

2010 National Plumbing Code of Canada (NPC)

2013 Revisions Package

Selected replacement pages have been produced for the NPC.

Please print and insert in your copy of the Code.

Revisions and Errata

Issued by the Canadian Commission on Building and Fire Codes

The Change History table that follows describes revisions, errata and editorial updates that apply to the National Plumbing Code of Canada 2010:

- Revisions are changes deemed urgent that have been approved by the Canadian Commission on Building and Fire Codes.
- Errata are corrections to existing text.
- Editorial updates are provided for information purposes only.

Code pages containing revisions and/or errata are identified with the words “Amended Page” in the footer; pages containing editorial updates are not flagged.

Contact your local authority having jurisdiction to find out if these revisions and errata apply in your province or territory.

Change History — National Plumbing Code of Canada 2010

| Division | Code Reference | Change | Date (Y-M-D) | Description of Change |
|----------|------------------|------------------|--------------|--|
| Preface | n/a | editorial update | 2012-12-21 | Text referring to application statements was deleted as these statements are no longer being published |
| A | 1.4.1.2.(1) | erratum | 2012-12-21 | Entry for “ <i>Riser</i> ” was moved to the position preceding the entry for “ <i>Roof drain</i> ” |
| B | 1.3.1.1.(1) | revision | 2013-10-31 | Date stated in Sentence was revised to read “30 June 2012” |
| B | Table 1.3.1.2. | revision | 2013-10-31 | Document references were updated as applicable to reflect more recent editions published as of June 30, 2012 |
| B | 2.2.4.3.(2) | editorial update | 2012-12-21 | To clarify intent, Sentence was updated to read “... 90° elbows described in Sentence (1) shall ...” |
| B | 2.4.6.3.(6) | erratum | 2012-12-21 | Term “ <i>check valve</i> ” was replaced with term “ <i>backwater valve</i> ” |
| B | 2.5.5.2.(5) | erratum | 2012-12-21 | Sentence was corrected to read “... that serves an oil <i>interceptor</i> and is located ...” |
| B | 2.5.8.4.(5) | erratum | 2012-12-21 | Term “ <i>building drain</i> ” was replaced with term “ <i>sanitary building drain</i> ” |
| B | 2.5.9.3.(5) | erratum | 2012-12-21 | Sentence was corrected to read “Every <i>drainage system</i> shall have at least one vent that terminates to the outdoors in conformance with Sentence 2.5.6.5.(1).” |
| B | Table 2.8.1.1. | erratum | 2012-12-21 | Attribution with objective OH2.2 for Sentence 2.6.3.1.(3) was corrected to read OH2.1 |
| B | Table A-1.3.1.2. | revision | 2013-10-31 | Document references were updated as applicable to reflect more recent editions published as of June 30, 2012 |
| B | A-2.4.7.1.(9) | erratum | 2012-12-21 | Two cleanouts were deleted from Figure A-2.4.7.1.(9) |
| B | A-2.6.3.4.(5) | erratum | 2012-12-21 | Load on Pipe A in Figure A-2.6.3.4.(5)-B was corrected to read “1.4 FU” |

Part 1 General

Section 1.1. General

1.1.1. Application

1.1.1.1. Application

1) This Part applies to all *plumbing systems* covered in this Code. (See Article 1.1.1.1. of Division A.)

1.1.2. Objectives and Functional Statements

1.1.2.1. Attribution to Acceptable Solutions

1) For the purposes of compliance with this Code as required in Clause 1.2.1.1.(1)(b) of Division A, the objectives and functional statements attributed to the acceptable solutions in Division B shall be the objectives and functional statements identified in Section 2.8. (See Appendix A.)

Section 1.2. Terms and Abbreviations

1.2.1. Definitions of Words and Phrases

1.2.1.1. Non-defined Terms

1) Words and phrases used in Division B that are not included in the list of definitions in Article 1.4.1.2. of Division A shall have the meanings that are commonly assigned to them in the context in which they are used, taking into account the specialized use of terms by the various trades and professions to which the terminology applies.

2) Where objectives and functional statements are referred to in Division B, they shall be the objectives and functional statements described in Parts 2 and 3 of Division A.

3) Where acceptable solutions are referred to in Division B, they shall be the provisions stated in Part 2.

1.2.1.2. Defined Terms

1) The words and terms in italics in Division B shall have the meanings assigned to them in Article 1.4.1.2. of Division A.

1.2.2. Symbols and Other Abbreviations

1.2.2.1. Symbols and Other Abbreviations

1) The symbols and other abbreviations in Division B shall have the meanings assigned to them in Article 1.4.2.1. of Division A and Article 1.3.2.1.

Section 1.3. Referenced Documents and Organizations

1.3.1. Referenced Documents

1.3.1.1. Effective Date

1) Unless otherwise specified herein, the documents referenced in this Code shall include all amendments, revisions, reaffirmations, reapprovals, addenda and supplements effective to 30 June 2012.

