## Draft

## PLUMBING

## Update to Model Code

FOR INCLUSION IN THE 2007 Edition of the FLORIDA BUILDING CODE

\begin{tabular}{|c|c|c|}

\hline IPC ` 06 \& | FBC ‘04 |
| :--- |
| Sections to be revised or added. | \& TAC Action <br>

\hline | GENERAL: Wherever the following references are used, they shall be replaced with FL specific reference: |
| :--- |
| International Building Code |
| International Plumbing Code | \& | FL specific reference: |
| :--- |
| Florida Building Code, Building Florida Building Code, Plumbing | \& <br>

\hline \multicolumn{3}{|c|}{CHAPTER 1 ADMINISTRATION} <br>

\hline Chapter 1. ADMINISTRATION \& | 101.1 Scope. |
| :--- |
| The provisions of Chapter 1, Florida Building Code, Building shall govern the administration and enforcement of the Florida Building Code, Plumbing. |
| 101.2-101.4 Reserved. |
| SECTION 102-109 RESERVED | \& No overlap. Move FL specific reqt <br>

\hline \multicolumn{3}{|c|}{CHAPTER 2 DEFINITIONS} <br>
\hline 201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the contest implies. \& 201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have the meanings as defined in Webster's Third New International Dictionary of the English Language Unabridged. \& <br>

\hline | 202 |
| :--- |
| GREASE INTERCEPTOR. A plumbing appurtenance that is installed in a sanitary drainage system to intercept oily and greasy wastes from a wastewater discharge. Such device has the ability to intercept free-floating fats and oils. | \& | 202. General Definitions. |
| :--- |
| GREASE INTERCEPTOR. An interceptor whose rated flow exceeds 50 gpm or has a minimum storage capacity of 750 gallons or more and is located outside the building. | \& | Overlap exists. |
| :--- |
| However, Icode change does not address FL specific change. Use FL specific change. | <br>

\hline NA \& GREASE TRAP. An interceptor whose rated flow is 50 gpm or less and is located inside the building. \& No overlap. Move FL specific reqt <br>
\hline NA \& RECLAIMED WATER. Water that has received treatment and is reused after flowing out of a domestic wastewater treatment facility. \& No overlap. Move FL specific reqt <br>
\hline NA \& REUSE. The deliberate application of reclaimed water for beneficial purpose. \& No overlap. Move FL specific reqt <br>
\hline
\end{tabular}

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| CHAPTER 3 GENERAL REGULATION |  |  |
| :---: | :---: | :---: |
| 305.1 Corrosion. <br> Pipes passing through concrete or cinder walls and floors or other corrosive material shall be protected against external corrosion by a protective sheathing or wrapping or other means that will withstand any reaction from the lime and acid of concrete, cinder or other corrosive material. Sheathing or wrapping shall allow for expansion and contraction of piping to prevent any rubbing action. Minimum wall thickness of material shall be 0.025 inch ( 0.64 mm ). | 305.1 Corrosion. <br> Pipes passing through concrete or cinder walls and floors or other corrosive material shall be protected against external corrosion by a protective sheathing or wrapping or other means that will withstand any reaction from lime and acid of concrete, cinder or other corrosive material. Sheathing or wrapping shall allow for expansion and contraction of piping to prevent any rubbing action. Minimum wall thickness of material shall be 0.025 inch ( 0.64 mm ). <br> Exception: Sleeving is not required for installation of CPVC into concrete or similar material. | No overlap Move FL specific reqt |
| 305.6 Freezing. <br> Water, soil and waste pipes shall not be installed outside of a building, in attics or crawl spaces, concealed in outside walls, or in any other place subjected to freezing temperature unless adequate provision is made to protect such pipes from freezing by insulation or heat or both. Exterior water supply system piping shall be installed not less than 6 inches ( 152 mm ) below the frost line and not less than 12 inches ( 305 mm ) below grade. | 305.6 Freezing. <br> Where the design temperature is less than $32 \mathrm{oF}\left(0^{\circ} \mathrm{C}\right)$, a water, soil or waste pipe shall not be installed outside of a building, in attics or crawl spaces, or be concealed in outside walls in any location subjected to freezing temperatures unless an adequate provision is made to protect it from freezing by insulation or heat or both. Water service pipe shall be installed not less than 12 inches ( 305 mm ) deep or less than 6 inches $(152 \mathrm{~mm})$ below the frost line. | No overlap. Move FL specific reqt |
| 305.6.1 Sewer depth. <br> Building sewers that connect to private sewage disposal systems 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 [NUMBER] inches (mm) below grade. | 305.6.1 Sewer depth. Reserved. | No overlap. Move FL specific reqt |
| 308.2 Piping seismic supports. <br> Where earthquake loads are applicable in accordance with the building code, plumbing piping supports shall be designed and installed for the seismic forces in accordance with the International Building Code. | 308.2 Piping seismic support. Reserved. | No overlap. Move FL specific reqt |
| 309.1 General. Plumbing systems and equipment in structures erected in flood hazard areas shall be constructed in accordance with the requirements of this section and the International Building Code. | 309.1 Flood plain management construction standards. <br> This code specifically defers to the authority granted to local government by Title 44 CFR, Sections 59 and 60. This code is not intended to supplant or supercede local ordinances adopted pursuant to that authority, nor are local floodplain management ordinances to be deemed amendments to the code. | No overlap. Move FL specific reqt |

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| 309.2 Flood hazard. | No overlap. |
| :--- | :--- | :--- |
| For structures located in flood hazard areas, the following systems |  |
| and equipment shall be located at or above the design flood |  |
| elevation. |  |
| Exception: The following systems are permitted to be |  |
| located below the design flood elevation provided that the |  |
| systems are designed and installed to prevent water from |  |
| entering or accumulating within their components and the |  |
| systems are constructed to resist hydrostatic and hydrodynamic |  |
| loads and stresses, including the effects of buoyancy, |  |
| during the occurrence of flooding to the design flood elevation. |  |
| 1. All water service pipes. |  |
| 2. Pump seals in individual water supply systems where |  |
| the pump is located below the design flood elevation. |  |
| 3. Covers on potable water wells shall be sealed, except |  |
| where the top of the casing well or pipe sleeve is elevated |  |
| to at least 1 foot (305 mm) above the design |  |
| flood elevation. |  |
| 4. All sanitary drainage piping. |  |
| 5. All storm drainage piping. |  |
| 6. Manhole covers shall be sealed, except where elevated |  |
| to or above the design flood elevation. |  |
| 7. All other plumbing fixtures, faucets, fixture fittings, |  |
| piping systems and equipment. |  |
| 8. Water heaters. |  |
| 9. Vents and vent systems. |  |
| [B] 309.3 Flood hazard areas subject to high-velocity wave | 309.3 Flood hazard areas subject to high-velocity wave action. |
| action. Structures located in flood hazard areas subject to high- | Reserved. |
| velocity wave action shall meet the requirements of Section 309.2. |  |
| The plumbing systems, pipes and fixtures shall not be mounted on |  |
| or penetrate through walls intended to break away under flood |  |
| loads. |  |

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### 312.2 Drainage and vent water test.

A water test shall be applied to the drainage system either in its entirety or in sections. If applied to the entire system, all openings in the piping shall be tightly closed, except the highest opening, and the system shall be filled with water to the point of overflow. If the system is tested in sections, each opening shall be tightly plugged except the highest openings of the section under test, and each section shall be filled with water, but no section shall be tested with less than a 10 -foot ( 3048 mm ) head of water. In testing successive sections, at least the upper 10 feet ( 3048 mm ) of the next preceding section shall be tested so that no joint or pipe in the building, except the uppermost 10 feet ( 3048 mm ) of the system, shall have been submitted to a test of less than a 10 -foot (3048 mm ) head of water. This pressure shall be held for at least 15 minutes. The system shall then be tight at all points.

### 312.5 Water supply system test.

Upon completion of a section of or the entire water supply system, the system, or portion completed shall be tested and proved tight under a water pressure not less than the working pressure of the system; or, for piping systems other than plastic, by an air test of not less than 50 psi ( 344 kPa ). This pressure shall be held for at least 15 minutes. The water utilized for tests shall be obtained from a potable source of supply. The required tests shall be performed in accordance with this section and Section 107.

### 312.6 Gravity sewer test.

Gravity sewer tests shall consist of plugging the end of the building sewer at the point of connection with the public sewer, filling the building sewer with water, testing with not less than a 10 -foot ( 3048 mm ) head of water and maintaining such pressure for 15 minutes.
312.9.1 Inspections. Annual inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable.

