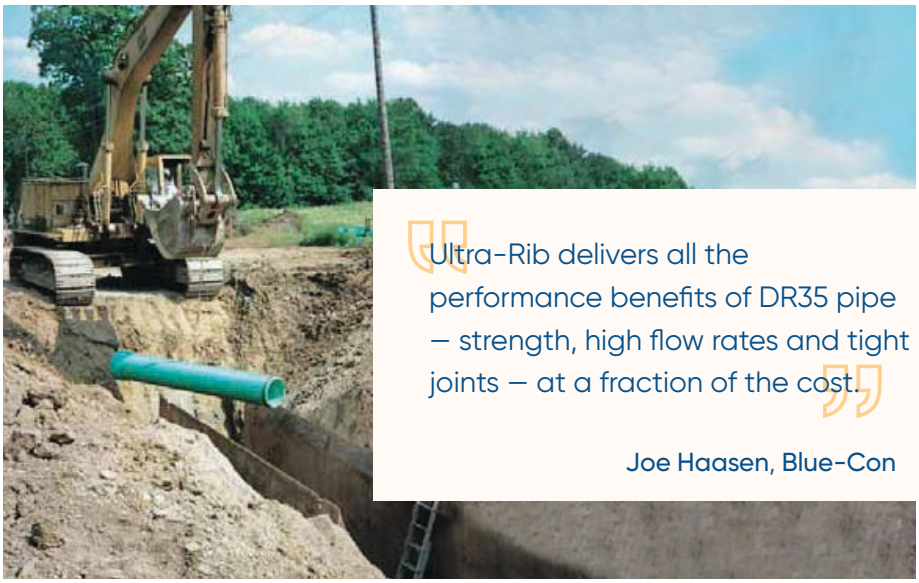
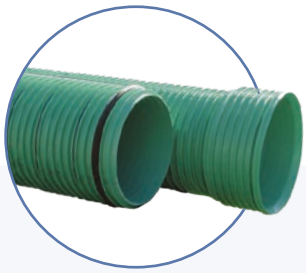
Municipal Case Study

Ultra-Rib® Deflects Deep Burial Loads



> Ultra-Rib delivers all the performance benefits of DR35 pipe – strength, high flow rates and tight joints – at a fraction of the cost.
>
> Joe Haasen, Blue-Con



Product: Ultra Rib® Pipe

Contractor: Blue-Con

Municipality: Township of Strathroy-Caradoc, outside London, Ontario

- Ultra-Rib chosen for its cost-effectiveness and ability to deflect weight of the 32 ft burial depths
- Unique designed joints allow it to deflect up to 30% without leaking or damage
- Three years after installation, video inspection revealed the system was still performing exactly as designed

To some contractors and municipal engineers, sewer pipe deflection can be a bad word. Some believe Ultra-Rib® pipe's deflection under deep burial loads hinders its ability to hold up underground. In reality, that couldn't be further from the truth.

In fact, Ultra-Rib performs very well and can perform for a long period of time as a result of its natural deflection characteristics. Instead of cracking, as concrete does under the loads common in deep burial sewer applications, Ultra-Rib deflects slightly, shifting the load to the surrounding bedding and redistributing it to absorb the weight. For this reason, Ultra-Rib forms a stable and leak-proof system that will last for decades without the need for maintenance or repair.

In 2001, a project in the Township of Strathroy-Caradoc, located outside of London, Ontario, illustrated a municipality's trust in Ultra-Rib. To support a boom in commercial and residential growth, this township needed trunk services for an industrial area during the reconstruction of a major street. The township awarded the $3.6 million job to Blue-Con Inc. who proposed using Ultra-Rib as an alternative to the specified DR35 PVC pipe for the trunk 525mm sanitary sewer.

Joe Haasen of Blue-Con chose Ultra-Rib not only for its cost-effectiveness, but because of his confidence in its ability to deflect the weight of the 32 feet burial depths. "Ultra-Rib delivers all the performance benefits of DR35 pipe —strength, high flow rates and tight joints – at a fraction of the cost," Mr. Haasen said.

IPEX by aliaxis

Turn Page for More Information

The township's Environmental Services Manager, Tony Slabon, noted the use of Ultra-Rib pipe allowed it to be installed at relatively flat grades to service the large area, while still maintaining self-cleaning velocities. Blue-Con's Project Manager, Gerald Devries, stated: "The light weight of Ultra-Rib pipe lets us safely handle it in the confined space of the trench box." Additionally, Site Superintendent Al Cuthbertson shared that the longer laying lengths, which resulted in fewer joints, helped keep the project on budget.

In 2004, a video inspection revealed that the system was still performing exactly as designed. The project demonstrates Ultra-Rib's superior performance both in the short term — ease of installation and cost-effectiveness during construction — and in the long run—years of reliable heavy-duty use. What Ultra-Rib ultimately gives municipalities and contractors is peace of mind: the certainty they can build dependable sewer systems that can stand the tests of both money and time.

Ultra-Rib's modern engineered design features concentric, reinforcing ribs that dramatically increase the load carrying capability of the pipe. At the same time, Ultra-Rib's unique PVC compound and specially designed joints allow it to deflect up to 30% without leaking or damage.

This means that mandrel tests for Ultra-Rib installations confirm only that the pipe is indeed doing what it was designed to do – deflect. A more important test of a sewer line's proper installation is a low-pressure air test which can be done on any material and checks the system for leaks. Air testing confirms the integrity of the joint and ensures that the pipe hasn't cracked, something that can happen with concrete.

With an impact strength that surpasses all standards, Ultra-Rib won't crack or split and ensures air-tight joints for years. It's extremely corrosion-resistant and won't degrade over time.

IPEX
by aliaxis