Windermere
REAL ESTATE

## NOTICE TO BUYER: SELLER-PROCURED INSPECTION REPORT

The following notice is given with respect to the Purchase and Sale Agreement dated _____ between _____ ("Buyer") and Andria C Kelly ("Seller") concerning 3432 175th Ave NE Redmond WA 98052 ("the Property").

Seller has given or is giving Buyer the following Inspection Report(s) concerning the Property (check all that apply):

- ☒ Whole House Inspection
- ☐ Sewer Inspection
- ☐ Pest Inspection
- ☐ Other: _____

The Inspection Report(s) are intended to be a part of any Seller Disclosure Statement (NWMLS Form 17) that is provided in this transaction, whether or not the two documents are attached to each other. The Inspection Report(s) were procured by Seller and are provided for informational and disclosure purposes only. The Inspection Report(s) are not intended to constitute a warranty, either express or implied, about the condition of the Property. Buyer is advised to procure their own inspections from professional inspectors chosen by Buyer or hire the inspectors that prepared the Inspection Report(s). Buyer has the opportunity to inspect the Property to Buyer's satisfaction.

AuthentiSIGN
Andria C Kelly 05/13/24

Seller DATE Seller DATE

**Buyer's Acknowledgment of Receipt**

The undersigned Buyer acknowledges receipt of the foregoing Notice and the above-referenced Inspection Report(s).

Buyer DATE Buyer DATE

May 21, 2024

**Ms. Andria Kelly**
**3432 175th Ave. NE**
**Redmond, WA.**

**Re: 3432 175th Ave. NE**
**Redmond, Wa.**

Dear Andria;

At your request, a visual inspection of the above referenced property was conducted on 05/20/2024. We have inspected the major structural components, plumbing, heating and electrical systems for signs of significant non-performance, excessive or unusual wear and general state of repair.

Clark Inspections inspectors, inspect all homes and buildings according to the stringent professional standards and code of ethics set forth by the American Society of Home Inspectors (ASHI). The ASHI standards are designed to identify and disclose to the client certain conditions of the major systems as these conditions exist at the time of the inspection. These standards are designed for a visual inspection of the readily accessible areas of the included system. A copy of these standards will be provided upon request or can be obtained by calling the ASHI automatic "Information-On-Demand" phone number at 1-800-743-2744

Home or building inspections performed under these standards should not be construed as a compliance inspection of any governmental or non-governmental codes or regulations. Inspections performed under these standards are essentially visual; are based on the experience and opinion of the inspector; and are not intended to be technically exhaustive. Inspections performed under these standards are not meant to be warranties nor guarantees of adequacy of performance of the structures, systems, or their component parts.

This inspection does not include an inspection for construction or other materials which might be hazardous to your health. It is possible that such materials may be present and not noted in this report.

This inspection does not include the testing or inspection of security systems, intercoms, communication systems, video, or sprinkler systems. These items are highly specialized and individualistic. Clark Inspections recommends that you have the seller and/or real estate agent/broker demonstrate the operation and serviceability of these systems to you prior to the closing of the sale.

Mechanical equipment is inspected for operability only and may contain undisclosed defects which may significantly impair it's usefulness.

Defects are examined and a determination is made on how a particular defect will affect interrelated building parts and whether immediate repairs are required.

Since all buildings have defects, it is important to know and understand what they are and how they affect the house and property. Some of the defects mentioned in this report may be quite typical, and found in other homes of comparable age and price. Some however, may not. We make our best attempt to distinguish this for you in both verbal and written reports.

## REPORT SUMMARY

The comments in this report are categorized. General information is given on the type of materials and construction methods. Specific information is given pertaining to the condition of a component and applicable repair and maintenance work that may be required.

Statements, representations, or conclusions offered by the inspector are the considered opinion of the inspector, but these statements, representations, or conclusions do not constitute an expressed or implied warranty of any kind. Neither the inspector nor Clark Inspections Inc. shall be liable for any direct, special, incidental, or consequential damages under an circumstances whatsoever, whether arising in tort, negligence, or contract, nor for any loss, claim, expense, or damage caused by or arising out of his or its inspection of a structure, nor will the inspector or Clark Inspections Inc. indemnify or hold others harmless for any loss, claim, expense, or damage arising out of his or its inspection of a structure.

## ACTION ITEMS, SIGNIFICANT DEFECTS AND/OR HEALTH AND SAFETY ISSUES

Non-operational (Action) items, safety or health issues, areas with limited viewing for proper inspection and components that do not serve their intended function (Significant Defects) are listed here. These items will likely require further evaluation and repair by licensed tradespeople.
**Please Read entire report**

### BUILDING SITE

*GRADING*

The deck support posts are located at the top of a steep slope. There is evidence visible there has been problems with soil instability. Hidden conditions may also exist that could contribute to instability during the right combination of circumstances (e.g., flooding, improper drainage, earthquake, development or condition of neighboring properties, broken water mains, etc.). You should consider these risks when acquiring this property. If you have concerns about slides, erosion or soil stability, you should retain the services of a qualified geotechnical engineer to evaluate the building site.


*DRIVEWAY*

The driveway has cracked and settled differentially. This was probably caused by inadequate preparation of the soil prior to the placement of the concrete. This condition can be repaired by pressure grouting the sunken portion of the driveway or by removing and replacing it. The driveway remains functional despite this condition.

*PATIO*
The gaps separating the concrete patio sections are a trip hazard. Replacement with mortar is recommended.

*WALKWAY*
The gaps separating the concrete walkway sections are a trip hazard. Replacement with mortar is recommended.

Cracks can be sealed to minimize moisture entry and further settlement.



The walking surface was not even and trip hazards were present. We recommend all walking surfaces be maintained free of trip hazards.

**BUILDING EXTERIOR**

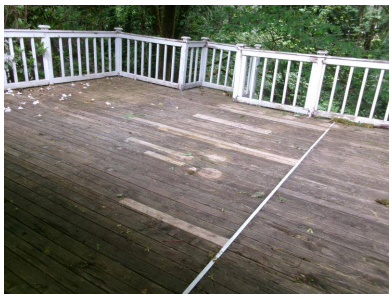
*PAINT*
The paint is cracked, peeling, faded and in generally poor condition. Paint protects the wood from cupping, checking, warping and rot. Repainting the house exterior is recommended.

The caulking is cracked and deteriorated. Caulking prevents water intrusion into the wall. Removing and replacing deteriorated caulk is recommended.


South elevation above roof

*DECK*
A significant portion of the deck is rotted. Rot weakens the wood and can result in catastrophic failure of the structure. Rebuilding the deck structure is recommended.

*DECK RAILINGS*
The deck railing is rotted. The spacing between the balusters is too wide. This is a hazard. The balusters should be spaced close enough together so that a 4" sphere cannot pass through. Replacing and upgrading the deck railing is recommended.



*STAIRS*
The deck stairs are non-conforming due to the variable and/or excessive rise. Deck stair/step design standards require that step risers do not exceed 8" and that the variation in rise not exceed 3/8" in order to reduce falls from tripping. We recommend reconfiguring the steps so that rise and run do not vary by more than 3/8".

*PORCH STEPS*
The steps are non-conforming due to the variable and/or excessive rise. Stair design standards require that step risers do not exceed 8" and that the variation in rise not exceed 3/8" in order to reduce falls from tripping. To increase the margin of safety, consideration should be given to reconfiguring the steps so that rise and run do not vary by more than 3/8". If this proves to be too impractical or expensive, then we recommend exercising caution when using.

**ATTIC**

*ACCESS*

There is no access to the attic. The installation of an attic access under the highest point of the roof is recommended for inspection and servicing of components in the attic. Defects or deficiencies may exist in inaccessible areas.

**GARAGE**

*OVERHEAD GARAGE DOORS*

The north garage door is difficult to operate. The garage door hardware is in need of adjustment and repair.

The south garage door was not tested and its function was not verified.

Safeties are cables run through the center of the garage door springs that prevent broken springs from becoming projectiles that can cause injury. There are no safeties installed. The installation of safeties is recommended.

*GARAGE DOOR OPENER*

The garage door opener was not tested or inspected. The services of a contractor specializing in automatic openers should be retained to perform the necessary repairs.

There was no photo-eye sensor installed for the garage door to offer protection for small children and/or pets. We recommend that a photo-eye sensor be installed for the garage door at a height of within 4-6" of the floor.

*FIRE SEPARATION*

There are voids in the fire resistive barrier between the living space and garage that will allow flames to penetrate. The gypsum barrier slows the spread of a fire from the garage to the structure and/or living space. Patching the voids with a fire retardant caulk is recommended.

The installation of a furnace vent thimble is recommended to prevent flames from spreading to the structure.

*PASSAGE DOOR*
The door between the garage and living space is a solid core door. The door hinge is not installed and the door is innoperative. We recommend repairs as necessary.

The Interior entry door lacks a self closing hinge and there is a pet door at the bottom which nullifies the fire rating of the door. Patching the hole in the door and the installation of a self closing hinge is recommended as a safety upgrade.

**ELECTRICAL SYSTEM**

*WIRING*
There are junction boxes with missing covers in the crawlspace. This is a fire/shock hazard. Covers should be installed on all junction boxes.

An extension cord is used as a temporary power source for the garage door opener. An extension cord is not suitable as a permanent wiring method. The installation of a receptacle within cords length of the motor is recommended.

*RECEPTACLES*
Testing revealed open grounds (ungrounded receptacles) in the primary bedroom/bathroom wall. Open grounds are a potential hazard and could damage some electronic equipment. All receptacles with open grounds should be repaired in accordance with applicable electrical codes.

*GFCI RECEPTACLES*
The installation of additional GFCI protection in the garage and kitchen receptacles is recommended.

*LUMINARIES*
The laundry closet luminaries is not working. Testing the luminaries with a voltage tester revealed that there is current to them. Light bulbs should be replaced in non-functional luminaries and then they should be tested for proper operation.

The luminaires in the garage is detached and is hanging from its wires. This is a hazard. The luminaires should be reattached and secured to the ceiling.

**ELECTRIC HEATING**

ELECTRIC HEATING

*ELECTRIC FAN ASSISTED WALL HEATERS*
An electric fan assisted wall heater is used for heating in the family room. The heater was tested and was not working. Repairs or replacement is recommended.

**HEATING SYSTEM**

FORCED AIR HEATING SYSTEM

*AIR FILTER*
The air filter behind the return air grille in the hallway is redundant. Removal of one, of the two filters is recommended.

