

# INSPECTION REPORT



For the Property at:  
**SOMEWHERE STREET**  
ANY CITY, ON K0G 1J0

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Prepared for: MY CLIENT  
Inspection Date: Wednesday, July 18, 2012  
Prepared by: Tom Humphreys



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**Note:** For the purpose of this report the building is considered to be facing **North**.

## Description

**General:** • We would like to remind you that a home inspection is general in nature and does not address specific areas of expertise. An inspector cannot confirm the cause of defects, or make recommendations on any course of remedial action. It is always recommended that a qualified specialist is consulted regarding specific issues of concern.

**Sloped roofing material:** • [Asphalt shingles](#)

**Probability of leakage:** • Typical life span of builder grade shingles is 10 to 15 years.

**Probability of leakage:**

- High  
Lower rear slopes
- Low  
Balance

## Limitations

**Roof inspection limited/prevented by:** • Roof access is at the sole discretion of the inspector. Work safety and potential material damage are the governing factors.

**Inspection performed:** • Lower front roof - from adjacent upper roof

**Inspection performed:**

- By walking on roof
- From roof edge
- Rear Lower Roof

## Recommendations

### General

1. • **Roof Maintenance:** The primary function of the roof system is to protect against and manage the weather elements, thereby protecting the interior and structural components of the building. Because of the important functions this system provides, its condition should be assessed regularly and maintenance provided where/as necessary. Failure to provide consistent professional style maintenance will reduce the life expectancy and may cause the roof to leak prematurely. The component of roofs that is most vulnerable to early deterioration is the area around the flashings (chimneys, plumbing stacks, the intersection of two or more roof slopes and skylights.) It is not uncommon for these areas to develop a leak well before the rest of the roof material has aged significantly. Also, because these areas are frequently made of metal they can be more susceptible than the rest of the roof coverings to damage from wind and temperature differences resulting in expansion and contraction. So while the flashing and roof may have appeared fine on the day of the inspection, they should be monitored on a regular basis (at least semi-annually) to detect any changes in condition that may indicate that repair is necessary. Leaks left unattended can cause serious damage to other systems and components of the home.

### SLOPED ROOFING \ Asphalt shingles

2. **Condition:** • [Old, worn out](#)

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

# ROOFING

Somewhere Street, Any City, ON July 18, 2012

Report No. 1387, v.4

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**Location:** Rear Roof

**Task:** Replace

**Time:** Immediate



1. Old, worn out



2. Old, worn out



3. Old, worn out

**3. Condition:** • [Overhangs too big or too small](#)

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

**Location:** Rear Roof

**Task:** Improve

**Time:** Earliest Opportunity

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4. Overhangs too big or too small

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## Description

**Gutter & downspout material:** • [Plastic](#)

**Gutter & downspout discharge:** • [Above grade](#)

**Lot slope:**

• [Away from building](#)

• [Towards building](#)

At Rear

**Wall surfaces - masonry:** • [Brick](#)

**Wall surfaces:** • [Vinyl siding](#)

**Soffit and fascia:** • [Aluminum](#)

**Driveway:** • Asphalt

**Walkway:** • Interlocking brick

**Deck:** • Raised • Wood

**Exterior steps:** • Concrete • Wood

**Patio:** • Concrete

**Fence:** • Chain link

## Limitations

**No or limited access to:** • Area below steps, deck, porches

**Upper floors inspected from:** • Ground level

**Exterior inspected from:** • Ground level

## Recommendations

### General

4. • Skylights are particularly prone to leakage and may need periodic repair and resealing. The integrity of the flashings is generally the first point to consider when leakage occurs. Surface damage or loss of the seal on insulated glazing can occur, but such a defect may not be readily apparent during an inspection. recommend ongoing monitoring and/or repairs as needed.

5. • Exhaust grill damaged

**Location:** Exterior

**Task:** Repair or replace

**Time:** Discretionary

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5.

6. • Recent installation of gravel noted along foundation wall. Client observed a drainage tile in this area near the surface on a previous visit. Recommend obtain further information from vendor.

**Location:** Rear

**Task:** Request disclosure

**Time:** Immediate (Prior to Closing)

7. • Preventing Leakage-Ongoing maintenance is required for caulking on all doors, windows, and wall penetrations such as furnace vents, hose bibs, air conditioning lines etc.

It is recommended that the caulking is inspected annually for deterioration and replaced as required.

## ROOF DRAINAGE \ Gutters

8. **Condition:** • Recommend replace low quality plastic gutters & downspouts with seamless aluminum.

9. **Condition:** • [Leak](#)

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

**Location:** Rear

**Task:** Repair or replace

**Time:** Earliest Opportunity



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6. Leak

10. Condition: • [Clogged](#)

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

Location: Various

Task: Clean

Time: Earliest Opportunity



7. Clogged

11. Condition: • [Missing](#)

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

Location: Various Roof

Task: Provide

Time: Earliest Opportunity

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8. Missing



9. Missing

## ROOF DRAINAGE \ Downspouts

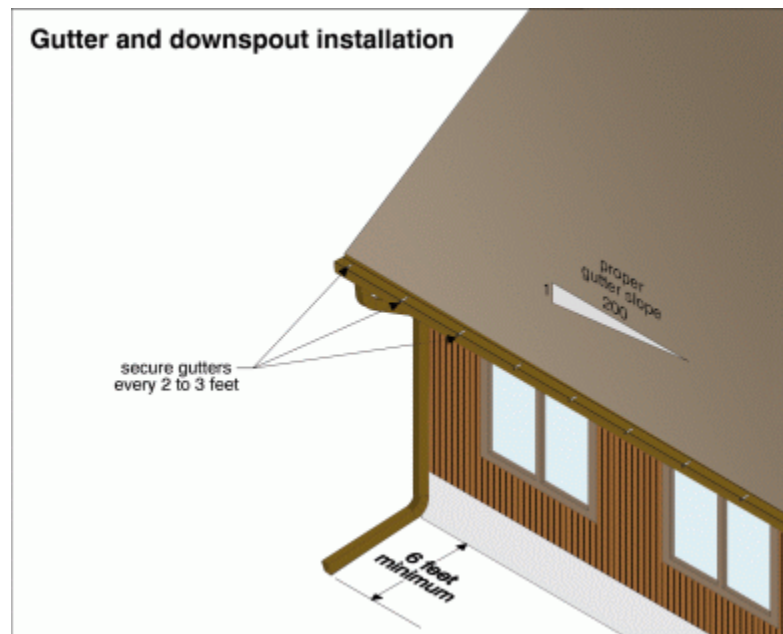
12. Condition: • [Downspouts end too close to building](#)

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

Location: Throughout

Task: Correct

Time: Immediate



[Click on image to enlarge.](#)



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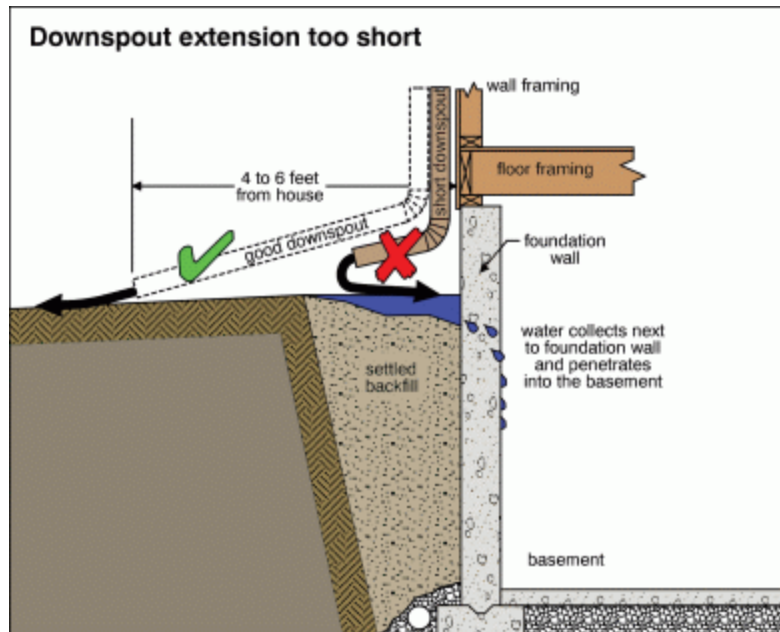
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10. Downspouts end too close to building



11. Downspouts end too close to building

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12. Downspouts end too close to building

## WALLS \ Flashings and caulking

13. Condition: • [Caulking missing or ineffective](#)

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

Location: Throughout Exterior

Task: Repair

Time: Earliest Opportunity



13. Caulking missing or ineffective



14. Caulking missing or ineffective

## WALLS \ Vinyl siding

14. Condition: • [Mechanical damage](#)

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

Location: Various Exterior

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**Task:** Repair

**Time:** Earliest Opportunity



15. Mechanical damage

## WALLS \ Brick, stone and concrete

**15. Condition:** • Hole noted in foundation wall

**Implication(s):** potential of water/animal entry

**Location:** East Exterior

**Task:** Repair

**Time:** Earliest Opportunity



16.

**16. Condition:** • [Cracked](#)

**Implication(s):** Chance of water entering building | Weakened structure | Chance of movement

**Location:** Front Garage

**Task:** Monitor and Repair if Required



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**Time:** Discretionary



17. Cracked

## DOORS \ Doors and frames

17. Condition: • [Rot](#)

Implication(s): Chance of damage to finishes and structure

Location: West Exterior

Task: Repair & Monitor

Time: Discretionary



18. Rot

## PORCHES, DECKS, STEPS, PATIOS AND BALCONIES \ Steps and landings

18. Condition: • Support lacking - stairs

Implication(s): Safety

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**Location:** Rear Deck

**Task:** Repair

**Time:** Immediate



19.



20.

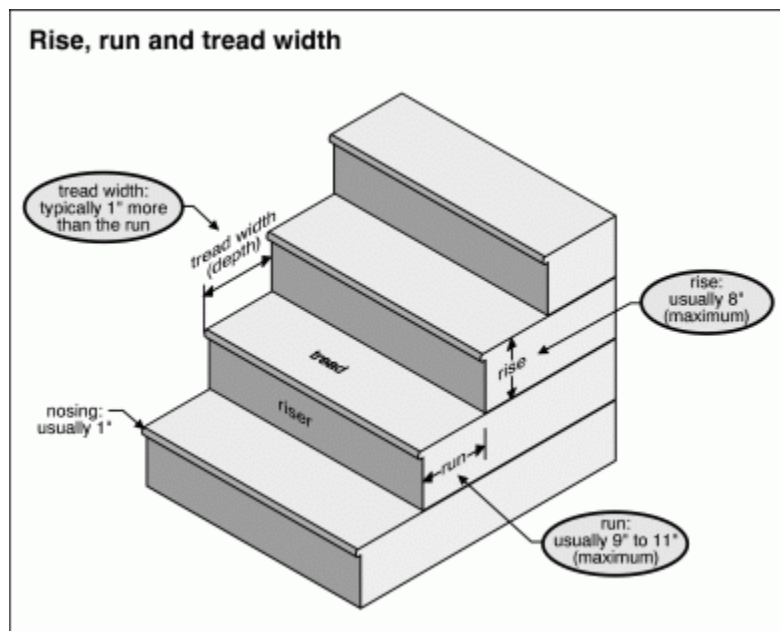
**19. Condition:** • [Stair rise too big or not uniform](#)

**Implication(s):** Trip or fall hazard

**Location:** Various Exterior

**Task:** Improve

**Time:** Earliest opportunity



[Click on image to enlarge.](#)



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21. Stair rise too big or not uniform



22. Stair rise too big or not uniform

## PORCHES, DECKS, STEPS, PATIOS AND BALCONIES \ Handrails and guards

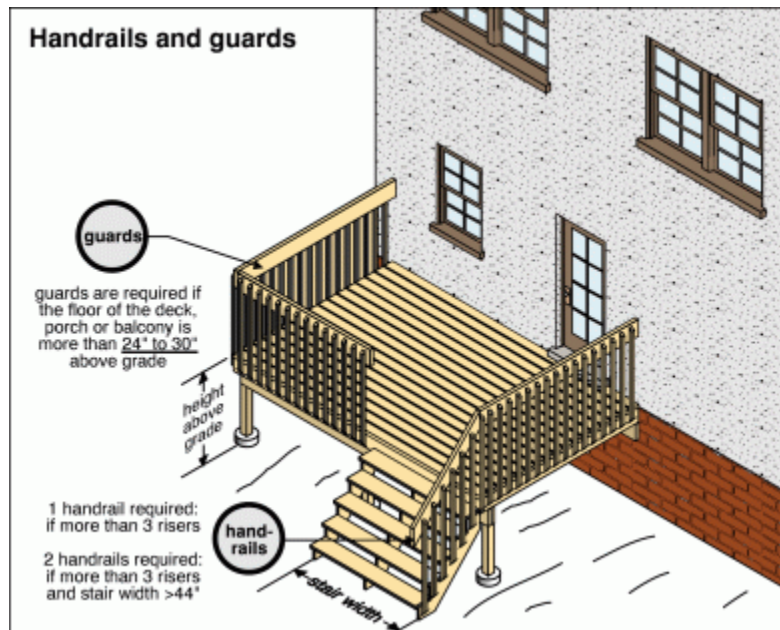
20. Condition: • [Missing](#)

Implication(s): Fall hazard

Location: Rear Exterior Deck & garage

Task: Provide

Time: Immediate



[Click on image to enlarge.](#)

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23. Missing



24. Missing

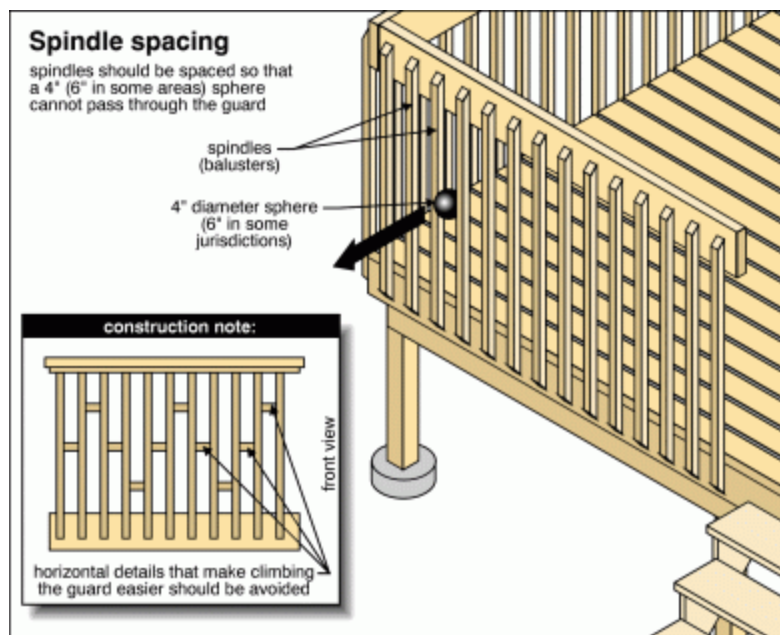
21. Condition: • [Spindles too far apart](#)

Implication(s): Fall hazard

Location: West Exterior

Task: Improve

Time: Earliest Opportunity



[Click on image to enlarge.](#)

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25. Spindles too far apart

22. Condition: • [Spindles climbable](#)

Implication(s): Fall hazard

Location: West Exterior

Task: Improve

Time: Earliest Opportunity



26. Spindles climbable

## LANDSCAPING \ Lot grading

23. Condition: • [Improper slope](#)

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

Location: Various

Task: Improve

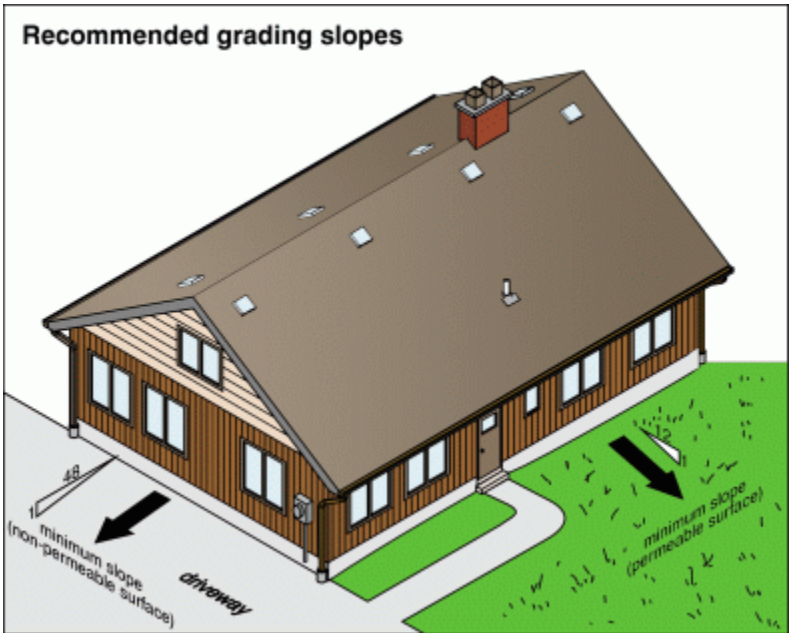


# EXTERIOR

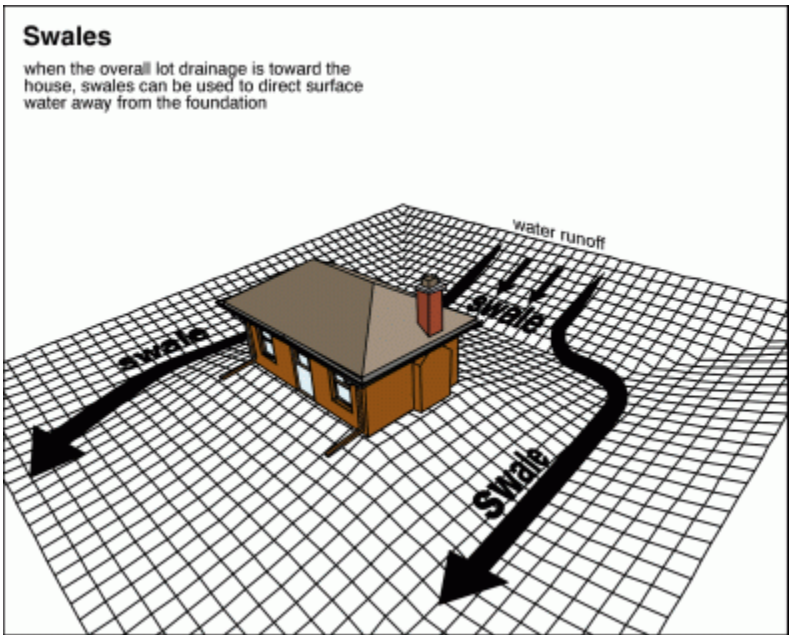
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ROOFING	EXTERIOR	STRUCTURE	ELECTRICAL	HEATING	COOLING	INSULATION	PLUMBING	INTERIOR	SITE INFO
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Time: At Earliest Opportunity



[Click on image to enlarge.](#)



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27. Improper slope

## LANDSCAPING \ Walkway

**24. Condition:** • Patio slopes toward foundation

**Implication(s):** Potential for water entry

**Location:** Rear Exterior

**Task:** Improve

**Time:** At Earliest Opportunity



28.

