

SEPTEMBER 1, 2023

20230901

ADVISORY

GARAGE FLOOR DRAINS LOW RISE RESIDENTIAL

BUILDING CODE SERVICES



GARAGE FLOOR DRAINS LOW RISE RESIDENTIAL

This advisory provides guidance for the installation of a floor drain installed in an attached residential garage.

PURPOSE

This advisory applies to low rise residential construction.

A floor drain located in a heated or unheated attached residential garage is permitted where the garage floor slab maintains an overall slope to the exterior (garage doors).

In accordance with Division B 9.35.2.2 of the Ontario Building Code, the garage floor slab slope shall be sloped to drain liquids to the outdoors. This is intended to prevent the pooling of liquids or gases.

A garage floor drain may be directed to the sanitary drainage on properties with municipal services. On privately serviced lots, sewage system capacity must be approved by the Ottawa Septic System Authority.

Other discharge options such as a dry well or surface drainage may be considered if compliant with approved lot and master drainage plans and water is not discharged onto adjacent properties.

LIMITATIONS

The Ontario Building Code does not provide any relief from the requirement to slope the floor of an attached garage to the exterior.

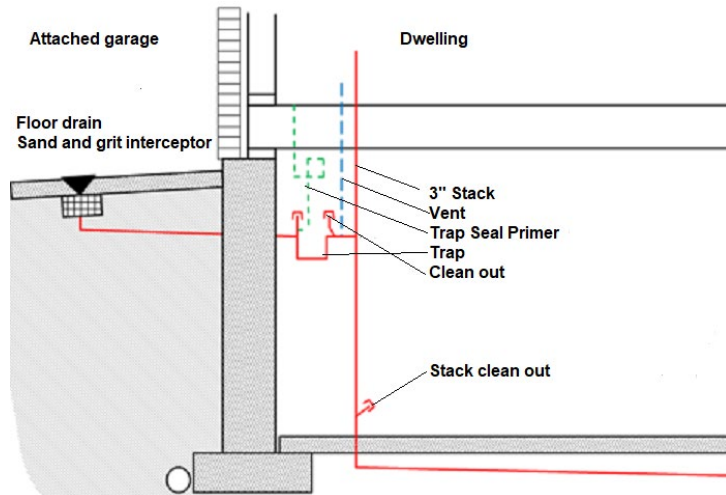
A garage floor drain shall not be connected to the building foundation drain or discharge to a municipal storm sewer.

Discharge from a garage floor drain to a municipal sanitary sewer is limited under the Sewer Use By-law 2003-514. Many substances cannot be discharged to the sewer system as they may

endanger workers, damage the sewer system and negatively impact the sewage treatment process and the water quality of rivers.

PROVISIONS FOR INSTALLING A GARAGE FLOOR DRAIN

Garage floor drain(s) may be located anywhere within an attached garage provided the garage floor slab is sloped to the exterior (garage door).



The garage floor slab may be locally sloped to direct flow to the floor drain provided the overall slope towards the exterior is maintained to ensure combustible liquids or gases do not pool or collect.

A garage floor drain shall be installed in accordance with the following requirements.

- A sand and grit interceptor shall be installed for the purpose of intercepting discharge to the fixture drain in accordance with OBC 7.4.4.3. Interceptors. An oil or grease interceptor is not required by OBC 7.4.4.3.(2)(a) (applies only to service stations, repair shops and garages or any establishment where motor vehicles are repaired).
- A 3" diameter floor drain and 3" diameter fixture drain, run to a trap inside the building table in accordance with OBC 7.4.9.3. and Table 7.4.10.2.
- A 3" trap equipped with a trap seal primer shall be installed inside the dwelling to prevent freezing in accordance with OBC 7.2.3. Traps and Interceptors and 7.2.3.1. Traps. This provision applies to both heated and unheated garages.
- A 3" cleanout is installed to facilitate service and the trap is vented in accordance with the requirements of OBC 7.4.5. Multiple connected drains may be gang trapped in accordance with OBC 7.4.5.1. Traps for Sanitary Drainage Systems.
- The fixture outlet pipe may exceed 36" in length provided a cleanout is installed at the floor drain trap.
- A garage floor drain inlet may be in the form of a square, round or trench drain. Drain covers must be sufficiently robust to carry expected vehicle loads.