

Iron Mountain Home Inspection Training Academy



RESIDENTIAL REPORT



Agent

Agent Name
555-555-5555

**FULL PDF HOME INSPECTION REPORT
FOR TRAINING PURPOSES**

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How to Read Your Home Inspection Report

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SUMMARY

11

DEFERRED MAINTENANCE

29

RECOMMENDATION



2.1.1 Roof - Coverings, roof drainage systems, flashing, skylights, chimney and other roof penetrations: General comment: Loose fascia and gutter guard installation



2.1.2 Roof - Coverings, roof drainage systems, flashing, skylights, chimney and other roof penetrations: Down spouts drain near house (minor defect)



2.1.3 Roof - Coverings, roof drainage systems, flashing, skylights, chimney and other roof penetrations: Satellite Dish Installation comment



3.1.1 Exterior - Siding, Flashing & Trim, exterior doors, eaves, soffit vents, windows and fascia: Siding Warping/Buckling/Loose



3.1.2 Exterior - Siding, Flashing & Trim, exterior doors, eaves, soffit vents, windows and fascia: Missing window screens



3.2.1 Exterior - Walkways, Patios & Driveways: Driveway Cracking (common)



3.3.1 Exterior - Decks, Balconies, Porches & Steps: Deck - Loose composite deck boards



3.4.1 Exterior - Exterior fence: Gate adjustment needed



3.5.1 Exterior - Gas: Missing sleeve on gas line entry point to crawl space



4.1.1 Basement, Foundation, Crawlspace & Structure - Foundation: Sealant comment/Foundation Cracks (typical)



4.2.1 Basement, Foundation, Crawlspace & Structure - Basements & Crawlspaces: General summary of crawl space/foundation area



5.1.1 HVAC - Heating and cooling equipment : Units near the end of their service life (HVAC)



5.1.2 HVAC - Heating and cooling equipment : Needs Servicing/Cleaning (HVAC)



5.1.3 HVAC - Heating and cooling equipment : Moisture stains around flue in the garage



6.1.1 Doors, Windows & Interior - Interior doors, windows, floors, ceilings : Typical Cracks in walls/ceilings and nail pops/general cosmetic damage



6.1.2 Doors, Windows & Interior - Interior doors, windows, floors, ceilings : Typical wear on floors/Carpet

- ⊖ 6.1.3 Doors, Windows & Interior - Interior doors, windows, floors, ceilings : General wear on windows and alignment issues
- ⊖ 6.2.1 Doors, Windows & Interior - Steps, Stairways & Railings: Loose hand rail
- ⊖ 6.3.1 Doors, Windows & Interior - Counter tops & Cabinets and kitchen appliances : loose sink faucet
- ⊖ 6.3.2 Doors, Windows & Interior - Counter tops & Cabinets and kitchen appliances : Cabinet moisture damage/damaged cabinets/loose hinges
- 🔧 6.3.3 Doors, Windows & Interior - Counter tops & Cabinets and kitchen appliances : Typical wear on dishwasher
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- ⊖ 7.2.1 Plumbing - Water Supply, Distribution Systems, Fixtures, Drain, waste and vent systems : Oxidation on copper lines/typical wear on plumbing lines
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- ⊖ 7.4.2 Plumbing - Bathrooms : Defects Summary for First-Floor Bathroom
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- ⊖ 8.2.1 Electrical - Main & Subpanels, Service & Grounding, Main Overcurrent Device: Electrical Panel Configuration Issue
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- 🔧 8.2.3 Electrical - Main & Subpanels, Service & Grounding, Main Overcurrent Device: Observation: Communication Wiring and Older ADT Alarm System in Garage
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- ⊖ 8.3.1 Electrical - Switches & Receptacles: Loose outlets or receptacles
- ⊖ 8.3.2 Electrical - Switches & Receptacles: Loose light fixtures
- ⊖ 8.3.3 Electrical - Switches & Receptacles: No power to receptacle (GFCIs on rear of home)
- 🔧 8.3.4 Electrical - Switches & Receptacles: Upgrade smoke detection/carbon monoxide system or alarm system
- 🔧 9.1.1 Fireplace - Vents, Flues & Chimneys: Service gas fireplace
- 🔧 10.1.1 Attic, Insulation & Ventilation - Roof system/Insulation : Observation only: Unfinished area
- ⊖ 11.1.1 Garage - Ceiling, floor, walls and fire walls, garage door, windows and entrance doors: General garage summary of defects
- ⊖ 12.1.1 Pool - Pool maintenance : Pool maintenance comment

1: INSPECTION DETAILS

Information

In Attendance

Property location

Client's Agent

Selection for persons in attendance.

Occupancy

Vacant

Style

Multi-level

Type of Building

Single Family, Detached

2: ROOF

Information

Roof Type/Style

Roof

Combination

Roof type and style.

Inspection Method

Roof

Ground, Drone

Inspection method is performed using a ladder, drone or magnification from the ground.



Coverings, roof drainage systems, flashing, skylights, chimney and other roof penetrations: Coverings, roof drainage systems, flashing, skylights, soffit vents, chimney and other roof penetrations

Roof

Asphalt, Aluminum gutters

Roof system photos are for your information:

1. **Estimated age of roof: 18 years and 5 months.**
2. **Gutters installed: Yes.**
3. **The service life of this roof is: 25 to 30 years depending on conditions.**
4. **Shingle type: Architectural (dimensional shingles).**
5. **Remaining Service Life: 11.5 Years (approximately)**

It's important to note that roofs can exceed their recommended service life with proper maintenance. Factors such as tree cover, which can lead to algae buildup deteriorating shingles, and varying sunlight exposure, impacting shingle wear due to UV rays, can affect the longevity of a roof. This roof is original, in these neighborhoods you typically we see roofs in the area being replaced at the same time.

Additional roofing information:

Roofs are constructed in different materials depending on the property. Common materials are Asphalt, metal, concrete, wood (cedar shake), Slate (stone), clay, and rubber membrane (flat). See the examples in the images for roofing terms, roofing types and roofing materials. Asphalt is the most common due to its availability and cost effectiveness.

Purpose of a roof:

The purpose of a roof is to provide protection and shelter for a building or structure. Here are the primary functions and purposes of a roof:

1. **Weather Protection:** The roof acts as a barrier against the elements, such as rain, snow, hail, wind, and sunlight. It prevents water from entering the building, protecting the interior from moisture damage and ensuring a dry and comfortable living or working environment.
2. **Structural Support:** The roof structure, including the framing, trusses, and beams, provides support for the weight of the roof itself, as well as any additional loads such as snow accumulation or equipment installed on the roof. It transfers the weight to the walls or support columns, ensuring the stability and integrity of the entire structure.
3. **Thermal Regulation:** The roof plays a role in insulating the building and regulating its temperature. It helps to keep the interior cool in hot weather by reflecting sunlight and preventing excessive heat absorption. Additionally, insulation materials installed within the roof system can improve energy efficiency by reducing heat loss in cold weather.
4. **Ventilation and Airflow:** Proper roof design includes ventilation systems to allow air circulation in the attic or roof space. This helps remove excess heat, moisture, and pollutants, preventing damage to the roof structure and promoting a healthier indoor environment.
5. **Protection from Pests:** A well-constructed roof with proper sealing and screening can help keep out pests such as birds, insects, and small animals, preventing them from entering the building and causing damage or creating unsanitary conditions.
6. **Aesthetics and Architectural Style:** The roof significantly contributes to the overall appearance and architectural style of a building. It can enhance the curb appeal and aesthetics, making a visual statement and harmonizing with the surrounding environment or architectural design.
7. **Longevity and Durability:** A properly installed and well-maintained roof can have a long lifespan, protecting the building for many years. Quality roofing materials, regular inspections, and timely repairs or replacements contribute to the durability and longevity of the roof.

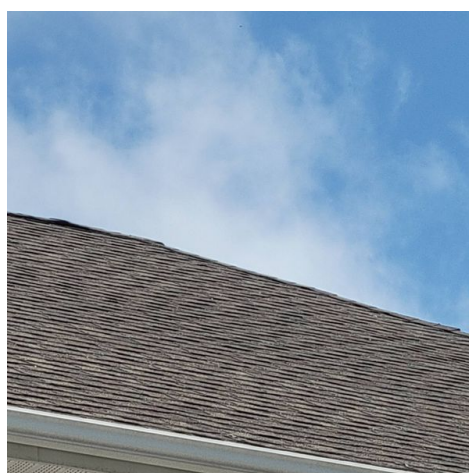
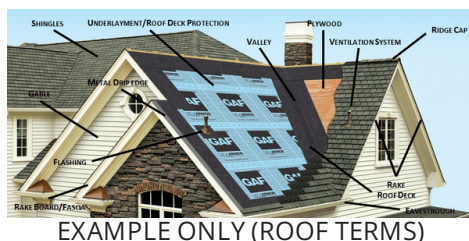
Overall, the purpose of a roof is to provide a protective covering that safeguards the building, its occupants, and its contents from the elements, while also supporting the structural integrity and energy efficiency of the structure.

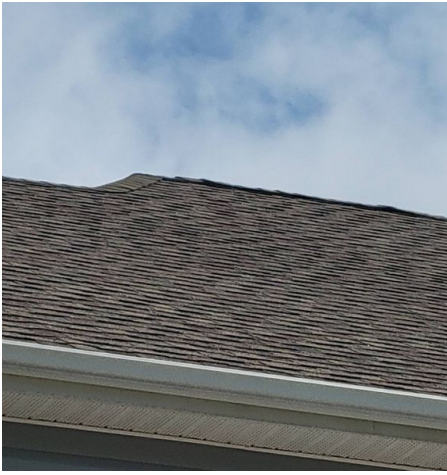
How roofs are installed (components of a roof):

The process of installing a roof can vary depending on the specific type of roofing material and the design of the building. However, here are the general steps involved in installing a roof:

1. Preparation: Before installing the roof, the existing roof covering, if any, is removed. The roof deck is inspected and repaired if necessary. Any damaged or rotted materials are replaced, and the deck is cleaned and cleared of debris.
2. Underlayment: A layer of underlayment is installed on the roof deck to provide an extra layer of protection against moisture. This can be a synthetic underlayment or asphalt-saturated felt paper.
3. Flashing: Flashing is installed around roof penetrations, such as chimneys, skylights, vents, and valleys, to prevent water from seeping into vulnerable areas. Flashing materials can include metal, rubber, or specialized flashing membranes.
4. Starter Course: A starter course is installed along the eaves of the roof to provide a secure base for the first row of shingles or other roofing materials. It helps to prevent wind uplift and ensures proper alignment of the roof covering.
5. Roofing Material Installation: The roofing material is installed according to the manufacturer's instructions. This can include shingles, metal panels, tiles, or other roofing materials. Each material has its own specific installation process, which may involve nailing, fastening, or adhesive application.
6. Ridge Vents and Ventilation: If the roof design requires ventilation, ridge vents or other types of ventilation systems are installed along the ridge line to allow for proper airflow and heat dissipation.
7. Finishing Touches: Once the roofing material is installed, the final touches are completed. This can include the installation of ridge caps, hip caps, or other finishing elements to provide a watertight and aesthetically pleasing finish.

It's important to note that installing a roof is a complex task that requires knowledge and expertise. It is recommended to hire professional roofers who are experienced in the specific roofing material you choose. They can ensure proper installation, adherence to building codes, and provide warranties for their workmanship.







Limitations

General

ROOF DISCLAIMER

Our review is not a warranty of the roof system or how long it will be watertight in the future. This inspection is made on the basis of what is visible and accessible around the Eaves using a Ladder or a Telescoping pole or Drone on the day of the inspection and in most cases without walking the roof as walking the roof is forbidden by OSHA. Many leaks occur only under conditions of prolonged rain or other increased weather patterns, and these conditions may not be present at the time of the inspection. Additionally, if several items are noted with roofing defects a Separate review from a qualified Roofer should be considered and conducted and if so the outcome of this more advanced inspection and findings should be followed for updates and or repairs by qualified Roofers over our General Inspection recommendations as we do not quote code nor are we Roofers. For an accurate cost on what repair or replacement cost will be, a qualified roofing contractor should be contacted. Buyers are encouraged to ask the current owner about the presence of any roof leaks. All roof coverings require periodic maintenance, and an annual inspection is recommended especially after storms or long periods of rain and or Nor-Easters, Hail etc.

Deficiencies

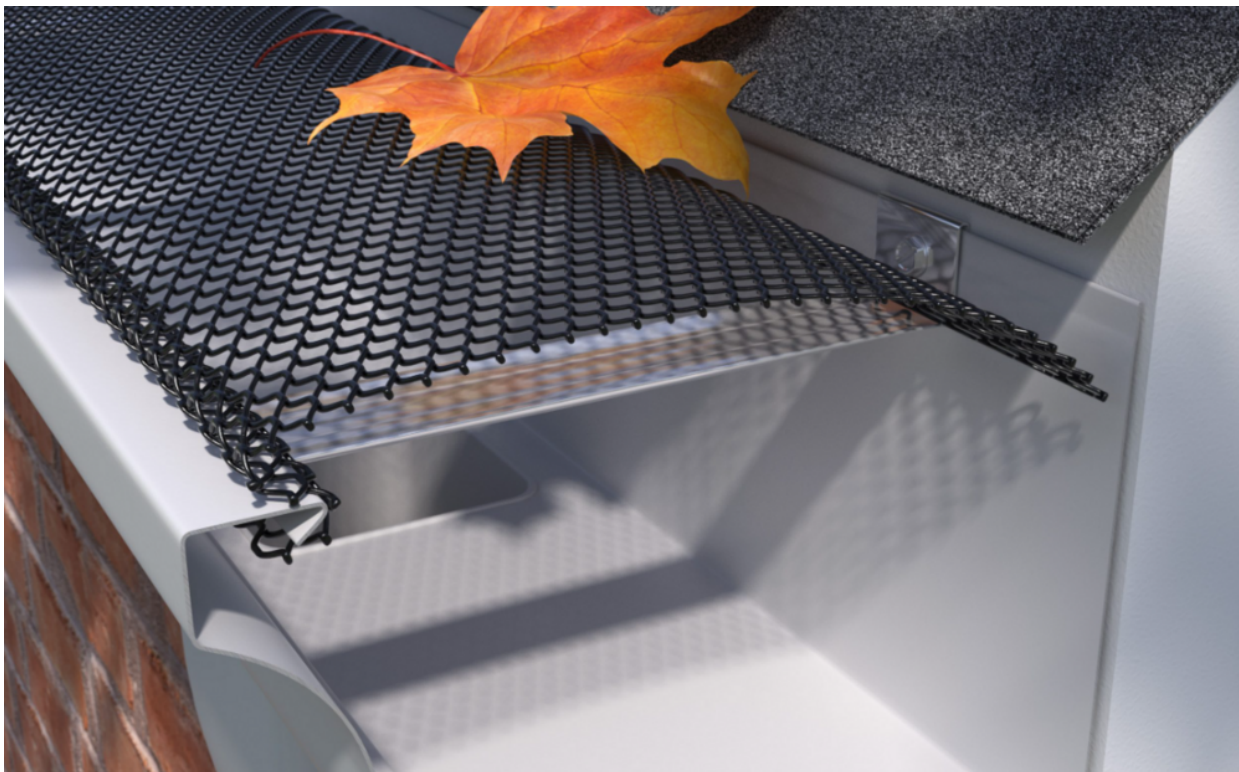
2.1.1 Coverings, roof drainage systems, flashing, skylights, chimney and other roof penetrations



GENERAL COMMENT: LOOSE FASCIA AND GUTTER GUARD INSTALLATION

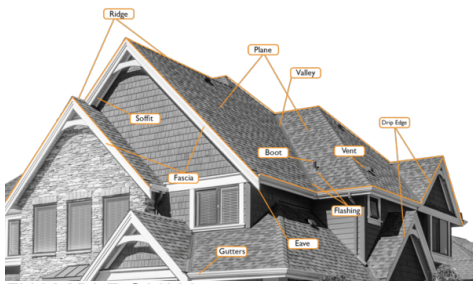
ROOF

1. These comments pertain to general maintenance observations. While the fascia shows some slight looseness, it remains adequately secured. This metal flashing can come loose, it is held in place by nails, and it generally covers lumber facing outward.
2. We recommend considering the installation of gutter guards to address having to clean gutters at this height. There are no trees directly over top of this property.



Recommendation

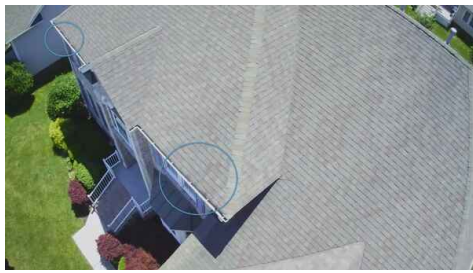
Contact a qualified professional.



EXAMPLE ONLY



Loose fascia



2.1.2 Coverings, roof drainage systems, flashing, skylights, chimney and other roof penetrations



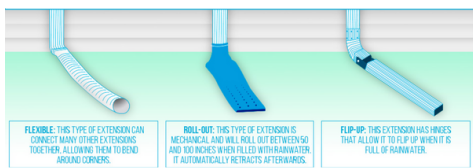
DOWN SPOUTS DRAIN NEAR HOUSE (MINOR DEFECT)

ROOF

Down spouts drain near the homes foundation, this can cause water to seep near or under the home. Down spout extensions should be installed.

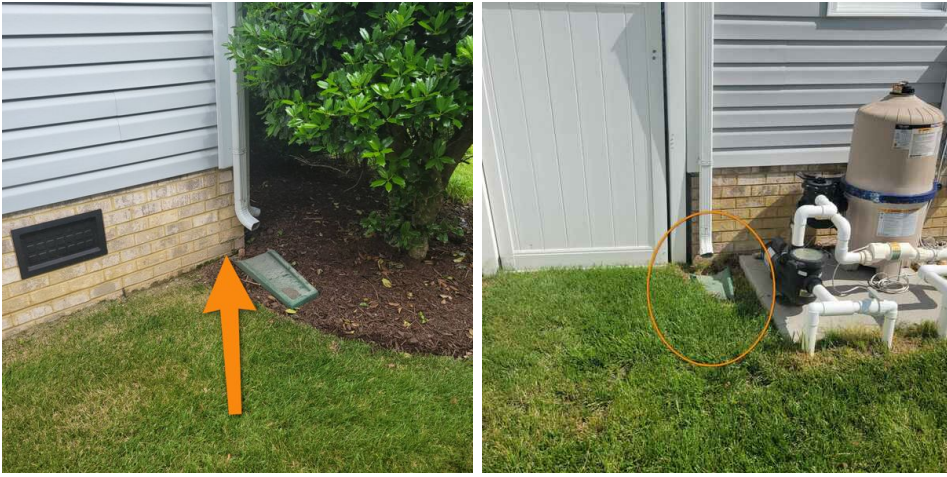
Recommendation

Contact a qualified professional.



EXAMPLE ONLY





2.1.3 Coverings, roof drainage systems, flashing, skylights, chimney and other roof penetrations



SATELLITE DISH INSTALLATION COMMENT

REAR OF HOME

This is a general observation: In the past, satellite dishes were often installed with screws driven through the shingles and roof sheathing, potentially leading to small leaks. Although no leaks were observed during the inspection, buyers should be mindful of this issue. It's advisable to avoid having contractors who are not specialized roofers install additional items like dishes on the roof. Also, a short extension should be added to the gutter on the lower-level roof section (minor issue).

Recommendation

Contact a qualified professional.



3: EXTERIOR

Information

Inspection Method

Visual

Walkways, Patios & Driveways:

Driveway/ Material/photos

Exterior

Concrete

Exterior drive way/walk way
photos for your information.



Siding, Flashing & Trim, exterior doors, eaves, soffit vents, windows and fascia: Siding Material

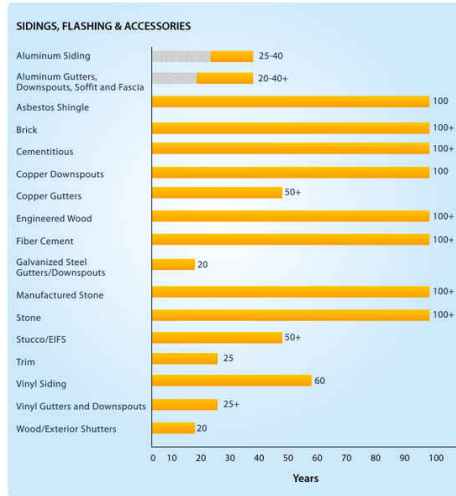
Exterior

Brick

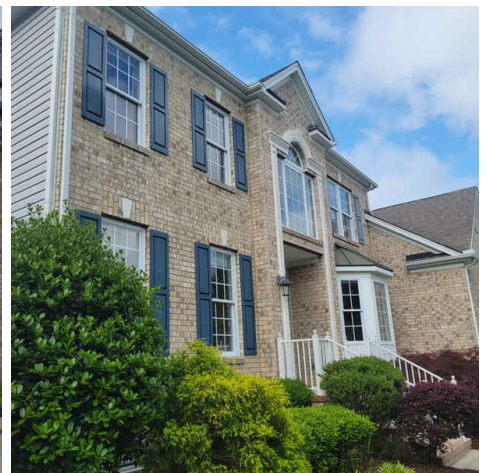
Exterior/Siding/door photos for your information.



TYPES OF SIDING MATERIALS
EXAMPLE ONLY



EXAMPLE ONLY FOR SERVICE LIFE OF
SIDING







Decks, Balconies, Porches & Steps: Appurtenance

Exterior

Front Porch, Rear deck

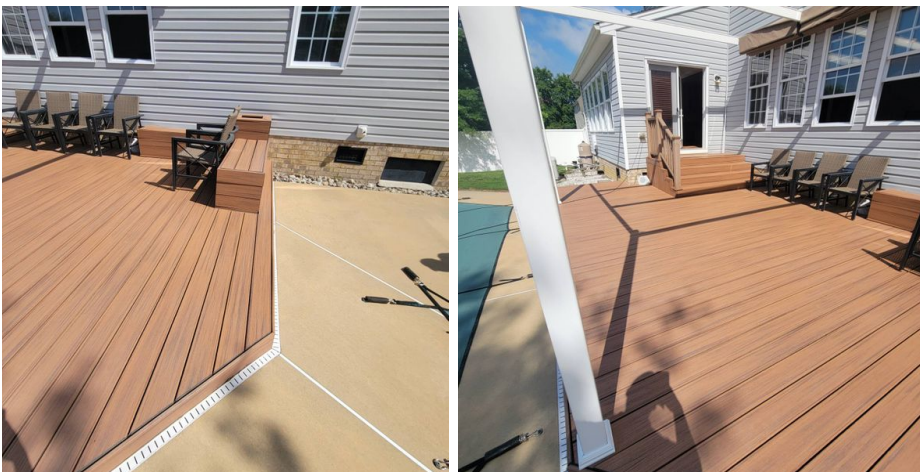
Exterior photos of the decks, balconies, porches and steps for your information.

Additional information on how decks are built:

Building a deck involves several key steps to ensure a sturdy and functional structure. Here is a general outline of how decks are typically built:

1. Design and planning: Determine the size, shape, and layout of your deck. Consider factors such as the desired location, purpose, local building codes, and any necessary permits. Create a detailed plan that includes dimensions, materials, and any special features.
2. Site preparation: Clear the area where the deck will be built. Remove vegetation, rocks, and other debris. Level the ground if necessary, ensuring proper drainage away from the house.
3. Foundation and footings: Decide on the type of foundation for your deck. Common options include concrete footings, concrete piers, or helical screw piles. Dig holes for the footings, ensuring they reach below the frost line and are of the appropriate size and depth. Install the footings according to local building codes and specifications.
4. Ledger board installation: If attaching the deck to the house, install a ledger board. This board is attached to the exterior wall of the house, providing support and stability for the deck. Ensure the ledger board is level and securely fastened to the house's framing.
5. Support posts and beams: Install support posts on top of the footings, typically using metal post brackets or embedded anchors. Attach beams to the support posts, creating the framework for the deck. Ensure the posts and beams are level and securely attached.
6. Joist installation: Attach joists horizontally between the support beams, creating the deck's substructure. Space the joists according to the manufacturer's guidelines and local building codes. Use joist hangers or brackets to secure the joists to the beams.
7. Decking installation: Install the deck boards on top of the joists, starting from the outer edge and working your way inward. Use appropriate fasteners, such as screws or nails, recommended for the specific decking material you're using. Leave a small gap between the deck boards to allow for expansion and drainage.
8. Railing installation: Install the railing around the perimeter of the deck, if desired or required by local building codes. Choose a railing style that fits your design and ensure it is securely attached to the deck's framework.
9. Stairs and landings: If your deck requires stairs or landings, construct them according to the design and local building codes. Ensure the steps are uniform in height and width for safety and ease of use.
10. Finishing touches: Apply any desired finishes or treatments to the deck, such as staining, sealing, or painting. Install any additional features, such as lighting, benches, or planters.

Throughout the construction process, it's important to follow all relevant building codes, obtain any necessary permits, and use appropriate safety measures. It's also recommended to consult local building authorities or a professional contractor to ensure compliance with regulations and to obtain specific guidance based on your location and project requirements.



Decks, Balconies, Porches & Steps: Material

Composite, Combination

Additional information on deck building materials:

There are several different materials commonly used for building decks, each with its own characteristics, benefits, and considerations. Here are some popular deck materials:

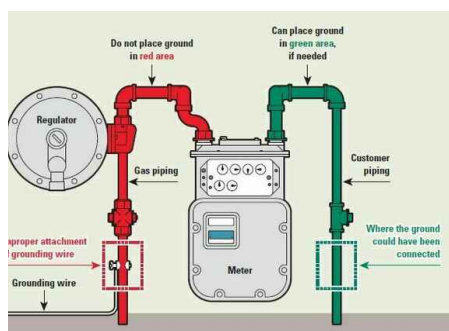
1. **Pressure-treated wood:** Pressure-treated wood is the most common and affordable option for deck construction. It is treated with preservatives to resist rot, decay, and insect damage. Pressure-treated wood is durable and readily available, but it requires regular maintenance such as staining or sealing to prolong its lifespan.
2. **Cedar:** Cedar is a popular choice for its natural beauty and resistance to rot and insects. It has a warm, reddish-brown appearance and contains natural oils that provide some resistance to decay and moisture. Cedar decks require regular maintenance to preserve their color and prevent weathering.
3. **Redwood:** Redwood is similar to cedar in terms of its beauty and resistance to decay. It has a rich, reddish color and natural tannins that offer some protection against insects and rot. Redwood decks require regular maintenance to maintain their appearance and structural integrity.
4. **Composite decking:** Composite decking is made from a combination of wood fibers and recycled plastic. It offers the look of wood with low maintenance requirements. Composite decking is resistant to rot, warping, and insect damage. It does not require staining or sealing, but periodic cleaning is recommended to remove dirt and debris.
5. **PVC (Polyvinyl chloride) decking:** PVC decking is made from synthetic materials that are highly resistant to moisture, mold, and rot. It is durable, low-maintenance, and available in a variety of colors and styles. PVC decking is less prone to fading, staining, or splintering compared to natural wood, but it can be more expensive.
6. **Aluminum decking:** Aluminum decking is a lightweight and durable option that is resistant to rust, decay, and insect damage. It is low-maintenance and available in various finishes and colors. Aluminum decking can be more expensive upfront, but it offers long-term durability and requires minimal upkeep.
7. **Tropical hardwoods:** Tropical hardwoods, such as ipe, cumaru, or tigerwood, are known for their natural beauty, durability, and resistance to decay and insects. They offer exceptional strength and longevity but can be more expensive and require special tools and expertise for installation.

