# Recommended Amendments to the 1997 International Plumbing Code

***Table of Contents, Chapter 7, Section 714; changed to read as follows:**

Section 714 Engineered ~~Computerized~~ Drainage Design . . . . . 59

REASON: Editorial change for compatibility with amendment.

***Section 202; the definition of "Code Official" is changed and new definitions are added to read as follows:**

**BUILDING CODE.** Building Code shall mean the Building Code as adopted by this jurisdiction.

**CODE OFFICIAL.** The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative. For the purpose of this code, the Code Official shall be the *{fill in the applicable official per city}.*

**ELECTRICAL CODE.** Electrical Code shall mean the National Electrical Code as adopted by this jurisdiction. For the purpose of this code, all references to NFPA 70 shall be assumed to mean the Electrical Code as defined herein.

**FIRE PREVENTION CODE (FIRE CODE).** Fire Prevention Code shall mean the Fire Code as adopted by this jurisdiction.

**MECHANICAL CODE.** Mechanical Code shall mean the *International Mechanical Code*™ as adopted by this jurisdiction.

**PLUMBING CODE.** Plumbing Code shall mean this code as adopted by this jurisdiction.

REASON: Clarification of wording to fit better with the terminology in this region.

***Section 305.6.1; changed to read as follows:**

**305.6.1 Sewer depth.** ~~Building sewers that connect to private sewage disposal system shall be a minimum of [number] inches (mm) below finished grade at the point of septic tank connection.~~ Building sewers shall be a minimum of 12 inches (304 mm) below grade.

REASON: Provided depth that was common in this region. Also, struck private sewage disposal code because it is not typically adopted in this region.

***Section 305.9; changed to read as follows:**

**305.9 Protection of components of plumbing system.** Components of a plumbing system installed within 3 feet along alleyways, driveways, parking garages or other locations in a manner in which they would be exposed to damage shall be recessed into the wall or otherwise protected in an approved manner.

REASON: To provide a common cutoff point for regional consistency in enforcement.

---

***Section 310.4; delete.**

REASON: Deleted provision because it is a building code issue.

---

***Section 312.9; changed to read as follows:**

**312.9 Inspection and testing of backflow prevention assemblies.** Inspections shall be made of all backflow prevention assemblies to determine whether they are operable.

Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, double-detector check-valve assemblies and pressure vacuum breaker assemblies shall be tested. Testing shall be done in accordance with applicable local provisions. In the absence of local provisions, the owner is responsible to ensure that testing is done in accordance with the following provisions:

a. The frequency of testing shall be determined in accordance with the manufacturer's installation instructions.

b. Where the manufacturer of the assembly does not specify the frequency of testing, the assembly shall be tested at least annually.

c. The testing procedure shall be performed in accordance with one of the following standards:

*{Remainder of section unchanged}*

REASON: Jurisdictions have been working with TNRCC to develop there own requirements. This will enable them to use these local regulations

---

***Section 401.4; added to read as follows:**

**401.4 Conflict with other codes.** Chapter 4 is intended to provide enforceable guidelines for the plumbing designer/installer. Should there be any conflict between this Chapter and the Building Code, the Building Code shall take precedence.

REASON: To stipulate that in the event of a conflict, the building code would take precedence

---

***Section 403.1; changed to read as follows:**

**403.1 Minimum number of fixtures.** Plumbing fixtures shall be provided for the type of occupancy and in the minimum number as required by Chapter 29 of the Building Code. As a recommended but not required alternate to the minimum number of plumbing fixtures see ~~shown in~~ Table 403.1 of this code or Appendix Chapter 29 of the Building Code. ~~Types of occupancies not shown in Table 403.1 shall be considered individually by the code official. The number of occupants shall be determined by the building code. Occupancy classification shall be determined in accordance with the building code.~~

REASON: To provide recommended, but not required, guidance on the number of plumbing fixtures to be installed.

---

*****Sections 403.2; 403.4; 403.5; and 403.6; delete.***

REASON: These provisions were deleted because they conflict with the building code.

---

*****Section 404.3.1.2; add a second paragraph to read as follows:***

Flush controls shall be hand operated or automatic. Hand operated controls for flushometers shall be mounted 44 in (1120 mm) maximum above the floor on the wide side of the toilet.

REASON: To meet ADA requirements.

