YOUR INSPECTION REPORT

The 'ART' of Home Inspections!

PREPARED BY:
Jason VanGotten

FOR THE PROPERTY AT:
1840 E. Cedar Avenue
Denver, CO 80209

PREPARED FOR:
JOHN DOE

INSPECTION DATE:
Friday, October 23, 2015

Vango Inspections, LLC
P.O. Box 13606
Denver, CO 80201

720-360-6520
303-250-8444
Fax: 866-450-9765

www.weinspectcolorado.com
vango@vangoinspections.com

October 13, 2016

Dear John Doe,

RE: Report No. 3912, v.2
1840 E. Cedar Avenue
Denver, CO
80209

Thank you for choosing Vango Inspections, LLC to perform your Home Inspection. We trust that the experience was both useful and enjoyable. Your inspection was performed in a manner consistent with the Standards of Practice and Code of Ethics of the American Society of Home Inspectors (ASHI).

The contents of this inspection report contains the results of the visual observations of the major roof, plumbing, structural, mechanical, and electrical systems that comprise a typical home. No one expects a house to be faultless, but it is valuable for all concerned to be aware of the relative strengths and weaknesses of the property. We are essentially reporting the condition of the property on the date of the inspection.

The inspection did not include latent or concealed deficiencies. I did not move furniture, or stored belongings, nor did I dismantle any system I operated or tested. Some deficiencies may exist which are beyond the ability of an inspector to reasonably detect. The inspection report is not a guarantee, a warranty, or an insurance policy. The inspection and report are not intended to reflect the compliance with past or present building codes.

Please feel free to contact us with questions about the report or the home itself any time. Our consulting service, via telephone is available at NO cost to you for as long as you own the home.

Thanks again for choosing Vango Inspections, LLC and allowing us to work with you, and best wishes to you and your family in your new home.

Sincerely,

Jason VanGotten
on behalf of
Vango Inspections, LLC

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SUMMARY

1840 E. Cedar Avenue, Denver, CO October 23, 2015

The Summary outlines potentially significant issues from a cost or safety standpoint. This section is provided as a courtesy and cannot be considered a substitute for reading the entire report. Please read the complete document.

The following items or discoveries indicate that these systems or components do not function as intended or adversely affects the habitability of the dwelling; or warrants further investigation by a specialist, or requires subsequent observation. The deficiencies listed below and the components related to these should be further evaluated and repaired by a licensed contractor or professional. This will allow a specialist to fully evaluate the system and components, and identify issues beyond our scope of work. This summary shall not contain recommendations for routine upkeep of a system or component to keep it in proper functioning condition or recommendations to upgrade or enhance the function or efficiency of the home. This Summary is not the entire report. The complete report may include additional information of concern to the customer. It is recommended that the customer read the complete report.

There are some important things you should do when taking possession of a home. These are detailed in the Maintenance Advice document, which you can access by clicking on the link below.

No home is perfect, and we will have improvements to recommend in virtually every home.

Who This Report Is For:

This inspection and report are provided for the sole, confidential and exclusive use of the named client only. This report is not intended to be relied upon for any purpose by any other party not named on the report and Inspection Agreement. Other readers of this report should hire a qualified independent inspector to perform an inspection that meets their specific needs and to obtain current information about the property (property conditions change with time and use). A separate Inspection Agreement contains terms, conditions and limitations critical to understanding this report. Do not use this report without consulting that agreement. Vango Inspections assumes no responsibility to or liability from any third parties in connection with the inspection or report.

Your Risk:

This inspection can help you reduce your risk, but I can not eliminate it nor do I assume it. This inspection is an overview of the property, but I will not find every defect. All homes require maintenance. You should anticipate occasional unexpected repairs. This inspection is not a guarantee or warranty of the present or future adequacy or performance of the structure, its systems, or their component parts. This report does not constitute any express or implied warranty of merchantabiliity or fitness for use regarding the condition of the property and it should not be relied upon as such. Any opinions expressed regarding the adequacy, capacity, or expected life of components are general estimates based on information about similar components and occasional wide variations are to be expected between such estimates and actual experience.

Who Should Make Repairs?

Sometimes when repairs are made, additional defects will be uncovered that were not found during the inspection. The best way to make sure that all defects are properly addressed is to have repairs made by qualified licensed contractors who will offer a warranty on their work.

Building Codes:

This inspection report should not be construed as a compliance inspection of any governmental or non governmental codes or regulations. The older a house is, the more likely that it does not meet today's building codes. If you want a code inspection you'll need to talk to the local building department since they're the only people with the authority to do a code compliance inspection. If you find codes, specifications or standards referenced in this report you should realize that they're only provided as a reference source for opinions; they are not intended to imply that this code was in place at the time of construction, nor that this is a code compliance inspection. Not all code related issues can or will be disclosed in this report. We offer no warranty as to code compliance.

Maintenance Advice

Exterior

WALLS \ Stucco and EIFS

Condition: • Moisture penetration
The seller disclosed that they had to have the stucco repaired on the front side of the home due to moisture intrusion. It appears that repairs were made, however there was a very musty smell in the master bedroom during the inspection. This is a possible indication that water may have entered inside the wall cavity and was not addressed properly during the stucco repairs. This raises concerns related to possible mold and material deterioration inside the wall cavity. Recommend further evaluation and a mold test be conducted by the appropriate professionals.
Implication(s): Chance of water damage to contents, finishes and/or structure | Material deterioration
Location: Stucco - Front Facade
Task: Further evaluation

Condition: • Cracked
There were cracks in the stucco at various points of the exterior at the time of the inspection. Over the years, cracking of this material is typical for a stucco wall as it shrinks. However, the envelope of home should be properly sealed to prevent moisture from entering behind the stucco and becoming trapped. Recommend having these cracks repaired by a qualified stucco professional.
Implication(s): Material deterioration | Chance of water damage to contents, finishes and/or structure
Location: Exterior Walls
Task: Further evaluation

Condition: • Too close to grade
The stucco was too close to grade and in contact with concrete at various points at the exterior wall (see photos), at the time of the inspection. There were no real regulations on stucco installation until 1997. Stucco should be at least 4" from soil and 2" from concrete type surfaces. Recommend having the stucco evaluated by a qualified stucco professional to determine what steps can be taken to ensure that the stucco wall will drain properly, since the previous owners disclosed that they had moisture penetration occur on the front side of the home.
Implication(s): Material deterioration | Chance of water damage to contents, finishes and/or structure
Location: Stucco
Task: Further evaluation

Electrical

SERVICE BOX, GROUNDING AND PANEL \ Distribution fuses/breakers
Condition: • Double taps
There was a single pole circuit breaker improperly double tapped, at the electrical distribution panel, with two wires entering the single pole breaker (see photo). Most circuit breakers and other electrical connections are only rated (UL listed) to safely hold one wire. Double tapping is when 2 or more wires connect to one circuit breaker or electrical lug. Recommend repairs to these circuit breakers by a qualified electrical professional, keeping in mind that there is a spare circuit breaker already in the panel that can be used for one of these wires.
Implication(s): Fire hazard
Location: Electrical Distribution Panel
Task: SAFETY - Repair

DISTRIBUTION SYSTEM \ Outlets (receptacles)
Condition: • Test faulty on Ground Fault Circuit Interrupter (GFCI)
The ground fault circuit interrupter (GFCI) device by the AC compressors (East exterior wall) would not trip as intended at the time of the inspection. Recommend further evaluation and repairs or replacement of this GFCI device as necessary by a qualified electrical professional.
Implication(s): Electric shock
Location: AC Service Outlet
Task: SAFETY - Replace

Heating

GAS FURNACE \ Life expectancy
Condition: • Old
The furnace systems were old (31 years old) and beyond their useful service life expectancy. Typical life expectancy for this type of system is 18-25 years. However, the systems came to proper temperatures and were not emitting any gas at the draft hood. Although, older systems are less efficient and subject to failure. Determining the future performance of the system is beyond the scope of this inspection. The furnace systems could require repairs and/or replacement at any time. If replacement is not an option, then one may want to consider a third party home warranty plan that will cover the cost of repairs or replacement of the furnaces in the event that the furnaces become inoperative.
Implication(s): Equipment failure | No heat for building
Location: Furnaces
Task: Replace

FIREPLACE \ Gas fireplace
Condition: • Damper in existing fireplace not fixed open
The gas fireplace damper in the living room was not in a fixed position at the time of the inspection. The damper requires a permanent damper clamp or removal of the damper, to keep the damper from closing fully, is required with a gas fireplace. Recommend having a clamp welded (permanent) or the damper removed by a qualified gas fireplace professional to ensure the safety of the occupants of the home.
Implication(s): Hazardous combustion products entering home
Location: Living Room

Task: SAFETY - Repair

Cooling & Heat Pump

AIR CONDITIONING \ Life expectancy
Condition: • Inoperative
The air conditioner that serves the basement would not respond to thermostatic controls at the time of inspection. Since this unit is original to the home (31 years old), it is recommended that this AC compressor and inside coil be replaced as new refrigerant requirements are in place that are no longer compatible with the older coils.
Implication(s): Reduced comfort
Location: Basement AC Unit
Task: Replace

AIR CONDITIONING \ Condensate drain line
Condition: • Blocked or crimped
The condensate drain line for the second floor HVAC system appeared to be blocked or clogged at the time of the inspection. This may or may not have been fixed in the past, however there is significant rust on the outside and inside of the furnace cabinet, which indicates that this is still a concern that needs to be addressed. Recommend further evaluation and repairs to the condensate drain line and further evaluation of the furnace components by a qualified HVAC professional.
Implication(s): Damage to equipment | Chance of water damage to contents, finishes and/or structure
Location: Second Floor Unit
Task: Further evaluation

Plumbing

WATER HEATER \ Life expectancy
Condition: • Old
The water heater is 15 years old, and beyond the manufacturer's average (8 to 12 years) life expectancy. Older water heaters are less efficient and subject to failure. Determining the future performance of the water heater is beyond the scope of this inspection. Recommend replacement based on age alone of the water heater by a qualified plumbing professional.
Implication(s): No hot water
Location: Water Heater
Task: Replace

FIXTURES AND FAUCETS \ Shower stall
Condition: • Leak
The master and basement shower pans were cracked at the time of the inspection. These cracks will eventually led to leaks if not already leaking. It could not be determined if the shower pan cracks were superficial or full cracks through the pans. Due to the condition of these shower pans, it is recommended that they be replaced by a qualified professional to prevent future leaks from occurring.
Implication(s): Chance of water damage to contents, finishes and/or structure
Location: Master & Basement Bathroom

Task: Replace

Interior

WINDOWS \ Glass (glazing)
Condition: • Safety glass not installed
The fixed windows in the South Bedroom were less than 18" off the floor, greater than 9 sq ft of glass, and appeared to be of non-safety glass glazing at the time of the inspection as there was no marking on the glass indicating that they are of safety glazing. Safety glazing, often referred to as tempered, became part of CPSC 16 CFR 1201, and they became law on July 6, 1977. Therefore, it is recommended to consider replacement of the non-safety glass with tempered glass or installing a film, if necessary, for added safety in this hazardous location by a qualified window professional.
Implication(s): Physical injury
Location: South Bedroom Windows
Task: SAFETY - Further Evaluation

WINDOWS \ Hardware
Condition: • Inoperable
There were numerous window cranks in the home that were either stripped, inoperable, or missing at the time of the inspection. See photos for exact locations where the cranks were defective. Recommend repairs or replacement of these window cranks by a qualified window professional upon taking possession of the home.
Implication(s): System inoperative or difficult to operate
Location: See Photos
Task: Repair or replace

DESCRIPTION OF REPORT
The report that follows includes a Description of the systems and components in the house as well as any Limitations that may have restricted our inspection. The most important part of the report is the Recommendations section. It is here that we identify any defects in the home and suggest improvements.