When choosing a deck material, consider factors such as budget, desired aesthetics, maintenance requirements, durability, and environmental impact. It's also important to check local building codes and regulations to ensure compliance with specific material requirements in your area.

Gas: Gas meter images

exterior

The gas meter on the home typically powers the hot water heater, gas furnace or the stove. Some homes in the country may use propane tanks for fuel for any of these appliances. Ensure to check with your local utility companies before acquiring the property.



EXAMPLE ONLY GAS METER OPERATION



Limitations

General

EXTERIOR LEGAL DISCLAIMER

Areas that visually appear to be deteriorated may be probed, if accessible. We cannot be held responsible for any hidden defects found after the inspection. Additional defects may be found when repairs are made to items listed in this report or when remodeling is done on the exterior. Siding and/or structural defects may be hidden behind dense vegetation, vines, snow, stored items, debris or finishes and cannot be included with this inspection. Vegetation, grading, surface drainage, and retaining walls are reviewed when any of these items may potentially adversely affect the building.

Deficiencies

3.1.1 Siding, Flashing & Trim, exterior doors, eaves, soffit vents, windows and fascia

**SIDING WARPING/BUCKLING/LOOSE**

EXTERIOR

1. Vinyl siding was warping/buckling or loose in one or more areas. This is often as a result of nailing siding boards to tight to the home, preventing expansion/contraction and *typical wear*. Recommend a qualified siding contractor evaluate and repair.
2. *The siding on the rear of the home is excessively loose in comparison to other areas of the property. Recommend evaluation and repair.*

Recommendation

Contact a qualified siding specialist.



3.1.2 Siding, Flashing & Trim, exterior doors, eaves, soffit vents, windows and fascia

Recommendation

MISSING WINDOW SCREENS

EXTERIOR

- 1. Multiple window screens are missing at the time of inspection. Recommend a qualified contractor to evaluate and repair.
- 2. The window screens were discovered to be stored in the attic. We recommend having the screens installed in their correct locations.

Recommendation

Contact a qualified window repair/installation contractor.



3.2.1 Walkways, Patios & Driveways

 Recommendation

DRIVEWAY CRACKING (COMMON)

EXTERIOR

- 1. Driveway cracks observed, which may indicate movement in the soil. Recommend monitor and/or have concrete contractor patch/seal.
- 2. A stain was observed at the bottom of the driveway, recommend having the area pressure washed.

Recommendation

Contact a qualified concrete contractor.



3.3.1 Decks, Balconies, Porches & Steps

 Recommendation

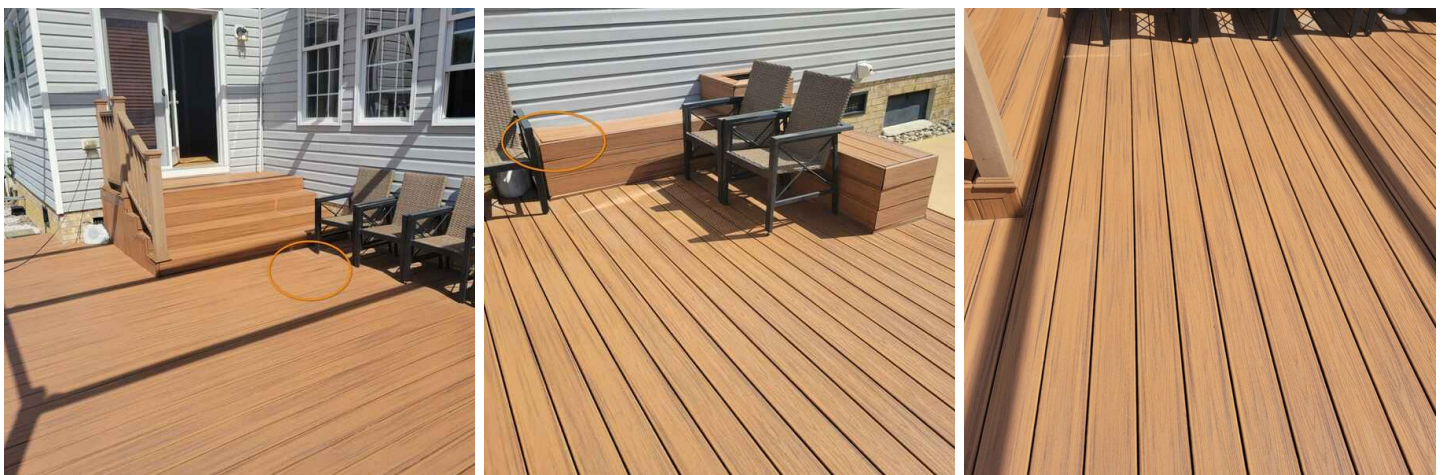
DECK - LOOSE COMPOSITE DECK BOARDS

EXTERIOR (REAR)

This is a minor issue: One or more composite deck boards are loose in the backyard.

Recommendation

Contact a qualified professional.



3.4.1 Exterior fence

 Deferred Maintenance

GATE ADJUSTMENT NEEDED

EXTERIOR

Gate adjustment needed. Recommend a qualified contractor to evaluate and remedy.

Recommendation

Contact a qualified fencing contractor



3.5.1 Gas

MISSING SLEEVE ON GAS LINE ENTRY POINT TO CRAWL SPACE



Recommendation

FRONT RIGHT SIDE OF HOME

There should be a sleeve around the entry point where the gas line enters the crawl space. Currently, this area has been sealed with clear sealant. This sealant acts as a protective barrier between the brick and the gas line; however, a sleeve is the correct repair.

Recommendation

Contact a qualified professional.



4: BASEMENT, FOUNDATION, CRAWLSPACE & STRUCTURE

Information

Inspection Method

Foundation

Crawlspace Access, Visual

Foundation photos for your information.



Foundation: Material

Exterior

Brick

Foundation photos for your information.

Additional information on how concrete slabs are poured:

Pouring a concrete slab for a house involves several steps to ensure a solid foundation. Here's a general outline of the process:

1. Site Preparation:

- Excavation: Clear the site of any vegetation, debris, or topsoil. Excavate the area to the required depth, taking into account the thickness of the slab and any necessary grading for proper drainage.
- Compaction: Compact the soil using compaction equipment to create a stable base for the concrete slab.

2. Formwork Construction:

- Formwork setup: Construct the formwork, which acts as a mold for the concrete slab. This typically involves setting up temporary wooden or metal frames that define the perimeter and shape of the slab. Ensure the formwork is properly aligned, leveled, and securely braced.

3. Reinforcement Placement:

- Reinforcement installation: If required by the design or local building codes, place reinforcement such as steel rebar or wire mesh within the formwork. This helps enhance the structural integrity of the slab and minimize cracking.

4. Pouring the Concrete:

- Concrete delivery: Arrange for the delivery of the concrete mixture from a ready-mix concrete supplier or prepare it on-site if you have the necessary equipment.
- Concrete placement: Pour the concrete into the formwork in manageable sections. Use shovels, rakes, or concrete pumps to evenly distribute and level the concrete within the formwork.
- Consolidation: Consolidate the concrete using vibrating tools or a screed to remove air pockets, ensure proper compaction, and create a smooth and even surface.

5. Finishing the Concrete:

- Smoothing and leveling: Use a screed board or bull float to level and smooth the surface of the freshly poured concrete. This helps achieve a uniform thickness and eliminates high or low spots.
- Edging and jointing: Create neat edges along the perimeter of the slab using an edger tool. Additionally, use a jointer or grooving tool to create control joints or expansion joints as required by the design or local building codes.
- Surface finishing: Apply any desired surface finishes, such as troweling, broom finishing, or decorative techniques, depending on the intended appearance and functionality of the slab.

6. Curing and Protection:

- Curing: Protect the newly poured concrete from premature drying and ensure proper hydration by applying a curing compound or covering the slab with plastic sheeting. Follow recommended curing practices, which typically involve keeping the slab moist for several days.
- Protection: Prevent any foot traffic or heavy loads on the slab during the initial curing period to avoid surface damage or cracking.

It's important to note that pouring a concrete slab for a house is a complex process that requires knowledge of local building codes, proper techniques, and equipment. It is generally recommended to hire professional concrete contractors to ensure the quality and structural integrity of the foundation.



Basements & Crawlspace: Crawl space photos/Duct work/plumbing/basement images

Crawl space

Photos of the crawl space or basement for your information.

Additional information on how crawl spaces are built:

Building a crawl space involves several steps to create a raised foundation with accessible space beneath a house. Here's a general outline of the process:

1. Excavation and Site Preparation:

- Excavation: Clear the area where the crawl space will be located by removing any vegetation, debris, or topsoil.
- Leveling: Ensure the ground is properly leveled and graded to provide a stable base for the crawl space.

2. Foundation Walls:

- Footings: Construct concrete footings along the perimeter of the crawl space area to provide support for the foundation walls.
- Foundation wall construction: Build the foundation walls using concrete blocks, poured concrete, or other suitable materials. Ensure the walls are properly aligned, leveled, and reinforced as required by local building codes.

3. Ventilation and Insulation:

- Ventilation: Install vents or other ventilation systems along the foundation walls to allow air circulation and prevent moisture buildup within the crawl space. The number and placement of vents will depend on local climate conditions and building code requirements.
- Insulation: Apply insulation to the crawl space walls and floor to help maintain a consistent temperature within the space and prevent heat loss or gain. Common insulation materials include foam boards, fiberglass batts, or spray foam insulation.

4. Moisture Barrier:

- Moisture barrier installation: Install a vapor barrier, typically made of heavy-duty plastic sheeting, over the ground within the crawl space. This helps prevent moisture from seeping into the space and causing issues such as mold or rot. The vapor barrier should overlap and be securely fastened to the crawl space walls and any piers or supports.

5. Access and Utilities:

- Access openings: Create access openings or crawl space doors to allow entry for maintenance, repairs, or inspections. These openings should be properly sealed to prevent moisture infiltration.
- Utilities installation: Install necessary utilities such as plumbing, electrical wiring, and HVAC ducts within the crawl space, ensuring they are properly insulated and protected.

6. Crawl Space Flooring:

- Flooring material: Choose a suitable flooring material for the crawl space, such as a vapor-impermeable material like concrete, or install a layer of gravel or crushed stone for improved drainage.

7. Pest Control and Maintenance:

- Pest prevention: Take measures to prevent pests from entering the crawl space by sealing any potential entry points and considering additional pest control methods.
- Regular maintenance: Periodically inspect the crawl space for any signs of moisture, damage, or pest activity. Address any issues promptly to maintain the integrity and functionality of the crawl space.

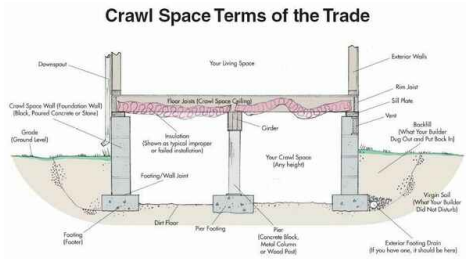
It's important to note that building a crawl space requires compliance with local building codes and regulations. It is recommended to consult with professionals, such as contractors, architects, or structural engineers, who have expertise in crawl space construction to ensure the design and implementation meet safety and code requirements specific to your location and project.



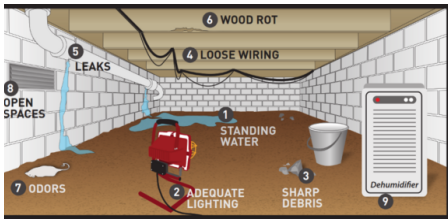
EXAMPLE ONLY ENCAPSULATION
WITH DEHUMIDIFIER



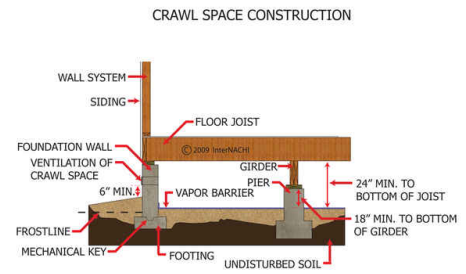
EXAMPLE ONLY REPAIR WITH JACK



Crawl space terms EXAMPLE ONLY

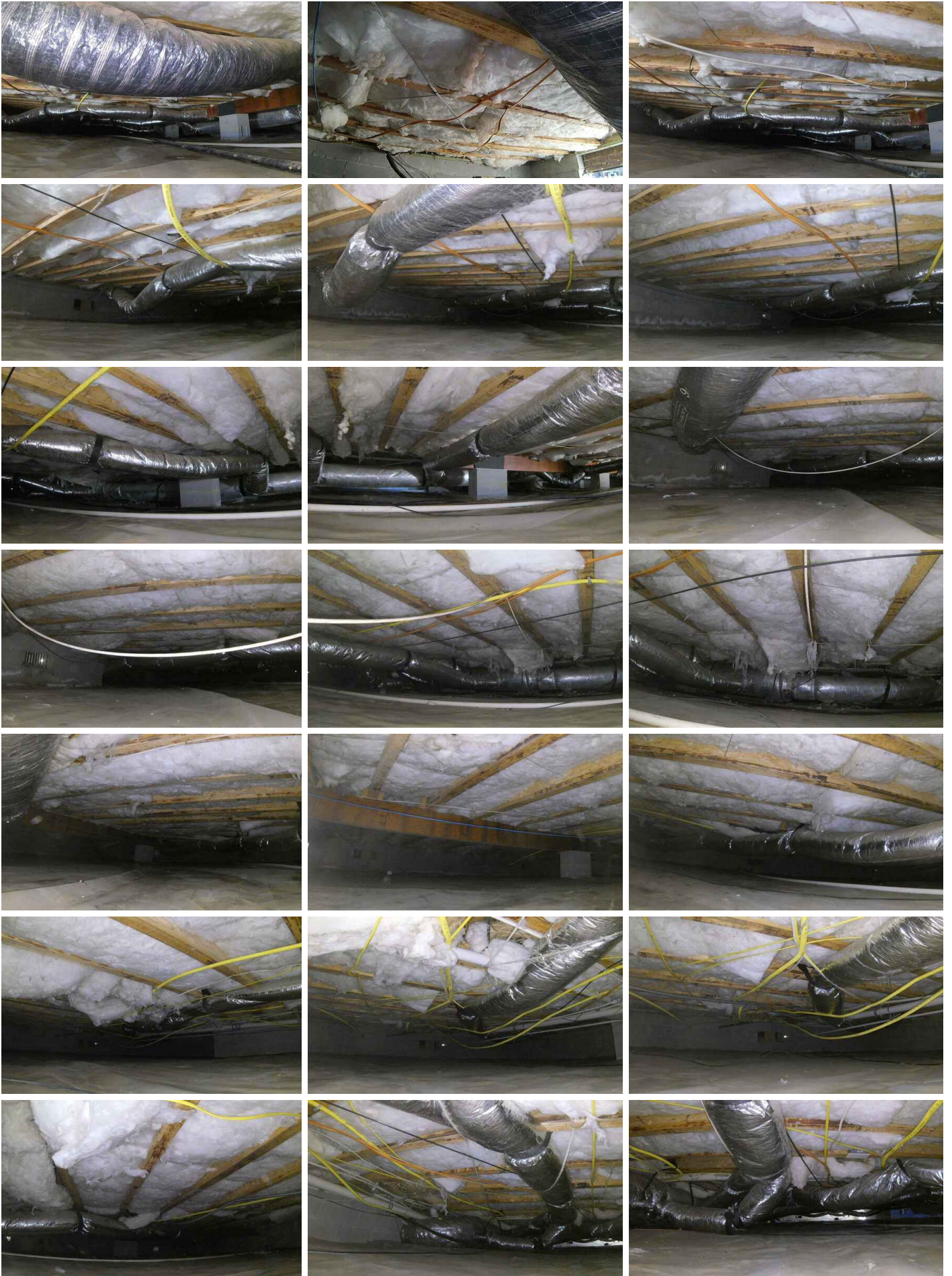


EXAMPLE ONLY (COMMON CRAWL SPACE DEFECTS)



EXAMPLE ONLY (TERMS)







Limitations

General

FOUNDATION/STRUCTURAL DISCLAIMER

Any repairs to Sub flooring that are performed under the home is not a validation that more damages cant be discovered when updates or remodeling of interior spaces are realized. Some foundation cracking is typical of settlement and/or shrinkage and does not usually indicate a structural decency. Defects may be present at hidden foundation areas that could allow water infiltration or may have been caused by structural movement. Please ask your Inspector for further information if there are still questions prior to the end of your Discovery Period. Only the readily visible portions of the foundation and structure were observed. Foundation surfaces that are hidden behind surfaces cannot be observed by the inspector and we are not allowed to remove Insulation with out written permission. Some times bathroom(s) or kitchen flooring can have two or three layers and only a Visual inspection of Laminate or hard wood or flooring is conducted inside the home and never do we remove flooring to review under these area(s) that have sub flooring issues discovered in the Crawl space.

Basements & Crawlspace

INSULATION BLOCKING VIEW

CRAWL SPACE

Insulation blocks areas of the subfloor in a crawl space. Home inspectors are not permitted to remove this insulation to view the flooring.

De ciencias

4.1.1 Foundation

SEALANT COMMENT/FOUNDATION CRACKS (TYPICAL)

FOUNDATION AREA



Recommendation



1. An opening in the foundation exists where the drain line for the furnace exits the home. Although it has been sealed with clear sealant, the hole appears to be larger than necessary for the small drain line. To address this issue, clear sealant was applied as a temporary solution.
2. Typical cracking was noted at the foundation. This is common as concrete ages and shrinkage surface cracks are normal. Recommend monitoring for more serious shifting/displacement. Serious structural cracks are normally in a large "step shaped Z" formation. This will be followed by soft floors, large cracks in the interior of the home and general un-leveling of areas in the home. Small cracks are generally considered to be "Typical wear" These patches can be serviced (patched, injected and sealed).

Additional information on why concrete slabs/brick cracks:

Concrete foundations can develop cracks due to various factors, including:

1. Settlement: As the soil beneath a foundation undergoes natural compaction or shifts, the foundation can settle unevenly. Uneven settling can create stress on the concrete, leading to cracks.
2. Excessive Moisture: Excessive moisture in the soil surrounding the foundation can cause it to expand and contract. This movement can exert pressure on the concrete, resulting in cracks.
3. Poor Construction: Inadequate reinforcement, insufficient concrete strength, improper curing, or improper mixing of the concrete during construction can weaken the foundation, making it more susceptible to cracking.
4. Soil Movement: Certain soil types, such as expansive clay soils, have a tendency to expand or contract significantly with changes in moisture content. This movement can exert pressure on the foundation and lead to cracking.
5. Temperature Fluctuations: Extreme temperature fluctuations, especially freezing and thawing cycles, can cause concrete to expand and contract. Over time, this movement can result in cracks.
6. Hydrostatic Pressure: When water accumulates around the foundation, hydrostatic pressure can build up against the concrete. This pressure can cause the foundation to crack, especially if proper drainage measures are not in place.
7. Structural Loads: Excessive or concentrated loads placed on the foundation, such as heavy machinery or improperly distributed weight, can cause stress and lead to cracking.
8. Natural Disasters: Earthquakes, floods, or other natural disasters can subject the foundation to intense forces and movements, potentially causing cracks.

Preventing cracks in concrete foundations can be challenging, but some measures can help minimize the risk:

- Proper design and construction techniques, including appropriate reinforcement and adequate concrete strength.

- Adequate drainage systems to manage water and prevent water accumulation around the foundation.
- Regular inspection and maintenance to identify and address any signs of foundation movement or deterioration promptly.
- Taking precautions to mitigate the effects of temperature fluctuations, such as using proper insulation and ensuring adequate expansion joints.

If cracks do occur in a concrete foundation, it is crucial to address them promptly. Depending on the severity and nature of the cracks, repairs may involve methods such as crack injection, epoxy coatings, or even structural reinforcement. Consulting with a professional foundation contractor or structural engineer is recommended to assess the situation and determine the appropriate repair approach.

Recommendation

Contact a foundation contractor.

4.2.1 Basements & Crawlspace



GENERAL SUMMARY OF CRAWL SPACE/FOUNDATION AREA

CRAWL SPACE

General Summary of the Crawl Space: The crawl space is in acceptable condition considering the age of the home, with typical issues observed. Some insulation is hanging in the crawl space, secured in place by straps or small metal wire hangers. Over time, insulation may dislodge, potentially leading to more significant issues (refer to the example image for before and after crawl space remediation).

In sections towards the rear of the home, the electrical lines are configured atypically. In larger homes, these lines are usually secured to the bottoms of joists and run in a more organized manner, without being layered over other utility lines.

While the crawl space does have a moisture barrier, it does not constitute a full encapsulation (refer to the before and after image for a full crawl space encapsulation example). It's important to note that in homes with large crawl spaces, the main issue is often excessive wear of lumber due to neglect and high humidity levels, leading to wood fungus. Sagging floors are typically addressed by installing metal jacks or concrete blocks with beams under the home to support the floor.

Note: Ensure to obtain your termite and moisture letter from the seller. High levels of moisture or fungus was not observed.

Recommendation

Contact a qualified professional.



EXAMPLE ONLY - BEFORE AND AFTER FULL ENCAP



EXAMPLE ONLY_SUPPORT ADDED UNDER HOME



5: HVAC

Information



Information: types of residential systems

The Four Types of HVAC Systems

Type #1: Heating and Air Conditioning Split System

A split system is an outdoor unit containing the condenser and compressor, and an indoor unit containing the evaporator coil and blower. Split-system central air conditioning is most popular type of residential heating and air-conditioning. The indoor unit is often connected to a furnace or heat pump.

HVAC split systems will typically have:

- An outdoor unit that houses the condenser coil, compressor, electrical components, and a fan.
- Refrigerant that circulates to and from the indoor and outdoor unit via a series of pipes (refrigerant lines).
- An evaporator coil that usually sits above the furnace inside the home.
- A blower that sends warm air over the cold evaporator coil, which absorbs heat from the air.
- Ducts that carry air throughout your building. Supply ducts pull in air while return ducts blow it out.
- A thermostat that controls the systems and sets your desired temperature.
- The occasional optional accessories for quality indoor air, such as air scrubbers, purifiers, humidifiers, UV lamps, and so on.

Type #2 Hybrid Heat Pump System

In a hybrid heating and cooling system, a heat pump (powered by electricity) is used in conjunction with a furnace that burns natural gas, propane, or fuel oil. Don't be fooled by the name heat pump – these systems also cool your home.

In fact, heat pumps are air conditioners that can also work in reverse to efficiently heat your home. It's one system that efficiently heats and cools your home.

These systems have a furnace for when temperatures dip below 40 degrees. A heat pump isn't very efficient, and that's when the furnace kicks on to do the heating.

On all but the coldest of nights (where you'll need a furnace backup), a heat pump can take heat out of the air outside and transport it into your home. And in the summer, it functions just like an air conditioner, so you'll get year-round energy savings from one product.

An ideal hybrid heat split system will have:

- A heat pump that heats and cools the refrigerant.
- A furnace, plus the evaporator coil for conversion of the refrigerant and circulation of air.
- Ductwork to channel the air around your building.
- The thermostat for adjusting and controlling the system.
- Optional accessories for improved indoor air quality.

Want more information on what the right type of AC & heating units are right for your home? Consultations and quotes are risk-free. Go [here](#) to schedule one.

Type #3 Ductless Mini-Split Heat Pump

A duct-free HVAC system provides a solution for spaces where conventional ducted systems aren't compatible. They can also be great compliments to existing ducted types of HVAC systems.

Ductless mini-split units are installed directly into the zones of the home that need heating and cooling. You can have as many as four indoor air handling units (four zones or rooms) for each outdoor unit.

Ductless mini-split systems will have the following:

- The heat pump unit outdoors that contains the usual compressor, condenser, and fan.
- A fan coil that is compact.
- Wires and tubing for the refrigerant (only requires a 3-inch hole), connecting the outdoor unit to the fan coil.
- The thermostat (aka control panel).
- Optional accessories to clean the air and make it more pleasant before its distribution through the house.

Type #4 Packaged Heating & Air Conditioning System

A packaged HVAC system contains the compressor, condenser, and evaporator all in one unit, often located on a roof or near the foundation.

It is a good solution for homes and offices without adequate space for all the separate components of split systems. They are sometime used in small commercial buildings and often include electric coils or a furnace for heating.

Packaged HVAC systems include:

- The air conditioner/heat pump together with the evaporator/fan coil in one unit.

- Thermostat/control interface for a complete control of the system.
- Optional air quality improvers. Things like the air purifiers, cleaners, ventilators or UV lamps, which are geared towards making the air extra clean before it circulates your home or office.

Type # 5 Geo thermal

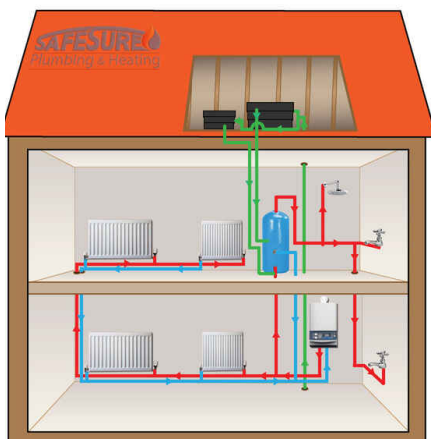
A geothermal heat pump or ground source heat pump is a type of heat pump used to heat and/or cool a building by exchanging heat with ground.