*HEAT SOURCE*
There is no heat source in the family room. The installation of a heat source is recommended.

*GENERAL COMMENTS*
The furnace is in need of servicing. This type of furnace should be serviced annually.

The furnace is 39 years old and is nearing the end of its service life. The need for furnace replacement should be anticipated.

**WATER HEATER**

*EXPANSION TANK*
The expansion tank is not adequately secured to the wall. As code requirements start to call for engineered expansion tank supports we recommend the installation of seismic restraints to secure the expansion tank instead of allowing it to simply depend on piping connections that could result in damage to the water pipe and leakage during an earthquake.

*GENERAL COMMENTS*
The water heater is nearing the end of its service life. The need for water heater replacement should be anticipated.

**KITCHEN**

*OVEN*
The built-in oven is functional but is significantly worn and nearing the end of its service life. Replacement of the oven should be considered.

*COOKTOP*
The built-in cooktop is significantly damaged and is at the end of its service life. Replacement of the cooktop is recommended.

*DISHWASHER*
The dishwasher was not tested. Its function was not verified.

*GARBAGE DISPOSAL*
The garbage disposal is not working. It should be repaired or replaced as necessary.

*REFRIGERATOR*
The refrigerator is old and nearing the end of its service life, but is still functional.

The refrigerator door handle is broken. The handle should be replaced as needed.

**BATHROOMS**

PRIMARY BEDROOM BATHROOM

*TOILET*

The toilet is loose where it mounts to the floor. A loose toilet will eventually start to leak and will damage the flooring material, underlayment and subfloor. The most reliable fix for this condition is to remove the toilet and install a new wax seal. The toilet should then be securely mounted to the floor.

*SINK*

The overflow portion of the sink drain is rusted. This will cause the sink to leak. Replacement of the sink is recommended.

**LAUNDRY ROOM**

*APPLIANCES*

The plumbing and electrical hookups for the washer and dryer appear to be properly installed and in serviceable condition. The appliances themselves were not tested.

**PLUMBING SYSTEM**

*HOSE BIBBS AND EXTERIOR SUPPLY PIPES*

The hose bibb on the rear of the building is damaged. This is indicative of a frozen valve. Replacement of the hose bibb is recommended.

The hose bibb on the rear of the house is also loose. This could result in damage to the water pipe and leakage. The bibb should be securely fastened to the wall.

*GAS PIPING*

The gas pipes in front of the furnace and water heater are not protected by a bumper stop. A vertical steel pipe, bolted to the floor, is typically installed in front of the water heater to prevent a car bumper from damaging the gas lines.

**INTERIOR**

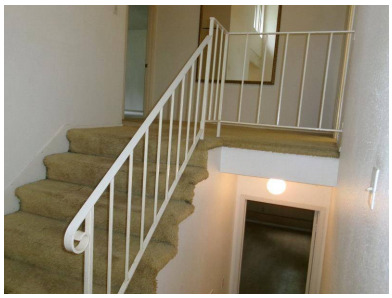
*FLOORS*

Carpet is damaged and dirty. Carpet replacement is recommended.

The entry floor tile is cracked and the subflooring adjacent the entry stoop was damaged. We recommend repairs as needed. The flooring under the entry was not accessible from the crawl space.


No access under the entry floor framing

*STAIRS*
The stair railing baluster spacing is too wide. This is a hazard for small children. The baluster spacing should be reduced as a safety upgrade. Current standards require that a 4-3/8" sphere not pass through the railing.



*GUARD RAILINGS*
The spacing between the balusters is too wide. This is a hazard to small children. The balusters should be spaced close enough together so that a 4" sphere cannot pass through. Upgrading the guard railing is recommended if small children are present.

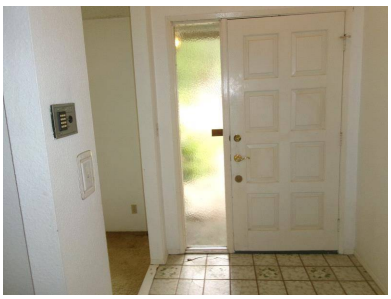
*WALLS AND CEILINGS*
The walls and ceilings are in need of repainting.

We observed damage to the surfaces of the walls and ceilings in several areas of the home. Testing the observed areas with a moisture meter revealed no moisture present at the time of the inspection. The damages to the surfaces appear to be from old roof leaks. Damages are cosmetic and repairs are optional.

*CLOSET DOORS*
Several of the closet doors are in need of minor adjustment and/or repair.

Glass in the closet doors is cracked. This is a safety concern. Broken glass should be replaced.

*WINDOWS*
The glass adjacent the door is not tempered safety glass. Tempered glass can be identified by the etched emblem in one corner of each pane. The existing glass is nonconforming by current building standards and would be hazardous if broken. Consideration should be given to replacing the glass as a safety upgrade. The installation of safety glass is recommended as a safety upgrade for all windows less than 18" from the walking surface.



*SMOKE DETECTORS*
Smoke detectors are examined for location only. They are not tested. Smoke detector batteries should be replaced when you move in and every year thereafter. Once batteries have been replaced, the smoke detectors should be tested for proper operation.

FOR MAXIMUM PROTECTION: Use both Ionization and Photoelectric smoke alarms in every bedroom/hallway on every level of your home.

At least one carbon monoxide monitor should be installed for each floor. The best place to install the monitor is in an open area near the gas appliance.

**FIREPLACES, WOOD STOVES AND SPACE HEATERS**

*MASONRY FIREPLACES*
Deteriorated mortar joints of the brick veneer was observed outside the firebox adjacent the firebox lintel. Steel lintels with chronic exposure to moisture will rust, expand and damage the brick veneer. Consideration should be given to retooling (Tuck pointing) the defective mortar joints. An evaluation of the smoke chamber was not made. If you have concerns regarding the condition of the chimney's interior, the services of a certified chimney sweep is likely to determine the condition of the smoke chamber and flue.

*DAMPERS*
The fireplace damper is rusted stuck in the closed position. This condition is a hazard and therefore should be repaired prior to using the fireplace. Lintel.

**ENVIRONMENTAL ISSUES**

*LEAD PAINT*
Lead paint may be present in or around this building. Lead was used extensively in paint until 1978. Most buildings built before 1978 contain some lead paint. Lead paint is a poison. However, the mere presence of lead paint is not necessarily dangerous. Worn, cracked or peeling paint poses the greatest risk. Dust from lead paint is the main cause of lead poisoning in homes. Lead dust is created any time a surface coated with lead paint is exposed to friction - for example when a painted window is repeatedly open and closed or when the surface is sanded prior to repainting or remodeling. The paint dust can be inhaled or swallowed. Paint chips are sometimes ingested by small children. Information on lead paint abatement can be obtained from contractors specializing in lead paint detection and removal.

*ASBESTOS*

The ceiling texture may contain asbestos. Removing a sample from the ceiling and having it tested at a qualified testing lab is the only way to determine definitively whether or not there is asbestos present.

Asbestos may be present in various building materials. Care should be taken when remodeling to avoid introducing friable asbestos fibers into the air.

**INSULATION**

*FLOOR INSULATION*

The floor is  not insulated. This allows significant heat loss to occur through the floor. The installation of floor insulation is recommended.

**STRUCTURE**

*FLOOR JOISTS*

The entry floor tile has cracked and the subflooring adjacent the entry stoop was damaged. We recommend repairs as needed. The flooring under the entry was not accessible from the crawl space.

**CRAWLSPACE**

*PEST CONTROL*

Dead carpenter ants and frass were observed in the crawlspace adjacent the furnace. This suggests that there was a past infestation that has been treated, or that there is a current infestation. You should query the seller as to the history of previous carpenter ant activity.

Scrap-wood and other cellulose debris was observed on the crawl floor. This wood debris creates conducive conditions for wood boring insects. The removal of all cellulose debris is recommended.

**MAINTENANCE ITEMS AND/OR COMPONENTS NEARING THE END OF THEIR SERVICE LIFE**

Any item that in the opinion of the inspector is nearing the end of its normal service life and/or conditions that need repair, maintenance and/or upgrades, but have not affected basic functions are listed herein.

**BUILDING EXTERIOR**

*GUTTERS AND DOWNSPOUTS*

There is a build-up of organic debris inside the gutters. Proper maintenance of gutters and downspouts is essential and should be performed routinely in order to prevent clogging. Maintenance consists primarily of keeping leaves and other organic debris out of the system. Failure to clean the gutters will result in water splash on the building when they overflow. Gutters can be damaged under the weight of the water and organic matter inside the gutter. Gutters should be cleaned as necessary to maintain a free flow of water into the downspouts.

Downspouts draining directly onto the asphalt shingle surface causes excessive wear of the roofing material. Downspout extensions to the lower gutters should be installed to prevent excessive wear and tear of the roofing.

**ROOF**

*CHIMNEYS*

The chimney crown is cracked and deteriorated. The mortar chimney crown prevents water from entering and damaging the masonry. Repairing or replacing the chimney crown will extend the service life of the chimney.

The top of the masonry chimney does not have a spark arrestor/rain cap. The installation of a spark arrestor/rain cap is recommended as a safety upgrade and to prevent moisture damage to the inside of the chimney and fireplace. An additional benefit of a rain cap is that it will keep birds and rodents from entering the house when the damper is left open.

*GAS APPLIANCE VENTS*

The outer portion of the gas appliance vent above the roof is deteriorated. This section of vent should be replaced.

*FLASHINGS*
There is no kick out flashing at the roof edge to wall intersection above the gutter adjacent the entry. This will allow water to enter the wall behind the siding. The installation of a kick-out flashing is recommended.


*MAINTENANCE AND REPAIRS*
The roof is in need of routine maintenance. The surface should be blown off or washed with a high volume low pressure garden hose to remove moss and organic debris. Performing this maintenance will improve the appearance and increase the life expectancy of the roof.

**KITCHEN**

*COUNTERTOPS*
The backsplash is not caulked. This allows water and food to enter the gap between the back splash and counter and is difficult to clean. Caulking should be installed at this location.

**BATHROOMS**

UPPER FLOOR HALLWAY BATHROOM

*TUB WALLS*
Grout is cracked between some of the wall tiles. This can allow water to enter through the tile and can damage the walls. Regrouting the wall tile is recommended.

*FLOORING MATERIAL*
The caulking is deteriorated at the intersection between the tub/shower and floor. This can lead to water damage to the flooring and substrate. Recaulking this area is recommended.

