2024 Ontario Building Code, Part 7, Summary of Code Changes

The Ontario Building Code 2012 is set to change January 1, 2025. Northumberland County staff have reviewed the changes as they apply to Part 7 Plumbing, and have summarized some of the most significant changes below.

There are many changes in other parts of the code which may affect how you do business; the County recommends you take the time to review all of them.

Please refer to the new code to read all the new and changed sentences mentioned below to ensure that you are interpreting the sentence correctly.

Within this document are some of the significant changes which may impact your business and how County staff do inspections. Staff will do their best to work with you to ensure that you meet the new requirements.

If you have any questions, please discuss it with the Inspector on site prior to the installation, or contact our office to discuss.

Numbering System

The numbering system used in the 2024 Building Code strives to align with 2020 NBC/NPC and sometimes a unique numbering system consisting of decimals or letters are used to identify Ontario-only provisions to maintain alignment with National numbering system for harmonized provisions.

Appendix Notes

- The 2012 Building Code references to “See Appendix A” have been replaced with “See Note A- [Code Reference]. This change appears throughout the Building Code.
- The new code will now refer to all pipe sizing as NPS, nominal pipe size.
- Because of harmonization with the National Building Code of Canada, many code sentences you are familiar with have changed location within the new code. It will be more difficult to locate the reference you need.
- Many of the requirements for materials, pipe, fittings, fixtures etc. which were required to be certified to a standard are now not required to be certified. They are now required to conform to the standard. This may result in many products not having a standard embossed on the product. Because of this, we may be looking for an engineer to provide proof of conformance with the standard.

Defined Terms

Some key definitions have been added, deleted, or amended to Ontario's terms in italics.

Some of these definitions are:

- Agricultural occupancy – New
- Agricultural occupancy with no human occupants – New
- Farm building – Amended
- Greenhouse agricultural occupancy – New
- Heritage Building – Amended
- High-hazard agricultural occupancy – New
- House – Deleted
- Post disaster building – Amended
- Secondary suites – New
- New stack has replaced Soil Stack and Waste Stack, and not defined.

Water-Bottle Filling Stations

- Now at least one water bottle filling station (where they are provided) to be equipped with controls that activate automatically and should be located along the barrier-free path of travel.

Specified Rain Load

Clarify that the "level" in the existing provision relates to the bottom of the scupper.

Design and Installation

- **New Clause** (1)(j) referencing ASHRAE Guideline 12 "Minimizing the Risk of Legionellosis Associated with Building Water Systems" which addresses good engineering practice in legionella control has been included from its reference in Articles 6.2.3.15. and 6.2.3.16.

Evaporative Air Coolers, Misters, Atomizers, Air Washers, and Humidifiers

Sentence (6) requires backflow prevention devices for make-up water connections.

Numbering system changes

- Part 7 of Ontario's Building Code is derived from the 2020 National Plumbing Code of Canada (NPC). The 2020 NBC has Part 7 Plumbing Services which directs the users to the 2020 NPC. Ontario's Building Code adopts many requirements of the 2020 NPC with some Ontario Amendments that are included in full in Part 7 of Ontario's Building Code. Throughout Part 7, some Article numbering has changed to reflect the same numbering in the 2020 NPC with Ontario amendments.

Ontario only changes

- Harmonization with the 2020 NBC and 2020 NPC is accompanied with the specific changes pertaining to only Ontario's Building Code. Those changes are assigned new Articles / Sentence numbers.

Seismic Restraints and Design

- This new Sentence introduces requirements related to seismic protection of plumbing systems, which requires that the plumbing systems in buildings constructed in accordance with Part 3 shall be designed and installed to accommodate the seismic forces addressed in Subsection 4.1.8. Harmonized with 2020 NPC.

Sanitary Drainage Systems

- A combined building drain or a combined building sewer is now permitted to be installed.

Storm Drainage Systems

A storm drainage system may now be connected to a sanitary sewage system; works conditions apply. A well can now be utilized instead of connecting to a municipal drinking water system, even if the municipal water supply is available.