---

*****Section 405.3.1; change to read as follows:***

**405.3.1 Water closets, lavatories and bidets.** A water closet, lavatory or bidet shall not be set closer than 15 inches (381 mm) from its center to any side wall, partition, vanity or other obstruction, or closer than 30 inches (762 mm) center-to-center between toilets or adjacent fixtures. There shall be at least ~~18~~ 24 inches (~~457~~ 609 mm) clearance in front of the water closet or bidet to any wall, fixture or door. Water closet compartments shall not be less than 30 inches (762 mm) wide and 60 inches (1524 mm) deep. There shall be at least ~~18~~ 24 inches (~~457~~ 609 mm) clearance in front of a lavatory to any wall, fixture or door ~~(see Figure 405.3.1)~~.

REASON: To provide more adequate clearance for larger people.

---

*****Section 405.6; delete.***

REASON: Deleted because requirement is not clear and would be difficult to enforce.

---

*****Section 409.2; change to read as follows:***

**409.2 Water connection.** The water supply to a commercial dishwashing machine shall be protected against backflow by an air gap or backflow preventer in accordance with Section 608.

REASON: Domestic dishwashing machines would be difficult to enforce and should already come equipped with backflow preventers.

***Section 410.1; change to read as follows:**

**410.1 Approval.** Drinking fountains shall conform to ASME A112.19.1, A112.19.2 or A112.19.9, and water coolers shall conform to ARI 1010. ~~Where water is served in restaurants or where bottled water coolers are provided in other occupancies, drinking fountains shall not be required.~~

**Exception:** A drinking fountain need not be provided in a drinking or dining establishment.

REASON: To provide better clarification and require drinking fountains in other occupancies.

---

***Section 412.4; changed to read as follows:**

**412.4 Required location and construction.** Floor drains shall be installed in the following areas.

1. In public coin-operated laundries and in the central washing facilities of multiple family dwellings, the rooms containing the automatic clothes washers shall be provided with floor drains located to readily drain the entire floor area. ~~Such drains shall have a minimum outlet cross section of not less than 3 inches (76 mm) in diameter.~~
2. Toilet rooms containing two (2) or more water closets or a combination of one (1) water closet and one (1) urinal, except in a dwelling unit. The floor shall slope toward the floor drains.
3. Commercial kitchens. (In lieu of floor drains in commercial kitchens, the code official may accept floor sinks.)

REASON: To make more compatible with local health code practices.

---

***Section 413.4; changed to read as follows:**

**413.4 Water supply required.** All food waste grinders shall be provided with a supply of cold water. The water supply shall be protected against backflow by an air gap or with the installation of a backflow preventer in accordance with Section 608.

REASON: To provide a requirement for backflow prevention

---

***Section 417.5; changed to read as follows:**

**417.5 Shower floors or receptors.** Floor surfaces shall be constructed of impervious, noncorrosive, nonabsorbent and waterproof materials.

Thresholds shall be a minimum of 2 inches (51 mm) and a maximum of 9 inches (229 mm), measured from top of the drain to top of threshold or dam. Thresholds shall be of sufficient width to accommodate a minimum twenty-two (22) inch (559 mm) door.

**Exception:** Showers designed to comply with CABO/ANSI A117.1.

REASON: To provide more specific requirements.

---

***Section 417.5.2; changed to read as follows:**

**417.5.2 Pans.** Floors under shower compartments, except where prefabricated receptors have been provided, shall be lined and made water tight by the provision of suitable shower pans of approved material. Floors under pan liners shall be sloped 1/4 inch per foot to the shower drain. Such pans shall turn up on all sides at least 2 inches (51 mm) above the finished threshold level and shall extend outward over the threshold and fastened to the outside of the threshold jamb. Pans shall be securely fastened to the waste outlet at the seepage entrance, making a water-tight joint between the pan and the outlet.

**Exception:** Floor surfaces under shower heads provided for rinsing laid directly on the ground are not required to comply with this section.

REASON: To provide for slope requirements. to make section more consistent with local practice.

---

***Section 417.7; added to read as follows:**

**417.7 Test for shower receptors.** Shower receptors shall be tested for water tightness by filling with water to the level of the rough threshold. The drain shall be plugged in a manner so that both sides of pans shall be subjected to the test at the point where it is clamped to the drain.