LOWER BATHROOM

*FLOORING MATERIAL*
The vinyl strip flooring is worn and is nearing the end of its service life. Flooring replacement should be considered.

*DRAINS, TRAPS AND TRAP ARMS*
Improper, non-conforming material has been used for the drain pipe fitting. This material will not function reliably. Replacement with industry standard fittings is recommended.

**PLUMBING SYSTEM**

*INTERIOR WATER SUPPLY PIPES*

There are water pipes in the crawlspace that are not adequately insulated and could freeze. The installation of foam pipe insulation on all exposed water pipes is recommended.

**CRAWLSPACE**

*VAPOR RETARDER*

The support post concrete piers are covered with the plastic vapor retarder. This allows the transmission of water vapor from the soil up and into the floor framing. The plastic vapor retarder should be removed from the pier so that it covers at least 85% of the entire surface of the soil only.

Several of these items will likely require further evaluation and repair by licensed tradespeople. Other minor items are also noted in the report and could be mentioned but none of them affect the habitability of the house.

Thank you for selecting our firm to do your home inspection. If you have any questions regarding the inspection report or the home, please feel free to call us.

Sincerely,

Terry Clark
206-660-9200
Clark Inspections

**Clark Inspections**
3834 Golden Eagle Loop SE
Olympia WA 98513
206-660-9200
clarkinspections@gmail.com

**Report:** Andria Kelly

# Confidential Inspection Report

## 3432 175th Ave. NE
## Redmond, Wa 98052

**May 20, 2024**

## Prepared for: Andria Kelly

# Inspection Table of Contents

# GENERAL INFORMATION

## CLIENT & SITE INFORMATION:

| | |
|---|---|
| *DATE OF INSPECTION:* | 5/20/2024. |
| *INSPECTOR'S NAME:* | Terry Clark. |
| *CLIENT NAME:* | Ms. Andria Kelly. |
| *CLIENT E-MAIL ADDRESS* | kellyandria@hotmail.com. |
| *ADDRESS OF PROPERTY INSPECTED* | 3432 175th Ave. NE<br>Redmond, WA. |

**West elevation**

## CLIMATIC CONDITIONS:

| | |
|---|---|
| *WEATHER:* | Partly Cloudy. |
| *APPROXIMATE OUTSIDE TEMPERATURE:* | 61 degrees. |

## BUILDING CHARACTERISTICS:

| | |
|---|---|
| *MAIN ENTRY FACES:* | West. |
| *ESTIMATED AGE OF BUILDING:* | The building is approximately 48 years old. |
| *BUILDING TYPE:* | Tri-level. |
| *SPACE BELOW GRADE:* | Slab on grade, Ground floor living area, Crawlspace. |

## SCOPE, PURPOSE AND LIMITATIONS

*RESIDENTIAL*

The purpose of this inspection was to discover and evaluate major defects, deficiencies and deferred maintenance found in the main components of the house and in the building site immediately around the building inspected. A major defect or deficiency is a system or component that in the judgment of the inspector, would cost in excess of $500.00 to repair or replace, is not performing it's intended function, or adversely affects the habitability of the dwelling or building. Defects are examined and a determination is made on how a particular defect will affect interrelated building parts and whether immediate repairs are required.

The major components in this report are categorized. General information is given on the type of materials and construction methods. Specific information is given pertaining to the condition of a component and applicable repair and maintenance work that may be required.

Since all buildings have defects, it is important to know and understand what they are and how they affect the house and property. Some of the defects mentioned in this report may be quite typical, and found in other homes of comparable age and price. Some, however, may not. We make our best attempt to distinguish this for you in both the verbal and written reports.

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Mechanical equipment is inspected for operability only and may contain undisclosed defects which may significantly impair it's usefulness.

Statements, representations, or conclusions offered by the inspector and/or by Clark Inspections are based solely upon a visual examination of the exposed areas of the structure inspected. Areas of the structure which are not exposed to the naked eye cannot be inspected, and no conclusions, representations, or statements offered by the inspector are intended to relate to areas not exposed to view. Hidden defects could have a significant impact on the visually based conclusions, statements, and representations made by the inspector.

Statements, representations, or conclusions offered by the inspector are the considered opinion of the inspector, but these statements, representations, or conclusions do not constitute an expressed or implied warranty of any kind. Neither the inspector nor Clark Inspections shall be liable for any direct, special, incidental, or consequential damages under any circumstances whatsoever, whether arising in tort, negligence, or contract, nor for any loss, claim, expense, or damage caused by or arising out of his or its inspection of a structure, nor will the inspector or Clark Inspections indemnify or hold others harmless for any loss, claim, expense, or damage arising out of his or its inspection of a structure.

If you receive information from another building inspection professional, contractor or trades person that is in conflict with ours, or if you discover a major defect in your home or building that was not described in your verbal or written reports, please call us immediately.

## GENERAL COMMENTS

*RECOMMENDATIONS*

Certain building designs and/or building site topography may not qualify for earthquake insurance. Each company has its own underwriting policies. You should check with your insurance agent to determine whether or not your insurance company will write an earthquake policy on this property.

There may be information pertinent to this property which is a matter of public record. A search of public records is not within the scope of this inspection. We recommend you review all applicable public records that pertain to this property.

We make no representations as to the extent of presence of code violations, nor do we warrant the legal use of this building. This information can be obtained from the local building and/or zoning department.

*BUILDING CODES*

A code is a system of rules and procedures, the purpose of which is to provide minimum standards to safeguard life, health, and property by regulating certain aspects of building design, construction, use and maintenance. Local codes are usually based on model codes. A community may amend or adopt only parts of a model code. These local codes may not always be the latest version of the model code. Code enforcement is nearly always a local government responsibility and is handled in several ways depending on the type of code and community involved. All model codes and most local codes, grant the code compliance inspector or building official the right to interpret the code to suit special situations. This makes the building official the final authority, not the code book.

Answering the question "Does this meet code?" depends on the building's age, when remodels and upgrades were performed and which codes if any are enforced. This information may not be readily available to the home inspector. Private inspectors usually can determine if an item complies with applicable national model codes, if they know when the work was done and what code was applicable at that time. Local municipalities adopt and enforce national model codes at their discretion. Private building inspectors are typically not permitted to perform code compliance inspections. Code compliance inspections are typically performed by the local code enforcement official. Private building inspectors check to determine whether or not an item performs its intended function or is in need of repair.

Code enforcement usually is a local question and subject to the interpretation by the building code enforcement official. Most communities do not require an existing building to meet "code" prior to sale.

Specific code questions can be referred to the local building official. however, you must realize that if city inspectors check a building, they have the authority to require corrections of any violation. Private building inspectors act solely in an advisory capacity. Their objective reports are a tremendous benefit to anyone purchasing or selling real estate.

# BUILDING SITE

The evaluation of the building site and grounds includes grading, roof water and surface drainage systems, fencing, gates, walkways, curbs, driveways, patios, and retaining walls connected to or directly adjacent the structure. These items are visually examined for proper function, excessive or unusual wear and general state of repair. Components or portions of components may not be visible because of soil, vegetation, storage of personal effects and/or the nature of construction. In such cases these items are considered inaccessible and are not inspected. Lawn irrigation systems, fountains, and low voltage decorative garden lights are not included in this inspection.

## The following components were inspected:

*ROOF WATER DRAIN SYSTEM*

A below grade roof water drain system is used to divert rain water discharged from the downspouts away from the foundation wall. Below grade drain system designs vary and it is virtually impossible to evaluate the integrity of the system definitively, due to the fact that it is entirely underground. There is a high incidence of defects in these systems, due to the fact that historically, very few municipalities inspected or enforced design or quality standards.

Defects in these drain systems are one of the most common causes of water or moisture problems in ground floor occupancies, basements and crawlspaces. Overflowing gutters and clogged downspouts and scuppers also frequently cause or exacerbate moisture or water entry problems in and around the building. When water entry or moisture problems are discovered we recommend checking the entire roof water drain system to insure that it is functioning properly.

Occasionally, (once a year) flushing out the drain lines with a garden hose will reduce the build-up of debris and sludge which could impede drainage. This type of maintenance is most effective if the end of the drain line terminates in open air or in a storm sewer. If the drain line terminates in a dry well or leach field, then the washing of debris down the line is not advisable. The debris may eventually clog the perforations in the line which allow the water to escape. This could render the drain system inoperative. It is always best to prevent debris from entering at the inlet.

*GRADING*

The deck support posts are located at the top of a steep slope. There is evidence visible there has been problems with soil instability. Hidden conditions may also exist that could contribute to instability during the right combination of circumstances (e.g., flooding, improper drainage, earthquake, development or condition of neighboring properties, broken water mains, etc.). You should consider these risks when acquiring this property. If you have concerns about slides, erosion or soil stability, you should retain the services of a qualified geotechnical engineer to evaluate the building site.

Sagging deck beam observed

*VEGETATION*

Dense shrubbery and trees planted too close to the building can damage siding and the roof overhang and interfere with drainage and air movement, thus promoting fungus growth and accelerated deterioration of exterior finishes and wood. Trees and shrubs in contact with the building also provide carpenter ants with a route into walls or attics. Trees and shrubs should be trimmed back, where required. When landscaping, trees and shrubs should be planted back away from the building so that they have room to grow.

*DRIVEWAY*

The driveway has cracked and settled differentially. This was probably caused by inadequate preparation of the soil prior to the placement of the concrete. This condition can be repaired by pressure grouting the sunken portion of the driveway or by removing

and replacing it. The driveway remains functional despite this condition.

*PATIO*

The gaps separating the concrete patio sections are a trip hazard. Replacement with mortar is recommended.

*WALKWAY*

The gaps separating the concrete walkway sections are a trip hazard. Replacement with mortar is recommended.

Cracks can be sealed to minimize moisture entry and further settlement.

The walking surface was not even and trip hazards were present. We recommend all walking surfaces be maintained free of trip hazards.

# BUILDING EXTERIOR

The evaluation of the building exterior includes the paint, stain, siding, windows, doors, flashing, trim, fascia, eaves, soffits, decks, porches balconies and railings. These items are visually examined for proper function, excessive or unusual wear and general state of repair. Components or portions of components may not be visible because of soil, vegetation, storage of personal effects and/or the nature of construction. In such cases these items are considered inaccessible and are not inspected.

## The following components were inspected:

*PRIMARY EXTERIOR WALL CLADDING*

Cedar lap siding is used as an exterior wall cladding. Cedar is a wood that is durable and moderately resistant to decay. Maintaining the finish on the exposed siding will maximize its service life. The siding shows minor wear and deterioration typically caused when the exterior finish is not maintained. The deterioration is cosmetic and does not affect the function of the siding. No action is indicated.