Conformance to Standards

Personal hygiene devices for water closets have been added and now shall conform to ASME A112.4.2/CSA B45.16, “Personal hygiene devices for water closets.”

Fibrocement Pipe and Fittings

Fibrocement pipe and fittings for use in a drain, waste or vent system has been added and it shall conform to CAN/CSA-B127.3, “Fibrocement drain, waste, and vent pipe and pipe fittings.”

Concrete Pipe and Fittings

- Two new pipe types
- CSA A257.1, “non-reinforced circular concrete culvert, storm drain, sewer pipe, and fittings,” or
- CSA A257.2, “Reinforced circular concrete culvert, storm drain, sewer pipe, and fittings.”
- Concrete fittings fabricated on the site from lengths of pipe shall not be used. If manufactured off site fittings are acceptable. (See Note A-7.2.5.2. (3))

Crosslinked Polyethylene Pipe and Fittings

Sentence (1) has been expanded to allow manufacturer-approved fittings to be used with PEX tubing, if they comply with the referenced standard (CSA B137.5).

PVC Pipe and Fittings

PVC water pipe and fittings can now be used in a hot water system provided they conform to:

- ASTM D2466, “Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40,” or
- ASTM D2467, “Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.”

Transition Solvent Cement

Transition cement can now only be used on a drainage system, not on a venting system.

Polyethylene of Raised Temperature Tube and Fittings

New piping and Requirements

Polyethylene of raised temperature (PE-RT) tube and manufacturer-approved fittings used in hot and cold potable water systems shall conform to CSA B137.18, “Polyethylene of raised temperature resistance (PE-RT) tubing systems for pressure applications.” (See Note A-7.2.5.15. (1).)

The use of PE-RT tube shall conform to Table 7.2.5.15.

Table 7.2.5.15.

Permitted Uses of Polyethylene of Raised Temperature (PE-RT) Tube

Forming Part of Sentence 7.2.5.15.(2)

	Plumbing Purposes (1)								
	Drainage System		**Building Sewer**	**Venting System**		**Potable Water System**			
Type of Tube	Aboveground inside building	Underground under building		Above-ground	Under-ground	Cold	Hot	Under Building	Outside Building
PE-RT	N	N	N	N	N	P	P	P	P

Notes to Table 7.2.5.15.:

(1) P = permitted and N = not permitted.

Cellular Core PVC Pipe and Fittings

New piping requirements for PVC Cellular Core piping and fittings

(1) Cellular core PVC pipe shall:

a. conform to ASTM F3128, “Standard Specification for Poly (Vinyl Chloride) (PVC) Schedule 40 Drain, Waste, and Vent Pipe with a Cellular Core,” and

b. be light grey, as specified in CSA B181.2, “Polyvinylchloride (PVC) and chlorinated polyvinylchloride (CPVC) drain, waste, and vent pipe and pipe fittings.”

(2) Fittings and solvent cements for cellular core PVC pipe shall:

conform to CSA B181.2, “Polyvinylchloride (PVC) and chlorinated polyvinylchloride (CPVC) drain, waste, and vent pipe and pipe fittings.”

Cellular core PVC pipe shall only be used in residential buildings containing 1 or 2 dwelling units and in row houses that do not exceed three storeys in height.

Water Temperature Control

New water temperature control requirements

(1) Except as provided in Sentences (2) and (3), water supplied to shower heads or bathtubs shall be controlled by an automatic compensating valve conforming to:

a. ASME A112.18.1/CSA B125.1, “Plumbing Supply Fittings,” or

b. ASSE 1016/ASME A112.1016/CSA B125.16, “Performance Requirements for Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations.”

(2) The requirement in Sentence (1) is permitted to be waived where hot water supplied only to bathtubs is controlled by

a. an automatic compensating valve conforming to CSA B125.3, “Plumbing fittings,” or

b. a temperature-limiting device conforming to ASSE 1070/ASME A112.1070/CSA B125.70, “Performance requirements for water temperature limiting devices.”

