



Project Profile

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City of Greensboro Water Pipe Bursting, Update II: KRG Utility Completes 15,000' Using 6" and 8" Fusible C900®

The Greensboro Water Resources Department has been contracting with KRG Utility, Inc. for several years to rehabilitate their sewer collection system, and, more recently, their old 4" cast iron water distribution lines. The selected method for the water mains has been to use static pipe bursting equipment supplied by TT Technologies to burst the old pipe and pull in a fused product pipe. Greensboro's Robbie Bald, PE, studied the technology as well as product pipe options and concluded that 6" Fusible C900® pipe was the right material to use, saying "there are benefits to Fusible PVC™, including strength, quality fused joints, and easy connections to our iron mains".

After a year of successful 4" to 6" upsizing, Greensboro decided to expand the diameters replaced via static bursting. Their first target was 2" cast iron and galvanized steel that needed to be upsized to 6". TT Technologies and KRG developed a two stage method to push smaller rods through the 2" pipe and still connect a machine with enough power to push and pullback 6" Fusible C900®. Bald commented: "It doesn't make a lot of sense to bring in big excavators to replace a 2" line with open cut if you can pipe burst for the same or less money and be less disruptive to the neighborhood. I think we have a winner here"

Pipeline Details and Project Summary

Project:	Greensboro 2", 4" and 6" Pipe Bursting
Length:	15,000 LF through August 2011
Pipe size:	6" & 8" DR18 & 14 Fusible C-900®
Pressure Test:	150 psi for 2 hours
Services:	¾" and 1" service taps
Equipment:	TT Tech Grundoburst® 400G & 800G

Next in line for improvement were neighborhoods that were served by 4" and 6" mains, with current modeling showing a need for 8". Greensboro approved the use of 8" Fusible C900® to upsize these mains and KRG was off and running with over 3000' of 8" PVC in place, mostly a double upsize from 4" cast iron. Negligible surface disruption was noted, even with mains with shallow 30" bury depths.

Jeff Greene, President of KRG Utility, Inc. said of his experience: "I see an enormous potential for this water pipe bursting process and we continue to refine our methods. On some of the more shallow mains, the double upsize makes it imperative to maintain the minimum OD for the required ID. That does make the Fusible PVC™ attractive. And, now we fuse our own pipe, allowing more control over scheduling"



Underground Solutions (UGSI) provides infrastructure technologies for water/wastewater applications. UGSI's Fusible PVC™ products, including **Fusible C-900®**, **Fusible C-905®** and **FPVC®**, contain a patented PVC formulation that, when combined with UGSI's patented fusion process, results in a monolithic, fully-restrained, gasket-free, leak-free piping system. UGSI's **Duraliner™** is a patented, close-fit pipeline renewal system creating a stand-alone structural liner.