

CHAPTER 9

VENTS

901.0 General.

901.1 Vents Required.

Each plumbing fixture trap, except as otherwise provided in this code, shall be protected against siphonage and back-pressure, and air circulation shall be ensured throughout all parts of the drainage system by means of vent pipes installed in accordance with the requirements of this chapter and as otherwise required by this code.

901.2 Trap Seal Protection. The vent system shall be designed to prevent a trap seal from being exposed to a pressure differential that exceeds 25mm (1 in.) of water column on the outlet side of the trap.

902.0 Vents Not Required.

902.1 Vent piping shall be permitted to be omitted on an interceptor when such interceptor acts as a primary settling tank and discharges through a horizontal indirect waste pipe into a secondary interceptor. The second interceptor shall be properly trapped and vented.

902.2 Traps serving sinks that are part of the equipment for coffee shops or counters need not be vented when the location and construction is impossible to do so. When such conditions exist, said sinks shall discharge by means of approved indirect waste pipes into a floor sink or other approved type of receptor.

903.0 Materials.

903.1 Vent pipe and fittings shall be in accordance with the applicable standards referenced in Table 7-1, except that:

903.1.1 ABS and PVC DWV piping installations shall be in accordance with the applicable standards referenced in Table 14-1, or equivalent International Standard(s) approved by the Authority Having Jurisdiction and Chapter 15, "Firestop Protection." Except for individual single-family dwelling units, materials exposed within ducts or plenums shall have a flame-spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with NFPA 255, *Standard Method of Test for Surface Burning Characteristics of the Building Materials* or equivalent International Standard(s) approved by the Authority Having Jurisdiction.

903.2 Changes in direction of vent piping shall be made by the appropriate use of approved fittings, and no such pipe shall be strained or bent. Burred ends shall be reamed to the full bore of the pipe.

904.0 Size of Vents.

904.1 The size of vent piping shall be determined from its length and the total number of fixture units connected thereto, as set forth in Table 7-4. The diameter of an individual vent shall be not less than 32mm (1-1/4 in.), nor less than 1/2 the diameter of the drain to which it is connected. In addition, the drainage piping of each building and each connection to a public sewer or a private sewage disposal system shall be vented by means of one or more vent pipes; the aggregate cross-sectional area of which shall be not less than that of the largest required building sewer, as determined from Table 7-4. Vent pipes from fixtures located upstream from pumps, ejectors, backwater valves, or other devices that in any way obstruct the free flow of air and other gases between the building sewer and the outside atmosphere shall not be used for meeting the cross-sectional area venting requirements of this section.

Exception: When connected to a common building sewer, the drainage piping of two or more buildings located on the same lot and under one ownership shall be permitted to be vented by means of piping sized in accordance with Table 7-4, provided the aggregate cross-sectional area of vents is not less than that of the largest required common building sewer.

904.2 No more than 1/3 of the total permitted length, per Table 7-4, of any minimum-sized vent shall be installed in a horizontal position.

Exception: When a minimum-sized vent is increased one pipe size for its entire length, the maximum length limitation does not apply.

904.3 Where vents exceed 12m (40 ft.) in developed length, such vent(s) shall be increased by one pipe size for the entire developed length of the vent pipe.

905.0 Vent Pipe Grades and Connections.

905.1 Vent and branch vent pipes shall be free from drops or sags, and each such vent shall be level or shall be so graded and connected as to drip back by gravity to the drainage pipe it serves.

905.2 Where vents connect to a horizontal drainage pipe, each vent pipe shall have its invert taken off