OTTAWA CONCRETE PROS

Garage Floors

Concrete garage floor slabs: the Building Code's 75 mm, 32 MPa and drainage rules, replacement and the permit question

4 Expert Answers from Concrete Pro IQ

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Q1

What concrete strength does Ontario's Code set for a garage floor?

Section 9.3.1.6(1) of Ontario's 2024 Building Code sets a minimum compressive strength of 32 MPa after 28 days for garage floors and carport floors.

That same section also covers all exterior flatwork, so the 32 MPa figure applies across those categories. For interior floors other than garages and carports, the minimum is 20 MPa, and for all other applications it is 15 MPa.

A few related Code requirements bear on a garage slab. Section 9.3.1.7(1) sets a maximum water-to-cementing-materials ratio of 0.45 for garage floors and exterior flatwork; the appendix note to that section says adding water to concrete on site may reduce strength and increase porosity and the propensity to shrinkage cracking. Section 9.16.4.3 sets a minimum slab thickness of 75 mm, exclusive of any topping, with a tolerance that allows no point to fall below 65 mm and requires the mean to be 75 mm. Section 9.35.2.2 requires the garage floor to slope to drain liquids to the outdoors. Where an attached garage is connected to a dwelling, section 9.35.3.2 calls for a construction joint between the main building slab and the garage slab, and in clay-type soils subject to significant movement with moisture, the foundation depth of the garage should be approximately the same as the main building's.

On air entrainment: section 9.3.1.6(2) specifies 5 to 8 per cent air for site-batched concrete used in garage floors and exterior flatwork. For ready-mix concrete, the air content requirement comes from CSA A23.1, which the Code references, and we do not quote a percentage for ready-mix.

When you review a quote, ask the contractor to put the concrete strength, the water-to-cementing-materials ratio, the slab thickness, and the slope-to-drain detail in writing. We found no City statement that the hardscaping contractor licence covers work inside a garage; ask the City whether it applies to your project. If the job involves any digging, whoever digs is the excavator under the Ontario Underground Infrastructure Notification System Act, 2012, and a locate request must go through Ontario Dig Authority before the ground is broken.

Q2

My Stittsville garage floor slopes toward the house: what now?

A garage floor that slopes toward the house instead of toward the door is a drainage problem the 2024 Ontario Building Code directly addresses. Section 9.35.2.2 requires that where an attached or built-in garage is provided, the garage floor shall be sloped to drain liquids to the outdoors. A floor that drains toward the house is not what that clause describes, so it is worth having assessed.

Before deciding on a fix, have a contractor assess a few things. The slope may be the result of settling, heave, or the original pour. The 2024 Ontario Building Code notes in its appendix that frost heave results when moisture in frost-susceptible soil such as clay or silt freezes and expands, and that draw-down of water by fast-growing trees can decrease the volume of soil supporting floors-on-ground, causing settling. Canadian Building Digest 182 from the National Research Council notes that coarse-grained soils such as sands and gravels do not heave, whereas clays, silts and very fine sands will support the growth of ice lenses. A contractor can look at the slab condition, the base, and whether the slope is uniform or localized, and tell you whether a repair, a resurfacing overlay, or a full slab replacement is the right path. We found no published price for a garage floor replacement or repair that we can give you here.

If the assessment points to replacing the slab, a few Code provisions apply. Section 9.16.4.3 sets a minimum slab thickness of 75 mm exclusive of any topping. Section 9.3.1.6(1) requires a compressive strength of not less than 32 MPa for garage floors. Section 9.16.2.1 says not less than 100 mm of coarse clean granular material is placed beneath floors-on-ground, though it need not be installed under slabs in garages, carports or accessory buildings. Section 9.13.2.1 exempts garage floors from the dampproofing requirement. If the garage is attached to the house, section 9.35.3.2 notes that a construction joint shall be provided between the main building slab and a slab serving an attached garage, and that in clay-type soils subject to significant movement with moisture, the foundation depth of the garage may need to follow the main building's. Section 9.16.4.1 says dry cement shall not be added to the floor surface to absorb surplus water.

We found no City of Ottawa statement that the hardscaping contractor licence covers work on a floor inside a garage, so ask the City whether it applies to your job. We also found no City statement on whether replacing a garage floor slab requires a building permit. The City lists structural repairs or alterations among permit-required projects. Ask the City's Building Code Services before the old floor comes out.

If the work involves digging, whoever digs is an excavator under the Ontario Underground Infrastructure Notification System Act, 2012, and must submit a locate request through Ontario Dig Authority at least five business days before any digging begins. Ask who will submit that request.

