



Code Outreach Program – Building Traps

This edition of the Code Outreach Program is intended to clarify the provisions and prohibition of *building traps* in buildings regulated by the Residential Construction provisions of the Uniform Code.

Building traps are prohibited without exception in new residential construction that is governed by the [2020 Residential Code of New York State](#) (2020 RCNYS). *Building traps* were first prohibited in new construction in the 2003 RCNYS, but exceptions could be made for local conditions that necessitated their installation as required by the code enforcement official. These exceptions were allowed until the incorporation of the 2015 International Residential Code into the Uniform Code with the 2016 update, which prohibited them in new construction.

There is no definition for *building trap* in the 2020 RCNYS, but Section 201.3 of the 2020 RCNYS allows for the use of the definition in the [2020 Plumbing Code of New York State](#), which defines a *building trap* as follows:

Building trap. A device, fitting or assembly of fittings installed in the building drain to prevent circulation of air between the drainage system of the building and the building sewer.

Understanding the distinction between a *building drain* and a *building sewer* is vital to understanding *building traps* and their prohibition. They are defined in Chapter 2 of the 2020 RCNYS (with emphasis added) as:

Building drain. The lowest piping that collects the discharge from all other drainage piping inside the house and extends 30 inches (762 mm) in developed length of pipe, beyond the exterior walls and conveys the drainage to the building sewer.

Building sewer. That part of the drainage system that extends from the end of the building drain and conveys its discharge to a public sewer, private sewer, individual sewage-disposal system or other point of disposal.

The primary purpose of the *building trap* is to “prevent circulation of air between the drainage system of the building and the building sewer” as indicated in the definition above. However, according to Section P3201.6 of the 2020 RCNYS, each plumbing fixture requires a separate trap, therefore the *building trap* is redundant because blockage of sewer gases is performed by each fixture’s trap water seal. In addition, the *building trap* can potentially result in a blocked or clogged pipe.

If a *building trap* is removed during alteration of the plumbing system, the following must be considered:

- *Alterations to any plumbing system shall conform to the requirements for a new plumbing system without requiring the existing plumbing system to comply with all the requirements of this code. Alterations shall not cause an existing system to become unsafe, unsanitary or overloaded.* See Section AJ601.11 of the 2020 RCNYS
- *Building traps* sometimes serve as the only cleanout for both the horizontal drain (Section P3005.2.1 of 2020 RCNYS) as well as the cleanout for the building drain and building sewer junction (Section P3005.2.3 of 2020 RCNYS), so its removal might require new cleanout(s) to be installed as required by the Code.

Complicating matters is the narrow definition of a *building trap*, which is only considered a *building trap* if it is installed in the *building drain*, thus a trap installed in the *building sewer* or *public sewer* is not specifically addressed. If a trap is installed or removed in the *building sewer* or *public sewer*, the trap cannot be installed in a manner that puts the existing parts of the plumbing system, that are regulated by the Uniform Code out of compliance. *Public sewer* is defined in Chapter 2 of the 2020 RCNYS as follows:

Public sewer. That part of the drainage system of pipes, installed and maintained by a city, township, county, public utility company or other public entity, and located on public property, in the street or in an approved dedicated easement of public or community use.

An example of such non-compliance would be the location of a vent accompanying a trap installed in the *building sewer* or *public sewer* that is located too close to a window or other opening as prohibited by Section P3103.5 of the 2020 RCNYS. This vent type that is located close to the upstream side of the trap is commonly referred to as a “fresh air intake.” The name “fresh air intake;” however, is an inaccurate description for a vent because all vents by definition enable air to be transferred in both directions. Therefore, gases can be emitted by this vent necessitating its separation from windows and other openings.

If an individual homeowner wants to add a *building trap* to the *building drain*, the individual needs to acquire a variance because this is expressly prohibited within the Code. A municipality cannot require *building traps* in *building drains* as this is a less restrictive provision and therefore cannot be approved as a More Restrictive Local Standard (MRLS). If a local government wants to require a trap on a *building sewer*, the local government would have to petition for an MRLS as this would be requiring something above and beyond the Uniform Code.

For more information about MRLS please see [2018-3 - More Restrictive Construction Standards \(Uniform Code & Executive Law § 379\)](#) or visit our [MRLS webpage](#). For more information on variances please see [2019-8 - Appeals and Variances](#).

Please look for our next edition of the Code Outreach Program at the beginning of next month.

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If you have questions pertaining to the Code Outreach Program, email us at COP.codes@dos.nv.gov

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