1.3.1.2. Applicable Editions

1) Where documents are referenced in this Code, they shall be the editions designated in Table 1.3.1.2. (See Appendix A.)

Table 1.3.1.2.
Documents Referenced in the National Plumbing Code of Canada 2010
 Forming Part of Sentence 1.3.1.2.(1)

| Issuing Agency | Document Number ⁽¹⁾ | Title of Document ⁽²⁾ | Code Reference |
|----------------|---|---|------------------------------|
| ANSI/CSA | ANSI Z21.22-1999/CSA 4.4-M99 (including Addenda 1 and 2) | Relief Valves for Hot Water Supply Systems | 2.2.10.11.(1) |
| ASME/CSA | ASME A112.18.1-2012/CSA B125.1-12 ⁽³⁾ | Plumbing Supply Fittings | 2.2.10.6.(1) 2.2.10.7.(1) |
| ASME/CSA | ASME A112.18.2-2011/CSA B125.2-11 | Plumbing Waste Fittings | 2.2.3.3.(1) 2.2.10.6.(2) |
| ASME/CSA | ASME A112.19.1-08/CSA B45.2-08 | Enamelled Cast Iron and Enamelled Steel Plumbing Fixtures | 2.2.2.2.(3) 2.2.2.2.(4) |
| ASME/CSA | ASME A112.19.2-08/CSA B45.1-08 | Ceramic Plumbing Fixtures | 2.2.2.2.(2) |
| ASME/CSA | ASME A112.19.3-08/CSA B45.4-08 | Stainless Steel Plumbing Fixtures | 2.2.2.2.(5) |
| ASME | B16.3-2011 | Malleable-Iron Threaded Fittings: Classes 150 and 300 | 2.2.6.6.(1) |
| ASME | B16.4-2011 | Gray Iron Threaded Fittings: Classes 125 and 250 | 2.2.6.5.(1) |
| ASME | B16.12-2009 | Cast Iron Threaded Drainage Fittings | 2.2.6.3.(1) |
| ASME | B16.15-2011 | Cast Copper Alloy Threaded Fittings: Classes 125 and 250 | 2.2.7.3.(1) |
| ASME | B16.18-2012 | Cast Copper Alloy Solder-Joint Pressure Fittings | 2.2.7.6.(1) 2.2.7.6.(2) |
| ASME | B16.22-2001 | Wrought Copper and Copper Alloy Solder Joint Pressure Fittings | 2.2.7.6.(1) |
| ASME | B16.23-2011 | Cast Copper Alloy Solder Joint Drainage Fittings: DWV | 2.2.7.5.(1) |
| ASME | B16.24-2011 | Cast Copper Alloy Pipe Flanges and Flanged Fittings: Classes 150, 300, 600, 900, 1500, and 2500 | 2.2.7.2.(1) |
| ASME | B16.26-2011 | Cast Copper Alloy Fittings for Flared Copper Tubes | 2.2.7.7.(1) 2.2.7.7.(2) |
| ASME | B16.29-2007 | Wrought Copper and Wrought Copper Alloy Solder-Joint Drainage Fittings – DWV | 2.2.7.5.(1) |
| ASSE | ANSI/ASSE 1010-2004 | Water Hammer Arresters | 2.2.10.15.(1) |
| ASSE | 1051-2009G | Individual and Branch Type Air Admittance Valves (AAVs) for Sanitary Drainage Systems | 2.2.10.16.(1) |
| ASTM | A 53/A 53M-10 | Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless | 2.2.6.7.(4) |
| ASTM | A 518/A 518M-99 | Corrosion-Resistant High-Silicon Iron Castings | 2.2.8.1.(1) |
| ASTM | B 32-08 | Solder Metal | 2.2.9.2.(1) |

Table 1.3.1.2. (Continued)