### 312.2 Drainage and vent water test.

A water test shall be applied to the drainage system either in its entirety or in sections. If applied to the entire system, all openings in the piping shall be tightly closed, except the highest opening, and the system shall be filled with water to point of overflow. If the system is tested in sections, each opening shall be tightly plugged except the highest openings of the section under test, and each section shall be filled with water, but no section shall be tested with less than a 5 -foot ( 1524 mm ) head of water. In testing successive sections, at least the upper 5 feet ( 1524 mm ) of the next preceding section shall be tested so that no joint or pipe in the building, except the uppermost 5 feet ( 1524 mm ) of the system, shall have been submitted to a test of less than a 5 -foot ( 1524 mm ) head of water. The water shall be kept in the system, or in the portion under test, for at least 15 minutes before inspection starts. The system shall then be tight at all points.

### 312.5 Water supply system test.

Upon completion of a section of or the entire water supply system, the system, or portion completed, shall be tested and proved tight under a water pressure not less than the working pressure of the system; or, for piping systems other than plastic, by an air test of not less than $50 \mathrm{psi}(344 \mathrm{kPa})$. The water utilized for tests shall be obtained from a potable source of supply. The required tests shall be performed in accordance with this section and P312 of this code.

### 312.6 Gravity sewer test.

Gravity sewer tests shall consist of plugging the end of the building sewer at the point of connection with the public sewer, completely filling the building sewer with water from the lowest to the highest point thereof, and maintaining such pressure for 15 minutes. The building sewer shall be water tight at all points.

### 312.9.1 Inspections.

Inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable.

No overlap
Move FL specific reqt

## Overlap

exists.
Needs resolution.

No overlap.
Move FL
specific reqt

## No overlap.

Move FL
specific reqt.
312.9.2 Testing. Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection backflow prevention assemblies, double check detector fire protection backflow prevention assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be tested at the time of installation, immediately after repairs or relocation and at least ammally. The testing procedure shall be performed in accordance with one of the following standards:
ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CSA B64.10 or CSA B64.10.1.
313.1 General. Equipment efficiencies shall be in accordance with the International Energy Conservation Code.
[M] 314.2.2 Drain pipe materials and sizes. Components of the condensate disposal system shall be cast iron, galvanized steel, copper, cross-linked polyethylene, polybutylene, polyethylene, ABS, CPVC, or PVC pipe or tubing. All components shall be selected for the pressure and temperature rating of the installation. Condensate waste and drain line size shall not be less than $3 / 4$-inch ( 19 mm ) internal diameter and shall not decrease in size from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with an approved method. All horizontal sections of drain piping shall be installed in uniform alignment at a uniform slope.

### 312.9.2 Testing.

Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection backflow prevention assemblies, double check detector fire protection backflow prevention assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be tested at the time of installation and immediately after repairs or relocation. The testing procedure shall be performed in accordance with one of the following standards:
ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CAN/CSA B64.10

### 313.1 General.

Equipment efficiencies shall be in accordance with Chapter 13, Florida Building Code, Building.

### 314.2.2 Drain pipe materials and sizes.

Components of the condensate disposal system shall be cast iron, galvanized steel, copper, cross-linked polyethylene, polybutylene, polyethylene, ABS, CPVC, or PVC pipe or tubing. All components shall be selected for the pressure and temperature rating of the installation. Condensate waste and drain line size shall not be less than $3 / 4$-inch ( 19 mm ) internal diameter and shall not decrease in size from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with an approved method. All horizontal sections of drain piping shall be installed in uniform alignment at a uniform slope.
Exception: On wall mounted ductless split units less than $36,001 \mathrm{Btu} / \mathrm{h}$ where the drain line is less than 10 feet $(3048 \mathrm{~mm})$ in length, the factory drain outlet size shall be acceptable from the equipment to the place of disposal.

### 314.2.5 Pipe insulation.

All horizontal primary condensate drains within unconditioned areas shall be insulated to prevent condensation from forming on the exterior of the drain pipe.

No overlap
Move FL specific reqt

## 315 PUBLIC FOOD SERVICE ESTABLISHMENTS AND FOOD

## ESTABLISHMENTS

315.1 Requirements. Public food service establishments and food establishments, as defined in Chapter 381 Florida Statutes, Chapter 500 Florida Statutes and Chapter 509 Florida Statutes, shall comply with the applicable code requirements found in the Florida Building Code, Building, Chapter 4, Special Occupancy.

Overlap
exists.
However, Icode change does not conflict with the FL
specific change. Thus, use Icode change with FL specific change as noted. No overlap. Move FL specific reqt
No overlap
Move FL specific reqt

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| NA |
| :--- |
| CHAPTER 4 FIXTU |
| Table 403.1Minimum Number of Required Plumbing Fixtures |

SECTION 316 IRRIGATION
316.1 General. Irrigation/sprinkler systems and risers for spray heads shall not be installed within 1 foot ( 305 mm ) of the building sidewall.

No overlap.
Move FL
specific reqt

Overlap
exists in table. Needs resolution.

| NA | 403.1.1 Potty parity. In assembly occupancies, restrooms which are open to the public must have a ratio of $3: 2$ water closets provided for women as the combined total of water closets and urinals provided for men, unless these are two or fewer such fixtures for men, in accordance with $\S 553.86$, Florida Statutes. <br> Exception: This section does not apply to establishments licensed under Chapter 509, Florida Statutes, if the establishment does not provide meeting or banquet rooms which accommodate more than 150 people, and the establishment has at least the same number of water closets for women as the combined total of water closets and urinals for men. | No overlap. Move FL specific reqt |
| :---: | :---: | :---: |
| NA | 403.1.1.1 Definitions. <br> 1. New construction. Means new construction, building, alteration, rehabilitation or repair that equals or exceeds 50 percent of the replacement value existing on October 1 , 1992, unless the same was under design or construction, or under construction contract before October 1, 1992. <br> 2. Assembly occupancy. The use of a building or structure, or any portion thereof, for the gathering together of people for purposes such as civic, social or religious functions or for recreation, or for food or drink consumption, or awaiting transportation. <br> 3. Historic building. A building which is (a) listed on the National Register of Historic Places; (b) listed on the State Register of Historic Places; (c) listed on a municipal register of historic property, designated according to local ordinance; or (d) included in a district which is listed on a municipal, state or national register of historic property and which has been determined to contribute to the historic significance of the district. | No overlap. Move FL specific reqt |
| NA | 403.1.1.2 Occupancy content calculation. <br> The occupancy content of a building, which determines the number of water closets required for men, shall be calculated using the square footage per person requirements established by the building code in effect in a jurisdiction. | No overlap. Move FL specific reqt |
| [B] 403.1.1 Unisex toilet and bath fixtures. <br> Fixtures located within unisex toilet and bathing rooms complying with Section 404 are permitted to be included in determining the minimum required number of fixtures for assembly and mercantile occupancies. | 403.1.2 Unisex toilet and bath fixtures. <br> Fixtures located within unisex toilet and bathing rooms complying with 403.7 shall be included in determining the minimum required number of fixtures for assembly and mercantile occupancies. | No overlap. However, the change to the I-code does not conflict with the FL specific. Use I-code language \& add FL spec. |
| N.A. | 403.1.3 For the purposes of calculating the minimum number of required plumbing facilities, the requirements of Table 403.1 shall apply to any areas outside of the building that are used as part of the building's designated occupancy (single or mixed). Where additional seating is also utilized in these areas, the actual number of seats shall be added to the number of persons calculated by Table 403.1 to obtain the total additional facilities required. | No overlap. Move FL specific reqt |

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| 403.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex. <br> Exceptions: <br> 1. Separate facilities shall not be required for dwelling units and sleeping units. <br> 2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or less. <br> 3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 50 or less. | 403.2 Separate facilities. <br> Where plumbing fixtures are required, separate facilities shall be provided for each sex. Exceptions: <br> 1 .Separate facilities shall not be required for private facilities. <br> 2. Separate employee facilities shall not be required in occupancies in which 15 or less people are employed. <br> 3. Separate facilities shall not be required for food service establishments which seat 10 persons or less. <br> 4. Separate facilities shall not be required in business and mercantile occupancies with a total floor area of 3,000 square feet ( 279 m 2 ) or less. | Overlap exists. Needs resolution. |
| :---: | :---: | :---: |
| 403.3 Number of occupants of each sex. The required water closets, lavatories, and showers or bathtubs shall be distributed equally between the sexes based on the percentage of each sex anticipated in the occupant load. The occupant load shall be composed of 50 percent of each sex, unless statistical data approved by the code official indicate a different distribution of the sexes. | 403.3 Number of occupants of each sex. <br> The required water closets, lavatories, and showers or bathtubs shall be distributed equally between the sexes based on the percentage of each sex anticipated in the occupant load. The occupant load shall be composed of 50 percent of each sex, unless statistical data approved by the code official indicate a different distribution of the sexes (see also Section 403.1.1). | No overlap. Move FL specific reqt |

### 403.8 Sanitary Facilities for Public Swimming Pools.

Separate sanitary facilities shall be provided and labeled for each sex and shall be located within a 200 foot radius of the nearest water's edge of each pool served by the facilities. Exception: Where a swimming pool serves only a designated group of residential dwelling units and not the general public, poolside sanitary facilities are not required if all living units are within a 200 foot radius of the nearest water's edge, are not over three stories in height and are each equipped with private sanitary facilities.

