

# The Written Home Inspection Report



Residential Home Inspection Report for Your Name

Inspection Address: 100 Your Lane, My Township, NC 27540-8441
Construction Year per Wake County Real Estate Record: 1998
Square Footage Area per Wake County Real Estate Property Record: 1,965 sq. ft.

Reason for Inspection: Real Estate Pre-Purchase

Home Inspection and Report Fee: \$370.00

Aerial Roof Inspection using a sUAS (drone) & Report Fee: \$100.00

**Inspection Date: May 18, 2017** 

Start Time: 1:30 PM Finish Time: 3:55 PM

My House Inspection Inc.

Luis R. Lluberas, NC Home Inspector License Num. 2789
5501 Southern Cross Avenue, Raleigh, NC 27606
(919)859-9468

This report will detail the findings of the visual examination of the following components and systems of the property as listed unless otherwise excluded in the sections of the report. This report is in compliance with the Standards of Practice of the North Carolina Home Inspectors Licensure Board.

#### All comments and directions made reference to the front of property

**Heating System** including permanently installed heating system and its controls, chimneys, heat distribution system (fans, pumps, and ducts), and automatic safety controls, but excluding an exhaustive evaluation of the furnace heat exchanger.

**Cooling System** including normal operating controls and distribution system component.

**Plumbing System** including interior water supply and distribution components, interior drain wastes and vent system, hot water system, fuel storage and distribution components, and sump pump.

**Electrical System** including service entrance conductor, service equipment, main distribution and auxiliary panels, voltage & amperage rating, a representative number of installed ceiling fans, lighting fixtures, switches, plug-in receptacles, Ground Fault Circuit Interrupters (GFCI), Arc Fault Circuit Interrupters (AFCI), and smoke detectors.

**Structural Components** including foundations, floors, ceilings, walls, columns, and roof.

**Exterior of the Structure** including wall cladding, flashing, trims, entry doors, decks, eaves, steps, driveways, attached garages and door operators, eaves, and representative number of windows.

**Interior Components** include walls, ceiling, floor, steps, and a representative number of fixed/anchored cabinets, and representative number of doors and windows.

**Built-In Kitchen Appliances** including the observation and operation of dishwasher, range, trash compactor, garbage disposal, ventilation equipment, and permanently installed microwave oven.

**Roofing** includes roof covering, roof drainage components, flashing, skylights, roof penetrations, and chimneys.

<u>LEGEND</u>: Serviceable  $\equiv$  functioning as intended/expected accounting for wear and tear. **Needs Repairs**  $\equiv$  do not function properly; or adversely impact the habitability of the property; or appears to warrant further investigation by a licensed professional in the business

**Not Present**  $\equiv$  at the time of inspection **Not Inspected**  $\equiv$  not inspected or inspection was limited for a reason (explained).

### TABLE OF CONTENT

SUMMARY OF CONDITIONS	5
HEATING AND AIR CONDITIONING	7
PLUMBING SYSTEM	10
ELECTRICAL SYSTEM	15
FOUNDATION AND STRUCTURAL COMPONENTS	17
EXTERIOR OF STRUCTURE	18
INTERIOR COMPONENTS	21
ROOF	24

#### **SUMMARY OF CONDITIONS**

This summary page is not the entire report. The complete report may contain additional information of interest or concern to you. It is strongly recommended that you promptly read the complete report. For information regarding the negotiability of any item in this report under the real estate purchase contract, contact your North Carolina real estate agent or an attorney.

**HEATING VENTILATION AND AIR CONDITIONING (HVAC)** - Noticed insulated air ducts damaged and separated from distribution metal boxes in the crawl space. Filters on hallways are in need of replacement. Mechanical chamber of NG fireplace is dirty and in need of cleaning to prevent accidental ignition of dust and debris. **This system of the property needs to be inspected and repaired by a licensed professional in the business**.

**PLUMBING SYSTEM** – Residence had no potable water supply and system could not be inspected. There is bacterial growth below the kitchen sink indicating a prolonged water leak from either drains or water supply. **This system of the property needs to be inspected and repaired by a licensed professional in the business**.

**ELECTRICAL SYSTEM** – Several cover plates are missing screws in living room and dining room area. Cover plates in hallway are cracked and there is a receptacle missing cover plate behind master bedroom door. Smoke detector device in hallway was removed. There are no smoke detector or CO<sub>2</sub> devices in bedrooms. **This system of the property needs to be inspected and repaired by a licensed professional in the business**.

