



Maricopa County

Planning & Development Department

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PEX INTERPRETATION 2008

Maricopa County recently adopted the 2006 International Plumbing Code which allows flexible plastic water piping such as PEX outside a building and within a building.

However, where such flexible plastic water piping passes through a foundation, exterior wall, under a slab and through a floor it must be enclosed in a protective rigid sleeve pipe from outside the building to and through the floor slab penetration inside the building. This decision is based on sections 305.2, 305.3 and 305.5 of the 2006 IPC which state:

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

305.3 Stress and strain. Piping in a plumbing system shall be installed so as to prevent strains and stresses that exceed the structural strength of the pipe. Where necessary, provisions shall be made to protect piping from damage resulting from expansion, contraction and structural settlement.

305.5 Pipe through or under footings or foundation walls. Any pipe that passes 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.

Additionally, typical PEX Installation Guides includes the following paragraph:

Pipe can penetrate concrete slabs, though local regulatory bodies may require sleeves at the penetration point. Consult local inspection staff. Pipe subject to mechanical damage must be protected with plastic sleeves complying with local code requirements.

As the Chief Building Official and Administrative Authority for Maricopa County I find that flexible plastic water pipe would be subject to such damages where penetrating a foundation, exterior wall, under a slab and through a floor and therefore must be protected with a rigid plastic sleeve.

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