

The report shown here is an actual, un-edited report produced by us in January, 2008. While some warranty inspections identify only a short list of deficiencies, many reveal a long list of work that should be – or should have been – carried out by the builder. Quite obviously, the construction was not well-managed at the subject property shown here.

## SAFE HOMES CANADA HOME INSPECTION REPORT SUMMARY

**ADDRESS:** [PRIVATE], Ontario

**BUYER:** [PRIVATE]

**INSPECTOR:** Andrew Christie, CET, RHI

**DATE:** January 14, 2008

**AGE OF HOME:** less than one year

### Scope of the Report

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 new owner, and precedes all Tarion home warranty anniversary dates. Any non-observable elements, including buried pipes, are excluded from the inspection. Builder work is in **Bold**.

### FOUNDATIONS

The poured concrete foundation walls are sound and stable, as observable. There are no obvious settlement/stress cracks excluding one obvious crack at the rear wall where the subject unit meets the dwelling to the left. Some form of sealant compound/product has been applied at that crack, at least where the crack is observable above the exterior grade elevation. There is no evidence of water infiltration at any location in the basement. However, most of the inside face of the rear wall was not observable due to a large amount of homeowner goods. Be sure to carefully monitor the basement for any sign of moisture infiltration before the warranty anniversary dates. **The top horizontal joint at the plastic foundation membrane (moisture-inhibitor) should be fully sealed before final grading is completed outside.**

Be aware that water may infiltrate through a crack or form tie hole in the future. If water infiltrates through a crack at some future point when the warranty has, be aware that it is rarely necessary to dig all the way along a wall or around a structure to perform 'weeping tile' or 'face-coating' work. The most effective way to prevent water infiltration through cracks (if it becomes necessary in the future) is to dig down and seal them by applying hydraulic cement followed by a bituminous (tar) waterproofing system at the crack location only, all the way to the bottom of the foundation wall. Then cover the repair with poly plastic sheeting, and protect it with a piece of rigid insulation. Alternatively, at poured concrete walls, cracks can be sealed by poly urethane injection at the inside face. **Eaves troughs should be installed without delay at all eaves.** Coach the builder (if necessary) to NOT drain a high roof down pipe onto lower level shingles. Use pipes to extend the eaves trough down pipes well away from the structure to help minimize the

probability of water entry after the final grading is complete. The sump pump is functional. If the sump pump cycles often be sure to extend the outlet pipe well away from the home. Also if the sump cycles often, install a battery backup power supply and a water level alarm.

**An obvious cavity requires sealant work (a concrete patch) at the front face of the garage floor slab. The (normally) concrete door sill – which is usually positioned directly under the stainless steel sill cap – is absent. Its installation is a key part of work to complete the building envelope and help prevent water infiltration.**

## **WALL SYSTEMS**

The masonry system is sound and stable. **A large gap requires some form of seal at the bottom of the (front) right garage door jamb. A masonry patch is required at the left side of the garage where (it appears) chunks of brick were used to shim the masonry in some fashion. The result is not aesthetically pleasing. Similarly, two or three bricks have been informally installed into the top section of the concrete at the front left corner of the garage. While not urgent work, the bricks should be altered or replaced. They were not installed level or plumb.** Barely-discernable cracks are observable at two or three bricks at the left side of the front garage wall; no action is required there. The vinyl siding is stable. **Caulking is required at a number of locations at the front of the home, including at joints around the front door and window.** The key to preserving the wall system is to maintain a full seal at all joints and junctions. Be sure to maintain all door sill joints; add caulking at the uncaulked joints around the bottoms of the doors, including the bottom of the door jambs at the garage doors (not builder work). **An exhaust fan cover is absent at the right wall.** While not a requirement, it would be prudent to fully seal the joints where the front exterior concrete landing meets the masonry system. **Finish work is incomplete at exterior wood. The soffit claddings are incomplete above the front patio.**

## **FLOOR STRUCTURE**

The wood floor members are quite sound overall; there is no evidence of excessive deflection at the floor assemblies. **However, some work will be necessary to revise existing support at a few locations. The two-member built-up post that supports that back left corner of the front section of the main floor assembly is not fastened into place. (It's loose.)** Single member vertical supports are in place at the left side of the mid-height landing at the basement stair. They are inadequate. A second member should be fastened into place alongside the existing members. Note that it will be necessary to temporarily remove an electrical circuit to facilitate that work. **The two-member built-up posts that support the ends of the headers at the right side of the mid-height landing have gapped and twisted somewhat. Minor re-positioning would be a benefit. Plenty of pre-drilled screwing should be carried out at both of the right side posts. The section of stair that is located between the mid-height basement landing and the main floor moves freely when loaded in any direction excluding downward. A qualified carpentry contractor (framer) should be invited to provide effective fastening for that section of stair, and for the bottom stair just inside the front door.**

Waferboard sheathing bears upon lumber joists. The joists bear upon the foundation walls, and upon structural steel beams. The beams bear upon structural steel columns and the foundation walls. Although not a requirement, it would be prudent to install wood blocking at the handful of joists cross-bridging was omitted.

