen sink, which should be repaired by a licensed plumber within the contingency period, or before the close of escrow. This is particularly important because leaks can lead to the growth of molds and fungi, which can have an adverse influence on health.
- (3) The 2nd level hall bathroom sink drain employs an obsolete, or suspect, s-trap. Such traps are not approved because their water seals can be easily siphoned away, which would allow sewer gases to contaminate the residence.
- (4) A waste drain line flows uphill in the crawl space, which limits proper drainage. The minimum slope toward the sewer or septic system is 1/4" per foot. The maximum slope is 1/2" per foot. An evaluation by a licensed plumbing contractor is recommended.

# 5.2 VISIBLE VENT PIPING

#### Repair or Replace or Investigate

The plumbing waste drainage system appears to vent near an operable window. Vents are normally designed to vent outside the residence, and usually vent above the roof eave. Venting near a window may introduce odors into the home. We recommend that this method of venting be evaluated by a licensed plumbing contractor.

5. Plumbing System

#### 5.5 WATER HEATER (describe date of manufacture)

#### Repair or Replace or Investigate

- (2) The gas was turned off at the water heater, and the water heater could not be tested. You are advised to test the functionality of the water heater and to ensure that hot and cold water supplies are correct at each fixture prior to close of escrow.
- (4) The water heater temperature-pressure relief valve on the water heater does not have a discharge pipe. The discharge pipe should should be plumbed to a conspicuous location at the exterior, to an indirect waste receptor in the same room as the water heater, or to a concrete floor in a conspicuous area where no damage would result. We recommend that the discharge to a floor or the exterior terminate no more than twenty-four inches above grade and no closer than six inches to it.
- (5) Combustion air ("make-up air") is required for gas burning appliances at a rate of 50 cu ft / 1000 BTU or else external ventilation is required. Due to the room size, that requirement may not be met (formal sizing calculations were not conducted). External ventilation openings should be within 12 inches (305 mm) of the top of the enclosure, and one within 12 inches (305 mm) of the bottom of the enclosure. No external ventilation was provided. Inadequate supply of combustion air results in incomplete combustion; products of incomplete combustion include carbon monoxide. The room housing the water heater may be inadequately ventilated for the purposes of providing combustion air and we recommend an evaluation and repair by a licensed plumbing contractor.

#### 5.6 SHOWERS & ALL FIXTURES

#### Repair or Replace or Investigate

- (1) The drain stop at the downstairs hall bathroom sink does not engage or is missing, and should be serviced.
- (2) The downstairs hall bathroom toilet would not flush as designed, which may be due to a defective handle, flapper valve or chain. Service by a licensed plumbing contractor is recommended.
- (3) The drain stop at the 2nd level hall bathroom sink does not engage or is missing, and should be serviced.
- (4) Water leaks between the 2nd level hall bathroom sink and sink fixture into the cabinet below. Sealant is recommended to prevent long term damage to the cabinet interior.
- (5) The 2nd level hall bathroom tub/shower head is missing and should be replaced.
- (6) The drain stop at the 2nd level hall bathroom tub/shower does not engage or is missing, and should be serviced.
- (7) The flapper valve, fill valve, or handle at the 2nd level hall bathroom toilet tank sticks or otherwise needs service because the toilet free-flows resulting in wasted water and energy.

#### 5.7 EXTERIOR FAUCETS

#### **Repair or Replace or Investigate**

- (2) Water leaked heavily at the rear exterior faucet during use. An evaluation and service as deemed necessary by a plumber is recommended.
- (3) One faucets at the rear of the home is not functional and should be serviced.

#### 5.11 GAS PIPING

#### **Repair or Replace or Investigate**

A common gas piping system called Corrugated Stainless Steel Tubing or CSST is present in this home (*installed at the new furnace only*). OmegaFlex's product is known as "TRACPIPE" or "COUNTERSTRIKE," Titeflex's CSST product is known as "GASTITE," Ward's CSST product is known as "WARDFLEX," and Parker Hannifin's CSST product is known as "PARFLEX." A lawsuit in 2005 claimed that CSST poses an unreasonable risk of fire due to lightning strikes. The lawsuit was settled 5. Plumbing System



and the manufacturers agreed to require additional electrical bonding above the minimum requirements set by the National Electric Code. In most circumstances, the bonding is required to be connected to the house electrical system. We could not confirm that such bonding was present. We recommend a further evaluation and repair as deemed necessary by a competent, licensed electrician familiar with the requirements of this type of gas piping. More information regarding the suit is available at www.csstsettlement.com and

http://www.charmeck.org/Departments/LUESA/CodeEnforcement/Electrical/CSST+Bonding.htm. A reference document is attached for your information.