### 403.8.1 Required fixtures.

Fixtures shall be provided as indicated on Table P403.8. An additional set of fixtures shall be provided in the men's restroom for every 5000 square feet or major fraction thereof for pools greater than 10,000 square feet. Women's restrooms shall have a ratio of three to two water closets provided for women as the combined total of water closets and urinals provided for men.

### 403.8.2 Outside access.

Outside access to facilities shall be provided for bathers at outdoor pools. If they are not visible from any portion of the pool deck, signs shall be posed showing directions to the facilities. Directions shall be legible from any portion of the pool deck; letters shall be a minimum of one inch high.

### 403.8.3 Sanitary facility floors.

Floors of sanitary facilities shall be constructed of concrete or other nonabsorbent materials, shall have a smooth, slip-resistant finish, and shall slope to floor drains. Carpets, duckboards and footbaths are prohibited. The intersection between the floor and walls shall be coved.

TABLE P403.8 PUBLIC SWIMMING POOL FIXTURES REQUIRED

| Size | Men's Restrooms |  |  | Women's Restrooms |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Urinals | WC | Lavatory | WC | Lavatory |
|  |  |  |  |  |  |
| $0-2500 \mathrm{sq} \mathrm{ft}$ | 1 | 1 | 1 | 1 | 1 |
| $2501-5000 \mathrm{sq} \mathrm{ft}$ | 2 | $1-$ | 1 | 5 | 1 |
| $5001-7500 \mathrm{sq} \mathrm{ft}$ | 2 | 2 | 2 | 6 | 2 |
| $7501-10,000 \mathrm{sq} \mathrm{ft}$ | 3 | 3 | 3 | 9 | 3 |
|  |  |  |  |  |  |

No overlap.
Move FL specific reqt

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| 404 Accessible Plumbing Facilities 404.1 Where required. | 404.1 General. <br> 404.1.1 Accessibility. <br> The sections contained herein are plumbing fixture accessibility requirements only. For complete accessibility requirements, and associated figures, refer to Florida Building Code, Building, Chapter 11. | No overlap. Move FL specific reqt |
| :---: | :---: | :---: |
| NA | 404.2 (Florida Building Code, Building, 11-4.15) Drinking fountains and water coolers. 404.2.1 (Florida Building Code, Building, 11-4.15.1) Minimum number. <br> Drinking fountains or water coolers required to be accessible by Florida Building Code, Building, Section 11-4.1 shall comply with Section 404.2. <br> 404.2.2 (Florida Building Code, Building, 11-4.15.2) Spout height. <br> Spouts shall be no higher than 36 inches ( 915 mm ), measured from the floor or ground surfaces to the spout outlet [see Figure 404.2.2(a)]. <br> 404.2.3 (Florida Building Code, Building, 11-4.15.3) Spout location. <br> The spouts of drinking fountains and water coolers shall be at the front of the unit and shall direct the water flow in a trajectory that is parallel or nearly parallel to the front of the unit. The spout shall provide a flow of water at least 4 inches ( 100 mm ) high so as to allow the insertion of a cup or glass under the flow of water. On an accessible drinking fountain with a round or oval bowl, the spout must be positioned so the flow of water is within 3 inches (75 mm ) of the front edge of the fountain. <br> 404.2.4 (Florida Building Code, Building, 11-4.15.4) Controls. <br> Controls shall comply with Section 404.13 . Unit controls shall be front mounted or side mounted near the front edge. <br> 404.2.5 (Florida Building Code, Building, 11-4.15.5) Clearances. <br> 404.2.5.1 [Florida Building Code, Building, 11-4.15.5(1)]. Wall-and post-mounted cantilevered units shall have a clear knee space between the bottom of the apron and the floor or ground at least 27 inches ( 685 mm ) high, 30 inches ( 760 mm ) wide, and 17 inches to 19 inches ( 430 mm to 485 mm ) deep [see Figure 404.2.2(a) and Figure 404.2.2(b)]. Such units shall also have a minimum clear floor space 30 inches by 48 inches ( 760 mm by 1220 mm ) to allow a person in a wheelchair to approach the unit facing forward. <br> 404.2.5.2 [Florida Building Code, Building, 11-4.15.5(2)] Free-standing or built-in units not having a clear space under them shall have a clear floor space at least 30 inches by 48 inches ( 760 mm by 1220 mm ) that allows a person in a wheelchair to make a parallel approach to the unit [see Figure 404.2.2(c) and Figure 404.2.2(d)]. This clear floor space shall comply with Florida Building Code, Building, §11-4.2.4. | Move FL specific reqt |
| NA | FIGURE 404.2.2 DRINKING FOUNTAINS AND WATER COOLERS Florida Building Code, Building, Chapter 11, Figure 27 <br> (a) - SPOUT HEIGHT AND KNEE CLEARANCE <br> (b) - CLEAR FLOOR SPACE <br> (c) - FREE-STANDING FOUNTAIN OR COOLER <br> (d) - BUILT-IN FOUNTAIN OR COOLER | Move FL specific reqt |

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| NA | FIGURE 404.3.2 <br> CLEAR FLOOR SPACE IN WATER CLOSETS (not in stall) <br> Florida Building Code, Building, Chapter 11, Figure 28 | Move FL specific reqt |
| :---: | :---: | :---: |
| NA | FIGURE 404.3.3 GRAB BARS at WATER CLOSET, Florida Building Code, Building, Chapter 11, Figure 29. | Move FL specific reqt. |
| NA | 404.3 (Florida Building Code, Building, 11-4.16) Water closets. <br> 404.3.1 (Florida Building Code, Building, 11-4.16.1) General. Accessible water closets shall comply with Section 404.3. <br> 404.3.2 (Florida Building Code, Building, 11-4.16.2) Clear floor space. Clear floor space for water closets not in stalls shall comply with Figure 404.3.2. Clear floor space may be arranged to allow either a left-handed or right-handed approach. <br> 404.3.3 (Florida Building Code, Building, 11-4.16.3) Height. The height of water closets shall be 17 inches to 19 inches ( 430 mm to 485 mm ) measured to the top of the toilet seat [see Figure 404.3.3(b)]. Seats shall not be sprung to return to a lifted position. <br> 404.3.4 (Florida Building Code, Building, 11-4.16.4) Grab bars. Grab bars for water closets not located in stalls shall comply with Section 404.12 and Figure 404.3.3. The grab bar behind the water closet shall be 36 inches ( 915 mm ) minimum. <br> 404.3.5 (Florida Building Code, Building, 11-4.16.5) Flush controls. Flush controls shall be hand operated or automatic and shall comply with Section 404.13. Controls for flush valves shall be mounted on the wide side of toilet areas no more than 44 inches ( 1120 mm ) above the floor. <br> 404.3.6 (Florida Building Code, Building, 11-4.16.6) Dispensers. Toilet paper dispensers shall be installed within reach, as shown in Figure 404.3.3(b). Dispensers that control delivery, or that do not permit continuous paper flow, shall not be used. | Move FL specific reqt |

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| NA | FIGURE 404.4.3 TOILET STALLS <br> Florida Building Code, Building, Chapter 11, Figure 30 <br> (a) STANDARD STALL <br> (b) ALTERNATE STALLS <br> (c) REAR WALL OF STANDARD STALL <br> (d)- SIDE WALLS <br> (e) TOILET STALL NEW CONSTRUCTION Florida Building Code, Building, Chapter 11, Figure 30(e) | Move FL specific reqt |
| :---: | :---: | :---: |
| NA | 404.5 (Florida Building Code, Building, 11-4.18) Urinals. <br> 404.5.1 (Florida Building Code, Building, 11-4.18.1) General. Accessible urinals shall comply with 404.5 . <br> 404.5.2 (Florida Building Code, Building, 11-4.18.2) Height. Urinals shall be stall-type or wall-hung with an elongated rim at a maximum of 17 inches ( 430 mm ) above the finish floor. <br> 404.5.3 (Florida Building Code, Building, 11-4.18.3) Clear Floor Space. A clear floor space 30 inches by 48 inches ( 760 mm by 1220 mm ) shall be provided in front of urinals to allow forward approach. This clear space shall adjoin or overlap an accessible route and shall comply with Florida Building Code, Building, 11-4.2.4. Urinal shields that do not extend beyond the front edge of the urinal rim may be provided with 29 inches ( 735 mm ) clearance between them. <br> 404.5.4 (Florida Building Code, Building, 11-4.18.4) Flush Controls. Flush controls shall be hand operated or automatic, and shall comply with 404.13, and shall be mounted no more than 44 inches ( 1120 mm ) above the finish floor. | Move FL specific reqt |