## **ROOFING**

The shingles were not observable due to snow. An attempt was made to examine the roof by placing a ladder at a few locations around the home. The shingles that were partly observable by brushing snow away are quite sound. **The bottom edge of the roof sheathing exhibits significant ‘waves and troughs’ where it meets the eaves. The excessively wavy nature of the sheathing may or may not be related to inconsistent elevation at the rafters. Further inspection will be necessary when the snow is gone, primarily to determine whether the sheathing deflects under load.** Note that the edge of the sheathing at the rear edge of the roof could not be examined due to the extreme height above the exterior grade elevation. **The rafters above the front patio area were fully observable during the inspection because the soffit has not been installed. It appears the rafters were cut too short during construction. Small waferboard shims were installed, and the ends of the rafters have been nailed through those shims. Stability is a concern, and again, the assembly should be further inspected when safe access is available onto the roofs. It would be prudent to invite the local building official to examine the shimmed rafters (before the soffit work is complete) and the wavy sheathing. The left end of the beam that supports the front low roof assembly is supported by only a single two-by-eight. A properly-designed (formal) column should be installed to effectively carry associated loads there.**

The roof structure is sound as observable from inside the attic. Waferboard sheathing bears upon a truss assembly. When examining the rear high roof from a distance, it was evident that snow had melted down the line separating the subject unit from its left neighbour. **The inside face of the roof sheathing is wet – at both the front and rear slopes, above the unit’s left side demising wall - when examined from inside the attic. The moisture may have resulted from a roof leak above the wall, or it may have condensed due to a specific heat source. Further investigation will be necessary by builder forces.** The attic could not be fully entered – which is normal procedure – because the skirt around the opening was poorly constructed, and will surely fail if knelt upon to provide access. **The skirt should be revised or reinforced.** Fortunately, most of the (relatively small) attic space, and most building elements are observable from the access hatch. Insulation is adequate. Existing insulation is loose blowing wool. Attic ventilation is adequate, in spite of the absence of soffit baffles at the front eave. Always remove all old shingles when re-shingling. It may prove necessary to install splash guards at the bottoms of the roof valleys.

## **WINDOWS**

There is no evidence of failure at the thermal seals. The casement windows are mechanically functional. Windows are a mixture of styles. The windows move well within their tracks. **At least one screen is missing.**

## **ELECTRICAL**

The total power service is 100 amps. All wiring is copper. All plugs are grounded. GFCI (ground fault circuit interrupter) receptacles are in place outside and in the bathrooms. Note that the second floor bathroom power is protected by the GFCI receptacle in the main floor bathroom. The rear exterior receptacle is protected by the front exterior receptacle. The distribution panel is at the front section in the basement. None of the contactors in the panel have been 'doubled up'. **Three of the power receptacles are very loose, including one of the front kitchen receptacles and one of the master bedroom receptacles.**

## **HEATING/COOLING**

**Somewhat inexplicably, the gas meter was installed in the middle of the front edge of the front exterior patio, which may or may not have a negative impact on the patio aesthetics, depending upon homeowner preference. Normally, the meter – and its associated pipework – is installed at a less visible location, usually the front section of a side wall.**

**A few ducts and diffusers require more effective fastening at the underside of the main floor assembly. Some re-positioning of ducts will be necessary if the basement ceiling is to be finished (to minimize the lowering of ceiling heights). The gas-fired furnace is providing heat throughout. Both the furnace and hot water tank are vented laterally (induced draft). Note that it may be necessary to temporarily remove a section of duct or drain if and when the hot water tank fails; the distance between the main sanitary drain and the furnace may be inadequate, although removal of the tank will likely be possible by lifting the tank upward.**

## **PLUMBING**

The water supply is municipal. The main shutoff valve for the water supply is located beside the water meter at the right wall. It is functional. The sanitary system is town sewers. Drains are ABS plastic. Supply pipes are mostly plastic with some copper. Fixtures are functional.

## **INTERIOR FINISHES**

Some work is incomplete. **Drywall repairs are underway at a few locations, including the second floor bathroom. The termination joints at the floor tile in the second floor bathroom are too wide to caulk. Some form of moulding will be necessary. The joint along the top of the bathtub enclosure requires caulking. Some dried grout chunks require removal at the top of the bathtub enclosure.** One of the left side wall tiles is loose above the bathtub.

## **HOUSEHOLD APPLIANCES**

The appliances were not tested.

## **HOME AND CHILD SAFETY**

**The sharp ends of nails are exposed and present a laceration hazard at the rear wall, near the basement windows. Formal stairs are not in place at the front patio stair or**

**at the rear garage person-door.** Beware the obvious falling hazard at the rear sliding door where a deck or guard rail have not been installed. See the Electrical section.

#### **FIRE SAFETY**

Alarms were not inspected.

#### **FUNGI, RODENTS AND INSECTS**

There is no evidence of significant mold production or insect activity. Minimizing relative humidity in the basement, and eliminating specific sources of possible water infiltration, are keys to preventing mold production. See the Foundation section. Run the exhaust fans enthusiastically during colder months in an attempt to minimize condensation inside windows, and associated molds.

#### **OUTSIDE STRUCTURES**

**Exterior elements are incomplete.**

Andrew Christie, CET, RHI