Type# 6 Boiler units (radiator heat)

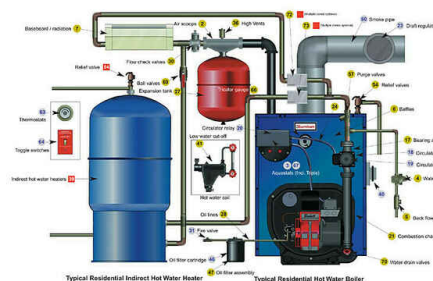
A boiler is a common component of HVAC systems that is used for heating purposes. Here's a general overview of how a boiler works in an HVAC system:

1. Heat Generation: The boiler generates heat by burning fuel, such as natural gas, oil, or propane, or through electrical resistance. The fuel is ignited, and the heat is transferred to the boiler's combustion chamber.
2. Heat Exchanger: The boiler contains a heat exchanger, which is a metal chamber or pipe system. As the fuel burns, the heat is transferred to the water or steam circulating through the heat exchanger.
3. Circulation System: The heated water or steam produced by the boiler is circulated through a system of pipes. In a hydronic system, the hot water is pumped to radiators, baseboard heaters, or radiant floor heating systems, where it releases heat to warm the surrounding space. In a steam system, the steam travels through pipes to radiators, which then release heat into the room.
4. Expansion Tank: The boiler system includes an expansion tank, which helps accommodate the expansion and contraction of the water or steam as it heats and cools. This helps prevent damage to the system and maintains proper pressure levels.
5. Controls and Safety Features: The boiler is equipped with controls and safety features to ensure efficient and safe operation. These may include thermostats, pressure relief valves, temperature sensors, and flame sensors. The controls regulate the fuel supply, water temperature, and system pressure to maintain a comfortable and safe heating environment.
6. Venting: Combustion gases produced during the fuel-burning process are vented safely to the outside of the building through a flue or chimney. This ensures that harmful gases, such as carbon monoxide, are expelled from the building.
7. Water Supply: The boiler system may require a water supply for the continuous circulation of water. This water supply can be connected to a municipal water source or a separate water storage tank.
8. Maintenance and Servicing: Regular maintenance and servicing of the boiler are essential to ensure its efficient and safe operation. This may include cleaning the heat exchanger, checking and adjusting controls, inspecting and maintaining venting systems, and addressing any repairs or component replacements as needed.

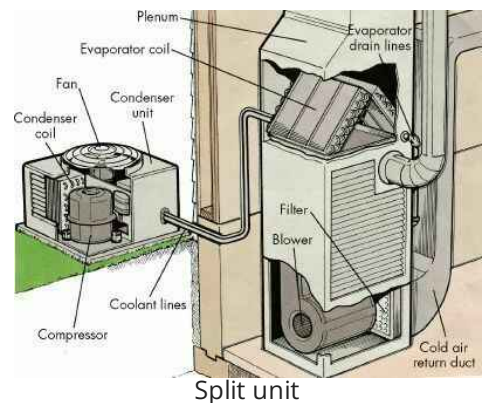
Boilers are versatile heating systems that can provide both space heating and domestic hot water. They are commonly used in residential, commercial, and industrial settings. The specific operation and features of a boiler may vary depending on the type and model of the unit. It is important to consult the manufacturer's instructions and, if needed, seek the assistance of a qualified HVAC technician for proper installation, maintenance, and repairs.



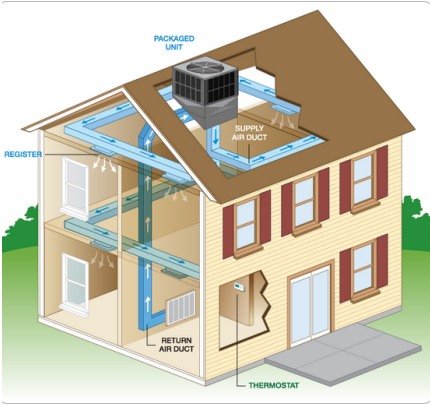
BOILER UNIT FLOW



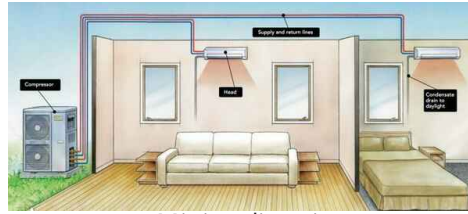
BOILER UNIT



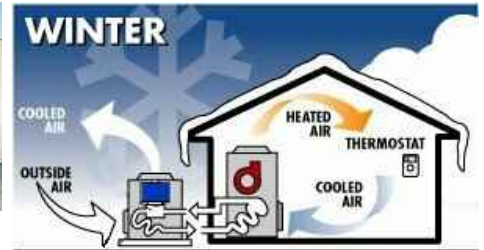
Split unit



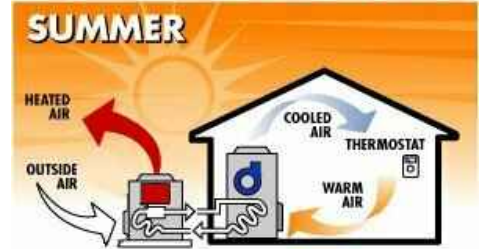
Packaged unit



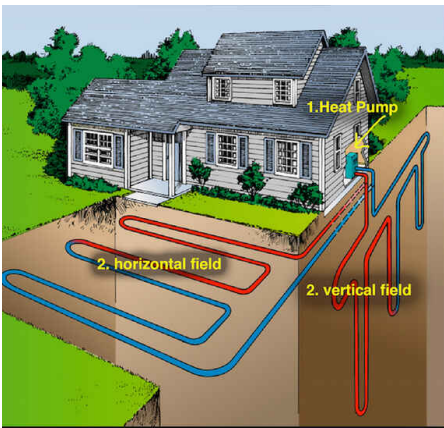
Mini split unit



Typical Heat Pump System



Heat pump summer and winter



Geo thermal (not common)

Heating and cooling equipment : Brand (heating and cooling)

HVAC

Lennox

Original Findings:

Manufacturer year for condenser unit: 2006, manufacture year for furnace or air handler: 2006 (set #1).

Location: exterior and garage.

Manufacturer year for condenser unit: 2006, manufacture year for furnace or air handler: 2006 (set #2).

Location: exterior and attic.

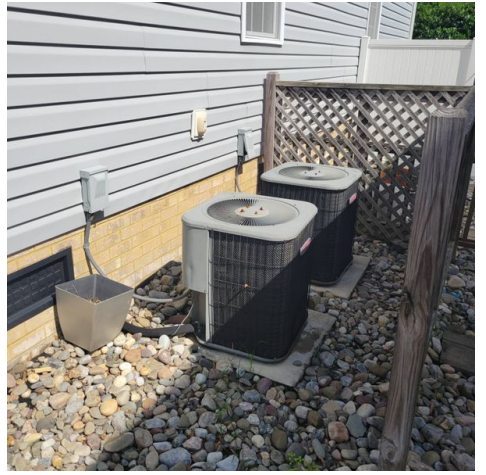
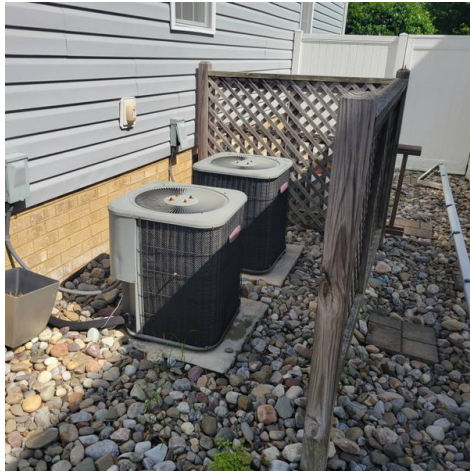
Modern air conditioners can last between 15-20 years due to improvements in technology. *Older air conditioners last around 12-15 years.* The health and efficiency of your A/C depends on a number of factors, including whether or not you properly maintained the unit throughout its lifetime. The service life of units also depends on manufacture specifications. *Older units should be serviced by HVAC contractors, this is considered general maintenance and should be completed annually.*

How HVAC systems work:

HVAC systems, which stands for Heating, Ventilation, and Air Conditioning systems, are designed to provide thermal comfort and maintain indoor air quality in residential, commercial, and industrial buildings. Here's a general overview of how HVAC systems work:

- 1. Heating:** The heating component of an HVAC system is responsible for warming the indoor space during cold weather. It typically consists of a heating source, such as a furnace or heat pump, that generates heat. The heat is then distributed throughout the building using ductwork or radiant heating systems.
- 2. Ventilation:** Ventilation is crucial for maintaining healthy indoor air quality by removing stale air, pollutants, and odors from the building and introducing fresh outdoor air. HVAC systems incorporate various methods of ventilation, such as natural ventilation (open windows), mechanical ventilation (fans and blowers), or balanced ventilation systems with heat recovery.
- 3. Air Conditioning:** The air conditioning component of an HVAC system is responsible for cooling the indoor space during hot weather. It typically involves a cooling unit, such as a central air conditioner or a heat pump, which removes heat from the indoor air and releases it outside. The cooled air is then distributed throughout the building using ductwork or other air distribution methods.
- 4. Thermostat Control:** HVAC systems are controlled by a thermostat, which allows users to set the desired temperature and control the operation of the heating and cooling components. The thermostat senses the temperature in the building and sends signals to the HVAC system to adjust its operation accordingly.
- 5. Air Distribution:** HVAC systems use ductwork to distribute conditioned air throughout the building. Supply ducts deliver heated or cooled air to different rooms, while return ducts bring the air back to the HVAC system for reconditioning. Air registers and grilles are installed in various locations to control the airflow and direct it into the desired areas.
- 6. Filtration:** HVAC systems often include air filters that help remove dust, allergens, and other airborne particles from the circulating air. Filters help improve indoor air quality by capturing pollutants and preventing them from being recirculated.
- 7. Refrigerant Cycle (for cooling):** Air conditioning systems utilize a refrigerant cycle to cool the indoor air. The refrigerant, a special fluid, undergoes a cycle of compression, condensation, expansion, and evaporation, absorbing heat from the indoor air and releasing it outside.
- 8. Energy Efficiency:** Modern HVAC systems are designed to be energy-efficient, with features such as variable-speed motors, programmable thermostats, zoning capabilities, and improved insulation. Energy-efficient HVAC systems help reduce energy consumption and lower utility costs.

It's important to note that HVAC systems can vary in design and components depending on the specific building and HVAC system type. The above overview provides a general understanding of how HVAC systems work, but for specific details or troubleshooting, it is recommended to consult with a qualified HVAC technician or professional.





Heating and cooling equipment : Energy Source

Multiple

Gas

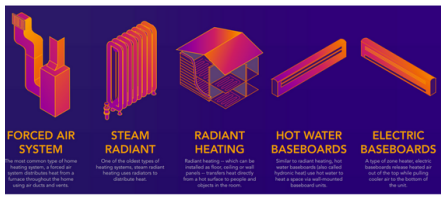
Heat source information.



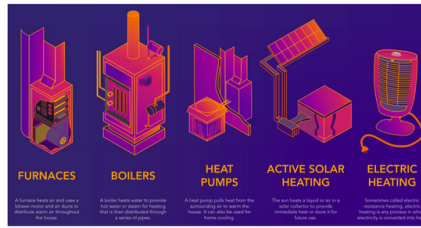
Heating and cooling equipment : Heat Type

Forced Air

Heating system diagrams.



heating system fig 2



heating system fig 1

Normal Operating Controls/distribution system/Presence of installed heat/ac source : Distribution systems

Interior area

Insulated

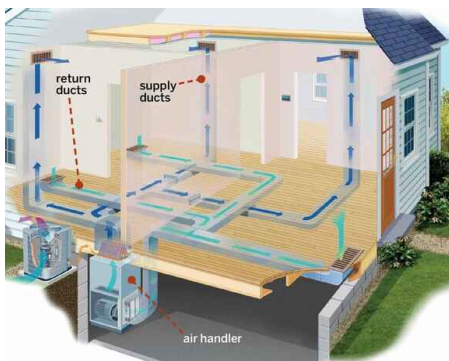
Distribution system (duct work).

Additional information on duct work installation:

The installation of ductwork in a house involves a series of steps to ensure proper airflow and efficient distribution of conditioned air throughout the building. Here's a general overview of how ductwork is installed in a house:

- 1. System Design:** The first step is to design the duct system based on the heating and cooling needs of the house. This involves determining the size and layout of the ducts, the number and location of supply and return vents, and considering factors such as the building's size, layout, insulation levels, and airflow requirements.
- 2. Material Selection:** Ductwork can be made from various materials, including sheet metal, flexible ducts, fiberglass ductboard, or ducts with an insulated lining. The choice of material depends on factors such as cost, accessibility, noise considerations, and local building codes.
- 3. Planning and Marking:** Before installation, the route and placement of the ducts are planned and marked on the floors, walls, and ceilings. This helps ensure that the ducts are installed in the intended locations and that they don't interfere with other building components.
- 4. Duct Fabrication:** If sheet metal ducts are used, they are typically fabricated in a workshop or on-site using specialized tools. The duct sections are cut, bent, and assembled according to the design specifications. Joints and seams are sealed to minimize air leaks.
- 5. Duct Installation:** The ducts are installed in the designated areas using appropriate hangers, supports, or straps. They are secured in place and connected to the HVAC equipment, such as the air handler or furnace.
- 6. Sealing and Insulation:** Proper sealing of duct joints and connections is crucial to prevent air leakage, which can reduce system efficiency. Ductwork is sealed using foil tape, mastic, or other approved sealing materials. Additionally, insulation may be applied to ducts located in unconditioned spaces to prevent heat gain or loss.
- 7. Vents and Registers:** Supply and return vents, as well as registers, are installed in the walls, floors, or ceilings. These components allow the conditioned air to enter the living spaces and provide a way for air to return to the HVAC system.
- 8. Balancing and Testing:** Once the ductwork is installed, the system is balanced and tested to ensure proper airflow and performance. This involves adjusting dampers, measuring airflow rates, and verifying that the system meets design specifications.

It's important to note that ductwork installation requires proper knowledge and skills, and it's often performed by HVAC professionals. Following local building codes and industry standards is essential to ensure safety and efficiency. Consulting with a qualified HVAC contractor is recommended for the design and installation of ductwork in your specific home.



Normal Operating Controls/distribution system/Presence of installed heat/ac source : Thermostat image

Interior

Thermostat image.

Additional information on thermostat operation:

Thermostats are devices used to control heating, ventilation, and air conditioning (HVAC) systems. They work by sensing the temperature in the environment and sending signals to the HVAC system to adjust the heating or cooling output. Here's a general overview of how thermostats work:

- 1. Temperature Sensing:** The thermostat contains a temperature sensor, typically a thermistor or a bimetallic strip. These sensors detect changes in temperature and provide a corresponding electrical signal.
- 2. Setpoint and User Input:** The thermostat allows users to set their desired temperature, known as the setpoint. This is typically done using buttons or a dial on the thermostat. The setpoint represents the temperature at which the user wants the HVAC system to activate.
- 3. Comparison and Control Logic:** The thermostat continuously compares the actual temperature in the environment to the setpoint. Based on this comparison, the thermostat's control logic determines whether the HVAC system needs to be activated to adjust the temperature.
- 4. Output Signal:** When the actual temperature deviates from the setpoint, the thermostat sends an output signal to the HVAC system. This signal can be in the form of electrical voltage, current, or digital communication (depending on the thermostat type).
- 5. HVAC System Activation:** The output signal from the thermostat triggers the HVAC system to turn on or off, depending on whether heating or cooling is required. For example, if the temperature is below the setpoint, the thermostat will send a signal to activate the heating system. Once the temperature reaches or exceeds the setpoint, the thermostat will send a signal to deactivate the heating system.
- 6. Additional Features:** Thermostats may include additional features, such as programmable schedules, Wi-Fi connectivity, and smart home integration. These features allow users to set different temperature profiles throughout the day, remotely control the thermostat using mobile apps, and integrate the thermostat with other smart devices for enhanced automation and energy savings.

It's important to note that thermostats can vary in design and functionality, depending on the type and model. Some thermostats use simple mechanical mechanisms, while others are digital or programmable. The specific operation and programming options may differ, so it's essential to consult the manufacturer's instructions for your particular thermostat model.

Overall, thermostats play a crucial role in maintaining desired comfort levels and energy efficiency by controlling HVAC systems based on temperature settings and feedback.



Normal Operating Controls/distribution system/Presence of installed heat/ac source : Temperature images heated vents (heat)

Interior

1. Thermal/temp photos of vents (**Heat** normal operation). Heat is operational.
2. Readings are taken using a thermal imager or temperature testing device.

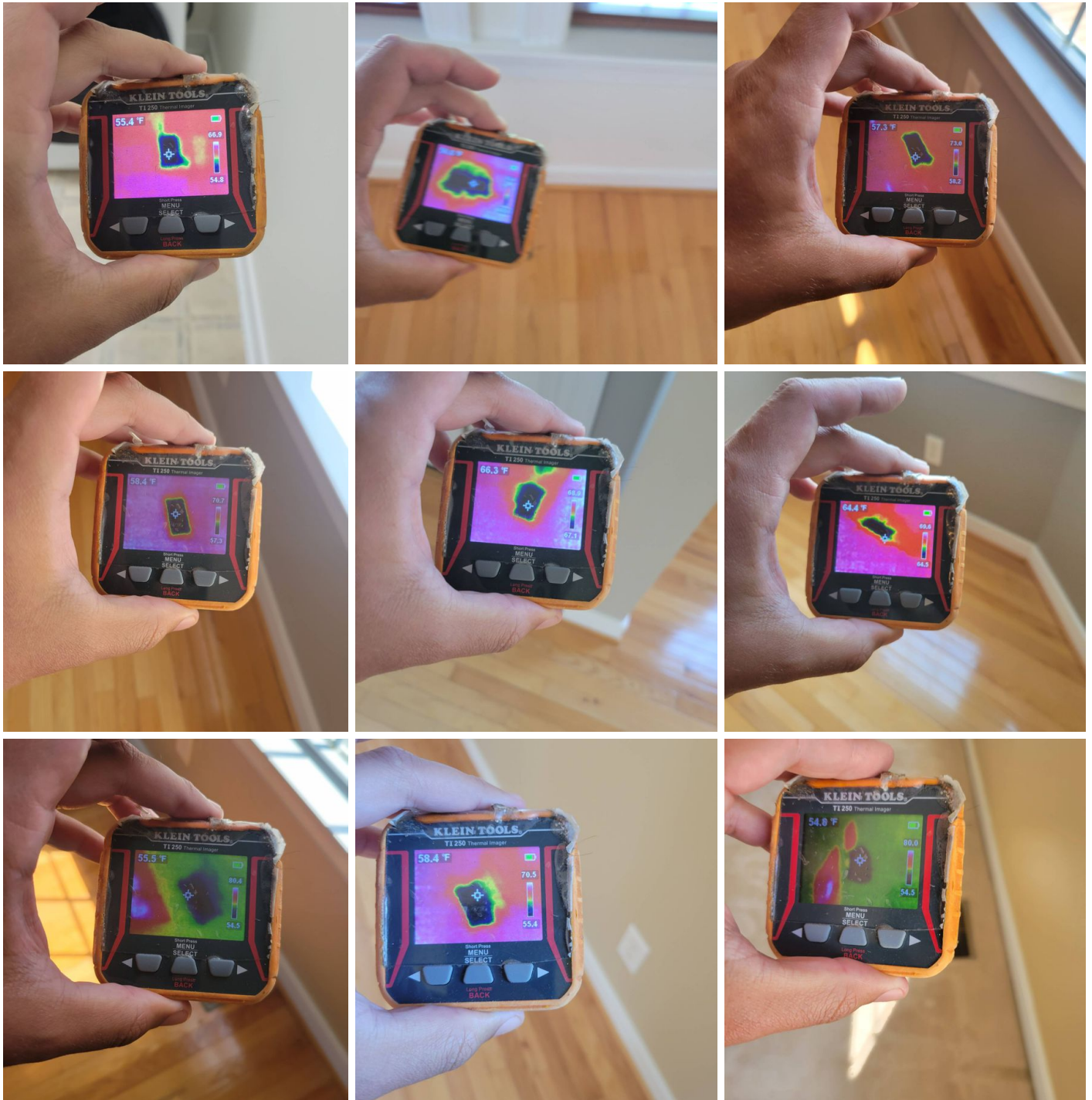




Normal Operating Controls/distribution system/Presence of installed heat/ac source : Temperature images of cold vents (AC)

Interior

1. Thermal/temp photos of vents (AC normal operation). AC is operational.
2. Readings are taken using a thermal imager or temperature testing device.





Limitations

General

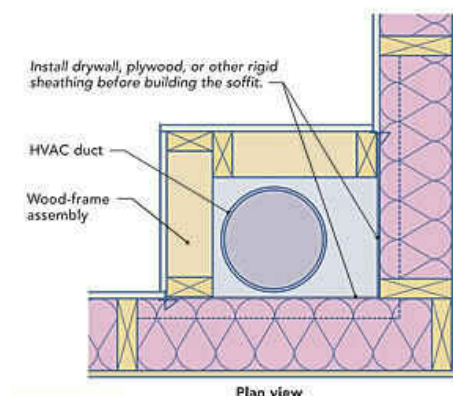
HVAC DISCLAIMER

All heating units should be professionally serviced prior to the start of each heating season to maintain efficiency and for personal safety. WE DO NOT REVIEW HEAT EXCHANGERS NOR CERTIFY EQUIPMENT HAS BEEN CORRECTLY INSTALLED. Failure to perform your required walk-thru could leave you exposed to unforeseen costs. If HVAC is verified at time of Inspection and also verified at Walk-thru by you or an authorized representative this is proof system was working and also validated by you prior to taking possession. Our review on Inspection Day is not a Warranty or a Guarantee to how long a system will last or perform without issues. Where possible always purchase a proper Home warranty! We do not determine if a System is Installed properly or if a Permit is Pulled. Our review is based on Thermostat and operation and Maintenance of equipment visually seen! Any suggestion from a qualified HVAC contractor that Home Inspectors are certified HVAC contractors is misleading and falsely represents what our standards for review of HVAC equipment actually is! Air conditioning units should be professionally serviced prior to the start of each cooling season for best performance and exterior compressor units should be left uncovered in the winter months to avoid excess moisture build-up and premature corrosion. Any space heaters present in the building should always be operated in full accordance with the manufacturer's recommended procedures and safety precautions to prevent oxygen depletion and possible build-up of carbon monoxide. ONLY DUCT WORK THAT IS VISABLE CAN BE REVIEWED AND INSPECTION IS NOT A VALIDATION AS TO QUALITY OF AIR AND OR OVERALL CONDITIONS OF DUCT WORK. ONLY A QUALIFIED HVAC CONTRACTOR CAN MAKE STATEMENTS TO CONDITIONS OF HVAC EQUIPMENT AND OR DUCT WORK. SHOULD ISSUES ARISE OUT OF THIS INSPECTION THAT REQUIRE ADDITIONAL INSPECTIONS/CORRECTIONS IT IS SUGGESTED TO HAVE HVAC SYSTEM(S) REVIEWED FROM A LICENSED HVAC PROFESSIONAL AND THEN THOSE ITEMS DISCOVERED FROM THIS INDUSTRY PROFESSIONAL SHOULD THEN BE FOLLOWED FOR CORRECTION PRIOR TO CLOSING.

Normal Operating Controls/distribution system/Presence of installed heat/ac source

NON VISIBLE DUCT WORK DUE TO CONSTRUCTION LAYOUT

Due to how HVAC contractors install ducts in the home not all duct work is visible inside home with out entry into walls and ceilings.



Hidden duct work

De ciencias

5.1.1 Heating and cooling equipment

UNITS NEAR THE END OF THEIR SERVICE LIFE (HVAC)

EXTERIOR OR INTERIOR



Set #1: Condenser unit manufactured in 2006, furnace or air handler also manufactured in 2006. Location: Exterior and garage.

Set #2: Condenser unit manufactured in 2006, furnace or air handler also manufactured in 2006. Location: Exterior and attic.

Modern air conditioners can have a lifespan of 15-20 years, thanks to advancements in technology, while older units typically last around 12-15 years. The longevity and efficiency of your A/C system depend on various factors, including proper maintenance throughout its lifetime and adherence to manufacturer specifications.

It's common for larger homes, especially those with two or three stories, to have multiple units, generally around four. Undersized units were sometimes installed during earlier construction periods, particularly in non-split-level systems.

Older units should be serviced annually by HVAC contractors as part of general maintenance. Consider obtaining a home warranty for added protection. Recommend preparing to replace the HVAC system in this home. The units are operational.

How HVAC units are installed (additional information):

The installation of HVAC (Heating, Ventilation, and Air Conditioning) systems typically involves several steps and requires the expertise of HVAC professionals. Here's a general overview of how HVAC systems are installed:

1. **Assessment and Planning:** The first step is to assess the heating and cooling needs of the building. HVAC professionals consider factors such as the building's size, layout, insulation, windows, and local climate to determine the appropriate HVAC system size and type.
2. **System Selection:** Based on the assessment, HVAC professionals select the appropriate HVAC system, including the heating source (e.g., furnace, heat pump), cooling source (e.g., central air conditioner, heat pump), ventilation components, and controls.
3. **Ductwork Design and Installation:** If the HVAC system requires ductwork, the professionals design the duct layout and sizing to ensure optimal airflow throughout the building. Ducts are installed in walls, ceilings, or floors, connecting the HVAC system to supply air to different rooms and return air to the system.
4. **Equipment Installation:** HVAC professionals install the heating and cooling equipment, such as the furnace, heat pump, air conditioner, or ventilation units. This involves connecting the equipment to the appropriate power sources, fuel lines (if applicable), and refrigerant lines (for cooling systems).
5. **Electrical Wiring:** Electrical wiring is installed to connect the HVAC system components to the building's electrical system. This includes wiring the thermostat, controls, and connecting the equipment to power sources.
6. **Condensate Drainage:** For cooling systems, a condensate drain is installed to remove excess moisture and water produced during the cooling process. This drain is typically connected to a floor drain or an external drainage system.
7. **Start-up and Testing:** Once the HVAC system is installed, HVAC professionals perform a start-up procedure to ensure proper functioning. This includes testing the equipment, adjusting settings, and verifying the airflow, temperature control, and safety features. They may also check for any leaks, measure system performance, and make necessary adjustments.
8. **System Balancing:** HVAC professionals perform system balancing, which involves adjusting the airflow and temperature distribution in different areas of the building to achieve optimal comfort and efficiency. This may involve adjusting dampers, registers, or diffusers.

9. Final Inspections and Documentation: Before completing the installation, HVAC professionals may schedule final inspections to ensure compliance with local codes and regulations. They also provide documentation, such as operation manuals, warranties, and maintenance instructions, to the building owner.