| Issuing Agency | Document Number ⁽¹⁾ | Title of Document ⁽²⁾ | Code Reference |
|----------------|--------------------------------|--|---|
| ASTM | B 42-10 | Seamless Copper Pipe, Standard Sizes | 2.2.7.1.(1) |
| ASTM | B 43-09 | Seamless Red Brass Pipe, Standard Sizes | 2.2.7.1.(2) |
| ASTM | B 88-09 | Seamless Copper Water Tube | 2.2.7.4.(1) |
| ASTM | B 306-09 | Copper Drainage Tube (DWV) | 2.2.7.4.(1) |
| ASTM | B 813-10 | Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy Tube | 2.2.9.2.(3) |
| ASTM | B 828-02 | Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings | 2.3.2.4.(1) |
| ASTM | C 1053-00 | Borosilicate Glass Pipe and Fittings for Drain, Waste, and Vent (DWV) Applications | 2.2.8.1.(1) |
| ASTM | D 2466-06 | Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40 | 2.2.5.8.(2) |
| ASTM | D 2467-06 | Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80 | 2.2.5.8.(2) |
| ASTM | D 3261-10a | Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing | 2.2.5.5.(3) |
| ASTM | F 628-08 | Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe With a Cellular Core | 2.2.5.10.(1) 2.2.5.12.(1) |
| ASTM | F 714-10 | Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter | 2.2.5.6.(1) |
| AWS | ANSI/AWS A5.8M/A5.8:2011 | Filler Metals for Brazing and Braze Welding | 2.2.9.2.(4) |
| AWWA | ANSI/AWWA C104/A21.4-08 | Cement-Mortar Lining for Ductile-Iron Pipe and Fittings | 2.2.6.4.(2) |
| AWWA | ANSI/AWWA C110/A21.10-12 | Ductile-Iron and Gray-Iron Fittings | 2.2.6.4.(3) |
| AWWA | ANSI/AWWA C111/A21.11-07 | Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings | 2.2.6.4.(4) |
| AWWA | ANSI/AWWA C151/A21.51-09 | Ductile-Iron Pipe, Centrifugally Cast | 2.2.6.4.(1) |
| CCBFC | NRCC 53301 | National Building Code of Canada 2010 | 1.1.1.1.(3) ⁽⁴⁾ 1.4.1.2.(1) ⁽⁴⁾ 2.1.3.1.(1) 2.2.5.12.(2) 2.2.5.12.(3) 2.2.6.7.(3) 2.4.3.1.(1) 2.4.10.4.(1) |
| CCBFC | NRCC 53303 | National Fire Code of Canada 2010 | 2.5.5.2. |
| CGSB | CAN/CGSB-34.1-94 | Asbestos-Cement Pressure Pipe | 2.2.5.2.(1) |
| CGSB | CAN/CGSB-34.9-94 | Asbestos-Cement Sewer Pipe | 2.2.5.1.(2) |
| CGSB | CAN/CGSB-34.22-94 | Asbestos-Cement Drain Pipe | 2.2.5.1.(1) |
| CGSB | CAN/CGSB-34.23-94 | Asbestos-Cement House Connection Sewer Pipe | 2.2.5.1.(2) |
| CSA | A60.1-M1976 | Vitrified Clay Pipe | 2.2.5.4.(1) |
| CSA | A60.3-M1976 | Vitrified Clay Pipe Joints | 2.2.5.4.(2) |
| CSA | CAN/CSA-A257.1-09 | Non-Reinforced Circular Concrete Culvert, Storm Drain, Sewer Pipe, and Fittings | 2.2.5.3.(1) |
| CSA | CAN/CSA-A257.2-09 | Reinforced Circular Concrete Culvert, Storm Drain, Sewer Pipe, and Fittings | 2.2.5.3.(1) |
| CSA | CAN/CSA-A257.3-09 | Joints for Circular Concrete Sewer and Culvert Pipe, Manhole Sections, and Fittings Using Rubber Gaskets | 2.2.5.3.(2) |
| CSA | CAN/CSA-A257.4-09 | Precast Reinforced Circular Concrete Manhole Sections, Catch Basins, and Fittings | 2.2.5.3.(5) |
| CSA | CAN/CSA-B45 Series-02 | Plumbing Fixtures | 2.2.2.2.(1) |
| CSA | B45.5-11/IAPMO Z124-2011 | Plastic Plumbing Fixtures | 2.2.2.2.(6) |
| CSA | CAN/CSA-B45.9-02 | Macerating Systems and Related Components | 2.2.2.2.(8) |

Table 1.3.1.2. (Continued)