| NA | 404.6 (Florida Building Code, Building, 11-4.19) Lavatories and mirrors. <br> 404.6.1 (Florida Building Code, Building, 11-4.19.1) General. The requirements of Section 404.6 shall apply to lavatory fixtures, vanities and built-in lavatories. <br> 404.6.2 (Florida Building Code, Building, 11-4.19.2) Height and clearances. Lavatories shall be mounted with the rim or counter surface no higher than 34 inches ( 865 mm ) above the finish floor. Provide a clearance of at least 29 inches $(735 \mathrm{~mm})$ above the finish floor to the bottom of the apron. Knee and toe clearance shall comply with Figure 404.6.2. <br> 404.6.3 (Florida Building Code, Building, 11-4.19.3) Clear floor space. <br> A clear floor space 30 inches by 48 inches ( 760 mm by 1220 mm ) complying with Florida Building Code, Building, §11-4.2.4 shall be provided in front of a lavatory to allow forward approach. Such clear floor space shall adjoin or overlap an accessible route and shall extend a maximum of 19 inches ( 485 mm ) underneath the lavatory (see Figure 404.6.3). <br> 404.6.4 (Florida Building Code, Building, 11-4.19.4) Exposed pipes and surfaces. Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories. <br> 404.6.5 (Florida Building Code, Building, 11-4.19.5) Faucets. Faucets shall comply with Section 404.13. Lever-operated, push-type and electronically controlled mechanisms are examples of acceptable designs. If self-closing valves are used, the faucet shall remain open for at least 10 seconds. <br> 404.6.6 [Florida Building Code, Building, 11-4.19.6(1)] Mirrors. Mirrors shall be mounted with the bottom edge of the reflecting surface no higher than 40 inches ( 1015 mm ) above the finish floor (see Figure 404.6.2). | Move FL specific reqt |
| :---: | :---: | :---: |
| NA | FIGURE 404.6.2 LAVATORY CLEARANCES (Florida Building Code, Building Chapter 11, Figure 31) | Move FL specific reqt |
| NA | FIGURE 404.6.3 CLEAR FLOOR SPACE AT LAVATORIES (Florida Building Code, Building Chapter 11, Figure 32) | Move FL specific reqt |


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404.7 (Florida Building Code, Building, 11-4.20) Bathtubs.
404.7.1 (Florida Building Code, Building, 11-4.20.1) General. Accessible bathtubs shall comply with Section 404.7 .
404.7.2 (Florida Building Code, Building, 11-4.20.2) Floor Space. Clear floor space in front of bathtubs shall be as shown in Figure 404.7.2.
404.7.3 (Florida Building Code, Building, 11-4.20.3) Seat. An in-tub seat or a seat at the head end of the tub shall be provided as shown in Figure 404.7.2 and Figure 404.7.3. The structural strength of seats and their attachments shall comply with Section 404.12.3. Seats shall be mounted securely and shall not slip during use.
404.7.4 (Florida Building Code, Building, 11-4.20.4) Grab bars. Grab bars complying with Section 404.12 shall be provided as shown in Figure 404.7.2 and Figure 404.7.3.
404.7.5 (Florida Building Code, Building, 11-4.20.5) Controls. Faucets and other controls complying with Florida Building Code, Building, Section 404.13 shall be located as shown in Figure 404.7.3.
404.7.6 (Florida Building Code, Building, 11-4.20.6) Shower unit. A shower spray unit with a hose at least 60 inches ( 1525 mm ) long that can be used both as a fixed shower head and as a hand-held shower shall be provided
404.7.7 (Florida Building Code, Building, 11-4.20.7) Bathtub enclosures. If provided, enclosures for bathtubs shall not obstruct controls or transfer from wheelchairs onto bathtub seats or into tubs. Enclosures on bathtubs shall not have tracks mounted on their rims.
FIGURE 404.7.2 CLEAR FLOOR SPACE AT BATHTUBS
(Florida Building Code, Building, Chapter 11, Figure 33)
(Florida Building Code, Building, Chapter 11, Figure 34)

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| NA | 404.8 (Florida Building Code, Building, 11-4.21) Shower Stalls. <br> 404.8.1 (Florida Building Code, Building, 11-4.21.1) General. Accessible shower stalls shall comply with 404.8. <br> 404.8.2 (Florida Building Code, Building, 11-4.21.2) Size and Clearances. Except as specified in 11-9.1.2, shower stall size and clear floor space shall comply with Figure 404.8.2(1)(a) or Figure 404.8.2(1)(b). The shower stall in Figure 404.8.2(1)(a) shall be 36 inches by 36 inches ( 915 mm by 915 mm ). Shower stalls required by Florida Building Code, Building, 11-9.1.2 shall comply with Figure 404.8.2(2)(a) or Figure 404.8.2(2)(b). The shower stall in Figure 404.8.2(1)(b) will fit into the space required for a bathtub. <br> 404.8.3 (Florida Building Code, Building, 11-4.21.3) Seat. A seat shall be provided in shower stalls 36 inches by 36 inches ( 915 mm by 915 mm ) and shall be as shown in Figure 404.8.3. The seat shall be mounted 17 inches to 19 inches ( 430 mm to 485 mm ) from the bathroom floor and shall extend the full depth of the stall. In a 36-inch by 36 -inch ( 915 mm by 915 mm ) shower stall, the seat shall be on the wall opposite the controls. Where a fixed seat is provided in a 30 -inch by 60 -inch minimum ( 760 mm by 1525 mm ) shower stall, it shall be a folding type and shall be mounted on the wall adjacent to the controls as shown in Figure 404.8.2(2). The structural strength of seats and their attachments shall comply with Section 404.12.3. <br> 404.8.4 (Florida Building Code, Building, 11-4.21.4) Grab Bars. Grab bars complying with Section 404.12 shall be provided as shown in Figure 404.8.4. <br> 404.8.5 (Florida Building Code, Building, 11-4.21.5) Controls. <br> Faucets and other controls complying with Section 404.13 shall be located as shown in Figure 404.8.4. In shower stalls 36 inches by 36 inches ( 915 mm by 915 mm ), all controls, faucets and the shower unit shall be mounted on the side wall opposite the seat. <br> 404.8.6 (Florida Building Code, Building, 11-4.21.6) Shower unit. A shower spray unit with a hose at least 60 inches ( 1525 mm ) long that can be used both as a fixed shower head and as a hand-held shower shall be provided. <br> Exception: In unmonitored facilities where vandalism is a consideration, a fixed shower head mounted at 48 inches ( 1220 mm ) above the shower floor may be used in lieu of a hand-held shower head. <br> 404.8.7 (Florida Building Code, Building, 11-4.21.7) Curbs. <br> If provided, curbs in shower stalls 36 inches by 36 inches ( 915 mm by 915 mm ) shall be no higher than $1 / 2$ inch ( 13 mm ). Shower stalls that are 30 inches by 60 inches ( 760 mm by 1525 mm ) minimum shall not have curbs. <br> 404.8.8 (Florida Building Code, Building, 11-4.21.8) Shower enclosures. <br> If provided, enclosures for shower stalls shall not obstruct controls or obstruct transfer from wheelchairs onto shower seats. | Move FL specific reqt |
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| NA | FIGURE 404.8.2(1) SHOWER SIZE AND CLEARANCES (Florida Building Code, Building, Chapter 11, Figure 35) <br> (a) 36-in. by $36-\mathrm{in}$. ( 915 mm . by 915 mm .) Stall <br> (b) $30-\mathrm{in}$. by $60-\mathrm{in}$. ( 760 mm . by 1525 mm .) Stall | Move FL specific reqt |