## GARAGE \ Floor

**25. Condition:** • [Cracked](#)

**Implication(s):** Uneven floors

**Location:** Garage



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**Task:** Monitor and Repair if Required

**Time:** Unpredictable



29. Cracked

## GARAGE \ Walls and ceilings

**26. Condition:** • Not gastight

**Implication(s):** Hazardous combustion products entering home

**Location:** Garage

**Task:** Repair

**Time:** Immediate



30. Not gastight



31. Not gastight

## GARAGE \ Man-door into garage

**27. Condition:** • Self Closer disconnected

**Location:** Garage

**Task:** Repair

**Time:** Immediate

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**32.** *Self Closer disconnected*

## Description

**Configuration:** • [Basement](#)

**Foundation material:** • [Poured concrete](#)

**Floor construction:** • [Joists](#) • Steel columns • Steel beams • Built-up wood beams • Subfloor - OSB (Oriented Strand Board)

**Exterior wall construction:** • [Wood frame](#) • [Wood frame, brick veneer](#)

**Roof and ceiling framing:** • Aspenite

**Roof and ceiling framing:** • [Trusses](#)

## Limitations

**Inspection limited/prevented by:** • Wall, floor and ceiling coverings • Insulation

**Attic/roof space:** • Inspected from access hatch

**Percent of foundation not visible:** • 100 %

## Recommendations

### FOUNDATIONS \ Foundation

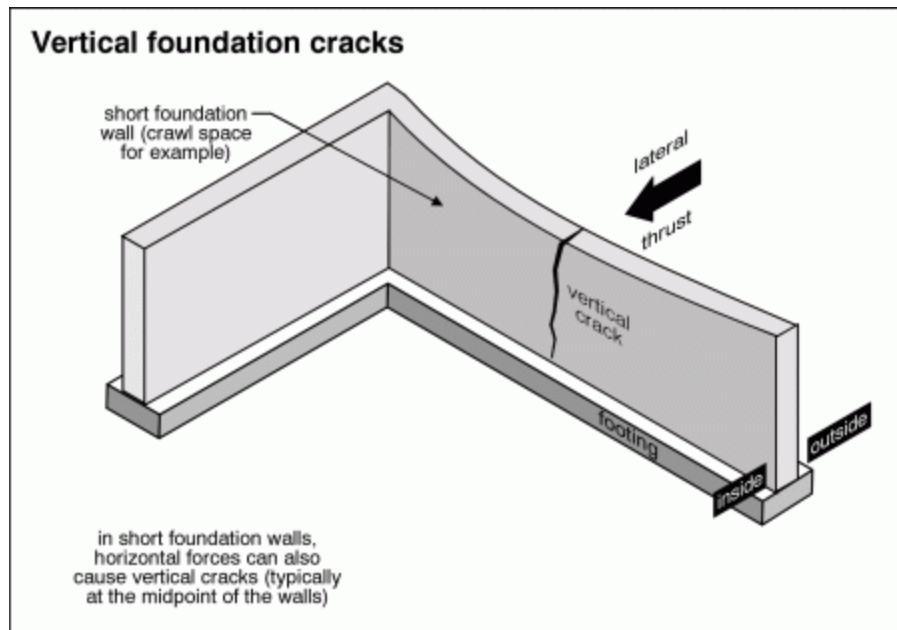
**28. Condition:** • [Cracked](#)

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

**Location:** East Exterior

**Task:** Repair

**Time:** At Earliest Opportunity



[Click on image to enlarge.](#)

# STRUCTURE

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33. Cracked

29. Condition: • [Cracked](#)

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

Location: West

Task: Monitor and Repair if Required

Time: Unpredictable



34. Cracked

30. Condition: • [Parging damaged or missing](#)

Implication(s): Chance of damage to structure | Shortened life expectancy of material

Location: Throughout Exterior

Task: Repair

Time: Discretionary



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35. Parging damaged or missing



36. Parging damaged or missing



37. Parging damaged or missing



38. Parging damaged or missing



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39. Parging damaged or missing



40. Parging damaged or missing



41. Parging damaged or missing



42. Parging damaged or missing

## FLOORS \ Concrete slabs

**31. Condition:** • The cracks are typical, however, leakage can sometimes occur due to hydrostatic pressure. Monitor the area and repair if necessary

**Location:** Basement

**Task:** Monitor and Repair if Required

**Time:** Unpredictable

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43. cracks



44. cracks



45. cracks

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## Description

**General:** • Many of the components that make up an electrical system are concealed in wall cavities, conduits, chases, junction boxes etc.. No commentary will be provided on concealed items.

**Service entrance cable and location:** • [Underground - not visible](#)

**Service size:** • [100 Amps \(240 Volts\)](#)

**Main disconnect/service box rating:** • [100 Amps](#)

**Main disconnect/service box type and location:** • [Breakers - garage](#)

**System grounding material and type:** • [Not visible](#)

**Distribution panel rating:** • [100 Amps](#)

**Distribution panel type and location:** • [Breakers - basement](#)

**Distribution wire material and type:** • [Copper - non-metallic sheathed](#)

**Type and number of outlets (receptacles):** • [Grounded - typical](#)

**Circuit interrupters: Ground Fault (GFCI) & Arc Fault (AFCI):** • [GFCI - bathroom and exterior](#)

**Smoke detectors:** • [Present](#)

**Carbon monoxide (CO) detectors:** • None noted

## Limitations

**Panel covers:** • Disconnect covers are not removed by the building inspector

**System ground:** • Not accessible

**Circuit labels:** • The accuracy of the circuit index (labels) was not verified.

## Recommendations

### General

**32.** • Replace wood screws with proper screws to secure panel cover

**Implication(s):** Safety

**Location:** Basement Panel

**Task:** Repair

**Time:** Earliest Opportunity



46.

**33.** • Installing GFCI protection-it is recommended that GFCI protection be installed on all exterior receptacles and within 5 feet of a sink. These protection devices should be tested regularly according to the manufacturers specifications and replaced if necessary.

(Note: Installing a GFCI in some areas may also require the upgrade of over-current protection & wiring at additional cost.)

## SERVICE BOX, GROUNDING AND PANEL \ Distribution panel

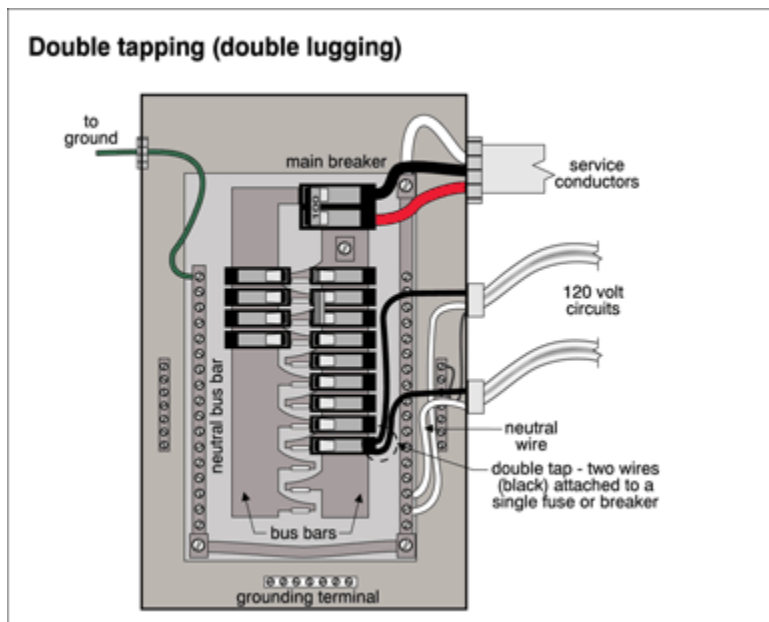
**34. Condition:** • [Double taps](#)

**Implication(s):** Fire hazard

**Location:** Basement Panel

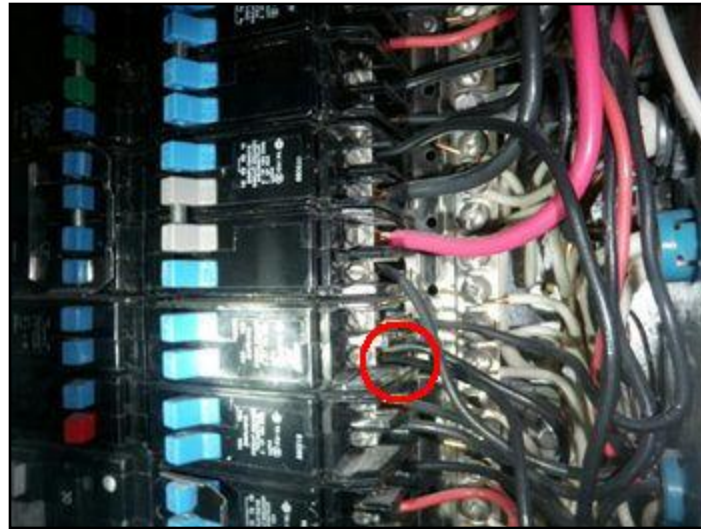
**Task:** Correct

**Time:** Immediate



[Click on image to enlarge.](#)





47. Double taps

## SERVICE BOX, GROUNDING AND PANEL \ Panel wires

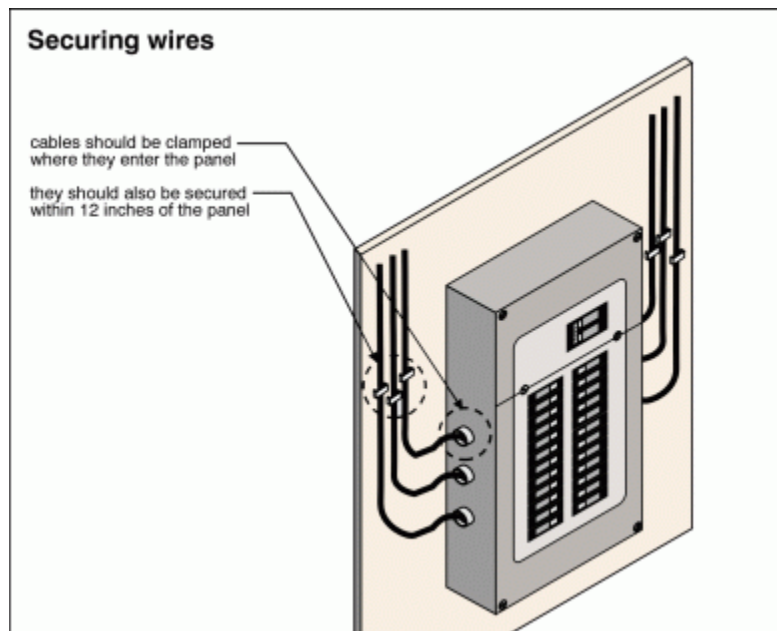
35. Condition: • [Not well secured](#)

Implication(s): Electric shock | Fire hazard

Location: Basement Panel

Task: Improve

Time: Immediate



[Click on image to enlarge.](#)



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48. Not well secured



49. Not well secured

## DISTRIBUTION SYSTEM \ Wiring - installation

**36. Condition:** • Protect wires from physical damage

**Location:** Rear Exterior

**Task:** Protect

**Time:** Immediate



50.

**37. Condition:** • [Open splices](#)

**Implication(s):** Electric shock | Fire hazard

**Location:** Basement

**Task:** Repair

**Time:** Immediate



51. Open splices

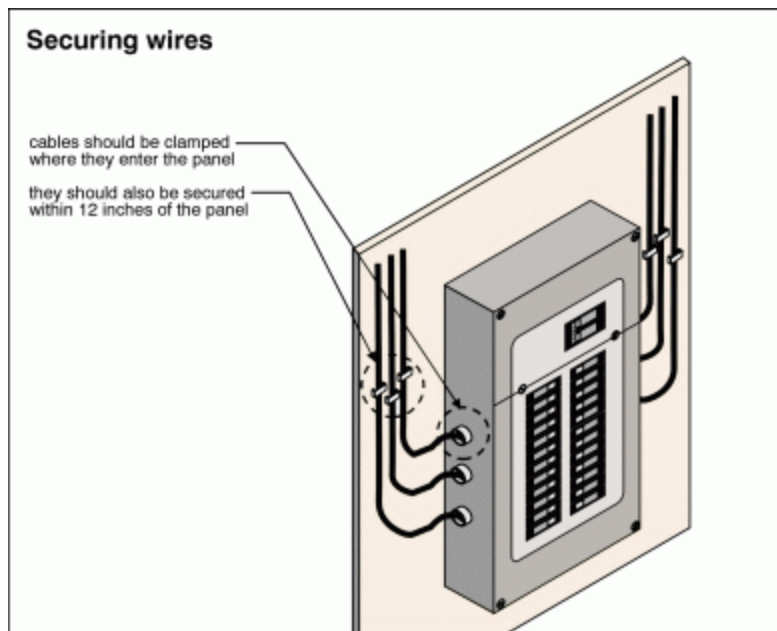
**38. Condition:** • [Not well secured](#)

**Implication(s):** Electric shock | Fire hazard

**Location:** Various Basement

**Task:** Repair

**Time:** Immediate



[Click on image to enlarge.](#)



52. Not well secured

## DISTRIBUTION SYSTEM \ Outdoor wiring

39. Condition: • [Indoor wire used outdoors](#)

Implication(s): Shortened life expectancy of material | Electric shock

Location: Exterior

Task: Monitor and Repair if Required

Time: Unpredictable



53. Indoor wire use outdoors

## DISTRIBUTION SYSTEM \ Lights

40. Condition: • [Damage](#)

Implication(s): Electric shock | Fire hazard

Location: Front Exterior

**Task:** Further evaluation

**Time:** Discretionary



54. *Damage*

**41. Condition:** • [Inoperative](#)

**Implication(s):** Inadequate lighting

**Location:** Basement

**Task:** Further evaluation

**Time:** Discretionary



55. *Inoperative*



## DISTRIBUTION SYSTEM \ Cover plates

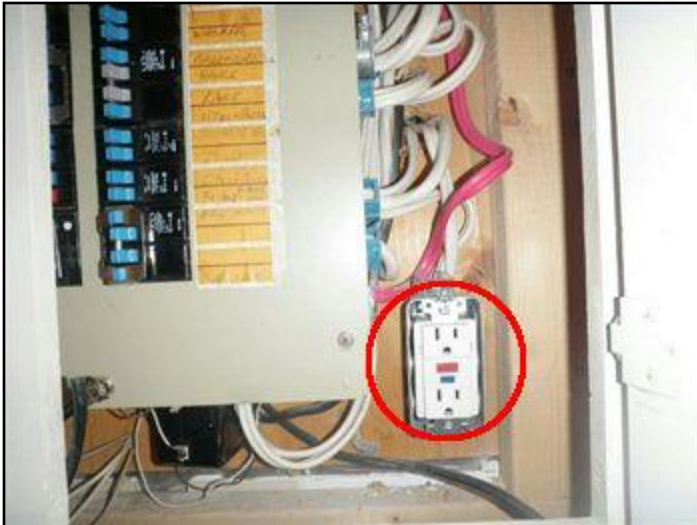
**42. Condition:** • [Missing](#)

**Implication(s):** Electric shock

**Location:** Basement

**Task:** Provide

**Time:** Immediate



56. Missing



57. Missing

## DISTRIBUTION SYSTEM \ Smoke detectors

**43. Condition:** • Ensure that you have working smoke alarms installed on every floor and CO detectors installed near bedrooms. Test and replace them regularly according to the manufacturers specifications.

## Description

**General:** • Many of the components that make up a heating system are concealed in cabinets, floor, wall and ceiling chases. No commentary will be provided on concealed items.

**Fuel/energy source:** • [Gas](#)

**System type:** • [Furnace](#)

**Furnace manufacturer:** • Lennox

**Heat distribution:** • [Ducts and registers](#)

**Approximate capacity:** • 105,000 BTU/hr

**Efficiency:** • [Conventional](#)

**Approximate age:** • [24 years](#)

**Typical life expectancy:** • Furnace (conventional or mid-efficiency) 18 to 25 years

**Main fuel shut off at:** • Meter

**Failure probability:** • [High](#)

**Auxiliary heat:** • [Wood fireplace](#)

**Chimney/vent:** • [Metal](#)

**Combustion air source:** • Outside

## Limitations

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

**Warm weather:** • Prevents testing heating effectiveness

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

**Heat exchanger:** • Only a small portion visible

## Recommendations

### General

**44.** • Wood burning equipment requires regular maintenance and cleaning for safety. It is strongly recommended to have the chimney , fireplace/wood stove inspected by a W.E.T.T. certified technician prior to first use and serviced annually thereafter.