**FOUNDATION AND STRUCTURAL COMPONENTS** – There are some crawl space vents damaged on the rear and sides of property. The hasp of the crawl space access door is broken preventing proper closure of crawl space. **This system of the property needs to be inspected and repaired by a licensed professional in the business**.

**EXTERIOR COMPONENTS** – Vinyl siding on rear right side and rear of property is damaged. There is an area of the siding melted on the right side of rear double doors to the deck. Noted moisture between double panes indicating seals of windows are damaged. Main entrance door seals are dry-rotted or broken and in need of replacement. There is a void between the concrete floor and brick veneer on the porch allowing water to enter the foundation below resulting in efflorescence in the crawl space. The deck's rear left side handrail is loose and may result in accidental fall from deck to ground. Automatic garage door operators are not serviceable. There is vegetation in contact with the cladding. There is a shrub growing behind vinyl trim on rear right corner of the house. **This system of the property needs to be inspected and repaired by a licensed professional in the business**.

**INTERIOR COMPONENTS** – Noted wood floor trim between living & dining rooms and between living room & kitchen damaged. Doors to the laundry room closet are missing or

damaged. There was no anti-tipping device on stove/range appliance. There is a water stain on the rear right corner of the master bedroom's walk-in closet. **This system of the property needs to be inspected and repaired by a licensed professional in the business**.

**ROOF** – There are voids between both ends of the on water table on the front of the house and cladding indicating missing flashing (see photograph on **Supplemental Aerial Roof Inspection Observation Report**). There is bacterial growth below the rear right PVC vent in attic indicating water seepage from roof. The rear right downspout does not reach the ground. All downspouts are missing splash guards to divert water away from foundation. **This system of the property needs to be inspected and repaired by a licensed professional in the business**.

# **HEATING AND AIR CONDITIONING**

<b>Heating Type System</b>		Forc	ed Air Furnace
Heating System Energy Source		Natu	ıral Gas (NG)
Furnace Manufacturer/Model/Serial		TRA	NE®/4YCC3030A1075AA/1002114E9H
Furnace Manufacture Date/L			10/On Left Side of Property
Air Conditioning Energy Sou		Elect	
Air Conditioning System Typ		Forc	ed Air
Cooling Manufacturer/Model	<del></del>	TRA	NE®/4YCC3030A1075AA/1002114E9H
Location			
<b>Cooling Manufacture Date</b>		1/201	10
Distribution Type	]	Flexi	ible Insulated Ducts with Metal
	]	Distr	ribution Boxes
CHECKPOINT	CONDITIO	)N	COMMENTS
Air Ducts	Needs Repairs	S	Noticed insulated air ducts damaged and
			separated from distribution metal boxes
			in the crawl space. Condition results in
			inefficient cooling/heating of living space
			and shall be inspected and repaired by a
			professional in the business
Chimney	Not Present		Premanufactured NG fireplace has no
			chimney
Flue Pipes	Not Inspected		Premanufactured NG fireplace pipes are
			not visible for inspection
Heat Temp Check	Serviceable		Noted system reacting when digital
			thermostat setting was changed
Return/Plenum	Needs Repairs	S	Filters on hallways are in need of
			replacement. Clogged filters results
			increases energy consumption and
			reduces the HVAC systems'
			performance. Recommend filters be
Leads Face			replaced before closing
Inside Fan	Needs Repairs	S	Low flow was noted due to insulated
			flexible ducts being disconnected from
			metal distribution boxes in the crawl
			space. A professional in the business shall inspect, repair, and replace ducts as
			necessary followed by properly verifying
			flow in living spaces
Condensation Drain	Not Present		Packaged system on left side of property
Condensation Diam	TAOUT LESCHU		does not have a condensate plate/drain as
			it is located outside
Outside Fan	Serviceable		10 10 10 table
Coil Fins	Not Visible		Prepackaged system on exterior has no
			visible coils
Thermostat	Serviceable		Honeywell®. Digital device located on

		hallway
HVAC Temp Check	Serviceable	Noted temperature changes on air flow
		when digital thermostat settings were
		changed from heating to cooling cycle
		and vice-versa
Fireplace	Needs Repairs	Prepackaged NG on living room.
		Mechanical chamber is dirty and in need
		of cleaning by a professional in the
		business to prevent accidental ignition of
		dust and debris