*PEST CONTROL*

Good building practice requires that foundation walls or pier footings supporting wood frame construction, extend at least 8" above the finish grade with at least a 6" clearance between the top of the soil and the bottom of the wood finish materials. Soil in direct contact with wood creates a hospitable environment for wood destroying organisms. These minimum standards should be maintained throughout the building exterior.

Rot damage was observed in wood that has been in contact with the front stoop. Wood rot commonly referred to as "Dry Rot" occurs when untreated wood is allowed to retain moisture for extended periods of time. Wood rot is caused by fungi which grow in the cell structure and spread like a root system through the wood. Fungi can also develop from spores which are present in the soil and are transferred through the air. Rotted wood creates an environment that is conducive to various types of wood boring insects (e.g. carpenter ants, moisture ants, dampwood termites, etc.) Wood rot can be prevented by keeping the wood dry, or if this is not possible, such as in the case of outdoor wood, by using pressure treated wood, by treating exposed wood with semi-transparent stain and/or wood preservative, and by keeping untreated wood out of and 6" above the soil.

*SOFFITS AND OVERHANGS*

The building has adequate overhangs. Overhangs protect the exterior walls, windows, doors, siding and exterior finish from the ravages of direct rain fall. Buildings with adequately sized overhangs will generally require less frequent exterior maintenance and are less likely to suffer from moisture related problems on the exterior walls.

*GUTTERS AND DOWNSPOUTS*

Roof runoff is collected and channeled into the downspouts by aluminum gutters fastened to the rafter tails. The gutters and downspouts are properly installed and are performing their intended function. Gutters should be cleaned regularly to prevent clogging and overflow.

There is a build-up of organic debris inside the gutters. Proper maintenance of gutters and downspouts is essential and should be performed routinely in order to prevent clogging. Maintenance consists primarily of keeping leaves and other organic debris out of the system. Failure to clean the gutters will result in water splash on the building when they overflow. Gutters can be damaged under the weight of the water and organic matter inside the gutter. Gutters should be cleaned as necessary to maintain a free flow of water into the downspouts.

Downspouts draining directly onto the asphalt shingle surface causes excessive wear of the roofing material. Downspout extensions to the lower gutters should be installed to prevent excessive wear and tear of the roofing.

*PAINT*

The paint is cracked, peeling, faded and in generally poor condition. Paint protects the wood from cupping, checking, warping and rot. Repainting the house exterior is recommended.

The caulking is cracked and deteriorated. Caulking prevents water intrusion into the wall. Removing and replacing deteriorated caulk is recommended.


*DECK*

A significant portion of the deck is rotted. Rot weakens the wood and can result in catastrophic failure of the structure. Rebuilding the deck structure is recommended.

*DECK RAILINGS*

The deck railing is rotted. The spacing between the balusters is too wide. This is a hazard. The balusters should be spaced close enough together so that a 4" sphere cannot pass through. Replacing and upgrading the deck railing is recommended.

*STAIRS*

The deck stairs are non-conforming due to the variable and/or excessive rise. Deck stair/step design standards require that step risers do not exceed 8" and that the variation in rise not exceed 3/8" in order to reduce falls from tripping. We recommend reconfiguring the steps so that rise and run do not vary by more than 3/8".

*PORCH*

The front porch stoop has rotated towards the foundation. This is caused by settlement

of the backfill under the stoop. This will not adversely affect the foundation.

*PORCH STEPS*

The steps are non-conforming due to the variable and/or excessive rise. Stair design standards require that step risers do not exceed 8" and that the variation in rise not exceed 3/8" in order to reduce falls from tripping. To increase the margin of safety, consideration should be given to reconfiguring the steps so that rise and run do not vary by more than 3/8". If this proves to be too impractical or expensive, then we recommend exercising caution when using.

*EXTERIOR DOORS*

The exterior doors are properly installed and are functioning as intended.

# ROOF

We evaluate the condition of the roof system by inspecting the roofing material, skylights, flashings, penetrations and roof water drainage system for damage and deterioration. If we observe conditions such as damage, deterioration, defects in materials or workmanship, these items will be noted in your report. We may also offer opinions concerning repair and replacement. Opinions stated herein concerning the condition of the roof and roof service life are based on the condition of the roof system at the time of the inspection. These opinions do not constitute a warranty that the roof is, or will remain, free of leaks. All roof systems require annual maintenance and occasional repair. Failure to perform routine roof maintenance will usually result in leaks and accelerated deterioration of the roofing material. Our estimate of the life expectancy of the roof is based on the assumption that the roof will be properly repaired and maintained during that period.

## The following components were inspected:

*GENERAL INFORMATION*

The roofing material is asphalt composition shingles. The slope or pitch of the roof is medium. Metal gutters are used to collect the roof water drainage. The roof is approximately 6 years old.

*INSPECTION METHOD*

The inspection of this roof was conducted from the roof surface. The inspector walked on the roof and made a visual inspection of the components listed below.

*CHIMNEYS*

The visible portion of the masonry chimney is properly constructed and is in serviceable condition.

The chimney crown is cracked and deteriorated. The mortar chimney crown prevents water from entering and damaging the masonry. Repairing or replacing the chimney crown will extend the service life of the chimney.

The top of the masonry chimney does not have a spark arrestor/rain cap. The installation of a spark arrestor/rain cap is recommended as a safety upgrade and to prevent moisture damage to the inside of the chimney and fireplace. An additional benefit of a rain cap is that it will keep birds and rodents from entering the house when the damper is left open.

*GAS APPLIANCE VENTS*

The outer portion of the gas appliance vent above the roof is deteriorated. This section of vent should be replaced.

*FLASHINGS*

An inspection of the roof flashings revealed the following defects:

There is no kick out flashing at the roof edge to wall intersection above the gutter adjacent the entry. This will allow water to enter the wall behind the siding. The installation of a kick-out flashing is recommended.

*MAINTENANCE AND REPAIRS* The roof is in need of routine maintenance. The surface should be blown off or washed with a high volume low pressure garden hose to remove moss and organic debris. Performing this maintenance will improve the appearance and increase the life expectancy of the roof.

*GENERAL COMMENTS* The roofing material was properly installed and is in serviceable condition. With proper care and maintenance this roof should remain serviceable for up to 14 more years.

# ATTIC

The attic contains the roof framing and serves as a raceway for components of the plumbing, electrical and mechanical systems. There are often heating ducts, bathroom vent ducts, electrical wiring, chimneys and gas appliance vents in the attic. We examine the visible portions of the various systems and components for proper function, excessive or unusual wear, general state of repair, roof leakage, attic venting and misguided improvements. When low clearance and/or deep insulation prohibit walking in an unfinished attic, inspection will be performed from the access opening only.

**The following components were inspected:**

*ACCESS*

There is no access to the attic. The installation of an attic access under the highest point of the roof is recommended for inspection and servicing of components in the attic. Defects or deficiencies may exist in inaccessible areas.

# GARAGE

The garage often contains major components of the plumbing, heating and electrical systems. These components are discussed under their respective headings. Components that were tested and/or inspected in the garage and reported here include the garage floor, overhead door(s), automatic openers and fire resistive barriers.

## ATTACHED GARAGE - The following components were inspected:

*GARAGE FLOOR*

There are small shrinkage cracks visible in the concrete, however, there is no vertical displacement of any portion of the slab. Shrinkage cracks are common in garage floors and are not considered a structural defect. The garage floor is properly installed and is functioning as intended.

*OVERHEAD GARAGE DOORS*

The garage is fitted with a pair of roll-up doors. The north garage door is properly installed and is performing its intended function. The door is difficult to operate. The garage door hardware is in need of adjustment and repair.

The south garage door was not tested and its function was not verified.

Safeties are cables run through the center of the garage door springs that prevent broken springs from becoming projectiles that can cause injury. There are no safeties installed. The installation of safeties is recommended.

*GARAGE DOOR OPENER*

The garage door opener was not tested or inspected. The services of a contractor specializing in automatic openers should be retained to perform the necessary repairs.

There was no photo-eye sensor installed for the garage door to offer protection for small children and/or pets. We recommend that a photo-eye sensor be installed for the garage door at a height of within 4-6" of the floor.

*FIRE SEPARATION*

There are voids in the fire resistive barrier between the living space and garage that will allow flames to penetrate. The gypsum barrier slows the spread of a fire from the garage to the structure and/or living space. Patching the voids with a fire retardant caulk is recommended.

The installation of a furnace vent thimble is recommended to prevent flames from spreading to the structure.

*PASSAGE DOOR*

The door between the garage and living space is a solid core door. The door hinge is not installed and the door is innoperative. We recommend repairs as necessary.

The Interior entry door lacks a self closing hinge and there is a pet door at the bottom which nullifies the fire rating of the door. Patching the hole in the door and the installation of a self closing hinge is recommended as a safety upgrade.

# ELECTRICAL SYSTEM

An electrical system consists of the service, distribution, wiring and convenience outlets (switches, lights and receptacles). Our examination of the electrical system includes the exposed and accessible wiring, service panels, subpanels, overcurrent protection devices, light fixtures and all accessible wall receptacles. We look for adverse conditions such as improper installation of aluminum wiring, lack of grounding, overfusing, exposed wiring, open-air wire splices, reversed polarity and defective GFCIs. The hidden nature of the electrical wiring prevents inspection of every length of wire. Telephone, video, audio, security system and other low voltage wiring is not included in this inspection. We recommend you have the seller demonstrate the serviceability of these systems to you.