| NA | FIGURE 404.8.2(2) ROLL-IN SHOWER WITH FOLDING SEAT <br> (Florida Building Code, Building, Chapter 11, Figure 57 <br> (a) <br> (b) | Move FL specific reqt |
| :---: | :---: | :---: |
| NA | FIGURE 404.8.3 SHOWER SEAT DESIGN (Florida Building Code, Building, Chapter 11, Figure 36) | Move FL specific reqt |
| NA | FIGURE 404.8.4 GRAB BARS AT SHOWER STALLS <br> (Florida Building Code, Building, Chapter 11, Figure 37) <br> (a) 36 -in by 36 in. ( 915 mm ) Stall <br> (b) 30 in. by 60 in. ( 760 mm by 1525 mm ) Stall. | Move FL specific reqt |
| NA | 404.9 (Florida Building Code, Building, 11-4.22) Toilet Rooms <br> 404.9.1 (Florida Building Code, Building, 11-4.22.1) Minimum Number. Toilet facilities required to be accessible by Florida Building Code, Building, 11-4.1 shall comply with Florida Building Code, Building, 11-4.22. Accessible toilet rooms shall be on an accessible route. <br> 404.9.2 (Florida Building Code, Building, 11-4.22.2) Doors. All doors to accessible toilet rooms shall comply with Florida Building Code, Building, 11-4.13. Doors shall not swing into the clear floor space required for any fixture. <br> Exception: All new single-family houses, duplexes, triplexes, condominiums, and townhouses shall provide at least one bathroom, located with maximum possible privacy, where bathrooms are provided on habitable grade levels, with a door that has a 29 inch clear opening. However, if only a toilet room is provided at grade level, such toilet room shall have a clear opening of not less than 29 inches. <br> 404.9.3 (Florida Building Code, Building, 11-4.22.3) Clear Floor Space. The accessible fixtures and controls required in 404.9.4, 404.9.5, 404.9.6 and 404.9.7 shall be on an accessible route. An unobstructed turning space complying with Florida Building Code, Building, 11-4.2.3 shall be provided within an accessible toilet room. The clear floor space at fixtures and controls, the accessible route, and the turning space may overlap. <br> 404.9.4 (Florida Building Code, Building, 11-4.22.4) Water closets. If toilet stalls are provided, then at least one shall be a standard toilet stall complying with Section 404.4; where six or more stalls are provided, in addition to the stall complying with Section 404.4.3, at least one stall 36 inches ( 915 mm ) wide with an outward swinging, self-closing door and parallel grab bars complying with Figures 404.4.3(d) and 404.12.2 shall be provided. Water closets in such stalls shall comply with Section 404.3. If water closets are not in stalls, then at least one shall comply with Section 404.3 <br> 404.9.5 (Florida Building Code, Building, 11-4.22.5) Urinals. If urinals are provided, then at least one shall comply with 404.5. <br> 404.9.6 (Florida Building Code, Building, 11-4.22.6) Lavatories and Mirrors. If lavatories and mirrors are provided, then at least one of each shall comply with 404.6. <br> 404.9.7 (Florida Building Code, Building, 11-4.22.7) Controls and Dispensers. If controls, dispensers, receptacles, or other equipment are provided, then at least one of each shall be on an accessible route and shall comply with Florida Building Code, Building, 11-4.27. | Move FL specific reqt |


| NA | 404.10 (Florida Building Code, Building, 11-4.23) Bathrooms, Bathing Facilities, and Shower Rooms. <br> 404.10.1 (Florida Building Code, Building, 11-4.23.1) Minimum Number. Bathrooms, bathing facilities, or shower rooms required to be accessible by Florida Building Code, Building, 11-4.1 shall comply with 404.10 and shall be on an accessible route. <br> 404.10.2 (Florida Building Code, Building, 11-4.23.2) Doors. Doors to accessible bathrooms shall comply with Florida Building Code, Building, §11-4.13. Doors shall not swing into the floor space required for any fixture. <br> Exception: All new single-family houses, duplexes, triplexes, condominiums and townhouses shall provide at least one bathroom, located with maximum possible privacy, where bathrooms are provided on habitable grade levels, with a door that has a 29-inch ( 737 mm ) clear opening. However, if only a toilet room is provided at grade level, such toilet room shall have a clear opening of not less than 29 inches ( 737 mm ). <br> 404.10.3 (Florida Building Code, Building, 11-4.23.3) Clear floor space. The accessible fixtures and controls required in Sections 404.10.4, 404.10.5, 404.10.6, 404.10.7, 404.10.8 and 404.10.9 shall be on an accessible route. An unobstructed turning space complying with Florida Building Code, Building, §11-4.2.3 shall be provided within an accessible bathroom. The clear floor spaces at fixtures and controls, the accessible route and the turning space may overlap. <br> 404.10.4 (Florida Building Code, Building, 11-4.23.4) Water closets. If toilet stalls are provided, then at least one shall be a standard toilet stall complying with Section 404.4; where six or more stalls are provided, in addition to the stall complying with Section 404.4.3, at least one stall 36 inches ( 915 mm ) wide with an outward swinging, self-closing door and parallel grab bars complying with Section 404.12 and Figure 404.4.3(d) shall be provided. Water closets in such stalls shall comply with Section 404.3. If water closets are not in stalls, then at least one shall comply with Section 404.3. <br> 404.10.5 (Florida Building Code, Building, 11-4.23.5) Urinals. If urinals are provided, then at least one shall comply with Section 404.5. <br> 404.10.6 (Florida Building Code, Building, 11-4.23.6) Lavatories and mirrors. If lavatories and mirrors are provided, then at least one of each shall comply with Section 404.6. <br> 404.10.7 (Florida Building Code, Building, 11-4.23.7) Controls and dispensers. If controls, dispensers, receptacles or other equipment are provided, then at least one of each shall be on an accessible route and shall comply with Florida Building Code, Building, Section 11-4.27. 404.10.8 (Florida Building Code, Building, 11-4.23.8) Bathing and shower facilities. If tubs or showers are provided, then at least one accessible tub that complies with Section 404.7 or at least one accessible shower that complies with Section 404.8 shall be provided. | Move FL specific reqt |
| :---: | :---: | :---: |
| NA | 404.10.9 (Florida Building Code, Building, 11-4.23.9) Medicine Cabinets. If medicine cabinets are provided, at least one shall be located with a usable shelf no higher than 44 in $(1120 \mathrm{~mm})$ above the floor space. The floor space shall comply with Florida Building Code, Building, 11-4.2.4. | Move FL specific reqt |


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404.12 (Florida Building Code, Building, 11-4.26) Handrails, grab bars, and tub and shower seats.
404.12.1 (Florida Building Code, Building, 11-4.26.1) General. All handrails, grab bars and tub and shower seats required to be accessible by Florida Building Code, Building, Section 11-4.1, Florida Building Code, Building, Section 11-4.8, Florida Building Code, Building, Section 11-4.9, Section 404.3, 404.4, 404.7 or 404.8 shall comply with Section 404.12.
404.12.2 (Florida Building Code, Building, 11-4.26.2) Size and Spacing of grab bars and handrails. The diameter or width of the gripping surfaces of a handrail or grab bar shall be $1 \frac{1}{4}$ inches to $1 \frac{1}{2}$ inches ( 32 mm to 38 mm ), or the shape shall provide an equivalent gripping surface. If handrails or grab bars are mounted adjacent to a wall, the space between the wall and the grab bar shall be $1 \frac{1}{2}$ inches ( 38 mm ) [see Figure 404.12.2(a), Figure 404.12.2(b), Figure 404.12.2(c), and Figure 404.12.2(e)]. Handrails may be located in a recess if the recess is a maximum of 3 inches ( 75 mm ) deep and extends at least 18 inches ( 455 mm ) above the top of the rail [see Figure 404.12.2(d)].
404.12.3 (Florida Building Code, Building, 11-4.26.3) Structural strength.The structural strength of grab bars, tub and shower seats, fasteners and mounting devices shall meet the following specification:

1. Bending stress in a grab bar or seat induced by the maximum bending moment from the application of 250 pound-foot ( 1112 N ) shall be less than the allowable stress for the material of the grab bar or seat.
2. Shear stress induced in a grab bar or seat by the application of 250 pound foot $(1112 \mathrm{~N})$ shall be less than the allowable shear stress for the material of the grab bar or seat. If the connection between the grab bar or seat and its mounting bracket or other support is considered to be fully restrained, then direct and torsional shear stresses shall be totaled for the combined shear stress, which shall not exceed the allowable shear stress.
3. Shear force induced in a fastener or mounting device from the application of 250 poundfoot $(1112 \mathrm{~N})$ shall be less than the allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load.
4. Tensile force induced in a fastener by a direct tension force of 250 pound-foot ( 1112 N ) plus the maximum moment from the application of 250 pound-foot $(1112 \mathrm{~N}$ ) shall be less than the allowable withdrawal load between the fastener and the supporting structure. 5.Grab bars shall not rotate within their fittings.
404.12.4 (Florida Building Code, Building, 11-4.26.4) Eliminating hazards. A handrail or grab bar and any wall or other surface adjacent to it shall be free of any sharp or abrasive elements. Edges shall have a minimum radius of $1 / 8$ inch ( 3.2 mm ).

## FIGURE 404.12.2 SIZE AND SPACING OF HANDRAILS AND GRAB BARS.

(Florida Building Code, Building, Chapter 11, Figure 39)
(a), (b), (c), (e) Handrail. (d) Grab Bar.
404.13 (Florida Building Code, Building, 11-4.27.4) Operation. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf (22.2 N).