(3) The requirement in Sentence (1) is permitted to be waived where the water is supplied by a single tempered water line controlled by an automatic compensating valve conforming to CSA B125.3, “Plumbing fittings.”

(4) Except as provided in Sentences (5) and (6), and 7.2.10.7A.(1), the temperature of water discharging from a shower head or into a bathtub shall not exceed 49°C.

(5) In healthcare facilities and retirement homes, the temperature of water discharging from a shower head or into a bathtub shall

a. not exceed 43°C, and

b. be adjusted at the shower or bathtub controls.

(6) Sentence (4) does not apply to hot water supplied to installed dishwashers or clothes washers.

Temperature Control Devices

New requirement for water distribution systems supplying hot water to any bathtub, shower or hand basin that is accessible to children within childcare centres to have one or more temperature gauges and control devices that are accessible only to supervisory staff and capable of being adjusted to ensure that the temperature of the water supplied to the fixtures does not exceed 49 deg. C.

New Sentence 7.2.10.7.(1) has been added that requires water supplied to shower heads or bathtubs to be controlled by an automatic compensating valve conforming either to ASME A112.18.1/ CSA B125.15 or ASSE 1016/ ASME A112.1016/ CSA B125.16 to provide a means of automatically maintaining the selected water temperature. Harmonized with 2020 NPC.

New Sentence 7.2.10.7.(2) waives the requirement under Sentence (1) for bathtubs only if the hot water supplied is controlled by an automatic compensating valve conforming to CSA B125.3 or controlled by a temperature-limiting device conforming to ASSE 1070/ ASME A112.1070/ CSA B125.70 and provide performance requirements for temperature-limiting devices. Harmonized with 2020 NPC.

New Sentence 7.2.10.7.(3) waives the requirement under Sentence (1) if the water is supplied by a single tempered water line controlled by an automatic compensating valve conforming to CAS B125.3. Harmonized with 2020 NPC.

New Sentence 7.2.10.7.(5) has been introduced to reduce the maximum water temperature from 49 ºC to 43ºC in health care facilities and seniors' residences. Harmonized with 2020 NPC.

Linings and Coatings of Water Storage Tanks

Sentence (1) has been amended to clarify that the existing requirement for linings and coatings of water tanks that come into contact with potable water are not intended to apply to domestic tanks that are within a house or an individual dwelling unit. It is intended for tanks used in other occupancies. Ontario-only provision retained.

Back-Siphonage Preventers and Backflow Preventers

The list of standards in Sentence (1) has been expanded by referring to CSA B64.4.1., CSA B64.5.1., CSA B64.6.1. and CSA B64.9. Harmonized with 2020 NPC.

Sentence (2) has been amended to introduce a new standard ASSE 1002/ ASME A112.1002/ CSA B125.12 for back-siphonage preventers for tank type water closets. Harmonized with 2020 NPC.

Direct Flush Valves

Direct flush valves shall now be protected from back-siphonage and now conform to ASSE 1037/ASME A112.1037/CSA B125.37, "Performance requirements for pressurized flushing devices for plumbing fixtures."

Flexible Water Connectors

Flexible water connectors exposed to continuous pressure shall now conform to ASME A112.18.6/CSA B125.6,

Tracer Wire

12-gauge copper clad steel light coloured plastic coated tracer wire may now be used as tracer wire on non-metallic water service or fire service mains

Drilled and Tapped Joints

Drilled and tapped joints shall not be made in a sanitary drainage pipe or vent pipe and fittings unless suitable provision has been made for drilling and tapping.

Extracted Tees

Extracted Tees that introduces conditions for extracting tees in copper tube used in a water distribution system such as the required tool, branch size, flow obstruction prevention and joint filler metal. Harmonized with 2020 NPC.

Unions and Slip Joints

Sentence (1) which prohibits union joints downstream of a trap weir in a drainage system or venting system, has been amended to recognize the existing exception in Sentence 7.4.6.3.(6) which allows the use of union joints for pumped sumps. Harmonized with 2020 NPC.