A written quote should spell out the proposed slope direction and grade, the slab thickness, the concrete strength, how the base will be handled, removal and disposal of the old concrete, and what cold-weather protection will be used if the air temperature is below 5 °C during or after the pour.

Q3

Who should break out an old garage floor in Gloucester?

Gloucester is part of the City of Ottawa, so the same rules apply there as anywhere else in the city. Breaking out and removing an old garage floor is a job a concrete contractor can do, and before anyone signs anything, it is worth knowing what the City, the Code and the locate law require.

The 2024 Ontario Building Code sets a minimum slab thickness of 75 mm for a floor-on-ground such as a garage floor, and requires a compressive strength of at least 32 MPa for the new concrete. We found no City statement on whether replacing an existing garage floor slab needs a building permit. The City lists structural repairs and alterations among projects that do require one, so it is worth asking the City's Building Code Services before the old floor comes out.

On the hardscaping licence: the City's licence covers concrete pads, patios, walkways, steps and similar hard landscaping features on private property. We found no City statement that it covers work inside a garage. Ask the contractor and, if in doubt, the City whether the licence applies to this job.

Locates apply whoever does the work. Under the Ontario Underground Infrastructure Notification System Act, 2012, anyone who digs is an excavator and must submit a locate request before breaking ground. A standard request must be submitted at least five business days before the dig is expected to start, and the locate is free. Ontario Dig Authority relays the request to buried infrastructure owners, who mark their lines. Ask who will submit the locate request and whether any private lines, such as a line running to a garage subpanel, will be marked, because we found no statement on whether private lines are covered by the public locate system.

A few things worth getting in writing before the work starts:

- confirmation of whether a building permit is needed and who will apply for it
- the new slab thickness and the concrete strength specified (32 MPa minimum under the Code)
- whether the granular base will be placed and to what depth (the Code requires at least 100 mm of coarse clean granular material beneath floors-on-ground, though the Code says it need not be installed under slabs in garages, carports or accessory buildings)
- how the old concrete will be disposed of, and whether disposal is included in the price
- the Code requirement that the garage floor slope to drain liquids to the outdoors

We found no published price for a new garage floor slab on its own, so get at least two itemised quotes that separate demolition, disposal, base work and the new pour.
Before you commit, ask the contractor to show you their City of Ottawa hardscaping licence and look them up on the City's published list of licensed contractors to confirm the licence is current.

Q4

Sunken garage floor in Riverside South: who do I call?

A sunken garage floor slab is a concrete job, so start with a concrete contractor who works on garage slabs in the Ottawa area.

Before you call anyone, a few things are worth knowing so you can have a useful conversation.

Since March 1, 2026 the City of Ottawa has required a hardscaping contractor licence for businesses that install or alter hard landscaping features on private property, such as concrete pads, steps, walkways and patios. We found no City statement that it covers a floor inside a garage, so ask the City or the contractor whether it applies to your job. Ottawa Concrete Pros does not verify anyone's licence or insurance.

On the technical side, the 2024 Ontario Building Code sets the minimum concrete strength for a garage floor at 32 MPa after 28 days, and a maximum water-to-cementing-materials ratio of 0.45. The Code also says a garage floor shall be sloped to drain liquids to the outdoors, and that a construction joint shall be provided between a main building slab and a slab serving an attached garage. The minimum thickness for a floor-on-ground is 75 mm exclusive of any topping. We found no City statement on whether replacing an existing garage floor slab requires a building permit; ask the City's Building Code Services before the old floor comes out, because the City lists structural repairs and alterations among projects that do require a permit.

If any digging is involved, the Ontario Underground Infrastructure Notification System Act, 2012 requires a locate request through Ontario Dig Authority before any ground is broken. Locates are free and must be submitted at least five business days before digging starts.

We found too few published prices for a garage floor replacement to give a reliable range, so ask each contractor to itemize the quote: base preparation, removal and disposal of the old slab, concrete strength and mix, thickness, drainage slope, and any cold-weather protection if the air could be below 5 °C. The City's Trail Waste Facility takes clean concrete without rebar at $144 per tonne above 250 kg; ask whether disposal is in the quote.

Before work starts, make sure you have a written contract with the full scope and price, and the City's answer on any permit.

Disclaimer: This guide is provided for informational purposes only by Ottawa Concrete Pros. It does not constitute professional advice. Always consult qualified contractors and your local building authority (the City of Ottawa) before starting any concrete project, and request utility locates before anyone digs. Concrete work in Ontario must meet the 2024 Ontario Building Code (O. Reg. 163/24) where it applies. Information is current as of November 15, 2026 and may change. Visit **ottawaconcretepros.ca** for the latest answers.