**45.** • Annual servicing and cleaning is recommended for your furnace to achieve maximum efficiency and service life.

### GAS FURNACE \ Life expectancy

**46. Condition:** • [Near end of life expectancy](#)

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

**Location:** Basement Furnace Room

**Task:** Maintain Repair or Replace/Upgrade

**Time:** Unpredictable

# COOLING & HEAT PUMP

Somewhere Street, Any City, ON July 18, 2012

Report No. 1387, v.4

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ROOFING

EXTERIOR

STRUCTURE

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## Description

**Air conditioning type:** • [Air cooled](#)

**Manufacturer:** • International Comfort Products

**Cooling capacity:** • [36,000 BTU/hr](#)

**Compressor approximate age:** • 13 years

**Typical life expectancy:** • 12 to 15 years

**Failure probability:** • Medium/High

## Limitations

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

## Recommendations

### AIR CONDITIONING \ Life expectancy

**47. Condition:** • [Near end of life expectancy](#)

**Implication(s):** Equipment failure | Reduced comfort

**Location:** Exterior

**Task:** Maintain Repair or Replace/Upgrade

**Time:** Unpredictable

### AIR CONDITIONING \ Refrigerant lines

**48. Condition:** • [Missing insulation](#)

**Implication(s):** Reduced system life expectancy | Increased cooling costs | Reduced comfort

**Location:** Exterior

**Task:** Repair or replace

**Time:** Earliest Opportunity

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ROOFING

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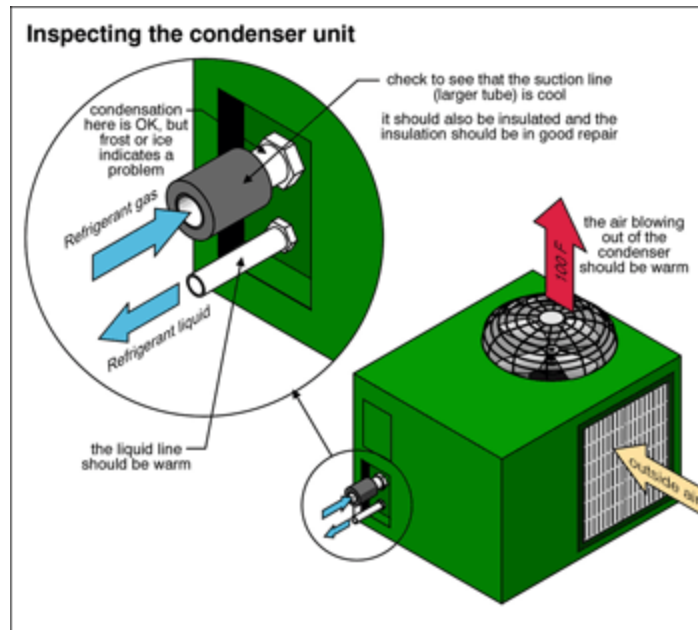
PLUMBING

INTERIOR

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[Click on image to enlarge.](#)



58. Missing insulation



59. Missing insulation



# INSULATION AND VENTILATION

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## Description

Attic/roof insulation material: • [Glass fiber](#)

Attic/roof insulation amount/value: • [R-40](#)

Attic/roof ventilation: • [Roof and soffit vents](#)

Attic/roof air/vapor barrier: • [Plastic](#)

Wall insulation amount/value: • Not Visible

Foundation wall insulation material: • Not Visible

## Limitations

Attic inspection performed: • From access hatch

Roof space inspection performed: • From access hatch

Air/vapor barrier system: • Continuity not verified

Mechanical ventilation effectiveness: • Not verified

## Recommendations

### WALLS \ Air/vapor barrier

49. Condition: • [Incomplete](#)

Implication(s): Chance of condensation damage to finishes and/or structure | Increased heating and cooling costs

Location: Basement

Task: Repair

Time: Earliest Opportunity



60. Incomplete



61. Incomplete

# INSULATION AND VENTILATION

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**62.** *Incomplete*

## Description

**General:** • Many of the components that make up a plumbing system are concealed in floor, wall and ceiling chases etc.. No commentary will be provided on concealed items.

**Water supply source:** • Public

**Service piping into building:** • [Copper](#)

**Supply piping in building:** • [Copper](#)

**Main water shut off valve at the:** • Basement

**Water flow and pressure:** • [Functional](#)

**Water heater fuel/energy source:** • [Gas](#)

**Water heater type:** • [Conventional](#) • Rental

**Water heater manufacturer:** • Rheem

**Tank capacity:** • 227 liters

**Water heater approximate age:** • 3 years

**Typical life expectancy:** • 8 to 12 years

**Water heater failure probability:** • [Low](#)

**Waste disposal system:** • [Public](#)

**Waste piping in building:** • [ABS plastic](#)

**Floor drain location:** • Basement

**Floor drain location:** • Near heating system

**Gas piping:** • Steel

## Limitations

**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 • Pool • Spa

## Recommendations

### General

**50.** • Preventing leakage - Suggest maintaining the grout and caulking in the tub and shower areas. The caulking and grout should be checked each year and replaced if necessary.

### FIXTURES AND FAUCETS \ Toilet

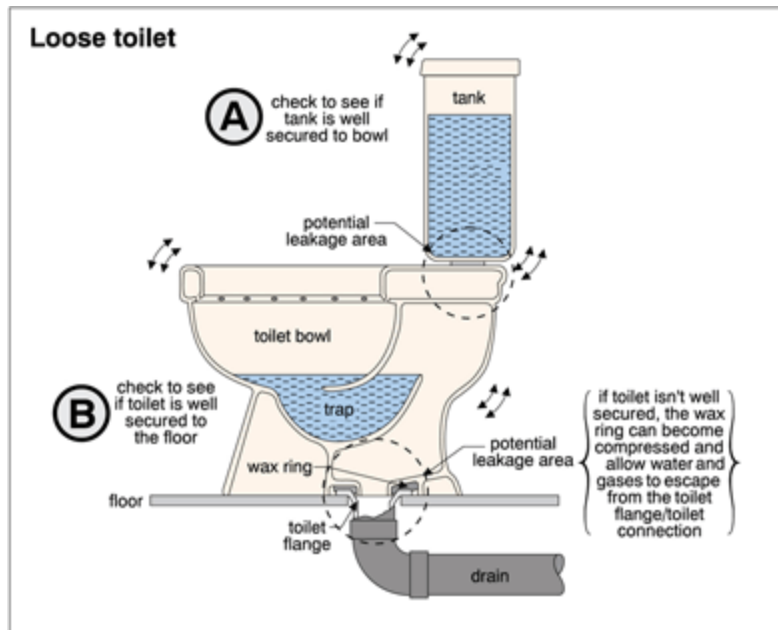
**51. Condition:** • [Loose](#)

**Implication(s):** Chance of water damage to contents, finishes and/or structure | Sewage entering the building

**Location:** Second Floor Bathroom

**Task:** Repair

**Time:** Immediate



[Click on image to enlarge.](#)



63. Loose



## Description

**General:** • Condition: Please note that any leak or moisture issue can result in mold growth, and that it is often not visible. Furthermore, mold can grow very quickly, and although it may not be present one day, if moisture levels increase, mold can grow and become visible overnight. Water damage is frequently discovered where moisture levels are normal, suggesting the area is dry at the time. This damage can be a result of historical leaks that have since been repaired, or, of intermittent issues related to the season, weather, or plumbing fixtures and appliances. Because professional mold remediation can be a major expense if required, further evaluation is recommended regarding any leak evidence or water damage. We would like to remind you that mold and the assessment of indoor air quality is beyond the scope of a home inspection and that an inspector cannot determine if there are irritants, spores, pollutants, contaminants, or toxic materials present. A qualified environmental specialist should be consulted for any mold concerns.

**Major floor finishes:** • [Carpet](#) • [Hardwood](#) • [Ceramic](#) • Vinyl

**Major wall and ceiling finishes:** • [Stucco/texture/stipple](#) • [Gypsum board](#)

**Windows:** • [Fixed](#) • [Sliders](#) • [Casement](#) • Wood • Vinyl

**Glazing:** • [Double](#)

**Exterior doors - type/material:** • Hinged • [Sliding glass](#) • [Wood](#) • [Plastic/fiberglass](#) • Metal-clad

**Evidence of basement leakage:** • New drywall

**Evidence of basement leakage:** • Stains

## Limitations

**Inspection limited/prevented by:** • Raised floor in basement

**Inspection limited/prevented by:** • Storage/furnishings • Storage in closets/cupboards

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

**Not included as part of a building inspection:** • Carbon monoxide detectors, security systems, central vacuum • Central vacuum systems • Cosmetic issues • Appliances • Perimeter drainage tile around foundation, if any

**Percent of foundation not visible:** • 100 %

**Basement leakage:** • Cannot predict how often or how badly basement will leak • Storage in basement limited inspection

## Recommendations

### General

**52.** • Carbon Monoxide detectors are mandatory in houses and should be tested weekly by pushing the test/reset button which enables the unit to reset itself internally, an audible sound will be heard to indicate the unit is functioning properly. Each unit should be cleaned/vacuumed regularly to reduce internal dust accumulation which will prevent false alarms or improper readings. Always refer to the manufacturers instructions for additional information regarding proper installation, use, and maintenance.

### WINDOWS \ Sashes

**53. Condition:** • [Inoperable](#)

**Implication(s):** Equipment inoperative

# INTERIOR

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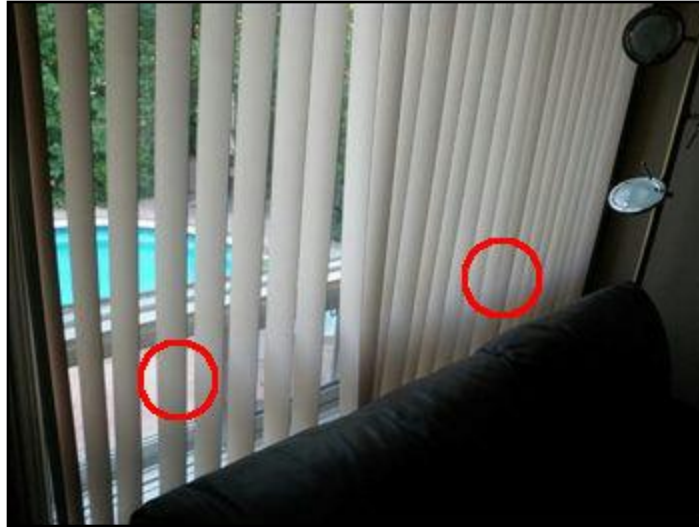
APPENDIX

REFERENCE

**Location:** Rear First Floor Living Room

**Task:** Repair

**Time:** Discretionary



64. Inoperable

## DOORS \ Doors and frames

**54. Condition:** • Fit & Adjustment Required

**Location:** Basement

**Task:** Repair

**Time:** Discretionary



65. Fit & Adjustment Required

## STAIRS \ Guardrails

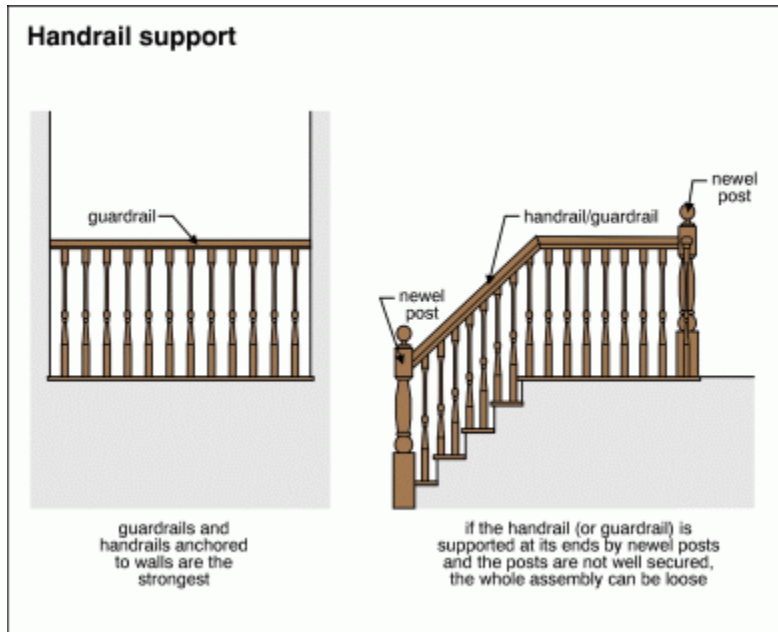
**55. Condition:** • [Loose](#)

**Implication(s):** Fall hazard

**Location:** First Floor Staircase

**Task:** Repair

**Time:** Earliest Opportunity



[Click on image to enlarge.](#)



66. Loose

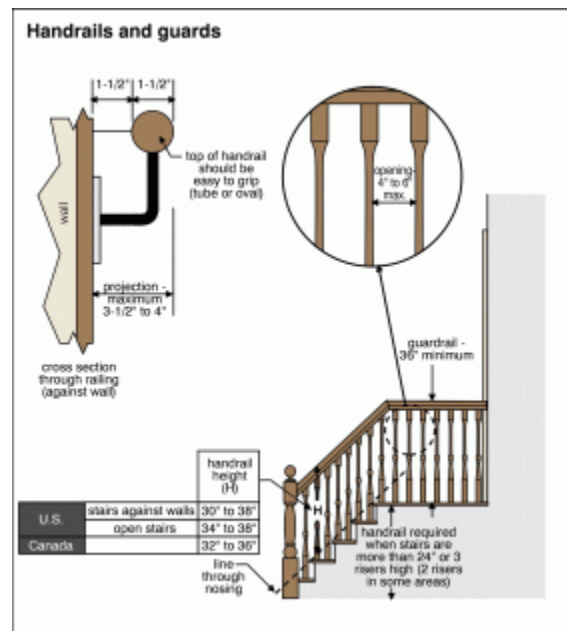
**56. Condition:** • [Missing](#)

**Implication(s):** Fall hazard

**Location:** Basement

**Task:** Provide

**Time:** Immediate



[Click on image to enlarge.](#)



67. Missing

## **BASEMENT \ Leakage**

**57. Condition:** • Excavation, and installing a delta system and drainage tile can be a major expense if required.

**Location:** Basement

**Task:** Monitor and Repair if Required

**Time:** Unpredictable

## **BASEMENT \ Wet basement - evidence**

**58. Condition:** • Recommend request vendor disclosure, further evaluation, and monitor New drywall noted in basement utility/furnace room.

**Implication(s):** Potential of water entry



# INTERIOR

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**Location:** Basement Utility/furnace room

**Task:** Request disclosure/monitor/repair if required

**Time:** Unpredictable



68. Recommend request vendor disclosure, further...

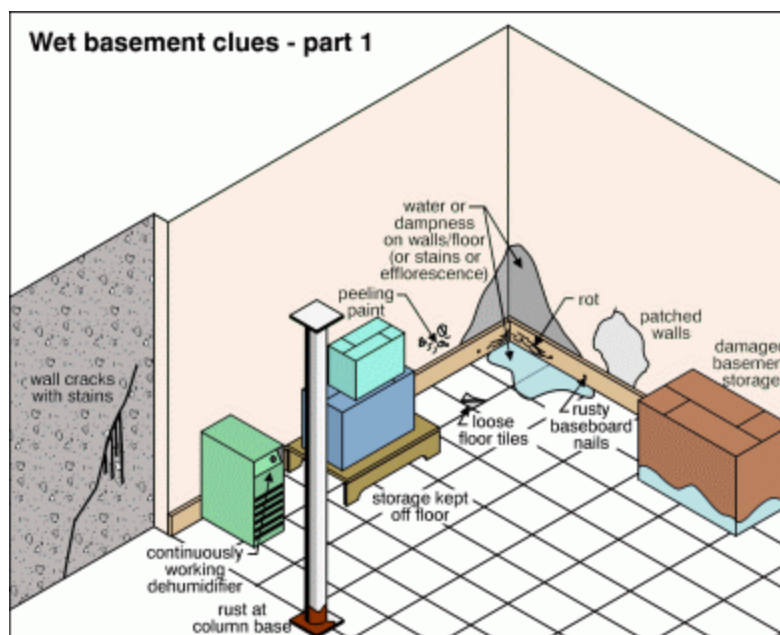
59. Condition: • [Mold](#)

**Implication(s):** Cosmetic defects | Chance of water damage to contents, finishes and/or structure | Contaminants may enter building air

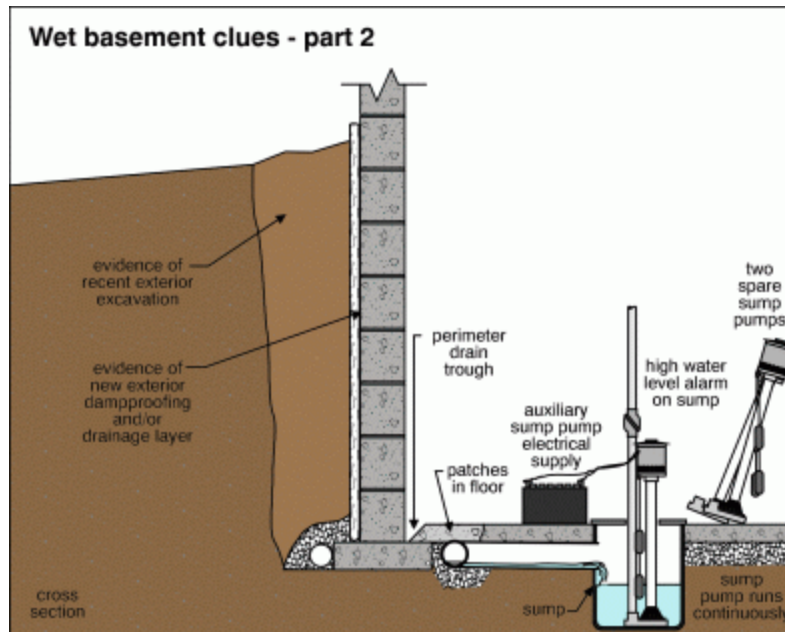
**Location:** Basement Utility/Furnace Room