Running thread and packing nut connections and unions with a gasket seal are now permitted if complying with 2.4.6.3.(6)

Connection of Floor and Wall Outlet Fixtures

Water-closet bowls shall now be securely attached to the floor flange, floor, or wall carrier.

Table 7.3.4.5.

Support for Nominally Horizontal Piping

Support of nominally horizontal piping is now located within a chart.

Table 7.3.4.5.

Piping Material	**Maximum Horizontal Spacing of Supports, m**	**Additional Support Conditions**
ABS or PVC plastic pipe	1.2	At the end of branches or fixture drains and at changes in direction and elevation
ABS or PVC plastic trap arm or fixture drain pipe > 1 m long	n/a	As close as possible to the trap
Piping Material	**Maximum Horizontal Spacing of Supports, m**	**Additional Support Conditions**
Cast-iron pipe	3.0	At or adjacent to each hub or joint
Cast-iron pipe with mechanical joints that is ≤ 300 mm long between adjacent fittings	1.0	None
Copper tube or copper and brass pipe hard temper diameter> NPS 1 diameter≤ NPS 1	- 3.0 2.5	- None -
Copper tube, soft temper	2.5	None
CPVC pipe	1.0	None
Galvanized iron or steel pipe diameter ≥ NPS 6 diameter< NPS 6	3.75 2.5	None
Lead pipe	Throughout length of pipe	None
PE/AL/PE composite pipe	1.0	None
PEX/AL/PEX composite pipe	1.0	None
PEX plastic pipe	0.8	None
PE-RT tube	0.8	None
PP-R plastic pipe	1.0	At the end of branches and at changes in direction and elevation
Stainless steel pipe diameter≥ NPS 1 diameter < NPS 1	3.0 2.5	None

Table 7.3.4.5. (continued)

Piping Material	Maximum Horizontal Spacing of Supports, m	Additional Support Conditions
Stainless steel tube diameter≥ NPS 1 diameter < NPS 1	 3.0 2.5	None

New sentence added: Where PEX, PE-RT, PP-R, PE/AL/PE or PEX/AL/PEX plastic pipe or tube is installed, hangers shall not compress, cut, or abrade the pipe.

Support for Vent Pipe above a Roof

Vent pipes above the roof surface must now be supported or braced where it may be subjected to misalignment.

Tests and Inspections of Drainage or Venting Systems

When a prefabricated system is installed as part of a drainage system or venting system, all other plumbing work shall be tested and inspected, and a final test shall be carried out on the complete system when requested.

Ball Tests

Ball tests may now be performed using a 50 mm where the size of the pipe is NPS 3 or more, or 50 mm where the size of the pipe is NPS 3 or more, **or a 25 mm where the size of the pipe is less than NPS 3.**

Connections to Sanitary Drainage Systems

Where a drinking fountain is connected to a storm drainage system a backwater valve is now required to be installed in the fountain fixture drain.

Drainage pans on heating/cooling units are now permitted to be connected to a storm drainage system, provided that where the system is subject to backflow, a backwater valve is installed,

A floor drain is now permitted to be connected to a storm drainage system, provided it is located where it can receive only clear-water waste or storm water.

Traps for Sanitary Drainage Systems

- Clause 3(b) has been revised so that only part of the trap is required to be removable for cleaning purposes.
- Clause 3(c) has been removed as an option for cleanout provision when the trap is installed below the floor without a cleanout plug.
- Sentence (4) no longer makes reference to the S-trap.
- A grease interceptor with an effective water seal of not less than 38 mm is now permitted to serve as a trap. (See Note A-2.4.5.1. (5))

Traps for Storm Drainage Systems

Storm drainage systems may now connect to a combined building sewer or a public combined sewer.

A floor drain that drains to a storm drainage system shall be protected by a trap that is located between the floor drain and a leader, storm building drain or storm building sewer, may serve all floor drains located in the same room, and need not be protected by a vent pipe.