LIMITING FACTORS
The inspection is performed by a generalist, and in some cases, we will recommend specialists to further investigate conditions that we have identified. This is very similar to the doctor who is a general practitioner, identifying a physical condition and recommending further testing by a specialist.

Home inspectors have a limited amount of time on site. Market conditions and inspection fees dictate that inspections typically run one hour for every 1,000 square feet. As a result, there will be things that are not picked up by inspectors. We ask that you understand and accept this. The inspection provides great value, and adds considerably to your understanding of the home. But it is not an insurance policy with a one-time only premium, no exclusions, no deductible and no limits.

A home inspection does not include an examination for pests, rot or wood destroying insects. There are specialists available who can provide these services.

Please read all of the report and read the report carefully, and feel free to ask any questions that you may have of the inspector. Again, we will remind you that a home inspection addresses visually accessible components of the home, and

does not include destructive testing. We will operate mechanical systems with normal homeowner controls. Where there are many systems of a similar type and a home, we inspect a representative sample. For example, we do not inspect every electrical outlet, every piece of siding or every brick or every window.

As you read the report, we encourage you to contact us with any questions about the report or the home via phone or email.

SUPPORT AFTER THE INSPECTION
Re-Inspection Policy: Clients sometimes ask me to re-inspect problem areas after repairs are made. A minimum fee of $150 covers a re-inspection of any two specific items, and does not include a written report, which is $50 extra. Additional items to be inspected, beyond the first two items, cost $25 for each additional item.

Criteria: The repair work must be performed by a licensed contractor. The contractor must provide a receipt that indicates the contractor's license number, the type and quantity of materials used, and a description of the work performed. The receipt must also state whether or not the work is warranted, how long the warranty lasts, and whether or not the warranty extends to the new owner. These documents must be available at the house when I arrive for the re-inspection. Items without this documentation will not be re-inspected. Sorry, I won't re-inspect repairs done by unlicensed contractors or amateurs.

Your Questions:
I'll do my best to answer your questions during and after the inspection. All I ask is that you read the report first and all of it. Calls during business hours (8am to 5pm) are preferred. Sometimes I'm available during the evening, but not always. Most questions can be answered in one call, but sometimes I have to go back to the office to look over your report. I'll try to answer any question the day you ask it.

The Questions Of Others:
If a seller, a seller's representative, or a seller's repair person calls us with questions about your inspection, I'll politely inform them that I can't talk about your inspection unless you're a part of the conversation. I'll suggest that they call me back after setting up a conference call with you.

If a seller or repair person calls and asks us how to fix something, I'll politely decline. It's not because I don't know how to fix things, it's because I'm not willing to boss a repair job by remote control. It's also to protect you from unqualified repair people, and to protect me from people who might just forget what I told them between the phone and the actual job.

IMPORTANT INFORMATION CONCERNING MOLD & MILDEW:

We hope that the following facts and considerations regarding mold and mildew, the scope of this home inspection and your family's health, will aid in your understanding of this important and timely topic:

1. Mold spores are present in the outside air everywhere, even in the driest of the so-called desert climates. Thus, every home contains mold both inside and on all surfaces. But the mold will remain dormant until the right conditions of moisture and food become present. Accurately identifying those conditions often takes specialized skill and experience.

2. Mold generates a number of mold bi-products. Particles include the mold organism, spores and fragments. Chemical

bi-products include enzymes, mycotoxins and gases. Many of these bi-products can affect susceptible people in a variety of ways, and from a health point of view it often makes no difference if the mold is dead or alive.

3. Mold spores are present on the surfaces and in the cracks and pores of building materials as they are incorporated into new construction, no matter where in the world a new home is being built. While it is true that molds usually do not propagate if removed from a source of moisture, nevertheless they can remain in a dormant state for years waiting for the right conditions to spring into life and fill the atmosphere both inside and outside of the building with their progeny.

4. Some molds give off toxic gases as an offensive "weapon". These toxic gases aid them in killing competing molds and expanding their "territory". These same gases can be dangerous to humans as well.

5. Human reaction to, and the possible effects of exposure to specific molds and other fungi can vary widely, even between members of the same family exposed to the same conditions.

6. Many experts consider all molds to be potential allergens and irritants, including some toxins. Health concerns from exposure to mold in humans varies with each individual and can range from simple allergy symptoms to asthma, watery eyes, sneezing, wheezing, difficulty breathing, sinus congestion, blurry vision, sore throat, dry cough, aches and pains, fever, skin irritation, bleeding of the lungs, headaches, and memory loss.

7. Searching for environmental hazards of any kind, including molds an/or mildew is not part of this home inspection, or any standard home inspection and report. (See your Property Inspection Agreement).

8. Many times, mold infestations occur inside wall cavities or in an under building space or attic where they cannot be seen without the destructive disassembly of the building, an activity specifically prohibited by all nationally recognized Standards of Practice governing the Home Inspection profession. Remember, also, that you as the Client would be financially responsible for the repair of any damage resulting from any invasive methods used to find hidden mold growth in a building that you do not yet own!

9. Unfortunately, there have been many documented cases of significant and harmful mold growths that were totally concealed and which left absolutely no outwardly visible symptoms of their presence.

10. During your inspection, if we did come across conditions that, in our opinion, could cause or suggest the presence of these organisms, we have made every effort to not them in the report.

No matter whether or not we have mentioned any visible evidence or even suspicious symptoms in your report, and whether or not you or any member of your family have been known to have ever had an adverse reaction to possible mold exposure, or if you are concerned at all about these organisms being present in this home, we STRONGLY RECOMMEND that you engage the services of a qualified expert that specializes in the identification of these organisms and follow their recommendation.

Lifecycles & Costs

Description

Flat roofing material: • EPDM

Flat roof flashing material: • Metal

Probability of leakage: • Low

Limitations

General: • Although not required to, we generally attempt to evaluate various roof types by walking on their surfaces. If we are unable or unwilling to do this for any reason, we will indicate the method used to evaluate them. Every roof will wear differently relative to its age, number of layers, quality of material, method of application, exposure to weather conditions, and the regularity of its maintenance. We can only offer an opinion of the general quality and condition of the roofing material.

The inspector cannot and does not offer an opinion or warranty as to whether the roof leaks or may be subject to future leakage. The waterproof membrane beneath roofing materials is generally concealed and cannot be examined without removing the roof material. Although roof condition can be evaluated, it is virtually impossible for anyone to detect a leak except as it is occurring or by specific water tests, which are beyond the scope of our service. Even water stains on ceilings or on framing within attics will not necessarily confirm an active leak without some corroborative evidence, and such evidence can be deliberately concealed. We evaluate every roof conscientiously, and even attempt to approximate its age, but we will not predict its remaining life expectancy, or guarantee that it will not leak. Naturally, the sellers or the occupants of a residence will generally have the most intimate knowledge of the roof and of its history. Therefore, we recommend that you ask the sellers about it, and that you either include comprehensive roof coverage in your home insurance policy, or that you obtain a roof certification from an established local roofing company. We do not inspect attached accessories including by not limited to solar systems, antennae, and lightning arrestors.

Inspection performed: • By walking on roof

Description

General: • You should routinely check the outside of the house. Exteriors need regular maintenance to stay sealed against the weather. There can be hidden damage when the exterior is not sealed or is poorly finished, damaged or decayed. Areas with little or no roof overhang need particular attention.

Fences, recreational facilities, detached buildings (other than detached garages), trees and landscaping, erosion control and earth stabilization measures are not inspected unless specifically documented.

Proper drainage (slope of the ground surface) is important. Water entering the ground near the foundation can cause various problems ranging from a wet basement or crawl space to structural problems. Water from roof gutters and downspout's should be directed away from the foundation for the same reason.

It is not unusual for soils backfilled around the foundation to be poorly compacted (or not compacted at all) and to settle. Sometimes this can show up within the first year; other times it takes years or decades. There is no way to discover this during a home inspection if the ground surface has not yet settled. Such settlement may create low spots with poor drainage that may lead to structural problems or to problems with water entry to basements or crawl spaces. Settlement could also damage anything resting on the ground or buried in the ground, such as sidewalks, driveways, patios, electrical cables, pipes, etc. With new houses in general, decks are a better option than patios because patios are frequently damaged by settlement. You should periodically check the grading around the house. If there has been settlement then add more soil below the landscaping materials.

Expansive soils are found in much of the Colorado Front Range. These clay minerals act like a sponge and swell when water is added. They also shrink when dried out. This swelling and shrinkage can cause major structural damage. Colorado also has a semi-arid climate. Many naive (but well-intentioned) homeowners plant Kentucky Bluegrass or other water-thirsty plants next to their house and add lots of water to the foundation with sprinklers. I strongly suggest that you keep dry landscaping or drought tolerant landscaping without irrigation (also called 'Xeriscape') for at least the first 5 feet around the house (more if there are signs of expansive soil problems). You should minimize lawn irrigation and pay particular attention to any gutter and grading improvements that may be identified elsewhere in this report.

Gutter & downspout material: • Galvanized steel

Gutter & downspout type: • Integral/built-in

Downspout discharge: • Below grade

Lot slope: • Flat

Wall surfaces and trim: • Stucco

Driveway: • Concrete

Walkway: • Concrete • Pavers

Porch: • Concrete

Exterior steps: • Concrete

Patio: • Pavers

Fence: • Concrete

Garage: • Determining the heat resistance rating of firewalls is beyond the scope of this inspection. Flammable materials

should not be stored within closed garage areas. Garage door openings are not standard, so you may wish to measure the opening to ensure that there is sufficient clearance to accommodate your vehicles. It is not uncommon for moisture to penetrate garages, particularly with slabs on-grade construction, and this may be apparent in the form of efflorescence or salt crystal formations on the concrete.

The safety return on the garage overhead door opener should be tested periodically to ensure it is in working order. Underwriters Laboratories and garage door manufacturers recommend that testing of the reversing mechanism be conducted using a two by four block laid flat on the floor. Closing on the block should cause the door to reverse within 2 seconds without damaging the door or causing injury to the person testing the door.

