

SAFE HOMES CANADA HOME INSPECTION REPORT SUMMARY

ADDRESS: xxxxxx, Ontario

BUYER: xxxxxx

INSPECTOR: Andrew Christie, CET, RHI

DATE: February 9, 2006

AGE OF HOME: 120 years (approximately, main structure)

Scope of the Report

The subject structure is a century home, which is a home that is older than 100 years. However, an addition was constructed, likely in the early seventies, as evidenced by the presence of aluminum wiring in that area. This inspection is intended to assess the structure, building envelope, interior finishes, and the mechanical and electrical systems. It is a visual inspection only. The inspection was carried out on behalf of, and as a service to, the buyer. The furnace's heat exchanger and any water conditioning and filtering equipment are excluded from the inspection.

FOUNDATIONS

The foundation walls at the original structure are a stone masonry assembly. A poured concrete (underpinning) wall was installed under the original stone walls, providing important support. The walls are sound and stable, as observable, overall, but the buyer should know that the stone part of the walls is a fairly loose assembly, by nature, and maintenance work should be expected over the years. Be aware that the outside face is observable only at a slim section just above exterior grade, at only a few locations. A large amount of snow made it difficult to examine all sections, but a significant amount of snow was removed to facilitate some 'snapshots' of what was available for examination. Although some gaps and openings are observable at the visible sections of the inside face, no immediate action is required at most locations; simply monitor the stone assembly for failure points, and reinstate the system as required, over the years. Two relatively minor repairs are recommended at the rear wall of the original structure, which now forms a bearing wall between the original home and the addition. At the left side of the rear door, some concrete should be poured between the top of the underpinning and the underside of the stone masonry assembly, as the stone assembly is suspended (unsupported) at that location. At the right side of the entry door a concrete pier should be installed from the floor to the underside of the wall, where the wall is unsupported. Similarly, pack some stone or concrete into the cavity just inside the old basement, in front of the door sill. The entire front left corner (about twelve feet (wide) by eight feet (deep)) of the original basement was not accessible due to a large amount of homeowner goods. It is difficult to predict how much, if any, water will infiltrate into the original basement during spring thaw, and after storms. However, the area is quite dry at this time. Some water may or may not be infiltrating through the foundation wall to the right of the oil tank, as a wet stain is evident there, but a water pipe is leaking above that

location. Fix the leak, then investigate further. Even at century homes, water infiltration into basements can usually (but not always) be eliminated by sealing obvious entry points such as pipe penetrations, windows, and settlement cracks. Be sure to monitor the eaves trough system. Every drop of rainwater should be captured and transported well away from the home. The existing trough system is an older galvanized one, which may or may not require repair or replacement. The troughs are full of ice and snow on this date. Extend all the down pipes well away from the structure. A section of wood that is observable at the bottom of the right wall, outside, has rotted. It may be necessary or practical to install narrow trenches of stone, and perhaps some form of flashing along the bottom of the walls. See the Floor section. Further investigation is required.

The rear addition is supported by concrete block foundation walls. The walls are mostly not observable because the bottom of the siding is only a short distance above exterior grade (ground) elevation. However, the walls are quite sound and stable as observable inside. It would be a surprise if water has not been infiltrating into the top of the block at the rear basement windows, since the top of the block requires sealing. Be sure to do so, and be sure to caulk all joints around the basement windows. Adding plastic covers over the window wells would be a benefit. It appears as though water is likely infiltrating through the right foundation wall under the stairs. Water staining and molds are observable at the drywall there. Further investigation is required when the snow is gone, but the water may well be entering through a crack. Normal settlement/stress cracks can usually be sealed inexpensively. Simply dig down and expose the crack all the way to the footing. Then shape the crack into a 'v' with a chisel or grinding tool. Then apply hydraulic cement, or a similar patching product and let it dry as recommended, usually one hour. Then apply a bituminous (tar) sealant or similar, followed by a piece of poly plastic, and a section of rigid insulation to protect the repair. See the Interior Finishes section regarding the molds.

WALL SYSTEMS

The exterior walls at the home are stable and reasonably plumb. The aluminum and vinyl siding systems are stable, but a number of minor repairs are required where the siding has been damaged. Some re-fastening is required at the siding along the bottom of the left side sliding door. The key to preserving the wall system is to maintain a full seal at all joints and junctions. At most of the windows, although some minor softening is evident at the observable sections of wood, at the bottom corners of the windows, the old, hardy wood remains firm. Immediate re-priming and re-painting are required. While not a requirement, it is recommended that narrow metal flashings be installed to fully seal the window assemblies, and prevent further water damage over the years. When the snow is gone, be sure to check the base flashings where the rear low roof meets the high walls. Be sure to maintain a protective primer and paint seal at all exterior wood. It would be a benefit to full caulk the joints where the vinyl siding's closure mouldings meet adjacent window and door assemblies.

FLOOR STRUCTURE

The floors at the original structure are somewhat out of level, which is quite normal for this type of structure. All the joists were prodded to confirm soundness. The floor

assembly was constructed using very hardy wood. All accessible wood floor members are quite sound; there is no evidence of moisture damage at any location, excluding the underside of the front end of one of the central-area joists. However, the joist is stable, and no action is required. A few joists are exhibiting some cracking, but they are quite stable as well. Plank sheathing bears upon the lumber joists, as noted. Note that none of the sill beams (or plates) at the top of the foundation walls are observable because of the manner in which the joists disappear into the stone assembly. Normally, if the sill beam has rotted significantly, the structure will appear out of plumb, as observable from outside. Thus, the rotted piece of wood at the right wall is likely a piece of skirting. Having said that, work should certainly be carried out to prevent any further water infiltration at the bottoms of the exterior walls.