Sumps or Tanks

Moved from other Parts of the Code to Part 7

- Where the sump or tank receives subsurface water from a subsoil drainage pipe, it shall be provided with a water- and air-tight cover.
- The discharge pipe from **every pumped sump shall** be equipped with a union, **a backwater valve** and a shut-off valve installed in that sequence in the direction of discharge.

Cleanouts for Drainage Systems

- A building sewer shall not change direction or slope between the building and public sewer or between cleanouts, except that pipes not more than NPS 6 may change direction by not more than 5° every 3 m, or by the use of fittings with a cumulative change in direction of not more than 45°.
- Building drains shall be provided with a cleanout fitting **of NPS 4 or** larger that is located as close as practical to the place where the building drain leaves the building. **(See Note A-7.4.7.1. (6))**
- Stacks shall now be provided with a cleanout fitting not more than **3 m**.
- The developed length of a building sewer between the building and the first manhole to which the building sewer connects shall now not exceed **75 m** rather than 30 m.

Size and Spacing of Cleanouts

New Table with two-way rodding permitted now:

Table 7.4.7.2.

Permitted Size and Spacing of Cleanouts

Forming Part of Sentence 7.4.7.2.(1)

Nominal Pipe Size of Drainage Pipe, NPS	Minimum Nominal Pipe Size of Cleanout, NPS	Maximum Spacing, m	
		One-Way Rodding	Two-Way Rodding
Less than 3	Same NPS as drainage pipe	7.5	15
3 and 4	3	15	30
Over 4	4	26	52

- Sink waste pipe, cleanout requirement of 6 m is now not a requirement.

Location of Cleanouts

- A cleanout **shall not** be **used as a floor drain**.
- Cleanouts serving fixture drains in healthcare facilities, mortuaries, laboratories, and similar occupancies, where contamination by **hazardous waste is** likely, shall be located a minimum of 150 mm above the flood level rim of the fixture. (See Note A- 7.4.4.4.(1))

Minimum Permitted Size of Fixture Outlet Pipe and Hydraulic Loads for Fixtures (1)

- No hydraulic load is given for emergency floor drains.
- In an individual dwelling unit, where multiple shower heads are served by one shower receptacle, the fixture outlet pipe shall now be not less than NPS 2.
- Sentence (3) has been amended to specify sizing requirements in terms of the clothes washer trap inlet to be not less than NPS 2, applicable to clothes washers not draining into laundry trays.

Minimum Size of Building Drain and Building Sewer

Building drains and building sewers **connected to the public sewer system downstream of the main cleanout**, shall be not less than NPS 4.

Hydraulic Loads from Fixtures with Continuous Flow

Where a fixture or equipment that produces a continuous or semi-continuous flow drains may now be connected to a **combined sewer**.

Hydraulic Loads from Roofs or Paved Surfaces

- **Scuppers are now maxed to 200%** of the 15-minute rainfall intensity, more than one scupper may now be required to handle the loading.

Hydraulic Loads to Soil or Waste Pipes

- Where the nominally horizontal offset in a stack is 1.5 m or more, the hydraulic load that is served by it shall now conform to **Table 7.4.10.6.-B or Table 7.4.10.6.-C, whichever is the less restrictive.**

Maximum Permitted Hydraulic Load Drained to a Branch

- **Changes made to Table 1 ½" now max hydraulic loading of 3 and branch sizes 3" to 12" added. Chart is now only for branches.**

Table 7.4.10.6.-B

Nominal Pipe Size of Branch, NPS	Maximum Hydraulic Load, fixture units
1¼	2
1½	3
2	6
3	27
4	180
5	390
6	700
8	1 600
10	2 500
12	3 900

Maximum Permitted Hydraulic Load Drained to a Sanitary Building Drain or Sewer

- **Chart now applies to sanitary building drains and sewers only.**

Table 7.4.10.6.-C [(1)]

Forming Part of Sentences 7.4.10.6.(2), and Article 7.4.10.8.

