

**Recommended Amendments to the
2000 International Plumbing Code**
North Central Texas Council of Governments region

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

Section 714 Engineered Computerized Drainage Design 60

(Reason: Editorial change to make compatible with amendment to Section 714.1.)

****Section 102.8; change to read as follows:**

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 13 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where the requirements of reference standards or manufacturer's installation instructions do not conform to minimum provisions of this code, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC *Electrical Code* shall mean the Electrical Code as adopted.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes.)

****Section 305.6.1; change 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: Provides sewer depth that is common in this region. Deleted reference to private sewage disposal because a private sewage disposal code is not typically adopted in this region.)

****Section 305.9; change 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: Provide a common cutoff point to designate a general separation distance at which plumbing systems should be safe for consistency in enforcement.)

****Section 310.4; delete.**

(Reason: Enforcement of privacy walls and doors, and the maintenance thereof, should not be a code issue. It is an owner courtesy issue.)

****Sections 312.9.1 and 312.9.2; change to read as follows:**

312.9.1 Inspections. Annual inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable. In the absence of local provisions, the owner is responsible to ensure that testing is performed.

312.9.2 Testing. Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, double-detector check valve assemblies and pressure vacuum breaker assemblies shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed 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 one of the following standards:

{list of standards unchanged}

(Reason: Recognize TNRCC or other local testing procedures that must be adhered to. To place responsibility of testing on the owner.)

****Section 314.2.1; modify second sentence to read as follows:**

314.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Condensate shall not discharge in a publicly exposed area such as into a street, alley, sidewalk or other areas so as to cause a nuisance.

(Reason: Greater specificity in prohibited locations for condensate discharge. Consistent with regional amendment to IMC 307.2.1.)

****Section 314.2.2; add a second paragraph to read as follows:**

Condensate waste pipes from air-cooling coils may be sized in accordance with equipment capacity as follows:

<u>Equipment Capacity in tons of refrigeration</u>	<u>Minimum Condensate Pipe Inside Diameter</u>
<u>Up to 20 tons</u>	<u>3/4 inch</u>
<u>Over 20 to 40 tons</u>	<u>1 inch</u>
<u>Over 40 to 90 tons</u>	<u>1 1/4 inch</u>
<u>Over 90 to 125 tons</u>	<u>1 1/2 inch</u>
<u>Over 125 to 250 tons</u>	<u>2 inch</u>

The size of condensate waste pipes may be for one unit or a combination of units, or as recommended by the manufacturer. The capacity of waste pipes assumes a 1/8-inch-per-foot slope, with the pipe running three-quarters full.

(Reason: To provide guidance and increase uniformity in condensate waste pipe sizing. Consistent with regional amendment to IMC 307.2.2.)

****Section 314.2.3; add item #4 to read as follows:**

4. Discharge, as noted, shall be to a conspicuous point of disposal to alert occupants in the event of a stoppage of the drain. However, the conspicuous point shall not create a hazard such as dripping over a walking surface or other areas so as to create a nuisance.

(Reason: To alert occupants to a condition needing corrective action. Consistent with regional amendment to IMC 307.2.3.)

****Section 401.1; add a sentence to read as follows:**

The provisions of this Chapter are meant to work in coordination with the provisions of the Building Code. Should any conflicts arise between the two chapters, the Code Official shall determine which provision applies.

(Reason: Gives discretion to Code Official in case of code conflict.)

****Section 403.1; change 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 follows:

1. Assembly Occupancies: At least one drinking fountain shall be provided at each floor level in an approved location.
Exception: A drinking fountain need not be provided in a drinking or dining establishment.
2. Groups A, B, F, H, I, M and S Occupancies: Buildings or portions thereof where persons are employed shall be provided with at least one water closet for each sex except as provided for in Section 403.2.
3. Group E Occupancies: Shall be provided with fixtures as shown in Table 403.1.
4. Group R Occupancies: Shall be provided with fixtures as shown in Table 403.1.

It is recommended, but not required, that the minimum number of fixtures provided also comply with the number shown in Table 403.1. 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 *International Building Code*. Occupancy classification shall be determined in accordance with the *International Building Code*.

****Add Section 403.1.2 to read as follows:**

403.1.2 Finish material. Finish materials shall comply with Section 1209 of the *International Building Code*.

****Section 404.2; change to read as follows:**

404.2 Unisex toilet and bathing rooms. In assembly and mercantile occupancies, an accessible unisex toilet room shall be provided where an aggregate of six or more male or female water closets are ~~required~~ provided. In buildings of mixed occupancy, only those water closets . . . {*remainder of section unchanged*}
. . . .

(Reason: Table 403.1 is made optional. Gives minimum requirements in body of code. Consistent with regional amendments to IBC Section 2902)

****Section 405.6; delete.**

(Reason: Texas State regulations cover plumbing in mental health centers. Consistent with regional amendment to IPC 1002.10.)

****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. Consistent with regional amendments in IPC Section 608.)

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

410.1 Approval. Drinking fountains shall conform to ASME A112.19.1, ASME A112.19.2 or ASME 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: Coincide with amendments made to IPC 403.1 and IBC 2902.1.)

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

412.4 Required location ~~Public laundries and central washing facilities.~~ 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. 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; change 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: Consistent with local practice and regulations. Consistent with regional amendments in IPC Section 608.)

****Section 417.5; change 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 ICC/ANSI A117.1.

(Reason: To provide more specific requirements.)