| Issuing Agency | Document Number ⁽¹⁾ | Title of Document ⁽²⁾ | Code Reference |
|----------------|-----------------------------------|--|---|
| CSA | ASME A112.19.7-2012/CSA B45.10-12 | Hydromassage Bathtub Systems | 2.2.2.2.(7) |
| CSA | B64.0-11 | Definitions, General Requirements, and Test Methods for Vacuum Breakers and Backflow Preventers | 2.2.10.10.(1) |
| CSA | B64.1.1-11 | Atmospheric Vacuum Breakers (AVB) | 2.2.10.10.(1) |
| CSA | B64.1.2-11 | Pressure Vacuum Breakers (PVB) | 2.2.10.10.(1) |
| CSA | B64.2-11 | Hose Connection Vacuum Breakers (HCVB) | 2.2.10.10.(1) |
| CSA | B64.2.1-11 | Hose Connection Vacuum Breakers (HCVB) with Manual Draining Feature | 2.2.10.10.(1) |
| CSA | B64.2.2-11 | Hose Connection Vacuum Breakers (HCVB) with Automatic Draining Feature | 2.2.10.10.(1) |
| CSA | B64.3-11 | Dual Check Valve Backflow Preventers with Atmospheric Port (DCAP) | 2.2.10.10.(1) |
| CSA | B64.4-11 | Reduced Pressure Principle (RP) Backflow Preventers | 2.2.10.10.(1) |
| CSA | B64.4.1-11 | Reduced Pressure Principle Backflow Preventers for Fire Protection Systems (RPF) | 2.6.2.4.(2) 2.6.2.4.(4) |
| CSA | B64.5-11 | Double Check Valve (DCVA) Backflow Preventers | 2.2.10.10.(1) |
| CSA | B64.5.1-11 | Double Check Valve Backflow Preventers for Fire Protection Systems (DCVAF) | 2.6.2.4.(2) |
| CSA | B64.6-11 | Dual Check Valve (DuC) Backflow Preventers | 2.2.10.10.(1) |
| CSA | B64.6.1-11 | Dual Check Valve Backflow Preventers for Fire Protection Systems (DuCF) | 2.6.2.4.(2) |
| CSA | B64.7-11 | Laboratory Faucet Vacuum Breakers (LFVB) | 2.2.10.10.(1) |
| CSA | B64.8-11 | Dual Check Valve Backflow Preventers with Intermediate Vent (DuCV) | 2.2.10.10.(1) |
| CSA | B64.9-11 | Single Check Valve Backflow Preventers for Fire Protection Systems (SCVAF) | 2.6.2.4.(2) |
| CSA | B64.10-11 | Selection and Installation of Backflow Preventers | 2.6.2.1.(3) |
| CSA | B64.10.1-11 | Maintenance and Field Testing of Backflow Preventers | |
| CSA | B70-12 | Cast Iron Soil Pipe, Fittings, and Means of Joining | 2.2.6.1.(1) 2.4.6.4.(2) |
| CSA | B125.3-12 ⁽³⁾ | Plumbing Fittings | 2.2.10.6.(1) 2.2.10.7.(2) 2.2.10.10.(2) |
| CSA | CAN/CSA-B127.1-99 | Asbestos Cement Drain, Waste and Vent Pipe and Pipe Fittings | 2.2.5.1.(1) 2.2.6.2.(1) |
| CSA | B127.2-M1977 | Components for Use in Asbestos Cement Building Sewer Systems | 2.2.5.1.(2) 2.2.6.2.(1) |
| CSA | CAN/CSA-B128.1-06 | Design and Installation of Non-Potable Water Systems | 2.7.4.1.(1) |
| CSA | CAN/CSA-B137.1-09 | Polyethylene (PE) Pipe, Tubing, and Fittings for Cold-Water Pressure Services | 2.2.5.5.(1) |
| CSA | CAN/CSA-B137.2-09 | Polyvinylchloride (PVC) Injection-Moulded Gasketed Fittings for Pressure Applications | 2.2.5.8.(3) |
| CSA | CAN/CSA-B137.3-09 | Rigid Polyvinylchloride (PVC) Pipe and Fittings for Pressure Applications | 2.2.5.8.(1) |
| CSA | CAN/CSA-B137.5-09 | Crosslinked Polyethylene (PEX) Tubing Systems for Pressure Applications | 2.2.5.7.(1) |
| CSA | CAN/CSA-B137.6-09 | Chlorinated Polyvinylchloride (CPVC) Pipe, Tubing, and Fittings for Hot- and Cold-Water Distribution Systems | 2.2.5.9.(1) |
| CSA | CAN/CSA-B137.9-09 | Polyethylene/Aluminum/Polyethylene (PE-AL-PE) Composite Pressure-Pipe Systems | 2.2.5.13.(1) |
| CSA | CAN/CSA-B137.10-09 | Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Composite Pressure-Pipe Systems | 2.2.5.13.(4) 2.2.5.14.(1) |

Table 1.3.1.2. (Continued)

