

# ILLINOIS BUILDING INSPECTION, Inc.

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Jerry Simon, president

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## HOUSE INSPECTION REPORT

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CLIENT: Stephanie \*\*\*\*\*

INSPECTION ADDRESS: \*\*\*\*\* Libertyville, Illinois

DATE OF INSPECTION: September 2nd, 2010

TIME: 9:15 AM until 11:15 AM

REPORTED BUILDING AGE: 1948

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### How to Read This Report

**MAJOR REPAIR** Problems that I think are likely to cost more than \$500.00 to remedy. (Bear in mind that bids from contractors often vary widely.)

**MINOR REPAIR** Problems that I think are likely to cost less than \$500.00 to remedy, and regular maintenance items. These include conditions that you might ignore if you were already living in the house.

**SAFETY CONCERN** These are conditions that are a real threat to safety or health, regardless of costs to remedy.

**INVESTIGATE FURTHER** Conditions warranting further investigation by a specialist, including conditions that require destructive/invasive inspection, engineering, or analysis beyond the scope of this visual inspection. Often, you'll want to get cost estimates for deficiencies listed in this report.

**FYI** A general explanation of conditions—good or bad. Things you may or may not want to act on immediately.

## Notes

This report is CONFIDENTIAL, and is for the use and benefit of the client only. It is not intended to be for the benefit of or to be relied upon by any other buyer, lender, title insurance company, or other third party. DO NOT DUPLICATE WITHOUT PERMISSION. Duplication without permission, other than by the Client, is a violation of federal copyright law. **Terms and conditions crucial to interpretation of the report are contained in a separate Pre-Inspection Agreement.** Do not use this report without consulting the Pre-Inspection Agreement.

The report conforms to the standards of practice of both the State of Illinois and the American Society of Home Inspectors®. Components are identified and their apparent condition is reported. The client should consult the terms of the sales contract to determine whether any of the items contained within must be repaired by the seller prior to closing. Reporting on other issues such as cosmetic damage and suggestions for improvements is included for your information only, and should not be relied upon as items that may or may not be repaired under the terms of your Sales Contract. If in doubt, consult your Sales Contract and/or an attorney to explain your rights and obligations under your Sales Contract. The Inspector offers no warranties or representations as to your rights or obligations under any Sales Contract.

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## Conditions During the Inspection

The inspected property is a two-story house with a full basement.

The buyer was present.

The house was completely vacant.

The weather was warm and cloudy. The outdoor temperature during the inspection was about 75 degrees.

The soil was wet. A moderate amount of rain fell this past week.



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## ROOF

### ROOF AREA: HOUSE

The roof is constructed of conventional rafters sheathed with boards.

The roof type is hip.

The roof was examined by walking on it.

The roof covering is asphalt shingles (one apparent layer). Based on visible wear, its age was estimated to be eight to nine years.

Gutters are installed on the house.

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## Observations and Recommendations

The roof flashings were observed. The flashings are in functional condition.

Based on the condition of the roof covering, I estimate that the roof covering is in the middle third of its typical expected lifespan.

The roof decking felt solid underfoot. There are a couple of small buckles in the roof decking, but they don't pose any problems.

The shingle tabs are sealed down.

The shingles have little protective granule loss.

The interiors of the plumbing stacks were observed. The stacks are in adequate condition, and stack blockage was not observed.

The gutters are properly sloped. I saw minimal corrosion.

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## **ATTIC**

### Description

The attic was entered through the access opening in the hall.

The attic was examined by crawling through it.

The attic is insulated with fiberglass and cellulose.

Ceiling insulation R-value is estimated to be 30. (R-value is the ability to resist the movement of heat. Higher numbers are better. Modern standards usually call for at least R-30 coverage, while R-38 is ideal for this climate.)

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### **Observations and Recommendations**

The condition of readily visible framing elements in the attic is adequate. Roof sheathing and framing were examined for signs of deterioration. None was found.

No structural damage was observed in the readily visible portions of the wood framing in the attic.

Attic ventilation is provided by a thermostatically controlled fan and pod vents. Attic ventilation appears to be adequate.

I saw no evidence of leakage in the readily accessible areas.

The insulation is considered adequate for this climate.

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## **GARAGE**

### Description

There is a detached garage near the house.

The garage wall framing was readily visible.

The framing in the garage ceiling was readily visible.

The garage floor was readily visible.

The garage overhead door is metal.

The door has an automatic opener. The opener has an automatic electric eye to reverse the door when an object crosses the door's path. This is a child-safety feature.

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The garage roof covering is asphalt shingles.

The exterior garage walls are clad with vinyl siding.

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## Observations and Recommendations

Garage door safety tips: The garage overhead door is an extremely large and heavy moving object. If the door has an automatic opener, operation of the safety mechanism should be verified monthly. Test the reversing mechanism by lying a 2x4 block of wood flat on the floor and closing the door on the block. The door should reverse. Switches for door openers should be located as high as practical to prevent children from playing with the door. Children should be warned of the potential risk of injury.

Regular lubrication of the garage door tracks, rollers, springs, and mounting hardware is recommended.

The garage door was operated and found to be functional. Hardware fastening together and supporting the door appears to be in adequate condition.

The garage overhead door was checked for balance (the door should stay open at any height). The door is balanced.

The "electric eye" beam was found to be functional. The door reversed when it was interrupted.

The visible garage wall framing is in adequate condition

The framing in the garage ceiling is in adequate condition.