Limitations

Inspection limited/prevented by: • Downspout's terminate below grade

Upper floors inspected from: • Ground level

Recommendations

WALLS \ Stucco and EIFS

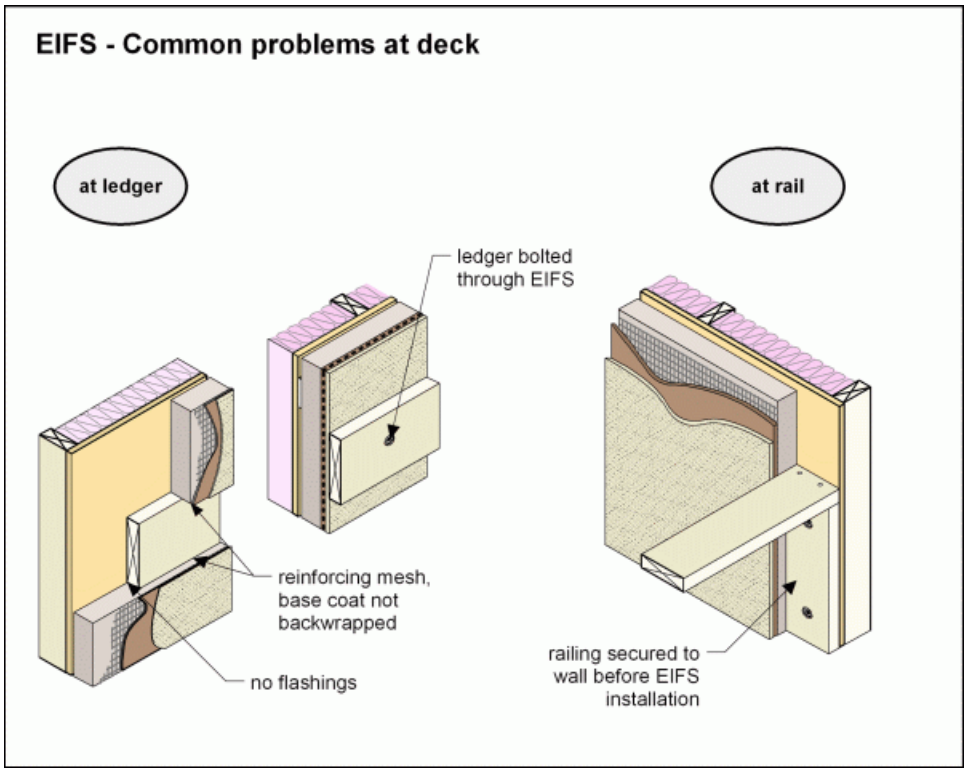
Condition: • Moisture penetration

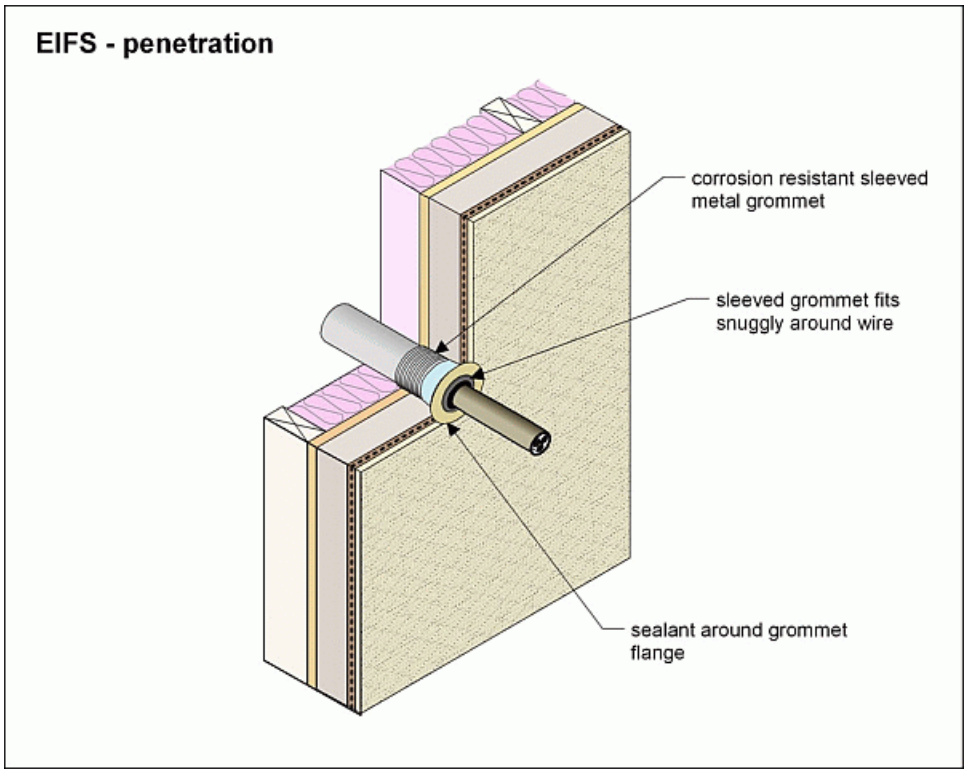
The seller disclosed that they had to have the stucco repaired on the front side of the home due to moisture intrusion. It appears that repairs were made, however there was a very musty smell in the master bedroom during the inspection. This is a possible indication that water may have entered inside the wall cavity and was not addressed properly during the stucco repairs. This raises concerns related to possible mold and material deterioration inside the wall cavity. Recommend further evaluation and a mold test be conducted by the appropriate professionals.

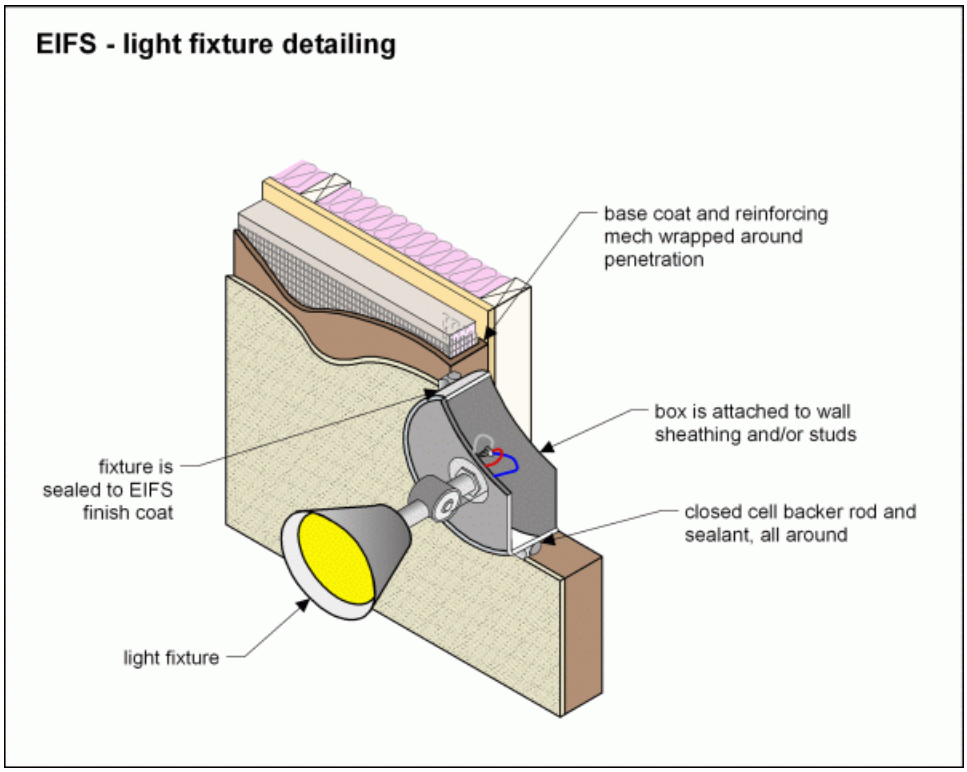
Implication(s): Chance of water damage to contents, finishes and/or structure | Material deterioration

Location: Stucco - Front Facade

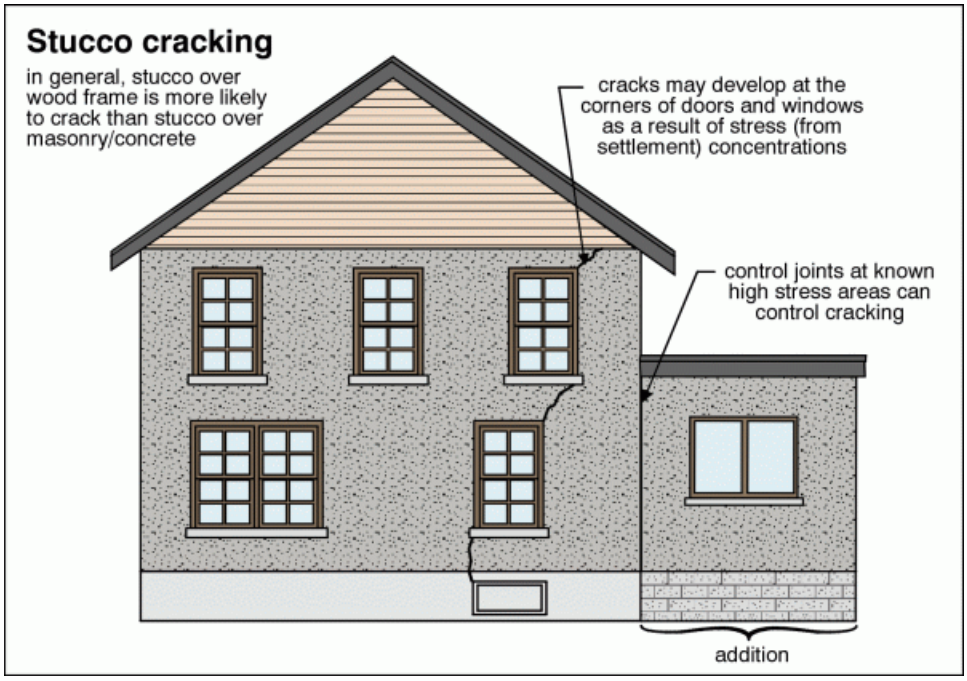
Task: Further evaluation


EIFS - Common problems at deck
at ledger
at rail
ledger bolted through EIFS
reinforcing mesh, base coat not backwrapped
no flashings
railing secured to wall before EIFS installation


EIFS - penetration
corrosion resistant sleeved metal grommet
sleeved grommet fits snuggly around wire
sealant around grommet flange



Condition: • Cracked
There were cracks in the stucco at various points of the exterior at the time of the inspection. Over the years, cracking of this material is typical for a stucco wall as it shrinks. However, the envelope of home should be properly sealed to prevent moisture from entering behind the stucco and becoming trapped. Recommend having these cracks repaired by a qualified stucco professional.
Implication(s): Material deterioration | Chance of water damage to contents, finishes and/or structure
Location: Exterior Walls
Task: Further evaluation



Cracks in Stucco

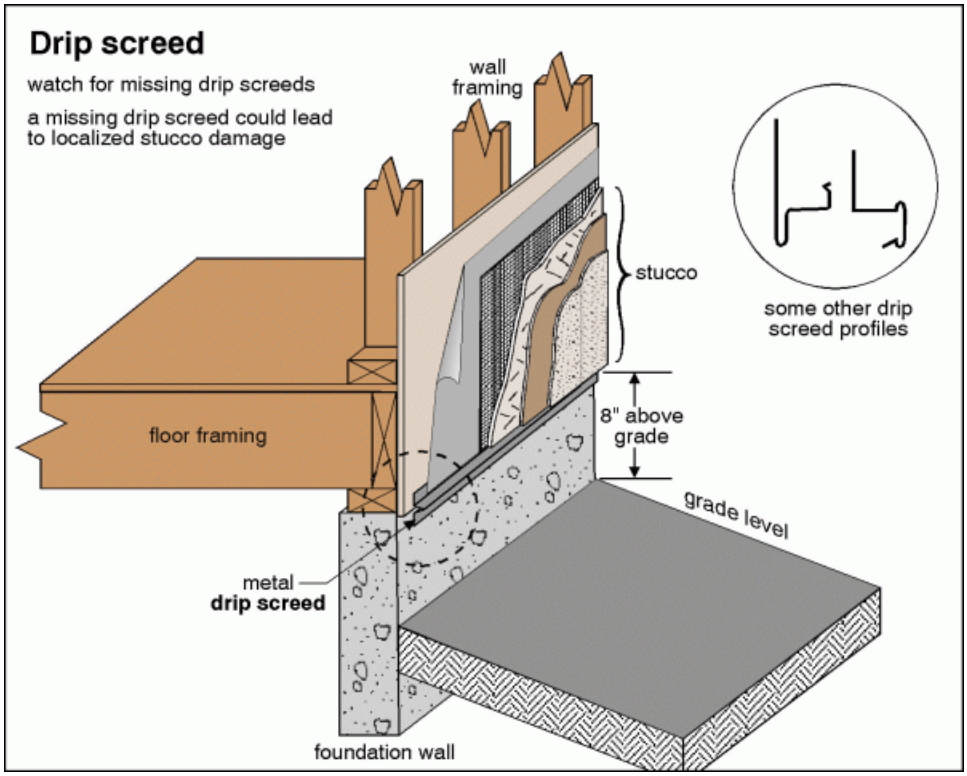
Condition: • Too close to grade

The stucco was too close to grade and in contact with concrete at various points at the exterior wall (see photos), at the time of the inspection. There were no real regulations on stucco installation until 1997. Stucco should be at least 4" from soil and 2" from concrete type surfaces. Recommend having the stucco evaluated by a qualified stucco professional to determine what steps can be taken to ensure that the stucco wall will drain properly, since the previous owners disclosed that they had moisture penetration occur on the front side of the home.