**Task:** Monitor and Repair if Required

**Time:** Unpredictable



[Click on image to enlarge.](#)



[Click on image to enlarge.](#)



69. Mold

60. Condition: • [Stains](#)

**Implication(s):** Cosmetic defects | Chance of water damage to contents, finishes and/or structure

**Location:** Basement Utility/furnace room

**Task:** Request disclosure/monitor/repair if required

**Time:** Unpredictable



70. Stains



71. Stains

## EXHAUST FANS \ Exhaust fan

61. Condition: • [Missing](#)

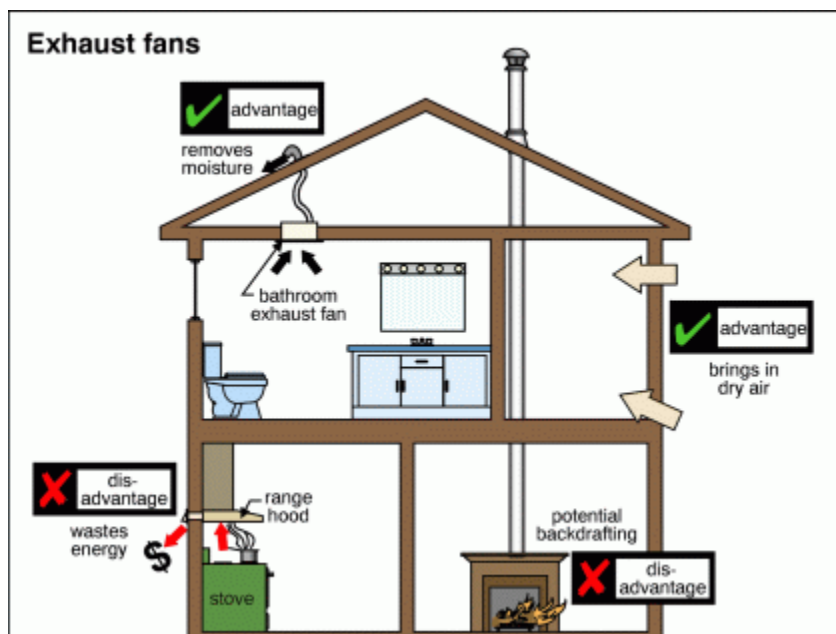
Recommend install exhaust fan to control humidity in basement from hot tub.

**Implication(s):** Chance of condensation damage to finishes and/or structure

**Location:** Basement

**Task:** Provide/Upgrade

**Time:** Prior to using hot tub



[Click on image to enlarge.](#)

## SITE INFO

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### Description

**Weather:** • Sunny

**Approximate temperature:** • 28°

**Attendees:** • Buyer • Buyer's Agent

**Access to home provided by:** • Buyer's agent

**Occupancy:** • The home was occupied at the time of the inspection.

**Utilities:** • All utilities were on during the inspection.

**Approximate inspection start and end time:** • The inspection started at 5:00 p.m. • The inspection ended at 7:00 p.m.

**Approximate date of construction:** • 1988

**Building type:** • Detached home

**Number of dwelling units:** • Single-family

**Number of stories:** • Two

**Below grade area:** • Basement

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

**END OF REPORT**



# ABOUT YOUR HOUSE

CE 47

## Home Maintenance Schedule

### REGULAR MAINTENANCE IS THE KEY

Inspecting your home on a regular basis and following good maintenance practices are the best way to protect your investment in your home. Whether you take care of a few tasks at a time or several all at once, it is important to get into the habit of doing them. Establish a routine for yourself, and you will find the work is easy to accomplish and not very time-consuming. A regular schedule of seasonal maintenance can put a stop to the most common—and costly—problems, before they occur. If necessary, use a camera to take pictures of anything you might want to share with an expert for advice or to monitor or remind you of a situation later.

By following the information noted here, you will learn about protecting your investment and how to help keep your home a safe and healthy place to live.

If you do not feel comfortable performing some of the home maintenance tasks listed below, or do not have the necessary equipment, for example a ladder, you may want to consider hiring a qualified handyperson to help you.

### SEASONAL HOME MAINTENANCE

Most home maintenance activities are seasonal. Fall is the time to get your home ready for the coming winter, which can be the most gruelling season for your home. During winter months, it is important to follow routine maintenance procedures, by checking your home carefully for any problems that may arise and taking corrective action as soon as possible. Spring is the time to assess winter damage, start repairs and prepare for warmer months. Over the summer, there are a number of indoor and outdoor maintenance tasks to look after, such as repairing walkways and steps, painting and checking your chimney and roof.

While most maintenance is seasonal, there are some things you should do on a frequent basis year-round:

- ☐ Make sure air vents indoors and outdoors (intake, exhaust and forced air) are not blocked by snow or debris.
- ☐ Check and clean range hood filters on a monthly basis.
- ☐ Test ground fault circuit interrupter(s) on electrical outlets monthly by pushing the test button, which should then cause the reset button to pop up.
- ☐ If there are young children in the house, make sure electrical outlets are equipped with safety plugs.
- ☐ Regularly check the house for safety hazards, such as a loose handrail, lifting or buckling flooring, inoperative smoke detectors, and so on.

## About Your House

### Home Maintenance Schedule

Timing of the seasons varies not only from one area of Canada to another but also from year to year in a given area. For this reason, we have not identified the months for each season. The maintenance schedule presented here is, instead, a general guide for you to follow. The actual timing is left for you to decide, and you may want to further divide the list of items for each season into months.

### Photocopy or print this maintenance schedule

To be effective, home maintenance must be done on an ongoing basis, from year to year. We suggest you make a photocopy of this maintenance schedule to use as your checklist. That way, you will always have an unmarked original to make more copies. Alternatively, you can print this maintenance schedule from CMHC's website, at [www.cmhc.ca](http://www.cmhc.ca)

### Fall

- ☐ Have furnace or heating system serviced by a qualified service company every two years for a gas furnace, and every year for an oil furnace, or as recommended by the manufacturer.
- ☐ If you have central air conditioning, make sure the drain pan under the cooling coil mounted in the furnace plenum is draining properly and is clean.

- ☐ Lubricate circulating pump on hot water heating system.
- ☐ Bleed air from hot water radiators.
- ☐ Disconnect the power to the furnace and examine the forced-air furnace fan belt, if installed, for wear, looseness or noise; clean fan blades of any dirt buildup.
- ☐ Check chimneys for obstructions such as nest before turning on your furnace.
- ☐ Vacuum electric baseboard heaters to remove dust.
- ☐ Remove the grilles on forced-air systems and vacuum inside the ducts.
- ☐ Turn ON gas furnace pilot light (if your furnace has one), set the thermostat to "heat" and test the furnace for proper operation by raising the thermostat setting until the furnace starts to operate. Once you have confirmed proper operation, return the thermostat to the desired setting.
- ☐ Check and clean or replace furnace air filters each month during the heating season. Ventilation system, such as heat recovery ventilator, filters should be checked every two months.
- ☐ Check to see that the ductwork leading to and from the heat recovery ventilator is in good shape, the joints are tightly sealed (aluminum tape or mastic) and any duct insulation and plastic duct wrap is free of tears and holes.
- ☐ If the heat recovery ventilator has been shut off for the summer, clean the filters and the core, and pour water down the condensate drain to test it.
- ☐ Check to see that bathroom exhaust fans and range hoods are operating properly. If possible, confirm that you are getting good airflow by observing the outside vent hood (the exterior damper should be held open by the airflow). See the *About Your House* fact sheet *CMHC Garbage Bag Airflow Test* for a simple way to estimate the airflow.
- ☐ Check smoke, carbon monoxide and security alarms, and replace batteries.
- ☐ Clean portable humidifier, if one is used.
- ☐ Check sump pump and line to ensure proper operation, and to ascertain that there are no line obstructions or visible leaks.
- ☐ Replace window screens with storm windows.
- ☐ Remove interior insect screens from windows to allow air from the heating system to keep condensation off window glass and to allow more free solar energy into your home.
- ☐ Ensure windows and skylights close tightly; repair or replace weatherstripping, as needed.

## About Your House

Home Maintenance Schedule

- ☐ Ensure all doors to the outside shut tightly, and check other doors for ease of use. Replace door weatherstripping if required.
- ☐ If there is a door between your house and the garage, check the adjustment of the self-closing device to ensure it closes the door completely.
- ☐ Cover outside of air-conditioning units and shut off power.
- ☐ Ensure that the ground around your home slopes away from the foundation wall, so that water does not drain into your basement.
- ☐ Clean leaves from eavestroughs and roof, and test downspouts to ensure proper drainage from the roof.
- ☐ Drain and store outdoor hoses. Close interior valve to outdoor hose connection and drain the hose bib (exterior faucet), unless your house has frost-proof hose bibs.
- ☐ Have well water tested for quality. It is recommended that you test for bacteria every six months.
- ☐ If you have a septic tank, measure the sludge and scum to determine if the tank needs to be emptied before the spring. Tanks should be pumped out at least once every three years.
- ☐ Winterize landscaping, for example, store outdoor furniture, prepare gardens and, if necessary, protect young trees or bushes for winter.

## Winter

- ☐ Check and clean or replace furnace air filters each month during the heating season. Ventilation system, such as heat recovery ventilator, filters should be checked every two months.
- ☐ After consulting your hot water tank owner's manual, drain off a dishpan full of water from the clean-out valve at the bottom of your hot water tank to control sediment and maintain efficiency.
- ☐ Clean humidifier two or three times during the winter season.
- ☐ Vacuum bathroom fan grille.
- ☐ Vacuum fire and smoke detectors, as dust or spider webs can prevent them from functioning.
- ☐ Vacuum radiator grilles on back of refrigerators and freezers, and empty and clean drip trays.
- ☐ Check pressure gauge on all fire extinguishers; recharge or replace if necessary.
- ☐ Check fire escape routes, door and window locks and hardware, and lighting around outside of house; ensure family has good security habits.
- ☐ Check the basement floor drain to ensure the trap contains water; refill with water if necessary.
- ☐ Monitor your home for excessive moisture levels—for example, condensation on your windows,

which can cause significant damage over time and pose serious health problems—and take corrective action if necessary. Refer to the *About Your House* fact sheet *Measuring Humidity in Your Home*.

- ☐ Check all faucets for signs of dripping and change washers as needed. Faucets requiring frequent replacement of washers may be in need of repair.
- ☐ If you have a plumbing fixture that is not used frequently, such as a laundry tub or spare bathroom sink, tub or shower stall, run some water briefly to keep water in the trap.
- ☐ Clean drains in dishwasher, sinks, bathtubs and shower stalls.
- ☐ Test plumbing shut-off valves to ensure they are working and to prevent them from seizing.
- ☐ Examine windows and doors for ice accumulation or cold air leaks. If found, make a note to repair or replace in the spring.
- ☐ Examine attic for frost accumulation. Check roof for ice dams or icicles. If there is excessive frost or staining of the underside of the roof, or ice dams on the roof surface, consult the *About Your House* fact sheet *Attic Venting, Attic Moisture and Ice Dams* for advice.
- ☐ Keep snow clear of gas meters, gas appliance vents, exhaust vents and basement windows.

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## Home Maintenance Schedule

- ☐ Monitor outdoor vents, gas meters and chimneys for ice and snow buildup. Consult with an appropriate contractor or your gas utility for information on how to safely deal with any ice problems you may discover.
- ☐ Check electrical cords, plugs and outlets for all indoor and outdoor seasonal lights to ensure fire safety; if worn, or if plugs or cords feel warm to the touch, replace immediately.

**Spring**

- ☐ After consulting your hot water tank owner's manual, carefully test the temperature and pressure relief valve to ensure it is not stuck. **Caution:** This test may release hot water that can cause burns.
- ☐ Check and clean or replace furnace air filters each month during the heating season. Ventilation system, such as heat recovery ventilator, filters should be checked every two months.
- ☐ Have fireplace or wood stove and chimney cleaned and serviced as needed.
- ☐ Shut down, drain and clean furnace humidifier, and close the furnace humidifier damper on units with central air conditioning.
- ☐ Switch on power to air conditioning and check system. Have it serviced every two or three years.
- ☐ Clean or replace air-conditioning filter, if applicable.
- ☐ Check dehumidifier and drain—clean if necessary.
- ☐ Turn OFF gas furnace and fireplace pilot lights where possible.
- ☐ Have well water tested for quality. It is recommended that you test for bacteria every six months.
- ☐ Check smoke, carbon monoxide and security alarms, and replace batteries.
- ☐ Clean windows, screens and hardware, and replace storm windows with screens. Check screens first and repair or replace if needed.
- ☐ Open valve to outside hose connection after all danger of frost has passed.
- ☐ Examine the foundation walls for cracks, leaks or signs of moisture, and repair as required.
- ☐ Ensure sump pump is operating properly before the spring thaw sets in. Ensure discharge pipe is connected and allows water to drain away from the foundation.
- ☐ Re-level any exterior steps or decks that moved as a result of frost or settling.
- ☐ Check for and seal off any holes in exterior cladding that could be an entry point for small pests, such as bats and squirrels.

- ☐ Check eavestroughs and downspouts for loose joints and secure attachment to your home, clear any obstructions, and ensure water flows away from your foundation.
- ☐ Clear all drainage ditches and culverts of debris.
- ☐ Repair and paint fences as necessary—allow wood fences to dry adequately before tackling this task.
- ☐ Undertake spring landscape maintenance and, if necessary, fertilize young trees.

**Summer**

- ☐ Monitor basement humidity and avoid relative humidity levels above 60 per cent. Use a dehumidifier to maintain relative humidity below 60 per cent.
- ☐ Clean or replace air-conditioning filter, and clean or replace ventilation system filters if necessary.
- ☐ Check basement pipes for condensation or dripping and, if necessary, take corrective action; for example, reduce humidity and/or insulate cold water pipes.
- ☐ Check the basement floor drain to ensure the trap contains water; refill with water if necessary.



## About Your House

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- ☐ If you have a plumbing fixture that is not used frequently, for example, a laundry tub or spare bathroom sink, tub or shower stall, run some water briefly to keep water in the trap.
- ☐ Deep clean carpets and rugs.
- ☐ Vacuum bathroom fan grille.
- ☐ Disconnect the duct connected to your clothes dryer, and vacuum lint from duct, the areas surrounding your dryer and your dryer's vent hood outside.
- ☐ Check security of all guardrails and handrails.
- ☐ Check smooth functioning of all windows, and lubricate as required.
- ☐ Inspect window putty on outside of glass panes of older houses, and replace if needed.
- ☐ Sand and touch up paint on windows and doors.
- ☐ Lubricate door hinges, and tighten screws as needed.
- ☐ Check for and replace damaged caulking and weatherstripping around mechanical and electrical services, windows and doorways, including the doorway between the garage and the house. See the *About Your House* fact sheet *Attached Garages and Indoor Air Quality* for more information on preventing garage-to-house air transfer.
- ☐ Lubricate garage door hardware, and ensure it is operating properly.
- ☐ Lubricate automatic garage door opener motor, chain and other moving parts, and ensure that the auto-reverse mechanism is properly adjusted.
- ☐ Inspect electrical service lines for secure attachment where they enter your house, and make sure there is no water leakage into the house along the electrical conduit. Check for overhanging tree branches that may need to be removed.
- ☐ Check exterior wood siding and trim for signs of deterioration; clean, replace or refinish as needed.
- ☐ Remove any plants that contact—and roots that penetrate—the siding or brick.
- ☐ From the ground, check the general condition of the roof and note any sagging that could indicate structural problems requiring further investigation from inside the attic. Note the condition of shingles for possible repair or replacement, and examine roof flashings, such as at chimney and roof joints, for any signs of cracking or leakage.
- ☐ Check the chimney cap and the caulking between the cap and the chimney.
- ☐ Repair driveway and walkways as needed.
- ☐ Repair any damaged steps.

**About Your House**

Home Maintenance Schedule

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<i>Should You Get Your Heating Ducts Cleaned?</i>	Order No. 62044
<i>Your Furnace Filter</i>	Order No. 62041
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## Home Improvement Costs

The following costs are intended as ball park estimates for repairs and/or improvements to a typical three bedroom home. The costs are based on information obtained in the Southern Ontario area. Our experience has shown that actual contractor quotations

can vary by as much as 300%. Naturally, the quality of workmanship and materials will influence costs. The complexity of the job, accessibility, and even economic conditions can also alter actual costs.