**The following components were inspected:**

| | |
|---|---|
| *ELECTRICAL SYSTEM SPECIFICATIONS* | The voltage is 120/240 single phase three wire service. The power is delivered to this building via an underground service lateral. The amperage rating of this service is 200. Copper wire is used for all 120 volt circuits. Aluminum is used for some of the 240 volt circuits. Non-metallic sheathed cable (Romex) is the type of wiring used throughout the house. The grounding of the service is provided by two driven rods. |
| *UNDERGROUND SERVICE LATERAL* | The underground service lateral was not visible for inspection. However, there was 120/240 volt power to the building which suggests that it is functioning as intended. |
| *SERVICE PANEL LOCATION* | The service panel is located in the garage. |
| *MAIN DISCONNECT LOCATION* | There is no main disconnect. This is a split buss panel that has up to six disconnects. |
| *SERVICE ENTRANCE CONDUCTORS/CABLES/RACEWAYS* | The service entrance conductors are 4/0 aluminum and have an ampacity of 200 amps. The service entrance conductors are properly installed and in serviceable condition. |
| *SERVICE AMPACITY* | The capacity of the electrical service is 200 amps. A 200 amp service is adequate for this house with the existing electrical equipment. There is also room to add additional circuits if necessary. |
| *SERVICE GROUNDING AND BONDING* | The service grounding electrode conductor attachment point was not visible for inspection. The adequacy of the service ground was not determined. The evaluation of this connection may require removal of finish materials and is beyond the scope of this inspection. |
| *SERVICE PANEL* | The electrical service panel is properly installed and in serviceable condition. The circuits are labeled. The accuracy of the labeling was not verified. Do not assume the labeled circuit is off unless it has been checked with a voltage tester. |
| *OVER CURRENT PROTECTION* | Circuit breakers are used for over current protection. The circuit breakers are properly installed and the ampacity of the connected wires is compatible with that of the circuit breakers. The circuit breakers were not tested. |
| *WIRING* | The visible portions of the wiring are properly installed except where noted below.<br><br>There are junction boxes with missing covers in the crawlspace. This is a fire/shock hazard. Covers should be installed on all junction boxes.<br><br>An extension cord is used as a temporary power source for the garage door opener. An extension cord is not suitable as a permanent wiring method. The installation of a receptacle within cords length of the motor is recommended. |

| | |
|---|---|
| *ALUMINUM WIRING* | This house uses stranded aluminum wire for service entrance conductors and for dedicated major appliance circuits. This type of aluminum wire circuitry is typically found in most houses and is considered safe and reliable when installed correctly. |

*RECEPTACLES*

All of the readily accessible receptacles were tested. Testing revealed defects requiring repair. These defects are outlined below.

Testing revealed open grounds (ungrounded receptacles) in the primary bedroom/bathroom wall. Open grounds are a potential hazard and could damage some electronic equipment. All receptacles with open grounds should be repaired in accordance with applicable electrical codes.

*GFCI RECEPTACLES*

A ground fault circuit interrupter (GFCI) is a device that detects ground faults (current leakage to ground). It protects you from electrocution. GFCI protection is required for receptacles in bathrooms, kitchens, garages, unfinished basements, crawlspaces and at exterior receptacles.

The installation of additional GFCI protection in the garage and kitchen receptacles is recommended.

*AFCI RECEPTACLES*

AFCI protection is required for all 15 and 20 amp branch circuits to have protection from the entire branch circuit when that circuit has outlets in dwelling family homes, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas.

Replacement receptacles are now required to be arc-fault circuit interrupter (AFCI) protected. This means that if you are replacing an old outlet in an old home in a location that needs AFCI protection in a new home, the replacement outlet needs to be AFCI protected.

*LUMINARIES*

All of the accessible luminaries were tested and were found to be functional except where noted below.

The laundry closet luminaries is not working. Testing the luminaries with a voltage tester revealed that there is current to them. Light bulbs should be replaced in non-functional luminaries and then they should be tested for proper operation.

The luminaires in the garage is detached and is hanging from its wires. This is a hazard. The luminaires should be reattached and secured to the ceiling.

*SWITCHES*

All of the accessible switches were tested and were found to be properly wired and functional.

# ELECTRIC HEATING

Heat is provided by electric resistance heaters. Electric heat is 100% efficient as there is no waste heat of combustion gases as in fossil fuel burning furnaces. However, electric heaters are more expensive to operate than gas or oil fired heaters because electrical energy is more expensive per therm (i.e., unit of energy equal to 100,000 Btu). Each heating unit and/or heating zone is tested using existing operator controls. Information on heating uits is outlined below.

## ELECTRIC HEATING - The following components were inspected:

*ELECTRIC FAN ASSISTED WALL HEATERS*

An electric wall heater is used for space heating in the primary bathroom. These heaters have small fans in them to circulate the air over an electric heating element. The heater was inspected and tested. The heater is properly installed and is functional.

An electric fan assisted wall heater is used for heating in the family room. The heater was not working. Repairs or replacement is recommended.

This type of heater must be cleaned annually. An accumulation of dust inside this type of heater is a fire hazard. To clean the heater, turn off the power at the circuit breaker panel then remove the cover from the front of the heater. Use a paint brush to loosen the dirt and then vacuum it up.

# HEATING SYSTEM

A natural gas, propane or oil fired furnace or boiler consists of the self contained furnace or boiler, ducts or pipes for heated air or water distribution, thermostats for regulating the amount of heat and a vent system for removing the combustion gases from the building. The readily accessible portions of these items are examined for defects and are tested using normal operator controls. Most heating systems should be serviced annually by a qualified service technician. Failure to perform regular maintenance will affect the reliability of the heating system and will reduce service life.

## FORCED AIR HEATING SYSTEM - The following components were inspected:

| | |
|---|---|
| *GENERAL INFORMATION* | Heat is provided by a natural gas fired forced air furnace. The furnace is located in the garage. The furnace is approximately 39 years old. The input rating of the furnace is 100,000 BTU. This BTU rating is typical of a home of this size and age. |
| *GAS PIPING* | The gas pipe is properly installed and is performing its intended function. |
| *AUTOMATIC GAS VALVE* | The automatic gas valve or safety valve is designed to prevent the emission of fuel into the furnace if it does not detect heat for ignition. These valves are generally very reliable. The automatic gas valve was functioning as intended. |
| *IGNITION* | The furnace uses a standing pilot for ignition. This component was functioning as intended. |
| *BURNERS* | The gas burners are properly installed and are functioning as intended. |
| *COMBUSTION AIR* | The combustion air provides the oxygen for the fuel burning appliances. Combustion air also aids in the movement of combustion gases up the flue. Adequate ventilation around all fuel burning appliances is vital for their safe operation. The air can come from inside the house or from outside providing that the amount of air reaching the appliance is sufficient to maintain efficient combustion and draft. The combustion air supply is adequate. |
| *ELEVATION ABOVE GARAGE FLOOR* | The burners in the furnace are elevated at least 18" above the garage floor in accordance with industry standards. This elevation prevents ignition of gasoline fumes that might leak from cars, lawn mowers, gas cans, etc. |
| *HEAT EXCHANGER* | The heat exchanger is not visible without disassembling and removing it from the furnace. Cracks typically develop in heat exchangers after 10-20 years. Have your gas furnace technician check the heat exchanger during the next major service. |
| *VENT* | The furnace uses a type B vent from the top of the furnace to the exterior. The visible portion of the B vent is properly installed and is functioning as intended. |
| *BLOWER* | The blower draws air from the return air ducts and pushes it over the heat exchanger where it is heated. The air is then pushed through the distribution ducts into the rooms. The blower was tested and was functioning as intended. |
| *AIR FILTER* | The air filter is located in the return air plenum adjacent to the furnace. The air filter should be cleaned or replaced at least 2-3 times during the heating season.<br><br>The air filter behind the return air grille in the hallway is redundant. Removal of one, of the two filters is recommended. |
| *DUCTS* | The ducts are constructed out of sheet metal. The ducts are properly installed and are performing their intended function. |
| *THERMOSTAT* | The thermostat is properly installed and the unit responded to the basic controls. This is a programmable device with options for automatic temperature settings (up and down). Testing the automatic operations of this thermostat is beyond the scope of this inspection. |
| *HEAT SOURCE* | There is no heat source in the family room. The installation of a heat source is recommended. |
| *GENERAL COMMENTS* | The furnace is in need of servicing. This type of furnace should be serviced annually.<br><br>The furnace is 39 years old and is nearing the end of its service life. The need for furnace replacement should be anticipated. |

# WATER HEATER

Our review of water heaters includes the tank, gas and/or water connections, electrical connections, venting and safety valves. These items are examined for proper function, excessive or unusual wear, leakage and general state of repair. The hidden nature of piping and venting prevents inspection of every pipe, joint, vent and connection.

## The following components were inspected:

*LOCATION OF UNIT* The water heater is located in the garage.

*GENERAL INFORMATION* The water heater fuel is natural gas. The capacity of the water heater is 50 gallons. The input rating of the burner is approximately 40,000 BTU. The water heater is approximately 19 years old. Water heaters of this type typically last about 10-15 years.

*PRESSURE RELIEF VALVE* The pressure relief valve is properly installed. The valve was not tested, as this could cause the valve to leak.

*SHUTOFF VALVE* The shutoff valve for the water supply to the water heater is properly installed and is functioning as intended.

*WATER CONNECTIONS AT TANK* The water connections at the tank are properly installed and are performing their intended function.

*EXPANSION TANK* The expansion tank is not adequately secured to the wall. As code requirements start to call for engineered expansion tank supports we recommend the installation of seismic restraints to secure the expansion tank instead of allowing it to simply depend on piping connections that could result in damage to the water pipe and leakage during an earthquake.

*AUTOMATIC GAS VALVE* The automatic gas valve or safety valve is designed to prevent the emission of fuel into the appliance if it does not detect heat for ignition. These valves are generally very reliable. The automatic gas valve was functioning as intended.

*BURNER* The gas burner is properly installed and is functioning as intended.

*GAS PIPING* The flex connector is properly installed and is performing its intended function.

*VENT* The vent connector from the water heater to the B vent is properly installed and is functioning as intended.

*COMBUSTION AIR* The combustion air provides the oxygen for the fuel burning appliances. Combustion air also aids in the movement of combustion gases up the flue. Adequate ventilation around all fuel burning appliances is vital for their safe operation. The air can come from inside the house or from outside providing that the amount of air reaching the appliance is sufficient to maintain efficient combustion and draft. The combustion air supply is adequate.

*SEISMIC RESTRAINT* The water heater is secured to the wall. This prevents it from falling over during an earthquake and rupturing gas and water lines.

*ELEVATION ABOVE GARAGE FLOOR* The burner of the water heater is elevated at least 18" above the garage floor in accordance with industry standards. This elevation prevents ignition of gasoline fumes that might leak from cars, lawn mowers, gas cans, etc.

*GENERAL COMMENTS* The water heater is nearing the end of its service life. The need for water heater replacement should be anticipated.

# KITCHEN

The kitchen was inspected for proper function of components, active leakage, excessive or unusual wear and general state of repair. We inspect built-in appliances using normal operating controls. This includes running the dishwasher, operating the garbage disposal and microwave and checking the burners or heating elements in the stove and oven. Accuracy and/or function of clocks, timers, temperature controls and self cleaning functions on ovens is beyond the scope of our testing procedure. Refrigerators are not tested or inspected unless specifically noted.