It's important to note that HVAC system installation can vary depending on the specific requirements of the building, local building codes, and the complexity of the system. Hiring qualified HVAC professionals ensures that the installation is done correctly and meets industry standards for safety, efficiency, and performance.

Recommendation

Contact a qualified heating and cooling contractor





5.1.2 Heating and cooling equipment
**NEEDS SERVICING/CLEANING
(HVAC)**

 Deferred Maintenance



The furnace and or condenser unit should be cleaned and serviced annually. Recommend a qualified HVAC contractor clean, service and certify furnace.

Additional information on how HVAC units are serviced:

Servicing the condenser unit and furnace of an HVAC system typically involves routine maintenance tasks to ensure their optimal performance. Here are some general steps for servicing the condenser unit and furnace:

Condenser Unit:

1. **Turn Off Power:** Before starting any maintenance or servicing tasks, ensure that the power to the condenser unit is turned off. This can be done by switching off the electrical circuit that supplies power to the unit.
2. **Clean the Exterior:** Remove any debris, leaves, or dirt from the exterior of the condenser unit. You can use a brush or a soft cloth to gently clean the surfaces. Ensure that the unit's fan and grilles are free from obstructions.
3. **Clean the Fins:** The condenser unit's fins can accumulate dirt and debris, affecting airflow. Use a soft brush or a fin comb to carefully clean the fins. Be gentle to avoid bending or damaging them.
4. **Check the Fan Motor:** Inspect the fan motor for any signs of wear or damage. Lubricate the motor bearings if necessary (if they are accessible and require lubrication).
5. **Inspect the Wiring:** Check the wiring connections inside the condenser unit for any loose or damaged wires. Tighten any loose connections and replace any damaged wiring as needed.
6. **Check the Refrigerant Lines:** Inspect the refrigerant lines for any signs of damage or leaks. If you notice any issues, it's best to contact a professional HVAC technician to address the problem.

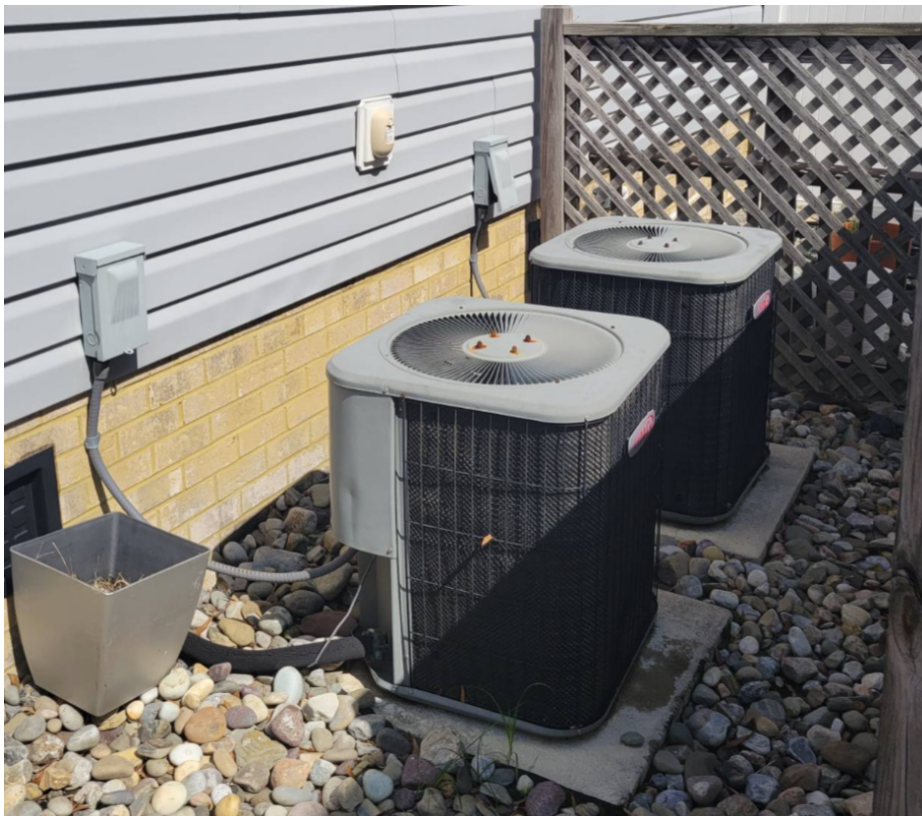
Furnace:

1. **Turn Off Power:** Similar to the condenser unit, ensure that the power to the furnace is turned off before performing any maintenance tasks. This can be done by switching off the electrical circuit that supplies power to the furnace.
2. **Replace Air Filters:** Check the furnace's air filters and replace them if they are dirty or clogged. Clean air filters ensure proper airflow and improve the efficiency of the furnace.
3. **Clean the Blower Compartment:** Remove the furnace's access panel and inspect the blower compartment for any dust or debris. Use a vacuum or a brush to clean the blower blades and surrounding areas.
4. **Check the Burner and Igniter:** Inspect the furnace's burner and igniter for any dirt or debris. Clean them if necessary using a soft brush or cloth. Ensure that the igniter is properly aligned and in good condition.

5. Inspect the Flue and Venting System: Check the flue pipe and venting system for any blockages or obstructions. Clear away any debris or buildup that may restrict the flow of exhaust gases.

6. Check Safety Controls: Test the furnace's safety controls, such as the limit switch and rollout switch, to ensure they are functioning correctly. Follow the manufacturer's instructions for testing and resetting these controls.

Please note that these steps provide a general guideline for servicing the condenser unit and furnace. It's important to consult the manufacturer's instructions and, if needed, seek the assistance of a qualified HVAC technician for proper servicing and maintenance of your specific HVAC system.



Recommendation

Contact a qualified heating and cooling contractor

5.1.3 Heating and cooling equipment

MOISTURE STAINS AROUND FLUE IN THE GARAGE

GARAGE

The ceiling around the exhaust flue in the garage displays signs of moisture stains where the flue exits through the roof. It is advisable to have this area evaluated and repaired. This is possible due to the condensation.

Condensation: When the exhaust gases from the furnace cool down as they exit through the flue, they can create condensation. If the flue isn't properly sloped to allow the condensation to drain away, or if there are obstructions in the flue, the condensation can accumulate and leak back into the furnace or surrounding areas.



Recommendation

Contact a qualified professional.



6: DOORS, WINDOWS & INTERIOR

Information



Interior doors, windows, floors, ceilings : Interior doors, windows, floors and ceiling photos

interior

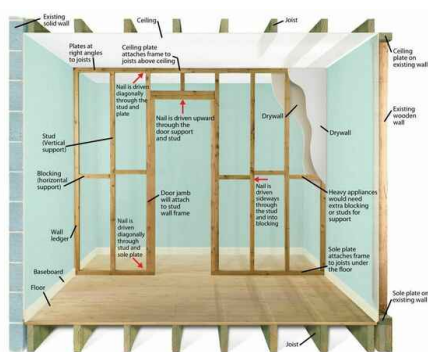
Interior doors, window, floor and ceiling photos for your information.

Additional information on drywall installation:

Installing drywall, also known as gypsum board or sheetrock, is a common method for creating interior walls and ceilings in residential and commercial buildings. Here's a general overview of how drywall is installed:

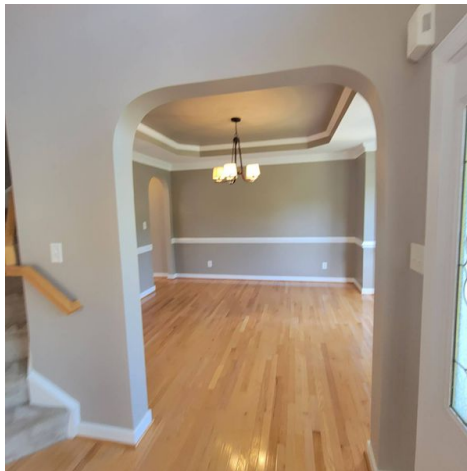
1. Preparation: Before installing drywall, the wall studs or ceiling joists should be in place. Any electrical or plumbing work should be completed, and insulation may be installed if needed. The framing should be free of any protrusions or obstructions.
2. Measurement and Layout: Drywall sheets are typically 4 feet wide and come in various lengths. Measurements are taken to determine the required size and quantity of drywall sheets. Layout lines may be marked on the framing to guide the installation.
3. Cutting Drywall: Drywall sheets are cut to size using a utility knife or a drywall saw. Measurements are transferred to the drywall, and then a straight edge is used as a guide for making the cuts. Score the front side of the drywall, and then snap it along the score line. Finally, cut through the paper backing on the back side.
4. Installation: Drywall is typically installed horizontally, starting from the ceiling and moving down to the floor. The first sheet is positioned against the ceiling, with the tapered edge facing down. It is secured to the framing using drywall screws or nails. Screws are preferred as they provide better holding power and minimize the risk of popping or cracking.
5. Taping and Joint Compound: Once the drywall is installed, joints between the sheets, as well as screw or nail indentations, need to be covered with joint tape and joint compound. Joint tape is applied over the joints, and joint compound is used to cover the tape and fill in the gaps. Multiple layers of compound may be applied, allowing each layer to dry and sanding between coats.
6. Finishing: After the joint compound has dried, the finished surface is achieved through a process called drywall finishing. This involves applying additional layers of joint compound, sanding, and smoothing the surface until it is flat and even. The finish can be customized based on the desired level of smoothness or texture.
7. Priming and Painting: Once the drywall is finished and sanded, it is ready for priming and painting. A coat of primer is applied to seal the drywall surface, and then one or more coats of paint are applied to achieve the desired color and finish.

It's important to note that drywall installation requires proper techniques and tools, and it's often performed by experienced professionals or skilled DIYers. Working with drywall can be physically demanding and may involve working on ladders or scaffolding. It's recommended to follow local building codes and consult with professionals for guidance and assistance if needed.



DRYWALL INSTALLTION







Steps, Stairways & Railings: Steps and handrail photos

interior

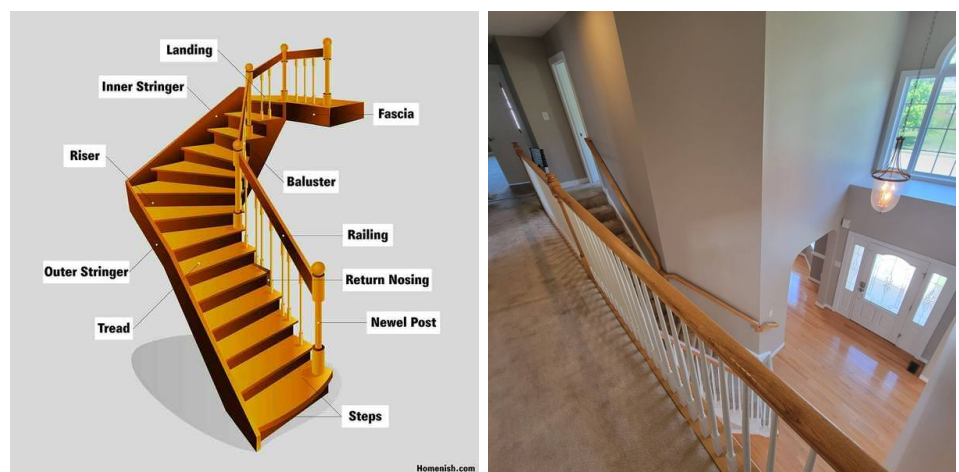
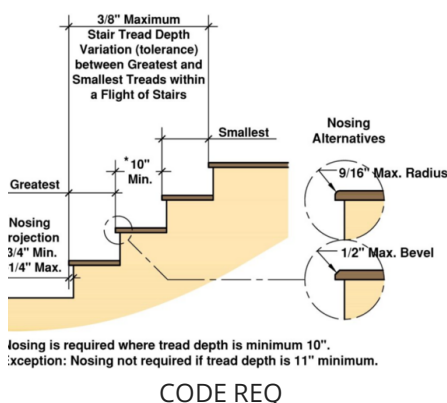
Stair photos for your information.

Additional information on installing staircases:

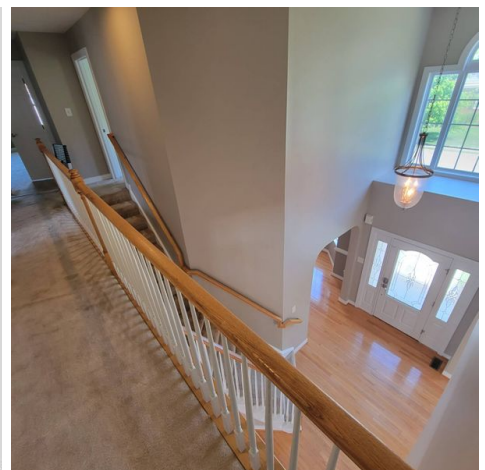
Installing exterior handrails and stairs involves careful planning and adherence to local building codes to ensure safety and compliance. Here's a general overview of how exterior handrails and stairs are installed:

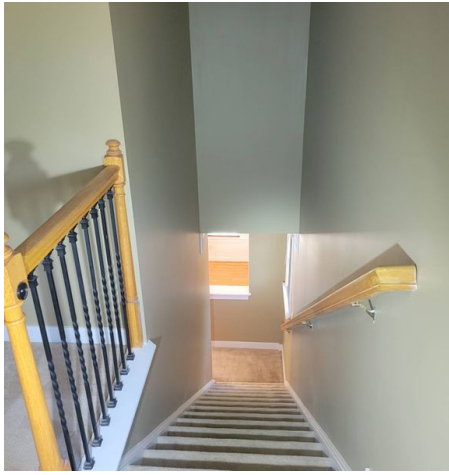
- 1. Design and Permitting:** Determine the design and layout of the handrails and stairs based on the specific requirements of your property and local building codes. Obtain any necessary permits or approvals from the local building authority before proceeding with the installation.
- 2. Material Selection:** Choose the appropriate materials for your handrails and stairs, considering factors such as durability, weather resistance, and aesthetics. Common materials for exterior handrails and stairs include wood, metal (such as wrought iron or aluminum), or composite materials.
- 3. Measurement and Layout:** Take accurate measurements of the area where the handrails and stairs will be installed. Mark the location of the handrail posts, newel posts (if applicable), and stair stringers. Ensure proper spacing and dimensions according to local building codes.
- 4. Foundation and Footings:** If the handrails or stairs require support posts, prepare the foundation and footings. Dig holes to the appropriate depth and size, following local building code requirements. Install concrete footings and let them cure before proceeding.
- 5. Install Handrail Posts:** Attach handrail posts securely to the deck or concrete footings using appropriate mounting hardware and fasteners. Ensure the posts are plumb and securely anchored to provide stability and support for the handrail.
- 6. Install Stair Stringers:** Install the stair stringers, which are the structural supports for the stairs. They are typically made of wood or metal and provide the framework for the individual steps. Attach the stringers securely to the deck or landing and ensure they are level and properly aligned.
- 7. Install Stair Treads and Risers:** Install the stair treads (the horizontal steps) and risers (the vertical panels between the treads) securely to the stair stringers. They can be fastened using screws or nails, or they may be attached using specialized stair brackets.
- 8. Install Handrails:** Attach the handrail to the handrail posts using appropriate mounting brackets or hardware. Ensure the handrail is at the proper height and securely fastened to provide stability and support while climbing the stairs.
- 9. Finishing Touches:** Once the handrails and stairs are installed, make any necessary adjustments, such as trimming the stair treads to ensure an even and uniform appearance. Sand, paint, stain, or seal the handrails and stairs as desired to enhance their durability and aesthetics.

It's important to note that the installation of exterior handrails and stairs may require specialized knowledge and skills. It's recommended to consult with professionals or experienced contractors to ensure the proper installation and compliance with local building codes and safety regulations.



HANDRAIL AND STAIR C





Counter tops & Cabinets and kitchen appliances : Cabinetry and counter tops

Kitchen

combination

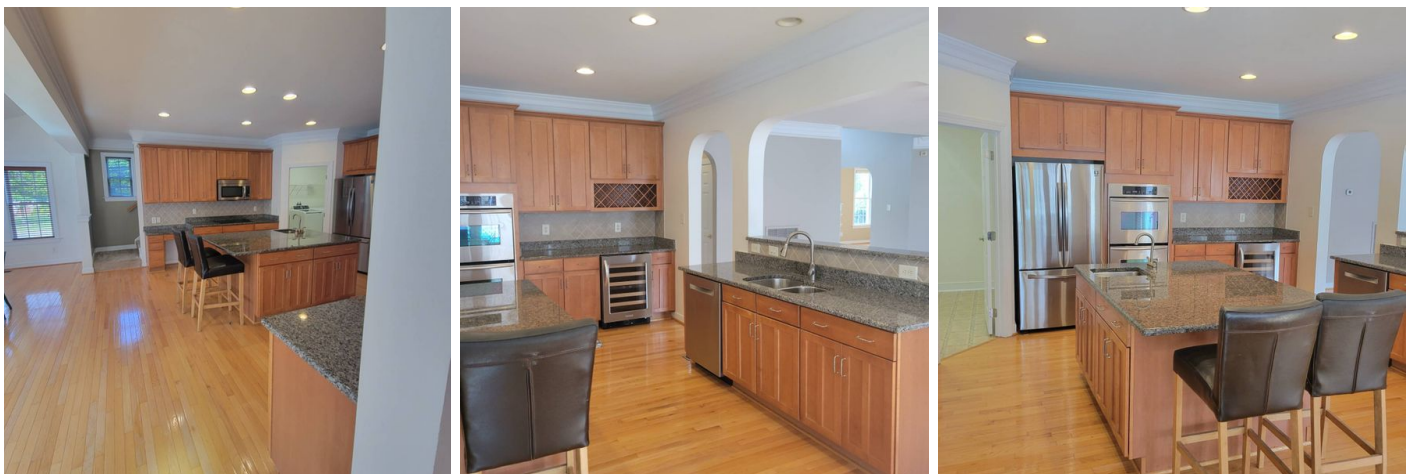
Photos of cabinets and counter tops for your information.

Additional information on installing cabinets and counter tops:

Installing kitchen cabinets and countertops involves careful planning, precise measurements, and attention to detail. Here's a general overview of how kitchen cabinets and countertops are installed:

1. **Planning and Design:** Determine the layout and design of your kitchen cabinets, considering factors such as storage needs, functionality, and aesthetics. Create a detailed plan that includes the cabinet dimensions, placement, and any special features or accessories.
2. **Remove Existing Cabinets:** If you have existing cabinets, remove them carefully, taking care not to damage the walls or surrounding surfaces. Disconnect any plumbing or electrical connections if necessary.
3. **Preparing the Space:** Ensure the walls are clean, smooth, and level. Make any necessary repairs, such as patching holes or fixing uneven surfaces. Install a ledger board along the wall to provide temporary support for the base cabinets during installation.
4. **Install Base Cabinets:** Start with the base cabinets. Begin at a corner and work your way along the wall. Use shims to level and align the cabinets, ensuring they are plumb and level. Secure the cabinets to the wall studs using screws or appropriate fasteners.
5. **Install Upper Cabinets:** After the base cabinets are installed, proceed with the installation of the upper cabinets. Again, use shims to ensure they are level and aligned. Secure the cabinets to the wall studs.
6. **Install Cabinet Doors, Drawers, and Hardware:** Install the cabinet doors, drawers, and any hardware or accessories, such as handles or knobs. Adjust the hinges and drawer slides to ensure proper alignment and smooth operation.
7. **Measure and Cut Countertops:** Measure the dimensions for the countertops carefully, accounting for any wall irregularities or obstacles. Transfer the measurements to the countertop material and cut it to the appropriate size. If using solid surface or quartz countertops, professional cutting and fabrication may be required.
8. **Install Countertops:** Place the countertops on the base cabinets, ensuring they fit properly and are level. Secure the countertops to the cabinets using screws or adhesive, following manufacturer instructions. Make any necessary cutouts for sinks, cooktops, or other fixtures.
9. **Connect Plumbing and Electrical:** If you had to disconnect plumbing or electrical connections, reconnect them according to local codes and regulations. Ensure proper sealing and secure connections.
10. **Finishing Touches:** Make any final adjustments, such as aligning doors and drawers, adjusting hardware, or adding trim. Seal any gaps between the cabinets and walls using caulk or trim pieces.

It's important to note that the installation of kitchen cabinets and countertops can be complex, and it may require specialized tools and skills. It's recommended to consult with professionals or experienced contractors to ensure the proper installation and achieve the desired outcome.





Counter tops & Cabinets and kitchen appliances : Kitchen appliances

Kitchen

Photos of the Kitchen appliances for your information.



Counter tops & Cabinets and kitchen appliances : Kitchen sink

Kitchen

Photos of the kitchen sink for your information.



Limitations

General

INTERIOR ROOM DISCLAIMER

INTERIOR OF HOME

Most wall and ceiling cracking is typical and not usually caused by structural movement. Lastly we are not allowed to open walls or ceilings to perform destructive Testing. Normal shrinkage, settlement and seasonal changes in wood framing may cause minor cracking in walls and ceilings. If soft walls or damaged walls or ceilings are discovered we cannot see into these walls or ceilings to determine if other issues are present. Failure to investigate potential issues could leave you exposed to unexpected costs that are beyond this type of inspection. Furniture and other personal possessions and/or stored items may prevent a complete examination of wall and/or floor surfaces.

General

GENERAL PROPERTY AND BUILDING INTERIOR DISCLAIMER

GENERAL PROPERTY CIRCUMSTANCES

This inspection has focused on the major elements of the property. As noted, some items are only sample tested or partially reviewed. Additionally, this inspection may have been impeded by limited accessibility, especially in occupied homes. Therefore, please do not expect that every defect will be reported. Clients might anticipate and budget an amount not less than \$1000.00 to cover unforeseen and undiscovered defects and/or minor repairs. This inspection does not determine whether proper building permits have been obtained for work performed at this property prior to this inspection. We recommend that the client inquire with the current owner and the local building department as to the disposition of building permits, if any were required. Lastly we are not allowed to pull wires apart to look at connections behind wiring and or Caps or Junction boxes. If Electrical issues are noted in the Attic this does not mean we open junction boxes or tampered with wiring connections as this is beyond the scope of this Inspection.

Building interior disclaimer

Furniture and other personal possessions and/or stored items may prevent a complete examination of wall and/or floor surfaces. Normal shrinkage, settlement and seasonal changes in wood framing may cause minor cracking in walls and ceilings. Most wall and ceiling cracking is typical and not usually caused by structural movement. Lastly we are not allowed to open walls or ceilings to perform destructive Testing. If soft walls or damaged walls or ceilings are discovered we cannot see into these walls or ceilings to determine if other issues are present. Failure to investigate potential issues could leave you exposed to unexpected costs that are beyond this type of inspection

De ciencias

6.1.1 Interior doors, windows, floors, ceilings

TYPICAL CRACKS IN WALLS/CEILINGS AND NAIL POPS/GENERAL COSMETIC DAMAGE

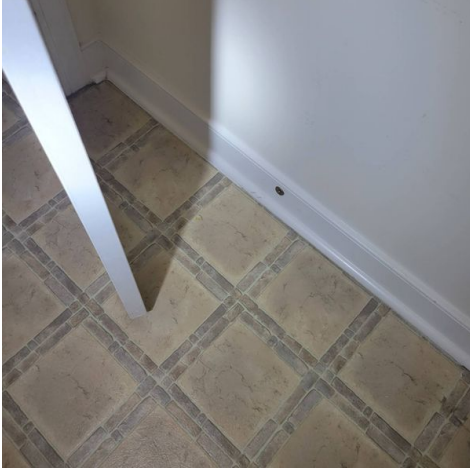
INTERIOR



1. Common cosmetic issues were noted during the inspection, such as typical cracks in walls and ceilings, which can occur over time due to minor settling of the house. Additionally, stains and markings were observed on the walls in the closet. It is recommended to have a qualified contractor evaluate and address these cosmetic defects.
2. Missing door stops observed in multiple areas.

Recommendation

Contact a qualified professional.





6.1.2 Interior doors, windows, floors, ceilings

TYPICAL WEAR ON FLOORS/CARPET

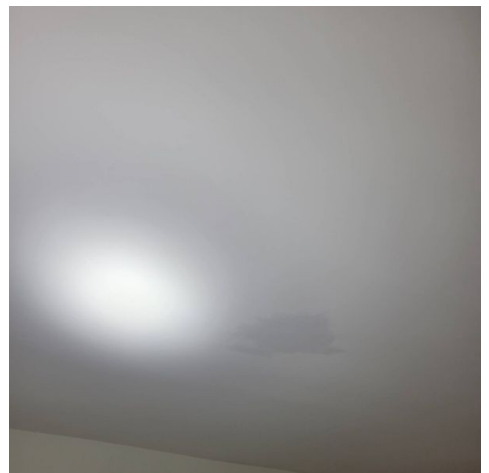
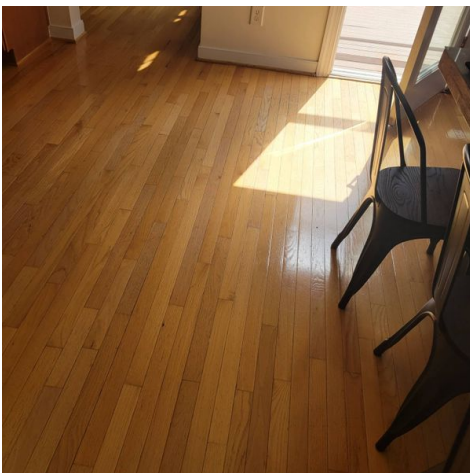


INTERIOR

The flooring and carpets exhibit typical signs of wear, which is expected given the age of the home. Overall, the flooring is in fair condition.

Recommendation

Contact a qualified flooring contractor



6.1.3 Interior doors, windows, floors, ceilings

 Recommendation

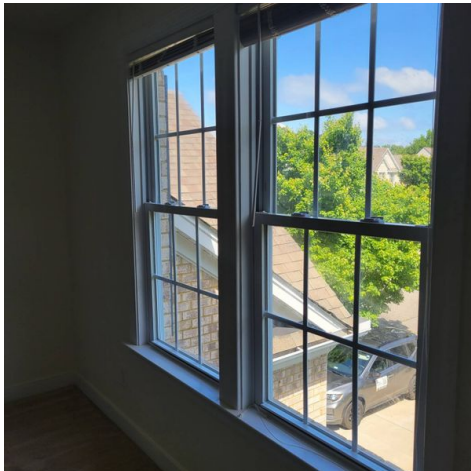
GENERAL WEAR ON WINDOWS AND ALIGNMENT ISSUES

INTERIOR

Several windows exhibit locks that are misaligned. One or more windows are difficult to operate (open and close). This occurrence is common for homes of this age, as settling can cause windows to shift positions. It is advisable to apply a specialized window lubricant to all windows and locks to facilitate smoother operation. We recommend realigning the windows to ensure proper functionality.