The framing in the garage attic is in adequate condition.

The garage floor has normal cracks.

I inspected the garage roof from the ground. The garage roof covering is in adequate condition.

The exterior garage walls are in adequate condition.

**Safety Concern** The stairway to the garage attic should have its missing safety side guard railing installed, and its missing safety handrailing installed. Also, the open stair risers here pose a falling hazard for small children; if this is a concern to you, have a carpenter block-in the open riser spaces.

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## GRADING NEAR HOUSE

### Description

Proper grading is important to keep water away from the foundation. Soil should slope approximately 1 inch per foot in a direction away from the building for at least 6 feet to prevent problems caused by excess water. Excess water here can cause settlement of soil and lead to cracking of foundations and walls and water entry into the building. The water discharged from roof gutters and downspouts should be directed away from the foundation for the same reason.

## Observations and Recommendations

The grading around the house is adequate save along the west side; see notes below.

**FYI** The soil along the west side of the house slopes towards the house, quite a bit. This can promote poor drainage and resulting basement seepage. It's hard to tell if the grading will pose a problem, though; there's quite a bit of vegetation growing on the west side of the house, and same is preventing an accurate assessment of the grading. Best I can tell you is that if basement seepage occurs along the west basement wall, the west side of the house will need to be re-graded (and such would make for a Major Repair Item).

The soil slopes this way, quite severely...



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## EXTERIOR WALLS AND TRIM

### Description

The exterior walls are constructed of solid masonry and wood frame.

The primary wall cladding on the house is brick.

Some areas are clad with aluminum siding.

Trim on the house is primarily wood, and some wood covered with aluminum wrapping.

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## Observations and Recommendations

The exterior surfaces were observed by walking around the exterior of the house. They were found to be in adequate condition.

The exterior surfaces have no signs of movement that would indicate significant foundation or other structural movement.

Trim around the house was examined and found to be in need of minor repairs; see notes below.

**Minor Repair** The rotted wood trim around the front entryway should be patched or replaced as needed.

## DRIVEWAY, PORCHES/STOOPS, WALKWAYS

### Description

The driveway is constructed of asphalt. Walks are constructed of concrete.

The front porch is concrete. The back porch is wood.

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### Observations and Recommendations

The driveway is in adequate condition.

The front walkway is in adequate condition.

The back porch is in adequate condition.

**Safety Concern** The front porch has shifted and sunk, quite a bit. The resulting 9"+ step height off the front door poses a stumbling/falling hazard (a normal and safe step height should be about 7.5" tall), and the hazard is exacerbated by stepping down to a sloped porch surface (such will prove awkward, especially if the porch is snow or ice covered). Have the porch replaced.

That said:

**Investigate Further** I'm pretty sure the front porch shifted and sank due to a problem with the main underground sanitary sewer line. There is a large tree above where I suspect the main underground sanitary sewer line runs (under the front porch), and roots from such trees are notorious for breaking into underground sewer lines seeking moisture in drought conditions. Tree-root-broken-up sewer lines allow soil to erode into them, thus the tell-tale porch sinking above. Have a sewer contractor run a video camera through the entire main underground sanitary line to check for line damage. Have the sewer line repaired or replaced as/if needed (costs for such would be significant).

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## PATIO / DECK / BALCONIES

### Description

A patio constructed of concrete pavers is present.

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### Observations and Recommendations

The patio is in truly wonderful condition.

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## **WINDOWS AND EXTERIOR DOORS**

### Description

The windows are hung style. The windows have insulated glass.

The front door is wood. The side door is metal. The atrium door is wood.

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### **Observations and Recommendations**

Doors were operated and found to be functional.

Random windows were operated and found to be in adequate condition.

I didn't see any fogged or cracked window panes.

I didn't see any fogged or cracked atrium door glass panes.

**FYI** There's no toe-kick outside the east exterior door. Aside from not being able to kick the snow off your boots, lack of such a protective toe-kick can promote leakage underneath the door. I looked long and hard just inside this door to check for leakage damage, and absolutely no signs of such are present. Should leakage occur here, though, don't be surprised.

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## **BASEMENT<sup>1</sup>**

### Description

The foundation walls are constructed of poured concrete.

The walls are concealed by finish materials in about half of the basement.

The framing in the basement ceilings is visible in about half the basement. The rest is covered and could not be inspected.

The basement floor is concrete.

The basement columns are steel tubes.

The floor structure of the house is conventional wood framing with steel beams.

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<sup>1</sup> This report reflects conditions that were apparent at the time of the inspection, and includes no predictions on whether or not the basement will eventually get wet. It's impossible for me – or anyone else – to make an accurate long-term prediction. I strongly advise you to ask the Seller, point blank: "Have you ever seen water in the basement? If so, when, where, and how much?"

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## Observations and Recommendations

The basement does not have a drain tile/sump pump system installed; such a basement is more susceptible to having seepage versus a basement with such a system. That said:

Signs of active water entry were not observed. However, I did see signs of the basement floor drain backing-up; see notes below.

The basement does not have any escape windows. Rooms in the basement should not be used as bedrooms (fire safety concern).

The basement floor is in adequate condition; typical cracks are present.

The foundation walls in the unfinished parts of the basement are in adequate condition. I couldn't inspect the foundation walls in the finished parts of the basement.

I couldn't inspect the basement ceiling framing in the finished parts of the basement. The framing in the unfinished parts of the basement is in adequate condition.