# 6. Heating & Air Conditioning

# 6.1 AC CONDITION & OPERATION

#### Repair or Replace or Investigate

- (2) Heavy vegetation resulted in inadequate clear space around the HVAC system condenser. We recommend three feet of clearance. Trimming the surrounding vegetation is recommended.
- (3) The condensate pipe discharges into the crawl space sump. While we can think of no rule against it, generally accepted practice is to limit the amount of moisture present in a crawl space. Discharging outside the crawl space would also allow for routine observation of its function. We therefore recommend that it should be extended to discharge outside the residence.

# 6.2 AIR DISTRIBUTION SYSTEMS (observed condition of the visible supply and return air ducts & return openings)

#### **Repair or Replace or Investigate**

- (1) There was no apparent air return for the upstairs of this two-story residence, and this is as the system was originally designed. However, normally there is an air return at each thermostat and an additional air-return on the second floor that would optimize performance. Therefore, you may not be entirely satisfied with the year-round performance of the air-conditioning system on the 2nd level and may wish to consult with a licensed HVAC contractor about the design.
- (2) Portions of the metal supply ducts were uninsulated or had deteriorated insulation, which will have an impact on thermal efficiency and condensation. We suggest that you consult with a licensed HVAC contractor about the ramifications of using the ducts in their current condition. (Note that the return air ducts were completely uninsulated, which is contrary to today's modern installation practices.)

#### 6.5 THERMOSTATS

#### Repair or Replace or Investigate

(2) The thermostat would not function as designed and needs service. It failed during the testing of the furnace and would not display anything on the LCD screen.



# 7.1 INSULATION IN ATTIC

### **Repair or Replace or Investigate**

- (1) Small areas of the ceilings are uninsulated. For thermal efficiency, you may want to add insulation to bring the attic up to today's standard of R30. Note: R30 would be approximately 12 inches of fiberglass and 10 inches of cellulous.
- (2) There is a 'mess' of insulation in one area of the attic that may make traversing and servicing of the attic difficult. We recommend removal of the unnecessary insulation or evenly distributing it.

# 7.2 VENTILATOR FAN

# Not Present

- (1) An attic power ventilator would not respond to the thermostat and should be professionally repaired or replaced. Improper ventilation of the attic may result as a result of the inoperable fan. If you choose to remove the fan, then you should consult with a licensed contractor to determine if additional ventilation should be added.
- (2) The turbine vent(s) on roof is rusted or damaged and no longer turns freely. We recommend repair or replacement to ensure proper ventilation.

# 7.4 VENTILATION OF ATTIC

#### **Repair or Replace or Investigate**

(2) The attic space is considered to have inadequate ventilation. An exhaust ventilator only provides ventilation for the structure. For venting to be effective the air has to be able to move. It is recommended that the structure be ventilated with both: A) An air intake preferably located as close to the eaves as possible. (Most often this is done through soffit vents. Ensure the soffit vents are not obstructed by insulation.) B) An air exhaust preferably located as close to the ridge as possible. "The total net free ventilating area should not be less than 1 to 150 of the area of the space ventilated except that the total area is permitted to be reduced to 1 to 300..." provided mechanical ventilators are used. Area calculations were not conducted; it is recommended that a state licensed general contractor evaluate the adequacy of attic ventilation and add ventilation as deemed necessary. Failure to address this issue will result in higher utility bills and may shorten the life of the shingles. Note that the ventilator may draw conditioned air from the home into the attic space since there is no other source of makeup air.

# 7.5 ATTIC FRAMING

# Repair or Replace or Investigate

 (2) A ceiling joist at the attic entrance has been cut and was not braced to compensate for the opening. Service by a licensed contractor is recommended.

# 7.6 LEAKS

#### **Repair or Replace or Investigate**

Roof sheathing is water damaged around the chimney. Other areas had small portions that appeared to be water damaged. An active leak may exist and we recommend an evaluation and repair as deemed necessary by a competent roofing contractor unless the current owner can demonstrate that repairs have been performed. The areas were dry at the time of the inspection.

# 8. General Interior



# 8.1 CEILINGS

#### Repair or Replace or Investigate

There is a moisture stain on the 2nd level front right bedroom ceiling, which you should ask the sellers to explain or have explored further. It was dry at the time of the inspection.

#### 8.2 FLOORS & FLOOR COVERINGS

#### **Repair or Replace or Investigate**

- (1) There is a small hole in the living room floor that should be covered, closed, or sealed.
- (2) The floor in the 1st level den has apparently dropped about one inch. We can elaborate, but you should consider an evaluation by a licensed general contractor or structural engineer.

