



Cured-In-Place-Pipe Rehabilitation

? What is cured-in-place pipe lining?

The cured-in-place pipe (CIPP) lining process involves the insertion of a resin-saturated flexible lining into an existing sewer pipe. The lining looks like a very large sock or flexible tube. Air or water under pressure is forced into the tube, which turns the lining inside out and causes it to expand to fit tightly against the existing sewer walls. Hot air or water is circulated throughout the tube to harden the resin. When the curing process is completed, a new “pipe-within-a-pipe” has been created, eliminating cracks and holes that allow rainwater and roots to enter the sewer and cause operational problems such as stoppages and overflows. The concept was developed in London in 1971, and, since then, has helped rehabilitate nearly 10,000 miles of sewer pipe worldwide.

? What happens during the CIPP process?

The sewer must be prepared for lining; this includes removing roots, sediment and grease from the sewer and cutting out intruding connections. The sewer then is inspected using closed circuit television (CCTV) and the locations of connections from homes and other properties noted. Manholes also are inspected. Like many other forms of pipe renewal/replacement, CIPP requires bypass pumping, which re-routes sewer flow around the segment being worked on during installation. Occasionally, a local repair may be carried out on the existing sewer where the pipe has collapsed, before the CIPP lining is installed. Cured-in-place lining can be manufactured to suit many shapes and can accommodate small deformations and changes in the direction of the sewer.

? What are the benefits of CIPP?

CIPP has many advantages, including the following:

- CIPP allows for rehabilitation of pipes without disturbance to surface structures or other utilities.
- CIPP produces a seamless, jointless pipe lining without greatly reducing the diameter of the original pipe. It also leaves no gaps, eliminating the need for grouting after the liner is installed.
- Though the liner system does slightly reduce pipe size (by the thickness of the liner), the smooth interior of the liner reduces friction, thus increasing flow capacity.
- Private service connections are reconnected without further digging. A dimple forms where the lining passes a service connection. CCTV easily locates the dimple and cuts out the lining using remote techniques.
- The finished product has a 50-year design life, the same as that of a brand new pipe.

To track the Sewer Rehabilitation work locations, please visit our website at www.atlantawatershed.org/traffic or call at 404-529-9211





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Pipe Bursting Sewer Replacement Process

? What is Pipe Bursting?

Pipe bursting is a method of pipe rehabilitation. A new plastic pipe of equal or larger diameter is inserted into an existing pipeline by bursting open the existing pipe and pulling or pushing the new pipe into the old pipe. The new pipe is simultaneously inserted into an enlarged hole created by the burster (or expander). The concept was developed in Europe to replace cast-iron, gas distribution pipes with minimal impact to surface improvements. Pipe bursting has been used in the United States since 1986, rehabilitating up to one million linear feet of pipe per year.

? What happens during pipe bursting?

Before any sewer rehabilitation is done, the contractors distribute door hangers explaining when and exactly what type of work is scheduled. Although pipe bursting is less disruptive than open-cut pipe replacement, some excavation and disruption is to be expected. Pipe bursting requires excavation at the entry and exit points and for each service connection. While every effort is made to minimize the impact on the community, we ask that you be patient and bear with us as we make these necessary upgrades to your sewer system.

? What are the benefits of pipe bursting?

Pipe bursting has several advantages over open-cut trenching and other trenchless rehabilitation methods:

- Pipe bursting allows for replacement of pipes without disturbing surface structures.
- Potential problems with existing pipes are minimized because pipe-bursting methods utilize the existing pipe path.
- Pipe bursting is the only trenchless technology that can be used to “upsized” existing pipe.
- Because it is trenchless, excavation is minimized, lessening effects on existing landscaping and structures. The bursting heads on the piercing tool can be removed at the end of the line so that the tools can be removed through the new line, eliminating in some instances the need for an exit pit.
- Pipe bursting reduces the amount of site restoration required.

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