ROOFING

The shingles are not observable due to snow and ice. Ask the seller when shingles were last installed. Be sure to remove all existing shingles when re-roofing. Because the hatch is directly against the right eave in the rear attic, very few full-grown humans would fit, no matter how enthusiastic regarding entry. Much of the sheathing, which is plywood, is observable from the hatch, and it is sound and dry. It bears upon a truss assembly. Glass fibre insulation is in place, but it is recommended that a few inches of loose insulation be added. It would be a benefit to add soffit baffles at both attics (although not urgent). The high roof is plank sheathing over rafters, but waferboard has been added over the planks. Insulation is adequate, but some vermiculite is in place between the newer and older batts of insulation. (See the Safety section.) Note that a fully-sealed vapour barrier is not in place at the underside of the attic insulation, which is normal for older homes; while installing one would be a benefit, it should not be considered required work.

Note that a ladder was placed at a number of locations around the home in an attempt to examine the roof elements, but the huge amount of snow made it impossible.

SOFFITS, FASCIA AND FLASHINGS

Be sure to check the flashings around the bottoms of the chimneys when the snow is gone. Some soffit and fascia wood has suffered moisture decay; replace rotted sections as required.

WINDOWS

There is no evidence of failure at the thermal seals. A second layer of glass is required at one of the basement windows. See the Wall section. The double layer of single pane sliders at the rear addition provide a fair level of thermal resistance. Most windows are older, double hung windows. While replacing them with newer thermal units would be a benefit, the current assembly, which includes storms at the outside, provide a reasonable level of thermal resistance, as long as all the joints are maintained (sealed). Be sure to clean, prime and paint all the sill wood between the interior windows and the storms to preserve it.

ELECTRICAL

The service is 100 amps. About half the wiring is copper, the other half is aluminum. Most plugs are grounded. One of the living room (non-wet area) plugs is not. GFCI protection should be installed outside, in the kitchen and in the bathrooms. There is no evidence of live knob and tube wiring. A few abandoned knob and tube elements were observed. Note that the attic insulation was removed in the front right bedroom to check the wiring at the ceiling light; that wiring is newer (not knob and tube). Some of the basement wiring has been run somewhat informally. Invite a qualified electrician with significant experience with aluminum to check all aluminum contactors. It may or may not be necessary to replace receptacles at the aluminum system. Cover plates were removed at two of the aluminum receptacles, and they have screw-type contactors, not the more dangerous 'push-in' type contactors. Be sure to ask the home insurance company about any possible affect on premiums due to the presence of aluminum wiring. The distribution panel is at the right wall in the basement. One of the contactors in the garage distribution panel has been doubled up. Have all work (including tidying up the basement wire runs) carried out by a qualified electrician.

HEATING/COOLING

It will be necessary to have the wood stove chimney inspected by a WETT-certified chimney sweep or fireplace contractor. The home is heated by an oil-burning furnace, which is an older unit. It will likely be necessary to install a metal liner in the chimney to serve the furnace, but do not carry out that work if the intent is to install a gas-fired furnace, which would likely be direct-vented through the wall. The oil tank is likely older than 15 years, based on observable condition. If it is, the home insurance company will likely demand that it be replaced. Note that direct air is not provided into the bedrooms on the second floor, but to a central air diffuser. It may or may not be necessary to add heat sources in the perimeter rooms. Be sure to invite a qualified heating contractor to carry out a preventative maintenance (PM) inspection at the furnace, annually. Create two or three test holes at the second floor walls to check for insulation and vapour barriers.

PLUMBING

The water supply is municipal. The sanitary disposal system is (apparently) town sewers. Multiple shutoff valves are in place near the meter; they are functional. Drains are ABS plastic, cast iron and copper. Supply pipes are a combination of copper and plastic. There is no evidence of galvanized pipe. Fixtures are functional. One of supply pipes near the meter, above the oil tank, is leaking, as noted.

INTERIOR FINISHES

Imperfections are observable at various locations. A moisture-proof surround should be installed in the shower. It is not possible to assess possible water damage at the wood around the shower. Further investigation is required at the drywall under the basement stair. Use water and detergent to eliminate the molds, after first eliminating the source of the water. Cut out and dispose of any damaged drywall. The drywall and plaster is cracked at various locations. See the Heating section.

WATER CONTROL AND SITE DRAINAGE

See the Foundation section. Expect re-spiking over the years.

HOUSEHOLD APPLIANCES

The appliances were not tested.

HOME AND CHILD SAFETY

See the Electrical section. Beware the child/toddler (and general) falling hazard at the basement and second floor stairs. Although the low guard rail at the top of the second floor stair does not comply with current building code safety requirements, such guard rails are common to century homes. A thin, inconsistent layer of vermiculite insulation is observable between the top and bottom layers of glass fibre insulation in the attic. While some vermiculites are known to include asbestos particulates, maintaining an air separation between the living space and the attic pretty much eliminates the possible hazard. Avoid entering the attic. If doing so, be sure to wear a high quality dust mask.

FIRE SAFETY

Alarms were not inspected. Make sure a functional smoke and co detector is in place on all levels. See the Electrical and Heating sections.

FUNGI, RODENTS AND INSECTS

There is no evidence of significant rodent or insect activity. Maintaining low relative humidity in the basement, and eliminating specific sources of possible water infiltration, are keys to preventing mold production. (See the Plumbing, Foundation, and Interior Finishes sections.)

OUTSIDE STRUCTURES

Exterior elements, including fences and sheds, were not inspected.

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