| Issuing Agency | Document Number ⁽¹⁾ | Title of Document ⁽²⁾ | Code Reference |
|----------------|--|--|---|
| CSA | CAN/CSA-B137.11-09 | Polypropylene (PP-R) Pipe and Fittings for Pressure Applications | 2.2.5.15.(1) |
| CSA | B158.1-1976 | Cast Brass Solder Joint Drainage, Waste and Vent Fittings | 2.2.10.1.(1) |
| CSA | CAN/CSA-B181.1-11 | Acrylonitrile-Butadiene-Styrene (ABS) Drain, Waste, and Vent Pipe and Pipe Fittings | 2.2.5.10.(1) 2.2.5.11.(1) 2.2.5.12.(1) 2.4.6.4.(2) |
| CSA | CAN/CSA-B181.2-11 | Polyvinylchloride (PVC) and Chlorinated Polyvinylchloride (CPVC) Drain, Waste, and Vent Pipe and Pipe Fittings | 2.2.5.10.(1) 2.2.5.11.(1) 2.2.5.12.(1) 2.4.6.4.(2) |
| CSA | CAN/CSA-B181.3-11 | Polyolefin and Polyvinylidene Fluoride (PVDF) Laboratory Drainage Systems | 2.2.8.1.(1) |
| CSA | CAN/CSA-B182.1-11 | Plastic Drain and Sewer Pipe and Pipe Fittings | 2.2.5.10.(1) 2.4.6.4.(2) |
| CSA | CAN/CSA-B182.2-11 | PSM Type Polyvinylchloride (PVC) Sewer Pipe and Fittings | 2.2.5.10.(1) |
| CSA | CAN/CSA-B182.4-11 | Profile Polyvinylchloride (PVC) Sewer Pipe and Fittings | 2.2.5.10.(1) |
| CSA | CAN/CSA-B182.6-11 | Profile Polyethylene (PE) Sewer Pipe and Fittings For Leak-Proof Sewer Applications | 2.2.5.10.(1) |
| CSA | B242-05 | Groove- and Shoulder-Type Mechanical Pipe Couplings | 2.2.10.4.(1) |
| CSA | B272-93 | Prefabricated Self-Sealing Roof Vent Flashings | 2.2.10.14.(2) |
| CSA | CAN/CSA-B356-10 | Water Pressure Reducing Valves for Domestic Water Supply Systems | 2.2.10.12.(1) |
| CSA | CAN/CSA-B602-10 | Mechanical Couplings for Drain, Waste, and Vent Pipe and Sewer Pipe | 2.2.10.4.(2) |
| CSA | CAN/CSA-F379 Series-09 (excluding CSA F379S1-11) | Packaged Solar Domestic Hot Water Systems (Liquid-to-Liquid Heat Transfer) | 2.2.10.13.(1) |
| CSA | CAN/CSA-F383-08 | Installation of Packaged Solar Domestic Hot Water Systems | 2.6.1.8.(1) |
| CSA | CAN/CSA-G401-07 | Corrugated Steel Pipe Products | 2.2.6.8.(1) |
| NFPA | 13D-2010 | Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes | 2.6.3.1.(3) |
| ULC | CAN/ULC-S114-05 | Test for Determination of Non-Combustibility in Building Materials | 1.4.1.2.(1) ⁽⁴⁾ |

Notes to Table 1.3.1.2.:

- (1) Some documents may have been reaffirmed or reapproved. Check with the applicable issuing agency for up-to-date information.
- (2) Some titles have been abridged to omit superfluous wording.
- (3) Notwithstanding the effective date stated in Sentence 1.3.1.1.(1), the 2012 editions of ASME A112.18.1/CSA B125.1 and CSA B125.3 published on 12 December 2012 are referenced as they better meet the intent of the Code.
- (4) Code reference is in Division A.

1.3.2. Organizations

1.3.2.1. Abbreviations of Proper Names

1) The abbreviations of proper names in this Code shall have the meanings assigned to them in this Article (the appropriate addresses of the organizations are shown in brackets).

ANSI American National Standards Institute (25 West 43rd Street, 4th Floor, New York, New York 10036 U.S.A.; www.ansi.org)

ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers (1791 Tullie Circle, N.E., Atlanta, Georgia 30329 U.S.A.; www.ashrae.org)

ASME American Society of Mechanical Engineers (Three Park Avenue, New York, New York 10016-5990 U.S.A.; www.asme.org)

- ASPE American Society of Plumbing Engineers (8614 Catalpa Avenue, Suite 1007, Chicago, Illinois 60656-1116 U.S.A.; www.aspe.org)
- ASSE American Society of Sanitary Engineering (A-901 Canterbury Road, West Lake, Ohio 44145 U.S.A.; www.asse-plumbing.org)
- ASTM American Society for Testing and Materials International (100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959 U.S.A.; www.astm.org)
- AWS American Welding Society (550 N.W. LeJeune Road, Miami, Florida 33126 U.S.A.; www.aws.org)
- AWWA American Water Works Association (6666 West Quincy Avenue, Denver, Colorado 80235 U.S.A.; www.awwa.org)
- CCBFC Canadian Commission on Building and Fire Codes (National Research Council of Canada, Ottawa, Ontario K1A 0R6; www.nationalcodes.ca)
- CGSB Canadian General Standards Board (Place du Portage, Phase III, 6B1, 11 Laurier Street, Gatineau, Quebec K1A 1G6; www.pwgsc.gc.ca/cgsb)
- CSA CSA Group (5060 Spectrum Way, Suite 100, Mississauga, Ontario L4W 5N6; www.csagroup.ca)
- NBC National Building Code of Canada 2010 (see CCBFC)
- NFC National Fire Code of Canada 2010 (see CCBFC)
- NFPA National Fire Protection Association (1 Batterymarch Park, Quincy, Massachusetts 02169-7471 U.S.A.; www.nfpa.org)
- NIST National Institute of Standards and Technology (100 Bureau Drive, Stop 1070, Gaithersburg, Maryland 20899-1070 U.S.A.; www.nist.gov)
- NPC National Plumbing Code of Canada 2010 (see CCBFC)
- NRC National Research Council of Canada (Ottawa, Ontario K1A 0R6; www.nrc-cnrc.gc.ca)
- NRC-IRC Institute for Research in Construction (National Research Council of Canada, Ottawa, Ontario K1A 0R6; irc.nrc-cnrc.gc.ca)
- ULC Underwriters' Laboratories of Canada (7 Underwriters Road, Toronto, Ontario M1R 3B4; www.ulc.ca)

Appendix A

Explanatory Material

A-1.1.2.1.(1) Objectives and Functional Statements Attributed to Acceptable Solutions. The objectives and functional statements attributed to each Code provision are shown in Table 2.8.1.1. at the end of Division B.

