

# PLUMBING NEWSLETTER



All information herein was referenced for the Winston-Salem/Forsyth County Area. If you have questions concerning other Inspection Divisions, please contact that division for your answers.

## 2012 NC PLUMBING CODES?

In just a few months the 2012 NC Plumbing Codes will be mandatory across the state. One question that keeps coming up is; Do we have two(2) Plumbing Codes this year?

Well trying to keep it short and simple "Yes". This year there is a NC Commercial and a NC Residential Plumbing Code.

The Commercial Plumbing Code can be purchased from NC DOI already. The Residential Plumbing Code is part of the NC Residential Build-

ing Code Book. This Code Book is on schedule to be out for sell in January 2012.

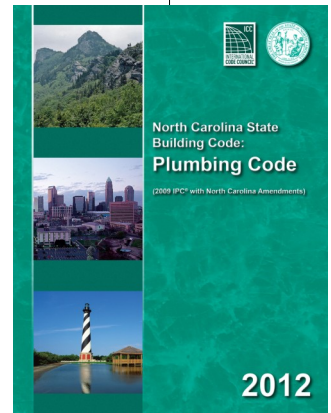
Contractors performing work in residential settings will need a copy of the Residential Building Code Book to reference any code violations listed on their permits.

The Winston-Salem/Forsyth County Inspectors have been instructed to list the code number(s) for violations in the code in which they are found Example: Commercial jobs will have the Commercial Code numbers

listed and Residential jobs will have the Residential Code numbers listed.

This will be the same for the 2012 NC Fuel Gas Codes.

To view the Building Code Council's meeting minutes for the 2012 codes go to: [http://www.ncdoi.com/OSFM/Engineering/BCC/engineering\\_bcc\\_minutes.asp](http://www.ncdoi.com/OSFM/Engineering/BCC/engineering_bcc_minutes.asp). Open the September 14, 2010, October 5, 2010 and the December 14, 2010 pdf files.



## SLEEVES FOR PIPING

A contractor asked what does the code say about pipe sleeves?

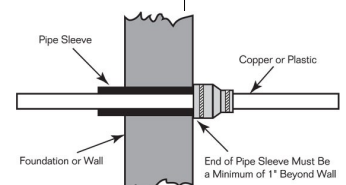
### 305.1 Corrosion.

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 movement including expansion and contraction of piping. Minimum wall thickness of material shall be 0.025 inch

(0.64 mm).

*Metallic pipes made from brass, copper, cast iron and steel are subject to corrosion when exposed to lime and acid of concrete, cinder or other corrosive material such as soil. A protective sheathing having a minimum thickness of 0.025 inches (0.64 mm) is to be placed over the piping before instal-*



## SLEEVES FOR PIPING

lation in these corrosive environments. The protective sheathing should expand and contract such that rubbing will not occur. Typical protective coatings include coal tar wrapped with paper, epoxy or plastic coatings and plastic sheathing.

**305.2 Breakage.** Pipes passing through or under walls shall be protected from breakage.

*When piping is installed through or under a wall assembly, it is subjected to any loading conditions that the wall is resisting; therefore, protection from the effects of building structural loads must be considered. This protection can be achieved through the use of a sleeve or a relieving arch.*

**305.4 Sleeves.** Annular spaces between sleeves and pipes shall be filled or tightly caulked in an approved manner. Annular spaces between sleeves and pipes in fire-resistance-rated assemblies shall be filled or tightly caulked in accordance with the *International Building Code*.

*The annular space created between a sleeve and a pipe in a nonfire-resistance-rated assembly must be filled with a material that prevents structural loading of the pipe and rodent infiltration (see commentary, Sections 304.4 and 305.3). This material is typically caulk with coal tar or an asphaltic compound with some degree of flexibility to prevent structural loading of the piping. It should be noted that the materials used to fill the annular space are to be compatible with the pipe as well as the sleeve material [see Figure 307.3(2)].*

*Annular spaces created by penetrations in fire-resistance-rated assemblies must also be filled and must maintain the fire-resistance rating of the assembly. The fire-resistance rating can be protected*

*by providing a through-penetration system, which can consist of caulks, intumescent materials and sleeves installed around the penetrating pipe. All through-penetration systems must be tested in accordance with ASTM E 814 as provided in the IBC [see Figure 307.3(4)].*

**305.5 Pipes through or under footings or foundation walls.** Any pipe that passes within 12 inches (305 mm) under a footing or through a foundation wall shall be provided with a relieving arch, or a pipe sleeve pipe shall be built into the foundation wall. The sleeve shall be two pipe sizes greater than the pipe passing through the wall. Piping shall not be run under pier footing (refer to Section 307).

*Piping installed within or under a footing or foundation wall must be structurally protected from any transferred loading from the footing or foundation wall. This protection may be provided through the use of a relieving arch or a pipe sleeve.*

*When a sleeve is used, it should be*

*sized such that it is two pipe sizes larger than the penetrating pipe. For example, a 4-inch (102 mm) penetrating pipe would require a 6-inch (152 mm) sleeve. This space will allow for any differential movement of the pipe. By providing structural protection to the piping system, the piping will not be subjected to undue stresses that could cause it to rupture and leak (see Figure 305.5).*

The sections in *italics* after each code are from the Plumbing Code and Commentary.

Readers should note that the Commentary is to be used in conjunction with the *International Plumbing Code* and not as a substitute for the code. **The Commentary is advisory only;** the code official alone possesses the authority and responsibility for interpreting the code.

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### Drain Pipe and Sleeve Sizes

**Code:** 2012 Plumbing Code  
**Sections:** 305.5 and 202

**Date:** September 1, 2011

**Question:**

What pipe sizes may be used when the code requires the pipe sleeve to be two pipe sizes larger than the drain pipe?

**Answer:**

We presume the "pipe sizes" as addressed in the definitions may be used when the sleeve is required to be increased two pipe diameters. When the drainage pipe is 3", the pipe sleeve may be 4", which is using 3 1/2" and 4".

If you have any questions or wish for your questions to be included in our monthly newsletter please send all questions to: [jamesr@cityofws.org](mailto:jamesr@cityofws.org). James Rhodes, Senior Plumbing Inspector, Winston-Salem/Forsyth County Inspections 100 E. First St., Suite 328 Winston-Salem, NC 27101

If you are looking for information from NCDOL go to [www.ncdoi.com](http://www.ncdoi.com)

For licensing questions contact the State Board of Examiners of Plumbing, Heating, and Fire Sprinkler Contractors at [www.nclicensing.org](http://www.nclicensing.org)

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