

## ***Water Piping Under Concrete Slab Foundations***

### **2013 California Plumbing Code, Section 609. Installation, Testing, Unions and Location**

**Section 609.3 Under Concrete Slab** Water Piping installed within a building and in or under a concrete floor slab resting upon the ground shall be installed in accordance with the following requirements. The City of Livermore Municipal Code Section 15.12.050 amended Section 609.3 of the 2013 California Plumbing Code by adding the following sentence. "Water distribution systems shall not be installed under a concrete floor slab within a building."

**Note:** "within a building" shall mean within the fixed limits of the building foundation.

**New construction:** Much of Livermore's soil condition is such that the use of copper water piping under concrete slabs in contact with soil causes rapid corrosion of the piping resulting in failure. Also, some types of concrete slab construction, such as "post-tensioned," prohibit cutting the slab for plumbing repairs. Therefore, in new construction, the City of Livermore does not allow the installation of copper water pipes under concrete slabs in contact with soil. An exception to this requirement would be where structural conditions would necessitate the need to route the water pipes under the concrete slab, in which case, the pipes must be sleeved in a manner acceptable to the Livermore Permit Center.

**Repairs to existing water piping under a concrete slab floor system:** It is recommended to re-pipe the building overhead and in the walls but not required. Engineered concrete floor systems, such as post-tension cable designs, will require a registered design professional to provide a proposed method to expose the piping and repair the concrete slab. The proposal needs to be submitted to the City of Livermore Permit Center along with the permit application. Make sure the proposal is stamped and signed by the registered design professional.

A permit for the repair of water piping is required from the City of Livermore Permit Center. The repair would require the use of wrought copper fittings and the connections to be brazed.

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