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

417.5.2 Shower lining. Floors under shower compartments, except where prefabricated receptors have been provided, shall be lined and made water tight utilizing material complying with Sections 417.5.2.1 through 417.5.2.4. Such liners shall turn up on all sides at least 2 3 inches (51 mm) above the finished threshold level and shall extend outward over the threshold and fastened to the outside of the threshold jamb. Liners shall be recessed and fastened to an approved backing . . . *{remainder of section unchanged}*

(Reason: Consistent with local practice.)

****Add Section 417.7 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 clarify that a water test is required for a shower receptor.)

****Section 419.3; change to read as follows:**

419.3 Surrounding material. Wall and floor space to a point 2 feet (610 mm) in front of a urinal lip and 4 feet (1219 mm) above the floor and at least 2 feet (610 mm) to each side of the urinal shall be waterproofed with a smooth, readily cleanable, hard, nonabsorbent material.

(Reason: Match unamended IBC 1209.)

****Section 502.5; change to read as follows:**

502.5 Water heaters installed in attics. Attics containing a water heater shall be provided . . . *{bulk of paragraph unchanged}* . . . side of the water heater. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions are not large enough to allow removal of the water heater.

(Reason: To ensure adequate access.)

****Add Section 502.5.1 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: Recognize a provision of the electrical code.)

****Add Section 502.7 to read as follows:**

502.7 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.

502.7.1 Whenever the mezzanine or platform is not adequately lighted or access to a receptacle outlet is not obtainable from the main level, lighting and a receptacle outlet shall be provided in accordance with Section 502.5.1.

(Reason: To provide safe access to water heaters and to provide lighting and receptacle for maintenance of equipment. Consistent with regional amendments to IFGC 306.7 and IMC 306.7. Note reference to amendment above.)

****Section 504.6.1; change to read as follows:**

504.6.1 Discharge. The relief valve shall discharge through full size piping to a safe place of disposal such as a the floor drain, outside the building, or an indirect waste receptor. The discharge pipe shall not have any trapped sections. When the drain pipe run is exposed, in an area outside of the room where the water heater is located, in a manner that would make it subject to damage, the drain and shall have a visible air gap or air gap fitting located in the same room as the water heater. The discharge shall be installed in a manner that does not cause personal injury to occupants in the immediate area or structural damage to the building.

The end of the discharge pipe shall not be threaded. The discharge pipe shall not discharge into the pan required in Section 504.7.

When discharging outside the building, the point of discharge shall be 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.

(Reason: To provide a higher degree of safety.)

****Section 505.1; change to read as follows:**

505.1 Unfired vessel insulation. Unfired hot water storage tanks shall be insulated so that heat loss is limited as specified in Section 504, *International Energy Conservation Code*. {delete remainder of section}

(Reason: Energy saving methods are addressed in the IECC.)

****Add Section 506, 506.1 to read as follows:**

SECTION 506
COMBUSTION AIR AND VENTILATION

506.1. Combustion air and ventilation. Combustion air and ventilation for fuel burning water heaters, other than gas-fired, shall be in accordance with the *International Mechanical Code*. Combustion air and ventilation for gas-fired water heaters shall be in accordance with the *International Fuel Gas Code*.

(Reason: Reference.)

****Add Section 604.4.1 to read as follows:**

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

(Reason: To recognize State standards.)

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

(Reason: Polybutylene 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 change 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.~~

Exception: Tub and shower valves.

2. On the water supply pipe to each sillcock when subject to freezing.

(Reason: To provide shut-off valves to every fixture.)

****Section 607.2.1; change to read as follows:**

607.2.1 Piping insulation. Piping in required return circulation systems shall be insulated as required in Section 504, International Energy Conservation Code. *{delete remainder of section}*

(Reason: Energy saving methods are addressed in the IECC.)

****Section 608.1; change 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, Table 608.1, ~~except and~~ as specifically stated in Sections 608.2 through 608.16.9.

(Reason: To recognize local requirements.)

****Section 608.17; change 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 708.3.4; change 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 than five (5) feet (1524 mm) in length unless such line is serving sinks or urinals.

(Reason: To eliminate the requirement for excessive cleanouts.)

****Add Section 712.5 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 sumps and pumping systems, see Section 1113.

(Reason: To address dual pump system. To provide reference for storm drainage systems.)

****Section 714, 714.1; change to read as follows:**

**SECTION 714
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: Code was too restrictive.)

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

(Reason: Dishwashers are already addressed in Section 409.)

****Section 802.4; add a sentence to read as follows:**

No standpipe shall be installed below the ground.

(Reason: To make systems 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 regional guideline on standard installation method for this area.)

****Section 912.1; change 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~~ indirect waste receptors. Combination drain and vent systems shall not receive the discharge of a food waste grinder.

(Reason: To prevent trap siphoning of sinks and lavatories.)

****Section 912.2; change 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: Texas State regulations cover plumbing in mental health centers. Consistent with regional amendment to IPC 405.6.)

****Section 1003**

{Until the Health and Water Departments of the area can coordinate a uniform grease trap section, each city will have to modify this section individually.}

****Section 1106.1; change 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 six (6) 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: Specify the roof drain size normally used in the area.)

****Section 1107.3; change to read as follows:**

1107.3 Sizing of secondary drains. Secondary (emergency) roof drain system shall be sized in accordance with Section 1106 based on the rainfall rate for which the primary system is sized in Tables 1106.2, 1106.3 and 1106.6 by two. Scuppers shall be sized to prevent the depth of ponding water . . . {remainder of section unchanged}

(Reason: Specify that overflow drainage is to be the same size as the normal roof drains.)

****Chapter 12; delete.**

(Reason: To leave this provision to local jurisdictions.)

END