Recommendation

Contact a qualified window repair/installation contractor.



6.2.1 Steps, Stairways & Railings

Recommendation

LOOSE HAND RAIL

EXTERIOR OR INTERIOR

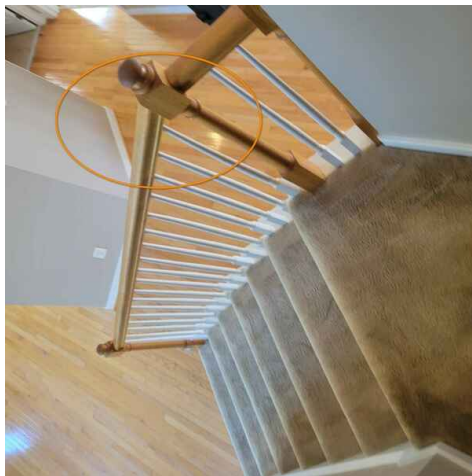
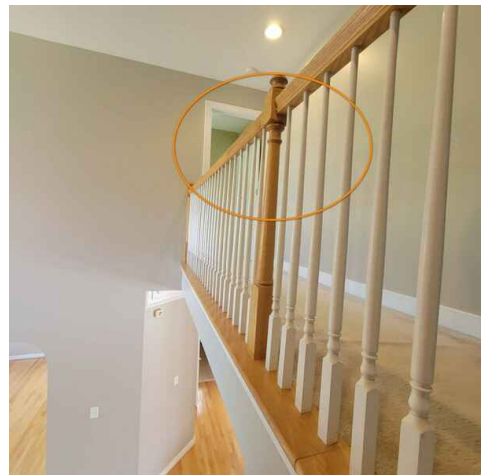
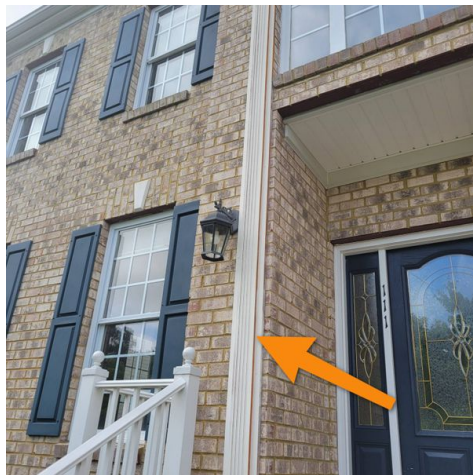
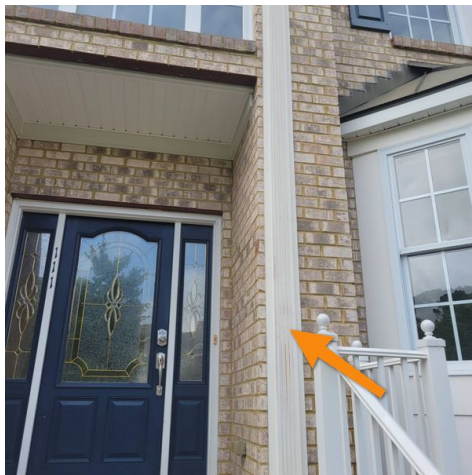
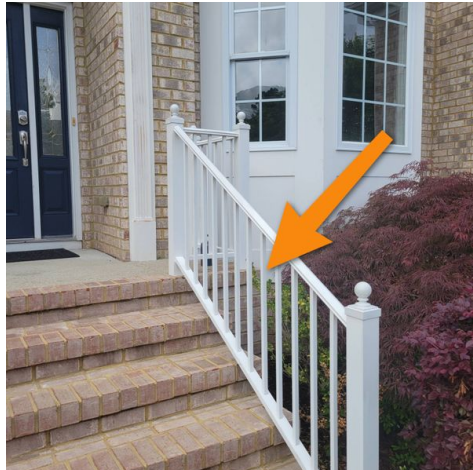
Loose handrail observed at the time of inspection. Recommend a qualified contractor to evaluate and remedy.

Recommendation

Contact a qualified professional.



DIAGRAM



6.3.1 Counter tops & Cabinets and kitchen appliances



Recommendation

LOOSE SINK FAUCET

KITCHEN

1. Loose sink faucets observed at the time of inspection. Recommend a qualified contractor to evaluate and remedy.
2. This mainly pertains to the large kitchen sink.

Recommendation

Contact a qualified professional.



6.3.2 Counter tops & Cabinets and kitchen appliances



Recommendation

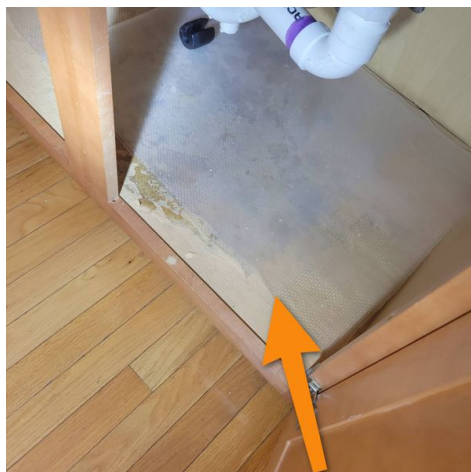
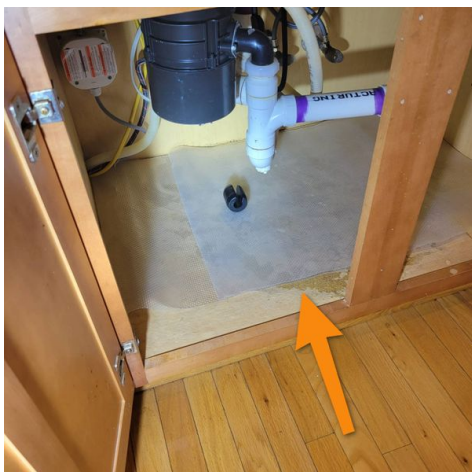
CABINET MOISTURE DAMAGE/DAMAGED CABINETS/LOOSE HINGES

KITCHEN

1. Cabinet moisture damage/damaged cabinets observed at the time of inspection. Recommend a qualified contractor to evaluate and remedy.
2. Recommend installing a moisture barrier in the base of the vanity to protect the cabinet from water damage (rubber mat, film or floor tile). There is a liner under one of the sinks, however, more robust liners are available, if liners are used in the beginning this issue will not present itself.
3. One or more drawers and cabinet hinges are loose. Recommend evaluation and repair.

Recommendation

Contact a qualified professional.





6.3.3 Counter tops & Cabinets and kitchen appliances

TYPICAL WEAR ON DISHWASHER

KITCHEN

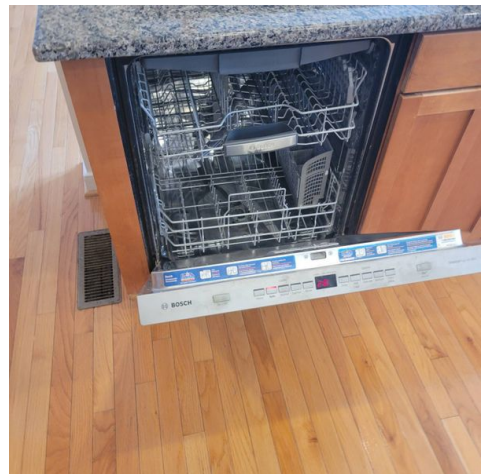
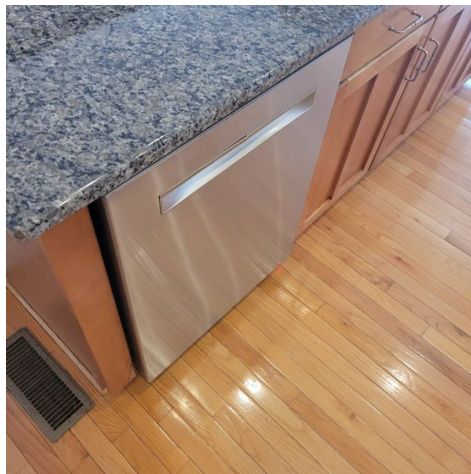
Common signs of wear, such as loose plastic components, were observed on the dishwasher. However, the unit remains operational.

Recommendation

Contact a qualified professional.



Deferred Maintenance



6.3.4 Counter tops & Cabinets and kitchen appliances

SERVICE GARBAGE DISPOSALS (X2)

KITCHEN

In the kitchen, there are two garbage disposals. One of them has debris inside the unit, while the other is missing the line connecting to the plumbing system. It is recommended to have both units evaluated and repaired. Additionally, cleaning and servicing the units is advisable.

Recommendation

Contact a qualified professional.



Recommendation



Large sink (debris in unit)



Small sink



7: PLUMBING

Information

**Hot Water Systems, Controls,
Flues & Vents: Power
Source/Type**
Gas

Water Source

Public

Water is typically supplied to houses from the city through a municipal water supply system. Here's a general overview of how water reaches your house from the city:

1. Water Treatment Plant:

- The journey begins at a water treatment plant where the city sources its water. The water is usually obtained from lakes, rivers, or underground wells.

2. Water Treatment:

- At the water treatment plant, the water undergoes a series of processes to remove impurities and ensure it meets quality and safety standards. Treatment processes may include filtration, disinfection (such as chlorination), and sometimes additional steps like softening or fluoridation.

3. Water Storage:

- After treatment, the water is stored in large reservoirs or water towers to maintain a steady supply for the city. These storage facilities help ensure a continuous flow of water, even during periods of high demand.

4. Water Distribution Network:

- From the water storage facilities, the treated water is distributed through a network of underground pipes, often referred to as the water distribution system or water mains. These pipes are typically made of materials like cast iron, ductile iron, or PVC.

5. Water Meters and Valves:

- Along the distribution network, water meters are installed at individual properties to measure the amount of water consumed. Valves are also installed to regulate the flow of water and isolate specific sections of the network if repairs or maintenance are needed.

6. Service Lines:

- Service lines connect the water distribution network to each individual property. These lines, typically made of copper, plastic, or galvanized steel, bring the water from the main supply to your house.

7. Water Meter and Shut-off Valve:

- At your property, there is a water meter that measures your water usage. A shut-off valve is also located near the meter, allowing you to turn off the water supply to your house if needed.

8. Plumbing System:

- Inside your house, the water supply enters your plumbing system, which includes pipes, fixtures (such as faucets and showers), and appliances that require water. The plumbing system distributes the water throughout your house for various uses, such as drinking, bathing, and cleaning.

It's important to note that the specific infrastructure and processes may vary depending on the location and the city's water supply system. Local regulations and practices also influence how water is delivered to houses.

Additional information on water sourced from a well:

When water is sourced from a well, it follows a different process compared to receiving water from a city's municipal supply. Here's a general overview of how water comes from a well:

1. Well Drilling:

- Wells are typically drilled into the ground to access underground water sources. Professional well drillers use specialized equipment to dig deep into the earth's surface until they reach the water table.

2. Water Table:

- The water table refers to the level below the ground where water saturates the soil or rocks. It can vary in depth depending on the location and geological conditions. The well is drilled below the water table to ensure a constant supply of water.

3. Submersible Pump or Jet Pump:

- Once the well is drilled, a submersible pump or a jet pump is installed inside the well to extract water from the water table.

- A submersible pump is placed directly in the well and is submerged in water. It pushes water up to the surface through a pipe connected to the pump.

- A jet pump is installed above the ground or in a separate pump house near the well. It uses suction to pull water from the well and push it through pipes to the house.

4. Pressure Tank:

- To maintain consistent water pressure and minimize the cycling of the pump, a pressure tank is typically installed near the house. The tank stores a reserve of pressurized water and helps regulate the water flow.

5. Distribution System:

- From the pressure tank, the water is distributed throughout the house via a plumbing system. Pipes carry the water to fixtures, faucets, appliances, and other water outlets within the property.

6. Filtration and Treatment:

- Depending on the quality of the well water, filtration and treatment systems may be installed to remove impurities, sediment, or harmful contaminants.

- Filtration systems can include sediment filters, activated carbon filters, or other specialized filters depending on the specific water quality concerns.

- Treatment systems such as water softeners, disinfection systems, or pH correction systems may be used if needed.

It's important to note that the specifics of well systems can vary depending on factors such as the type of well (e.g., drilled well, dug well), local regulations, and the geological characteristics of the area. Proper well maintenance, regular testing of water quality, and adherence to local regulations are essential for ensuring the safety and reliability of well water. Consulting with a professional well contractor or plumber is recommended for the installation and maintenance of well systems.

Main Water Shut-off Device: Location

Front yard under meter, Behind the water heater in the garage on the wall

If a shut off valve is not installed in a conspicuous area like on the wall of the garage or in the closet the only place for the valve is under the meter in the front yard. Some times this meter can be difficult to reach even for the utility company due to the valve being covered with dirt. A valve can be cut into a location inside the home making it easier to reach. A plumbing contractor can cut into the wall close to the main source and add this valve. Other areas are located under the home in the crawl space, this makes the valve difficult for the homeowner to reach. Consider contacting a plumber to create and easy access for the valve if not located in a common area.

Locating and Operating Your Main Water Shut-Off Valve:

Knowing where your home's main water supply is located, and how to turn it off, is as important as knowing how to find and reset an electric circuit-breaker.

Every home was required to have a main water shut-off valve installed inside the home when it was built. For most emergencies or repairs, shutting off the proper inside valve is all you will need to do. However, there are also underground shut-off valves installed outside at the property line. If it's necessary to shut off this valve, please call a registered master plumber or WSSC Water at 301-206-4003 to work this valve.

Where are my supply valves?

It is important to understand that different plumbing arrangements will dictate where the proper main supply valve is located. Some homes have the water meter located inside, while others are located outside, underground within a "pit" at or near the property line or right-of-way. Some homes also have submeters, which typically are inside even if the main meter is outside/underground. Newer homes have fire sprinkler systems, while older ones generally do not. Home construction also differs greatly; basements, crawl-spaces, and slab-on-grade. Water shut-off valves may have round "wheel" handles or lever handles.

Locating the proper valve

Basements – the shut-off valve is typically located near the front foundation wall. The main water may come through the concrete floor or through the wall. The valve is typically within three to five feet of where the main water enters. In some cases, the main water may enter in a different area, like a mechanical room, up through the floor, near the water heater or furnace.

Crawl-space plus a basement – the shut-off valve may be where the water enters the basement; in some older homes, the shut-off may be inside the crawl space. If your shut-off valve is located in a crawl space, you may want to consider a secondary valve located in the basement.

Crawl-space with no basement – the shut-off valve typically is located near the water heater or under the kitchen sink, but anywhere is possible. If it is located inside the crawl space, you may want to consider a second valve located in the living space, for example, near the water heater or under a sink.

Slab-on-grade construction – the shut-off valve typically is located near the water heater or under the kitchen sink, but anywhere is possible.

Which valve should you operate?

If your home has a fire sprinkler system, care is needed when selecting a shut-off valve. Unless it is a sprinkler pipe that is leaking, you should only shut off the plumbing supply and leave the sprinkler piping charged/live.

If the water shut-down is for a broken sprinkler line or sprinkler head, locate the first valve (that is, the one closest to the main water line entry point) and operate that valve as described below.

For all other general plumbing shut-offs, emergency and non-emergency:

1. For homes with fire sprinklers and an inside main water meter, locate and operate the second valve (it will be above the main meter and past (downstream of) the fire sprinkler system "tee"). If you have a submeter, its second valve will only isolate the irrigation and/or hose bibbs.
2. For homes with fire sprinklers and an outside main water meter, locate and operate the second valve, it will be past (downstream of) the fire sprinkler "tee."
3. For homes without fire sprinklers and with an inside main water meter, either valve will shut off supply to the home, but operating the second valve is a good practice and a safeguard if you are not sure if your home has fire sprinklers.
4. For homes without fire sprinklers and with an outside main water meter, you likely have only one shut-off valve that will shut down the entire home.

How to close the main valve (Shut-off/Turn-off)

1. Round "wheel" handle valves will turn off by turning the handle clockwise. It may take two or more full revolutions.
2. Slowly turn level handle valves ¼ turn, until the handle is not parallel with the pipe. It should stop at a ¼ turn.
3. Open a tub or sink faucet (hot and cold) on the highest level of the home to relieve pressure, and watch that spout to ensure that water has stopped flowing. Then continue to open faucets throughout the home to drain-down as needed.

4. If draining down the home, be sure to de-energize the water heater and boiler where applicable by shutting off power to electric water heaters and any type of boiler. For gas water heaters, turn thermostat down to the pilot-only setting; if you drain the heater, turn off the gas.

Opening the main valve (Open/Turn-on)

1. Close all faucets except a tub or sink on the highest level of the home.
2. Partially turn on valves slowly; extra slow for lever handles; stop after $\frac{1}{2}$ revolution on wheel handle, $\frac{1}{2}$ of a $\frac{1}{4}$ turn for lever handle; with water flowing, slowly turn off highest open faucet.
3. Listen for water pressure to equalize (noise ends); fully open main valve. Bleed air from lines by slowly opening (hot and cold) on all faucets, one at a time, until air stops flowing, then close each faucet; repeat the process on all faucets until complete.
4. Turn power on to electric water heaters and boilers only after the water system is full and all air has been bled out. If gas was turned off, carefully follow re-starting directions on the appliance jacket or call a registered plumber or your gas company for service.

Water Supply, Distribution Systems, Fixtures, Drain, waste and vent systems : Water Supply Material

Whole house

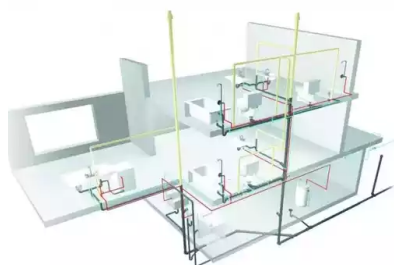
Copper, Pex, PVC

Plumbing photos for your information.

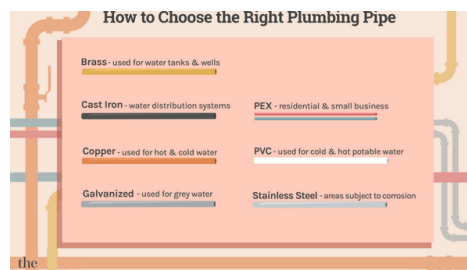
Water supply lines, which bring water into buildings, can be made from various materials. The choice of material depends on factors such as local building codes, water quality, budget, and personal preferences. Here are some common materials used for water supply lines:

1. **Copper:** Copper pipes are widely used for water supply lines due to their durability, corrosion resistance, and long lifespan. They can withstand high temperatures and are suitable for both hot and cold water applications. Copper pipes are often joined using soldering or compression fittings.
2. **PEX (Cross-linked Polyethylene):** PEX pipes have gained popularity in recent years. They are flexible, making them easier to install and maneuver around obstacles. PEX is resistant to corrosion and scale buildup and can handle high temperatures. PEX pipes are typically joined using crimp or clamp fittings.
3. **CPVC (Chlorinated Polyvinyl Chloride):** CPVC pipes are made of a thermoplastic material and are commonly used for hot and cold water supply lines. They are resistant to corrosion and can handle high temperatures. CPVC pipes are joined using solvent cement or threaded fittings.
4. **PVC (Polyvinyl Chloride):** PVC pipes are mainly used for cold water supply lines and not recommended for hot water applications. They are less expensive than other options and easy to install. PVC pipes are joined using solvent cement or threaded fittings.
5. **Galvanized Steel:** Galvanized steel pipes were commonly used in the past but are now less popular due to their tendency to corrode and restrict water flow over time. If your building has older plumbing, it may have galvanized steel pipes. It is often recommended to replace them with more modern materials.
6. **Polyethylene (PE):** High-density polyethylene (HDPE) pipes are used for water supply lines in some applications, particularly for underground installations. They are resistant to chemicals and can handle high pressures. PE pipes are typically joined using heat fusion or mechanical fittings.

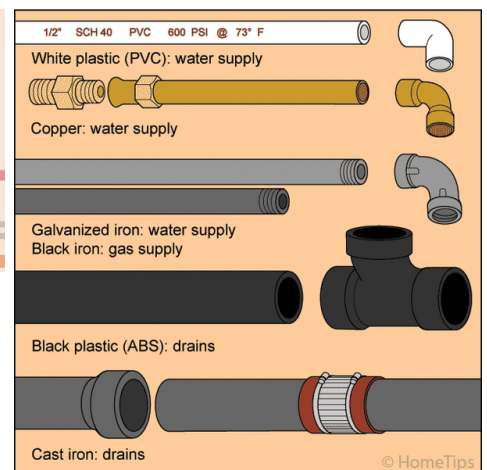
It's essential to consult local building codes and regulations and consider factors such as water quality, budget, and specific requirements when choosing the appropriate material for water supply lines. Professional plumbers or contractors can provide guidance on the best choice of materials for your specific situation.



EXAMPLE OF PLUMBING LINE RUN



EXAMPLE



EXAMPLE ONLY



Hot Water Systems, Controls, Flues & Vents: Capacity

50 gallons

Manufacture year: 2020,

The service life of a hot water heater is approximately 10 to 15 years.



Hot Water Systems, Controls, Flues & Vents: Location

Garage

Water heater diagrams.

Hot water heaters, also known as water heaters or hot water tanks, are devices used to heat and store water for domestic or commercial use. They work by utilizing one of the following heating mechanisms:

1. **Storage Tank Water Heaters:** This is the most common type of water heater. It consists of an insulated tank that stores and heats a specific volume of water. Here's how it works:

- Cold water enters the tank through a dip tube located near the top.
- Inside the tank, a heating element (typically electric resistance coils or a gas burner) heats the water.
- As the water heats up, it rises to the top of the tank.
- Hot water is drawn from the top of the tank through a hot water outlet when a faucet or appliance is turned on.
- To maintain a consistent supply of hot water, the tank refills with cold water, which displaces the hot water and triggers the heating cycle again.

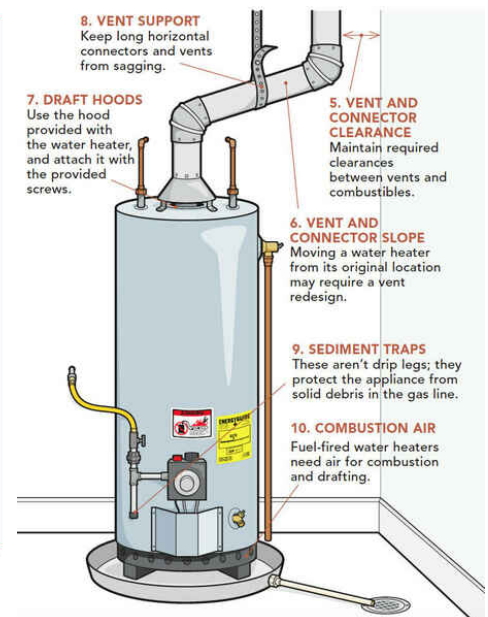
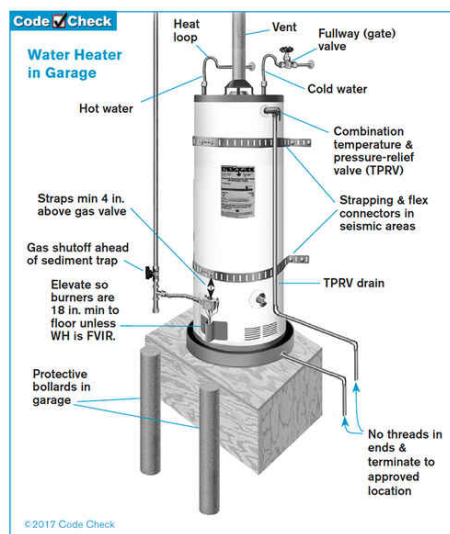
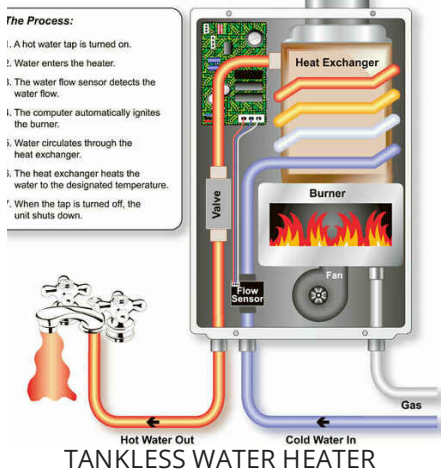
2. **Tankless (On-Demand) Water Heaters:** Tankless water heaters heat water directly as it passes through the unit without the need for a storage tank. Here's how they work:

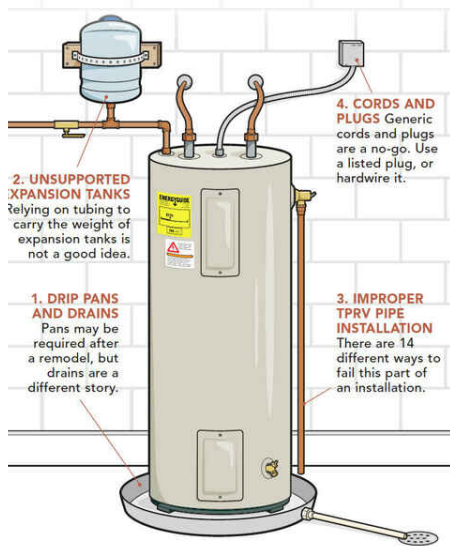
- When a hot water tap is turned on, cold water flows into the unit.
- Inside the unit, a heating element (typically a gas burner or electric heating coils) rapidly heats the water.
- The heated water then exits the unit and travels directly to the faucet or appliance where it is needed.
- Tankless water heaters provide hot water on-demand and can supply a continuous flow of hot water as long as the demand does not exceed the unit's heating capacity.

Both types of water heaters are equipped with temperature and pressure relief valves to ensure safety by preventing excessive pressure or temperature buildup.

It's worth noting that the specific operation and features of hot water heaters can vary depending on the model, fuel source (gas, electric, solar, etc.), and efficiency ratings. It's important to refer to the manufacturer's instructions and guidelines for proper installation, operation, and maintenance of your specific water heater.

How Does a Tankless Water Heater Work?





Hot Water Systems, Controls, Flues & Vents: Manufacturer

Rheem

I recommend flushing & servicing your water heater tank annually for optimal performance. Water temperature should be set to at least 120 degrees F to kill microbes and no higher than 130 degrees F to prevent scalding.