### ROOFING/FLASHINGS/CHIMNEYS

Install conventional asphalt shingles over existing shingles .....	\$ 2.00 - \$ 4.00 per sq. ft.
Strip and reshingle with conventional asphalt shingles .....	\$ 2.75 - \$ 5.50 per sq. ft.
Strip and reshingle with premium quality asphalt shingles .....	\$ 5.00 - \$ 10.00 per sq. ft.
Strip and re-roof with cedar shingles .....	\$ 9.00 - \$ 18.00 per sq. ft.
Strip and replace built-up tar and gravel roof .....	\$ 10.00 - \$ 20.00 per sq. ft. (min. \$ 1000)
Strip and install single-ply roof membrane .....	\$ 10.00 - \$ 20.00 per sq. ft. (min. \$ 1000)
Reflash typical skylight or chimney .....	\$ 500.00 - \$ 1000.00
Repoint typical chimney above roof line .....	\$ 25.00 - \$ 50.00 per row of bricks (min. \$ 400)
Rebuild typical single flue chimney above roof line .....	\$ 200.00 - \$ 400.00 per lin. ft. (min. \$ 500)

### EXTERIOR

Install galvanized or aluminum gutters and downspouts .....	\$ 5.00 - \$ 10.00 per lin. ft. (min. \$ 500)
Install aluminum soffits and fascia .....	\$ 8.00 - \$ 16.00 per lin. ft.
Install aluminum or vinyl siding .....	\$ 6.00 - \$ 12.00 per sq. ft.
Repoint exterior wall: soft mortar .....	\$ 3.00 - \$ 6.00 per sq. ft. (min. \$ 500)
hard mortar .....	\$ 5.00 - \$ 10.00 per sq. ft. (min. \$ 500)
Parge foundation walls .....	\$ 3.00 - \$ 6.00 per sq. ft.
Dampproof foundation walls and install weeping tiles .....	\$ 150.00 - \$ 300.00 per lin. ft. (min. \$ 3000)
Install a deck .....	\$ 25.00 - \$ 50.00 per sq. ft. (min. \$ 1000)
Resurface existing asphalt driveway .....	\$ 2.00 - \$ 4.00 per sq. ft.
Install interlocking brick driveway .....	\$ 8.00 - \$ 16.00 per sq. ft.
Rebuild exterior basement stairwell .....	\$ 5000.00 and up
Build detached garage: .....	\$ 70.00 - \$ 140.00 per sq. ft.
Build retaining wall: wood .....	\$ 20.00 - \$ 40.00 per sq. ft. (min. \$ 500)
concrete .....	\$ 30.00 - \$ 60.00 per sq. ft. (min. \$ 500)
Painting: trim only .....	\$ 2000.00 - \$ 4000.00 and up
trim and wall surfaces .....	\$ 5000.00 and up

### STRUCTURE

Underpin one corner of house .....	\$ 5000.00 and up
Underpin or add foundations .....	\$ 300.00 and up per lin. ft. (min. \$ 3000)
Lower basement floor by underpinning and/or bench footings .....	\$ 150.00 - \$ 300.00 per lin. ft. (min. \$ 5000)
Replace deteriorating sill beam with concrete .....	\$ 60.00 and up per lin. ft. (min. \$ 200)
Install basement support post with proper footing .....	\$ 800.00 - \$ 1600.00
Perform chemical treatment for termites .....	\$ 2000.00 and up
Repair minor crack in poured concrete foundation .....	\$ 400.00 - \$ 800.00

### ELECTRICAL

Upgrade electrical service to 100-amps (including new panel) .....	\$ 1500.00 - \$ 3000.00
Upgrade electrical service to 100-amps (if suitably sized panel already exists) .....	\$ 800.00 - \$ 1600.00
Upgrade electrical service to 200-amps .....	\$ 1700.00 - \$ 3500.00
Install new circuit breaker panel .....	\$ 700.00 - \$ 1400.00
Replace circuit breaker (20 amp or less) .....	\$ 100.00 - \$ 200.00
Add 120-volt circuit (microwave, freezer, etc.) .....	\$ 150.00 - \$ 300.00
Add 240-volt circuit (dryer, stove, etc.) .....	\$ 300.00 - \$ 600.00

Over ►

# APPENDIX

Somewhere Street, Any City, ON July 18, 2012

Report No. 1387, v.4

[www.rideauhomeinspections.com](http://www.rideauhomeinspections.com)

ROOFING

EXTERIOR

STRUCTURE

ELECTRICAL

HEATING

COOLING

INSULATION

PLUMBING

INTERIOR

SITE INFO

APPENDIX

REFERENCE

Add conventional receptacle (assuming electrician is already there).....	\$150.00 - \$ 400.00
Replace conventional receptacle with ground fault circuit interrupter receptacle.....	\$ 70.00 - \$ 140.00
Replace conventional receptacle with aluminum compatible type (CO/ALR) (assuming several are required).....	\$ 60.00 - \$ 120.00 each
Upgrade entire house with aluminum compatible connectors, receptacles, etc.....	\$ 1000.00 - \$ 2000.00
Rewire electrical outlet with reversed polarity (assuming electrician is already there).....	\$ 5.00 - \$ 10.00 each
Replace knob & tube wiring with conventional wiring (typical 3 bdrm home) .....	\$8000.00 - \$12000.00

## HEATING

Install mid efficiency forced-air furnace .....	\$ 2000.00 - \$ 4000.00
Install high efficiency forced-air furnace .....	\$ 3500.00 - \$ 7000.00
Install humidifier .....	\$ 300.00 - \$ 600.00
Install electronic air filter .....	\$ 800.00 - \$ 1600.00
Install mid efficiency boiler .....	\$ 3500.00 - \$ 7000.00
Install high efficiency boiler.....	\$ 6000.00 - \$ 12000.00
Install circulating pump.....	\$ 400.00 - \$ 600.00
Install chimney liner for gas appliance .....	\$ 500.00 - \$ 1000.00
Install chimney liner for oil appliance .....	\$ 700.00 - \$ 1800.00
Install programmable thermostat.....	\$ 200.00 - \$ 400.00
Replace indoor oil tank .....	\$ 1200.00 - \$ 2500.00
Remove oil tank from basement.....	\$ 600.00 and up
Remove abandoned underground oil tank.....	\$ 10000.00 and up
Replace radiator valve .....	\$ 300.00 - \$ 600.00
Add electric baseboard heater.....	\$ 250.00 - \$ 400.00
Convert from hot water heating to forced air: bungalow .....	\$ 10000.00 - \$ 20000.00
two storey .....	\$ 15000.00 - \$ 30000.00
Clean ductwork .....	\$ 300.00 - \$ 600.00

## COOLING/HEAT PUMPS

Add central air conditioning on existing forced-air system.....	\$ 3000.00 and up
Add heat pump on existing forced-air system.....	\$ 4000.00 - \$ 8000.00
Replace heat pump or air conditioning condenser.....	\$ 1200.00 - \$ 2500.00
Install independent air conditioning system.....	\$ 8000.00 - \$ 20000.00
Install ductless air conditioning system.....	\$ 3000.00 - \$ 7000.00

## INSULATION

Insulate open attic area to modern standards .....	\$ 0.80 - \$ 1.60 per sq. ft.
Blow insulation into flat roof, cathedral ceiling or wall cavity.....	\$ 2.00 - \$ 4.00 per sq. ft.
Improve attic ventilation (supplied while re-roofing).....	\$ 30.00 - \$ 60.00 per vent

## PLUMBING

Replace galvanized piping with copper: (2 storey with one bathroom,finishing extra) .....	\$ 2500.00 - \$ 5000.00
Replace water line to house .....	\$ 2000.00 and up
Replace toilet .....	\$ 500.00 and up
Replace basin, including faucets .....	\$ 750.00 and up
Replace bathtub, including ceramic tile and faucets .....	\$ 2500.00 and up
Install whirlpool bath, including faucets.....	\$ 3500.00 and up
Retile bathtub enclosure .....	\$ 1000.00 - \$ 2000.00
Replace leaking tile shower stall pan .....	\$ 1000.00 - \$ 2000.00
Rebuild tile shower stall .....	\$ 2500.00 - \$ 5000.00
Replace laundry tub .....	\$ 400.00 - \$ 800.00
Remodel bathroom completely (4 pc.) .....	\$ 6000.00 - \$ 50000.00
Connect waste plumbing system to municipal sewers .....	\$ 5000.00 and up
Install submersible pump.....	\$ 1000.00 and up
Install suction or jet pump.....	\$ 700.00 and up
Install modest basement bathroom.....	\$ 6000.00 and up

## INTERIOR

Add drywall over plaster .....	\$ 4.00 - \$ 8.00 per sq. ft.
Sand and refinish hardwood floors .....	\$ 2.00 - \$ 4.00 per sq. ft.
Install replacement windows .....	\$ 40.00 - \$ 120.00 per sq. ft.
Install storm windows .....	\$ 200.00 - \$ 400.00 each
Install masonry fireplace (if flue already roughed in) .....	\$ 3000.00 and up
Install "factory built" fireplace (including chimney, cosmetics extra) .....	\$ 3500.00 and up
Install glass doors on fireplace.....	\$ 300.00 and up
Install skylight .....	\$ 3000.00 and up
Remodel kitchen completely.....	\$ 10,000.00 - \$ 110,000.00
Install gas fireplace (cosmetics extra) .....	\$ 3500.00 and up

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# Canadian Association Of Home & Property Inspectors

## NATIONAL STANDARDS OF PRACTICE

JULY 2011

(VER E JULY 20/11)

The National Standards of Practice are a set of guidelines for home and property inspectors to follow in the performance of their inspections. They are the most widely accepted Canadian home inspection guidelines in use, and address all the home's major systems and components. The National Standards of Practice and Code of Ethics are recognized by many related professionals as the definitive Standards for professional performance in the industry.

These National Standards of Practice are being published to inform the public on the nature and scope of visual building inspections performed by home and property inspectors who are members of the Canadian Association of Home and Property Inspectors (CAHPI).

The purpose of the National Standards of Practice is to provide guidelines for home and property inspectors regarding both the inspection itself and the drafting of the inspection report, and to define certain terms relating to the performance of home inspections to ensure consistent interpretation.

To ensure better public protection, home and property inspectors who are members of CAHPI should strive to meet these Standards and abide by the appropriate provincial/regional CAHPI Code of Ethics.

These Standards take into account that a visual inspection of a building does not constitute an evaluation or a verification of compliance with building codes, Standards or regulations governing the construction industry or the health and safety industry, or Standards and regulations governing insurability.

*Any terms not defined in these Standards shall have the meaning commonly assigned to it by the various trades and professions, according to context.*

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1. Introduction
2. Purpose and Scope
3. General Limitations and Exclusions
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10. Air Conditioning Systems
11. Interior Systems
12. Insulation and Vapour Barriers
13. Mechanical and Natural Ventilation Systems

*Glossary Note: Italicized words are defined in the Glossary.*

## 1. INTRODUCTION

- 1.1** The Canadian Association of Home and Property Inspectors (CAHPI) is a not for profit association whose members include the following seven provincial/regional organizations: CAHPI-B.C., CAHPI-Alberta, CAHPI-Sask., CAHPI-Manitoba, OAHPI (Ontario), AIBQ (Quebec), and CAHPI-Atlantic. CAHPI strives to promote excellence within the profession and continual improvement of inspection services to the public.

## 2. PURPOSE AND SCOPE

- 2.1** The purpose of these National Standards of Practice is to establish professional and uniform Standards for private, fee-paid home inspectors who are members of one of the provincial/regional organizations of CAHPI. Home Inspections performed to these National Standards of Practice are intended to provide information regarding the condition of the systems and components of the building as inspected at the time of the Home Inspection. This does NOT include building code inspections.

These National Standards of Practice enable the building being inspected to be compared with a building that was constructed in accordance with the generally accepted practices at the time of construction, and which has been adequately maintained such that there is no significant loss of *functionality*.

It follows that the building may not be in compliance with current building codes, standards and regulations that are applicable at the time of inspection.

These National Standards of Practice apply to inspections of part or all of a building for the following building types:

- single-family dwelling, detached, semi-detached or row house
- multi unit residential building
- residential building held in divided or undivided co ownership
- residential building occupied in part for a residential occupancy and in part for a commercial occupancy, as long as the latter use does not exceed 40% of the building's total area, excluding the basement.

## 2.2 THE INSPECTOR SHALL:

## A. inspect:

1. *readily accessible, visually observable installed systems, and components* of buildings listed in these National Standards of Practice.
2. *installed systems and components* of buildings listed in these National Standards of Practice.

## B. report:

1. on those *systems and components* installed on the building inspected which, in the professional opinion or judgement of the *inspector*, are *significantly deficient*, unsafe or near the end of their service lives.
2. a reason why, if not self-evident, the *system or component* is *significantly deficient*, unsafe or near the end of its *service life*.
3. the inspector's recommendations to correct or monitor the reported deficiency.
4. on any *systems and components* designated for inspection in these National Standards of Practice which were present at the time of the *Home Inspection* but were not inspected and a reason they were not inspected.

2.3 *These National Standards of Practice are not intended to limit inspectors from*

- A.** including other inspection services in addition to those required by these National Standards of Practice provided the *inspector* is appropriately qualified and willing to do so.
- B.** excluding *systems and components* from the inspection if requested by the client or as dictated by circumstances at the time of the inspection.

## 3. GENERAL LIMITATIONS AND EXCLUSIONS

## 3.1 GENERAL LIMITATIONS:

- A.** Inspections performed in accordance with these National Standards of Practice
1. are not *technically exhaustive*.

2. will not identify concealed conditions or latent defects.

### 3.2 GENERAL EXCLUSIONS:

**A.** The *inspector* is not required to perform any action or make any determination unless specifically stated in these National Standards of Practice, except as may be required by lawful authority.

**B.** *Inspectors* are NOT required to determine:

1. condition of *systems* or *components* which are not *readily accessible*.
2. remaining life of any *system* or *component*.
3. strength, adequacy, effectiveness, or efficiency of any *system* or *component*.
4. causes of any condition or deficiency.
5. methods, materials, or costs of corrections.
6. future conditions including, but not limited to, failure of *systems* and *components*.
7. suitability of the property for any use.
8. compliance with regulatory requirements (codes, regulations, laws, ordinances, etc.).
9. market value of the property or its marketability.
10. advisability of the purchase of the property.
11. presence of potentially hazardous plants or animals including, but not limited to wood destroying organisms or diseases harmful to humans.
12. presence of any environmental hazards including, but not limited to toxins, carcinogens, noise, and contaminants in soil, water, and air.
13. effectiveness of any *system* installed or methods utilized to control or remove suspected hazardous substances.
14. operating costs of *systems* or *components*.
15. acoustical properties of any *system* or *component*
16. design adequacy with regards to location of the home, or the elements to which it is exposed.

**C.** *Inspectors* are NOT required to offer or perform:

1. any act or service contrary to law, statute or regulation.
2. *engineering* services.
3. work in any trade or any professional service other than *home inspection*.
4. warranties or guarantees of any kind.

**D.** *Inspectors* are NOT required to operate:

1. any *system* or *component* which is *shut down* or otherwise inoperable.
2. any *system* or *component* which does not respond to *normal operating controls*.
3. shut-off valves.

**E.** *Inspectors* are NOT required to enter:

1. any area which will, in the opinion of the *inspector*, likely be hazardous to the *inspector* or other persons or damage the property or its *systems* or *components*.
2. *confined spaces*.
3. spaces which are not readily accessible.

**F.** *Inspectors* are NOT required to *inspect*:

1. underground items including, but not limited to storage tanks or other indications of their presence, whether abandoned or active.
2. *systems* or *components* which are not *installed*.
3. *decorative* items.
4. *systems* or *components* located in areas that are not readily accessible in accordance with these National Standards of Practice.
5. detached structures.
6. common elements or common areas in multi-unit housing, such as condominium properties or cooperative housing when inspecting an individual unit(s), including the roof and building envelope.
7. test and/or operate any installed fire alarm system, burglar alarm system, automatic sprinkler system or other fire protection equipment, electronic or automated installations and any lifting equipment, elevator, freight elevator, wheelchair lift, climbing chair, escalator or others;
8. pools, spas and their associated safety devices, including fences.

**G.** *Inspectors* are NOT required to:

1. perform any procedure or operation which will, in the opinion of the *inspector*, likely be hazardous to the *inspector* or other persons or damage the property or its *systems* or *components*.
2. move suspended ceiling tiles, personal property, furniture, equipment, plants, soil, snow, ice, or debris.
3. *dismantle* any *system* or *component*, except as explicitly required by these National Standards of Practice.

**4. STRUCTURAL SYSTEMS****4.1 THE INSPECTOR SHALL:****A. inspect:**

1. *structural components* including visible foundation and framing.
2. by *probing* a sample of structural components where deterioration is suspected or where clear indications of possible deterioration exist. *Probing* is NOT required when *probing* would damage any finished surface or where no deterioration is visible.

**B. describe:**

1. foundation(s).
2. floor structure(s).
3. wall structure(s).
4. ceiling structure(s).
5. roof structure(s).

**C. report:**

1. limitation(s) of structural components not visible or accessible.
2. methods used to *inspect* the *under-floor crawl space*
3. methods used to *inspect* the attic(s).

**4.2 THE INSPECTOR IS NOT REQUIRED TO:**

- A. provide any *engineering service* or *architectural service*.
- B. offer an opinion as to the adequacy of any *structural system* or *component*.

**5. EXTERIOR SYSTEMS****5.1 THE INSPECTOR SHALL:****A. inspect:**

1. exterior wall covering(s), flashing and trim.
2. all exterior doors.
3. attached or *adjacent* decks, balconies, steps, porches, and their associated railings.
4. eaves, soffits, and fascias where accessible from the ground level.
5. vegetation, grading, and surface drainage on the property when any of these are likely to adversely affect the building.
6. walkways, patios, and driveways leading to dwelling entrances.
7. landscaping structure attached or adjacent to the building when likely to adversely affect the building.
8. attached garage or carport.
9. garage doors and garage door operators for attached garages.

**B. describe**

1. exterior wall covering(s).

**C. report:**

1. the method(s) used to inspect the exterior wall elevations.