# 8.3 STAIRS & RAILINGS

#### **Repair or Replace or Investigate**

- (2) The main stairs did not have a continuous handrail. Today's commonly accepted construction standards require a handrail for 4 or more risers. Additionally, "handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight." Although this defect is quite common, for safety reasons a railing meeting the standard as quoted above is recommended. Information about proper stair rail construction and illustrations are available on <u>our website</u> (see page 9).
- (3) No handrail is provided at the main stairs. Today's commonly accepted construction standards require a handrail for 4 or more risers. Additionally, "handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight." For safety reasons, a railing meeting the standard as quoted above is recommended. Information about proper stair railing and illustrations can be obtained here: www.aohomeinspection.com/pdf/IRC\_interpretation.pdf.
- (4) The main stairs were not equipped with a standard, graspable, handrail. A standard handrail meeting today's standards is recommended for safety reasons. Information about proper stair railing and illustrations can be obtained here: www.aohomeinspection.com/pdf/IRC\_interpretation.pdf. (See page 10.)
- (5) The guardrail post at the top of the main stairs is not firm. Service is recommended to firmly attach the railing to the floor.

# 8.4 DOORS

#### **Repair or Replace or Investigate**

- (1) The dining room door was not installed.
- (2) The 2nd level front right bedroom closet door striker plate needs to be adjusted for the door handle striker pin to engage and latch properly.
- (3) The master bedroom door striker plate needs to be adjusted for the door handle striker pin to engage and latch properly.

# 8.5 WINDOWS

#### Repair or Replace or Investigate

- (2) Windows throughout the house will need service to work well, such as servicing the hardware latches. Many latches were broken, which is a security concern if the window cannot be locked, and is a safety concern if the window cannot be unlocked and opened in the event of a fire.
- (3) Windows throughout the house were stuck or painted shut, and should be serviced. Service to those in the bedrooms is of utmost importance for fire safety reasons.
- (4) A window pane in the living room is cracked, which you may wish to have repaired.

8. General Interior



- (5) One windows(s) in the dinette area would not remain in the open position because the metal weight counter-balance cord was disconnected. Service is recommended.
- (6) Two windows(s) in the living room would not remain in the open position because the metal weight counter-balance cord was disconnected. Service is recommended.
- (7) One windows(s) in the 2nd level front right bedroom would not remain in the open position because the metal weight counter-balance cord was disconnected. Service is recommended.
- (8) Two windows within sixty inches of the stair surface could not be verified as being tempered or safety-glazed, which is required by today's commonly accepted construction standards. Replacement with tempered glass or safety glass is recommended for safety reasons.

#### 8.6 BATHROOM VENTILATORS

#### Repair or Replace or Investigate

One bathroom vent(s) exhausts directly into the attic. The bathroom exhaust duct(s) should be extended to an exterior vent port to prevent moisture damage to structure or ceilings. They should all be verified to be installed correctly.

#### 8.8 FIREPLACES

#### **Repair or Replace or Investigate**

- (1) The interior of the fireplace flue was not visible and could not inspected. You should not burn any combustible materials or vented gas logs in this fireplace until it is inspected by a fireplace specialist.
- (2) We were unable to light the gas heater. It is very old and we do not know if it is designed to be vented or un-vented. We recommend that it be inspected by a fireplace specialist prior to use to ensure it doesn't discharge excessive carbon monoxide (CO) amounts. CO is a deadly gas!. (The flue for this fireplace was filled with concrete and is not functional for combustible materials or vented gas logs. FYI.)

# 9. Kitchens & Appliances



# 9.0 CABINETS

#### Repair or Replace or Investigate

- (2) The floor of the kitchen sink cabinet is moisture damaged and/or moldy, and should be replaced.
- (3) The lazy Susan needs service to work properly.

#### 9.1 DISHWASHER

#### Repair or Replace or Investigate

The dishwasher discharges without a visible anti-siphon valve or high drain loop (where the drain line rises above the sink drain and is securely fastened to the underside of the counter). While a common defect, this installation is contrary to most installation instructions, and also creates a potential drainage problem and a health hazard if waste water were to siphon back into the dishwashing machine. An evaluation and service by a licensed plumbing contractor is recommended.

# 9.4 EXHAUST FAN OR HOOD

# Not Present

9. Kitchens & Appliances



The range hood exhaust duct is corrugated plastic material. Commonly accepted standards state that the duct should have a smooth interior surface, be air tight and vented to the exterior, be equipped with a backdraft damper, and be constructed of galvanized steel, stainless steel or copper. This is what we recommend. *Note: when you install a new range hood, you may wish to use the vent-free type and the duct material would be irrelevant.* 

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