



Gary Porter, Engineering & Technical Services for the Masonry Advisory Council is called upon with questions about construction concerns and for masonry advice from a variety of Architects, Engineers, Contractors, Developers and Distributor sources. He is dedicated to ongoing education of masonry and shares helpful tips from his professional experience that may be beneficial to you.

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Masonry Does Not Burn

For years folks have been saying that MASONRY DOES NOT BURN! I am here to tell you it is true! Masonry products like brick, concrete block or stone are all made and mined from non-combustible materials. That means that if you have a concrete block wall between you and a fire happening on the other side of the wall, you will be safe and secure because that concrete block will not burn. A few other bonuses with masonry is it will not grow mold or allow bugs and termites to eat it to pieces. It is a green sustainable material and it is good at maintaining a warm environment in the winter and cool environment in the summer. Knowing this, masonry should be the choice for your next building or home.

Safe and common sense design of structures against fire can happen with three critical items.

Detection, Suppression and Containment.

Detection is provided by the smoke detector that goes off and warns you through sound and flashing lights that there is smoke and possibly a fire. Sometimes these detectors can be tied into a fire department minimizing time for elderly or disabled people who cannot respond to the detector, getting a jump on a fire before it spreads too much. Smoke detectors require regular maintenance with batteries and they sometimes malfunction. A smoke detector does not help to extinguish a fire.

Suppression is provided through fire sprinkler. Fire sprinklers are installed to help the firefighters in extinguishing a small fire and keep it from becoming a big fire. Fire sprinklers may go off before the fire fighters arrive. Fire sprinklers need annual maintenance to work properly and they are subject to malfunction. If there is insufficient water pressure or a faulty design, the sprinkler system could become a victim to the fire and melt before it can help.

Containment refers to the use of building materials to control the spread of the fire. Directing the smoke and vapors and eliminating generation of toxic smoke and fumes. There is no maintenance to a concrete block containment area. It needs no maintenance to function properly. When the smoke detectors and sprinkler systems malfunction and don't do their part, the concrete block walls are in place and waiting to contain the fire. The concrete block do not burn, melt or warp like other materials will. They can contain a fire and maintain the structural integrity of the design. Concrete block can be cleaned and reused to help minimize replacement cost.

It really takes all three of these components to design for fire suppression. As each component has a weakness, the others will rise up to help save lives.

Fire testing of wall assemblies is conducted in accordance with the Standard Test Methods for Fire Tests of Building Construction and Materials, ASTM E 119.

Check out MAC's video: [Masonry Doesn't Burn](#)

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Buildings need Balanced Design

- 1) Fire Detection Systems
- 2) Automatic Suppression Systems
- 3) Non-Combustible Walls