Implication(s): Material deterioration | Chance of water damage to contents, finishes and/or structure

Location: Stucco

Task: Further evaluation



Too Close to Grade

Too Close to Grade

Sealed the Stucco at Front Patio

Stucco Below Rear Paver Patio

Description

General: • ADVICE, PRECAUTIONS & CONDITIONS AFFECTING THE SCOPE OF THE STRUCTURAL INSPECTION:

Many parts of the structure are concealed behind finished surfaces or are buried below grade. Therefore, much of the structural inspection consists of looking for signs of deterioration or movement. If there are no visible symptoms then hidden problems may go undetected.

The Home Inspector shall observe structural components including foundations, floors, walls, columns or piers, ceilings and roof. The home inspector shall describe the type of Foundation, floor structure, wall structure, columns or piers, ceiling structure, roof structure. The home inspector shall: Probe structural components where deterioration is suspected; Enter under floor crawl spaces, basements, and attic spaces except when access is obstructed, when entry could damage the property, or when dangerous or adverse situations are suspected; Report the methods used to observe under floor crawl spaces and attics; and Report signs of abnormal or harmful water penetration into the building or signs of abnormal or harmful condensation on building components. The home inspector is not required to: Enter any area or perform any procedure that may damage the property or its components or be dangerous to or adversely effect the health of the home inspector or other persons.

All structures are dependent on the soil beneath them for support, but soils are not uniform. Some that might appear to be firm and solid can liquefy and become unstable during seismic activity. Also, there are soils that can expand to twice their volume with the influx of water and move structures with relative ease, raising and lowering them and fracturing slabs and other hard surfaces. In fact, expansive soils have accounted for more structural damage than most natural disasters. Regardless, foundations are not uniform, and conform to the structural standard of the year in which they were built. In accordance with our standards of practice, we identify foundation types and look for any evidence of structural deficiencies. However, cracks or deteriorated surfaces in foundations are quite common. In fact, it would be rare to find a raised foundation wall that was not cracked or deteriorated in some way, or a slab foundation that did not include some cracks concealed beneath the carpeting and padding. Fortunately, most of these cracks are related to the curing process or to common settling, including some wide ones called cold-joint separations that typically contour the footings, but others can be more structurally significant and reveal the presence of expansive soils that can predicate more or less continual movement. Because this expansion and contraction may result in movement in certain important elements of the structure, we strongly recommend regular attention to drainage and grading around the entire foundation. We will certainly alert you to any suspicious cracks if they are clearly visible. However, we are not specialists, and in the absence of any major defects we may not recommend that you consult with a foundation contractor, a structural engineer, or a geologist, but this should not deter you from seeking the opinion of any such expert.

Configuration: • Basement • Piers

Foundation material: • Poured concrete

Floor construction: • Joists • Concrete • Steel columns • Steel beams • Subfloor - plywood

Exterior wall construction: • Wood frame

Roof and ceiling framing: • Not visible

Limitations

Inspection limited/prevented by: • Wall, floor and ceiling coverings • Carpet/furnishings

Attic/roof space: • No access

Percent of foundation not visible: • 90 %

Not included as part of a building inspection: • Visible mold evaluation is not included in the building inspection report

Description

General: • We are not electricians and in accordance with the standards of practice we only test a representative number of switches and outlets and do not perform load-calculations to determine if the supply meets the demand. However, every electrical deficiency or recommended upgrade should be regarded as a latent hazard that should be serviced as soon as possible, along with evaluation and certification of the entire system as safe by a licensed contractor. Therefore, it is essential that any recommendations that we may make for service or upgrades should be completed before the close of escrow, because an electrician could reveal additional deficiencies or recommend additional upgrades for which we disclaim any responsibility.

The electrical inspection consists of looking inside circuit breaker panels, testing receptacles and lights and observing wiring in accessible areas. The hidden nature of the electrical system prevents inspection of many components. Electrical components can not be inspected if access is blocked by furniture and/or storage.

The electrical inspection does not include: low voltage systems, telephone, cable or satellite TV systems, sound systems, intercoms, data/communications wiring, security systems, timers, sensors, lightening or surge protection systems or operation of smoke alarms or carbon monoxide detectors or other ancillary wiring that is not a part of the primary electrical distribution system; or Built-in vacuum equipment.

Service entrance cable and location: • Underground copper

Service size: • 200 Amps (240 Volts)

Main disconnect/service box rating: • 200 Amps

Main disconnect/service box type and location: • Breakers -exterior wall

Number of circuits installed: • 58

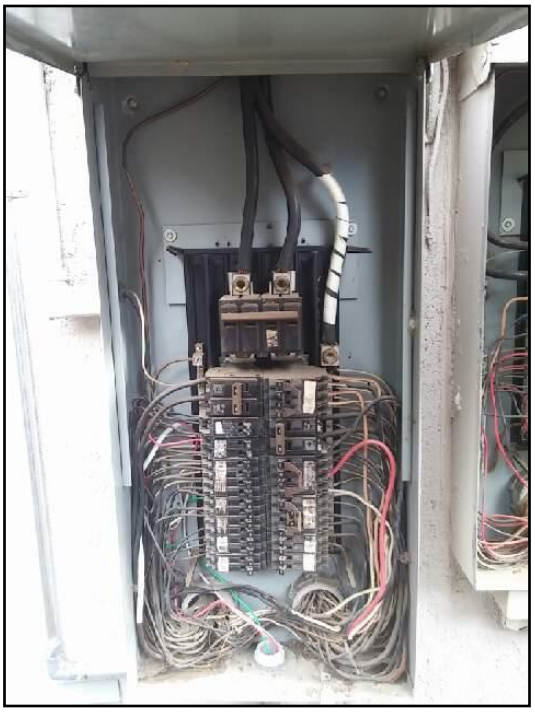
System grounding material and type: • Copper - water pipe and ground rod

Distribution panel rating: • 200 Amps

Distribution panel type and location:

• Breakers - exterior wall

The electrical distribution panel is located on the West exterior wall of the home. Many residents of Colorado like to install pad locks on their electrical panels. It is not recommended that a lock be installed on the panel as this creates a safety issue if there were ever an electrical emergency in the home.



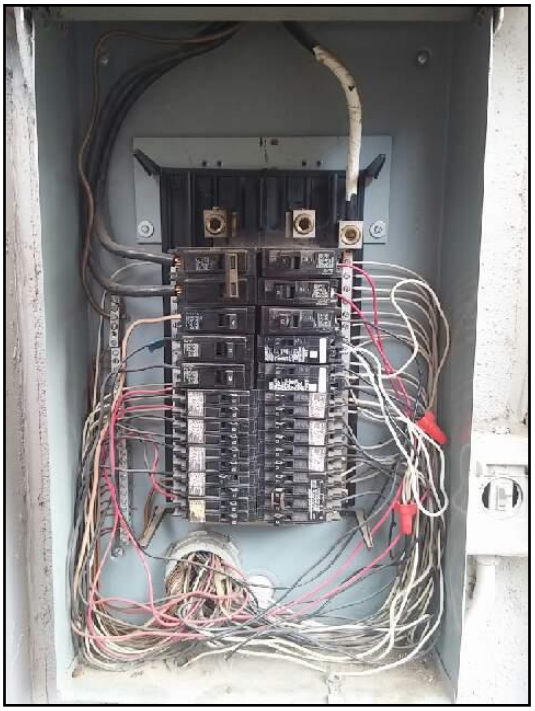
Electrical Distribution Panel

Auxiliary panel (subpanel) rating: • 100 Amps

Auxiliary panel (subpanel) type and location:

• Breakers - exterior wall

The electrical sub panel is located on the West exterior wall, directly to the right of the distribution panel, see photo.



Electrical Sub-Panel

Distribution wire material and type: • Copper - non-metallic sheathed • Aluminum to major appliances

Type and number of outlets (receptacles): • Grounded - typical

Circuit interrupters: Ground Fault (GFCI) & Arc Fault (AFCI): • GFCI - panel • GFCI - kitchen

Smoke detectors: • Present

Carbon monoxide (CO) detectors: • Present

Limitations

System ground: • Continuity not verified • Quality of ground not determined

Circuit labels:

• The circuits are not labeled at the panel

Recommendations

SERVICE BOX, GROUNDING AND PANEL \ Distribution fuses/breakers

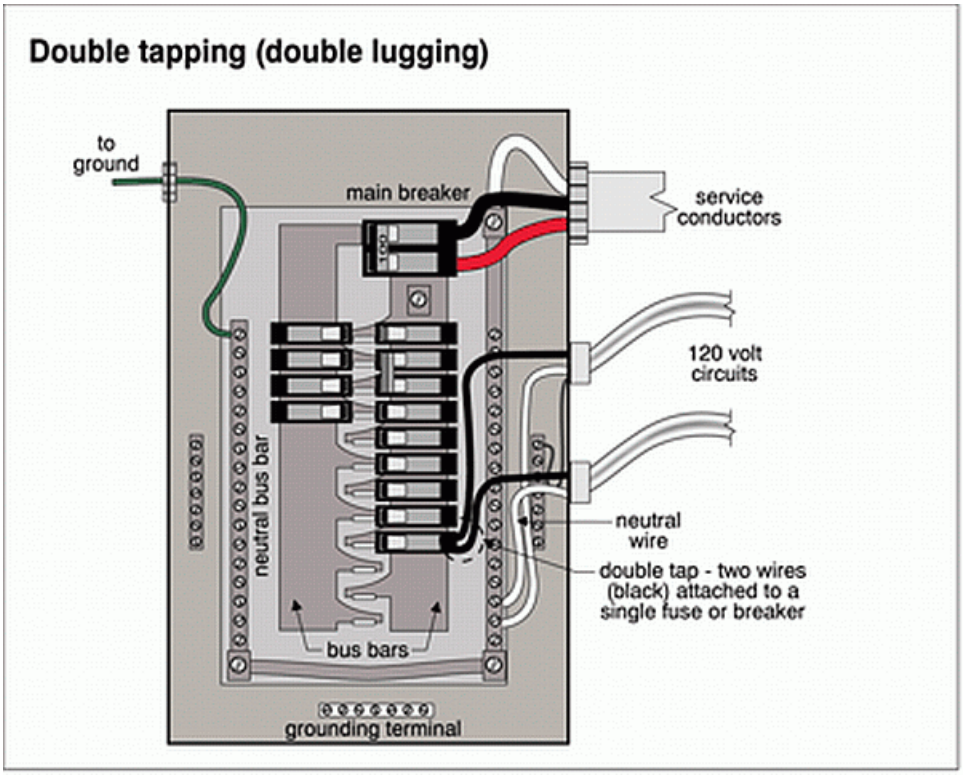
Condition: • Double taps

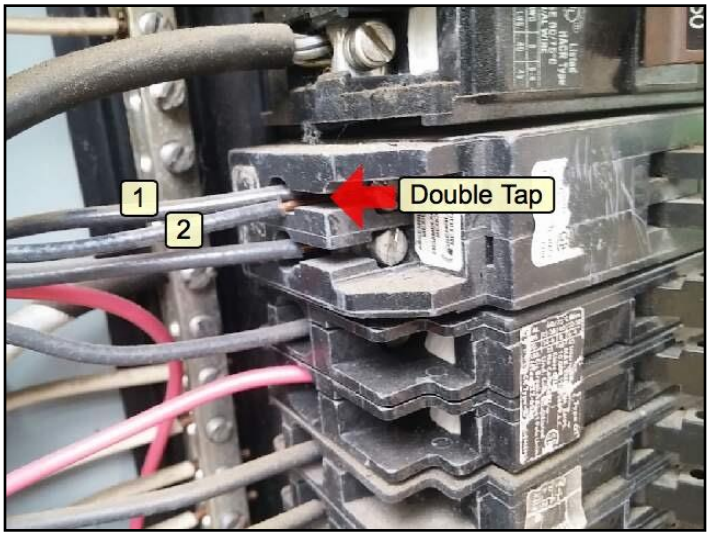
There was a single pole circuit breaker improperly double tapped, at the electrical distribution panel, with two wires entering the single pole breaker (see photo). Most circuit breakers and other electrical connections are only rated (UL listed) to safely hold one wire. Double tapping is when 2 or more wires connect to one circuit breaker or electrical lug. Recommend repairs to these circuit breakers by a qualified electrical professional, keeping in mind that there is a spare circuit breaker already in the panel that can be used for one of these wires.