After running a lot of water about the house, I checked the visible plumbing waste pipes in the basement looking for leaks. None were observed.

**Investigate Further** There is a stand-pipe sticking up out of the basement floor drain, and there are some water stains on the floor around this drain. Sure looks like the drain has a back-up history. I recommend you have a plumber or a sewer contractor check this drain using a video-camera. If drain problems are found, they should be addressed as needed. It might also be peculiar to this particular neighborhood to have basement floor drains back-up during periods of moderate-heavy rainfall; such is the case in many Chicago-land neighborhoods. When having the plumber or sewer contractor check this drain, choose a local contractor, one who would know if basement floor drains in this neighborhood are susceptible to back-up (and, if they are, what it would take and cost to prevent such; most folk don't relish flooding basements).

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## ELECTRICAL SYSTEM

### Description

The 120/240 volt, 100 amp service enters the house from overhead.

The main service panel is located in the basement. The main panel contains circuit breakers.

The main disconnect is a 100 amp circuit breaker located in the main panel.

Service grounding connections were observed at a metal water pipe.

I didn't find any sub-panels.

The readily visible wiring is copper in rigid and flexible metal pipe.

Receptacles are the modern three-slot/hole grounded type.

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## Observations and Recommendations

Smoke detectors were observed outside the sleeping areas only. Additional devices are recommended; see notes below.

I inspected the interior of the main electrical panelboard.

I saw problems inside the panelboard; see notes below.

I tested a random number of receptacles using a testing device. Accessible receptacles tested as being properly wired and grounded.

Light switches and permanently installed light fixtures were tested. I found deficiencies; see notes below.

Electrical ground-fault devices tested functional using a testing device.

The ceiling fans were checked for proper grounding, operation and balance. Problems were found; see notes below.

**Minor Repair** Per the air conditioning condensing unit's specification label, the air conditioner's 240-volt circuit breaker is over-sized by 20amperes. Have this 40-ampere size breaker replaced with a 20-ampere size breaker.

**Minor Repair** The main electrical panelboard is not properly grounded to the house water supply pipe, and this can promote dangerous electrical conditions. While the bond strap for the metal conduit that encloses the ground wire is clamped to the water pipe, this is not a \*proper\* ground; the ground wire itself must also be clamped to the water pipe. Note: if the current ground wire is too short to reach the water pipe, a new longer ground wire will have to be installed (under most circumstances, ground wires should not be spliced).

**Safety Concern** I strongly recommend you have an electrician install smoke detectors in the bedrooms (preferably the hard-wired type so if one detector sounds an alarm, they all sound the alarm).

**Minor Repair** The main electrical panelboard's deadfront cover should have its one missing fastening screw replaced.

**Safety Concern** The ceiling fan in the master bedroom is lacking safety grounding, posing a potential shock hazard. An electrician should provide grounding for this fan.

**Safety Concern** For reasons of safety, light fixtures should be installed outside all exterior doors. Light fixtures should be installed outside the rear and side exterior doorways.

**Safety Concern** There are electrical boxes with open knockout holes in the house. Electrical boxes should fully enclose the wiring inside to contain sparks or arcs that may occur during an electrical short; this is a fire-safety item. Also, if the boxes are readily accessible, children tend to stick their fingers in such open holes, posing a shock hazard. And, mice like to get inside electrical boxes through such holes and ingest the wiring insulation; this would pose a fire hazard. All open holes should be capped. Box/hole locations: on the right side of the furnace; up in the ceiling of the unfinished basement area.

**Safety Concern** Inside the main electrical panelboard, wires are double-tapped off one of the left-side circuit breaker lugs. Such multiple-tapped wires can loosen and over-heat, posing a fire hazard. An electrician should re-wire to eliminate this hazard.

**Safety Concern** The "BX" electrical cable feeding the garbage disposer has pulled off the bottom of the disposer body. The exposed wiring, and resulting lack of disposer safety grounding, pose shock hazards. The cable needs to be re-secured to the bottom of the disposer.

**Safety Concern** There is an electrical wall switch on the south interior garage wall that is missing its protective cover plate. This shock and fire hazard should be eliminated by installing a new cover.

**Investigate Further** The light fixture on the living room ceiling fan does not work; this might be a simple bulb issue, but maybe not. Have an electrician check the light and have it repaired or replaced as/if warranted.

Note: The inspection does not include low voltage systems, telephone wiring, intercoms, alarm systems, cable TV wiring, timers or the operation of smoke detectors.

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## PLUMBING SYSTEM

### Description

The water is supplied by the municipal system. The waste system is municipal sewers.

Readily visible plumbing supply pipes are galvanized iron.

Readily visible waste pipes are a mixture of old cast iron, steel, and newer PVC plastic.

The gas-fired 50-gallon water heater is located in the basement.

I estimate the age of the water heater to be seven years old.

The main shut off valve for the water supply piping was found in the basement.

The main gas shut-off is located at the exterior gas meter.

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### Observations and Recommendations

The readily visible supply piping system is in functional condition.

The readily visible drain piping system is deficient; see notes below.

A lot of water was run through all fixtures and drains.

Marginal functional flow was observed; see notes below.

Adequate functional drainage was observed. That said, don't forget about having a plumber or a sewer contractor check the main underground sanitary sewer line using a video-camera.

The toilet was flushed multiple times and it properly evacuated. The toilet is secure to the floor. Leakage was not observed.