[Here is a nice maintenance guide from Lowe's to help.](#)



Bathrooms : Bathroom 1

1st floor

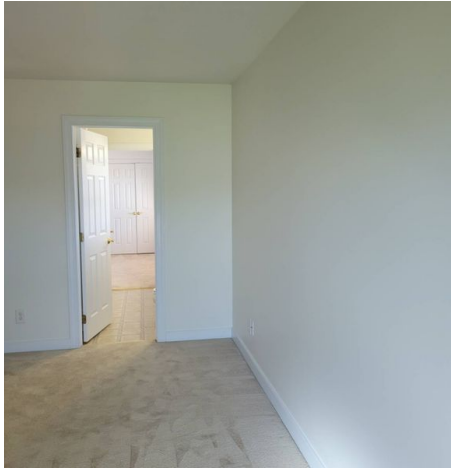
1. Bathroom photos for your information.
2. Water temperature photo using thermal imager or temperature measuring device. Water temp is sufficient.



Bathrooms : Bathroom 2

2nd Floor (jack and Jill bathroom near side of home)

- 1. Bathroom photos for your information.
- 2. Water temperature photo using thermal imager or temperature measuring device. Water temp is sufficient.





Bathrooms : Bathroom 3

2nd floor (jack and Jill small bathroom)

1. Bathroom photos for your information.
2. Water temperature photo using thermal imager or temperature measuring device. Water temp is sufficient.





Bathrooms : Bathroom 4

2nd floor master

1. Bathroom photos for your information.
2. Water temperature photo using thermal imager or temperature measuring device. Water temp is sufficient.





Washer and dryer: Washer and dryer photos

Laundry area

Washer and dryer area photos for your information.



Limitations

General

PLUMBING DISCLAIMER

Supply and drainage piping is observed in exposed areas only. The condition of piping within walls or under ground or under other surfaces cannot be determined as a part of this inspection. Wells and septic systems are specifically excluded from this inspection as well as water Treatment equipment and or Sprinkler systems - separate, specialized testing and inspection of these systems is recommended (and may be required by law). All plumbing work should be performed by licensed plumbers. Additionally if corrosion and or rust is noted at time of inspection on drain piping or supply piping remember this is a Visual inspection "only" as there could be issues below the earth or in areas that supply or drain piping are not accessible from a visual inspection. Only a Licensed Plumber can evaluate these areas with a Lighted Boroscope or other approved tools to actually determine if there are issues within Drain/Supply piping as again this is Outside the area of a Visual non evasive inspection. Please Ask your Home inspector any question that needs to be clarified prior to end of discovery period..

General

LIMITED VIEW

Limited view on plumbing lines inside of walls or directly behind fixtures due to the construction of the home.

Water Supply, Distribution Systems, Fixtures, Drain, waste and vent systems

PLUMBING LINES OR DRAIN LINES IN CONCRETE SLAB

CONCRETE SLAB

Sections of the plumbing lines in concrete slabs cannot be observed. All plumbing lines are observable on homes that are on crawl spaces (persons can crawl under home). The main drain line on homes that are on a slab are also in/under the slab. If issues arise with these types of homes it is common for plumbing contractors to have to enter the slab to correct the issue.

Water Supply, Distribution Systems, Fixtures, Drain, waste and vent systems

COULD NOT TEST TUB JETS/CLEAN AND SERVICE TUB JETS

The tub "bubble pump" could not be tested at the time of inspection due to restrictions. These jets can shoot out a dark sludge that can stain the tub. It is recommended to fill the tub with water and to add a solution that cleans the jets. This also helps to remove the bacteria from other persons in the tub and tub jets. The access for the tub jets is usually a square shaped panel located around the tub or on the outer wall adjacent to the tub.

Water Supply, Distribution Systems, Fixtures, Drain, waste and vent systems

LIMITED VIEW ON PLUMBING PIPES

Because of how home homes are built plumbing pipes and go through floors and walls depending on how the plumber installs them and the time frame during the install. typically speaking homes with crawl spaces have "exposed plumbing" were the distribution pipes and plumbing material is easily visible.

Bathrooms

BATHROOM DISCLAIMER

We recommend periodic cleaning (removal of built-up dust and dirt) of bathroom ventilation (exhaust) fans to maintain proper operation. Periodic review of caulking and grouting at all tiled areas and backsplash is strongly recommended to prevent moisture damage to the underlying surfaces. Repairs should always be made with the proper materials. Water leaks may not appear during the inspection if the home is vacant due to lack of normal usage, but may appear after repeated usage, and we cannot be held responsible for these.

Bathrooms

LIMITED VIEW ON LINES

1. Limited view on plumbing lines due materials obstructing view.
 2. Plumbing lines behind the vanity and in the floors/walls can not be viewed.
-

Deficiencies

7.2.1 Water Supply, Distribution Systems, Fixtures, Drain, waste and vent systems

OXIDATION ON COPPER LINES/TYPICAL WEAR ON PLUMBING LINES

MULTIPLE

Recommendation

1. During the inspection, oxidation was noted on the plumbing lines. It is advisable to have a qualified contractor assess and address this issue. Oxidation is a natural occurrence on copper exposed to water and air over time, resulting in a greenish layer known as copper oxide. Although not harmful, it can lead to corrosion of the copper. The aging of plumbing is typical for homes of this age.
2. There are some loose PEX plumbing lines (white plumbing lines), however, this is typical for the age of the home.

The service life of plumbing materials can vary depending on factors such as installation quality, water quality, and usage patterns. However, as a general guideline:

- Copper plumbing: Copper pipes have a long service life and can last for 50 years or more with proper installation and maintenance. However, in areas with aggressive water conditions or if the pipes are subject to corrosion, their lifespan may be shorter.
- PEX plumbing: PEX (cross-linked polyethylene) pipes are known for their flexibility and durability. They typically have a service life of 40-50 years, although some manufacturers claim they can last up to 100 years.
- PVC plumbing: PVC (polyvinyl chloride) pipes are commonly used for drain, waste, and vent (DWV) systems. They have a service life of 25-40 years on average, depending on factors such as exposure to sunlight and temperature fluctuations.

It's important to note that these are estimates, and the actual lifespan of plumbing materials can vary based on specific conditions and maintenance practices. Regular inspection and maintenance can help extend the lifespan of plumbing systems regardless of the material used.

Recommendation

Contact a qualified professional.





7.4.1 Bathrooms

DEFECTS SUMMARY FOR SECOND-FLOOR JACK AND JILL BATHROOMS (SMALL)

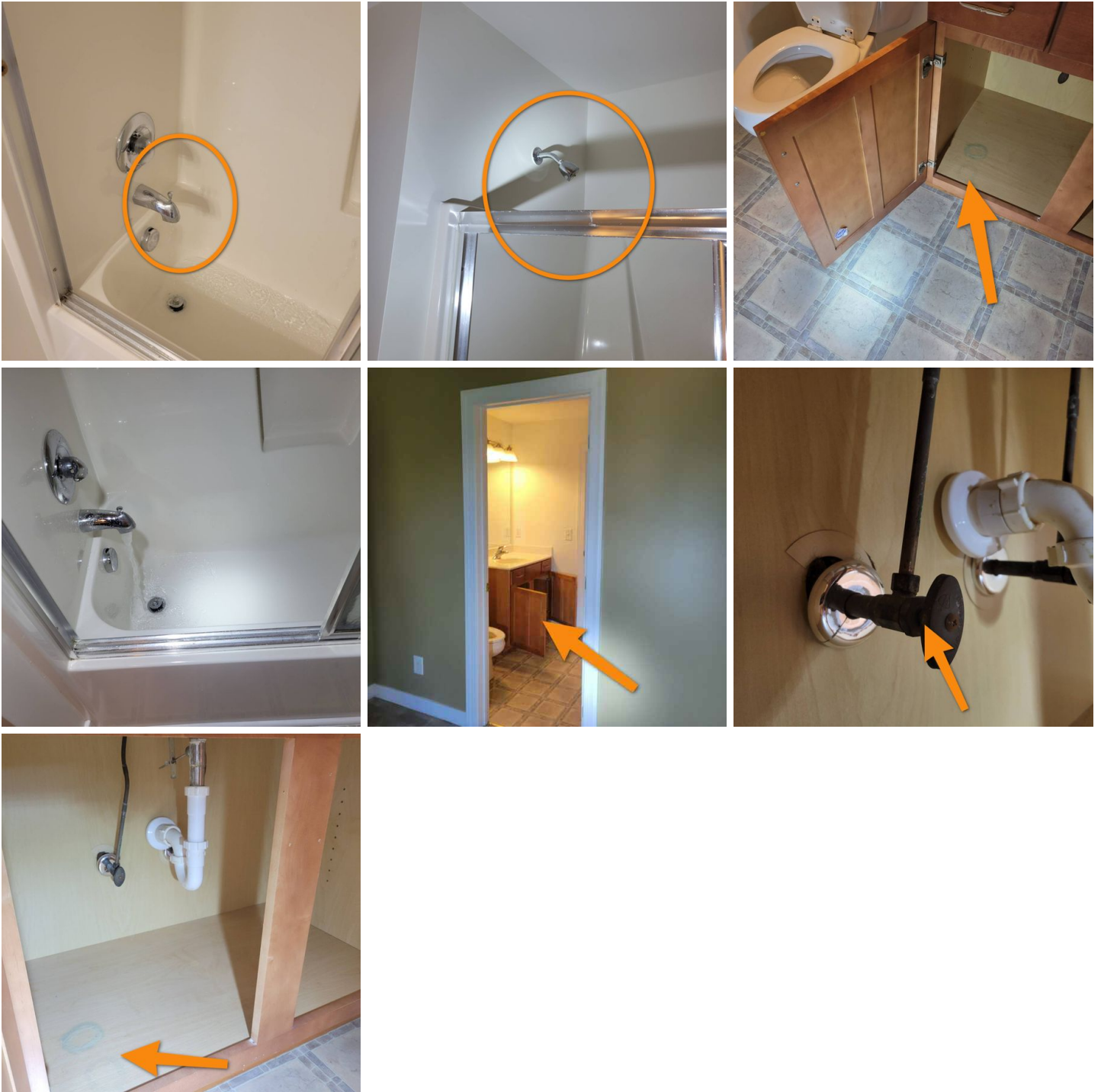
BATHROOMS 2ND FLOOR JACK AND JILL (SMALL)

Defects Summary for Second-Floor Jack and Jill Bathrooms (Small): The shower valve (diversion valve) shows signs of wear, along with a loose shower head (minor issue). Moisture stains are evident in the vanity area, and there is oxidation on the copper lines, which is typical for the age of the plumbing. Additionally, the shower doors are older models. The sink has a slow drain and some of the toilets on this floor appear to have a slow flush. Many of these items are original, this is typical for the age for the home.

Recommendation

Contact a qualified professional.





7.4.2 Bathrooms

DEFECTS SUMMARY FOR FIRST-FLOOR BATHROOM

FIRST-FLOOR BATHROOM

Defects Summary for First-Floor Bathroom:

- Loose toilet observed during inspection. Recommend evaluation and repair by a qualified contractor.
- Slow drain in sink and tub, along with a loose sink faucet. Additionally, there is a slow flush in the toilet. These issues should be addressed promptly to ensure proper functionality.

Recommendation

Contact a qualified professional.





7.4.3 Bathrooms

DEFECTS SUMMARY FOR JACK AND JILL BATHROOM (LARGE)

JACK AND JILL BATHROOM (LARGE)

Defects Summary for Jack and Jill Bathroom (Large):

- Damaged door stopper observed.
- Aged shower doors with signs of wear.
- General wear noticed on the doors.
- Loose drawers on the vanity.
- Moisture stains detected in the vanity.
- Oxidation present on copper plumbing lines.

Recommendation

Contact a qualified professional.





7.4.4 Bathrooms

DEFECTS SUMMARY FOR MASTER BATHROOM (2ND FLOOR):

BATHROOM 2ND FLOOR MASTER

Defects Summary for Master Bathroom:

- Slow drain observed in the large bathtub.
- Moisture stains detected in the vanity.
- Typical damage noticed on door edges (minor).
- Markings observed on walls in the closet (typical).
- Missing screw found in light switch (minor). Recommend evaluation and repair for all issues.
- ***Slow drains should be serviced by a plumber.***

 Recommendation

Recommendation

Contact a qualified professional.



7.5.1 Washer and dryer

DAMAGED EXTERIOR DRYER VENT COVER

EXTERIOR AND INTERIOR

Recommend replacing the exterior vent for the dryer, and to replace the dryer vent is acquiring this property.

Recommendation

Contact a qualified professional.





8: ELECTRICAL

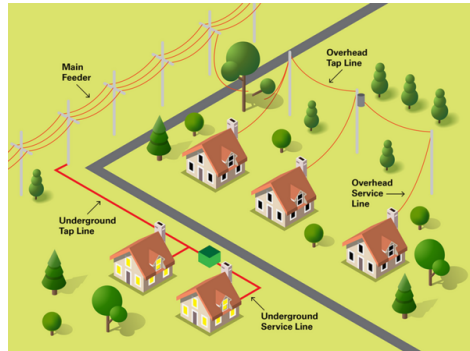
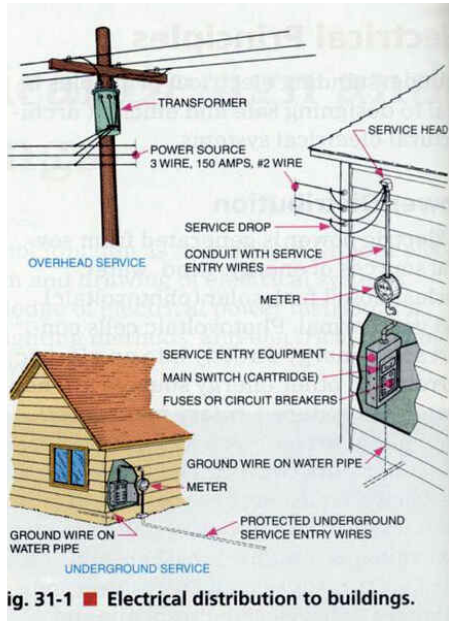
Information

Service Entrance Conductors: Electrical Service Conductors

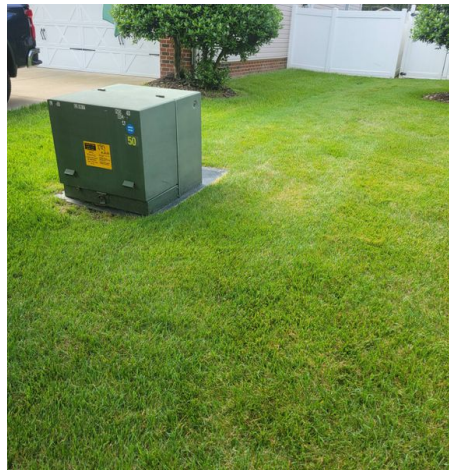
Exterior

Below Ground

Service entrance conductor photos for your information.



Overhead and underground service description



Main & Subpanels, Service & Grounding, Main Overcurrent Device: Main Panel Location

Garage

Electrical Panel photos for your information.

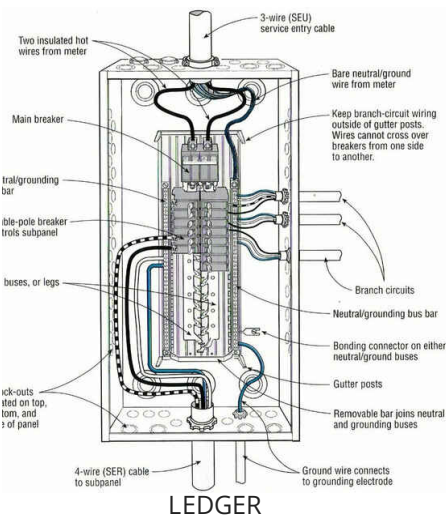
Type of wiring: Copper.

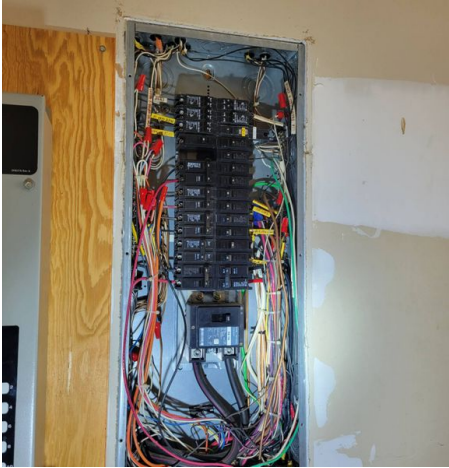
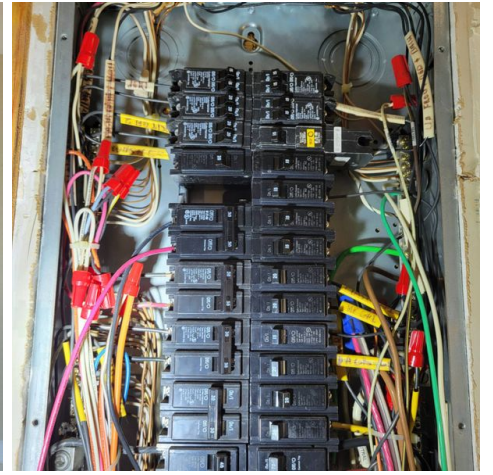
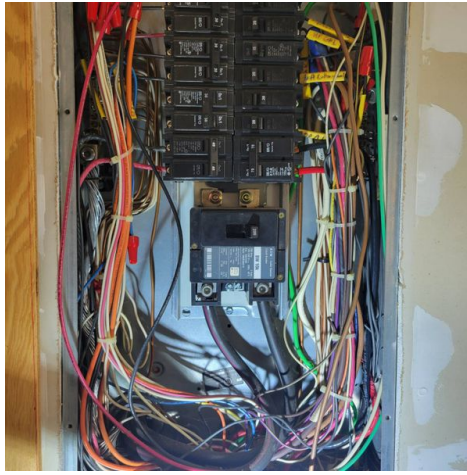
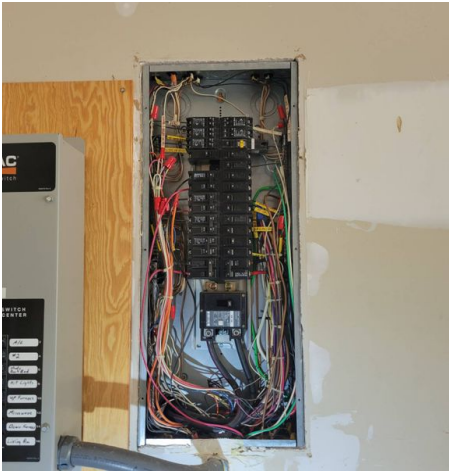
Additional information:

There are several types of electrical wires commonly used in residential houses. The specific types of wires used depend on the application and electrical codes in your region. Here are some common types of electrical wire:

1. **Non-Metallic Sheathed Cable (NM or Romex):** NM cable is the most common type of electrical wire used in residential applications. It consists of two or more insulated conductors (typically black, white, and bare copper) wrapped in a plastic sheathing. NM cable is used for general wiring, such as lighting, outlets, and appliances.
2. **Underground Feeder Cable (UF):** UF cable is designed for underground or direct burial applications. It has similar construction to NM cable but includes a moisture-resistant outer jacket. UF cable is used for outdoor wiring, such as outdoor lighting, underground circuits, and outdoor outlets.
3. **Armored Cable (AC or BX):** Armored cable consists of insulated conductors wrapped in a flexible metal sheath. The metal sheath provides protection against physical damage and can also serve as the grounding conductor. Armored cable is used in areas where additional protection is required, such as exposed areas or where there is a risk of damage from rodents.
4. **Conduit and THHN Wire:** Conduit is a protective tubing that holds individual THHN (Thermoplastic High Heat-resistant Nylon) wires. THHN wire is a single conductor with insulation rated for high temperatures. Conduit and THHN wire are commonly used in commercial or industrial applications but can also be used in residential installations where additional protection is needed or required by local codes.
5. **Low Voltage Wiring:** Low voltage wiring is used for low-power systems, such as doorbells, intercoms, security systems, and audiovisual equipment. It typically consists of smaller gauge wires with insulation specifically designed for low-voltage applications.

It's important to note that electrical codes and regulations may vary depending on your location. It's always best to consult with a licensed electrician or follow local electrical codes and guidelines when selecting and installing electrical wire in residential applications.





Main & Subpanels, Service & Grounding, Main Overcurrent Device: Panel Capacity

200 AMP

The NEC is updated periodically, and different states or local jurisdictions may adopt specific versions of the code. However, some general standards and practices commonly followed for residential electrical panels include:

1. Main Service Disconnect: The main electrical panel must have a clearly labeled main service disconnect that can shut off power to the entire panel. It is typically located at the top or bottom of the panel and should be easily accessible.
2. Panel Ratings: Residential electrical panels are typically rated for 100 to 200 amps, although larger panels are available for higher-demand installations. The panel rating should match the capacity of the electrical service provided to the house.
3. Circuit Breakers: Residential panels commonly use circuit breakers as the primary means of protection for individual circuits. The breakers must be properly sized to protect the wiring and equipment connected to the circuit. The capacity of the panel determines the number of circuit breakers that can be installed.
4. Panel Construction: Residential electrical panels are typically constructed with a metal enclosure for safety and durability. The panel should be properly grounded, and the cover should be securely fastened.
5. Labeling and Marking: As mentioned earlier, electrical panels should be properly labeled to identify the circuits and corresponding breakers/fuses. This helps with troubleshooting, maintenance, and safety.

It's important to note that electrical codes and standards can vary by country, region, or local jurisdiction. It is always recommended to consult the specific electrical code adopted in your area or seek guidance from a licensed electrician to ensure compliance with the current standards and regulations.

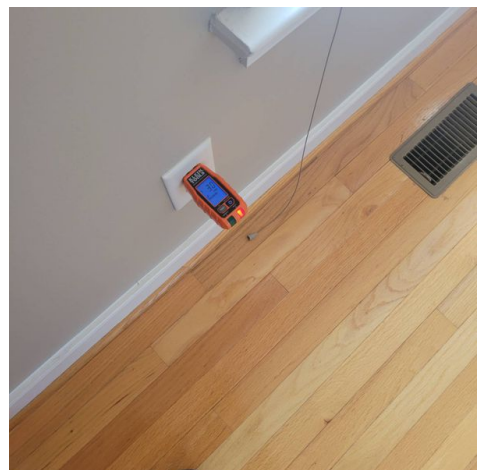
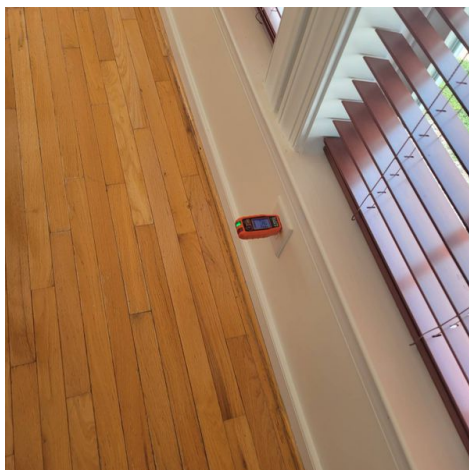
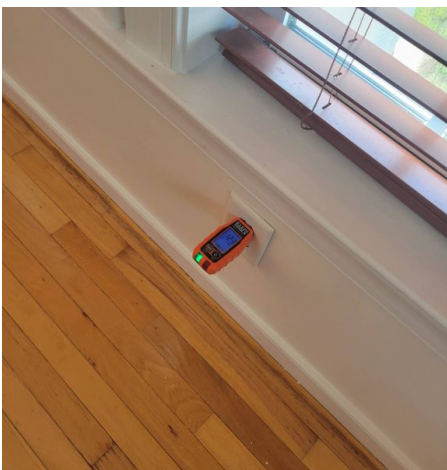
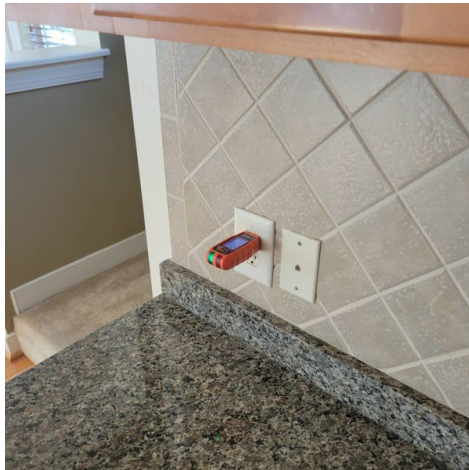
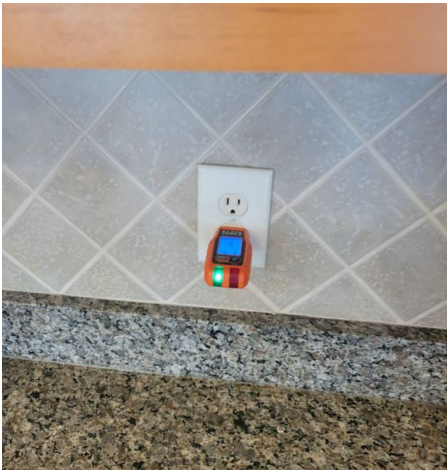


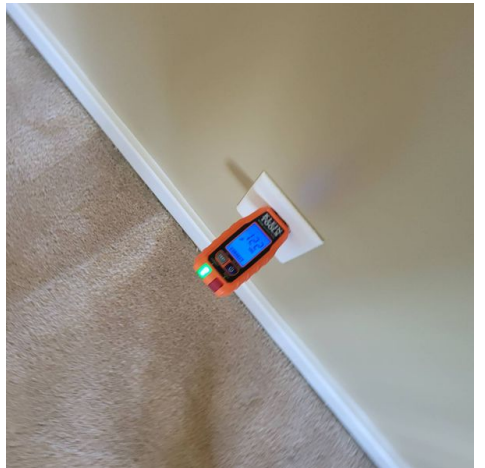
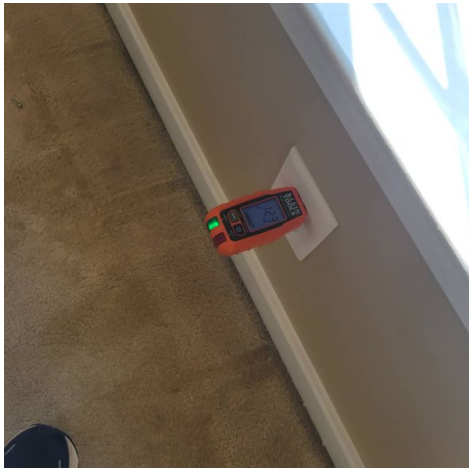
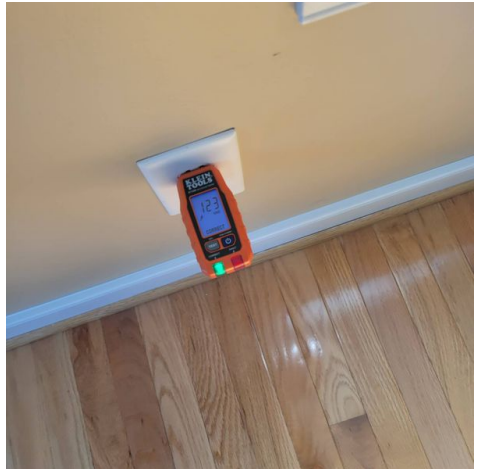
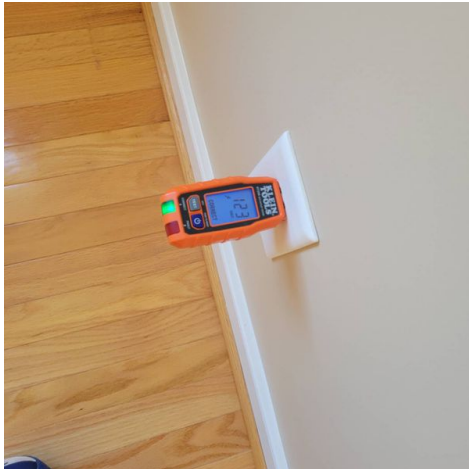
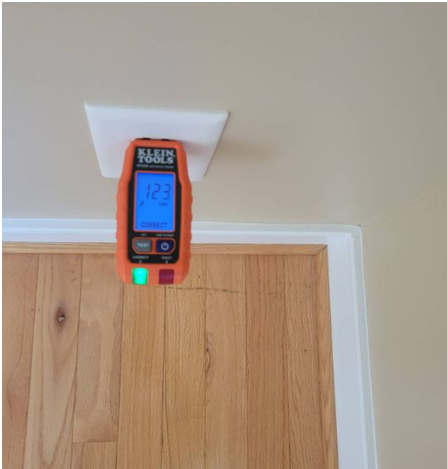
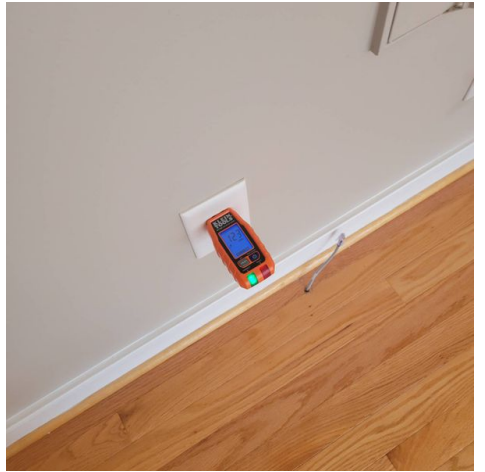
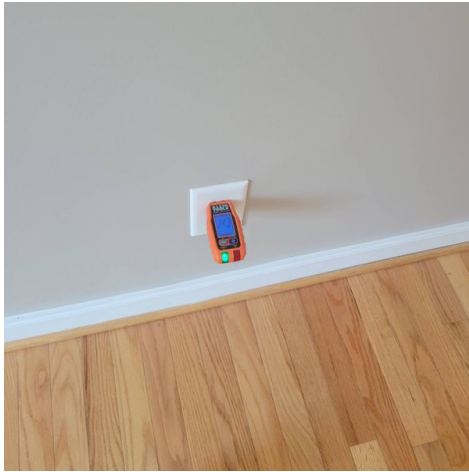
Switches & Receptacles: Outlet photos (test)/lighting systems

Interior and exterior

Ledger: **Green** indicates correct wiring

Red indicates an issue.