Many provisions in Division B serve as modifiers of or pointers to other provisions or serve other clarification or explanatory purposes. In most cases, no objectives and functional statements have been attributed to such provisions, which therefore do not appear in the above-mentioned table.

For provisions that serve as modifiers of or pointers to other referenced provisions and that do not have any objectives and functional statements attributed to them, the objectives and functional statements that should be used are those attributed to the provisions they reference.

A-1.3.1.2.(1) Referenced Documents. Where documents are referenced in the Appendices of this Code, they shall be the editions designated in Table A-1.3.1.2.(1).

Table A-1.3.1.2.(1)
Documents Referenced in the Appendices of the National Plumbing Code of Canada 2010

| Issuing Agency | Document Number ⁽¹⁾ | Title of Document ⁽²⁾ | Code Reference |
|----------------|--------------------------------|--|----------------------------------|
| ASHRAE | 2009 | ASHRAE Handbook – Fundamentals | A-2.6.3.1.(2) |
| ASHRAE | 2011 | ASHRAE Handbook – HVAC Applications | A-2.6.3.1.(2) |
| ASME | B16.3-2011 | Malleable-Iron Threaded Fittings: Classes 150 and 300 | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASME | B16.4-2011 | Gray Iron Threaded Fittings: Classes 125 and 250 | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASME | B16.15-2011 | Cast Copper Alloy Threaded Fittings: Classes 125 and 250 | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASME | B16.18-2012 | Cast Copper Alloy Solder-Joint Pressure Fittings | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASME | B16.22-2001 | Wrought Copper and Copper Alloy Solder Joint Pressure Fittings | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASME | B16.23-2011 | Cast Copper Alloy Solder Joint Drainage Fittings: DWV | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASME | B16.29-2007 | Wrought Copper and Wrought Copper Alloy Solder-Joint Drainage Fittings – DWV | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASPE | 2010 | ASPE Plumbing Engineering Design Handbook | A-2.6.3.1.(2) |
| ASPE | 2008 | Data Book – Volume 4, Chapter 8, Grease Interceptors | A-2.4.4.3.(1) |
| ASTM | A 53/A 53M-10 | Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASTM | B 42-10 | Seamless Copper Pipe, Standard Sizes | Table A-2.2.5, 2.2.6. and 2.2.7. |

This Appendix is included for explanatory purposes only and does not form part of the requirements. The numbers that introduce each Appendix Note correspond to the applicable requirements in this Division.

The figures are schematic only; they depict various parts of the plumbing system but do not include details. For an explanation of the symbols and abbreviations used in the figures, refer to the list provided at the end of the Code.

Table A-1.3.1.2.(1) (Continued)

| Issuing Agency | Document Number ⁽¹⁾ | Title of Document ⁽²⁾ | Code Reference |
|----------------|--------------------------------|---|---|
| ASTM | B 43-09 | Seamless Red Brass Pipe, Standard Sizes | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASTM | B 88-09 | Seamless Copper Water Tube | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASTM | B 306-09 | Copper Drainage Tube (DWV) | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASTM | D 2466-06 | Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40 | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASTM | D 2467-06 | Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80 | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASTM | D 3138-04 | Solvent Cements for Transition Joints Between Acrylonitrile-Butadiene-Styrene (ABS) and Poly(Vinyl Chloride) (PVC) Non-Pressure Piping Components | A-2.2.5.10. to 2.2.5.12. |
| ASTM | F 628-08 | Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe With a Cellular Core | Table A-2.2.5, 2.2.6. and 2.2.7. |
| ASTM | F 714-10 | Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter | Table A-2.2.5, 2.2.6. and 2.2.7. |
| AWWA | M14-2004 | Recommended Practice for Backflow Prevention and Cross-Connection Control | A-2.6.2.4.(2) |
| AWWA | ANSI/AWWA C151/A21.51-09 | Ductile-Iron Pipe, Centrifugally Cast | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CCBFC | NRCC 53301 | National Building Code of Canada 2010 | Table A-2.2.5, 2.2.6. and 2.2.7. A-2.4.10. A-2.4.10.4.(1) |
| CGSB | CAN/CGSB-34.1-94 | Asbestos-Cement Pressure Pipe | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CGSB | CAN/CGSB-34.9-94 | Asbestos-Cement Sewer Pipe | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CGSB | CAN/CGSB-34.22-94 | Asbestos-Cement Drain Pipe | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CGSB | CAN/CGSB-34.23-94 | Asbestos-Cement House Connection Sewer Pipe | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | A60.1-M1976 | Vitrified Clay Pipe | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | CAN/CSA-A257.1-09 | Non-Reinforced Circular Concrete Culvert, Storm Drain, Sewer Pipe, and Fittings | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | CAN/CSA-A257.2-09 | Reinforced Circular Concrete Culvert, Storm Drain, Sewer Pipe, and Fittings | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | B64.4.1-11 | Reduced Pressure Principle Backflow Preventers for Fire Protection Systems (RPF) | Table A-2.6.2.4.(2) |
| CSA | B64.5.1-11 | Double Check Valve Backflow Preventers for Fire Protection Systems (DCVAF) | Table A-2.6.2.4.(2) |
| CSA | B64.6.1-11 | Dual Check Valve Backflow Preventers for Fire Protection Systems (DuCF) | Table A-2.6.2.4.(2) |
| CSA | B64.9-11 | Single Check Valve Backflow Preventers for Fire Protection Systems (SCVAF) | Table A-2.6.2.4.(2) |
| CSA | B64.10.1-11 | Maintenance and Field Testing of Backflow Preventers | A-2.6.2.1.(3) |
| CSA | B70-12 | Cast Iron Soil Pipe, Fittings, and Means of Joining | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | B125.3-12 ⁽³⁾ | Plumbing Fittings | A-2.6.1.11.(1) |
| CSA | CAN/CSA-B127.1-99 | Asbestos Cement Drain, Waste and Vent Pipe and Pipe Fittings | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | B127.2-M1977 | Components for Use in Asbestos Cement Building Sewer Systems | Table A-2.2.5, 2.2.6. and 2.2.7. |