I found problems with some of the gas pipes; see notes below.

All fixtures were operated. All fixtures were functional.

(Your main water shut-off valve and shut-off valves under sinks, if present, are not operated. Even if the valves are only a few years old, they tend to seize-up and don't readily operate. Many don't operate at all. Ones that still operate tend to leak when opened and closed. If you want to know if these valves work, have the seller demonstrate such. If shut-off valves are not present under the sinks — common in many homes and condominiums — you should consider having them installed; newer-style valves have much improved operation.)

Potential problems with the hose faucet were observed; see notes below.

Hot water was present at all fixtures on the correct side of the fixture.

The temperature of the hot water was 120 degrees. The temperature is within the safe range.

Be aware of the risk of scalding from water temperatures above 120° F. The risk is especially acute for infants, children, and the elderly. Water temperatures should never be set higher than 120° F.

A temperature pressure relief valve is present on the water heater.

The temperature pressure relief valve on the water heater should be tested upon moving in and on a regular basis thereafter. This is an important safety device that prevents the water heater from exploding in the rare event of a defect in the built in operating and safety controls. I do not test these valves.

I saw problems with the water heater flue pipe; see notes below.

I looked into the water heater burner compartment; the burner is clear of corrosion, and conditions are adequate.

Adequate bath ventilation was observed (operable fans or windows).

**Safety Concern** Water heater combustion fumes are dangerously spilling-out of the water heater draft hood, posing a carbon monoxide health hazard. See related notes below under the Heating Section; the furnace is not properly drafting as well.

**Safety Concern** In the laundry area, there is a gas line that does not have its open end capped or plugged, and this poses a potential explosion hazard. The end of the line should be capped or plugged A.S.A.P.

**Minor Repair** Minor leakage was observed from the drain piping beneath the upper hall bath sink.

**Minor Repair** The loose faucets at the basemen laundry tub should be secured in place.

**Investigate Further** There's no water flow to the hose faucet located on the back of the house. The faucet may simply be winterized, but maybe not. Once the hose faucet is up and running, the faucet and the faucet water supply line should be inspected.

**Minor Repair** The water heater gas line is missing a sediment trap. Debris from the gas line can potentially get into and damage the heater's gas control valve. Have a sediment trap installed here. (There's really no practical way to judge if the control valve has already suffered damage.)

**FYI** The water flow about the house is adequate, but it isn't anything to write home about. In fact, my definition of adequate is "just enough". The flow isn't fantastic because the old galvanized water supply pipes are likely clogged with calcium and sediment deposits. The flow will probably worsen over time. How soon? No way to know; only time will tell. That said, costs to replace clogged water supply pipes are significant.

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## HEATING AND AIR CONDITIONING SYSTEM

### Description

The heating system for the entire house, located in the basement, consists of a gas-fired hot air furnace.

The heating system capacity is 70,000's.

The heating system is estimated to be six years old.

The air conditioning system for the entire house is a straight cool split-system.

The estimated size of the system is two tons.

The estimated age of the cooling system is four years old.

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## Observations and Recommendations

### Combustion System:

The supply of combustion air appears adequate.

The flue draft was observed during operation and found to be deficient; see notes below.

The induced draft fan was observed running during inspection. The fan is functional.

Burners were observed during operation and are clear in adequate condition.

The flame was observed during operation. The flame is normal.

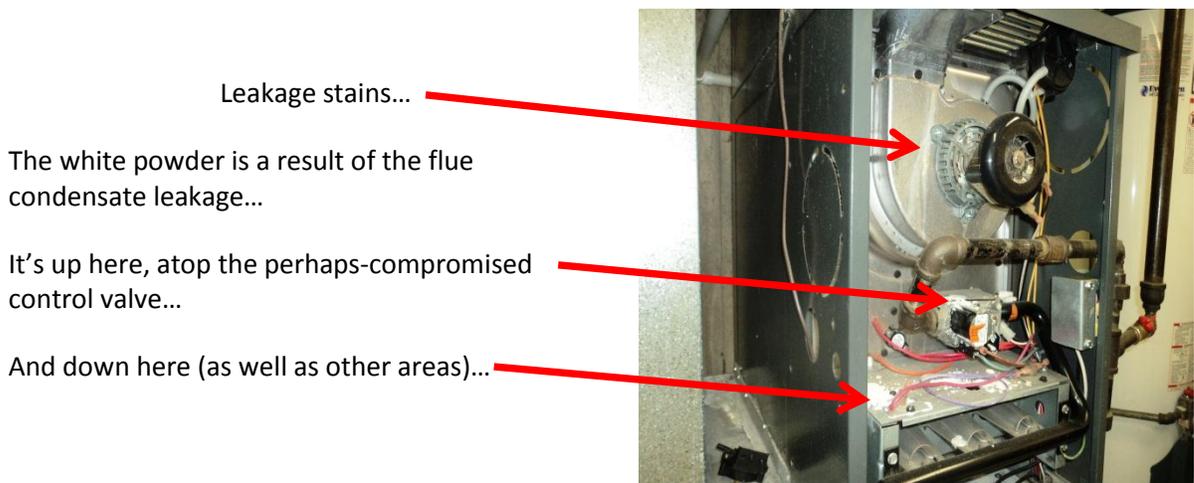
Furnace clearance to combustibles was observed and is adequate. Be sure to maintain clearance from combustibles for safety reasons.

