



Building and Safety Division • Public Information

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Building and Safety Guidelines for Property owners Existing Foundations in Fire-Damaged Buildings... January 10, 2018

Generally, existing footings, slabs, and foundation systems in fire-destroyed buildings should not be re-used for the reconstructed building.

The effects of intense heat and fire on a foundation system will usually render the foundation unusable, or impractical for re-use.

A serious house fire can generate enough heat to damage and weaken the concrete and steel reinforcement bars. Even though concrete is non-flammable and offers excellent fire protective qualities for preventing the spread of fire, it can experience damage and lose some of its structural characteristics when exposed to extreme heat, even when the damage is not visible or clearly evident.

Other critical components of the foundation system can also be compromised during a serious fire. Foundation anchorage hardware (steel bolts and anchors), plumbing, electrical pipes and conduit, and the moisture barrier under concrete slabs are typically severely compromised during a serious fire. These can be difficult and expensive to repair and reinstall in an existing concrete foundation.

Depending on the condition and characteristics of the original foundation system, it is often most cost effective to build a new foundation system than to salvage portions of the partially damaged foundation for re-use.

During the permitting process to reconstruct a building destroyed by fire, the Ventura County Building and Safety Department will generally not permit the existing foundation to be reused. If a property owner would like to receive special consideration for allowing the existing foundation to be reused, a certification of the foundation from a qualified professional is required, such as a licensed Structural Engineer or Architect. The professional will do the necessary tests and assessments to determine if the existing foundation is adequate for re-use and if it meets all applicable State and local code requirements for strength, durability and safety in supporting the newly constructed building. The certification must be based on sound engineering assessment, analysis, and/or testing. The foundation will not be approved for reuse without proper certification by the design professional.

Homeowners are advised to discuss this issue with their professional designer who will design their replacement structure.