Implication(s): Fire hazard

Location: Electrical Distribution Panel

Task: SAFETY - Repair





Electrical Distribution Panel - Double Tap

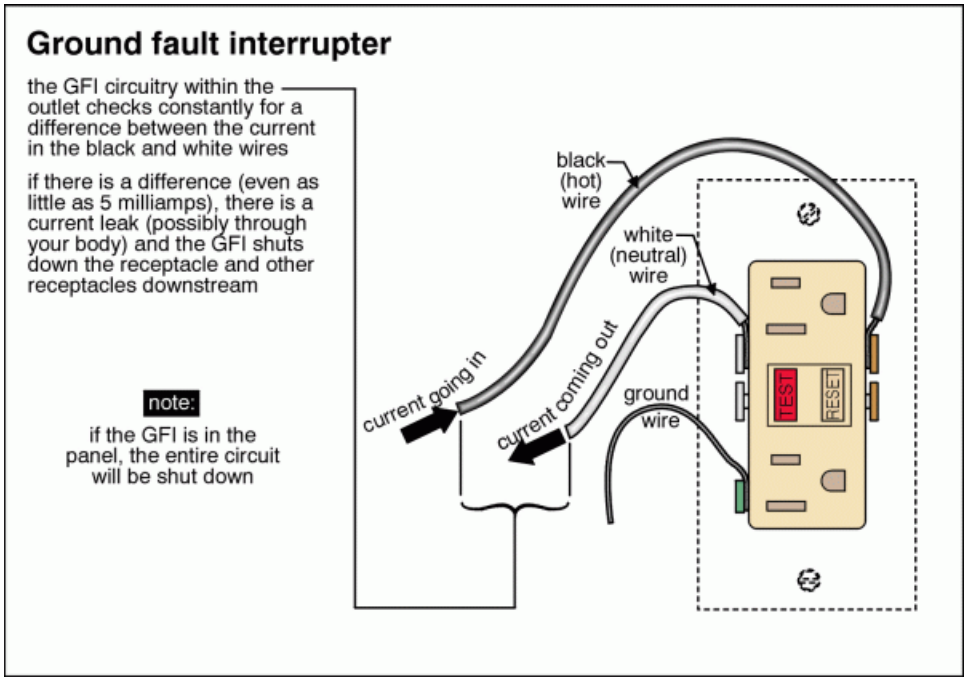
DISTRIBUTION SYSTEM \ Outlets (receptacles)

Condition: • No GFCI (Ground Fault Circuit Interrupter)

The electrical outlet within 3' of a water source by the work room sink was not protected by a ground fault circuit interrupter (GFCI) device at the time of the inspection. This was not a requirement in this area until 1987. Recommend having the current standard outlet, within 3' of the water source, be replaced with GFCI electrical outlet by a qualified electrical professional to ensure the safety of the future occupants.

Implication(s): Electric shock

Location: Basement Work Room
Task: Upgrade - Replace



Work Room

Condition: • Test faulty on Ground Fault Circuit Interrupter (GFCI)
The ground fault circuit interrupter (GFCI) device by the AC compressors (East exterior wall) would not trip as intended at the time of the inspection. Recommend further evaluation and repairs or replacement of this GFCI device as necessary by a qualified electrical professional.
Implication(s): Electric shock
Location: AC Service Outlet
Task: SAFETY - Replace

AC Service Outlet - East Exterior Wall

Description

General: • The HVAC inspection consists of visually examining readily accessible areas and verifying that the system responds to the thermostat. Further evaluation by an HVAC contractor may reveal defects that were not readily apparent to the inspector.

HVAC equipment can fail at any time without warning, including the day after the inspection. Regular service is important for efficient operation and to achieve maximum life from equipment; most manufacturers recommend annual service.

The home inspector is not required to: Operate heating systems when weather conditions or other circumstances may cause equipment damage; Operate automatic safety controls; Ignite or extinguish solid fuel fires; or Observe: The interior of flues; Fireplace insert flue connections; Humidifiers; Electronic air filters; or The uniformity or adequacy of heat supply to the various rooms.

Please note that even modern heating systems can produce carbon monoxide, which in a poorly ventilated room can result in sickness and even death. Therefore, it is essential that any recommendations we make for service or further evaluation be scheduled before the close of escrow, because a specialist could reveal additional defects or recommend further upgrades that could affect your evaluation of the property, and our service does not include any form or warranty or guarantee. Normal service and maintenance is recommended on a yearly basis. Determining the presence of asbestos materials commonly used in heating systems can ONLY be preformed by laboratory testing and is beyond the scope of this inspection.

Fuel/energy source: • Gas

System type: • Furnace • Fireplace

Furnace manufacturer: • Lennox

Heat distribution: • Ducts and registers

Approximate capacity:

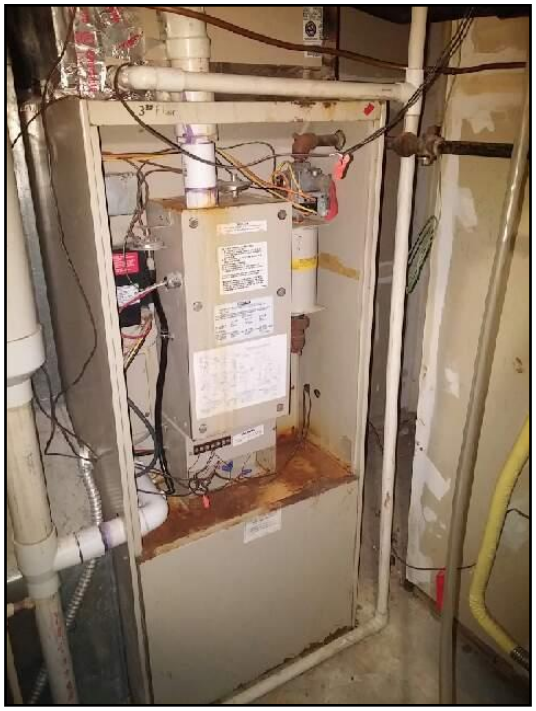
• 80,000 BTU/hr

This furnace serves the main floor of the home and is located in the mechanical closet of the basement.

Main Floor Furnace

• 60,000 BTU/hr

This furnace serves the second floor of the home and is located in the mechanical closet of the basement.



Second Floor Furnace

• 50,000 BTU/hr

This furnace serves the basement of the home and is located in the mechanical closet of the basement.

Basement Furnace

Efficiency: • High-efficiency

Exhaust venting method: • Direct vent - sealed combustion

Approximate age: • 31 years

Typical life expectancy: • Furnace (high efficiency) 15 to 20 years

Main fuel shut off at: • Meter

Failure probability: • High

Exhaust pipe (vent connector): • PVC plastic

Fireplace: • Gas fireplace

Chimney liner: • Clay

Combustion air source: • Outside - sealed combustion

Humidifiers:

• Duct mounted bypass humidifer

The humidifier was not inspected for proper effectiveness. Humidifiers need routine maintenance. Such maintenance is commonly lacking and can only be evaluated by disassembling the unit. Lack of maintenance can generate health related issues. Leaking humidifiers can damage HVAC equipment. The bypass duct on the humidifier should be closed off at the end of the heating season in order for the air conditioner to work more effectively. Find out how to operate and maintain your humidifier. Read the owner's manual or consult an HVAC professional.

Whole House Humidifier - Second Floor

Limitations

Safety devices: • Not tested as part of a building inspection

Heat loss calculations: • Not done as part of a building inspection

Fireplace/wood stove: • This is a visual inspection. Screens and doors, appliance gaskets and seals, fireplace surrounds and heat distribution systems (gravity or fan assisted) are not inspected unless specifically documented. Gas fireplaces need routine maintenance by a qualified licensed professional. Most manufacturers suggest this service be annual (check the owner's manual).

Heat exchanger: • Not visible

Recommendations

GAS FURNACE \ Life expectancy

Condition: • Old

The furnace systems were old (31 years old) and beyond their useful service life expectancy. Typical life expectancy for this type of system is 18-25 years. However, the systems came to proper temperatures and were not emitting any gas at the draft hood. Although, older systems are less efficient and subject to failure. Determining the future performance of the system is beyond the scope of this inspection. The furnace systems could require repairs and/or replacement at any time. If replacement is not an option, then one may want to consider a third party home warranty plan that will cover the cost of repairs or replacement of the furnaces in the event that the furnaces become inoperative.

Implication(s): Equipment failure | No heat for building

Location: Furnaces

Task: Replace

Furnaces - 31 Years Old

Third Furnace

FIREPLACE \ Gas fireplace

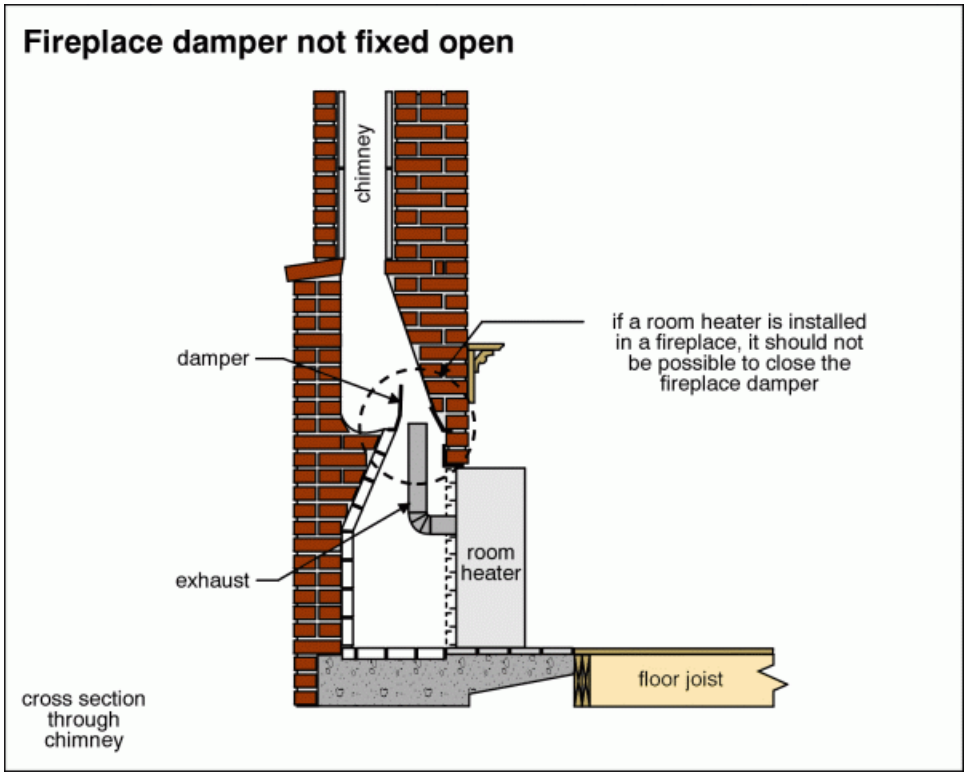
Condition: • Damper in existing fireplace not fixed open

The gas fireplace damper in the living room was not in a fixed position at the time of the inspection. The damper requires a permanent damper clamp or removal of the damper, to keep the damper from closing fully, is required with a gas fireplace. Recommend having a clamp welded (permanent) or the damper removed by a qualified gas fireplace professional to ensure the safety of the occupants of the home.