Flexible insulated ducts in crawl space are damaged, sagging or loose from hanger straps and/or separated from the metal distribution boxes. This condition results in inefficient use of the HVAC system preventing proper conditioning of living spaces of the property and increase consumption of energy







NG fireplace mechanical chamber is dirty and in need of cleaning. Existing condition may result in spontaneous ignition of dust and dirt. It is recommended for the mechanical chamber to be cleaned by a professional in the business before the use of the fireplace



The exterior HVAC system as well as the NG premanufactured fireplace exhaust flue shall be checked and cleaned of dry vegetative debris prior-and-during heating season to prevent spontaneous ignition of dry vegetative debris accumulated above device

### **PLUMBING SYSTEM**

Water Supply Piping		Copper at meter with limited view under the
Water Distribution Pip	ping	delivery points.  This home has a plumbing supply system that uses polybutylene plastic distribution lines and compression band fittings. Even though this plumbing system was installed in many homes from 1978 until mid-1990, it is no longer an approved plumbing system due to a history of material failures. The failures were related to improper installation, improper handling, improper storage, and plastic deterioration due to chemical reactions with the water supply. Due to the nature of this latent defect, it was not possible to adequately assess the
		condition of the plumbing system during the home re-inspection. A licensed plumbing contractor should be consulted for a complete evaluation of the plumbing system to determine the significance of this concern.
Water Heater		STATE SELECT®/GS-6-50YBD-S-
Manufacturer/Model/Serial/Location		200/1319F000291
Water Heater Manufacture		May2013/50 US Gal./Natural Gas
Date/Capacity/Energy	Source	
Main Water Shutoff		Front center of yard along curb and in
Water Meter Location		lower right wall of coat closet in hallway  Front center of yard along curb
		In crawl space
Water Regulator/Pressure Valve		<u> </u>
CHECKPOINT	CONDITION	COMMENTS
Vent Pipe system	Needs Repairs	PVC. Noted water stains in the attic below the rear PVC vent pipe. This may be an indication of a worn boot seal on the roof. Condition has resulted in black bacterial growth on the OSB sheathing and shall be inspected and repaired by a professional in the business
Drains	Needs Repairs	The water tub of bathroom in hallway drains slow and secondary bathroom sink drains do not work as intended indicating possible clogged drain pipes. Condition shall be inspected and repaired by a professional in the business
Water Function Check (Pressure)	Needs Repairs	Water pressure is low when multiple delivery points (faucets) are opened. Water pressure

Water Function Check (Drainage)	Needs Repairs	valve may need to be adjusted. Recommend a professional in the business inspect and perform repairs as necessary  See drain above
Bathroom Fixtures	Need Repairs	Water faucets on bathrooms leak. Condition shall be inspected and repaired by a professional in the business
Kitchen Fixtures	Serviceable	
Water Heater	Serviceable	Proper water (hot) temperature noted at delivery points at the time of inspection
Fixture Connections	Needs Repairs	The front exterior faucet is missing the knob. There are multiple leak points in the water distribution piping in crawl space, Conditions need be inspected and repaired by a professional in the business
Laundry Tub/ Whirlpool	Needs Repairs	Washer and dryer appliances were present and connected at the time of re-inspection [preventing inspection]. Wall pipe termination does not cover drywall termination and shall be replaced to protect drywall from accidental water spray and moisture damage. A laundry tub is not required for a laundry room in the first floor
Sump Pump	Not Present	
Waste Pipe Type/Vent	See Vent Pipe system above	
Dishwasher	Not Inspected/Needs Repairs	Appliance is not properly attached/anchored at the time of re-inspection. Appliance door could not be latched. Condition may result in accidental water leakage if operated. Condition shall be inspected and repaired by a professional in the business. Once properly anchored, appliance operation shall be demonstrated to client prior to closing



Cabinet below kitchen sink has water stains and bacterial growth. This is possible indication of a prolonged water leak from the drain or water supply. Condition could not be inspected due to lack of water supply to the residence during inspection. Recommend a professional in the business inspects and repair condition



There is bacterial growth noted below the PVC vent in rear of the attic. Condition is indicative of water infiltration from the roof system. It is recommended to have a professional in the business inspect conditions and repair/replace accordingly



Exterior front water faucet is missing knob making opening and closing the faucet difficult.
Recommend a professional in the business inspect and repair as necessary

Bathroom sinks' secondary drains do not function as intended and need to be unclogged to prevent accidental overflow