REASON: To provide for a test.

---

***Section 419.4; delete.**

REASON: Already covered in building code.

---

***Section 501.2; changed to read as follows:**

**501.2 Water heater as space heater.** ~~A water heater used as a part of a space heating system shall have a maximum outlet water temperature of 160°F (71°C).~~ The potability of the water shall be maintained throughout the system.

REASON: The provision is too restrictive.

---

***Section 502.5.1; added to read as follows:**

**502.5.1 Electrical requirements.** A lighting fixture controlled by a switch located at the required passageway opening and a receptacle outlet shall be provided at or near the equipment location in accordance with the electrical code.

REASON: Added as necessity for repair.

---

***Section 502.6; added to read as follows:**

**502.6 Water heaters above ground or floor.** When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

REASON: To provide a safe means of accessibility.

---

***Section 504.7.1; changed to read as follows:**

**504.7.1 Discharge.** The discharge from the relief valve shall be piped full-size separately to the outside of the building with the end of the pipe not more than two (2) feet (610 mm) nor less than six (6) inches (152 mm) above the ground or the floor level of the area receiving the discharge and pointing downward; or to an indirect waste receptor located inside the building. ~~In areas subject to freezing, the relief valve shall discharge through an air gap into an indirect waste receptor located within a heated space, or by other approved means.~~ The discharge shall be installed in a manner that does not cause personal injury or property damage and that is readily observable by the building occupants. The discharge from a relief valve shall not be trapped. The diameter of the discharge piping shall not be less than the diameter of the relief valve outlet. The discharge pipe shall be installed so as to drain by gravity flow ~~and shall terminate atmospherically not more than 6 inches (153 mm) above the floor~~. The end of the discharge pipe shall not be threaded.

REASON: To provide a higher degree of safety.

---

***Section 504.7.2; delete.**

REASON: Deleted provision is covered by previous change.

---

***Section 505.1; delete.**

REASON: Should be addressed by energy code.

---

***Section 506; added to read as follows:**

**506. Combustion air and ventilation.** Combustion air and ventilation shall be provided as required in Chapter 7, Chapter 8 and Section 1002 of the Mechanical Code as adopted.

REASON: No requirements were listed so referred to mechanical code.

***Section 604.4 .1; added to read as follows:**

**604.4.1 State maximum flow rate.** Where the State mandated maximum flow rate is more resistive than those of this section, the State flow rate shall take precedence.

REASON: Added for clarification.

---

***Tables 605.4 and 605.5; delete "Polybutylene (PB) plastic pipe and tubing".**

REASON: Polybutylene (PB) pipe is not allowed for use in this region.

---

***Section 606.1; delete items #4, 5 and 6.**

REASON: The code is too restrictive as written.

---

***Section 606.2; items #1 and 2 changed to read as follows:**

1. On the fixture supply to each plumbing fixture. ~~in other than one- and two-family and multiple family residential occupancies, and other than in individual guestrooms that are provided with unit shutoff valves in hotels, motels, boarding houses and similar occupancies.~~
2. On the water supply pipe to each sillcock when subject to freezing.

REASON: To provide shutoff valves to every fixture.

---

***Section 607.2.1; delete.**

REASON: Deleted to allow local requirements to govern.

---

***Section 607.4; change to read as follows:**

**607.4 Hot water supply to fixtures.** The hot water supply to any fixture ~~requiring hot water~~ shall be installed on the left side of the fixture.

REASON: For safety and consistency.

---

***Section 608.1; changed to read as follows:**

**608.1 General.** A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from nonpotable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Back flow preventer applications shall conform to applicable local regulations. In the absence of other

local regulations, backflow preventer applications shall conform to Table 608.1.

REASON: To allow local requirements to govern.

---

***Section 608.17; changed to read as follows:*

**608.17 Protection of individual water supplies.** An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with applicable local regulations. In the absence of other local regulations, installation shall be in accordance with Sections 608.17.1 through 608.17.8.

REASON: To allow local requirements to govern.

---

***Section 702.3; changed to read as follows:*

**702.3 Building sewer pipe.** Building sewer pipe shall conform to one of the standards listed in Table ~~702.2~~ 702.3.

REASON: Corrected a misprint in the code.