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specific reqt

## Draft

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 inches ( 51 mm ) above the finished threshold level. Liners shall be recessed and fastened to an approved backing so as not to occupy the space required for wall covering and shall not be nailed or perforated at any point less than 1 inch $(25 \mathrm{~mm})$ above the finished threshold. Liners shall be pitched onefourth unit vertical in 12 units horizontal (2-percent slope) and shall be sloped toward the fixture drains and be securely fastened to the waste outlet at the seepage entrance, making a water-tight joint between the liner 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.
423.1 Water connections. Baptisteries, ornamental and lily pools, aquariums, ornamental fountain basins, swimming pools, and similar constructions, where provided with water supplies, shall be protected against backflow in accordance with Section 608. NA

| NA |
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| 502.4 Seismic |

502.4 Seismic supports. Where earthquake loads are applicable in accordance with the International Building Code, water heater supports shall be designed and installed for the seismic forces in accordance with the International Building Code.

### 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 inches ( 51 mm ) above the finished threshold level. Liners shall be recessed and fastened to an approved backing so as not to occupy the space required for wall covering, and shall not be nailed or perforated at any point less than 1 inch $(25 \mathrm{~mm})$ above the finished threshold. Liners shall be pitched one-fourth unit vertical in 12 units horizontal (2-percent slope) and shall be sloped toward the fixture drains and be securely fastened to the waste outlet at the seepage entrance, making a water-tight joint between the liner and the outlet.

## Exceptions:

1. Floor surfaces under shower heads provided for rinsing laid directly on the ground are not required to comply with this section.
2. Shower compartments where the finished shower drain is depressed a minimum of 2 inches ( 51 mm ) below the surrounding finished floor on the first floor level and the shower recess is poured integrally with the adjoining floor.
423.1 Water connections. Baptisteries, ornamental and lily pools, aquariums, ornamental fountain basins, swimming pools and similar constructions, where provided with water supplies, shall be protected against backflow in accordance with Section 608.
423.3 Reclaimed water. Reclaimed water shall be permitted to be used for aesthetic uses such as decorative pools or fountains in accordance with Florida Department of Environmental Protection (DEP). Reuse of reclaimed water activities shall comply with the requirements of DEP rules.

## CHAPTER 5 WATER HEATERS

502.3 Water heaters installed in garages. Water heaters shall be installed in accordance with the manufacturer's installation instructions, which shall be available on the job site at the time of inspection.
502.4 Seismic supports. Reserved

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504.6 Requirements for discharge piping. The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an air gap located in the same room as the water heater.
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.
5. Discharge to the floor, to an indirect waste receptor or to the outdoors. Where discharging to the outdoors in areas subject to freezing, discharge piping shall be first piped to an indirect waste receptor through an air gap located in a conditioned area 6. Discharge in a manner that does not cause personal injury or structural damage.
6. Discharge to a termination point that is readily observable
by the building occupants.
7. Not be trapped.
8. Be installed so as to flow by gravity
9. Not terminate more than 6 inches ( 152 mm ) above the floor or waste receptor.
10. Not have a threaded connection at the end of such piping 12. Not have valves or tee fittings.
11. Be constructed of those materials listed in Section 605.4 or materials tested, rated and approved for such use in accordance with ASME A112.4.1.

### 504.7 Required pan. Where water heaters or hot water storage

 tanks are installed in locations where leakage of the tanks or connections will cause damage, the tank or water heater shall be installed in a galvanized steel pan having a minimum thickness of 24 gage, or other pans approved for such use.504.7.1 Pan size and drain. The pan shall be not less than 1.5 inches ( 38 mm ) deep and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater The pan shall be drained by an indirect waste pipe having a minimum diameter of 0.75 inch ( 19 mm ). Piping for safety pan drains shall be of those materials listed in Table 605.4
504.6 Relief outlet waste. The outlet of a pressure, temperature or other relief valve shall not be directly connected to the drainage system.
504.6.1 Discharge. The relief valve shall discharge full size to a safe place of disposal such as the floor, water heater pan, outside the building or an indirect waste receptor. The discharge pipe shall not have any trapped sections 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.
504.6.2 Materials. Relief valve discharge piping shall be of those materials listed in Section 605.4 or shall be tested, rated and approved for such use in accordance with ASME

A112.4.1. Piping from safety pan drains shall be of those materials listed in Table 605.4.
504.7 Required pan. Where water heaters or hot water storage tanks are installed above the ground floor space, in attics or ceiling areas, or within the habitable space, the tank or water heater shall be installed in a galvanized steel or other metal pan of equal corrosion resistance having a minimum thickness of 24 gage, 0.0276 inch ( 0.70 mm ). Electric water heaters shall be installed in a metal pan as herein required or in a high-impact plastic pan of at least 0.0625 inch ( 1.59 mm ) thickness.
504.7.1 Pan size and drain. The pan shall not be less than $11 / 2$ inches ( 38 mm ) deep and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a minimum diameter of $3 / 4$ inch (19 mm).

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## CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

| 602.3 Individual water supply. Where a potable public water <br> supply is not available, individual sources of potable water supply <br> shall be utilized. | 602.3 Individual water supply. Where a potable public water supply is not available, <br> individual sources of potable water supply meeting the requirements of Florida Statute 373 <br> shall be utilized. | No overlap. <br> Move FL <br> specific reqt |
| :--- | :--- | :--- |
| NA | 602.4 Reclaimed water. Reclaimed water shall be permitted to be used for flushing water <br> closets and urinals and other fixtures which do not require potable water in accordance with <br> Florida Department of Environmental Protection (DEP) Chapter 62-610, F.A.C. Reuse of <br> reclaimed water activities shall comply with the requirements of DEP Chapter 62-610, FAC.. | No overlap. <br> Move FL <br> specific reqt |
| 603.1 Size of water service pipe. The water service pipe shall be <br> sized to supply water to the structure in the quantities and at the <br> pressures required in this code. The minimum diameter of water <br> service pipe shall be $3 / 4$ inch $(19.1 \mathrm{~mm})$. | 603.1 Size of water service pipe. The water service pipe shall be sized to supply water to <br> the structure in the quantities and at the pressures required in this code. The minimum <br> diameter of water service pipe shall be $3 / 4$ inch (19.1 mm). Water services shall be sized in <br> accordance with Table 603.1 or other approved methods. | No overlap. <br> Move FL <br> specific reqt |


| NA | TABLE 603.1 <br> MINIMUM WATER SERVICE SIZE ${ }^{\text {a }}$ |  |  |  |  | No overlap. Move FL specific reqt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NO. OF FIXTURE UNITS FLUSH TANK WC ${ }^{\text {b }}$ | DIAMETER OF WATER PIPE ${ }^{\text {c }}$ | RECOMMENDED <br> METER SIZE (inches) ${ }^{\text {d }}$ | APPROX. PRESSURE LOSS METER + 100' PIPE (psi) ${ }^{\text {e }}$ | NO. OF FIXTURE UNITS FLUSH VALVE WC |  |
|  | 18 | 3/4 | 5/8 | 30 | - |  |
|  | 19-55 | $\begin{aligned} & 1 \\ & 1 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1 \\ & 1 \\ & \hline \end{aligned}$ | $\begin{array}{r} 30 \\ 30 \\ \hline \end{array}$ | $9$ |  |
|  | 56-58 | $\begin{aligned} & 1-1 / 4 \\ & 1-1 / 4 \end{aligned}$ | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ | $\begin{aligned} & 30 \\ & 30 \end{aligned}$ | $10-20$ |  |
|  | $86-225$ | $\begin{aligned} & 1-1 / 2 \\ & 1-1 / 2 \end{aligned}$ | $\begin{aligned} & 1-1 / 2 \\ & 1-1 / 2 \end{aligned}$ | $\begin{aligned} & 30 \\ & 30 \end{aligned}$ | 21-77 |  |
|  | $\begin{gathered} \text { 226-350 } \\ - \end{gathered}$ | $\begin{aligned} & 2 \\ & 2 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1-1 / 2 \\ & 1-1 / 2 \end{aligned}$ | $\begin{array}{r} 30 \\ 30 \\ \hline \end{array}$ | 78-175 |  |
|  | $351-550$ | $\begin{aligned} & 2 \\ & 2 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2 \\ & 2 \\ & \hline \end{aligned}$ | $\begin{array}{r} 30 \\ 30 \\ \hline \end{array}$ | 176-315 |  |
|  | $551-640$ | $\begin{aligned} & 2-1 / 2 \\ & 2-1 / 2 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2 \\ & 2 \\ & \hline \end{aligned}$ | $\begin{aligned} & 30 \\ & 30 \end{aligned}$ | 316-392 |  |
|  | $641-1340$ | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | $\begin{aligned} & 22 \\ & 22 \end{aligned}$ | 393-940 |  |
|  | Notes: <br> ${ }^{\text {a }}$ Table is applicabl <br> ${ }^{\mathrm{b}}$ See Table 709.1 <br> ${ }^{\text {c }}$ Minimum water s <br> ${ }^{\mathrm{d}}$ All secondary sub <br> which they are ins <br> ${ }^{\mathrm{e}}$ Table based on m | for both coppe fixture unit v vice shall be $3 / 4$ meters and back led. <br> imum water m | and plastic water pip es. <br> " to control valve. ow assemblies shall <br> pressure of 50 psi. | at least the same size | as the line in |  |
| 604.1 General. The design of the water distribution system shal conform to accepted engineering practice. Methods utilized to determine pipe sizes shall be approved. | all 604.1 Genera <br> engineering pr <br> 603.1 shall be | The design of ctice. Methods ermitted to be |  | stem shall conform e sizes shall be ap tribution system. | accepted <br> ved. Table | No overlap. Move FL specific reqt |