Implication(s): Hazardous combustion products entering home

Location: Living Room

Task: SAFETY - Repair



Damper Closed Position

Gas Fireplace

Description

General: • NEW REFRIGERANT REQUIREMENTS FOR AIR CONDITIONING SYSTEMS:

R-410A has replaced R-22 as the preferred refrigerant for use in residential and commercial air conditioners in Japan, Europe and the United States.

Parts designed specifically for R-410A must be used as R-410A operates at higher pressures than other refrigerants. Thus R-410A systems require service personnel to use different tools, equipment, safety standards and techniques. Equipment manufacturers are aware of these changes and require the certification of professionals installing R-410A systems. In addition the AC&R Safety Coalition has been created to help educate professionals about R-410-A system.

In accordance with terms and agreement reached in the United States Environmental Protection Agency has mandated that production or import of R-22 along with other hydrochlorofluorocarbons (HCFCs) be phased-out in the United States at the end of 2015. In the USA, virgin R22 cannot be used for manufacturing of new air conditioning or similar units from 1 January 2010. Today, all newly manufactured window unit air conditioners and central air conditioning systems in the United States come with R-410A. Due to this phase out it is recommended that you have your AC serviced prior to the phase period date to ensure your system is fully charged with R22 refrigerant. Once the system fails, a new system which will use R-410A will be it's replacement. Therefore, the systems compressor and inside coil will have to be replaced.

General: • Scope of the Air Conditioning System Inspection:

Inspection and evaluation of the condition of the cooling system was limited to visible components and their basic functions. A full evaluation of the condition of the central air conditioning equipment requires extensive testing and is beyond the scope of a home inspection.

Thermostats are not checked for calibration or timed functions. Adequacy, efficiency or the even distribution of air throughout a building cannot be addressed by a visual inspection. Have this system evaluated by a qualified individual. The inspector does not perform pressure tests on coolant systems, therefore no representation is made regarding coolant charge or line integrity. We perform a conscientious evaluation of the system, but we are not specialists.

Air conditioning type:

• Air cooled

The air conditioner compressors are located on the East side of the home. See photo for what unit serves what floor.

AC Units

Manufacturer: • Lennox • Rheem • Trane

Cooling capacity: • 30,000 BTU/hr • 2.5 Tons

Compressor type: • Electric

Compressor approximate age:
• 10 years
Second Floor Unit.
• 14 years
Main Floor Unit.
• 31 years
Basement AC unit.

Typical life expectancy: • 12 to15 years

Failure probability: • High • Medium

Limitations

Inspection limited/prevented by: • ADVICE, PRECAUTIONS & CONDITIONS AFFECTING THE SCOPE OF THE COOLING SYSTEM INSPECTION

Did Not Operate A/C System During Cold Weather:
According to most central cooling system manufacturers, operation of an electric-gas compression air conditioning system when outdoor temperatures have not been at least 65 degrees, Fahrenheit for at least 48 hours prior, can result in possible serious damage to the compressor. Conditions at the time of the inspection were not appropriate for the operation of the air conditioning system. We recommend inspection and evaluation of the performance of the system, when conditions are appropriate.

Not part of a home inspection: • Home inspectors cannot typically access or inspect the indoor coil • Home inspectors do not verify that the size of the indoor coil matches the outdoor coil

Recommendations

AIR CONDITIONING \ Life expectancy

Condition: • Inoperative

The air conditioner that serves the basement would not respond to thermostatic controls at the time of inspection. Since this unit is original to the home (31 years old), it is recommended that this AC compressor and inside coil be replaced as new refrigerant requirements are in place that are no longer compatible with the older coils.

Implication(s): Reduced comfort

Location: Basement AC Unit

Task: Replace

Lennox AC - Serves the Basement

AIR CONDITIONING \ Condensate drain line

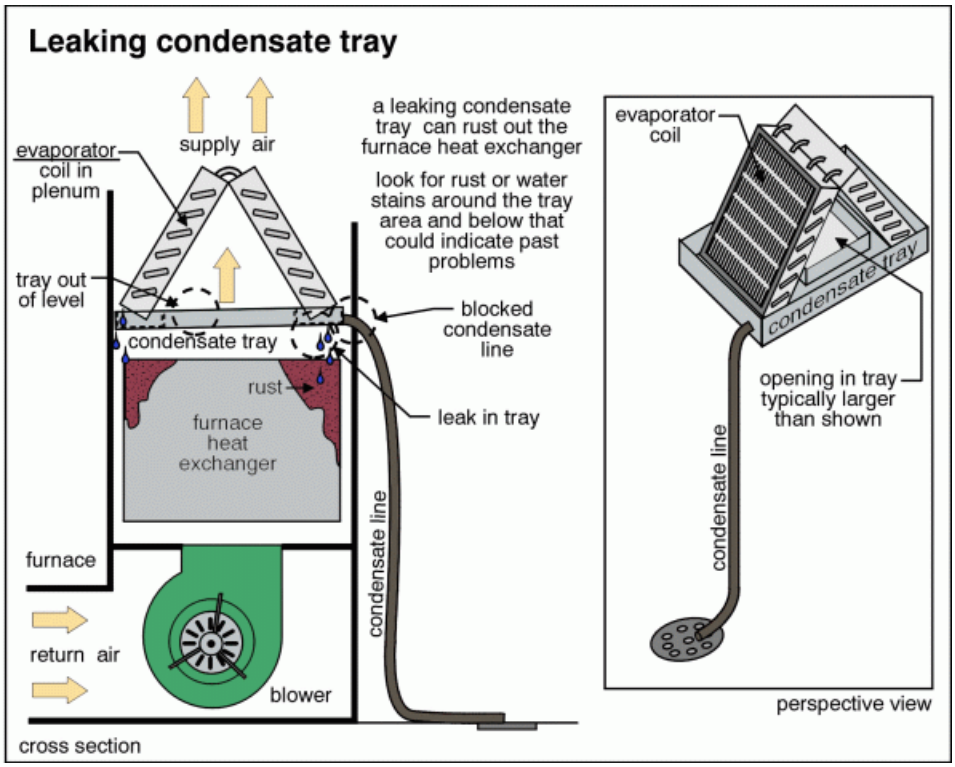
Condition: • Blocked or crimped

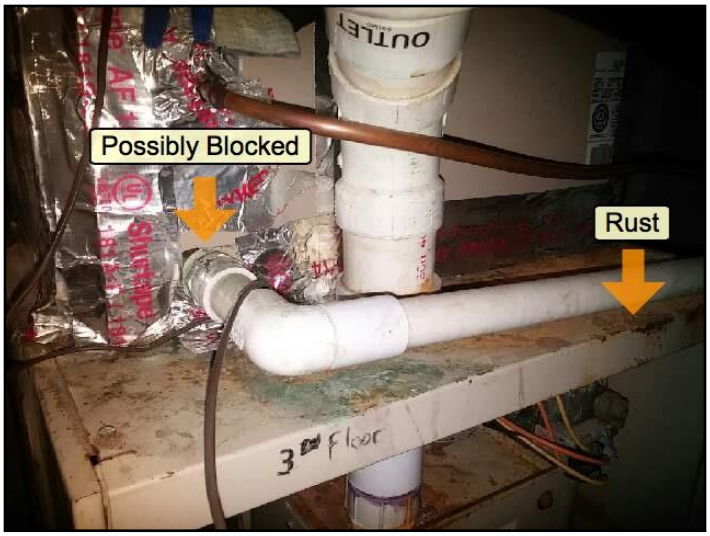
The condensate drain line for the second floor HVAC system appeared to be blocked or clogged at the time of the inspection. This may or may not have been fixed in the past, however there is significant rust on the outside and inside of the furnace cabinet, which indicates that this is still a concern that needs to be addressed. Recommend further evaluation and repairs to the condensate drain line and further evaluation of the furnace components by a qualified HVAC professional.

Implication(s): Damage to equipment | Chance of water damage to contents, finishes and/or structure

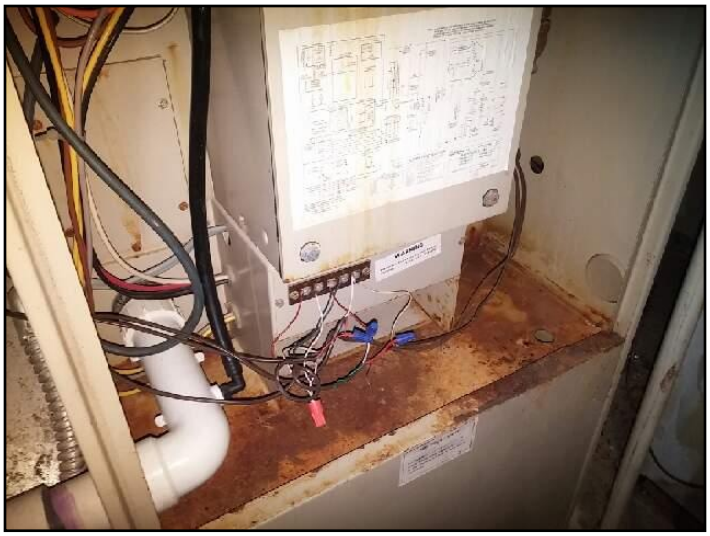
Location: Second Floor Unit

Task: Further evaluation





2nd Floor HVAC System



Rust Inside Furnace Cabinet

Limitations

Inspection prevented by no access to: • Roof space • Wall space • Floor space

Description

Water supply source: • Public

Service piping into building: • Copper

Supply piping in building: • Copper

Main water shut off valve at the:

• Basement

The main water shut-off valve was located on the West wall of the basement work room, see photo. There was an access on the South wall of this room that allows you access to the main water shut-off valve.

Main Water Shut-off Valve

Water flow and pressure: • Functional • Typical for neighborhood

Water heater fuel/energy source: • Gas

Water heater type: • Hot water can cause severe scalding. The risk is especially high for infants, children, and the elderly. After taking occupancy you should have your plumber adjust the water heater so it does not produce water hotter than 120F (there is a big warning label on most new water heaters telling you to do this). Note that modern dishwashers contain heating elements and do not need high temperature supply.

Water heater type: • Conventional

Water heater exhaust venting method: • Natural draft

Water heater manufacturer: • Bradford White

Tank capacity: • 75 gallons

Water heater approximate age: • 15 years

Typical life expectancy: • 8 to 12 years

Water heater failure probability: • High

Waste disposal system: • Public

Waste and vent piping in building: • ABS plastic

Floor drain location: • Near laundry area • Near heating system • Near water heater

Gas piping: • Steel

Main fuel shut off valve at the:
• Gas meter
The gas meter for the home is located on the West exterior wall (see photo).

Gas Meter

Exterior hose bibb: • Present • Frost free

Limitations

General: • The home inspector shall observe: Interior water supply and distribution system, including: piping materials, supports, and insulation; fixtures and faucets; functional flow; leaks; and cross connections; Interior drain, waste, and vent system, including: traps; drain, waste, and vent piping; piping supports and pipe insulation; leaks; and functional drainage; Hot water systems including: water heating equipment; normal operating controls; automatic safety controls; and chimneys, flues, and vents; Fuel storage and distribution systems including: interior fuel storage equipment, supply piping, venting, and supports; leaks; and Sump pumps. The home inspector shall describe: Water supply and distribution piping materials; Drain, waste, and vent piping materials; Water heating equipment; and Location of main water supply shutoff device. The home inspector shall operate all plumbing fixtures, including their faucets and all exterior faucets attached to the house, except where the flow end of the faucet is connected to an appliance. The home inspector is not required to: State the effectiveness of anti-siphon devices; Determine whether water supply and waste disposal systems are public or private; Operate automatic safety controls; Operate any valve except water closet flush valves, fixture faucets, and hose faucets; Observe: Water conditioning systems; Fire and lawn sprinkler systems; On-site water supply quantity and quality; On-site waste disposal systems; Foundation irrigation systems; Spas, except as to functional flow and functional drainage; Swimming pools; Solar water heating equipment; or Observe the system for proper sizing, design, or use of proper materials.