The blower motor properly functioned. The blower wheel vanes are clean.

The heat exchanger is the chamber in the furnace where combustion takes place. The heat exchanger separates the house air and the combustion air. When cracks or holes develop in the heat exchanger, potentially toxic gases can mix with the house air. Replacement of the furnace is required at that time as replacement is not practical or cost effective. The average life span is twenty years. The presence of holes or cracks usually cannot be determined during a house inspection; the furnace would have to be taken apart by a heating technician to be sure if indeed holes or cracks are present, and such is beyond the scope of this visual inspection. The heat exchanger could not be examined due to configuration of the furnace. Condition is unknown and specifically excluded from the inspection and report.

The fan limit switch was not tested during inspection. It's an internal, inaccessible type switch.

**Investigate Further** Furnace combustion fumes have been cooling and condensing inside the furnace flue pipe before the fumes fully and properly vent up and out of the furnace flue pipe. This condensate moisture is leaking out of the furnace flue joints and out of the furnace draft inducer area, and this leakage can damage the furnace components. Have a heating technician check this, and have the technician do whatever needs doing to stop the leakage and attain a proper draft. Also have the heating technician check for and replace as/if needed any already moisture-damaged furnace components. It's obvious the leakage may have already caused furnace component damage; note the high amount of water staining atop the furnace gas control valve.



**Investigate Further** The above item is likely directly related to the dangerously back-drafting water heater flue pipe mentioned earlier. Both appliances vent into the same flue pipe which in turn vents into the same masonry chimney. This masonry chimney is in suspect condition at best, and the condition of the chimney should be further investigated by having a Level II chimney inspection done, one that entails running a camera down the chimney flue to check for hidden problems. The reasons I flag this chimney as \*suspect\* are as follows: again, the chimney serves improperly venting gas-fired appliances, and as mentioned, such in turn can promote health and mechanical problems; the chimney, from the roofline-up, was once re-built, and apparently not too long ago—but the chimney is already deteriorating—not a lot, but mortar is crumbling at the top of the chimney, bricks are spalling (losing their faces during freeze-thaw cycles), and the white powder (efflorescence) on the chimney suggests chimney leakage; finally, I question why the chimney needed to be re-built in the first place. Regardless, have a Level II chimney inspection done, and have the chimney repaired, patched, replaced, or re-built as/if deemed necessary by the Level II Inspection. One place to find a qualified Level II chimney inspector is at <http://f-i-r-e-service.com/mainframe.html>

## Central Air Conditioning:

The central air conditioner was operated during the inspection using the normal operating controls. The temperature differential was measured and found to be 19 degrees. This is the number of degrees the system is cooling (or heating) the condominium air. Normal range for this number is 16-22 degrees when operating the system during hot weather, higher when ambient temperatures are lower.

The suction line at the air handler was found to be cold and sweating which is normal. The liquid line was found to be warm which is normal.

Fins on the condensing unit were examined and found to be clean and in functional condition. The condenser should be leveled, though; see notes below.

The evaporator coil is sealed inside the supply plenum and could not be observed.

Motors and fans were found to be in functional condition. No unusual noises were observed.

The condensate drain line was inspected where readily visible. The drain is functional. That said, the drain poses a safety hazard; see notes below.

**Minor Repair** The air conditioning condensing unit is out of level. This can promote damage to the condenser components. The unit should be leveled A.S.A.P.

**Safety Concern** Condensate water produced by the air conditioning system is typically bacterial-laden. Discharging this water into the laundry tub poses a health concern for anyone coming in contact with the water. I recommend a plumber eliminate this hazard.

## Ductwork:

Visible ductwork was observed where readily accessible and found to be in adequate condition.

Supply registers were observed in appropriate locations.

**Maintenance** I recommend that all heating and cooling equipment be serviced at least once a year. Regular service is very important for efficient operation and to achieve maximum lifespan. Filters in forced air systems should be changed monthly.

**FYI** Furnace-mounted humidifiers are a breeding ground for bacteria, and such can be blown about the dwelling when the furnace is running. And, I've seen at least a couple hundred furnaces with corrosion damage caused by humidifier moisture. Have the furnace humidifier removed, and use portable humidifiers, ones that can be readily and easily cleaned and disinfected on a regular basis.

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# INTERIOR

## Description

The walls are covered with plaster or rock-lath (hard to tell for sure).

The ceilings are covered with plaster or rock-lath (again, hard to tell for sure).

Ceilings are supported by ceiling joists.

Floors are wood and tiled.

Interior cabinets are wood.

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## Observations and Recommendations

Minor cracks are found on interior surfaces in all buildings and are typically cosmetic in nature. This type of cracking is usually caused by settlement, shrinkage of building components or thermal expansion and contraction. Small cracks of this type are not mentioned in the report.

Larger than normal cracks suggesting significant structural movement were not observed.

Walls were found to be in adequate condition.

Ceilings were observed using a high-power flashlight. Ceilings were found to be in adequate condition.

Stained ceilings were not observed.

Interior floors were found to be in adequate condition.

Interior cabinets were found to be in adequate condition.

Interior doors were found to be in adequate condition.

**Safety Concern** Houses of this era were usually painted with lead based paints. This cannot be confirmed visually. Lead is a severe health risk to infants and children particularly, with the potential to cause brain damage. Lead paint in good condition represents little risk. It is only when it is ingested or inhaled that it becomes a problem. This can occur when paint is flaking, when old wood windows are operated, grinding the paint, or during remodeling when paint is sanded or scraped. Federal regulations require that house buyers be notified of the risks and be given time to test for the presence of lead paint. If this is a concern to you, contact an environmental testing firm to perform testing.