## Draft

606.1 Location of full-open valves. Full-open valves shall be installed in the following locations:

1. On the building water service pipe from the public water
supply near the curb.
2. On the water distribution supply pipe at the entrance into the structure.
3. On the discharge side of every water meter.
4. On the base of every water riser pipe in occupancies other than multiple-family residential occupancies that are two stories or less in height and in one- and two-family residential occupancies.
5. On the top of every water down-feed pipe in occupancies other than one- and two-family residential occupancies.
6 . On the entrance to every water supply pipe to a dwelling unit, except where supplying a single fixture equipped with individual stops.
6. On the water supply pipe to a gravity or pressurized water tank.
7. On the water supply pipe to every water heater.
606.2 Location of shutoff valves. Shutoff valves shall be installed in the following locations:
8. On the fixture supply to each plumbing fixture other than bathtubs and showers in one- and two-family residential occupancies, and other than in individual sleeping units that are provided with unit shutoff valves in hotels, motels, boarding houses and similar occupancies.
9. On the water supply pipe to each sillcock.
10. On the water supply pipe to each appliance or mechanical equipment.
606.1 Location of full-open valves. Full-open valves shall be installed in the following locations:
1.On the building water service pipe from the public water supply near the curb.
2.On the water distribution supply pipe at the entrance into the structure.
3.On the base of every water riser pipe in occupancies other than multiple-family residential occupancies that are two stories or less in height and in one- and two-family residential occupancies.
4.On the top of every water down-feed pipe in occupancies other than one- and twofamily residential occupancies.
5.On the entrance to every water supply pipe to a dwelling unit, except where supplying a single fixture equipped with individual stops.
6.On the water supply pipe to a gravity or pressurized water tank.
7.On the water supply pipe to every water heater.

No overlap
Move FL specific reqt

### 606.2 Location of shutoff valves. Shutoff valves shall be installed in the following

 locations:1. On the fixture supply to each plumbing fixture except 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 in other than one- and two-family residential occupancies.
3. On the water supply pipe to each appliance or mechanical equipment.

Exception: Shutoff valves are not required on tubs and showers in residential construction.

## Overlap

exists.
Needs resolution

## Draft

## HOT WATER SUPPLY SYSTEM

607.1 Where required. In residential occupancies, hot water shall be supplied to all plumbing fixtures and equipment utilized for bathing, washing, culinary purposes, cleansing, laundry or building maintenance. In nonresidential occupancies, hot water shall be supplied for culinary purposes, cleansing, laundry or building maintenance purposes. In nonresidential occupancies, hot water or tempered water shall be supplied for bathing and washing purposes. Tempered water shall be supplied through a water temperature limiting device that conforms to ASSE 1070 and shall limit the tempered water to a maximum of $110^{\circ} \mathrm{F}\left(43^{\circ} \mathrm{C}\right)$. This provision shall not supersede the requirement for protective shower valves in accordance with Section 424.3

## HOT WATER SUPPLY SYSTEM

607.1 Where required. In occupied structures, hot water shall be supplied to all plumbing fixtures and equipment utilized for bathing, washing, culinary purposes, cleansing, laundry or building maintenance

Exception: In nonresidential occupancies, hot water or tempered water shall be supplied for bathing and washing purposes. The delivery of cold water only shall be permitted to
be delivered from all hand washing facilities except where hot water is required by law.
607.1.1 Hand washing lavatories. In public food service establishments, food establishments or where otherwise required by law, lavatories intended for the purpose of employee hand washing shall be equipped with hot or tempered water.

Overlap
exists.
Needs
a. Applies to circulating sections of service or domestic hot water systems and first 8 ' from storage tank for commercial non-circulating systems. For residential, see Section 612.1.ABC. 5 of Chapter 13 of the Florida Building Code, Building.
b. For insulation outside the stated conductivity range, the minimum thickness shall be determined in accordance with Equation 4-2 in 411.1ABC.2.1 of Chapter 13 of the Florida Building Code, Building. c. Runouts to individual terminal units not exceeding 12 ' in length.
607.2.1 Circulating systems. Piping insulation shall conform to the requirements of Table 607.1.
608.3 Devices, appurtenances, appliances and apparatus. All devices, appurtenances, appliances and apparatus intended to serve some special function, such as sterilization, distillation, processing, cooling, or storage of ice or foods, and that connect to the water supply system, shall be provided with protection against backflow and contamination of the water supply system. Water pumps, filters, softeners, tanks, commercial drinking water dispensers and all other appliances and devices that handle or treat potable water shall be protected against contamination.

### 608.8 Identification of potable and non potable water. In all

 buildings where two or more water distribution systems, one potable water and the other non potable water, are installed, each system shall be identified either by color marking or metal tags in accordance with Sections 608.8.1 through 608.8.3.
### 608.17 Protection of individual water supplies. <br> 608.17.1 Well locations.

608.17.2 Elevation.
608.17.3 Depth
608.17.4 Water-tight casings
608.17.5 Drilled or driven well casings.
608.17.6 Dug or bored well casings.
608.17.7 Cover
608.17.8 Drainage
610.1 General. New or repaired potable water systems shall be purged of deleterious matter and disinfected prior to utilization.
The method to be followed shall be that prescribed by the health authority or water purveyor having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652, or as described in this section. This requirement shall apply to "on-site" or "in-plant" fabrication of a system or to a modular portion of a system.

1. The pipe system shall be flushed with clean, potable water until dirty water does not appear at the points of outlet.
2. The system or part thereof shall be filled with a water/chlorine solution containing at least 50 parts per million ( $50 \mathrm{mg} / \mathrm{L}$ ) of chlorine, and the system or part thereof shall be valved off and allowed to stand for 24 hours; or the system or part thereof shall be filled with a water/chlorine solution containing at least 200 parts per million ( $200 \mathrm{mg} / \mathrm{L}$ ) of chlorine and allowed to stand for 3 hours.
3. Following the required standing time, the system shall be
flushed with clean potable water until the chlorine is purged from the system.
4. The procedure shall be repeated where shown by a bacteriological examination that contamination remains present in the system.
608.8 Identification of potable and non potable water. In all buildings where two or more water distribution systems, one potable water and the other nonpotable water, are installed, each system shall be identified either by color marking or metal tags as required by ASME A13.1. Reclaimed water systems shall be identified using color coded Pantone Purple 522C and marked with the statement "NONPOTABLE WATER - NOT FOR HUMAN CONSUMPTION."

### 608.17 Protection of individual water supplies. Reserved.

610.1 General. New or repaired potable water systems shall be purged of deleterious matter and, where required by the Administrative Authority, disinfected prior to utilization. The method to be followed shall be that prescribed by the health authority or water purveyor having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652, or as described in this section. This requirement shall apply to "on-site" or "in-plant" fabrication of a system or to a modular portion of a system. 1. The pipe system shall be flushed with clean, potable water until dirty water does not appear at the points of outlet.
2. The system or part thereof shall be filled with a water/chlorine solution containing at least 50 parts per million ( $50 \mathrm{mg} / \mathrm{L}$ ) of chlorine, and the system or part thereof shall be valved off and allowed to stand for 24 hours; or the system or part thereof shall be filled with a water/chlorine solution containing at least 200 parts per million ( $200 \mathrm{mg} / \mathrm{L}$ ) of chlorine and allowed to stand for 3 hours.
3. Following the required standing time, the system shall be flushed with clean potable water until the chlorine is purged from the system.
4. The procedure shall be repeated where shown by a bacteriological examination that contamination remains present in the system.