Table A-1.3.1.2.(1) (Continued)

| Issuing Agency | Document Number ⁽¹⁾ | Title of Document ⁽²⁾ | Code Reference |
|----------------|---|--|--|
| CSA | CAN/CSA-B137.1-09 | Polyethylene (PE) Pipe, Tubing, and Fittings for Cold-Water Pressure Services | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | CAN/CSA-B137.2-09 | Polyvinylchloride (PVC) Injection-Moulded Gasketed Fittings for Pressure Applications | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | CAN/CSA-B137.3-09 | Rigid Polyvinylchloride (PVC) Pipe and Fittings for Pressure Applications | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | CAN/CSA-B137.5-09 | Crosslinked Polyethylene (PEX) Tubing Systems for Pressure Applications | Table A-2.2.5, 2.2.6. and 2.2.7. A-2.2.5.7.(1) |
| CSA | CAN/CSA-B137.6-09 | Chlorinated Polyvinylchloride (CPVC) Pipe, Tubing, and Fittings for Hot- and Cold-Water Distribution Systems | Table A-2.2.5, 2.2.6. and 2.2.7. A-2.2.5.10. to 2.2.5.12. |
| CSA | CAN/CSA-B137.9-09 | Polyethylene/Aluminum/Polyethylene (PE-AL-PE) Composite Pressure-Pipe Systems | Table A-2.2.5, 2.2.6. and 2.2.7. A-2.2.5.13.(1) |
| CSA | CAN/CSA-B137.10-09 | Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Composite Pressure-Pipe Systems | Table A-2.2.5, 2.2.6. and 2.2.7. A-2.2.5.14.(1) |
| CSA | CAN/CSA-B137.11-09 | Polypropylene (PP-R) Pipe and Fittings for Pressure Applications | Table A-2.2.5, 2.2.6. and 2.2.7. A-2.2.5.15.(1) |
| CSA | CAN/CSA-B181.1-11 | Acrylonitrile-Butadiene-Styrene (ABS) Drain, Waste, and Vent Pipe and Pipe Fittings | Table A-2.2.5, 2.2.6. and 2.2.7. A-2.2.5.10. to 2.2.5.12. |
| CSA | CAN/CSA-B181.2-11 | Polyvinylchloride (PVC) and Chlorinated Polyvinylchloride (CPVC) Drain, Waste, and Vent Pipe and Pipe Fittings | Table A-2.2.5, 2.2.6. and 2.2.7. A-2.2.5.10. to 2.2.5.12. |
| CSA | CAN/CSA-B181.3-11 | Polyolefin and Polyvinylidene Fluoride (PVDF) Laboratory Drainage Systems | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | CAN/CSA-B182.1-11 | Plastic Drain and Sewer Pipe and Pipe Fittings | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | CAN/CSA-B182.2-11 | PSM Type Polyvinylchloride (PVC) Sewer Pipe and Fittings | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | CAN/CSA-B182.4-11 | Profile Polyvinylchloride (PVC) Sewer Pipe and Fittings | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | CAN/CSA-B182.6-11 | Profile Polyethylene (PE) Sewer Pipe and Fittings For Leak-Proof Sewer Applications | Table A-2.2.5, 2.2.6. and 2.2.7. |
| CSA | CAN/CSA-G401-07 | Corrugated Steel Pipe Products | Table A-2.2.5, 2.2.6. and 2.2.7. |
| McGraw-Hill | 2006 | International Plumbing Codes Handbook | A-2.6.3. |
| NIST | Building Materials and Structures Report BMS-79, 1941 | Water-Distributing Systems for Buildings | A-2.6.3. |

Notes to Table A-1.3.1.2.(1):

- (1) Some documents may have been reaffirmed or reapproved. Check with the applicable issuing agency for up-to-date information.
- (2) Some titles have been abridged to omit superfluous wording.
- (3) Notwithstanding the effective date stated in Sentence 1.3.1.1.(1), the 2012 edition of CSA B125.3 published on 12 December 2012 is referenced as it better meets the intent of the Code.