Nominal Pipe Size of Drain or Sewer, NPS	Maximum Hydraulic Load, fixture units					
	Slope [2]					
	1 in 400	1 in 200	1 in 133	1 in 100	1 in 50	1 in 25
3	n/a	n/a	n/a	n/a	27	36
4	n/a	n/a	n/a	180	240	300
5	n/a	n/a	380	390	480	670
6	n/a	n/a	600	700	840	1 300
8	n/a	1 400	1 500	1 600	2 250	3 370
10	n/a	2 500	2 700	3 000	4 500	6 500
12	2 240	3 900	4 500	5 400	8 300	13 000
15	4 800	7 000	9 300	10 400	16 300	22 500

Notes to Table 7.4.10.6.-C:

[1] See Note A-Table 7.4.10.6.-C.

[2] Slope is the ratio of rise to run, in whatever measurement units are chosen.

Hydraulic Loads on Storm or Combined Building Drains or Sewers

- **Chart now includes combined building sewers.**
- **Chart removes horizontal storm drainage pipes.**

Maximum Permitted Hydraulic Load Drained to a Storm Building Drain or Sewer, or a Combined Building Sewer

Table 7.4.10.9.:

Forming Part of Sentences 7.4.9.5.(2) and Article 7.4.10.9.

Nominal Pipe Size of Drain or Sewer, NPS	**Maximum Hydraulic Load, L**						
	Slope [1]						
	1 in 400	1 in 200	1 in 133	1 in 100	1 in 68	1 in 50	1 in 25
3	n/a	n/a	n/a	n/a	n/a	2 770	3 910
4	n/a	n/a	n/a	4 220	5 160	5 970	8 430
5	n/a	n/a	6 760	7 650	9 350	10 800	15 300
6	n/a	n/a	10 700	12 400	15 200	17 600	24 900
8	n/a	18 900	23 200	26 700	32 800	37 800	53 600
10	n/a	34 300	41 900	48 500	59 400	68 600	97 000
12	37 400	55 900	68 300	78 700	96 500	112 000	158 000
15	71 400	101 000	124 000	143 000	175 000	202 000	287 000

Notes to Table 7.4.10.9.:

[1] Slope is the ratio of rise to run, in whatever measurement units are chosen.

Hydraulic Loads to Roof Gutters

- **A new table and requirements for roof gutters.**

The hydraulic load that is drained to a roof gutter shall conform to Table 7.4.10.10.

Table 7.4.10.10.

Maximum Permitted Hydraulic Load Drained to a Roof Gutter

Forming Part of Article 7.4.10.10.

Nominal Pipe Size of Gutter, NPS	Area of Gutter, cm^2	Maximum Hydraulic Load, L			
		Slope			
		1 in 200	1 in 100	1 in 50	1 in 25
3	22.8	406	559	812	1 140
4	40.5	838	1 190	1 700	2 410
5	63.3	1 470	2 080	2 950	4 170
6	91.2	2 260	3 200	4 520	6 530
7	124.1	3 250	4 600	6 500	9 190
8	162.1	4 700	6 600	9 400	13 200
10	253.4	8 480	12 000	17 000	23 600

Hydraulic Loads on Leaders

- **New table includes requirements for non-circular leaders.**

(1) The hydraulic load that is drained to a leader shall conform to Table 7.4.10.11.

Table 7.4.10.11.

Maximum Permitted Hydraulic Load Drained to a Leader

Forming Part of Article 7.4.10.11.

Circular Leader		Non-Circular Leader	
Nominal Pipe Size of Leader, NPS	Maximum Hydraulic Load, L	Area of Leader, cm^2	Maximum Hydraulic Load, L
2	1 700	20.3	1 520
2½	3 070	31.6	2 770
3	5 000	45.6	4 500
4	10 800	81.1	9 700
5	19 500	126.6	17 600
6	31 800	182.4	28 700
8	68 300	324.3	61 500

Wet Venting

- A sanitary drainage pipe is now permitted to serve as a wet vent, provided

- Where two water closets are installed and they are **connected at the same level by means of a double Y fitting if the vent pipe is horizontal**,

- A sanitary drainage pipe is now restricted to serve as a wet vent, if
- Where a wet vent extends through more than one storey, the total discharge from any one storey above the first storey does not exceed four fixture units, **and,**
- **there is not more than one nominally horizontal offset in the wet vent.**

- A sanitary drainage pipe is permitted to serve as a wet vent, provided
- Trap arms and fixture drains connected to the wet vent do not exceed NPS 2, **except for connections from emergency floor drains in accordance with Sentence 7.5.1.1.(3).**

- **This sentence has been removed**:

  “the highest fixture is connected to a vertical portion of the wet vent, upstream of any other fixtures, in the form of a continuous vent.”

