



ACPA Key Issue Brief

Building a Resilient Community Following a New Standard of Care *Evacuation Routes Depend on Concrete Pipe*

Every time a natural disaster such as a hurricane or fire becomes a threat, authorities have to decide how to protect people from harm by moving people from one location to another safer location.

According to a [CNBC](#) report, “These evacuations are coordinated using a kind of scientific research called ‘evacuation modeling,’ a somewhat obscure field that plays a significant role in how cities and other entities prepare for natural disasters. ... The simulations scientists run rely on several different kinds of information, such as survey data, maps and data from transportation departments. Traffic engineers put all the data into a traffic congestion model and try to figure out how long an evacuation is going to take.”

With natural disasters and densely populated areas on the rise, engineers must now consider a new standard of care as they plan roadways and establish evacuation routes to keep the public safe.

HOW MUCH OF THE UNEXPECTED SHOULD YOU PLAN FOR?

“The opportunity exists to do things that have a less deleterious impact on the environment,” says Dr. Michael Dorsey, a board member for the Center for Environmental Health, suggesting that municipalities look at non-PVC options, such as concrete. “Right now, over the long run, sound investments can be made to do so. That’s outside of the threat from catastrophic fire.”

As society faces threats from both natural and man-made disasters, it’s vitally important for engineers everywhere to carefully plan disaster-proof infrastructure to help ensure the safety and future existence of their communities. Unfortunately, specifiers often receive conflicting information about the true resiliency of many products.

Some agencies allow the specification of plastic products in pipeline construction, but [plastic pipes burn](#) and float. In flood and fire zones, pipes made from plastic pose a serious threat to infrastructure, environment and the welfare of communities.

Engineers:
Consider Risk
in Designing
Underground
Infrastructure

WHAT MATERIAL IS TRULY DISASTER-PROOF?

Concrete has a long history of proven reliability. Concrete pipe should be the material of choice for resilient pipeline construction that can withstand a fire and flood event. Concrete is inherently fire-resistant and reduces the likelihood of flotation.



It’s vital in these times of fiscal responsibility, uncertain weather patterns and man-made catastrophes that we understand the startling difference between concrete and plastic pipes.

The time has come for engineers, agencies and owners to vigilantly specify concrete products to help protect their infrastructure and communities in fire-related disasters. Minimizing the risk to critical underground infrastructure minimizes the risk to critical evacuation routes and endangerment of communities. Protect your community and its infrastructure. Choose concrete pipe!