This home has a plumbing supply system that uses polybutylene plastic distribution lines and compression band fittings. Even though plumbing system was installed in many homes from 1978 until mid-1990, it is no longer an approved plumbing system due to a history of material failures. The failures were related to improper installation, improper handling, improper storage, and plastic deterioration due to chemical reactions with the water supply. Due to the nature of this latent defect, it was not possible to

adequately assess the condition of the plumbing system during the home inspection. At the time of the inspection the following concerns were noted:

- 1. Current leaks
- 2. Plastic fittings (deteriorated)
- 3. Improper support of plumbing lines
  - 4. Poor installation of fitting bands
    - 5. Evidence of past repairs
    - 6. Evidence of past leaks

A licensed plumbing contractor should be consulted for a complete evaluation of the plumbing system to determine the significance of this concern and to make necessary repairs.

### **ELECTRICAL SYSTEM**

<b>Service Entrance Conductor</b>	Гуре	Alumi	num 4/0
Service Entry Type/Location		Underground/Right side of property	
Main Panel Location		On right rear wall of garage	
Subpanel Location(s)			ent to Packaged HVAC on left side of
		proper	_
Distribution Panel Box Type/	Location	Cutler	-Hammer®/Breakers/On right rear
		wall of	f garage
Main Service Voltage		240	
Main Service Amperage		200	
Interior Wiring Type			n behind terminations and not visible
CHECHDONE	CONTRACT		inspection
CHECKPOINT	CONDIT		COMMENTS
Service Entrance	Serviceab		On right side of property
Service Ground & Location	Serviceab	ole	Noted grounding cable into the
			ground and not visible during
			inspection. On right side of property
Main Panel Box	Serviceab	ole	Cutler-Hammer®
Breakers/Fuses	Serviceab	ole	Breakers. No spare slots available
HVAC Wiring	Serviceab	ole	Limited view on the left side of the
			property and in crawl space
Interior Wiring	Serviceable		Not visible during inspection due to
			finishing and terminations
Kitchen Receptacles	Serviceable		GFCI protected and tested
Outside Receptacles	Serviceable		GFCI protected and tested
Interior Receptacles	Need Repa	airs	Several cover plates are missing
			screws in living room and dining
			room area. Cover plates in hallway
			are cracked and there is a receptacle
			missing cover plate behind master
			bedroom door. Condition may be a
			hazard and shall be inspected and
			repaired by a professional in the
			business
Smoke Detectors	Needs Repairs		Device in hallway was removed.
			There are no devices in bedrooms. It
			is recommended to have one dual
			purpose (smoke-CO <sub>2</sub> ) installed on
			each bedroom
Carbon Monoxide Detector	Not Present		See smoke detectors above
Light Fixtures	Need Repairs		Could not have ceiling fan in living
			room to operate. Garage lights are
			inoperable. Several light fixtures are
			missing light bulbs or have blown

		bulbs needing replacement
Switches	Serviceable	
Ceiling Fans	Needs Repairs	Living room device could not be operated
Door Bell/Ring	Needs Repairs	Switch on left side of main entrance door frame. Did not operate as intended and shall be repaired by a professional in the business
Arc Fault Interrupter(s)	Not Present	
Clothes Dryer Connection	Not Inspected	Appliances present and connected to receptacle at the time of inspection prevented inspection
Other	Needs Repairs	Doorbell could not be operated and must be inspected and repaired by a professional in the business





### FOUNDATION / STRUCTURAL COMPONENTS

Foundation Type	Crawl Space
Foundation Construction Method	Block & Brick with standard wood frame and non-structural insulation sheathing
Foundation Observation Method	Crawled entire crawl space using a hand held flashlight. Entered crawl space via door on left rear side of property
Wall & Floor Structure	Frame with manufactured open webbed trusses, wood girders & OSB subflooring
Ceiling	Smooth finished drywall/sheetrock
Other	Crawl space access door hasp is broken and prevents door from latching and securing the crawl space from pests and moisture
	!