The plumbing in the home was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. Washing machine drain line for example cannot be checked for leaks or the ability to handle the volume during drain cycle. Older homes with galvanized supply lines or cast

iron drain lines can be obstructed and barely working during an inspection but then fails under heavy use. If the water is turned off or not used for periods of time (like a vacant home waiting for closing) rust or deposits within the pipes can further clog the piping system. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

Fixtures not tested/not in service: • The main water shut-off is not tested as this is beyond the scope of the inspection. • The Yard Sprinkler System Was Not Inspected.

The landscape irrigation (sprinkler) system was not inspected and is not included in this report. Thus, we cannot make any representations as to its present condition or future performance. We recommend evaluation by a sprinkler system technician, if further information on the system's function and condition is desired.

Items excluded from a building inspection: • Instant Hot Device
Note: The instant hot water device is beyond the scope of the home inspection. This provides for an on demand hot water supply for the kitchen faucet.

Instant Hot Water - Kitchen Faucet

Items excluded from a building inspection: • Water quality • Isolating/relief valves & main shut-off valve • Concealed plumbing • Tub/sink overflows • Water heater relief valves are not tested • The performance of floor drains or clothes washing machine drains

Recommendations

WATER HEATER \ Life expectancy
Condition: • Old
The water heater is 15 years old, and beyond the manufacturer's average (8 to 12 years) life expectancy. Older water heaters are less efficient and subject to failure. Determining the future performance of the water heater is beyond the scope of this inspection. Recommend replacement based on age alone of the water heater by a qualified plumbing professional.
Implication(s): No hot water

Location: Water Heater
Task: Replace

Water Heater - 15 Years Old

FIXTURES AND FAUCETS \ Shower stall

Condition: • Leak

The master and basement shower pans were cracked at the time of the inspection. These cracks will eventually led to leaks if not already leaking. It could not be determined if the shower pan cracks were superficial or full cracks through the pans. Due to the condition of these shower pans, it is recommended that they be replaced by a qualified professional to prevent future leaks from occurring.

Implication(s): Chance of water damage to contents, finishes and/or structure
Location: Master & Basement Bathroom
Task: Replace

Master Bath Shower Pan

Basement Bath Shower Pan

Description

General: • This inspection is intended to address functional issues rather than aesthetic appeal. Nearly all buildings have minor cracks on interior surfaces. These are typically cosmetic in nature and can be caused by settlement, shrinkage of building components or thermal expansion and contraction. Small cracks of this type are not mentioned in this report.

In regards to windows and doors we only report on physical condition and operability. Thermal efficiency is not a part of this inspection. We cannot check windows or doors that are blocked by furniture. Broken seals on double pane window units are sometimes difficult to see and may not be reported. Storm windows, screens, storm doors, window and door coverings, shutters and other seasonal items are not inspected unless specifically documented.

Testing, identifying, or identifying the source of environmental pollutants or odors (including but not limited to lead, mold, allergens, odors from household pets and cigarette smoke) is beyond the scope of our service, but can become equally contentious or difficult to eradicate. We recommend you carefully determine and schedule whatever remedial services may be deemed advisable or necessary before the close of escrow.

Major floor finishes: • Carpet • Hardwood • Ceramic • Tile

Major wall and ceiling finishes: • Plaster/drywall

Windows: • Fixed • Casement • Wood

Glazing: • Double

Exterior doors - type/material: • Hinged • French • Solid wood • Metal-clad

Doors: • Inspected

Oven type: • Convection

Oven fuel: • Electricity

Range fuel: • Gas

Appliances: • Refrigerator • Range hood • Dishwasher • Waste disposal • Trash compactor • Microwave oven • Door bell

Laundry facilities: • In accordance with industry standards, we do not test clothes dryers, nor washing machines and their water connections and drainpipes unless these appliances are included as part of the real estate transaction.

There are two things that you should be aware of. The water supply to washing machines is usually left on, and their hoses can leak or burst under pressure and continue to flow. Therefore, we recommend replacing the rubber hose type with newer braided stainless steel ones that are much more dependable. You should also be aware that the newer washing machines discharge a greater volume of water than many of the older drainpipes can handle, which causes the water to back up and overflow, and the only remedy would be to replace the standpipe and trap with one that is a size larger.

Laundry facilities: • Washer • Hot/cold water supply • Dryer • Vented to outside • 120-Volt outlet • 240-Volt outlet • Waste standpipe

Kitchen ventilation: • Range hood • Discharges to exterior

Bathroom ventilation: • Exhaust fan

Laundry room ventilation: • Clothes dryer vented to exterior

Counters and cabinets: • Inspected

Stairs and railings: • Inspected

Limitations

Inspection limited/prevented by: • Carpet

Not included as part of a building inspection: • Smoke Detectors • Carbon Monoxide Detectors

Not included as part of a building inspection: • Security systems and intercoms

Cosmetics: • No comment offered on cosmetic finishes

Appliances: • Effectiveness of Trash Compactor

Appliances: • Self-cleaning features on ovens not tested • Effectiveness of dishwasher drying cycle not tested • Appliances are not moved during an inspection

Basement leakage: • Almost every basement leaks under the right conditions. Based on a one-time visit, it's impossible to know how often or how badly this basement may leak. While we look for evidence of past leakage during our inspection, this is often not a good indicator of current conditions. Exterior conditions such as poorly performing gutters and downspouts, and ground sloping down toward the house, often cause basement leakage problems.

Recommendations

WINDOWS \ Glass (glazing)

Condition: • Safety glass not installed

The fixed windows in the South Bedroom were less than 18" off the floor, greater than 9 sq ft of glass, and appeared to be of non-safety glass glazing at the time of the inspection as there was no marking on the glass indicating that they are of safety glazing. Safety glazing, often referred to as tempered, became part of CPSC 16 CFR 1201, and they became law on July 6, 1977. Therefore, it is recommended to consider replacement of the non-safety glass with tempered glass or installing a film, if necessary, for added safety in this hazardous location by a qualified window professional.

Implication(s): Physical injury

Location: South Bedroom Windows

Task: SAFETY - Further Evaluation

South Bedroom Windows

WINDOWS \ Hardware

Condition: • Inoperable

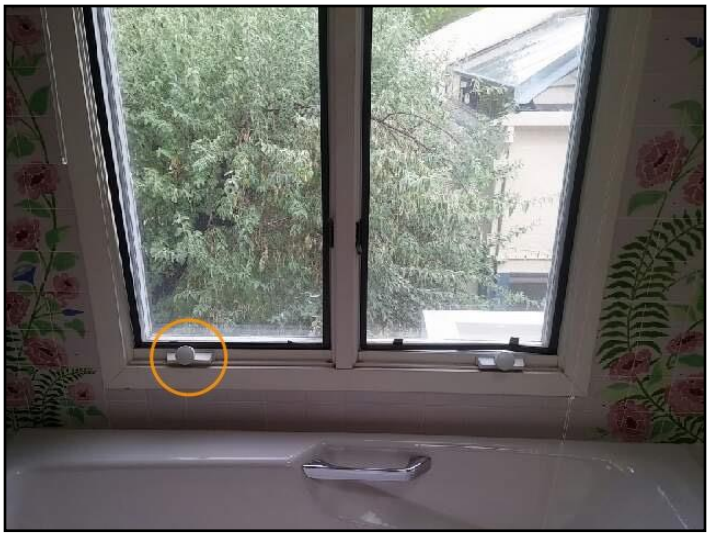
There were numerous window cranks in the home that were either stripped, inoperable, or missing at the time of the inspection. See photos for exact locations where the cranks were defective. Recommend repairs or replacement of these window cranks by a qualified window professional upon taking possession of the home.

Implication(s): System inoperative or difficult to operate

Location: See Photos

Task: Repair or replace

EnSuite Bath - Right Window



Master Bathroom

Dining Room - Both Window Cranks

Eat-in-Kitchen - Both Window Cranks

Living Room - Left Window Crank

Description

Weather: • Sunny • Ground was dry • Light winds

Approximate temperature: • 68°

Attendees: • Buyer • Buyer's Agent

Access to home provided by: • Lockbox

Occupancy: • The home was vacant during the inspection. • The home was unfurnished during the inspection.

Utilities: • All utilities were on during the inspection. • The water service is public. • The plumbing waste disposal system is public.

Approximate age of home: • 31 years

Approximate date of construction: • 1984

Approximate size of home: • 3500 ft.² to 4000 ft.²

Building type: • Detached home

Number of dwelling units: • Single-family

Number of stories: • Two

Number of bedrooms: • Three

Number of bathrooms: • Four

Below grade area: • Basement

Garage, carport and outbuildings: • Attached two-car garage - Basement level

Area: • City

Street type: • Residential

Street surface: • Paved

END OF REPORT

Information About Carbon Monoxide

For additional information, write to the U.S. Consumer Product Safety Commission, Washington, D.C., 20207, call the toll-free hotline at 1-800-638-2772, or visit the website http://www.cpsc.gov

What is carbon monoxide (CO) and how is it produced in the home?

CO is a colorless, odorless, toxic gas. It is produced by the incomplete combustion of solid, liquid and gaseous fuels. Appliances fueled with gas, oil, kerosene, or wood may produce CO. If such appliances are not installed, maintained, and used properly, CO may accumulate to dangerous levels.

What are the symptoms of CO poisoning and why are these symptoms particularly dangerous?
Breathing CO causes symptoms such as headaches, dizziness, and weakness in healthy people. CO also causes sleepiness, nausea, vomiting, confusion and disorientation. At very high levels, it causes loss of consciousness and death. This is particularly dangerous because CO effects often are not recognized. CO is odorless and some of the symptoms of CO poisoning are similar to the flu or other common illnesses.

Are some people more affected by exposure to CO than others?
CO exposures especially affect unborn babies, infants, and people with anemia or a history of heart disease. Breathing low levels of the chemical can cause fatigue and increase chest pain in people with chronic heart disease.

How many people die from CO poisoning each year?
In 1989, the most recent year for which statistics are available, thee were about 220 deaths from CO poisoning associated with gas-fired appliances, about 30 CO deaths associated with solid-fueled appliances (including charcoal grills), and about 45 CO deaths associated with liquid- fueled heaters.

How many people are poisoned from CO each year?
Nearly 5,000 people in the United States are treated in hospital emergency rooms for CO poisoning; this number is believed to be an underestimate because many people with CO symptoms mistake the symptoms for the flu or are misdiagnosed and never get treated.

How can production of dangerous levels of CO be prevented?

Dangerous levels of CO can be prevented by proper appliance maintenance, installation, and use:

Maintenance:

- A qualified service technician should check your home's central and room heating appliances (including water heaters and gas dryers) annually. The technician should look at the electrical and mechanical components of appliances, such as thermostat controls and automatic safety devices.
- Chimneys and flues should be checked for blockages, corrosion, and loose connections.
- Individual appliances should be serviced regularly. Kerosene and gas space heaters (vented and unvented) should be cleaned and inspected to insure proper operation.
- CPSC recommends finding a reputable service company in the phone book or asking your utility company to suggest a qualified service technician.

Installation:

- Proper installation is critical to the safe operation of combustion appliances. All new appliances have installation instructions that should be followed exactly. Local building codes should be followed as well.
- Vented appliances should be vented properly, according to manufacturer's instructions.
- Adequate combustion air should be provided to assure complete combustion.
- All combustion appliances should be installed by professionals.

