

A Message from the Minnesota Concrete Pipe Association, MnCPA

Installation liability of storm sewer pipe

All too often, engineers write specifications, include details in their plans, and after the project is awarded, move on to the next project. When specifying pipe materials, do engineers realize that their job responsibilities have not stopped until construction is complete? Concrete pipe is a rigid pipe and High Density PolyEthylene Pipe (HDPE) is a flexible pipe. A rigid pipe by itself is its own structure, while a flexible pipe requires the field constructed soil-pipe interaction to develop its structure. Flexible pipe is not truly designed until the pipe is actually installed in the ground.

A design engineer must fully understand the mechanics of the soil – pipe structure being constructed and specifications being referenced to protect themselves from lawsuits, failures, and unknown costs.

ASTM D2321 is referenced often in job specifications for flexible pipe. How many engineers have read and understand ASTM D2321? For example, do they have their site inspectors understand and enforce that the pipe trench width must be the greater of the O.D. + 16 in., or (O.D. * 1.25) + 12 in.? Also, if a trench box is used, it can not be “lower than the top of the pipe” without requiring special engineering or increased trench widths. This requirement could lead to a potential OSHA violation – then who is responsible?

The MnDOT technical memorandum on HDPE pipe specifies required trench widths and post-installation mandrel testing of storm sewers. Do all engineers realize that this is a critical component to the design and limits their liability when properly enforced?

In order to decrease design liability, all design engineers must be aware of many critical installation requirements. Former ASCE President Pat Galloway commented on the debate between HDPE and Concrete Pipe in her ENR Blog. The following link to her blog provides further information on this important risk to engineers. <http://enr.construction.com/people/blogs/galloway/060804.asp> A white paper written by Dr. Galloway in *Roads & Bridges Storm Water* also addresses this risk to design engineers, and is available from the American Concrete Pipe Association at the following link <http://www.concrete-pipe.org/articles.htm>

Visit <http://www.mnconcpipe.org> for more information on this and other concrete pipe issues or respond to this e-mail for additional information.

Thank you for your time,



The **Minnesota Concrete Pipe Association** is a non-profit organization comprised of concrete product suppliers in Minnesota.

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