**5.2 THE INSPECTOR IS NOT REQUIRED TO:****A. inspect:**

1. screening, shutters, awnings, and similar seasonal accessories.
2. fences.
3. geological, geotechnical or hydrological conditions.
4. *recreational facilities*.
5. detached garages and outbuildings.
6. seawalls, break-walls, dykes and docks.
7. erosion control and earth stabilization measures.

**6. ROOF SYSTEMS****6.1 THE INSPECTOR SHALL:****A. inspect:**

1. accessible roof coverings.
2. accessible *roof drainage systems*.
3. accessible flashings.
4. accessible skylights, chimneys, and roof penetrations.

**B. describe**

1. roof coverings.

**C. report:**

1. method(s) used to inspect the roof(s).

**6.2 THE INSPECTOR IS NOT REQUIRED TO:****A. inspect:**

1. antennae and satellite dishes.
2. interiors of flues or chimneys.
3. other *installed* items attached to but not related to the roof system(s).

**7. PLUMBING SYSTEMS****7.1 THE INSPECTOR SHALL:****A. inspect:**

1. interior water supply and distribution *systems* including all fixtures and faucets.
2. drain, waste and vent *systems* including all fixtures.
3. water heating equipment and associated venting systems.
4. water heating equipment fuel storage and fuel distribution systems.
5. fuel storage and fuel distribution *systems*.
6. drainage sumps, sump pumps, and related piping.

**B. describe:**

1. water supply, distribution, drain, waste, and vent piping materials.
2. water heating equipment including the energy source.
3. location of main water and main fuel shut-off valves.

**C. report:**

1. presence of galvanized distribution plumbing.



**7.2 THE INSPECTOR IS NOT REQUIRED TO:****A. inspect:**

1. clothes washing machine connections.
2. wells, well pumps, or water storage related equipment.
3. water conditioning *systems*.
4. solar water heating *systems*.
5. fire and lawn sprinkler *systems*.
6. private waste disposal *systems*.

**B. determine:**

1. whether water supply and waste disposal *systems* are public or private.
2. the quantity or quality of the water supply.

**C. operate:**

1. safety valves or shut-off valves.

**8. ELECTRICAL SYSTEMS****8.1 THE INSPECTOR SHALL:****A. inspect:**

1. service drop.
2. service entrance conductors, cables, and raceways.
3. service equipment and main disconnects.
4. service grounding.
5. interior components of service panels and sub panels.
6. distribution conductors.
7. overcurrent protection devices.
8. a *representative number* of *installed* lighting fixtures, switches, and receptacles.
9. ground fault circuit interrupters (GFCI) (if appropriate).
10. arc fault circuit interrupters (AFCI) (if appropriate).

**B. describe:**

1. amperage and voltage rating of the service.
2. location of main disconnect(s) and subpanel(s).
3. *wiring methods*.

**C. report:**

1. presence of solid conductor aluminum branch circuit wiring.
2. presence of knob and tube wiring.
3. absence of carbon monoxide detectors (if applicable).
4. absence of smoke detectors.
5. presence of ground fault circuit interrupters (GFCI).
6. presence of arc fault circuit interrupters (AFCI).

**8.2 THE INSPECTOR IS NOT REQUIRED TO:****A. inspect:**

1. remote control devices unless the device is the only control device.
2. alarm *systems* and *components*.
3. low voltage wiring, *systems* and *components*.

4. ancillary wiring, *systems* and *components* not a part of the primary electrical power distribution *system*.
5. telecommunication equipment.

**B. measure:**

1. amperage, voltage, or impedance.

**9. HEATING SYSTEMS****9.1 THE INSPECTOR SHALL:****A. inspect:**

1. *readily accessible* components of *installed* heating equipment.
2. vent systems, flues, and chimneys.
3. fuel storage and fuel distribution *systems*.

**B. describe:**

1. energy source(s).
2. heating method(s) by distinguishing characteristics.
3. chimney(s) and/or venting material(s).
4. combustion air sources.
5. exhaust venting methods (naturally aspirating, induced draft, direct vent, direct vent sealed combustion).

**C. report**

1. presence or absence of combustion make up air for naturally aspirating appliances.

**9.2 THE INSPECTOR IS NOT REQUIRED TO:****A. inspect:**

1. interiors of flues or chimneys.
2. heat exchangers.
3. auxiliary equipment.
4. solar heating *systems*.
5. fireplaces and solid fuel burning appliances.
6. electronic air filters.

**B. determine:**

1. system adequacy or distribution balance.

**10. AIR CONDITIONING SYSTEMS****10.1 THE INSPECTOR SHALL:****A. inspect**

1. the permanently *installed* central air conditioning equipment.

**B. describe:**

1. the energy source.
2. the cooling method by its distinguishing characteristics.

**10.2 THE INSPECTOR IS NOT REQUIRED TO:****A. inspect**

1. electronic air filters.
2. portable air conditioner(s).

**B. determine:**

1. system adequacy or distribution balance.

**11. INTERIOR SYSTEMS****11.1 THE INSPECTOR SHALL:****A. inspect:**

1. walls, ceilings, and floors.
2. steps, stairways, and railings.
3. countertops and *installed* cabinets.
4. a *representative number* of doors and windows.
5. walls, doors and ceilings separating the habitable spaces and the garage.

**B. describe:**

1. materials used for walls, ceilings and floors.
2. doors.
3. windows.

**C. report**

1. absence or ineffectiveness of guards and handrails or other potential physical injury hazards.

**11.2 THE INSPECTOR IS NOT REQUIRED TO:****A. inspect:**

1. *decorative* finishes.
2. window treatments.
3. central vacuum *systems*.
4. *household appliances*.
5. *recreational facilities*.

**12. INSULATION AND VAPOUR BARRIERS****12.1 THE INSPECTOR SHALL:****A. inspect:**

1. insulation and *vapour barriers* in unfinished spaces.

**B. describe:**

1. type of insulation material(s) and *vapour barriers* in unfinished spaces.

**C. report**

1. absence of insulation in unfinished spaces within the building envelope.
2. presence of vermiculite insulation

**12.2 THE INSPECTOR IS NOT REQUIRED TO:****A. disturb**

1. insulation.
2. *vapour barriers*.

**B. obtain sample(s) for analysis**

1. insulation material(s).

**13. MECHANICAL AND NATURAL VENTILATION SYSTEMS****13.1 THE INSPECTOR SHALL:****A. inspect:**

1. ventilation of attics and foundation areas.
2. mechanical ventilation *systems*.
3. ventilation systems in rooms where moisture is generated such as kitchen, bathrooms, laundry rooms.

**B. describe:**

1. ventilation of attics and foundation areas.
2. mechanical ventilation *systems*.
3. ventilation systems in rooms where moisture is generated such as: kitchens, bathrooms and laundry rooms.

**13.2 THE INSPECTOR IS NOT REQUIRED TO:**

1. determine indoor air quality.
2. determine system adequacy or distribution balance.

## GLOSSARY

### Adjacent

Nearest in space or position; immediately adjoining without intervening space.

### Alarm Systems

Warning devices, installed or free-standing, including but not limited to; carbon monoxide detectors, flue gas and other spillage detectors, security equipment, ejector pumps and smoke alarms.

### Architectural Service

Any practice involving the art and science of building design for construction of any structure or grouping of structures and the use of space within and surrounding the structures or the design for construction, including but not specifically limited to, schematic design, design development, preparation of construction contract documents, and administration of the construction contract, adequacy of design for the location and exposure to the elements.

### Automatic Safety Controls

Devices designed and installed to protect *systems* and *components* from unsafe conditions.

### Component

A part of a *system*.

### Confined Spaces

An enclosed or partially enclosed area that:

1. Is occupied by people only for the purpose of completing work.
2. Has restricted entry/exit points.
3. Could be hazardous to people entering due to:
  - a. its design, construction, location or atmosphere.
  - b. the materials or substances in it, or
  - c. any other conditions.

### Decorative

Ornamental; not required for the operation of the essential *systems* and *components* of a building.

### Determine

To find out, or come to a conclusion by investigation.

### Describe

To *report* a *system* or *component* by its type or other observed, significant characteristics to distinguish it from other *systems* or *components*.

### Dismantle

To take apart or remove any component, device, or piece of equipment that would not be taken apart or removed by a homeowner in the course of normal and routine home owner maintenance.

### Engineering Service

Any professional service or creative work requiring engineering education, training, and experience and the application of special knowledge of the mathematical, physical and engineering sciences to such professional service or creative work as consultation, investigation, evaluation, planning, design and supervision of construction for the purpose of assuring compliance with the specifications and design, in conjunction with structures, buildings, machines, equipment, works or processes.

### Functionality

The purpose that something is designed or expected to fulfill.

### Further Evaluation

Examination and analysis by a qualified professional, tradesman or service technician beyond that provided by the *home inspection*.

### Home Inspection

The process by which an *inspector* visually examines the *readily accessible systems* and *components* of a building and which *describes* those *systems* and *components* in accordance with these National Standards of Practice.

### Household Appliances

Kitchen, laundry, and similar appliances, whether *installed* or freestanding.

### Inspect

To examine *readily accessible systems* and *components* of a building in accordance with these National Standards of Practice, *where applicable* using *normal operating controls* and opening *readily openable access panels*.

### Inspector

A person hired to examine any *system* or *component* of a building in accordance with these National Standards of Practice.

### Installed

Set up or fixed in position for current use or service.

### Normal Operating Controls

Devices such as thermostats, switches or valves intended to be operated by the homeowner.

### Operate

To cause to function, turn on, to control the function of a machine, process, or system.

### Probing

Examine by touch.

**Readily Accessible**

Available for visual inspection without requiring moving of personal property, *dismantling*, destructive measures, or any action which will likely involve risk to persons or property.

**Readily Openable Access Panel**

A panel provided for homeowner inspection and maintenance that is within normal reach, can be removed by one person, and is not sealed in place.

**Recreational Facilities**

Spas, saunas, steam baths, swimming pools, exercise, entertainment, athletic, playground or other similar equipment and associated accessories.

**Report**

To communicate in writing.

**Representative Number**

One *component* per room for multiple similar interior *components* such as windows and electric outlets; one *component* on each side of the building for multiple similar exterior *components*.

**Roof Drainage Systems**

Components used to carry water off a roof and away from a building.

**Sample**

A representative portion selected for inspection.

**Service Life**

The period during which something continues to function fully as intended.

**Significantly Deficient**

Sufficiently lacking a specified quality to be worthy of attention by the inspector and/or the client.

**Shut Down**

A state in which a *system* or *component* cannot be operated by *normal operating controls*.

**Solid Fuel Burning Appliances**

A hearth and fire chamber or similar prepared place in which a fire may be built and which is built in conjunction with a chimney; or a listed assembly of a fire chamber, its chimney and related factory-made parts designed for unit assembly without requiring field construction.

**Structural Component**

A component that supports non-variable forces or weights (dead loads) and variable forces or weights (live loads).

**System**

A combination of interacting or interdependent components, assembled to carry out one or more functions.

**Technically Exhaustive**

An inspection is technically exhaustive when it is done by a specialist who may make extensive use of measurements, instruments, testing, calculations, and other means to develop scientific or engineering findings, conclusions, and recommendations.

**Under-floor Crawl Space**

The area within the confines of the foundation and between the ground and the underside of the floor.

**Unsafe**

A condition in a *readily accessible, installed system* or *component* which is judged to be a significant risk of personal injury during normal, day-to-day use. The risk may be due to damage, deterioration, missing or improper installation or a change in accepted residential construction Standards.

**Vapour Barrier**

Vapour barrier (also known as vapour retarder) is a membrane on the warm side of the wall (usually the interior) that retards the passage of water vapour from the warm inside air into the cooler wall, where it could condense.

**Visually Accessible**

Able to be viewed by reaching or entering.

**Wiring Methods**

Identification of electrical conductors or wires by their general type, such as "non-metallic sheathed cable" ("Romex"), "armored cable" ("bx") or "knob and tube", etc.

*Note - In these National Standards of Practice, redundancy in the description of the requirements, limitations and exclusions regarding the scope of the Home Inspection is provided for clarity not emphasis.*

# ABOUT YOUR HOUSE

CE 8

## Fighting Mold—The Homeowners' Guide

### UNDERSTANDING MOLD

- Mold can be harmful or helpful—depending on where it grows
- Mold needs moisture to grow
- Mold does not grow on dry materials
- Mold growing inside a home can affect the occupants
- Occupants can learn to recognize mold

Molds are microscopic fungi, a group of organisms which also includes mushrooms and yeasts. Fungi are highly adapted to grow and reproduce rapidly, producing spores and mycelia in the process.

You encounter mold every day. Foods spoil because of mold. Leaves decay and pieces of wood lying on the ground rot due to mold. That fuzzy black growth on wet window sills is mold. Paper or fabrics stored in a damp place get a musty smell that is due to the action of molds.

Molds can be useful to people. The drug Penicillin is obtained from a specific type of mold. Some foods and beverages are made by the actions of molds. The good kinds of molds are selected and grown in a controlled fashion.

Molds are undesirable when they grow where we don't want them, such as in homes. Over 270 species of mold have been identified in Canadian homes. Molds that grow inside may be different from the ones found outdoors.

### What makes molds grow?

Molds will grow if we provide them with moisture and nutrients. If we keep things dry, molds do not grow.

High moisture levels can be the result of water coming in from the outside, through the floor, walls or roof; or from plumbing leaks; or moisture produced by the people living in the home, through daily activities like bathing, washing clothes or cooking. Water enters the building when there is a weakness or failure in the structure. Moisture accumulates within the home when there is not enough ventilation to expel that moisture.

Different kinds of molds grow on different materials. Certain kinds of molds like an extremely wet environment. Other kinds of molds may be growing even if no water can be seen. Dampness inside the material can be enough to allow them to grow.

### Why are molds a concern?

Damage to materials is one concern. Materials get stained or discoloured, and over time they are ruined. Moldy paper and cardboard disintegrate over time. Fabrics are damaged. Continued mold growth can be indicative of moisture conditions favourable for growth of fungi that cause wood rot and structural damage.

When molds are growing inside the home, there may be health concerns. Molds release chemicals and spores.

Health experts indicate that, depending on the type of mold present in a home, the amount and degree of exposure, and the health condition of the occupant, the health effects of mold can range from being insignificant to causing allergic reactions and illness.



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Pregnant women, infants, the elderly and those with health problems, such as respiratory disease or a weakened immune system, are more at risk when exposed to mold. Consult your family physician if you believe there is someone who may be at risk.

**Is there a mold problem?**

Molds are always found in the air outside and in all buildings. They come into the home in many ways—through open windows or doors, on clothing, pets, food or furniture. The problem starts when mold grows inside the home.

Some mold growing, for example on the window sill but not elsewhere, is not a cause of concern. You can clean the mold yourself. The presence of mold is a sign that there is too much moisture in your home—a situation which must be corrected.

Inspect your home to find the extent of the mold.

**How can you tell if it is mold?****Discoloration**

Discoloration is a sign of mold. However, all discoloration is not due to mold. Carpeting near baseboards, for example, can be stained by outdoor pollution entering the home. Stains or soot may also be caused by the smoke from burning candles or cigarettes.

Mold may be any colour: black, white, red, orange, yellow, blue or violet. Dab a drop of household bleach onto a suspected spot. If the stain loses its colour or disappears, it may be mold. If there is no change, it probably isn't mold.

**Smell/Odour**

Sometimes molds are hidden and cannot be seen. A musty or earthy smell often indicates the presence of molds. But a smell may not be present for all molds. Even when you don't notice a smell, wet spots, dampness or evidence of a water leak are indications of moisture problems and mold may follow.

**How much mold is growing?**

One way to know is to estimate the area of the mold.

Mold is considered to cover a “**small area**” if the patch is no larger than a square meter. There should be no more than three patches, each patch smaller than a square meter. Clean up small areas yourself using a detergent solution, household rubber gloves and a dust mask for protection. Refer to page 3 for the procedure.

Small moldy areas in homes may become larger over time if ignored, so it's important to clean up and remove even small patches of mold.

The mold area is considered “**moderate**” if there are more than three patches, each patch smaller than a square meter, or there is one or more isolated patches larger than a square meter but smaller than 3 square metres (size of a 4 x 8 foot sheet of plywood). Assessment by a professional is recommended. You can clean up moderate amounts of mold but you must follow the proper procedures and use the proper protective equipment (see page 3).

A mold area is considered “**extensive**” if a single patch of mold is larger in area than a sheet of plywood. Being exposed to this much mold is not a good idea. Do not attempt to clean up large areas of mold yourself. You need professional help to determine why the mold is there in the first place and how to clean it up.

**When should you seek professional help?**

You may need professional help when:

- There is a lot of mold
- The home is very damp and moist
- Mold comes back after repeated cleaning
- A family member suffers from asthma or respiratory problems or other health problems that appear to be aggravated inside the home

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**How do you get professional help?**

Contact your local CMHC office for a list of individuals who have completed the CMHC Residential Indoor Air Quality Investigator program. A trained IAQ investigator, who operates a private business and sells his/her services, examines the indoor air quality of your home and documents your concerns. He/she identifies the problems, finds their sources and suggests solutions in a written report. Recommendations are provided to you in an action plan that consists of various options to improve the indoor air quality in your home.

**HOW TO CLEAN UP MOLD PROBLEMS**

- “Small areas” of mold can be cleaned with a detergent solution
- Wear a mask, safety goggles and rubber gloves
- Seek professional help if there is a lot of mold or if mold comes back after cleaning

**Bleach is not recommended**

The presence of organic (humic) materials, the pH (acidity/alkalinity) of the water, the surface material and contact time affect the effectiveness of bleach for disinfection. Since these factors are not generally controlled, bleach cannot be relied upon for disinfection. The most compelling reason for advising against bleach is that fumes are harmful but in addition, overuse of bleach will result in increased releases of chlorinated effluents which can be harmful to the environment.