**The following components were inspected:**

| | |
|---|---|
| *COUNTERTOPS* | The plastic laminate shows normal wear and tear, but remains is serviceable condition. |
| | The backsplash is not caulked. This allows water and food to enter the gap between the back splash and counter and is difficult to clean. Caulking should be installed at this location. |
| *CABINETS* | The finish on the kitchen cabinets is slightly worn. The cabinets are otherwise in good condition. |
| *FLOORING MATERIAL* | The floor is covered with ceramic tile. The floor is properly installed and is in good condition. |
| *VENTILATION* | Ventilation in the kitchen is provided by a range hood over the stove. The vent is ducted to the exterior. The vent fan is properly installed and is performing its intended function. |
| *SINK FAUCET* | The sink faucet is properly installed and is in good condition. |
| *SINK* | The kitchen sink is properly installed and is in good condition. |
| *DRAINS, TRAPS AND TRAP ARMS* | The sink drain is properly installed and is performing its intended function. |
| *AIR GAP* | An air gap called a Johnson Tee is installed in the kitchen wall. This air gap protects the dishwasher from contamination caused by a backflow of waste water. The visible portions of the Johnson Tee were properly installed and functioning as intended. |
| *OVEN* | The built-in oven is functional but is significantly worn and nearing the end of its service life. Replacement of the oven should be considered. |
| *COOKTOP* | The built-in cooktop is significantly damaged and is at the end of its service life. Replacement of the cooktop is recommended. |
| *DISHWASHER* | The dishwasher was not tested. Its function was not verified. |
| *GARBAGE DISPOSAL* | The garbage disposal is not working. It should be repaired or replaced as necessary. |
| *REFRIGERATOR* | The refrigerator is old and nearing the end of its service life, but is still functional. |
| | The refrigerator door handle is broken. The handle should be replaced as needed. |

# BATHROOMS

Our inspection of the bathrooms consists of testing of the plumbing fixtures for condition and function. Defects such as leaks, cracked or damaged sinks, tubs and toilets will be listed under the heading of the bathroom in which they were found. The bathroom floor, tub and shower walls are examined for water damage. Ventilation fans are tested for proper operation. Cabinets and countertops are examined for excessive wear and deterioration. Hydromassage tubs are tested and the pump and related equipment are examined when accessible.

## BATHROOM

*LOCATION* Upper Floor Hallway.

*BATHTUB* The bathtub is properly installed and is in good condition.

*TUB WALLS* The tub walls are properly installed and are in good condition. Most ceramic tile is applied directly over gypsum board rather than on a concrete board such as "Durock" or "Wonder Board". Where the tile is applied directly over the gypsum board, it is critical that the tile grout be maintained to prevent water intrusion behind the tile. Missing or cracked grout should be repaired. Inside corners, and penetrations in the tile should be kept sealed with a high quality caulk.

Grout is cracked between some of the wall tiles. This can allow water to enter through the tile and can damage the walls. Regrouting the wall tile is recommended.

*FLOORING MATERIAL* The floor is covered with sheet vinyl. The floor is properly installed and is in serviceable condition.

The caulking is deteriorated at the intersection between the tub/shower and floor. This can lead to water damage to the flooring and substrate. Recaulking this area is recommended.

It is important to maintain the caulking around bathtubs and showers, especially at the intersection between the tub or shower and the floor. Failure to maintain this seal will often result in damage to flooring materials, subflooring and framing.

*TOILET* The toilet was flushed and was functioning as intended.

*SINK* The bathroom sink is properly installed and is in good condition.

The drain stop is not operational. It should be repaired or replaced.

*DRAINS, TRAPS AND TRAP ARMS* The sink drain is properly installed and is performing its intended function.

*FAUCET FIXTURES* The sink faucet fixture was tested and was functioning as intended.

*CABINETS* The finish on the bathroom cabinet is slightly worn. The cabinet is otherwise in good condition.

*COUNTERTOP* The countertop is covered with plastic laminate. The countertop is properly installed and in good condition.

The backsplash is not caulked. This allows water to enter the gap between the back splash and counter and it is difficult to clean. Caulking should be installed at this location.

*VENTILATION* Ventilation in this bathroom is provided by a ceiling fan. This fan was operated and was found to be working satisfactorily.

*GFCI RECEPTACLES* A ground fault circuit interrupter (GFCI) is a device that detects ground faults (current

leakage to ground). It protects you from electrocution. GFCI protection is required for receptacles in bathrooms, kitchens, garages, unfinished basements, crawlspaces and at exterior receptacles. GFCI protected receptacles were found in this bathroom.

## BATHROOM

*LOCATION* Primary Bedroom.

*SHOWER* The shower walls are properly installed and are in good condition. Most ceramic tile is applied directly over gypsum board rather than on a concrete board such as "Durock" or "Wonder Board". Where the tile is applied directly over the gypsum board, it is critical that the tile grout be maintained to prevent water intrusion behind the tile. Missing or cracked grout should be repaired. Inside corners, and penetrations in the tile should be kept sealed with a high quality caulk.

*GLASS ENCLOSURE* The glass shower enclosure is labeled as tempered safety glass, is properly installed and in good condition.

*FLOORING MATERIAL* The floor is covered with ceramic tile. The tile is properly installed and is in good condition.

*TOILET* The toilet is loose where it mounts to the floor. A loose toilet will eventually start to leak and will damage the flooring material, underlayment and subfloor. The most reliable fix for this condition is to remove the toilet and install a new wax seal. The toilet should then be securely mounted to the floor.

*SINK* The overflow portion of the sink drain is rusted. This will cause the sink to leak. Replacement of the sink is recommended.

*DRAINS, TRAPS AND TRAP ARMS* The sink drain is properly installed and is performing its intended function.

*FAUCET FIXTURES* The faucet fixtures were tested and were functioning as intended.

*CABINETS* The finish on the bathroom cabinet is slightly worn. The cabinet is otherwise in good condition.

*COUNTERTOP* The countertop is covered with plastic laminate. The countertop is properly installed and in good condition.

*VENTILATION* Ventilation in this bathroom is provided by a ceiling fan. This fan was operated and was found to be working satisfactorily.

*SUPPLEMENTAL HEAT* The electric wall heater was tested and was functioning as intended.

*GFCI RECEPTACLES* GFCI protected receptacles were found in this bathroom.

## BATHROOM

*LOCATION* Lower.

*FLOORING MATERIAL* The vinyl strip flooring is worn and is nearing the end of its service life.Flooring replacement should be considered.

*TOILET* The toilet was flushed and was functioning as intended.

*SINK* The bathroom sink is properly installed and is in good condition.

*DRAINS, TRAPS AND TRAP ARMS* Improper, non-conforming material has been used for the drain pipe fitting. This material will not function reliably. Replacement with industry standard fittings is recommended.

*FAUCET FIXTURES* The faucet fixture was tested and was functioning as intended.

*CABINETS* The finish on the lower shelf of bathroom cabinet is slightly worn. The cabinet is otherwise in good condition.

*COUNTERTOP* The countertop is covered with plastic laminate. The countertop is properly installed and

in good condition.

*GFCI RECEPTACLES* GFCI protected receptacles were found in this bathroom.

# LAUNDRY ROOM

Appliances are tested when present and when circumstances allow.

**The following components were inspected:**

*APPLIANCES* The plumbing and electrical hookups for the washer and dryer appear to be properly installed and in serviceable condition. The appliances themselves were not tested.

*DRYER VENT* The visible portions of the dryer vent are properly installed and in serviceable condition. Dryer ducts should be cleaned annually as part of routine home maintenance. A dryer duct that is clogged with lint is a fire hazard.

# PLUMBING SYSTEM

A plumbing system consists of the water heater, domestic water supply lines, drain, waste and vent lines and gas lines. Inspection of the plumbing system is limited to the water heater, visible faucets, fixtures, valves, drains, traps, exposed pipes and fittings.These items are examined for proper function, excessive or unusual wear, leakage, and general state of repair. Valves are not tested except where specifically noted. The hidden nature of piping prevents inspection of every pipe and joint. A sewer lateral test, necessary to determine the condition of the underground sewer lines, is beyond the scope of this inspection. If desired, a qualified individual could be retained for such a test. Our review of the plumbing system does not include landscape irrigation systems, off site community water supply systems or private (septic) waste disposal systems. Review of these systems should be performed by qualified and licensed specialists prior to the close of escrow.

**The following components were inspected:**

*PLUMBING SYSTEM SPECIFICATIONS* The building is on a public water supply system. The building is connected to the municipal sewer system. Copper tubing is used for the water supply piping. ABS plastic is used for the drain, waste and vent pipes.

*MAIN WATER SHUTOFF VALVE* The main water supply shutoff valve is located in the garage. It was tested and was functional.

*MAIN WATER LINE* The main water line is buried underground and was not visible for inspection. The flow indicator on the water meter was checked with all the water shut off in the house. There was no movement of the flow indicator. This suggests that there are no leaks in the main water line. You should check the meter periodically (2-4 times a year) with all the water in the house shut off. Movement of the flow indicator on the meter means that there is a leak either inside the house or in the main line underground.

*INTERIOR WATER SUPPLY PIPES* The visible portions of the copper water supply pipes are properly installed and functional. Copper is considered one of the most desirable materials for interior supply pipes and is expected to last the lifetime of the building.

There are water pipes in the crawlspace that are not adequately insulated and could freeze. The installation of foam pipe insulation on all exposed water pipes is recommended.

*WATER PRESSURE* The water pressure is 80 PSI This is in the normal range of 30-80 PSI.

*DRAIN AND WASTE PIPES* ABS plastic is used for drain, waste and vent pipes. All of the visible drain pipes were properly installed and functional. ABS is a durable, reliable material and should last the lifetime of the building. All drain, waste and vent pipes were stress tested by filling bathtubs and fixtures to the overflow and then draining them while simultaneously flushing the toilet and running the sinks and showers. No leaks were observed and all fixtures emptied in a reasonable amount of time with no fluctuation in the rate of flow down the drain. This is commonly referred to as "functional drainage".

*VENT PIPES* The visible portions of the vent pipes are properly installed and are performing their intended function.

*FAUCET FIXTURES* All faucet fixtures were tested and were functioning as intended.

*HOSE BIBBS AND EXTERIOR SUPPLY PIPES* The hose bibbs on this building are the frost free type. These hose bibbs typically will not freeze as long as the hoses are removed. Failure to remove hoses during freezing weather could result in a cracked pipe and leakage. The front bib was tested and was functioning as intended.