Vent Stacks

- Every stack that drains fixtures from more than four storeys **containing plumbing fixtures shall** have a vent stack unless in conformance with other sentences.

Fixtures Draining into Vent Pipes

- Where two fixtures are connected to the vent pipe, the connection is made by means of a **double fitting, this has been changed to a double sanitary T fitting**.
- Sentence (1) has been amended to require the section of the vent pipe that acts as a wet vent to be not less than NPS 2. Harmonized with 2020 NPC.

Venting of Interceptors

A vent pipe that serves an oil interceptor and is located outside a building shall be not less than **NPS 3** in areas where it may be subject to frost closure.

- **The grease interceptor has been removed from this sentence.**
- **New venting requirement for grease interceptors.**

Every grease interceptor **inlet pipe shall** be provided with a vent pipe.

a. within 1 500 mm of the inlet to the grease interceptor,
b. not less than NPS 1½ for inlet pipes up to NPS 4, but not larger than NPS 2, and
c. complete with a cleanout to provide cleaning of the vent pipe.

Venting of Drain Pipes and Dilution Tanks for Corrosive Waste

- Venting systems for neutralizing tanks is now required to independently extend and terminate to the outdoors.

Terminals

A vent pipe is now permitted to be erected outside the building on new buildings and is not restricted to only additions or alterations of an existing building provided that:

- **in areas where the vent pipe may be subject to frost closure**, it is increased to not less than **NPS 3** before penetrating a wall or roof, and
- Where a vent pipe passes through a roof and may be subject to frost closure, shall be protected from frost closure by increasing its diameter at least one NPS, but not less than NPS 3, immediately before it penetrates the roof, **or by insulating the pipe, or protecting it in some other manner,**
- Except for a fresh air inlet, where a vent pipe is terminated in open air, the terminal shall be located not less than 1.8 m from every property line. (See Note A-7.5.6.5. (4))

Sanitary Building Drain Vent Size Restrictions

- The sanitary building drain now does not have to terminate at its upstream end in a stack of at least 3 in. size however it shall be provided with at least one vent that is not less than NPS 3.

Air Admittance Valves

Note: air admittance valves are still subject to all other conditions located in the OBC.

- Air admittance valves shall now be located **not less than 100 mm above the fixture drain being vented,**
- An air admittance valve may only be installed it the drainage systems has at least one vent that terminates to the outdoors in conformance with Sentence 7.5.6.5.(1).

Control and Shut-off Valves

- In buildings of residential occupancy that contain **more than one dwelling unit**, a shut-off valve shall be installed where the water supply enters each dwelling unit, so that, when the water supply to one suite is shut off, the water supply to the remainder of the building is not interrupted. (See Note A-7.6.1.3. (5).)

- In buildings of other than residential occupancy, shut-off valves shall be provided on the water supply to every fixture.
- any group of fixtures in the same room, except water closets shall be provided with a shut-off valve on their water supply pipe.

Backflow from Fire Protection Systems

- Fire sprinkler/ standpipe systems can now be provided with a device which is not F rated.
    - Table 7.6.2.4 has been removed.

Separation of Water Supply Systems

- New sentence added permitting a potable public service to provide water to a private water supply system or a non-potable water system provided it is in accordance with Article 7.6.2.1.

Hose Bib

- New sentence: Where a hose bib is installed outside a building, inside a garage, or in an area where there is an identifiable risk contamination, the potable water system shall be protected against backflow through the hose bib.