Appliance Use:

Follow manufacturer's directions for safe operation.

- Make sure the room where an unvented gas or kerosene space heater is used is well ventilated; doors leading to another room should be open to insure proper ventilation.
- Never use an unvented combustion heater overnight or in a room where you are sleeping.

Are there signs that might indicate improper appliance operation?

Yes, these are:

- Decreasing hot water supply
- Furnace unable to heat house or runs constantly
- Sooting, especially on appliances
- Unfamiliar or burning odor
- Increased condensation inside windows

Are there visible signs that might indicate a CO problem?

Yes, these are:

- Improper connections on vents and chimneys
- Visible rust or stains on vents and chimneys
- An appliance that makes unusual sounds or emits an unusual smell
- An appliance that keeps shutting off (Many new appliances have safety components attached that prevent operation if an unsafe condition exists. If an appliance stops operating, it may be because a safety device is preventing a dangerous condition. Therefore, don't try to operate an appliance that keeps shutting off; call a service person instead.)

Are there other ways to prevent CO poisoning?

Yes, these are:

- Never use a range or oven to heat the living areas of the home
- Never use a charcoal grill or hibachi in the home
- Never keep a car running in an attached garage

Can CO be detected?

Yes, CO can be detected with CO detectors that meet the requirements of Underwriters Laboratories (UL) standard 2034.

Since the toxic effect of CO is dependent upon CO concentration and length of exposure, long-term exposure to a low concentration can produce effects similar to short term exposure to a high concentration.

Detectors should measure both high CO concentrations over short periods of time and low CO concentrations over long periods of time - the effects of CO can be cumulative over time. The detectors also sound an alarm before the level of CO in a person's blood would become crippling. CO detectors that meet the UL 2034 standard currently cost between $35 and $80.

Where should the detector be installed?

CO gases distribute evenly and fairly quickly throughout the house; therefore, a CO detector should be installed on the wall or ceiling in sleeping area/s but outside individual bedrooms to alert occupants who are sleeping.

Aren't there safety devices already on some appliances? And if so, why is a CO detector needed?

Vent safety shutoff systems have been required on furnaces and vented heaters sine the late 1980s. They protect against blocked or disconnected vents or chimneys. Oxygen depletion sensors (ODS) have also been installed on unvented gas space heaters since the 1980s. ODS protect against the production of CO caused by insufficient oxygen for proper combustion.

These devices (ODSs and vent safety shutoff systems) are not a substitute for regular professional servicing, and many older, potentially CO-producing appliances may not have such devices. Therefore, a CO detector is still important in any home as another line of defense.

Are there other CO detectors that are less expensive?

There are inexpensive cardboard or plastic detectors that change color and do not sound an alarm and have a limited useful life. They require the occupant to look at the device to determine if CO is present. CO concentrations can build up rapidly while occupants are asleep, and these devices would not sound an alarm to wake them.

COMMON ENVIRONMET ISSUES

A standard home inspection does not include screening for potentially hazardous or toxic substances or biological hazards. Here are some things you may want to know. This is presented for your information only, and is not intended to be a representation or warranty by Vango Inspections.

Carbon Monoxide

Carbon monoxide, which can be fatal, can be produced by any thing with a flame (such as ranges, dryers, fireplaces, furnaces and water heaters). All gas appliances should be professionally serviced on a regular basis (see the manufacturer's instructions). Thorough carbon monoxide testing of a house is a specialized service that Vango Inspections does not perform. You are strongly encouraged to install carbon monoxide detectors. They are readily available from hardware stores for a reasonable cost.

Radon Gas

Radon is a radioactive gas this is odorless, tasteless and invisible. It occurs naturally in soils and rocks, and enters houses through the foundation or through well water. The Surgeon General has warned that radon is the second leading cause of lung cancer. The Environmental Protection Agency (EPA) recommends testing for radon in all houses below the 3rd floor and fixing houses with elevated levels of radon. Vango Inspections will test for radon agreed-to under a separate agreement. For more information read the booklet, 'Home Buyer's and Seller's Guide to Radon' published by the EPA. This is available from the Colorado Department of Public Health and Environment at (303)692-3090, or you can view a copy at http://www.epa.gov/iaq/radon/pubs/hmbyguid.htm#Contents

Lead Based Paint, Lead in Water

Houses built before about 1980 usually have lead based paint. Lead can cause severe brain injury, particularly for infants and children. Unborn children are also at risk if the mother is exposed to lead paint. Lead dust can be created by scraping or sanding during renovation projects or by rubbing of windows or doors as they operate. Lead dust in the soil outside houses is also a hazard. Tap water may contain lead due to plumbing materials, particularly in older homes. Common sense dictates that children and pregnant women should stay away from lead dust, and that children who come in contact with lead dust should have their blood lead levels tested. Consult your pediatrician about this inexpensive test. Lead based paint testing is available from environmental specialist. Lead levels in drinking water can be easily tested, check with a private water testing laboratory, your water provider, or the Colorado Department of Public Health and Environment (303) 692-3048. Vango Inspections does not perform any tests for lead. For further information read the booklet, 'Protect Your Family From Lead In Your Home' published by the EPA. This available by calling (800) 424-5323, or you can view a copy at http://www.epa.gov/lead/leadpdfe.pdf

Asbestos

Many, but not all, pre-1980 houses contain asbestos in a wide variety of building products. If asbestos fibers are inhaled or swallowed, they can cause serious health effects that may not appear for many years. For further information read the booklet, 'Asbestos in Your Home' published by the American Lung Association in conjunction with the U.S. Consumer Product Safety Commission and the EPA. It is available by calling (800) 638-2772, or you can view a copy at http://www.epa.gov/asbestos/ashome.html

Asbestos can not be positively identified visually. The presence or absence of asbestos can only be verified by a laboratory analysis. Vango Inspections does not perform any tests for asbestos. If you suspect the presence of asbestos in any material, do not disturb the material. Consult with a qualified environmental specialist or asbestos remediation contractor to confirm the presence or absence of asbestos, and for advice on how best to deal with any asbestos that may be present. There may be special regulations for the removal and disposal of asbestos.

Mold

Mold, mildew, or fungus growing in any building is a sign of a moisture problem. The source of the moisture should be found and corrected. Some types of mold have been linked to health effects in some people. Effects range from mild to severe. Recent media coverage has made mold a controversial issue among home inspectors, lawyers, and experts in the field. At this time there are no acceptable or unacceptable levels of mold exposure set by the Centers for Disease Control, the Environmental Protection Agency, or any other independent authoritative source.

The testing and interpretation of mold issues should be left to the true experts in the field such as doctors and industrial hygienists. This is why Vango Inspections does not inspect or test for mold or other environmental/biological hazards. If you have concerns about mold or other indoor air quality issues you should contact your doctor, and industrial hygienist, the CDC, or the EPA.

Maintenance Advice

UPON TAKING OWNERSHIP

After taking possession of a new home, there are some maintenance and safety issues that should be addressed immediately. The following checklist should help you undertake these improvements:

- ☑ Change the locks on all exterior entrances, for improved security.
- ☑ Check that all windows and doors are secure. Improve window hardware as necessary. Security rods can be added to sliding windows and doors. Consideration could also be given to a security system.
- ☑ Install smoke detectors on each level of the home. Ensure that there is a smoke detector outside all sleeping areas. Replace batteries on any existing smoke detectors and test them. Make a note to replace batteries again in one year.
- ☑ Create a plan of action in the event of a fire in your home. Ensure that there is an operable window or door in every room of the house. Consult with your local fire department regarding fire safety issues and what to do in the event of fire.
- ☑ Examine driveways and walkways for trip hazards. Undertake repairs where necessary.
- ☑ Examine the interior of the home for trip hazards. Loose or torn carpeting and flooring should be repaired.
- ☑ Undertake improvements to all stairways, decks, porches and landings where there is a risk of falling or stumbling.
- ☑ Review your home inspection report for any items that require immediate improvement or further investigation. Address these areas as required.
- ☑ Install rain caps and vermin screens on all chimney flues, as necessary.
- ☑ Investigate the location of the main shut-offs for the plumbing, heating and electrical systems. If you attended the home inspection, these items would have been pointed out to you.

REGULAR MAINTENANCE

EVERY MONTH

- ☑ Check that fire extinguisher(s) are fully charged. Re-charge if necessary.
- ☑ Examine heating/cooling air filters and replace or clean as necessary.
- ☑ Inspect and clean humidifiers and electronic air cleaners.
- ☑ If the house has hot water heating, bleed radiator valves.
- ☑ Clean gutters and downspouts. Ensure that downspouts are secure, and that the discharge of the downspouts is appropriate. Remove debris from window wells.
- ☑ Carefully inspect the condition of shower enclosures. Repair or replace deteriorated grout and caulk. Ensure that water is not escaping the enclosure during showering. Check below all plumbing fixtures for evidence of leakage.
- ☑ Repair or replace leaking faucets or showerheads.
- ☑ Secure loose toilets, or repair flush mechanisms that become troublesome.

SPRING AND FALL

- ☑ Examine the roof for evidence of damage to roof coverings, flashings and chimneys.
- ☑ Look in the attic (if accessible) to ensure that roof vents are not obstructed. Check for evidence of leakage, condensation or vermin activity. Level out insulation if needed.
- ☑ Trim back tree branches and shrubs to ensure that they are not in contact with the house.
- ☑ Inspect the exterior walls and foundation for evidence of damage, cracking or movement. Watch for bird nests or other vermin or insect activity.
- ☑ Survey the basement and/or crawl space walls for evidence of moisture seepage.
- ☑ Ensure that the grade of the land around the house encourages water to flow away from the foundation.
- ☑ Inspect all driveways, walkways, decks, porches, and landscape components for evidence of deterioration, movement or safety hazards.
- ☑ Clean windows and test their operation. Improve caulking and weather-stripping as necessary. Watch for evidence of rot in wood window frames. Paint and repair window sills and frames as necessary.
- ☑ Test all ground fault circuit interrupter (GFCI) devices, as identified in the inspection report.
- ☑ Shut off isolating valves for exterior hose bibs in the fall, if below freezing temperatures are anticipated.
- ☑ Test the Temperature and Pressure Relief (TPR) Valve on water heaters.
- ☑ Inspect for evidence of wood boring insect activity. Eliminate any wood/soil contact around the perimeter of the home.
- ☑ Test the overhead garage door opener, to ensure that the auto-reverse mechanism is responding properly. Clean and lubricate hinges, rollers and tracks on overhead doors.
- ☑ Replace or clean exhaust hood filters.
- ☑ Clean, inspect and/or service all appliances as per the manufacturer's recommendations.

ANNUALLY

- ☑ Replace smoke detector batteries.
- ☑ Have the heating, cooling and water heater systems cleaned and serviced.
- ☑ Have chimneys inspected and cleaned. Ensure that rain caps and vermin screens are secured.
- ☑ Examine the electrical panels, wiring and electrical components for evidence of overheating. Ensure that all components are secure. Flip the breakers on and off to ensure that they are not sticky.
- ☑ If the house utilizes a well, check and service the pump and holding tank. Have the water quality tested. If the property has a septic system, have the tank inspected (and pumped as needed).
- ☑ If your home is in an area prone to wood destroying insects (termites, carpenter ants, etc.), have the home inspected by a licensed specialist. Preventative treatments may be recommended in some cases.

PREVENTION IS THE BEST APPROACH

Although we've heard it many times, nothing could be truer than the old cliché "an ounce of prevention is worth a pound of cure." Preventative maintenance is the best way to keep your house in great shape. It also reduces the risk of unexpected repairs and improves the odds of selling your house at fair market value, when the time comes. Please feel free to contact our office should you have any questions regarding the operation or maintenance of your home. Enjoy your home!

The links below connect you to a series of documents that will help you understand your home and how it works. These are in addition to links attached to specific items in the report.

Click on any link to read about that system.