No overlap
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No overlap.
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## SECTION 611 DRINKING WATER TREATMENT UNITS

611.1 Design. Drinking water treatment units shall meet the requirements of NSF 42, NSF 44, NSF 53 or NSF 62.
611.2 Reverse osmosis systems. The discharge from a reverse osmosis drinking water treatment unit shall enter the drainage system through an air gap or an air gap device that meets the requirements of NSF 58.
611.3 Connection tubing. The tubing to and from drinking water treatment units shall be of a size and material as recommended by the manufacturer. The tubing shall comply with NSF 14, NSF 42, NSF 44, NSF 53, NSF 58 or NSF 61.

## SECTION 611

## WATER TREATMENT UNITS

611.1 When reduction of aesthetic contaminants, such as chlorine, taste, odor or sediment are claimed, the drinking water treatment units must meet the requirements of NSF 42, Drinking Water Treatment Units-Aesthetic Effects, or Water Quality Association Standard S-200, Household and Commercial Water Filters (In-Line). When reduction of regulated health contaminants is claimed, such as inorganic or organic chemicals or radiological substances, the drinking water treatment unit must meet the requirements of NSF 53, Drinking Water Treatment Units-Health Effects.
611.2 Reverse osmosis drinking water treatment systems shall meet the requirements of NSF 58, Reverse Osmosis Drinking Water Treatment Units, or Water Quality Association Standard S-300, Point-of-Use Low Pressure Reverse Osmosis Drinking Water Systems. 611.3 When reduction of regulated health contaminants is claimed, such as inorganic or organic chemicals, or radiological substances, the reverse osmosis drinking water treatment unit must meet the requirements of NSF 58, Reverse Osmosis Drinking Water Treatment Systems.
611.4 Waste or discharge from reverse osmosis or other types of water treatment units must enter the drainage system through an air gap or be equipped with an equivalent backflowprevention device.

No overlap.
Move FL specific reqt


| NA | 612.3.2 Pump discharge pipe sizing. For submersible pumps, pipe size shall be equal to the pump discharge. Piping for all other types of pumps shall be sized in accordance with the pump manufacturer's specifications. <br> 612.3.3 Pressure tank pipe sizing. Piping size for the offset of the pressure tank shall use the piping friction loss charts for the piping material used. <br> 612.4 Electrical wiring. All wiring shall be installed in accordance with Chapter 27 of the Florida Building Code, Building. <br> 612.5 Disinfection. The pump installer shall disinfect any potable well and water system in accordance with Section 610. <br> 612.6 Valves. A pressure relief valve shall be installed on any pumping system that can produce pressures of $75 \mathrm{psi}(517 \mathrm{kPa})$ or greater. A check valve shall be installed at the well head of submersible pumps. | Move FL specific reqt |
| :---: | :---: | :---: |
| CHAPTER 7 SANITARY DRAINAGE |  |  |
| 701.2 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer, where available, or an approved private sewage disposal system in accordance with the International Private Sewage Disposal Code. | 701.2 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer, where available, or an approved private sewage disposal system. | No overlap. Move FL specific reqt. |
| 708.3.2 Building sewers. Building sewers shall be provided with cleanouts located not more than 100 feet ( 30480 mm ) apart measured from the upstream entrance of the cleanout. For building sewers 8 inches ( 203 mm ) and larger, manholes shall be provided and located not more than 200 feet ( 60960 mm ) from the junction of the building drain and building sewer, at each change in direction and at intervals of not more than 400 feet ( 122 m ) apart. Manholes and manhole covers shall be of an approved type. | 708.3.2 Building sewers. Building sewers shall be provided with cleanouts located not more than 100 feet ( 30480 mm ) apart measured from the upstream entrance of the cleanout. For building sewers 12 inches ( 305 mm ) and larger, manholes shall be provided and located not more than 200 feet ( 60960 mm ) from the junction of the building drain and building sewer, at each change in direction and at intervals of not more than 400 feet ( 122 m ) apart. Manholes and manhole covers shall be of an approved type. | No overlap. Move FL specific reqt |
| 708.8 Clearances. Cleanouts on 6 -inch ( 153 mm ) and smaller pipes shall be provided with a clearance of not less than18 inches $(457 \mathrm{~mm})$ for rodding. Cleanouts on 8 -inch ( 203 mm ) and larger pipes shall be provided with a clearance of not less than 36 inches ( 914 mm ) for rodding. | 708.8 Clearances. Cleanouts on 6-inch ( 153 mm ) and smaller pipes shall be provided with a clearance of not less than 18 inches ( 457 mm ) for rodding. Cleanouts on 8 -inch ( 203 mm ) and larger pipes shall be provided with a clearance of not less than 36 inches ( 914 mm ) for rodding. | No overlap. Move FL specific reqt |


| NA |
| :--- |
|  |
| 904.1 Roof extension. All open vent pipes that extend through a |
| roof shall be terminated at least [NUMBER] inches (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. |


| 1003.2 Approval. The size, type and location of each interceptor and of each separator shall be designed and installed in accordance with the manufacturer's instructions and the requirements of this section based on the anticipated conditions of use. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator. | 1003.2 Approval. The size, type and location of each interceptor and of each separator shall be approved by the plumbing official. Where the interceptor or separator is located within a private sewage disposal system, such interceptor or separator shall be approved by the health official. The interceptor or separator shall be designed and installed in accordance with the manufacturer's instructions and the requirements of this section. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator. | No overlap. Move FL specific reqt. |
| :---: | :---: | :---: |
| 1003.3 Grease interceptors. Grease interceptors shall comply with the requirements of Sections 1003.3.1 through 1003.3.5. | 1003.3 Grease traps and grease interceptors. <br> Grease traps and grease interceptors shall comply with the requirements of Sections 1003.3.1 through | No overlap. Move FL specific reqt |
| 1003.5 Sand interceptors in commercial establishments. | 1003.5 Grease interceptors. <br> Grease interceptors shall be water and gas tight. Each interceptor shall be engineered to withstand the load, such as from vehicular traffic, to be placed on the interceptor. The minimum tank volume of grease interceptors shall be 750 gallons ( 2839 L ), and the maximum volume shall be 1,250 gallons ( 4731 L ). Interceptors shall be permitted to be installed in series. <br> 1003.5.1 Grease interceptor capacity. <br> The minimum grease retention capacity for interceptors shall be at least two times the flowthrough rate. <br> 1003.5.2 Construction of interceptor. <br> Each interceptor shall be constructed in accordance with Rule 64E-6, Florida Administrative Code. Minimum depth of the liquid shall be 42 inches ( 1067 mm ). Each compartment shall be accessible with a minimum clearance of 18 inches ( 457 mm ) square or in diameter. <br> 1003.5.3 Inlet and outlet piping. <br> The inlet and outlet piping shall have a two-way cleanout tee installed. Inlet piping shall enter at $2 \underline{1} / 2$ inches ( 64 mm ) above the liquid level. Inlet piping shall connect to a tee, sweep or baffle, which shall extend to 24 inches ( 610 mm ) below the water level. The outlet pipe shall start at 8 inches ( 203 mm ) above the bottom of the interceptor and extend vertically to a tee. The tee and pipe shall be no less than 4 inches ( 102 mm ) in diameter. The tee shall be installed with the run in the vertical direction. | No overlap. Move FL specific reqt. |



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| NA | TABLE 1106.7SIZING SCUPPERS FOR A 5 IN. PER HOUR RATE OF RAINFALL |  |  |  |  |  |  |  | Move FL specific reqt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | HORIZONTALLY PROJECTED ROOF AREA (SQUARE FEET) |  |  |  |  |  |  |  |
|  | HEAD IN | LENGTH OF WEIR IN INCHES |  |  |  |  |  |  |  |
|  |  | 4 | 6 | 8 | 12 | 16 | 20 | 24 |  |
|  | 1 | 230 | 346 | 461 | 692 | 923 | 1153 | 1384 |  |
|  | 2 | 641 | 961 | 1282 | 1923 | 2564 | 3205 | 3846 |  |
|  | 3 | 1153 | 1730 | 2307 | 3461 | 4615 | 5769 | 6923 |  |
|  | 4 | 1794 | 2692 | 3589 | 5384 | 7179 | 8974 | 10769 |  |
|  | Note: to adjust this table for other than a 5" design rain fall rate multiply the square footage on the table by 5 then divide by the local design rain fall rate. <br> Example: For 4" of design rainfall rate, a 4" long scupper with a 1" head would accommodate 287 square feet. $(230 \times 5) \div 4=287$. |  |  |  |  |  |  |  |  |


| CHAPTER 13 REFERENCED STANDARDS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ASME | ASME American Society of Mechanical Engineers <br> Three Park Avenue <br> New York, NY 10016-5990 <br> Standard  <br> reference number Title  <br> Scer  |  |  | No overlap. Move FL specific reqt. |
|  |  |  | Referenced in code section number |  |
| NA | A13.1-81 | Scheme for Identification of Piping System | 608.8 |  |

Draft


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