Non-Potable Rainwater Harvesting Systems

New requirements

For the purposes of this Subsection, rainwater shall mean storm water discharged from an above-ground roof surface.

For the purposes of this Subsection, a non-potable rainwater harvesting system shall mean a storage tank, a pump, pipes, fittings, and other plumbing appurtenances used to collect and distribute rainwater but shall not include a rain barrel not connected to a plumbing system.

Permitted Applications

1. Non-potable rainwater harvesting systems are only permitted to supply:
    a. water closets and urinals,
    b. clothes washers,
    c. floor-mounted service sinks and laundry trays,
    d. trap primers,
    e. irrigation systems,
    f. hydronic systems,
    g. make-up water systems for heat rejection systems, or
    h. any other application where the harvested rainwater is not expected to be ingested or inhaled. (See Note A-7.7.2.2. (1) and 7.7.2.4.(3) and (4))

Roof Design

- Roof surfaces that supply rainwater to a non-potable rainwater harvesting system shall be inaccessible to vehicular and pedestrian traffic. (See Note A-7.7.2.3. (1))
- Roofing components and conveyance systems in contact with rainwater that is supplied to a non-potable rainwater harvesting system shall be constructed of materials that will not introduce substances into the rainwater that could adversely affect its intended end use. (See Note A-7.7.2.3. (2))

Non-Potable Rainwater Harvesting System Design

- Non-potable rainwater harvesting systems, and their connections shall be designed, fabricated, and installed in accordance with this Subsection and good engineering practice.
- Non-potable rainwater harvesting systems shall not collect water discharged from an evaporative heat rejection system.
- Non-potable rainwater harvesting systems shall be provided with a means to treat the harvested rainwater in such a manner that the quality of the delivered non-potable water conforms to appropriate provincial or territorial requirements, or, in the absence of such requirements, the systems shall conform to Sentence (4). (See Note A-7.7.2.2. (1) and 7.7.2.4.(3) and (4))
- Except as provided in Sentence (3), non-potable rainwater harvesting systems shall be provided with:

1. a water treatment system consisting of:
    I. a debris screen with a mesh size of not more than 6 mm ahead of the storage tank inlet,

II. a first-flush diversion system with a capacity of not less than 0.3 L/m2 of roof area ahead of the storage tank inlet,

III. a calming inlet or settling chamber ahead of the storage tank inlet,

IV. a device to prevent the entrainment of sediment into the pump, and

V. where the harvested rainwater is used for an indoor application, a filter with a mesh size of not more than 50 mm ahead of the storage tank inlet, or

J. a means to treat the harvested rainwater in such a manner that the delivered non-potable water contains not more than the maximum acceptable levels of contaminants stated in CSA B805/ICC 805, “Rainwater harvesting systems.” (See Note A-7.7.2.2. (1) and 7.7.2.4.(3) and (4))

- Where the static pressure at any fixture in a non-potable rainwater harvesting system may exceed 550 kPa, a pressure-reducing valve shall be installed to limit the maximum static pressure at the fixture to 550 kPa.
- Storage tanks in non-potable rainwater harvesting systems shall be designed and installed in accordance with:

K. CAN/CSA-B126.0, “General requirements and methods of testing for water cisterns,” and

L. CAN/CSA-B126.1, “Installation of water cisterns.”

- Storage tanks in non-potable rainwater harvesting systems shall be equipped with an overflow that directs excess rainwater to:

M. a public storm sewer,

N. a public combined sewer,

O. a storm water management system, or

P. a designated storm water disposal location.

- Where the storage tank outlet is located below the level of the adjoining street, the storage tank overflow required by Sentence (7) shall:

Q. terminate with an indirect connection that is not located within the building, or

R. be equipped with a backwater valve.

- Make-up water connections to non-potable rainwater harvesting systems shall:

S. be equipped with a reduced pressure principal backflow preventer, or

T. have an air gap.

- Where a fixture combines water from a non-potable rainwater harvesting system and potable water at the fixture supply fitting, the potable water system shall be protected by a backflow preventer as described in Sentence 7.6.2.1.(3).