The hose bibb on the rear of the building is damaged. This is indicative of a frozen valve.

Replacement of the hose bibb is recommended.

The hose bibb on the rear of the house is also loose. This could result in damage to the water pipe and leakage. The bibb should be securely fastened to the wall.

*GAS PIPING*

The visible portions of the gas piping were properly installed and are performing their intended function. There was no odor of gas leakage at the time of the inspection.

The gas pipes in front of the furnace and water heater are not protected by a bumper stop. A vertical steel pipe, bolted to the floor, is typically installed in front of the water heater to prevent a car bumper from damaging the gas lines.

*GAS METER*

The gas meter is located on the north side of the building. The main gas shut off valve is installed on the high pressure line emanating out of the ground. This valve requires a wrench to open and close. Keeping a gas valve wrench or adjustable wrench accessible near the gas meter is recommended.

# INTERIOR

Our review of the interior includes inspection of walls, ceilings, floors, doors, windows, cabinetry, countertops, steps, stairways, balconies and railings. These features are examined for proper function, excessive wear and general state of repair. In some cases, all or portions of these components may not be visible because of furnishings and personal effects. In such cases these items are not inspected.

**The following items were inspected:**

*GENERAL COMMENTS*

The interior wall, floor, and ceiling surfaces were properly installed and generally in serviceable condition, taking into consideration normal wear and tear.

*FLOORS*

The lower level floor is concrete. The finished surface of the floor prevented inspection of the concrete. The concrete floor is performing its intended function.

The entry floor tile is cracked and the subflooring adjacent the entry stoop was damaged. We recommend repairs as needed. The flooring under the entry was not accessible from the crawl space.

Carpet is damaged and dirty. Carpet replacement is recommended.

No access under the entry floor framing

*STAIRS*

The stairs were used several times during the inspection. The stair components are properly installed with exceptions noted below.

The stair railing baluster spacing is too wide. This is a hazard for small children. The baluster spacing should be reduced as a safety upgrade. Current standards require that a 4-3/8" sphere not pass through the railing.

*GUARD RAILINGS*

The spacing between the balusters is too wide. This is a hazard to small children. The balusters should be spaced close enough together so that a 4" sphere cannot pass through. Upgrading the guard railing is recommended if small children are present.

*WALLS AND CEILINGS*

The walls and ceilings are in need of repainting.

We observed damage to the surfaces of the walls and ceilings in several areas of the home. Testing the observed areas with a moisture meter revealed no moisture present at the time of the inspection. The damages to the surfaces appear to be from old roof leaks. Damages are cosmetic and repairs are optional.

*DOORS*

All of the doors were tested and were found to be functioning as intended.

*CLOSET DOORS*

Several of the closet doors are in need of minor adjustment and/or repair.

Glass in the closet doors is cracked. This is a safety concern. Broken glass should be replaced.

*WINDOWS*

Window frames are constructed from aluminum and are single pane. All of the windows tested and/or inspected were found to be functioning as intended.

The glass adjacent the door is not tempered safety glass. Tempered glass can be identified by the etched emblem in one corner of each pane. The existing glass is nonconforming by current building standards and would be hazardous if broken. Consideration should be given to replacing the glass as a safety upgrade. The installation of safety glass is recommended as a safety upgrade for all windows less than 18" from the walking surface.

*SMOKE DETECTORS*

There is a smoke detector in the hallway outside of the bedrooms on the upper and lower floors. Additional smoke detectors should be installed inside the bedrooms near the door.

Smoke detectors are examined for location only. They are not tested. Smoke detector batteries should be replaced when you move in and every year thereafter. Once batteries have been replaced, the smoke detectors should be tested for proper operation.

Ionization technology is generally more sensitive than photoelectric technology at detecting small particles, which tend to be produced in greater amounts by flaming fires, which consume combustible materials rapidly and spread quickly. Sources of these fires may include paper burning in a wastebasket or a grease fire in the kitchen.

Photoelectric technology is generally more sensitive than ionization technology at detecting large particles, which tend to be produced in greater amounts by smoldering fires, which may smolder for hours before bursting into flame. Sources of these fires may include cigarettes burning on couches or bedding.

FOR MAXIMUM PROTECTION: Use both Ionization and Photoelectric smoke alarms in every bedroom/hallway on every level of your home.

At least one carbon monoxide monitor should be installed for each floor. The best place to install the monitor is in an open area near the gas appliance.

*DOOR BELL*

The doorbell was functioning as intended.

# FIREPLACES, WOOD STOVES AND SPACE HEATERS

**The following components were inspected:**

*MASONRY FIREPLACES*

Deteriorated mortar joints of the brick veneer was observed outside the firebox adjacent the firebox lintel. Steel lintels with chronic exposure to moisture will rust, expand and damage the brick veneer. Consideration should be given to retooling (Tuck pointing) the defective mortar joints. An evaluation of the smoke chamber was not made. If you have concerns regarding the condition of the chimney's interior, the services of a certified chimney sweep is likely to determine the condition of the smoke chamber and flue.

*DAMPERS*

The fireplace damper is rusted stuck in the closed position. This condition is a hazard and therefore should be repaired prior to using the fireplace. Lintel.

# ENVIRONMENTAL ISSUES

Environmental issues include but are not limited to carbon monoxide, radon, asbestos, lead paint, lead contamination, toxic waste, formaldehyde, electromagnetic radiation, buried fuel oil tanks, ground water contamination and soil contamination. The absence of a statement on any of the environmental issues listed above does not necessarily mean that they are not present. We make reference to these substances only when we recognize them during the normal inspection process. Most of the toxic substances listed above cannot be identified without laboratory testing. If further study or analysis seems prudent, the advice and services of the appropriate specialists are advised.

**The following items may exist in this building:**

*CARBON MONOXIDE*

Many of us encounter CO regularly and never know it because it's invisible and odorless. That's why victims of CO poisoning often have no warning that they are in danger... until it's too late. Symptoms include headache, nausea, chronic fatigue, confusion and dizziness. Extreme exposure can even cause a coma or death.

Carbon monoxide is a product of incomplete (poor) combustion. It's a direct and cumulative poison. When combined with blood hemoglobin, CO replaces oxygen in the blood until it completely overcomes the body. Death from CO occurs suddenly. The victim inhaling the toxic concentration of the gas becomes helpless before realizing that danger exists.

According to the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) (Ventilation Standard 62- 89), a concentration of no more than 9 parts per million (ppm) (0.0009%), of CO is permissible in residential living spaces. In addition, the Occupational Safety and Health Administration (OSHA) has set an eight-hour work place maximum of 35 ppm. And in flue gas, the Environmental Protection Agency (EPA) and the American Gas Association (AGA) have established the maximum allowable concentration of CO at 400 ppm (See charts).

To ensure safe and efficient combustion, it is imperative that all gas burning appliances be inspected and serviced regularly (once a year) if used in normal service conditions).

*FORMALDEHYDE*

Formaldehyde, a colorless gas with a pungent odor, is so commonly used today that virtually everyone is likely to be exposed to at least small amounts of it, and a significant number of people are developing symptoms due to exposure to large amounts of formaldehyde in their homes or workplaces. It was an integral component of the urea formaldehyde foam insulation (UFFI) that was installed in more than five hundred thousand homes in the 1970's. (The use of formaldehyde in insulation was banned by the Consumer Product Safety Commission in 1982, but this ruling was overturned by a federal court in 1983.) In addition, it is present in a large variety of consumer products. It is a major part of the resins used as glue in particle board, plywood, and other pressed wood products used extensively in the construction of homes and furniture. Some cosmetics, paper towels, upholstery, permanent press fabrics, carpets, milk, toilet seats, pesticides, and explosives contain it too. Formaldehyde is also present in the exhaust from combustion appliances and in tobacco smoke.

The most common symptoms of excessive formaldehyde exposure are burning eyes, itching, shortness of breath, tightness in the chest, coughing, headaches, nausea, and asthma attacks. Large amounts of the gas have produced cancer in laboratory animals, and government policy assumes that any substance that can cause cancer in animals may also cause it in humans.

People who live in homes that have been "tightened" for maximum energy conservation are most likely to suffer from the effects of formaldehyde gas. The formaldehyde gas seeps from the walls, furniture, carpet, etc. into the air, building up to high levels in the "tightened" home, which can be irritating, particularly to sensitive people.

To minimize your exposure to formaldehyde, ventilate your home - in good weather, open the windows to provide a constant supply of fresh air. Some methods of heat recovery, such as heat recovery ventilators (also known as air-to-air heat exchangers), are available that can ventilate the home while also conserving energy.

You can seal exposed, raw surfaces of particle board and plywood with oil enamel,

varnish, wallpaper, or vinyl floor coverings. If you have UFFI insulation, make certain it is completely sealed in the walls or, as a last resort, have it removed.

*LEAD PAINT*

Lead paint may be present in or around this building. Lead was used extensively in paint until 1978. Most buildings built before 1978 contain some lead paint. Lead paint is a poison. However, the mere presence of lead paint is not necessarily dangerous. Worn, cracked or peeling paint poses the greatest risk. Dust from lead paint is the main cause of lead poisoning in homes. Lead dust is created any time a surface coated with lead paint is exposed to friction - for example when a painted window is repeatedly open and closed or when the surface is sanded prior to repainting or remodeling. The paint dust can be inhaled or swallowed. Paint chips are sometimes ingested by small children. Information on lead paint abatement can be obtained from contractors specializing in lead paint detection and removal.

*ASBESTOS*

The ceiling texture may contain asbestos. Removing a sample from the ceiling and having it tested at a qualified testing lab is the only way to determine definitively whether or not there is asbestos present.

Asbestos may be present in various building materials. Care should be taken when remodeling to avoid introducing friable asbestos fibers into the air.

Asbestos is a naturally occurring mineral fiber that has been used in more than 3,000 different construction materials and manufactured products. It is commonly found in heating system insulation, decorative spray-on ceiling treatments, vinyl flooring, cement shake siding and a variety of additional materials. Some asbestos-containing materials were still being installed into the late 1980s.

The asbestos content of different materials varies according to the product and how it is used. Among those materials with higher concentrations of asbestos are insulating products on heating systems and the backing on sheet vinyl flooring. However, an uncontrolled disturbance of any asbestos-containing material in any concentration may be dangerous to your health!