---

***Section 708.3.4; changed to read as follows:*

**708.3.4 Upper terminal ~~Base of stack.~~** Each horizontal drain shall be provided with a cleanout at its upper terminal ~~A cleanout shall be provided at the base of each waste or soil stack~~.

**Exception:** Cleanouts may be omitted on a horizontal drain less that five (5) feet (1524 mm) in length unless such line is serving sinks or urinals.

REASON: To eliminate the requirement for exessive cleanouts.

---

***Section 712.5; added to read as follows:*

**712.5 Dual Pump System.** All sumps shall be automatically discharged and, when in any "public use" occupancy where the sump serves more than 10 fixture units, shall be provided with dual pumps or ejectors arranged to function independently in case of overload or mechanical failure. (For storm drainage, see Section 1111.)

REASON: Added a requirement for dual pump systems.

---

***Section 714.1; changed to read as follows:*

**ENGINEERED ~~COMPUTERIZED~~ DRAINAGE DESIGN**

**714.1 Design of drainage system.** The sizing requirements for plumbing drainage systems shall be

determined by approved ~~computer program~~ design methods.

REASON: The code was too restrictive.

---

***Section 802.1.1; delete the exception.**

REASON: Already covered in Section 409.2.

---

***Section 802.4; change to read as follows:**

**802.4 Standpipes.** Standpipes shall be individually trapped. Standpipes shall extend a minimum of 18 inches (457 mm) and a maximum of 42 inches (1066 mm) above the trap. Access shall be provided to all standpipe traps and drains for rodding. No standpipe shall be installed below the floor.

REASON: To be more consistent with current regional practice. Systems are less susceptible to improper modifications

---

***Section 904.1; changed to read as follows:**

**904.1 Roof extension.** All open vent pipes that extend through a roof shall be terminated at least six (6) inches (152 mm) above the roof, except that where a roof is to be used for any purpose other than weather protection, the vent extensions shall be run at least 7 feet (2134 mm) above the roof.

REASON: To provide for consistency on a regional basis.

---

***Section 904.5; changed to read as follows:**

**904.5 Location of vent terminal.** An open vent terminal from a drainage system shall not be located directly beneath any door, openable window, or other air intake opening of the building or of an adjacent building, and any such vent terminal shall not be within 10 feet (3048 mm) horizontally of such an opening unless it is at least ~~2~~ 3 feet (~~610~~ 915 mm) above the top of such opening.

REASON: To make consistent with the mechanical code.

---

***Section 912.1; changed to read as follows:**

**912.1 Type of fixture.** A combination drain and vent system shall not serve fixtures other than floor drains, standpipes, ~~sinks and lavatories~~ or indirect waste receptors.

REASON: To prevent trap siphoning of sinks and lavatories.

---

***Section 912.2; changed to read as follows:**

**912.2 Installation.** The only vertical pipe of a combination drain and vent system shall be the connection between the fixture drain of a ~~sink, lavatory or~~ standpipe, and the horizontal combination drain and vent pipe. The maximum vertical distance shall be 8 feet (2438 mm).

REASON: To prevent trap siphoning of sinks and lavatories.

---

***Section 1002.10; delete.**

REASON: This is already covered by State regulations.

---

***Section 1003; see below.**

*{Until the various Health and Water Departments in the region can coordinate a uniform grease trap section, it was agreed that each city would have to modify this section individually.}*

---

***Section 1106.1; changed to read as follows:**

**1106.1 General.** The size of the vertical conductors and leader, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based on five (5) inches per hour ~~the 100-year hourly~~ rainfall rate ~~indicated in Figure 1106.1 or on other rainfall rates determined from approved local weather data~~.

REASON: To provide for a greater margin of protection.

---

***Section 1201.2; changed to read as follows:**

**1201.2 Fuel Piping Systems.** All fuel piping systems shall be sized, installed, tested and placed in operation in accordance with the requirements of the Mechanical Code ~~*International Mechanical Code*™~~, Chapter 13, Fuel Gas Piping. ~~, or~~ For reference only, an unamended version of Chapter 13 of the *International Mechanical Code*™ is reprinted as Appendix G of this code.

REASON: To note that Appendix G is for reference only and does not include the regional amendments.

---

***Chapter 13; deleted.**

REASON: To leave this provision up to local jurisdictions.

---

END