A-2.1.2.1.(2) Combined Building Drains. Combined building drains may have proven acceptable on the basis of past performance in some localities and their acceptance under this Code may be warranted.

A-2.1.2.4.(1) Service Piping. The layout as shown in Figure A-2.1.2.4.(1)(c) may require special legal arrangements in some jurisdictions to ensure that access can be provided to all parts of the service pipes.

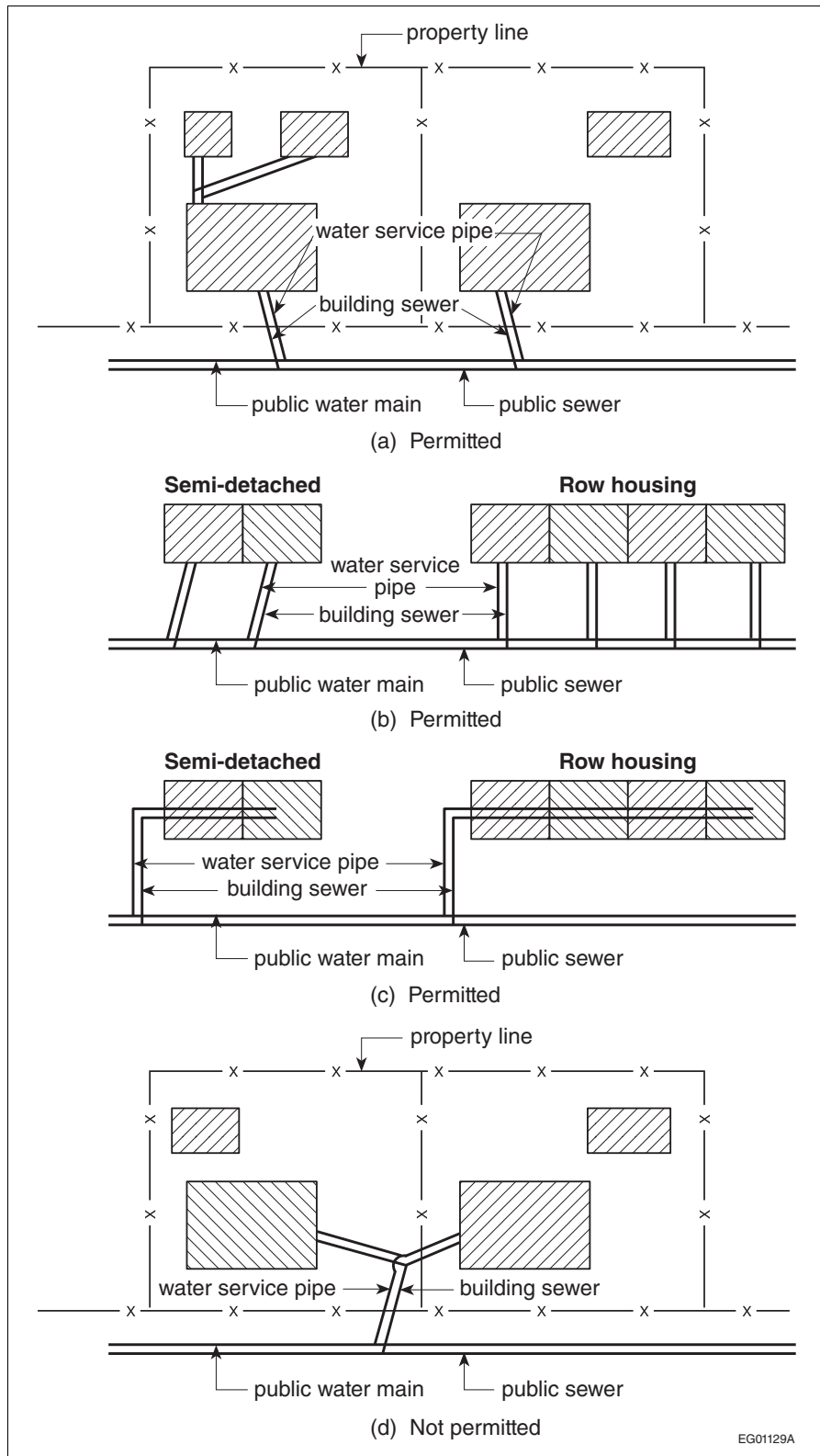


Figure A-2.1.2.4.(1)
Service Piping