## Stairways:

**Safety Concern** The basement stairway should have its missing safety handrailing replaced, and should also have its missing lower side guard-railing replaced.

**Safety Concern** The \*short\* bottom basement step can prove awkward and pose a stumbling/falling hazard. If this is a concern to you, have the stairway re-built so as to have step heights consistent within 3/8's of an inch (the bottom step is over an inch shorter than the rest).

**Safety Concern** At the top of the main upper stairway, the unconventional safety handrailing installation can prove awkward and pose a falling hazard. Have a carpenter properly re-install this section of handrail.

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## APPLIANCES

### Description

Per the Inspection Agreement, I inspect the built-in appliances only. The appliances were inspected by operating the appliance using the normal operating controls as you would under everyday use. I inspected these appliances by turning them on briefly. Extensive testing of timers, thermostats, and other controls is not performed. No report can be made regarding the effectiveness of any appliances. (For example, it is impossible to thoroughly check a washer and dryer without a load of clothes.) The inspection only determines whether or not the appliances run.

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### Observations and Recommendations

Dishwasher: Operated during inspection, found to be functional.

Disposer: Operated during inspection, found to be functional.

**FYI** The kitchen lacks an exhaust fan.

And, while I only check built-in appliances, it was hard not to notice that:

**Safety Concern** The anti-tip bracket that prevents the oven/range from tipping over is not installed. The bracket should be installed to prevent the possibility of injury. See the manufacturer's installation instructions for details.

**Safety Concern** The clothes dryer vent is made of a ribbed, flexible material. Ribbed dryer vent ducts are prone to readily trapping lint, and a lint-clogged dryer vent can pose a significant fire hazard. Also, flexible dryer vents can be easily kinked and crushed, and this would cause even more lint to be trapped in the vent, exacerbating the potential fire hazard. I strongly recommend you have the clothes dryer vent replaced with a completely rigid, metal vent duct. Most modern building codes now require this, and please note that the codes don't even allow the duct joints to be secured with screws since the screw tips can trap lint; the joints for the new ducting should be secured with aluminum taping.

**Maintenance: Clothes Dryer: Adequate venting of your clothes dryer is a priority. Vents clogged with lint, or crushed or kinked vents can and do cause fires.** The vent should be cleaned of lint and debris at least twice a year, and I recommend you clean this vent upon first moving in.

Discovery of recalled appliances and other products is outside the scope of this inspection. For the latest information on recalls, visit <http://www.pueblo.gsa.gov/recallsdesc.htm#CP> and <http://www.cpsc.gov/cpsc/pub/prerel/prerel.html>

# MISCELLANEOUS ITEMS

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## Observations and Recommendations

### A Word about Mold and Other Indoor Air Contaminants

Susceptibility to mold and other contaminants has become an issue for some homeowners. There are no acceptable or unacceptable levels of mold contamination set by the Center for Disease Control, the Environmental Protection Administration, or any other independent authoritative source.

I do not inspect for or provide an opinion on the potential for, or the existence of mold or related damage in the house. If you have concerns about mold or other indoor air quality issues I recommend that you contact specialists in the field such as the CDC, the EPA and other experts.

For further information regarding the issues of mold and other indoor air contaminants I recommend that you visit the Center for Disease Control at <http://www.cdc.gov/nceh/asthma/factsheets/molds/default.htm> and the Environmental Protection Administration at [http://www.epa.gov/iaq/molds/i-e-r\\_plan.html](http://www.epa.gov/iaq/molds/i-e-r_plan.html)

**Safety Recommendation** Buy new smoke and carbon monoxide detectors and install them first thing; any \*old\* detectors have an unknown and perhaps limited remaining life-span. Also, a few fire extinguishers make excellent house-warming gifts for you and yours.

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## SUMMARY

1. **Safety Concern** The stairway to the garage attic should have its missing safety side guard railing installed, and its missing safety handrailing installed. Also, the open stair risers here pose a falling hazard for small children; if this is a concern to you, have a carpenter block-in the open riser spaces.
2. **FYI** The soil along the west side of the house slopes towards the house, quite a bit. This can promote poor drainage and resulting basement seepage. It's hard to tell if the grading will pose a problem, though; there's quite a bit of vegetation growing on the west side of the house, and same is preventing an accurate assessment of the grading. Best I can tell you is that if basement seepage occurs along the west basement wall, the west side of the house will need to be re-graded (and such would make for a Major Repair Item).
3. **Minor Repair** The rotted wood trim around the front entryway should be patched or replaced as needed.