**“Small area” clean-up**

You can clean up “small areas” of mold (fewer than three patches, each smaller than a square meter) yourself. There’s the minimum protective wear needed:

- safety glasses or goggles;
- a disposable dust mask (3M 8210 or equivalent); and
- household rubber gloves.

Infants and other family members with asthma, allergies or other health problems should not be in the work area or adjacent room during the cleaning.

**Washable surfaces**

Scrub with an unscented detergent solution; then sponge with a clean, wet rag and dry quickly.

Using an unscented detergent will make it easier for you to detect residual moldy odours.

**Moldy drywall**

Clean the surface with a damp rag using baking soda or a bit of detergent. Do not allow the drywall to get too wet.

Mold that comes back after cleaning is usually an indication that a source of moisture has not been removed. Seek professional help from a trained IAQ investigator.

**“Moderate area” clean-up**

- Clean “moderate areas” of mold, but wear proper protective equipment and follow precautions
- Seek professional help if there is a lot of mold or if mold comes back after cleaning

If you follow the proper procedures and use the proper protective equipment, you can clean up “moderate areas” of mold. “Moderate” means more than 3 patches of mold, each smaller than one square meter, or one or more isolated patches larger than one square meter but smaller than 3 square meters (size of a 4 x 8 ft. sheet of plywood).

**Safety precautions**

- Wear a disposable dust mask (for example, 3M 8210 or equivalent), glasses or safety goggles and household rubber gloves.
- Isolate the area to be cleaned with plastic sheeting, taped to walls and ceiling.
- Infants and other family members suffering from asthma, allergies or other health problems should not be in the work area or adjacent room during the cleaning.

A small clean up should take minutes (not hours) to finish. When the clean up takes hours to a day to finish, it is suggested that you upgrade to a better filter, such as a half-face respirator with charcoal cartridges. An exhaust fan installed in a window in the room being cleaned would prevent contamination of other areas of the house as well as provide ventilation.

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**General cleaning**

Vacuum surfaces with a vacuum cleaner which has a High Efficiency Particulate Air (HEPA) filter or is externally exhausted. Scrub or brush the moldy area with a mild unscented detergent solution. Rinse by sponging with a clean, wet rag. Repeat. Dry quickly. HEPA vacuum the surfaces that were cleaned as well as surrounding areas.

**Cleaning wood surfaces**

Vacuum loose mold from wood surfaces using a HEPA or externally exhausted vacuum. Try cleaning the surface of the wood with detergent and water. Rinse with a clean, damp rag and dry quickly. If the staining does not come off, sand and vacuum the surface of the wood with a vacuum/sander combination. It is important to vacuum at the same time to prevent mold spores from being dispersed into the air. Note that wood affected by rot may need to be replaced.

**Cleaning concrete surfaces**

Vacuum the concrete surfaces to be cleaned with a HEPA or externally exhausted vacuum cleaner. Clean up surfaces with detergent and water. If the surfaces are still visibly moldy, use TSP (trisodium phosphate). Dissolve one cup of TSP in two gallons of warm water. Stir for two minutes. Note: TSP must not be allowed to come in contact with skin or eyes. Saturate the moldy concrete surface with the TSP solution using a sponge or rag. Keep the surface wetted for at least 15

minutes. Rinse the concrete surface twice with clean water. Dry thoroughly, as quickly as possible.

**Moldy drywall**

The paper facings of gypsum wallboard (drywall) grow mold when they get wet or repeatedly wet and don't dry quickly. Cleaning with water containing detergent not only add moisture to the paper but also can eventually damage the facing. If the mold is located only on top of the painted surface, remove it by general cleaning (above). If the mold is underneath the paint, the moldy patch and other moldy material behind it are best cut out and the surrounding areas also cleaned. This should be done by a mold clean-up contractor. New materials may become moldy if the moisture entry has not been stopped. If this is the case, replacement of the materials should be deferred until the source of the moisture is corrected. The affected areas should be temporarily covered with plastic sheeting and sealed at the edges.

Any areas that show new patches of mold should be cleaned promptly.

**DEALING WITH AN ONGOING PROBLEM**

Repair to the building envelope is required if moisture is entering the home from the outside. At the same time, steps should be taken inside the home to reduce the occupants' exposure to mold.

**Step 1—Discard moldy or damaged materials**

Wear a dust mask and gloves.

Furnishings, such as mattresses, carpets, or sofas that got wet or have been stored in damp conditions should be discarded. Discard items that are no longer needed. Use this opportunity to reduce the amount of furnishings—this means fewer materials to absorb moisture and grow mold. Clothes and other items that have been cleaned should be stored in sealed plastic bags to prevent re-contamination.

**Step 2—Vacuum**

Proper vacuuming reduces the amount of mold spores. All surfaces in the home (floors, walls, ceilings, shelves) and non-washable furnishings (such as sofas, chairs, etc.) must be vacuumed thoroughly.

**Step 3—Prevent**

Keep moisture generated within the home to a minimum by conscientiously following the prevention steps presented in the next section.

**Step 4—Clear wet areas**

Pull carpets and furnishings away from walls that get wet. Carpets and underpads that are moldy should be cut out and discarded.

**Step 5—Dry**

Take steps to dry up areas that get wet. Monitor the relative humidity of the air. Use a portable dehumidifier, if necessary. Ensure that the condensate drain pan of the dehumidifier is emptied regularly.

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**Step 6—Isolate**

If the mold is limited to one area, isolate the area if possible. Cover the affected surfaces with plastic sheeting secured at the edges with duct tape. Note that this is only a temporary measure to minimize your exposure.

**Step 7—Clean**

Healthy individuals can regularly clean “small” and “moderate” areas of mold, thus preventing these from getting out of hand. Make sure you follow the safety precautions and cleaning guidelines.

**Step 8—Seek professional help**

Consider seeking professional help from trained IAQ investigators to identify appropriate remediation steps inside the home. Removing large amounts of mold will require the services of mold clean-up contractors.

**PREVENTING MOLD**

- Keep your home dry
- Find and fix water leaks
- Discard clutter and excess stored materials
- Clean and maintain your home regularly
- Encourage lifestyle practices that reduce moisture

**Basic steps to prevent and reduce mold growth**

Mold needs moisture to grow. Controlling the moisture and keeping your home dry prevents the growth of mold.



**Figure 1** Discard clutter as it can absorb moisture, grow mold and reduce air circulation

- Check your home for signs of moisture and molds.
- Find out if water is coming in from the outside and if substantial moisture is produced inside the home.
- Fix any water leaks promptly.
- Think of the different ways moisture is produced inside your home (for example, cooking, bathing, plant jungle). Remove the moisture as it is produced by using exhaust fans. In the absence of fans, open windows for a short time, but note that the wind can push the moisture to other parts of the home.
- Measure how much moisture is in the air. To find the relative humidity in your home, you'll need a hygrometer. You can buy one at a hardware store or electronics store. A hygrometer costs from \$10 to \$60. Relative

humidity in the home should be under 45 per cent in the winter (or lower to avoid condensation on windows). If necessary, use a dehumidifier to lower the relative humidity.

- Reduce the amount of stored materials, especially items that are no longer used. Molds grow on fabrics, paper, wood and practically anything that collects dust and holds moisture.

**Mold-proofing your home, room by room****Basement or crawl space**

- Reduce the amount of clothes, paper and furnishings stored in the basement. Discard badly damaged materials. Eliminate clutter to improve air circulation. Only washable items should be stored.
- Dehumidify the basement during the warm months.

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- Avoid carpets on slab-on-grade or below grade floors.
- Periodically clean the drain in your basement floor. Use half a cup of bleach, let it stand for a few minutes, then flush with plenty of water. Keep the drain trap filled with water.
- Avoid standing water. Keep sump pits covered (you can use plywood wrapped with plastic).
- Regularly clean and replace furnace filters. Use a pleated one-inch filter, not a coarse filter.
- If you have a heat recovery ventilator (HRV), clean the filter inside the HRV often.
- If you notice molds or signs of dampness, such as water on your windows or wet spots elsewhere, do not humidify. Disconnect furnace humidifiers that are no longer used.
- If you have electric baseboards, vacuum the units, or have a professional clean them for you.

**Laundry areas**

- Check that your clothes dryer exhausts to the outside.
- Remove lint every time you use the dryer.
- Don't hang-dry laundry indoors.
- Dry your laundry tub and washing machine after you use them.

**Bathrooms**

- Check the bathroom fan to make sure it exhausts to the outside.
- Turn the bathroom fan on when you shower. Keep it running for a few minutes after you finish your shower.
- Take short showers.
- Keep surfaces that get wet, such as the walls around the bathtub and shower, clean and dry.
- If there is a carpet in your bathroom, remove it.
- Check for water leaks.
- Keep drains in good shape by removing debris from them.

*To clean a drain:*

- Pour a handful of baking soda into it.
- Add a cup of vinegar.
- Put the plug in the drain.
- Let the vinegar and baking soda work for about 20 minutes.
- Run fresh water into the drain.

If the drain is still clogged, use a small plumbing snake.

**Kitchen**

- If the fan over your stove exhausts outside, use it when you cook.
- Minimize open boiling.
- Keep your drains in good shape. Follow the steps in the *Bathrooms* section, above.

- There's a drip pan at the back of the refrigerator. Pull the refrigerator out to clean the drip pan. At the same time, vacuum dust from the coils at the back of the refrigerator.
- Check under the kitchen sink to make sure there are no leaks.
- Take out the garbage daily to prevent odours and spoiling.

**Closets and bedrooms**

- Get rid of clothes and other stored items that you don't use. Keeping your closets and bedrooms tidy makes it easier for air to circulate—and harder for mold to grow.

**Other parts of the home**

- A dehumidifier helps to reduce moisture in the home during the warmer months. Close the windows when the dehumidifier is running.
- When family and friends come into the home, have them take off their shoes.
- Vacuum often. If you are buying a vacuum cleaner, try to get one with a HEPA filter (see next page).
- Clean hard floors with a damp mop.
- Do not bring into your home furniture, clothing, books etc. that have been stored in a moldy place.
- Cut down the number of potted plants in the house—soil is a good place for mold.



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**Exterior**

- Regularly check the condition of the roof and exterior finish for any places where water might enter.
- Make sure that eavestroughs and downspouts are connected and working properly and that they are free of debris.
- Install downspout extensions to lead water away from the building.
- Deal promptly with any problems that you find.

## FREQUENTLY ASKED QUESTIONS ABOUT MOLD

**Should I have my house air tested for mold?**

This is the question most frequently asked by homeowners who think their home may have a mold problem. Testing is generally not recommended to homeowners. Testing of moldy materials or an air sample identifies the types of molds that may be present but does not identify the cause/source of moisture. The type of mold does not change the procedures for cleaning up areas of mold less than 3 square meters. You have to clean up the mold and correct the problem irrespective of the type of mold. The cost of testing may be better spent hiring a professional investigator or fixing the problem.

Testing of a moldy material involves sending a swab, an imprint on a Scotch tape or a piece of the material to a competent laboratory. Air sampling requires specialized equipment. An air sample typically captures mold spores in a period of minutes. Since replicate samples must be taken due to variations in the airborne molds over time (even hours) and compared with outdoor samples, air testing is both expensive and time-consuming. Interpretation of test results may not be very useful, since there are no advocated "safe levels" of indoor molds and the results will not tell the health risks from the molds.

**The air feels dry—can I humidify?**

Before you add moisture to the air, measure the relative humidity. Air that feels dry may not be really dry. It may be moldy. High relative humidity (over 45 per cent) promotes the growth of molds and dust mites. The moisture in the air may condense on colder exterior walls where molds start to grow.

If your physician has advised you to use a humidifier in your child's bedroom at night, monitor the relative humidity. Turn the humidifier on and off as necessary. In the morning, take steps to make sure the room gets dry. Empty and clean the humidifier after each use.

**What advantages do HEPA vacuums provide?**

Ordinary vacuums capture large particles only, small mold spores pass through the vacuum into the air. HEPA vacuums have special filters that capture small particles. A central vacuum cleaner which is exhausted to the outside also removes mold spores. A regular portable vacuum is useful only if its exhaust goes outside the home. Vacuuming removes settled dust that contains an accumulation of mold spores over time. Reducing the settled dust reduces molds.

Vacuuming with any vacuum cleaner (ordinary, central or HEPA) stirs dust and mold during the process. Wear a dust mask so you will not be breathing more mold.

**Is vacuuming with a HEPA or externally exhausted vacuum cleaner recommended for serious mold problems only?**

Vacuum regularly with a HEPA or externally exhausted vacuum cleaner to prevent the ongoing accumulation of dust and molds. The need for HEPA or external exhaust vacuuming increases with the severity of the mold problem.

If a furnishing has been wet at some time in the past or has been exposed to dampness over a prolonged period of time, vacuuming with HEPA or externally exhausted vacuum is unlikely to remove the mold growing beneath the surface. It is better to discard the item.

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**Where do you find a HEPA vacuum cleaner?**

Vacuum cleaner dealers carry HEPA vacuums. Consider purchasing one as an upgrade to what you may be using. A HEPA vacuum is a good investment in the long term whether you have mold or not. A generic canister HEPA vacuum cleaner costs approximately \$300. Brand name products of the same type may cost more. You may inquire if the dealer has a HEPA vacuum cleaner to rent. Contractors who clean up or renovate houses for mold should also have this equipment.

**Does painting over a moldy surface take care of the mold?**

Painting over mold only masks the problem. Paint does not kill the mold nor stop it from growing. Surfaces that are washable should be cleaned with a detergent solution, following the procedure suggested on page 3, then allowed to dry. If you are going to paint, remove mold first.

**Does cleaning stop the mold growth?**

Mold will reappear until its source of moisture is removed. High moisture levels that are not corrected can make the molds grow back quickly. Cleaning is only a temporary but essential measure.

You can help by making a conscious effort to keep the home dry. Obviously, water must be prevented from entering the home. But you can help by controlling moisture that you produce.

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**How does one clean clothes that are moldy?**

Non-washable clothing can be dry cleaned.

Wash clothes with a detergent solution to which a cup of bleach is added. Make sure the detergent you use does not contain ammonia. Repeat as necessary until the moldy odour is gone.

Clothes and other items that have been cleaned should be stored in sealed plastic bags to prevent recontamination.

**FOR MORE INFORMATION****Websites**

**CMHC** (April 2008)

<http://www.cmhc-schl.gc.ca/en/co/>

Enter “mold” in the search box.

**Health Canada** (April 2008)

[http://www.hc-sc.gc.ca/index\\_e.html](http://www.hc-sc.gc.ca/index_e.html)

Enter “mold” or “mould” in the search box.

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To find more About Your House fact sheets plus a wide variety of information products, visit our website at [www.cmhc.ca](http://www.cmhc.ca). You can also reach us by telephone at 1-800-668-2642 or by fax at 1-800-245-9274.

Priced Publications

Clean-up Procedures for Mold in Houses	Order No. 61091
Cleaning Up Your House After a Flood	Order No. 61094
A Guide to Fixing Your Damp Basement	Order No. 65886

Free Publications

Moisture and Air: Householder's Guide—Problems and Remedies	Order No. 61033
<b>About Your House</b> fact sheets	
Measuring Humidity in Your Home	Order No. 62027
Should You Test the Air in Your Home for Mold	Order No. 63911
Water Damage, Mold and House Insurance	Order No. 63322
Choosing a Dehumidifier	Order No. 62045
After the Flood—A Homeowner's Checklist	Order No. 60515
Before You Start Renovating Your Basement—Moisture Problems	Order No. 62250
The Importance of Kitchen and Bathroom Fans	Order No. 62037
The Condominium Owner's Guide to Mold	Order No. 62341

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Pregnant women, infants, the elderly and those with health problems, such as respiratory disease or a weakened immune system, are more at risk when exposed to mold. Consult your family physician if you believe there is someone who may be at risk.

**Is there a mold problem?**

Molds are always found in the air outside and in all buildings. They come into the home in many ways—through open windows or doors, on clothing, pets, food or furniture. The problem starts when mold grows inside the home.

Some mold growing, for example on the window sill but not elsewhere, is not a cause of concern. You can clean the mold yourself. The presence of mold is a sign that there is too much moisture in your home—a situation which must be corrected.

Inspect your home to find the extent of the mold.

**How can you tell if it is mold?****Discoloration**

Discoloration is a sign of mold. However, all discoloration is not due to mold. Carpeting near baseboards, for example, can be stained by outdoor pollution entering the home. Stains or soot may also be caused by the smoke from burning candles or cigarettes.

Mold may be any colour: black, white, red, orange, yellow, blue or violet. Dab a drop of household bleach onto a suspected spot. If the stain loses its colour or disappears, it may be mold. If there is no change, it probably isn't mold.

**Smell/Odour**

Sometimes molds are hidden and cannot be seen. A musty or earthy smell often indicates the presence of molds. But a smell may not be present for all molds. Even when you don't notice a smell, wet spots, dampness or evidence of a water leak are indications of moisture problems and mold may follow.

**How much mold is growing?**

One way to know is to estimate the area of the mold.

Mold is considered to cover a “**small area**” if the patch is no larger than a square meter. There should be no more than three patches, each patch smaller than a square meter. Clean up small areas yourself using a detergent solution, household rubber gloves and a dust mask for protection. Refer to page 3 for the procedure.

Small moldy areas in homes may become larger over time if ignored, so it's important to clean up and remove even small patches of mold.

The mold area is considered “**moderate**” if there are more than three patches, each patch smaller than a square meter, or there is one or more isolated patches larger than a square meter but smaller than 3 square metres (size of a 4 x 8 foot sheet of plywood). Assessment by a professional is recommended. You can clean up moderate amounts of mold but you must follow the proper procedures and use the proper protective equipment (see page 3).