CHECKPOINT	CONDITION	COMMENTS
Foundation Wall	Serviceable	Noted efflorescence on wall areas below front porch. This may be indication of water infiltration via voids between the concrete floor of the porch and the exterior brick veneer
Sill Plate/Band	Serviceable	Wood
Walks Driveways	Serviceable	Concrete with normal cracks and deterioration
Chimney Foundation	Not Present	Premanufactured NG fireplace has no foundation
Ventilation	Needs Repairs	There are some plastic vents of the crawl space that are damaged/broken. Condition may result in improper crossventilation of the crawl space resulting in increased moisture. Vents shall be inspected and repaired by a professional in the business
Roof Structure	Serviceable	Wood with nominal lumber dimensions
Floor Joists	Serviceable	2 <sup>nd</sup> floor structure not visible due to finished ceilings
Vapor Barrier	Serviceable	
Insulation below floor	Serviceable	Fiberglass batts. Some coloration noted near the entrance door most likely due to not properly latching or securing access door
Exterior Grade	Serviceable	
Retaining Walls	Not Present	
Ceilings	Serviceable	Smooth finished drywall/sheetrock

# **EXTERIOR OF STRUCTURE**

Wall Structure	Wood using nominal lumber dimensions
	with limited view in the garage and attic
Cladding	Vinyl
Entryway Door Material	Metal
Garage Door Material	Aluminum. Two single vehicle wide doors
Vegetation, grading and drainage with	Trees and vegetation in contact with
respect to their effect on the condition of the	cladding. Ground grading promotes water
structure	flow away from foundation

CHECKPOINT	CONDITION	COMMENTS
Siding	Needs Repairs	Vinyl siding and trim on rear right side and rear of property is damaged. There is an area of the siding melted on the right side of rear double doors to the deck. Condition may allow for water infiltration into the wall cavity resulting in structural damage or bacterial growth. Recommend siding be inspected and repaired by a professional in the business
Trim Work/Eaves	Needs Repairs	There are missing sections of the eaves (soffit) missing on the right side and rear of the dwelling. Voids in trim work may allow pests to enter into the wall cavity. Condition shall be inspected and repaired by a professional in the business
Windows	Need Repairs	Double pane – single hung aluminum windows. Noted the interior pane of the left dining room window broken. There is moisture between double panes of all windows indicating seals of windows are damaged. Condition results in inefficient insulation of living areas and possible bacterial growth between window panes (glass). Recommend windows be inspected and repaired or replaced by a professional in the business
Doors	Needs Repairs	Main entrance door and door from living area into garage are metal. Hollow wood door from living space to attic. Metal double door with full

		glaze (glass) from living areas to rear deck. Main entrance door seals are dry-rotted or broken and in need of replacement. Condition results in improper insulation or seal when closed that may allow pests to enter the living space. Recommend replacement
Porch	Needs Repairs	Concrete floor with normal cracks and deterioration. There is a void between the concrete floor and brick veneer resulting in water entering the foundation below. There is efflorescence in the crawl space immediately below the porch. Porch condition shall be inspected and repaired by a professional in the business
Locks	Serviceable	
Screened-in Porch	Not Present	
Deck	Needs Repairs	The rear left side of the handrail is loose and may result in accidental fall from deck to ground. Condition shall be inspected and repaired by a professional in the business
Patio	Not Present	
Steps/Rails	Serviceable	Brick steps on front with wooden handrails
Carport	Serviceable	Concrete driveway with normal cracks and deterioration
Garage Door	Needs Repairs	Two single vehicle Aluminum doors.  Doors did not remain opened when partially raised. Automatic garage door operators are not serviceable.  Recommend system be inspected and repaired and/or replaced by a professional in the business
Other	Needs Repairs	Double fence gates on rear right side of property do not swing freely needing ground under swing be leveled and cleared. There are damaged or missing wood fence sections on rear and left side of property



There is a section of the soffit vent screen missing on the right rear side of the property. This condition may allow rodents and pests to enter and nest in the structure cavity and/or attic. Recommend section be installed by a professional in the business



There are sections of the vinyl trim damaged on the rear right side of the property. The picture also illustrates how a downspout discharges about three (3) feet above ground resulting in water being in close proximity to the foundation. Picture also illustrates a shrub growing between vinyl trim and cladding. Unattended, these conditions may result in deterioration of structural components and settlement of foundation



There is a section of the soffit vent missing on the rear left side of structure. This condition may allow rodents and pests to enter and nest in the structure cavity and/or attic. Recommend section be installed by a professional in the business



