HEATING ROUGH-IN INSPECTIONS

Why is the heating system inspected?

The roughed-in heating system is inspected to confirm that the system is sized and installed to meet the heating and ventilation requirements for a healthy living environment for the occupants.

When must an inspection be requested?

A rough-in heating inspection is often conducted to coincide with the framing and plumbing rough-in inspections and prior to the installation of the insulation. 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 roughed- in heating system 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 air system
- Return air system
- Exhaust systems
- Mechanical ventilation

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.

How do I request an inspection?

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 may be the insulation and air barrier inspections. Ask your building inspector for the Insulation and Air Barrier Information Sheets or call us at (905) 477-7000 ext. 2307 and we will gladly send them 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 ROUGH-IN INSPECTIONS

This checklist identifies the most common Ontario Building Code deficiencies found while performing heating rough-in 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.

Supply Air System

- ☐ Clearance has been maintained between the plenum and combustible materials. Refer to the manufacture's installation instructions.
- ☐ Supply ducts and associated fittings are non-combustible except when they conform to test criteria.
- ☐ 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
- ☐ Sealed to Class C level when located in a conditioned space
- ☐ Butterfly damper at each register.
- ☐ Maximum of 1200 mm allowed for supply air from the outside wall in an unfinished basement.
- ☐ Ducts in floors or walls are fire stopped with mineral wool between the duct and the construction at each end.
- ☐ S and drive cleat connections or equivalent are provided for rectangular duct connections.
- ☐ To avoid excessive vibration, trunk supply ducts are not nailed directly to wood joists.
- ☐ Ducts placed in concrete must be inspected prior to covering.
- ☐ Vertical flexible ducts are not permitted.
- ☐ Horizontal flexible ducts do not exceed 4000 mm and are ULC Class 1 type.
- ☐ Vertical clearance beneath ducts in basement space is a minimum of 1.95 m.

Return Air System

- ☐ Return air installed on each storey.
- ☐ Return air chases are backed with metal, gypsum board or plywood.
- ☐ Return air inlet not located in garage, kitchen, washroom, furnace or laundry room.
- ☐ A return air outlet installed in all rooms over a garage or an unheated space.
- ☐ Blockage of return air ducts not permitted. Relocate all electrical boxes, wiring, piping and blocking. Full width cut outs in floor.
- ☐ All supply and return air ducts exposed or passing through unheated spaces are insulated with a minimum of R-12 insulation.

Exhaust Systems

- ☐ An exhaust air intake or exhaust fan is installed in each kitchen and room containing a water closet.
- ☐ Exhaust ducts are wrapped with insulation and vapour barrier for a minimum of 1200 mm from the outside wall and entirely through an unheated space.
- ☐ Kitchen exhaust duct installed so that entire duct can be cleaned when duct not equipped with a filter at the intake.
- ☐ Sealed to Class C level when located in a conditioned space

Mechanical Ventilation

- ☐ Fuel-fired appliances and all other space heating equipment are installed in accordance with the permit documents.
- ☐ The categorization of the dwelling unit corresponds with the type of fuel-fired appliances installed.
- ☐ Mechanical ventilation system installed under Part 6 or Part 9 of the Building Code.
- ☐ Principal exhaust fan is HVI approved.
- ☐ Principal exhaust fan switch located in central location and identified.