A mold area is considered “**extensive**” if a single patch of mold is larger in area than a sheet of plywood. Being exposed to this much mold is not a good idea. Do not attempt to clean up large areas of mold yourself. You need professional help to determine why the mold is there in the first place and how to clean it up.

**When should you seek professional help?**

You may need professional help when:

- There is a lot of mold
- The home is very damp and moist
- Mold comes back after repeated cleaning
- A family member suffers from asthma or respiratory problems or other health problems that appear to be aggravated inside the home

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**How do you get professional help?**

Contact your local CMHC office for a list of individuals who have completed the CMHC Residential Indoor Air Quality Investigator program. A trained IAQ investigator, who operates a private business and sells his/her services, examines the indoor air quality of your home and documents your concerns. He/she identifies the problems, finds their sources and suggests solutions in a written report. Recommendations are provided to you in an action plan that consists of various options to improve the indoor air quality in your home.

**HOW TO CLEAN UP MOLD PROBLEMS**

- “Small areas” of mold can be cleaned with a detergent solution
- Wear a mask, safety goggles and rubber gloves
- Seek professional help if there is a lot of mold or if mold comes back after cleaning

**Bleach is not recommended**

The presence of organic (humic) materials, the pH (acidity/alkalinity) of the water, the surface material and contact time affect the effectiveness of bleach for disinfection. Since these factors are not generally controlled, bleach cannot be relied upon for disinfection. The most compelling reason for advising against bleach is that fumes are harmful but in addition, overuse of bleach will result in increased releases of chlorinated effluents which can be harmful to the environment.

**“Small area” clean-up**

You can clean up “small areas” of mold (fewer than three patches, each smaller than a square meter) yourself. There’s the minimum protective wear needed:

- safety glasses or goggles;
- a disposable dust mask (3M 8210 or equivalent); and
- household rubber gloves.

Infants and other family members with asthma, allergies or other health problems should not be in the work area or adjacent room during the cleaning.

**Washable surfaces**

Scrub with an unscented detergent solution; then sponge with a clean, wet rag and dry quickly.

Using an unscented detergent will make it easier for you to detect residual moldy odours.

**Moldy drywall**

Clean the surface with a damp rag using baking soda or a bit of detergent. Do not allow the drywall to get too wet.

Mold that comes back after cleaning is usually an indication that a source of moisture has not been removed. Seek professional help from a trained IAQ investigator.

**“Moderate area” clean-up**

- Clean “moderate areas” of mold, but wear proper protective equipment and follow precautions
- Seek professional help if there is a lot of mold or if mold comes back after cleaning

If you follow the proper procedures and use the proper protective equipment, you can clean up “moderate areas” of mold. “Moderate” means more than 3 patches of mold, each smaller than one square meter, or one or more isolated patches larger than one square meter but smaller than 3 square meters (size of a 4 x 8 ft. sheet of plywood).

**Safety precautions**

- Wear a disposable dust mask (for example, 3M 8210 or equivalent), glasses or safety goggles and household rubber gloves.
- Isolate the area to be cleaned with plastic sheeting, taped to walls and ceiling.
- Infants and other family members suffering from asthma, allergies or other health problems should not be in the work area or adjacent room during the cleaning.

A small clean up should take minutes (not hours) to finish. When the clean up takes hours to a day to finish, it is suggested that you upgrade to a better filter, such as a half-face respirator with charcoal cartridges. An exhaust fan installed in a window in the room being cleaned would prevent contamination of other areas of the house as well as provide ventilation.

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**General cleaning**

Vacuum surfaces with a vacuum cleaner which has a High Efficiency Particulate Air (HEPA) filter or is externally exhausted. Scrub or brush the moldy area with a mild unscented detergent solution. Rinse by sponging with a clean, wet rag. Repeat. Dry quickly. HEPA vacuum the surfaces that were cleaned as well as surrounding areas.

**Cleaning wood surfaces**

Vacuum loose mold from wood surfaces using a HEPA or externally exhausted vacuum. Try cleaning the surface of the wood with detergent and water. Rinse with a clean, damp rag and dry quickly. If the staining does not come off, sand and vacuum the surface of the wood with a vacuum/sander combination. It is important to vacuum at the same time to prevent mold spores from being dispersed into the air. Note that wood affected by rot may need to be replaced.

**Cleaning concrete surfaces**

Vacuum the concrete surfaces to be cleaned with a HEPA or externally exhausted vacuum cleaner. Clean up surfaces with detergent and water. If the surfaces are still visibly moldy, use TSP (trisodium phosphate). Dissolve one cup of TSP in two gallons of warm water. Stir for two minutes. Note: TSP must not be allowed to come in contact with skin or eyes. Saturate the moldy concrete surface with the TSP solution using a sponge or rag. Keep the surface wetted for at least 15

minutes. Rinse the concrete surface twice with clean water. Dry thoroughly, as quickly as possible.

**Moldy drywall**

The paper facings of gypsum wallboard (drywall) grow mold when they get wet or repeatedly wet and don't dry quickly. Cleaning with water containing detergent not only add moisture to the paper but also can eventually damage the facing. If the mold is located only on top of the painted surface, remove it by general cleaning (above). If the mold is underneath the paint, the moldy patch and other moldy material behind it are best cut out and the surrounding areas also cleaned. This should be done by a mold clean-up contractor. New materials may become moldy if the moisture entry has not been stopped. If this is the case, replacement of the materials should be deferred until the source of the moisture is corrected. The affected areas should be temporarily covered with plastic sheeting and sealed at the edges.

Any areas that show new patches of mold should be cleaned promptly.

**DEALING WITH AN ONGOING PROBLEM**

Repair to the building envelope is required if moisture is entering the home from the outside. At the same time, steps should be taken inside the home to reduce the occupants' exposure to mold.

**Step 1—Discard moldy or damaged materials**

Wear a dust mask and gloves.

Furnishings, such as mattresses, carpets, or sofas that got wet or have been stored in damp conditions should be discarded. Discard items that are no longer needed. Use this opportunity to reduce the amount of furnishings—this means fewer materials to absorb moisture and grow mold. Clothes and other items that have been cleaned should be stored in sealed plastic bags to prevent re-contamination.

**Step 2—Vacuum**

Proper vacuuming reduces the amount of mold spores. All surfaces in the home (floors, walls, ceilings, shelves) and non-washable furnishings (such as sofas, chairs, etc.) must be vacuumed thoroughly.

**Step 3—Prevent**

Keep moisture generated within the home to a minimum by conscientiously following the prevention steps presented in the next section.

**Step 4—Clear wet areas**

Pull carpets and furnishings away from walls that get wet. Carpets and underpads that are moldy should be cut out and discarded.

**Step 5—Dry**

Take steps to dry up areas that get wet. Monitor the relative humidity of the air. Use a portable dehumidifier, if necessary. Ensure that the condensate drain pan of the dehumidifier is emptied regularly.

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**Step 6—Isolate**

If the mold is limited to one area, isolate the area if possible. Cover the affected surfaces with plastic sheeting secured at the edges with duct tape. Note that this is only a temporary measure to minimize your exposure.

**Step 7—Clean**

Healthy individuals can regularly clean “small” and “moderate” areas of mold, thus preventing these from getting out of hand. Make sure you follow the safety precautions and cleaning guidelines.

**Step 8—Seek professional help**

Consider seeking professional help from trained IAQ investigators to identify appropriate remediation steps inside the home. Removing large amounts of mold will require the services of mold clean-up contractors.

**PREVENTING MOLD**

- Keep your home dry
- Find and fix water leaks
- Discard clutter and excess stored materials
- Clean and maintain your home regularly
- Encourage lifestyle practices that reduce moisture

**Basic steps to prevent and reduce mold growth**

Mold needs moisture to grow. Controlling the moisture and keeping your home dry prevents the growth of mold.



**Figure 1** Discard clutter as it can absorb moisture, grow mold and reduce air circulation

- Check your home for signs of moisture and molds.
- Find out if water is coming in from the outside and if substantial moisture is produced inside the home.
- Fix any water leaks promptly.
- Think of the different ways moisture is produced inside your home (for example, cooking, bathing, plant jungle). Remove the moisture as it is produced by using exhaust fans. In the absence of fans, open windows for a short time, but note that the wind can push the moisture to other parts of the home.
- Measure how much moisture is in the air. To find the relative humidity in your home, you'll need a hygrometer. You can buy one at a hardware store or electronics store. A hygrometer costs from \$10 to \$60. Relative humidity in the home should be under 45 per cent in the winter (or lower to avoid condensation on windows). If necessary, use a dehumidifier to lower the relative humidity.
- Reduce the amount of stored materials, especially items that are no longer used. Molds grow on fabrics, paper, wood and practically anything that collects dust and holds moisture.

**Mold-proofing your home, room by room****Basement or crawl space**

- Reduce the amount of clothes, paper and furnishings stored in the basement. Discard badly damaged materials. Eliminate clutter to improve air circulation. Only washable items should be stored.
- Dehumidify the basement during the warm months.

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- Avoid carpets on slab-on-grade or below grade floors.
- Periodically clean the drain in your basement floor. Use half a cup of bleach, let it stand for a few minutes, then flush with plenty of water. Keep the drain trap filled with water.
- Avoid standing water. Keep sump pits covered (you can use plywood wrapped with plastic).
- Regularly clean and replace furnace filters. Use a pleated one-inch filter, not a coarse filter.
- If you have a heat recovery ventilator (HRV), clean the filter inside the HRV often.
- If you notice molds or signs of dampness, such as water on your windows or wet spots elsewhere, do not humidify. Disconnect furnace humidifiers that are no longer used.
- If you have electric baseboards, vacuum the units, or have a professional clean them for you.

**Laundry areas**

- Check that your clothes dryer exhausts to the outside.
- Remove lint every time you use the dryer.
- Don't hang-dry laundry indoors.
- Dry your laundry tub and washing machine after you use them.

**Bathrooms**

- Check the bathroom fan to make sure it exhausts to the outside.
- Turn the bathroom fan on when you shower. Keep it running for a few minutes after you finish your shower.
- Take short showers.
- Keep surfaces that get wet, such as the walls around the bathtub and shower, clean and dry.
- If there is a carpet in your bathroom, remove it.
- Check for water leaks.
- Keep drains in good shape by removing debris from them.

*To clean a drain:*

- Pour a handful of baking soda into it.
- Add a cup of vinegar.
- Put the plug in the drain.
- Let the vinegar and baking soda work for about 20 minutes.
- Run fresh water into the drain.

If the drain is still clogged, use a small plumbing snake.

**Kitchen**

- If the fan over your stove exhausts outside, use it when you cook.
- Minimize open boiling.
- Keep your drains in good shape. Follow the steps in the *Bathrooms* section, above.

- There's a drip pan at the back of the refrigerator. Pull the refrigerator out to clean the drip pan. At the same time, vacuum dust from the coils at the back of the refrigerator.
- Check under the kitchen sink to make sure there are no leaks.
- Take out the garbage daily to prevent odours and spoiling.

**Closets and bedrooms**

- Get rid of clothes and other stored items that you don't use. Keeping your closets and bedrooms tidy makes it easier for air to circulate—and harder for mold to grow.

**Other parts of the home**

- A dehumidifier helps to reduce moisture in the home during the warmer months. Close the windows when the dehumidifier is running.
- When family and friends come into the home, have them take off their shoes.
- Vacuum often. If you are buying a vacuum cleaner, try to get one with a HEPA filter (see next page).
- Clean hard floors with a damp mop.
- Do not bring into your home furniture, clothing, books etc. that have been stored in a moldy place.
- Cut down the number of potted plants in the house—soil is a good place for mold.



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**Exterior**

- Regularly check the condition of the roof and exterior finish for any places where water might enter.
- Make sure that eavestroughs and downspouts are connected and working properly and that they are free of debris.
- Install downspout extensions to lead water away from the building.
- Deal promptly with any problems that you find.

FREQUENTLY ASKED  
QUESTIONS ABOUT  
MOLD**Should I have my house air tested for mold?**

This is the question most frequently asked by homeowners who think their home may have a mold problem. Testing is generally not recommended to homeowners. Testing of moldy materials or an air sample identifies the types of molds that may be present but does not identify the cause/source of moisture. The type of mold does not change the procedures for cleaning up areas of mold less than 3 square meters. You have to clean up the mold and correct the problem irrespective of the type of mold. The cost of testing may be better spent hiring a professional investigator or fixing the problem.

Testing of a moldy material involves sending a swab, an imprint on a Scotch tape or a piece of the material to a competent laboratory. Air sampling requires specialized equipment. An air sample typically captures mold spores in a period of minutes. Since replicate samples must be taken due to variations in the airborne molds over time (even hours) and compared with outdoor samples, air testing is both expensive and time-consuming. Interpretation of test results may not be very useful, since there are no advocated "safe levels" of indoor molds and the results will not tell the health risks from the molds.

**The air feels dry—can I humidify?**

Before you add moisture to the air, measure the relative humidity. Air that feels dry may not be really dry. It may be moldy. High relative humidity (over 45 per cent) promotes the growth of molds and dust mites. The moisture in the air may condense on colder exterior walls where molds start to grow.

If your physician has advised you to use a humidifier in your child's bedroom at night, monitor the relative humidity. Turn the humidifier on and off as necessary. In the morning, take steps to make sure the room gets dry. Empty and clean the humidifier after each use.

**What advantages do HEPA vacuums provide?**

Ordinary vacuums capture large particles only, small mold spores pass through the vacuum into the air. HEPA vacuums have special filters that capture small particles. A central vacuum cleaner which is exhausted to the outside also removes mold spores. A regular portable vacuum is useful only if its exhaust goes outside the home. Vacuuming removes settled dust that contains an accumulation of mold spores over time. Reducing the settled dust reduces molds.

Vacuuming with any vacuum cleaner (ordinary, central or HEPA) stirs dust and mold during the process. Wear a dust mask so you will not be breathing more mold.

**Is vacuuming with a HEPA or externally exhausted vacuum cleaner recommended for serious mold problems only?**

Vacuum regularly with a HEPA or externally exhausted vacuum cleaner to prevent the ongoing accumulation of dust and molds. The need for HEPA or external exhaust vacuuming increases with the severity of the mold problem.

If a furnishing has been wet at some time in the past or has been exposed to dampness over a prolonged period of time, vacuuming with HEPA or externally exhausted vacuum is unlikely to remove the mold growing beneath the surface. It is better to discard the item.

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**Where do you find a HEPA vacuum cleaner?**

Vacuum cleaner dealers carry HEPA vacuums. Consider purchasing one as an upgrade to what you may be using. A HEPA vacuum is a good investment in the long term whether you have mold or not. A generic canister HEPA vacuum cleaner costs approximately \$300. Brand name products of the same type may cost more. You may inquire if the dealer has a HEPA vacuum cleaner to rent. Contractors who clean up or renovate houses for mold should also have this equipment.

**Does painting over a moldy surface take care of the mold?**

Painting over mold only masks the problem. Paint does not kill the mold nor stop it from growing. Surfaces that are washable should be cleaned with a detergent solution, following the procedure suggested on page 3, then allowed to dry. If you are going to paint, remove mold first.

**Does cleaning stop the mold growth?**

Mold will reappear until its source of moisture is removed. High moisture levels that are not corrected can make the molds grow back quickly. Cleaning is only a temporary but essential measure.

You can help by making a conscious effort to keep the home dry. Obviously, water must be prevented from entering the home. But you can help by controlling moisture that you produce.

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**How does one clean clothes that are moldy?**

Non-washable clothing can be dry cleaned.

Wash clothes with a detergent solution to which a cup of bleach is added. Make sure the detergent you use does not contain ammonia. Repeat as necessary until the moldy odour is gone.

Clothes and other items that have been cleaned should be stored in sealed plastic bags to prevent recontamination.

**FOR MORE INFORMATION****Websites**

**CMHC** (April 2008)

<http://www.cmhc-schl.gc.ca/en/co/>

Enter “mold” in the search box.

**Health Canada** (April 2008)

[http://www.hc-sc.gc.ca/index\\_e.html](http://www.hc-sc.gc.ca/index_e.html)

Enter “mold” or “mould” in the search box.

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To find more About Your House fact sheets plus a wide variety of information products, visit our website at [www.cmhc.ca](http://www.cmhc.ca). You can also reach us by telephone at 1-800-668-2642 or by fax at 1-800-245-9274.

Priced Publications

<i>Clean-up Procedures for Mold in Houses</i>	<i>Order No. 61091</i>
<i>Cleaning Up Your House After a Flood</i>	<i>Order No. 61094</i>
<i>A Guide to Fixing Your Damp Basement</i>	<i>Order No. 65886</i>

Free Publications

<i>Moisture and Air: Householder's Guide—Problems and Remedies</i>	<i>Order No. 61033</i>
<b>About Your House</b> fact sheets	
<i>Measuring Humidity in Your Home</i>	<i>Order No. 62027</i>
<i>Should You Test the Air in Your Home for Mold</i>	<i>Order No. 63911</i>
<i>Water Damage, Mold and House Insurance</i>	<i>Order No. 63322</i>
<i>Choosing a Dehumidifier</i>	<i>Order No. 62045</i>
<i>After the Flood—A Homeowner's Checklist</i>	<i>Order No. 60515</i>
<i>Before You Start Renovating Your Basement—Moisture Problems</i>	<i>Order No. 62250</i>
<i>The Importance of Kitchen and Bathroom Fans</i>	<i>Order No. 62037</i>
<i>The Condominium Owner's Guide to Mold</i>	<i>Order No. 62341</i>

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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.

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Asbestos

Radon

Urea Formaldehyde Foam Insulation (UFFI)

Lead

Carbon Monoxide

Mold

Household Pests

Termites and Carpenter Ants

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» 14. MORE ABOUT HOME INSPECTIONS