



Case Study Category: MPWW

Case Study Title: Structural analysis of 54-inch transmission main at Baltimore City, Maryland

Utility Name: Baltimore City Department of Public Works

Case Study Abstract: This case study introduces a series of analyses conducted on Prestressed Concrete Cylinder Pipe (PCCP). The methodology in AWWA C304-07 was used to verify the designs. A “severity” rating was assigned to the design class based on the degree of conformance to the three limit states: serviceability limit, elastic limit, and strength limit. Finite element analysis (FEA) was conducted to simulate the PCCP suffers from a large number of continuous wire breaks. The results of the FEA were compared and correlated with that of the static method specified in AWWA C304.

Case Study Link: <http://waterid.org/content/structural-analysis-54-inch-transmission-main-baltimore-city-maryland>