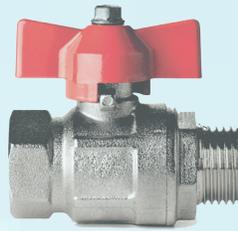




Current Issue: The Importance of Rehabilitation and Replacement of Water/Wastewater Lines



Buried Below the Surface...

lie miles upon miles of pipe, conveying clean drinking water to our homes and businesses and carrying wastewater away.

Unlike above-ground infrastructure such as buildings, bridges and roads, pipelines are hidden from view and receive little public interest – until a broken water line shuts down a major roadway or a sewer line surcharges, backing wastewater into homes or spilling into a local creek.

Our nation's water and wastewater conveyance infrastructure is at a crossroads. The American Society of Civil Engineers recently graded both U.S. drinking water and wastewater systems as Ds, yet funding remains far short of the total sum needed to replace aging infrastructure while keeping up with a growing population.

With decades of experience in the study and design of water and wastewater line rehabilitation and replacement, Half Associates knows what is required and can meet any challenge head-on.

What's Important to Consider?

Cost-Effectiveness: With limited funding, utilities need to maximize the number of feet of pipe that can be replaced with every dollar available. A thorough, current knowledge of construction techniques and applications, both open cut and trenchless, is critical. A properly selected construction method will not only extend the pipe's design life, but also will minimize costs associated with right-of-way acquisition, paving repairs, utility relocations, and public disruptions.

System Optimization: In some cases, merely replacing a segment of pipe is not enough. Each water and wastewater line replacement and rehabilitation project provides the opportunity to improve the system as a whole, by improving overall efficiency, inter-operability and accessibility.

Sustainability: This is more than a buzzword – and it involves more than just the environment. This can be accomplished, for example, through the selection of construction materials and equipment, coordination with adjacent utilities, gathering of public input to limit long-term social impacts, planning for future rehabilitation, and even considering climate change. (Stephen Crawford and Ben Pylant of Half will speak about this topic during the TPWA One-Day Seminar on Oct. 23 in Richardson.)

The bottom line: Every step of the rehabilitation or replacement process throughout design and construction can enhance the sustainability of our water and wastewater conveyance infrastructure.



Half Associates is an employee-owned, diverse multi-disciplined professional services firm founded in Dallas, Texas, more than 60 years ago.

We are proud to note that our clients include BRA, DWU, GBRA, LCRA, SARA, SAWS, SJRA, TRWD, UTRWD, and numerous municipalities throughout Texas.

Water Line Design Success Leads to Happy Clients:

Rehabilitation of aging water and wastewater conveyance lines may be commonplace, but Half Associates takes pride in producing optimal, sustainable, cost-effective designs for every project we do.

Half was recently engaged to design a 20-inch water line within Las Colinas in the City of Irving. Our engineers recognized early on that the existing alignment was not optimal. After conducting a route study, Half recommended Rochelle Boulevard as the optimal alignment.

The recommended alignment lay along a well-traveled, pedestrian-friendly residential thoroughfare. Half put significant effort into the alignment design, construction method selection and construction phasing to minimize impacts on traffic, the surrounding neighborhoods as well as the pedestrian facilities and green space. Half then worked closely with the City of Irving to address concerns from adjacent neighborhoods.

The Take-Away:

Half provided a smart solution. Construction proceeded successfully and *was completed two months ahead of schedule*, earning the project team a kudos from the Las Colinas Association! Half demonstrated that our meticulous process results in effective solutions to a utility's water and wastewater rehabilitation and replacement needs.

If Half Associates can assist your team with engineering for water and wastewater line rehabilitation or replacement, please call Greg Kuhn, PE, Vice President, at 214-346-6252.



Crews install a water line along Rochelle Boulevard.