HEATING FINAL INSPECTIONS

Why is the completion of the heating system inspected?

The completion of the heating system is inspected to confirm that the supply and return air systems, mechanical ventilation system and furnace are complete and operational.

When must an inspection be requested?

The heating final inspection is normally conducted as part of the occupancy inspection of the dwelling and usually coincides with plumbing final inspection. Requesting an occupancy inspection will automatically include the final heating and plumbing inspections. While 48 hours notice is required prior to the date of inspection, we strive to provide the best service possible and a next day service can usually be achieved to facilitate your construction schedule.

What is involved during an inspection?

A provincially qualified building inspector reviews the heating and mechanical ventilation systems for compliance with the building permit drawings and the Ontario Building Code. The following is a list of the major areas that are inspected.

- Supply and return air systems
- Mechanical ventilation
- Finished basements, basement walkouts

The construction progress, including Building Code deficiencies, are documented on a Field Inspection Report issued by the building inspector immediately after the site inspection.

What can I do before the inspection?

Your involvement in the inspection process is critical. A review of the construction prior to the inspector's arrival can help to ensure a smooth flow in the construction of your project. To help you achieve this, we have assembled a checklist of the most common Building Code deficiencies found while performing inspections. Please refer to the reverse side of this Information Sheet to complete the checklist.

Permit Inspection Request Line (PIRL)

PIRL is an interactive voice response system for builders, contractors, owners, owner's representatives, and permit holders, to schedule, cancel, reschedule, and obtain building inspection results 24 hours a day, 7 days a week.

Access the PIRL system 24 hours a day, 7 days a week on any touch-tone phone. Call 905-475-4850 and follow the simple instructions. For a detailed overview of what the system offers, please visit www.markham.ca/building. When requesting an inspection you will need the following information with you:

1. Building permit no.
2. Project address
3. Date inspection required
4. Contact name and phone no.
5. Provide further comments (optional)

Looking ahead ➲

The next inspection maybe the occupancy or plumbing final inspection. Ask your building inspector for these Final Information Sheets or call us at (905) 477-7000 ext. 2307 and we will gladly send it to you.

'This is one in a series of Information Sheets published specifically for homeowners and builders, for use as a guide to residential building inspections'

HEATING FINAL INSPECTIONS

This checklist identifies the most common Ontario Building Code deficiencies found while performing final heating inspections. Use this checklist as a guide during construction, and reduce your costs associated with the repair of Building Code deficiencies. Not all Building Code requirements could be included in this checklist.

Prior to calling for an inspection, verify that the relevant items have been completed satisfactorily. While some items may not apply to your project, please consider each one carefully. Indicate '☑' as completed or '☒'as not applicable in the box adjacent to the construction item.

General

- ☐ Revision approved for heating ductwork layout changes, including changes to the furnace capacity and model.
- ☐ Combustion air provided to enclosed furnace rooms.
- ☐ When the building inspector is unable to inspect the heating system in the basement area during the rough-in stage, the items contained on the Heating Rough-in Information Sheet are applicable to this inspection.
- ☐ Exhaust ducts sealed to Class C level when located in a conditioned space

Supply and Return Air Systems

- ☐ Furnace in operating condition.
- ☐ Supply ducts and associated fittings are non-combustible, except when they conform to test criteria.
- ☐ Ducts penetrating floors or walls are fire stopped with mineral wool between the duct and the construction.
- ☐ Connection of all return air ducts to riser with no blockage, i.e. pipes, joist bridging.
- ☐ The return air outlet for the basement is complete, including the damper.
- ☐ Clearance beneath all ducts is a minimum 1.95 m.
- ☐ 150 mm clearance between a 'C' vent for the hot water tank and combustible materials.
- ☐ Neutralizer installed on condensing type furnaces.
- ☐ 19 mm undercuts above carpets on doors to rooms without a return-air inlet.
- ☐ Sealed to Class A level and insulated to not less than RSI 1.4 when exposed to unheated space or not protected by an insulated exterior wall

Mechanical Ventilation

- ☐ All installed fuel-fired appliances and space heating equipment are installed according the approved permit drawings. A change in the appliance classification requires a revision to the building permit.
- ☐ Verify the categorization of the dwelling unit (type I, II, III or IV) corresponds with the type of fuel-fired appliances or space heating equipment. A change in the dwelling categorization requires a revision to the building permit.
- ☐ The principal exhaust fan switch is centrally located in the dwelling unit (dining room) and identified with a Markham sticker.
- ☐ Exhaust air intake when installed in the kitchen, is located on the ceiling or within 300 mm of the ceiling.
- ☐ Exhaust air intake (exhaust fan) containing a manual switch is installed in each kitchen, bathroom and water closet room. Switch is not required with heat recovery ventilator (HRV).
- ☐ For dwelling units mechanically ventilated using a forced air system, the circulating fan switch is centrally located (usually on the thermostat) and is identified as "CIRCULATION FAN" and is adjacent to the ventilation fan.

Heat Recovery Ventilators

- ☐ Free flow condensate has trap, or pump installed and drained to a floor drain.
- ☐ HRV system balanced. Permanent balancing dampers installed.
- ☐ Securely mounted using all hardware for noise and vibration transmission reduction.
- ☐ Maximum length of flexible duct is 4000 mm with no compressed areas.