4. **Safety Concern** The front porch has shifted and sunk, quite a bit. The resulting 9"+ step height off the front door poses a stumbling/falling hazard (a normal and safe step height should be about 7.5" tall), and the hazard is exacerbated by stepping down to a sloped porch surface (such will prove awkward, especially if the porch is snow or ice covered). Have the porch replaced.
5. **Investigate Further** I'm pretty sure the front porch shifted and sank due to a problem with the main underground sanitary sewer line. There is a large tree above where I suspect the main underground sanitary sewer line runs (under the front porch), and roots from such trees are notorious for breaking into underground sewer lines seeking moisture in drought conditions. Tree-root-broken-up sewer lines allow soil to erode into them, thus the tell-tale porch sinking above. Have a sewer contractor run a video camera through the entire main underground sanitary line to check for line damage. Have the sewer line repaired or replaced as/if needed (costs for such would be significant).
6. **FYI** There's no toe-kick outside the east exterior door. Aside from not being able to kick the snow off your boots, lack of such a protective toe-kick can promote leakage underneath the door. I looked long and hard just inside this door to check for leakage damage, and absolutely no signs of such are present. Should leakage occur here, though, don't be surprised.
7. **Investigate Further** There is a stand-pipe sticking up out of the basement floor drain, and there are some water stains on the floor around this drain. Sure looks like the drain has a back-up history. I recommend you have a plumber or a sewer contractor check this drain using a video-camera. If drain problems are found, they should be addressed as needed. It might also be peculiar to this particular neighborhood to have basement floor drains back-up during periods of moderate-heavy rainfall; such is the case in many Chicago-land neighborhoods. When having the plumber or sewer contractor check this drain, choose a local contractor, one who would know if basement floor drains in this neighborhood are susceptible to back-up (and, if they are, what it would take and cost to prevent such; most folk don't relish flooding basements).
8. **Minor Repair** Per the air conditioning condensing unit's specification label, the air conditioner's 240-volt circuit breaker is over-sized by 20amperes. Have this 40-ampere size breaker replaced with a 20-ampere size breaker.
9. **Minor Repair** The main electrical panelboard is not properly grounded to the house water supply pipe, and this can promote dangerous electrical conditions. While the bond strap for the metal conduit that encloses the ground wire is clamped to the water pipe, this is not a \*proper\* ground; the ground wire itself must also be clamped to the water pipe. Note: if the current ground wire is too short to reach the water pipe, a new longer ground wire will have to be installed (under most circumstances, ground wires should not be spliced).
10. **Safety Concern** I strongly recommend you have an electrician install smoke detectors in the bedrooms (preferably the hard-wired type so if one detector sounds an alarm, they all sound the alarm).
11. **Minor Repair** The main electrical panelboard's deadfront cover should have its one missing fastening screw replaced.
12. **Safety Concern** The ceiling fan in the master bedroom is lacking safety grounding, posing a potential shock hazard. An electrician should provide grounding for this fan.

13. **Safety Concern** For reasons of safety, light fixtures should be installed outside all exterior doors. Light fixtures should be installed outside the rear and side exterior doorways.
14. **Safety Concern** There are electrical boxes with open knockout holes in the house. Electrical boxes should fully enclose the wiring inside to contain sparks or arcs that may occur during an electrical short; this is a fire-safety item. Also, if the boxes are readily accessible, children tend to stick their fingers in such open holes, posing a shock hazard. And, mice like to get inside electrical boxes through such holes and ingest the wiring insulation; this would pose a fire hazard. All open holes should be capped. Box/hole locations: on the right side of the furnace; up in the ceiling of the unfinished basement area.
15. **Safety Concern** Inside the main electrical panelboard, wires are double-tapped off one of the left-side circuit breaker lugs. Such multiple-tapped wires can loosen and over-heat, posing a fire hazard. An electrician should re-wire to eliminate this hazard.
16. **Safety Concern** The "BX" electrical cable feeding the garbage disposer has pulled off the bottom of the disposer body. The exposed wiring, and resulting lack of disposer safety grounding, pose shock hazards. The cable needs to be re-secured to the bottom of the disposer.
17. **Safety Concern** There is an electrical wall switch on the south interior garage wall that is missing its protective cover plate. This shock and fire hazard should be eliminated by installing a new cover.
18. **Investigate Further** The light fixture on the living room ceiling fan does not work; this might be a simple bulb issue, but maybe not. Have an electrician check the light and have it repaired or replaced as/if warranted.
19. **Safety Concern** Water heater combustion fumes are dangerously spilling-out of the water heater draft hood, posing a carbon monoxide health hazard. See related notes below under the Heating Section; the furnace is not properly drafting as well.
20. **Safety Concern** In the laundry area, there is a gas line that does not have its open end capped or plugged, and this poses a potential explosion hazard. The end of the line should be capped or plugged A.S.A.P.
21. **Minor Repair** Minor leakage was observed from the drain piping beneath the upper hall bath sink.
22. **Minor Repair** The loose faucets at the basement laundry tub should be secured in place.
23. **Investigate Further** There's no water flow to the hose faucet located on the back of the house. The faucet may simply be winterized, but maybe not. Once the hose faucet is up and running, the faucet and the faucet water supply line should be inspected.
24. **Minor Repair** The water heater gas line is missing a sediment trap. Debris from the gas line can potentially get into and damage the heater's gas control valve. Have a sediment trap installed here. (There's really no practical way to judge if the control valve has already suffered damage.)
25. **FYI** The water flow about the house is adequate, but it isn't anything to write home about. In fact, my definition of adequate is "just enough". The flow isn't fantastic because the old galvanized water supply pipes are likely clogged with calcium and sediment deposits. The flow will probably worsen over

time. How soon? No way to know; only time will tell. That said, costs to replace clogged water supply pipes are significant.