There is damage to the vinyl cladding on the rear of the property

# **INTERIOR COMPONENTS**

CHECKPOINT	CONDITION	COMMENTS
Walls	Serviceable	Smooth finish. Drywall/sheetrock
Ceilings	Needs Repairs	Smooth finish. Drywall/sheetrock. There
		is a water stain in the rear right corner of
		the master closet ceiling which may
		indicate water infiltration from the attic.
		Condition shall be inspected and repaired
		by a professional in the business
Floor	Need Repairs	Wood laminate in common areas and
		hallway. Vinyl in bathrooms and laundry
		closet. Carpet in bedrooms. Inspection of
		floor structure limited by floor coverings.
		Noted wood trim between living &
		dining rooms and between living room &
		kitchen damaged. Condition may result in
		accidental fall. Recommend replacing
Steps	Not Present	Single storey dwelling
Railings	Not Present	There are no steps in a single storey
		dwelling
Closets	Needs Repairs	Doors to the laundry room closet are
		missing or damaged preventing the closet
		from being separated from hallway.
		Recommend a professional in the
		business inspects and repairs/replace
	N. 15	accordingly
Doors	Need Repairs	Hollow wood doors throughout interior
		of residence. Most doors are missing
		stoppers or rubber caps to stoppers.
		Condition results in doors contacting
		walls and damaging termination.
		Recommend stoppers be installed by a
		professional in the business. Master
		bedroom door is missing strike plate
		resulting in improper closure and damage to the door frame. Recommend a strike
		plate be installed
Windows	Need Repairs	See Exterior Of Structure section
Cabinets	Needs Repairs	Wood. Noted water stains and bacterial
Capillets	140005 Repairs	growth under kitchen sink indicating a
		prolonged water leak. As there was no
		water supply to the residence during
		inspection, it is recommended to have a
		professional review conditions and repair
		professional review conditions and repair

		as necessary
Countertops	Serviceable	Formica®
Locks	Serviceable	Representative sample inspected and
		tested
<b>Bathroom Exhaust Fans</b>	Serviceable	Present in both bathrooms
Water Heater Closet	Not Present	NG water heater located in garage and properly protected against accidental vehicular contact

#### **BUILT-IN KITCHEN APPLIANCES**

Dishwasher	Not Inspected	There was no water supply to the residence at the time of inspection. Efficiency of cleanliness of dishwater not determined.
Range	Needs Repairs	Electric. There was no anti-tipping device on appliance. Condition may result in accidental tipping of range causing severe burns or death.  Recommend anti-tipping device be installed by a professional in the business
Fan/Hood	Serviceable	
Oven	Serviceable	
<b>Garbage Compactor</b>	Not Present	
Food Disposal	Serviceable	
Microwave	Needs Repairs	The door handle is broken. Light switch does not work properly

\*the presence of a refrigerator prevented the inspection of floor and wall areas under/behind the appliance in the kitchen.



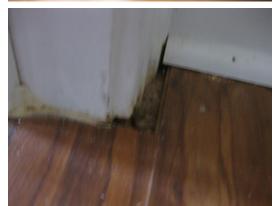
There is a water stain in the rear right corner of the master bedroom walk-in closet. This may be an indication of some water infiltration from the attic. Recommend condition be inspected and repaired by a professional in the business



The main door trim is damaged, cracked or frail. Damaged weather seal prevents proper insulation and separation of living space from exterior resulting in added energy usage and possible entry points for rodents and pests. It is recommended for the weather seal of the main entrance door be replaced by a professional in the business



The laminate floor edge between the living and dining room as well as between the kitchen and foyer is damaged. This may result in a tripping hazard and shall be inspected and repaired by a professional in the business



The wood laminate floor in the pantry closet is improperly terminated. This condition may result in water moisture entering the subfloor and damaging the structural component of the dwelling. It is advised to have a professional in the business review and repair conditions



The strike plate of the master bedroom door is missing from the door frame. This condition prevents proper latching of door and results in additional damaging of the door frame. Recommend a strike plate be installed by a professional in the business

#### **ROOF**

# (See Supplemental Aerial Roof Inspection Observation Report)

Roof Type	Gable
Roofing Material	Asphalt Shingles
Roofing Layers	One (1)
Gutter and Downspout Type	Aluminum
Attic Ventilation Type	Soffit, Gable, and Ridge
Roof Observation Method	Using sUAS (i.e. drone)
Roof Structure	Built-in wood using nominal dimension lumber supporting non-structural OSB sheathing
Ceiling Structure	Built-in wood using nominal dimension lumber
Attic Insulation	None Visible
Attic Access Method	Via stairs from hallway