Limitations

General

ELECTRICAL LEGAL DISCLAIMER

Only qualified electricians should perform all electrical repairs or modifications. The condition of wiring is typically only observed in the electrical panel(s)

- junction box covers, outlet and switch covers or junction boxes are not removed. Lights that do not appear to function are often the result of burned out bulbs. AFCI (arc fault circuit interrupter) devices and only tested in vacant houses. Smoke detectors are visually checked but not tested in accordance with industry standards. Low voltage systems (door bells, telephones, alarm systems, cable, phone, internet etc.) are not included in this inspection.

Lastly if there are a number of Electrical issues noted on inspection report for the Home you are buying a separate review from a Qualified Licensed

Electrician of the Electrical systems is recommended and there findings should be considered as a result of there inspection going forward as we do

not quote code nor pull wires out of insulation in the Crawl space or Attic nor do we pull apart wires to review connections and or certify that your

electrical system wont have problems in the future. You are required to perform a walk-thru prior to closing so if your homes electrical system was noted

in satisfactory condition by you or your allowed representative then this is proof that no visual conditions were noted by **Iron Mountain Home Inspection Training Academy** and You and or allowed representative

prior to taking possession. If items are discovered at Home Inspection and or walk-thru please have your Real-Estate professional represent you prior to closing to have Selling/Owner or Listing or FSBO side correct

any issues discovered during Inspection and or

required Walk-thru prior to you taking possession.

SMOKE AND CARBON MONOXIDE DETECTORS SHOULD BE PERIODICALLY CHECKED FOR FUNCTION.

Carbon Monoxide Detectors/Smoke detectors

SMOKE/CARBON MONOXIDE DETECTOR DISCLAIMER

Smoke Alarm/Carbon Monoxide alarms Info- Smoke/CO2 alarms. During our inspection, we do not operate these alarms . We also do not smoke-test alarms, which is the only definitive test to confirm proper function.

If there are no fire extinguishers in the house it is recommend that a fire extinguisher be accessible in the kitchen, garage, and second floor if present. Smoke alarms should be replaced every 10 years if not sooner.

De ciencias

8.2.1 Main & Subpanels, Service & Grounding, Main Overcurrent Device

Recommendation

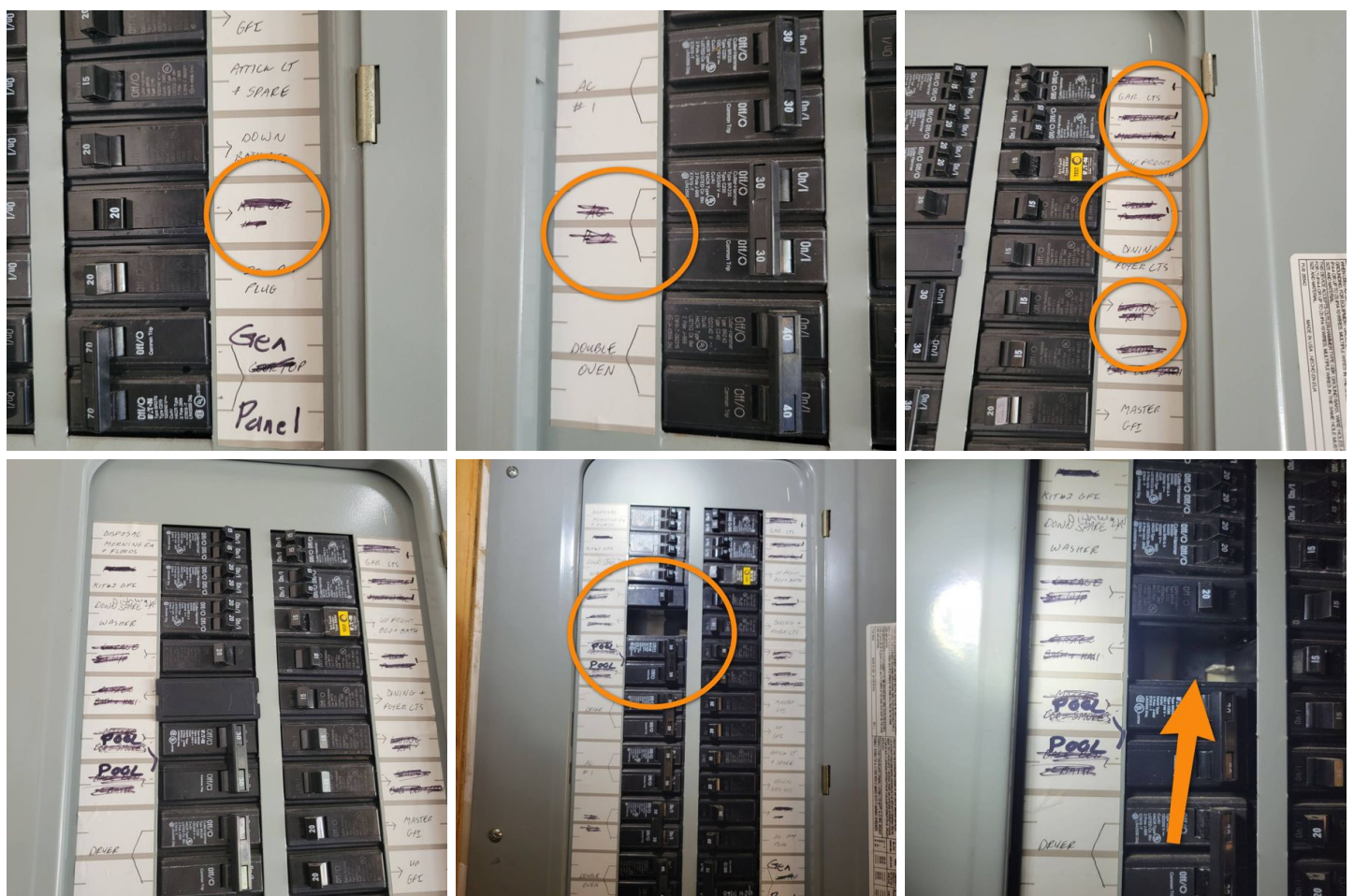
ELECTRICAL PANEL CONFIGURATION ISSUE

GARAGE

1. The electrical panel is inaccurately labeled, indicating potential rewiring. Some entries have been marked off, and a breaker is entirely missing, necessitating a cover. Breakers marked off do not contain wires (not in use), which should not remain in the panel. The configuration of the panel is unclear, warranting inspection and correction by a qualified electrician.
2. It's possible that these changes were made due to the installation of the pool or the generator. These changes are not typical. Recommend evaluation by an electrician (licensed).
3. See the next defect for images without the panel cover.

Recommendation

Contact a qualified electrical contractor.



8.2.2 Main & Subpanels, Service & Grounding, Main Overcurrent Device

Recommendation

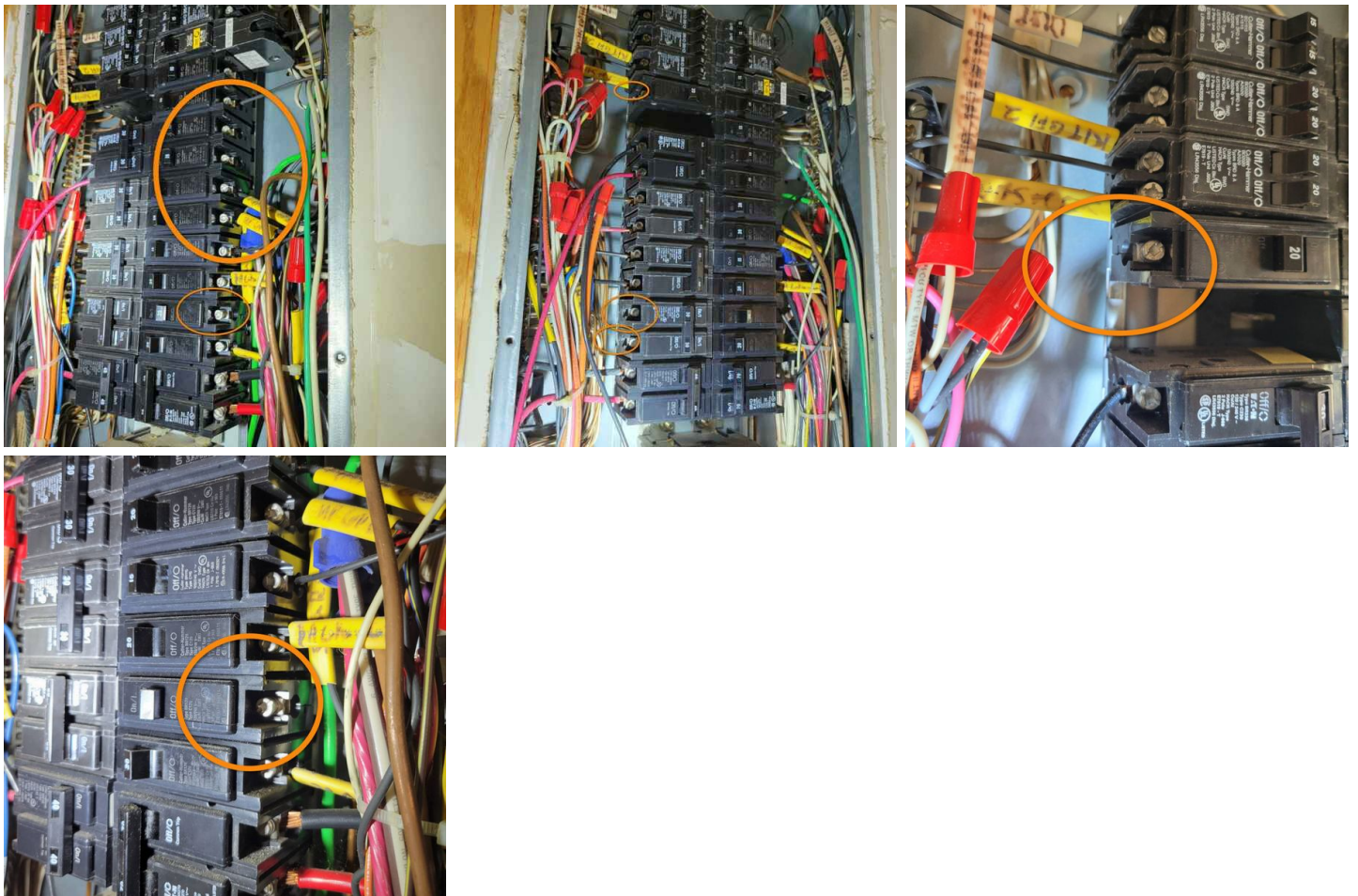
ELECTRICAL PANEL WITH MISSING BREAKERS AND BREAKERS WITH NO WIRING (BREAKERS NOT IN USE)

GARAGE

1. There are several breakers in the panel where the wiring has been removed. Although the receptacles and lights in the home are currently operational, this configuration is not typical. Additionally, one breaker is completely missing. It is recommended to have an electrician evaluate and rectify this issue promptly.
2. These breakers that are not wired have the original use for the breaker changed or marked out. In most cases, the electrical contractor would normally adjust the configuration, remove the breakers and apply plastic clip covers and add new labels on the panel as to not convolute the installation.
3. When swimming pools are installed is common for panels to have some changes or adjustments made, however, this configuration is not typical. The amperage is 200 amps which is the maximum. This issue could also be related to the installation of the Generac system.

Recommendation

Contact a qualified electrical contractor.



8.2.3 Main & Subpanels, Service & Grounding, Main Overcurrent Device

OBSERVATION: COMMUNICATION WIRING AND OLDER ADT ALARM SYSTEM IN GARAGE

GARAGE

In the garage, there is existing communication wiring alongside an older ADT alarm system within the home. It is advisable to consider upgrading these systems for enhanced functionality and security. Please note, this is solely an observation for consideration.

Recommendation

Contact a qualified professional.





8.2.4 Main & Subpanels, Service & Grounding, Main Overcurrent Device

 Deferred Maintenance

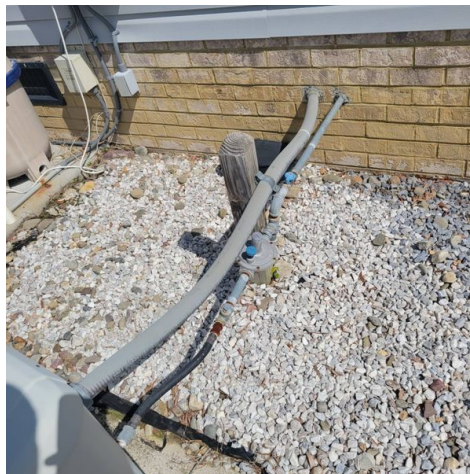
RECOMMENDATION: SERVICE AND OBTAIN MANUAL FOR GENERAC GENERATOR SYSTEM

REAR

There is a Generac generator system installed on the property. It is advisable to have this system serviced, especially considering that gas-powered generators like this one may not have been used for extended periods. Additionally, it is recommended to obtain the manual for this unit to ensure proper operation and maintenance. This precautionary measure helps ensure the reliability and functionality of the generator, providing peace of mind for homeowners.

Recommendation

Contact a qualified professional.





8.3.1 Switches & Receptacles

LOOSE OUTLETS OR RECEPTACLES

MULTIPLE

 Recommendation

1. Loose outlets or receptacles observed at the time of inspection, recommend a qualified contractor to evaluate and repair.
2. Excessively loose outlets can lead to wires being loose behind the wall.
3. This is typical for older receptacles; these are original items. These receptacles are operational and they test for correct wiring.

Recommendation

Contact a qualified electrical contractor.





8.3.2 Switches & Receptacles

LOOSE LIGHT FIXTURES

MULTIPLE

 Recommendation

1. One or more loose light fixtures observed at the time of inspection. Recommend a qualified contractor to evaluate and remedy.
2. This is common for older fixtures.

Recommendation

Contact a qualified electrical contractor.



8.3.3 Switches & Receptacles

 Recommendation**NO POWER TO RECEPTACLE (GFCIS ON REAR OF HOME)**

REAR OF HOME

The exterior GFCIs exhibited malfunctioning behavior during the inspection. They were reset along with the GFCIs inside the home. It is recommended to assess and address this issue promptly. Additionally, there were some GFCI entries marked off on the panel, but it is unclear if they were associated with these specific GFCIs. Recommend an electrician to evaluate and repair.

Recommendation

Contact a qualified electrical contractor.



8.3.4 Switches & Receptacles

 Deferred Maintenance**UPGRADE SMOKE DETECTION/CARBON MONOXIDE SYSTEM OR ALARM SYSTEM**

WHOLE HOUSE

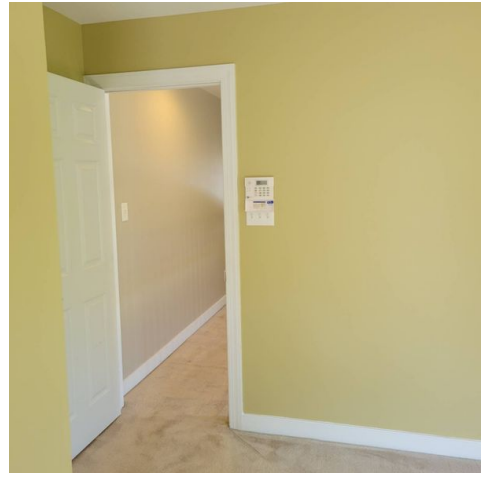
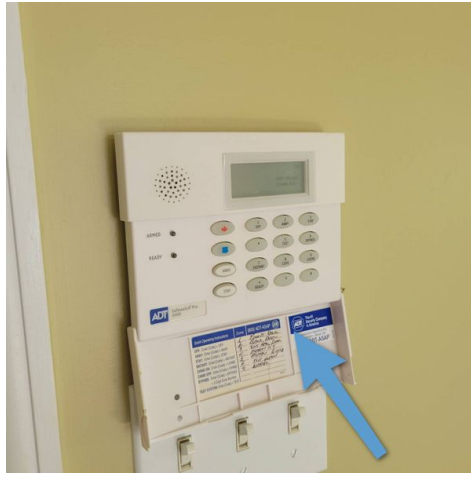
1. Recommend upgrading the smoke detection/carbon monoxide system. Newer systems include Wi-Fi options that notify the homeowner through an application in the event that the homeowner is not present at the property.
2. Recommend having the alarm system upgraded if an alarm system is on the premises.
3. Recommend upgrading the ADT electrical system.

Recommendation

Contact a qualified professional.



EXAMPLE ONLY NEWER UNIT



9: FIREPLACE

Information

Type
Gas

Deficiencies

9.1.1 Vents, Flues & Chimneys

SERVICE GAS FIREPLACE

LIVING AREA

 Deferred Maintenance



Recommend servicing this unit, as it has remained unused and unattended. The gas supply to the unit has been turned off. Additionally, there is evidence of dog hair under the fireplace. In certain regions, utility companies may offer complimentary fireplace servicing to encourage gas usage and increase profitability.

How gas fireplaces work (additional information):

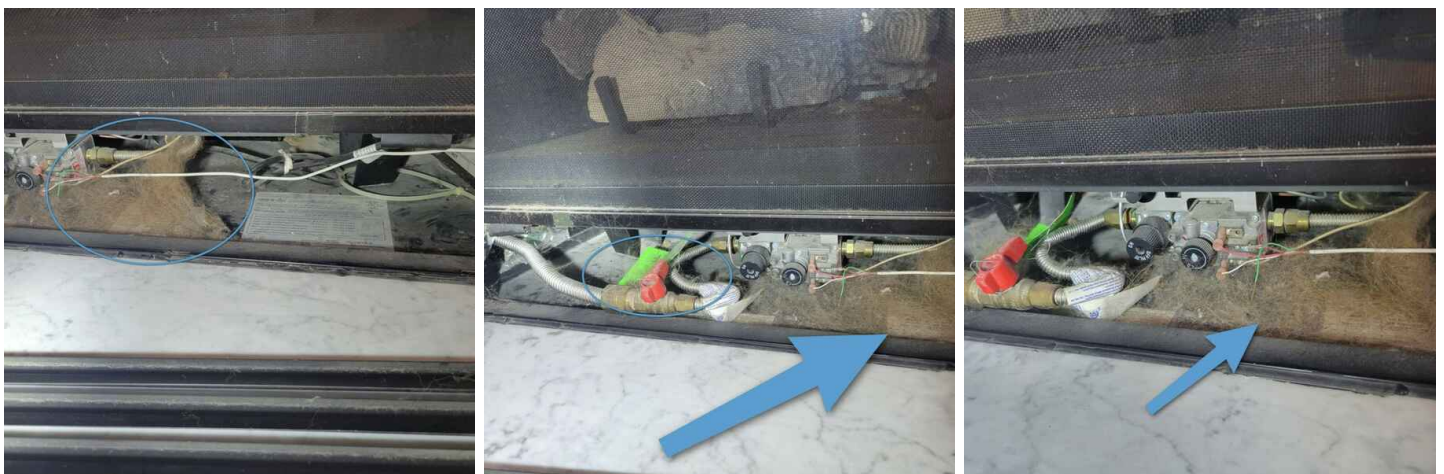
Gas fireplaces work by utilizing natural gas or propane as a fuel source to produce flames and heat. Here's a general overview of how gas fireplaces work:

1. **Fuel Supply:** Gas fireplaces are connected to a gas supply line, either natural gas from a utility provider or propane from a tank. The gas supply is regulated by a control valve.
2. **Ignition System:** The gas fireplace is equipped with an ignition system that includes a pilot light or an electronic ignition. The pilot light is a small flame that remains lit constantly and ignites the main burner when the fireplace is turned on. Electronic ignition systems use an electronic spark or hot surface igniter to ignite the gas.
3. **Burner and Flames:** The gas burner, located within the firebox of the fireplace, releases the gas and creates a controlled flame. The flames produced are typically adjustable, allowing you to regulate the size and intensity of the fire.
4. **Venting System:** Gas fireplaces require proper ventilation to expel combustion byproducts, such as carbon monoxide and other gases, from the home. Venting options include direct venting, which uses a sealed combustion system with a dedicated vent pipe for both intake and exhaust, or ventless options that rely on oxygen depletion sensors and catalytic converters to ensure safe operation.
5. **Heat Distribution:** Gas fireplaces can generate heat through various methods. Some models have built-in blowers or fans that distribute warm air into the room, while others rely on radiant heat, where the heat radiates directly from the fireplace into the surrounding area.
6. **Controls and Safety Features:** Gas fireplaces are equipped with controls, typically in the form of a wall switch or a remote control, that allow you to turn the fireplace on or off, adjust flame height, and control other settings. They may also include safety features like a thermocouple or flame sensor that detect if the flame is extinguished and automatically shut off the gas supply.

It's important to follow the manufacturer's instructions and any local building codes or regulations when installing, operating, and maintaining a gas fireplace. Regular maintenance, including cleaning, inspection, and servicing by a qualified technician, is essential to ensure safe and efficient operation.

Recommendation

Contact your local utility company





10: ATTIC, INSULATION & VENTILATION

Information



Roof system/Insulation : Attic/roofing system photos/duct work photos

Attic and roof system photos for your information. Insulation is sufficient.

Information on roof framing:

Roof framing refers to the structural framework of a roof that supports the weight of the roof covering, transfers the load to the walls or support columns, and provides stability to the overall roof structure. The roof framing system typically consists of several key components:

1. **Roof Trusses or Rafters:** The primary load-bearing elements of the roof framing are roof trusses or rafters. Trusses are pre-engineered structural frameworks made of wood or metal, while rafters are individual framing members installed on-site. They are designed to span the distance between the exterior walls or support columns and provide the basic shape and structure of the roof.
2. **Ridge Beam:** The ridge beam is a horizontal beam located at the highest point of the roof. It provides support and stability to the upper ends of the roof trusses or rafters and helps to define the ridge line of the roof.
3. **Roof Joists or Purlins:** Roof joists or purlins are secondary framing members that run horizontally across the roof, perpendicular to the trusses or rafters. They are installed to provide additional support and to help distribute the load evenly.
4. **Collar Ties or Collar Beams:** Collar ties or collar beams are horizontal members installed between opposing roof rafters or trusses near the midpoint of the roof height. They help to resist the outward thrust and spread the load to prevent the roof from sagging or spreading apart.
5. **Roof Sheathing:** The roof sheathing is a layer of boards or panels that are installed on top of the roof framing. It provides a solid surface for attaching the roof covering and adds strength and rigidity to the roof structure.
6. **Roofing Materials:** The roofing materials, such as shingles, tiles, or metal sheets, are installed on top of the roof sheathing. They protect the roof framing from the elements and provide the finished appearance of the roof.

The design and construction of roof framing depend on various factors, including the type of roof, local building codes, climate conditions, and the size and shape of the structure. It is important to follow proper building practices and consult with a structural engineer or a professional roof contractor to ensure the roof framing is adequately designed and constructed to withstand the expected loads and provide a safe and durable roof structure.