26. **Investigate Further** Furnace combustion fumes have been cooling and condensing inside the furnace flue pipe before the fumes fully and properly vent up and out of the furnace flue pipe. This condensate moisture is leaking out of the furnace flue joints and out of the furnace draft inducer area, and this leakage can damage the furnace components. Have a heating technician check this, and have the technician do whatever needs doing to stop the leakage and attain a proper draft. Also have the heating technician check for and replace as/if needed any already moisture-damaged furnace components. It's obvious the leakage may have already caused furnace component damage; note the high amount of water staining atop the furnace gas control valve.
27. **Investigate Further** The above item is likely directly related to the dangerously back-drafting water heater flue pipe mentioned earlier. Both appliances vent into the same flue pipe which in turn vents into the same masonry chimney. This masonry chimney is in suspect condition at best, and the condition of the chimney should be further investigated by having a Level II chimney inspection done, one that entails running a camera down the chimney flue to check for hidden problems. The reasons I flag this chimney as \*suspect\* are as follows: again, the chimney serves improperly venting gas-fired appliances, and as mentioned, such in turn can promote health and mechanical problems; the chimney, from the roofline-up, was once re-built, and apparently not too long ago—but the chimney is already deteriorating—not a lot, but mortar is crumbling at the top of the chimney, bricks are spalling (losing their faces during freeze-thaw cycles), and the white powder (efflorescence) on the chimney suggests chimney leakage; finally, I question why the chimney needed to be re-built in the first place. Regardless, have a Level II chimney inspection done, and have the chimney repaired, patched, replaced, or re-built as/if deemed necessary by the Level II Inspection. One place to find a qualified Level II chimney inspector is at <http://f-i-r-e-service.com/mainframe.html>
28. **Minor Repair** The air conditioning condensing unit is out of level. This can promote damage to the condenser components. The unit should be leveled A.S.A.P.
29. **Safety Concern** Condensate water produced by the air conditioning system is typically bacterial-laden. Discharging this water into the laundry tub poses a health concern for anyone coming in contact with the water. I recommend a plumber eliminate this hazard.
30. **Safety Concern** Houses of this era were usually painted with lead based paints. This cannot be confirmed visually. Lead is a severe health risk to infants and children particularly, with the potential to cause brain damage. Lead paint in good condition represents little risk. It is only when it is ingested or inhaled that it becomes a problem. This can occur when paint is flaking, when old wood windows are operated, grinding the paint, or during remodeling when paint is sanded or scraped. Federal regulations require that house buyers be notified of the risks and be given time to test for the presence of lead paint. If this is a concern to you, contact an environmental testing firm to perform testing.
31. **Safety Concern** The basement stairway should have its missing safety handrailing replaced, and should also have its missing lower side guard-railing replaced.
32. **Safety Concern** The \*short\* bottom basement step can prove awkward and pose a stumbling/falling hazard. If this is a concern to you, have the stairway re-built so as to have step heights consistent within 3/8's of an inch (the bottom step is over an inch shorter than the rest).

33. **Safety Concern** At the top of the main upper stairway, the unconventional safety handrailing installation can prove awkward and pose a falling hazard. Have a carpenter properly re-install this section of handrail.
34. **FYI** The kitchen lacks an exhaust fan.
35. **Safety Concern** The anti-tip bracket that prevents the oven/range from tipping over is not installed. The bracket should be installed to prevent the possibility of injury. See the manufacturer's installation instructions for details.
36. **Safety Concern** The clothes dryer vent is made of a ribbed, flexible material. Ribbed dryer vent ducts are prone to readily trapping lint, and a lint-clogged dryer vent can pose a significant fire hazard. Also, flexible dryer vents can be easily kinked and crushed, and this would cause even more lint to be trapped in the vent, exacerbating the potential fire hazard. I strongly recommend you have the clothes dryer vent replaced with a completely rigid, metal vent duct. Most modern building codes now require this, and please note that the codes don't even allow the duct joints to be secured with screws since the screw tips can trap lint; the joints for the new ducting should be secured with aluminum taping.

## SUPPORT AFTER THE INSPECTION<sup>2</sup>

**YOUR QUESTIONS:** Ask all the questions you want, and I'll do my best to answer them. All I ask is that you read the whole report first. Feel free to call me tomorrow, next week, or even next year.

**THE QUESTIONS OF OTHERS:** If a seller, a seller's representative, or a seller's repair person calls me with a question about your inspection, I'll politely inform them that I can't talk about your inspection, unless you're in on the conversation or unless you give me specific permission to do so. I'll suggest they set up a conference call with you, and call me back.

If a seller or a repair person calls and asks 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 time of the phone call and the actual job.) And, if you think about it, if someone doesn't know how to fix something, they probably shouldn't be the one doing the fixing.

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<sup>2</sup> Re-Inspection Policy: I'm often asked if it would be possible to re-inspect the problem areas disclosed in the inspection, after repairs are made. The fee is \$250.00 for this service, and it includes a written follow-up report.

## LASTLY...

- Perform a diligent final-walkthrough (don't let anyone rush you...damage or problems can arise between the time of the inspection and the day of closing).
  - If repairs are going to be made with regards to this inspection report, I recommend you obtain paid, itemized receipts for such repairs, as well as any related repair warranties.
  - Re-key your door locks.
  - While I make every effort to identify existing or potential problems, it is not possible for an inspector to predict the future. I do guarantee that most everything in the house will eventually fail, and I recommend that you budget for unforeseen repairs, replacements, and maintenance.
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## END OF REPORT

*Inspector: Jerry Simon, president*



*Illinois Building Inspection, Inc.*

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