Why is it a problem? Breathing asbestos fibers could kill you. When disturbed, asbestos breaks down into fibers up to 1,200 times thinner than a human hair. When inhaled, they become trapped in lung tissues. Medical research tells us that up to 30 years after inhalation, asbestos fibers can cause lung cancer or mesothelioma, a related terminal cancer of the tissue lining the chest cavity.

Because asbestos is a naturally occurring mineral and has been so widely used in manufactured products, including automobile brake linings, it can be found almost everywhere. Trace amounts are in the air we breathe every day. Most of us have asbestos fibers in our lungs.

On the other hand, there's no known safe level of asbestos exposure. That's why medical, environmental health and regulatory organizations stress the need to protect health by minimizing exposure to airborne asbestos fibers. This is particularly true when asbestos fibers accumulate at elevated levels. Elevated levels result from uncontrolled disturbances and removal of asbestos-containing materials.

How do I know if it's asbestos? Don't guess! Look for asbestos markings on the product or track the product back to its manufacturer or supplier. If these approaches don't work, submit a small sample for laboratory analysis. Cost is minimal. Laboratories are listed in the yellow pages under "Asbestos - Consulting and Testing." Ask a laboratory technician to instruct you how to safely take a sample. If you decide not to check for asbestos in a suspected material, you should assume it contains asbestos and treat it accordingly.

# INSULATION

Insulation, weatherstripping, dampers, storm windows, insulated glass and set-back thermostats are features that help reduce heat loss and increase the comfort and thermal efficiency of your home. We examine these items and identify approximate R values for insulation. When appropriate, we offer suggestions for upgrading. Our review of insulation is based upon a random sampling of accessible areas and does not constitute a warranty that all such areas are uniformly insulated or are insulated to current standards.

**The following items were inspected:**

| | |
|---|---|
| *WALL INSULATION* | The walls are insulated with fiberglass batt insulation. The 2x4 walls suggest that it is 3-1/2" R-11 fiberglass. |
| *FLOOR INSULATION* | The floor is not insulated. This allows significant heat loss to occur through the floor. The installation of floor insulation is recommended. |
| *DUCT INSULATION* | The duct insulation has been properly installed and is performing its intended function. |

# STRUCTURE

The structural elements of most residential buildings include a foundation, footings, floor, wall, ceiling and roof framing. The visible portions of these items are examined for proper function, wear, deterioration or signs of non-performance. Some structural components or portions of them are inaccessible because they are buried below grade or hidden behind finished surfaces. Therefore, much of the structural inspection is performed by identifying resultant symptoms of movement, damage and deterioration. Where there are no visible symptoms, components or conditions requiring repair may go undetected and identification will not be possible. We make no representations as to the internal conditions or stabilities of soils, concrete footings and foundations, except as exhibited by their performance.

## The following components were inspected:

| | |
|---|---|
| *GENERAL INFORMATION* | The foundation is constructed from poured in place concrete. A perimeter foundation wall supports the exterior walls of the building. Interior load bearing components are supported by pier footings and/or continuous spread footings. The lower floor is a concrete slab. The upper floors are constructed out of wood joists. The subflooring is plywood. The stud walls are constructed from 2 X 4 dimensional lumber. The exterior wall sheathing is plywood. The roof structure is conventionally framed out of dimensional lumber. The roof sheathing is plywood. |
| *FOUNDATION* | The foundation is constructed in a manner typical of buildings of this type and age. There are minor shrinkage cracks in the foundation. Shrinkage cracks are common in poured concrete foundation walls. They do not affect the performance of the foundation. No action is indicated. |
| *MUDSILL* | The mudsill is typically a 2x4 or 2x6 member that is laid flat directly on the top of or cast into the top of the foundation wall. The mudsill is usually bolted to the foundation wall and serves as a base for the rest of the floor framing. Most of the mudsill is inaccessible and cannot be evaluated. The visible portions of the mudsill are properly installed and are performing their intended function. |
| *ANCHOR BOLTS* | Anchor bolts are bolts that are cast into the top of the concrete foundation and retain the mudsill. The anchor bolts primary function, is to prevent the building from being displaced from its foundation during an earthquake. Anchor bolts have grown in diameter over the years as have the nuts and washers that retain the mudsill. Generally speaking, the newer the building, the better resistance it will have to seismic activity. Anchor bolts are installed and are performing their intended function. |
| *BEAMS AND POSTS* | The beams and posts are properly installed and are performing their intended function. |
| *FLOOR JOISTS* | The visible portions of the floor joists are properly installed and are performing their intended function with exceptions noted below.<br><br>The entry floor tile has cracked and the subflooring adjacent the entry stoop was damaged. We recommend repairs as needed. The flooring under the entry was not accessible from the crawl space.<br><br>Floor joists that have been damaged by moisture and/or wood boring insects severely weaken the floor joists and can compress ends of the joists under the exterior load bearing walls. This can result in differential settlement of the wall structure particularly under highly stressed point loads like those found adjacent to door openings and under beam supports. Repair or replacement of damaged joists is recommended. |
| *SUBFLOORING* | The visible portions of the subfloor are properly installed and are functioning as intended. |
| *WALLS* | The walls are covered with finished surfaces and therefore were not visible for inspection. No evidence of defects or deficiencies was observed. |
| *ROOF STRUCTURE* | The roof framing was not visible for inspection. An inspection of the roof and ceilings did not reveal evidence that would suggest that defects are present. |
| *ROOF SHEATHING* | The roof sheathing is installed in a manner consistent with buildings of this type and is performing its intended function. No defects or deficiencies were observed. |

# CRAWLSPACE

The crawl space is where some of the building's structural elements and portions of its mechanical systems are located. These include foundation, structural framing, electrical, plumbing and heating. The visible portions of accessible systems and components are examined for proper function, excessive or unusual wear and general state of repair. Some items observed in the crawlspace will be discussed under the individual systems to which they belong. It is not unusual to find occasional moisture and dampness in crawl spaces. However, significant and/or frequent water accumulation can adversely affect the building foundation and support system and creates conditions conducive to various types of wood destroying organisms. We check for signs of excessive moisture and water entry. Unfortunately, water entry is often seasonal and therefore evidence may not be present at the time of the inspection.

**The following components were inspected:**

*CRAWLSPACE ACCESS* — The crawlspace access is located in the garage. The crawlspace was entered and all accessible areas were inspected.

*MOISTURE* — The soil was damp under the vapor barrier, however, no evidence of water intrusion or standing water problems was observed.

*VENTILATION* — The crawlspace is adequately ventilated. Vents should be kept unobstructed and clear of leaves and other organic debris. Screens should be maintained to prevent rodent entry.

*VAPOR RETARDER* — The soil under the house is covered with a polyethylene plastic vapor retarder. This component is typically referred to as a "vapor barrier". While not a true vapor barrier, it does reduce the transmission of water vapor from the soil to the air. The vapor retarder is properly installed and is performing its intended function. The vapor retarder should be maintained so that it covers at least 85% of the entire surface of the soil.

The support post concrete piers are covered with the plastic vapor retarder. This allows the transmission of water vapor from the soil up and into the floor framing. The plastic vapor retarder should be removed from the pier so that it covers at least 85% of the entire surface of the soil only.

*PEST CONTROL* — Dead carpenter ants and frass were observed in the crawlspace adjacent the furnace. This suggests that there was a past infestation that has been treated, or that there is a current infestation. You should query the seller as to the history of previous carpenter ant activity.

Carpenter ants vary greatly in size from 1/4"-1/2" (6-13 mm) long and are usually black but may have some brown coloration. Carpenter ants excavate galleries in wood which somewhat resemble the work of termites, but which can be distinguished by the fact that they are entirely clean, contain no debris and have an almost sand-papered appearance. They do not eat wood, but they remove quantities of it to expand their nesting facilities. This can result in structural damage to buildings. Carpenter ants establish their initial nest in decayed wood, but, once established the ants extend their tunneling into sound wood and can do considerable damage to a structure.

Carpenter ant activity is most often a direct result of rot damaged wood and/or excessively moist, humid or damp conditions inside, around or underneath the house. Eliminating high moisture conditions, improving ventilation, correcting the conditions that are conducive to rotting wood and replacing rot damaged wood are the first steps in preventing carpenter ant infestations.

Vegetation, particularly evergreens, should planted and pruned so they are not in contact with the structure. This eliminates a foraging area for the colony as well as easy access

to the structure. Decorative bark, stumps and driftwood brought into the yard for aesthetic effects frequently harbor colonies of carpenter ants or are a convenient site for colony establishment. This is also true of uncovered firewood stacked directly on the soil. Firewood should be elevated above the soil and stored in a dry area. Chemical treatment is sometimes required to control carpenter ants.

Scrap-wood and other cellulose debris was observed on the crawl floor. This wood debris creates conducive conditions for wood boring insects. The removal of all cellulose debris is recommended.

Wood boring insect activity in the Puget Sound area usually does not occur unless there is a ventilation problem inside or underneath the structure, a water leakage/rotting condition in the house or significant quantities of soil to untreated wood contact in a crawlspace or outside around the building exterior. Carpenter ant, termite and wood boring beetle activity is most often a direct result of rot damaged wood and/or excessively moist, humid or damp conditions inside, around or underneath the building. Structural damage from termites and ants in most cases does not extend much past the moisture source and/or rot damaged wood. Eliminating high moisture conditions, improving ventilation, correcting the conditions that are conducive to rotting wood and replacing rot damaged wood will usually eliminate the wood boring insect activity, providing that the building is properly maintained thereafter.

The best way to avoid wood boring insect problems is by preventative maintenance. This includes:

- × Good construction practices which exclude water and prevent high moisture conditions.
- × Removal of wood debris and form wood from the crawlspace and around the building exterior.
- × Maintaining the roof water drain system.
- × Maintaining good yard drainage away from the foundation wall.
- × Avoiding wood-soil contact in the crawlspace or around the house exterior.
- × Storing fire wood 6" above grade and in a dry area.

There should be no soil to wood contact in any part of the building exterior or crawlspace, unless that wood is pressure treated. For the greatest safety to permanent structures there should be no soil to wood contact of any kind. Untreated wood in direct contact with exterior flatwork should also be avoided.

Good building practice requires that foundation walls or pier footings supporting wood frame construction, should extend at least 8" above the finish grade with at least a 6" clearance between the top of the soil and the bottom of the wood finish materials. Untreated wood should be raised 1-2" above surrounding flatwork and should have a moisture barrier such as 30 lb. asphalt impregnated felt installed between the concrete and wood. For additional information and treatment options, you should retain the services of a qualified pest control operator.