CHECKPOINT	CONDITION	COMMENTS
Shingles	Serviceable	Asphalt
Flashing/Joints	Need Repairs	There are voids on both ends of the
		water table on the front of the house
		and cladding indicating missing
		flashing (see photograph on Aerial
		Report). There is indication of water
		infiltration in the attic as a result of
		condition. Recommend a professional
		in the business inspects and repair as
		necessary
Vent Pipe	Need Repairs	PVC. There is bacterial growth below
		the rear right vent indicating water
		seepage from roof. Condition shall be
		inspected and repaired by a
		professional in the business
Chimney	Not Present	Premanufactured NG fireplace has no
		chimney
Drainage System (Gutters and	Need Repairs	Aluminum. The rear right downspout
Downspouts Conditions)		does not reach the ground. All
		downspouts are missing splash guards
		to divert water away from foundation.
		Condition results in water to come
		into contact with foundation and may
		result in differential settlement.

		Recommend installing splash guards
Attic Insulation/Type	Not Present	
Attic Ventilation	Need Repairs	There are sections of the soffit vents missing on the rear left and right sides of the structure that may result in pests entering the structure and nesting. Recommend feature of residence be inspected and repaired by a professional in the business
Joists/Rafter/Truss	Serviceable	
Sheathing	Serviceable	Non-structural OSB
Skylights	Not Present	

\*the effectiveness of the gutter downspout into the ground could not be verified as termination is underground and discharge unknown.



Downspouts are missing splashguards to channel water away from foundation. Water in close proximity to the foundation may result in differential settlement and structural damage. Recommend installing splash guards on all downspouts

# My House Inspection, Inc. ...for your peace of mind.

# **Supplemental Aerial Roof Inspection Observations**

**To:** BID 12-2018007 SAMPLE

From: Luis R. Lluberas, NC Home Inspector License Number 2789.

Remote Pilot License Number 4038810

**Date:** December 15, 2017

**Re:** Supplemental Aerial Roof Observations for 100 Your Lane, Holly

Springs, NC 27540-8441

Congratulations in having an aerial inspection of the roof system as part of your home inspection!

The aerial roof inspection was performed utilizing a small Unmanned Aircraft System (i.e. sUAS, a drone). The aerial inspection allows the Inspector to review roof areas in close proximity and view roof zones that otherwise were not visible from the ground during the residential home inspection conducted on December 15, 2017.

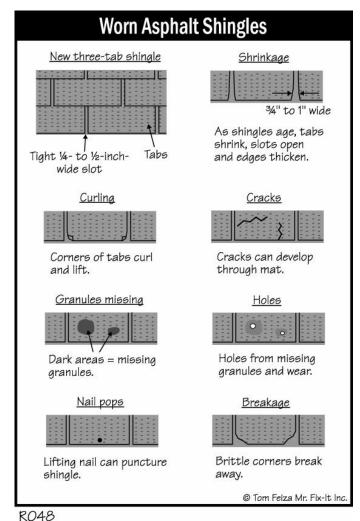
The aerial inspection and written report supplements the home inspection at an additional fee of \$100.00. You can mail payment to the address above using a personal check or money order made payable to *My House Inspection, Inc.* in the self-addressed stamped envelope included with your reports.

#### **BACKGROUND:**

The Standards Of Practice of the North Carolina Home Inspectors Licensure Board (NCHILB) **does not** require a Licensed Home Inspector to climb or walk on a roof during inspection (Section .1108). This may be a precautionary measure leaving Inspectors to decide if they should climb/walk on a roof based on field, skills, and safety considerations. However, the NCHILB requires the Inspector to record in the written inspection report provided to the client the roof observation method and any obstructed views impeding inspection.

Typically, the *My House Inspection, Inc.* uses binoculars from the ground as the roof observation method and the limited view any second floor window (or dormer) may provide to inspect the roof system. Any area(s) not visible to the Inspector during the inspection are detailed in the **ROOF** section of the home inspection's written report provided to the client.

An aerial roof inspection using a sUAS provides the Home Inspector a vantage and unobstructed view of all roof areas of a property that otherwise may not be visible or physically accessible during the home inspection. All aerial roofing observations resulting from the aerial inspection are validated and complemented with a detailed review of the roof sheathing and other conditions in the property's attic at the time of the inspection.



My House Inspection, Inc. uses a

Phantom4Pro<sup>TM</sup> small **Unmanned Aircraft** System for the aerial inspection. The sUAS was flown around-and-above the property at approximately 50-65ft. above ground and in close proximity to the roof of the property being inspected. Several digital photographs were taken of key features of the roof including ridge, valleys, flashings, vents and vent boots, and other roof penetrations. These digital photographs are subsequently enhanced in a computer allowing the Inspector to review roof conditions of the property more accurately.