Ventilation: Ventilation Type

Passive

Roof ventilation refers to the system or components designed to allow air to flow in and out of the roof space. Proper roof ventilation is important for maintaining a healthy and efficient roof system. Here's an explanation of roof ventilation and its benefits:

1. Purpose of Roof Ventilation: The primary purpose of roof ventilation is to promote air circulation and control moisture buildup in the attic or roof space. It helps to remove excess heat, humidity, and condensation that can lead to a range of issues such as roof damage, mold growth, and reduced energy efficiency.

2. Types of Roof Ventilation: There are two main types of roof ventilation: intake vents and exhaust vents.

a. Intake Vents: Intake vents are typically located at the lower part of the roof, such as the soffits or eaves. They allow fresh air to enter the roof space from the outside. Common types of intake vents include soffit vents, continuous soffit vents, or gable vents.

b. Exhaust Vents: Exhaust vents are installed at the upper portion of the roof, such as the ridge, roof peaks, or gable ends. They allow warm and moist air to escape from the roof space. Common types of exhaust vents include ridge vents, roof vents, gable vents, or powered attic fans.

3. Benefits of Roof Ventilation:

a. Temperature Regulation: Proper ventilation helps to regulate the temperature in the attic or roof space, preventing excessive heat buildup during hot seasons. This can reduce the strain on the roof materials and potentially lower cooling costs for the living space below.

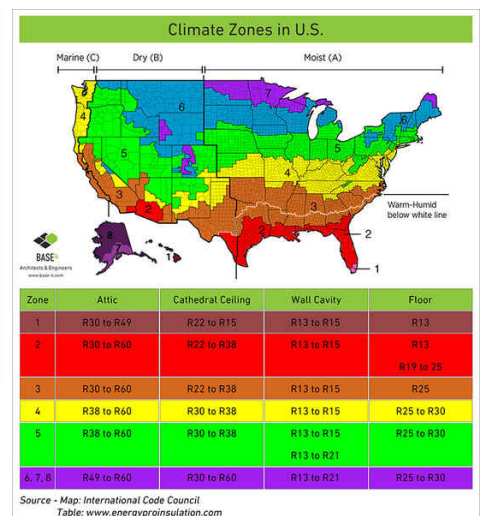
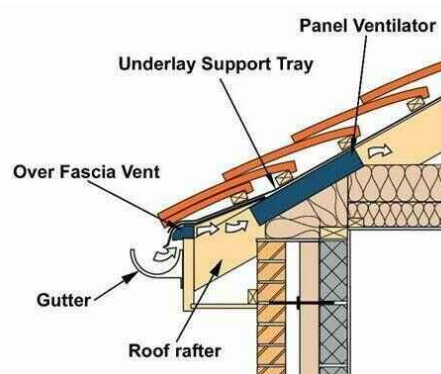
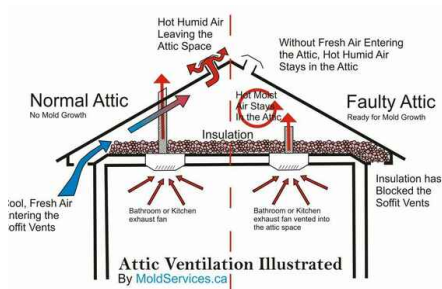
b. Moisture Control: Roof ventilation helps to prevent condensation and moisture buildup in the attic. This reduces the risk of mold growth, rotting of wood structures, and damage to insulation.

c. Roof Longevity: Adequate ventilation can extend the lifespan of the roof by reducing the potential for damage caused by excessive heat, moisture, and ice dams.

d. Energy Efficiency: A well-ventilated roof can improve energy efficiency by reducing the need for excessive air conditioning or insulation loads. It helps to create a more balanced and comfortable indoor environment.

4. Proper Ventilation Design: The specific ventilation requirements for a roof depend on factors such as the climate, roof size, and design of the building. It is important to ensure the correct balance between intake and exhaust vents to create proper airflow. Consulting with a professional roofer or ventilation specialist can help determine the appropriate ventilation design for your specific roof.

Proper roof ventilation is crucial for maintaining the health and longevity of the roof system. It is recommended to consult with a qualified professional to assess the ventilation needs of your roof and ensure proper installation and maintenance.





Limitations

General

ATTIC DISCLAIMER

Please Note: Attic areas that are not safe for normal passage can only be viewed from hatch and or openings areas, as this can be unsafe to the inspector and potentially cause injury to inspector and or potential damage to personal property. We recommend checking with current owner as to the conditions of the attic and understand that in some cases hidden defects may be discovered in the future in areas not accessible at time of inspection.

Access / Visibility Attic areas were not fully accessible for observation. Attic areas were not fully accessible for observation due to structural limitations. Attic space(s) not walked due to blown-in insulation. Insulation could not be viewed due to floored attic areas.

Roof system/Insulation

LIMITED ATTIC ACCESS

Limited attic access present do to the construction of the home. Attic and crawl space have atypical access points.

De ciencias

10.1.1 Roof system/Insulation

OBSERVATION ONLY: UNFINISHED AREA

2ND FLOOR NEAR ATTIC ENTRY



1. Observation only: This area in the home appears unfinished. No specific defects were noted; however, it seems this room is primarily utilized for storage purposes.

2. Note: this area can be refinished using a drywall contractor and a painting contractor.

Recommendation

Contact a qualified general contractor.



11: GARAGE

Deficiencies

11.1.1 Ceiling, floor, walls and fire walls, garage door, windows and entrance doors

 Recommendation

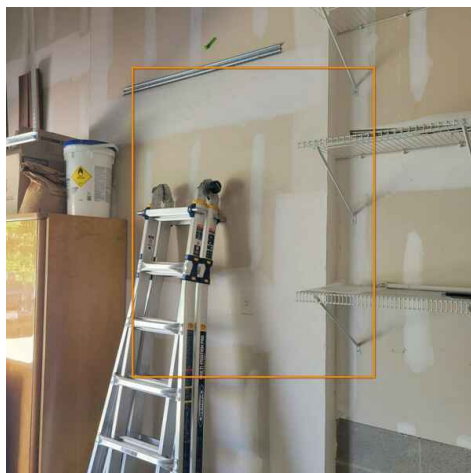
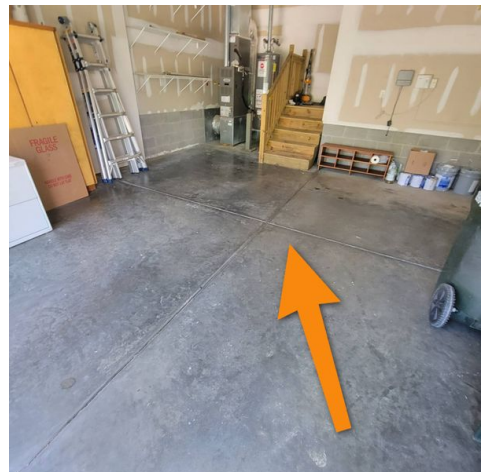
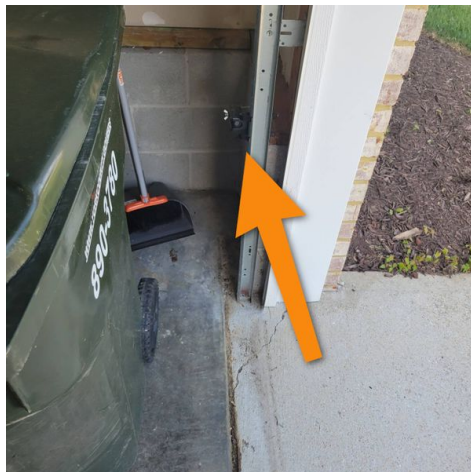
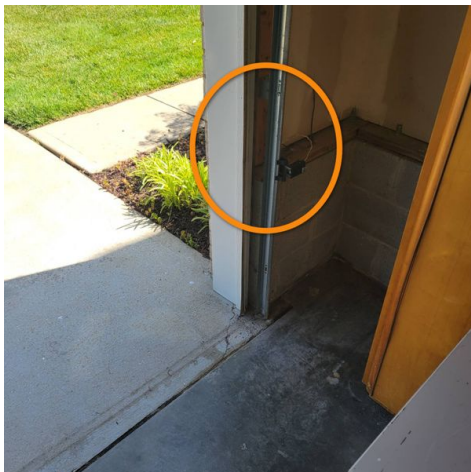
GENERAL GARAGE SUMMARY OF DEFECTS

GARAGE

1. General garage summary of defects:
2. The garage door sensor is too high off of the ground. These should be about 4 to 6 inches to ensure children, objects or dogs trigger the sensor and do not get crushed by the door.
3. Typical wear and cracks noted on the garage slab.
4. Loose handrail in the garage observed.
5. Typical cracks on the garage foundation wall observed.
6. The garage area is unfinished, this is typical for homes in this area.

Recommendation

Contact a qualified professional.





12: POOL

Deficiencies

12.1.1 Pool maintenance

POOL MAINTENANCE COMMENT

REAR OF HOME

 Recommendation



The pool in the backyard is currently covered as the seller has vacated the property. It's essential to prioritize professional pool servicing upon acquiring the home. While the necessary equipment for the pool is in place, it's important to consider that when purchasing a home, you may inherit a pool that has been used by previous occupants, including families and pets, over an extended period. To ensure the pool is in optimal condition, it's advisable to engage a professional pool contractor for servicing.

In many cases, homeowners opt to include a pool service contract in their real estate agreements, typically spanning one year. Especially in areas with larger homes, homeowners often rely on dedicated pool service companies to maintain their pools, thereby preventing potential issues and ensuring compliance with safety standards.

To preemptively address any concerns, it is recommended to arrange for professional pool servicing before closing on the property. Service contracts ranging from 6 to 12 months are commonly available, providing peace of mind and ensuring the pool is in top condition for enjoyment.

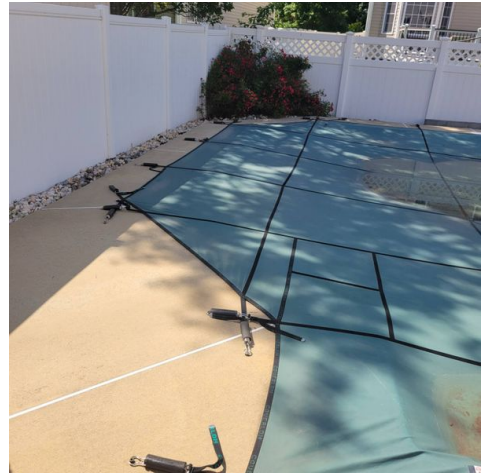
Servicing a swimming pool involves regular maintenance tasks to keep the pool clean, safe, and in optimal condition. Here are some steps to service a swimming pool:

1. **Skim and Clean the Surface:** Use a pool skimmer or net to remove leaves, debris, and insects from the surface of the water. Empty the skimmer basket and clean any debris from the pool's waterline.
2. **Vacuum the Pool:** Use a pool vacuum to remove dirt and debris from the pool floor and walls. You can choose between manual vacuuming with a vacuum head attached to a telescopic pole or an automatic pool cleaner.
3. **Test and Adjust Water Chemistry:** Regularly test the pool water using a pool testing kit to check the chemical balance. The key parameters to monitor include pH, chlorine or sanitizer levels, total alkalinity, and calcium hardness. Adjust the water chemistry as needed using appropriate pool chemicals to maintain proper balance.
4. **Clean and Maintain the Filter:** Depending on the type of pool filter (sand, cartridge, or diatomaceous earth), follow the manufacturer's instructions to clean or backwash the filter regularly. Clean or replace filter cartridges as necessary.
5. **Check and Maintain Water Level:** Ensure that the water level in the pool is maintained at the appropriate level, usually halfway up the skimmer opening. Add water when needed using a garden hose.
6. **Brush and Scrub the Pool Walls and Tiles:** Use a pool brush or scrub brush to clean the walls, steps, and tile surfaces of the pool. This helps remove algae and prevent the buildup of scale and stains.
7. **Monitor and Maintain Pool Equipment:** Inspect pool equipment such as pumps, motors, heaters, and timers regularly. Clean the pump basket and skimmer basket, and ensure proper water circulation and filtration.
8. **Backwash and Rinse the Filter:** If you have a sand or D.E. (diatomaceous earth) filter, backwash the filter to remove trapped debris and then rinse it. Follow the manufacturer's instructions for the specific filter type.
9. **Address Algae and Pool Water Issues:** If you notice algae growth or other water issues, such as cloudy water or excessive foam, treat the pool using appropriate algaecides, clarifiers, or other pool water treatments. Follow the product instructions and maintain proper filtration and water circulation.
10. **Maintain Pool Safety:** Regularly inspect and maintain pool safety equipment, such as pool covers, fences, gates, and alarms. Ensure that all safety features are in proper working condition.

It's important to consult the owner's manual for your specific pool equipment and follow the manufacturer's instructions for maintenance and servicing. Additionally, consider seeking professional assistance or hiring a pool service company for more complex tasks or if you're unsure about certain maintenance procedures.

Recommendation

Contact a qualified swimming pool contractor



STANDARDS OF PRACTICE

Roof

I. The inspector shall inspect from ground level or the eaves: A. the roof-covering materials; B. the gutters; C. the downspouts; D. the vents, flashing, skylights, chimney, and other roof penetrations; and E. the general structure of the roof from the readily accessible panels, doors or stairs. II. The inspector shall describe: A. the type of roof-covering materials. III. The inspector shall report as in need of correction: A. observed indications of active roof leaks. IV. The inspector is not required to: A. walk on any roof surface. B. predict the service life expectancy. C. inspect underground downspout diverter drainage pipes. D. remove snow, ice, debris or other conditions that prohibit the observation of the roof surfaces. E. move insulation. F. inspect antennae, satellite dishes, lightning arresters, de-icing equipment, or similar attachments. G. walk on any roof areas that appear, in the inspectors opinion, to be unsafe. H. walk on any roof areas if doing so might, in the inspector's opinion, cause damage. I. perform a water test. J. warrant or certify the roof. K. confirm proper fastening or installation of any roof-covering material.

Exterior

I. The inspector shall inspect: A. the exterior wall-covering materials, flashing and trim; B. all exterior doors; C. adjacent walkways and driveways; D. stairs, steps, stoops, stairways and ramps; E. porches, patios, decks, balconies and carports; F. railings, guards and handrails; G. the eaves, soffits and fascia; H. a representative number of windows; and I. vegetation, surface drainage, retaining walls and grading of the property, where they may adversely affect the structure due to moisture intrusion. II. The inspector shall describe: A. the type of exterior wall-covering materials. III. The inspector shall report as in need of correction: A. any improper spacing between intermediate balusters, spindles and rails. IV. The inspector is not required to: A. inspect or operate screens, storm windows, shutters, awnings, fences, outbuildings, or exterior accent lighting. B. inspect items that are not visible or readily accessible from the ground, including window and door flashing. C. inspect or identify geological, geotechnical, hydrological or soil conditions. D. inspect recreational facilities or playground equipment. E. inspect seawalls, breakwalls or docks. F. inspect erosion-control or earth-stabilization measures. G. inspect for safety-type glass. H. inspect underground utilities. I. inspect underground items. J. inspect wells or springs. K. inspect solar, wind or geothermal systems. L. inspect swimming pools or spas. M. inspect wastewater treatment systems, septic systems or cesspools. N. inspect irrigation or sprinkler systems. O. inspect drainfields or dry wells. P. determine the integrity of multiple-pane window glazing or thermal window seals.

Basement, Foundation, Crawlspace & Structure

I. The inspector shall inspect: A. the foundation; B. the basement; C. the crawlspace; and D. structural components. II. The inspector shall describe: A. the type of foundation; and B. the location of the access to the under-floor space. III. The inspector shall report as in need of correction: A. observed indications of wood in contact with or near soil; B. observed indications of active water penetration; C. observed indications of possible foundation movement, such as sheetrock cracks, brick cracks, out-of-square door frames, and unlevel floors; and D. any observed cutting, notching and boring of framing members that may, in the inspector's opinion, present a structural or safety concern. IV. The inspector is not required to: A. enter any crawlspace that is not readily accessible, or where entry could cause damage or pose a hazard to him/herself. B. move stored items or debris. C. operate sump pumps with inaccessible floats. D. identify the size, spacing, span or location or determine the adequacy of foundation bolting, bracing, joists, joist spans or support systems. E. provide any engineering or architectural service. F. report on the adequacy of any structural system or component.

HVAC

I. The inspector shall inspect: A. the heating system, using normal operating controls. II. The inspector shall describe: A. the location of the thermostat for the heating system; B. the energy source; and C. the heating method. III. The inspector shall report as in need of correction: A. any heating system that did not operate; and B. if the heating system was deemed inaccessible. IV. The inspector is not required to: A. inspect or evaluate the interior of flues or chimneys, fire chambers, heat exchangers, combustion air systems, fresh-air intakes, humidifiers, dehumidifiers, electronic air filters, geothermal systems, or solar heating systems. B. inspect fuel tanks or underground or concealed fuel supply systems. C. determine the uniformity, temperature, flow, balance, distribution, size, capacity, BTU, or supply adequacy of the heating system. D. light or ignite pilot flames. E. activate heating, heat pump systems, or other heating systems when ambient temperatures or other circumstances are not conducive to safe operation or may damage the equipment. F. override electronic thermostats. G. evaluate fuel quality. H. verify thermostat calibration, heat anticipation, or automatic setbacks, timers, programs or clocks.

Doors, Windows & Interior

I. The inspector shall inspect: A. a representative number of doors and windows by opening and closing them; B. floors, walls and ceilings; C. stairs, steps, landings, stairways and ramps; D. railings, guards and handrails; and E. garage vehicle doors and the operation of garage vehicle door openers, using normal operating controls. II. The inspector shall describe: A. a garage vehicle door as manually-operated or installed with a garage door opener. III. The inspector shall report as in need of correction: A. improper spacing between intermediate balusters, spindles and rails for steps, stairways, guards and railings; B. photo-electric safety sensors that did not operate properly; and C. any window that was obviously fogged or displayed other evidence of broken seals. IV. The inspector is not required to: A. inspect paint, wallpaper, window

treatments or finish treatments. B. inspect floor coverings or carpeting. C. inspect central vacuum systems. D. inspect for safety glazing. E. inspect security systems or components. F. evaluate the fastening of islands, countertops, cabinets, sink tops or fixtures. G. move furniture, stored items, or any coverings, such as carpets or rugs, in order to inspect the concealed floor structure. H. move suspended-ceiling tiles. I. inspect or move any household appliances. J. inspect or operate equipment housed in the garage, except as otherwise noted. K. verify or certify the proper operation of any pressure-activated auto-reverse or related safety feature of a garage door. L. operate or evaluate any security bar release and opening mechanisms, whether interior or exterior, including their compliance with local, state or federal standards. M. operate any system, appliance or component that requires the use of special keys, codes, combinations or devices. N. operate or evaluate self-cleaning oven cycles, tilt guards/latches, or signal lights. O. inspect microwave ovens or test leakage from microwave ovens. P. operate or examine any sauna, steamgenerating equipment, kiln, toaster, ice maker, coffee maker, can opener, bread warmer, blender, instant hot-water dispenser, or other small, ancillary appliances or devices. Q. inspect elevators. R. inspect remote controls. S. inspect appliances. T. inspect items not permanently installed. U. discover firewall compromises. V. inspect pools, spas or fountains. W. determine the adequacy of whirlpool or spa jets, water force, or bubble effects. X. determine the structural integrity or leakage of pools or spas.

Plumbing

I. The inspector shall inspect: A. the main water supply shut-off valve; B. the main fuel supply shut-off valve; C. the water heating equipment, including the energy source, venting connections, temperature/pressure-relief (TPR) valves, Watts 210 valves, and seismic bracing; D. interior water supply, including all fixtures and faucets, by running the water; E. all toilets for proper operation by flushing; F. all sinks, tubs and showers for functional drainage; G. the drain, waste and vent system; and H. drainage sump pumps with accessible floats. II. The inspector shall describe: A. whether the water supply is public or private based upon observed evidence; B. the location of the main water supply shut-off valve; C. the location of the main fuel supply shut-off valve; D. the location of any observed fuel-storage system; and E. the capacity of the water heating equipment, if labeled. III. The inspector shall report as in need of correction: A. deficiencies in the water supply by viewing the functional flow in two fixtures operated simultaneously; B. deficiencies in the installation of hot and cold water faucets; C. mechanical drain stops that were missing or did not operate if installed in sinks, lavatories and tubs; and D. toilets that were damaged, had loose connections to the floor, were leaking, or had tank components that did not operate. IV. The inspector is not required to: A. light or ignite pilot flames. B. measure the capacity, temperature, age, life expectancy or adequacy of the water heater. C. inspect the interior of flues or chimneys, combustion air systems, water softener or filtering systems, well pumps or tanks, safety or shut-off valves, floor drains, lawn sprinkler systems, or fire sprinkler systems. D. determine the exact flow rate, volume, pressure, temperature or adequacy of the water supply. E. determine the water quality, potability or reliability of the water supply or source. F. open sealed plumbing access panels. G. inspect clothes washing machines or their connections. H. operate any valve. I. test shower pans, tub and shower surrounds or enclosures for leakage or functional overflow protection. J. evaluate the compliance with conservation, energy or building standards, or the proper design or sizing of any water, waste or venting components, fixtures or piping. K. determine the effectiveness of anti-siphon, backflow prevention or drain-stop devices. L. determine whether there are sufficient cleanouts for effective cleaning of drains. M. evaluate fuel storage tanks or supply systems. N. inspect wastewater treatment systems. O. inspect water treatment systems or water filters. P. inspect water storage tanks, pressure pumps, or bladder tanks. Q. evaluate wait time to obtain hot water at fixtures, or perform testing of any kind to water heater elements. R. evaluate or determine the adequacy of combustion air. S. test, operate, open or close: safety controls, manual stop valves, temperature/pressure-relief valves, control valves, or check valves. T. examine ancillary or auxiliary systems or components, such as, but not limited to, those related to solar water heating and hot water circulation. U. determine the existence or condition of polybutylene plumbing. V. inspect or test for gas or fuel leaks, or indications thereof.

Electrical

I. The inspector shall inspect: A. the service drop; B. the overhead service conductors and attachment point; C. the service head, gooseneck and drip loops; D. the service mast, service conduit and raceway; E. the electric meter and base; F. service-entrance conductors; G. the main service disconnect; H. panelboards and over-current protection devices (circuit breakers and fuses); I. service grounding and bonding; J. a representative number of switches, lighting fixtures and receptacles, including receptacles observed and deemed to be arc-fault circuit interrupter (AFCI)-protected using the AFCI test button, where possible; K. all ground-fault circuit interrupter receptacles and circuit breakers observed and deemed to be GFCIs using a GFCI tester, where possible; and L. smoke and carbon-monoxide detectors. II. The inspector shall describe: A. the main service disconnect's amperage rating, if labeled; and B. the type of wiring observed. III. The inspector shall report as in need of correction: A. deficiencies in the integrity of the serviceentrance conductors insulation, drip loop, and vertical clearances from grade and roofs; B. any unused circuit-breaker panel opening that was not filled; C. the presence of solid conductor aluminum branch-circuit wiring, if readily visible; D. any tested receptacle in which power was not present, polarity was incorrect, the cover was not in place, the GFCI devices were not properly installed or did not operate properly, evidence of arcing or excessive heat, and where the receptacle was not grounded or was not secured to the wall; and E. the absence of smoke detectors. IV. The inspector is not required to: A. insert any tool, probe or device into the main panelboard, sub-panels, distribution panelboards, or electrical fixtures. B. operate electrical systems that are shut down. C. remove panelboard cabinet covers or dead fronts. D. operate or re-set over-current protection devices or overload devices. E. operate or test smoke or carbon-monoxide detectors or alarms. F. inspect, operate or test any security, fire or alarms systems or components, or other warning or signaling systems. G. measure or determine the amperage or voltage of the main service equipment, if not visibly labeled. H. inspect ancillary wiring or remote-control devices. I. activate any electrical systems or branch circuits that are not energized. J. inspect low-voltage systems, electrical de-icing tapes, swimming pool wiring, or any timecontrolled devices. K. verify the service ground. L. inspect private or emergency electrical supply sources, including, but not limited to: generators, windmills, photovoltaic solar collectors, or battery or electrical storage facility. M. inspect spark or lightning arrestors. N. inspect or test de-icing equipment. O. conduct voltage-drop calculations. P. determine the accuracy of labeling. Q. inspect exterior lighting.

Fireplace

I. The inspector shall inspect: readily accessible and visible portions of the fireplaces and chimneys; lintels above the fireplace openings; damper doors by opening and closing them, if readily accessible and manually operable; and cleanout doors and frames.

II. The inspector shall describe: the type of fireplace.

III. The inspector shall report as in need of correction: evidence of joint separation, damage or deterioration of the hearth, hearth extension or chambers; manually operated dampers that did not open and close; the lack of a smoke detector in the same room as the fireplace; the lack of a carbon-monoxide detector in the same room as the fireplace; and cleanouts not made of metal, pre-cast cement, or other non-combustible material.

IV. The inspector is not required to: inspect the flue or vent system. inspect the interior of chimneys or flues, fire doors or screens, seals or gaskets, or mantels. Determine the need for a chimney sweep, perate gas fireplace inserts, light pilot flames, determine the appropriateness of any installation, inspect automatic fuel-fed devices, inspect combustion and/or make-up air devices, inspect heat-distribution assists, whether gravity-controlled or fan-assisted, ignite or extinguish fires, determine the adequacy of drafts or draft characteristics, move fireplace inserts, stoves or firebox contents, perform a smoke test, dismantle or remove any component, perform a National Fire Protection Association (NFPA)-style inspection perform a Phase I fireplace and chimney inspection.

Attic, Insulation & Ventilation

I. The inspector shall inspect: A. insulation in unfinished spaces, including attics, crawlspaces and foundation areas; B. ventilation of unfinished spaces, including attics, crawlspaces and foundation areas; and C. mechanical exhaust systems in the kitchen, bathrooms and laundry area. II. The inspector shall describe: A. the type of insulation observed; and B. the approximate average depth of insulation observed at the unfinished attic floor area or roof structure. III. The inspector shall report as in need of correction: A. the general absence of insulation or ventilation in unfinished spaces. IV. The inspector is not required to: A. enter the attic or any unfinished spaces that are not readily accessible, or where entry could cause damage or, in the inspector's opinion, pose a safety hazard. B. move, touch or disturb insulation. C. move, touch or disturb vapor retarders. D. break or otherwise damage the surface finish or weather seal on or around access panels or covers. E. identify the composition or R-value of insulation material. F. activate thermostatically operated fans. G. determine the types of materials used in insulation or wrapping of pipes, ducts, jackets, boilers or wiring. H. determine the adequacy of ventilation.