During the aerial review, the Inspector flew the

sUAS in close proximity to the residence roof and utilized the 20mp image sensor of the sUAS to review asphalt shingle conditions paying attention to any of the conditions illustrated in the illustration entitled *Worn Asphalt Shingles* above.

This Supplemental Aerial Roof report summarizes the roof observations resulting from the use of a sUAS at the time of the home inspection.



#### **OBSERVATIONS/FINDINGS:**

Close observations of the asphalt shingles in roof valleys, and ridge, did not alert the Inspector of any asphalt shingle conditions of concern illustrated in R048 above at

Figure 1: Front Aerial View of 100 Highland Springs Lane

the time of the aerial inspection. In summary, there was no indication of roof shingles curling, cracked, split or broken at the time of the inspection. In addition, the aerial photography did not reveal any clawing, cupping, and curling of shingles.

Upon close review of the PVC vent pipe on the rear right side of the roof, the Inspector noted calking applied to the flashing screws and pipe penetration thrurubber boot. All other vent penetrations were noted without any sealant/caulking applications.

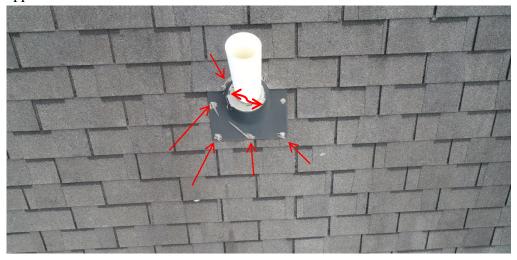


Figure 2: Aerial View of PVC Vent Pipe with Visible Sealant/Caulking Application

The aerial survey of the vent and attic inspection may indicate that the source of



Figure 3: OSB Stains in Attic below Vent Pipe

water stains and bacterial growth on the OSB sheathing in the attic below the vent pipe may be the result of damaged or worn boot or flashing. The dark color of the bacterial growth in the attic is an indication that previous attempt(s) to stop this water seepage using sealants and/or caulking has failed.



Figure 4: Missing Flashing on Front 'Water-Table'

There is a void between the cladding and the roof system on both ends of the front 'watertable'. This is an indication of missing flashing. Further review of attic conditions below the corners of the 'water-table' show water stains. This is indicative that when the right directional rain is experienced, water enters the attic.

#### **RECOMMENDATIONS:**

A professional in the business is recommended to review conditions and repair or replace vent boots and flashings as necessary. Due to the age of the property, it is advised to replace all thru-roof rubber boots as others may fail soon.

Any questions or comments about the report and photographs, please feel free to contact me electronically at myhouseinspection@gmail.com or calling me at 919-859-9468.

#### **Home Owner's Useful References**

**NC Home Inspectors Licensure Board** 

http://www.ncdoi.com/OSFM/Engineering\_and\_Codes/HILB.aspx

**NC Home Inspector's Standards of Practice** 

 $\underline{http://www.ncdoi.com/OSFM/Engineering\ and\ Codes/Documents/HILT\ Documents/Standards\%20of\%20Practice\%20eff\%202014-2-$ 

1%20SECTION%208.1100%20excerpt.pdf

Building Intelligence Center <u>www.buildingcenter.org/</u>

Resource to determine the date of manufacture or age of HVAC and/or water heater equipment

The NC Radon Program <a href="https://www.ncdhhs.gov">www.ncdhhs.gov</a> & <a href="https://www.ncradon.org">www.ncradon.org</a>

Chimney Safety Institute of America <a href="www.csia.org">www.csia.org</a>

Recall Products at the US Consumer Products Safety Commission Web Page

www.cpsc.gov/

US Environmental Protection Agency information regarding Asbestos and Mold

http://www2.epa.gov/asbestos http://www.epa.gov/mold

National Flood Insurance Program https://www.floodsmart.gov/floodsmart/

NC Flood Maps http://www.ncfloodmaps.com/

National Association of Home Builders <a href="http://www.nahb.org">http://www.nahb.org</a>

US Department of Energy <a href="http://www.energy.gov">http://www.energy.gov</a>

US Department of Energy, Understanding Different Types of Insulation Materials

http://energy.gov/energysaver/articles/types-insulation