



CASE STUDY



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LEAVENWORTH, KS CASE STUDY

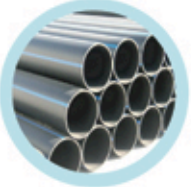
LOCATION: Leavenworth, KS

PROJECT SCOPE: Ongoing project to improve the community's water distribution system serving over 50,000 residents

APPLICATION: As of June 1, 2008, 40,000 feet of HDPE pipe has been installed ranging from 2-inch to 8-inch HDPE pipe –using trenchless boring installation

PROJECT DATES: 2004 to present

KEY CONTACTS: Don Murphy, Leavenworth Water Department Manager



SUMMARY

The first city in Kansas, Leavenworth, has undertaken a project to improve the community's water distribution system. Starting in 2004, the Leavenworth Water Department embarked on a program to install High-Density Polyethylene Pipe (HDPE) in the downtown area. The new pipe ranges in size from 2-inch to 8-inch. The pipeline is replacing some of the old PVC and even older ductile iron pipe sections that have been in the ground for more than 100 years.

"The utility is likely to continue using the HDPE pipe in the future. We are installing the new HDPE pipe because we believe the new pipe costs less at this time and will continue to in the coming years" Leavenworth Water Department Manager Don Murphy explains. "Our crews also favor the new pipe over ductile iron because of the ease of installing the pipe and the fact that even with the larger size pipe, there are no gaskets to worry about leaking. The larger size pipe is fused together at the joints. This fusion of pipe eliminates the need for a gasket and the possible leak point in the future."



The pipeline replacement project began in 2004 with the installation of 2-inch HDPE in a residential area first and then moving into the downtown area. The Leavenworth Water Department is also reducing costs by boring as much of the line installation as possible as opposed to excavating the city streets and sidewalks. Using the HDPE pipe in this way reduces costs, as the pipe is available in large rolls in sizes 4-inch and smaller. It is very easy to pull the pipe through from end to end. The pipe is flexible and lighter than the ductile iron pipe and has great flexibility. As of June 1, 2008, the Leavenworth Water Department has installed more than 40,000 feet of HDPE pipe within its water distribution system.

Leavenworth's current project is the start of what is hoped to be an ongoing replacement practice of selecting areas of the town to upgrade service to the community without a lot of disruption, and to save time and money in doing so. Reducing water loss was also a factor in implementing the replacement project. When looking at the total picture, the Leavenworth Water Department knows that not all of its infrastructure will need to be replaced at this time. However, by addressing some improvements every year, the city's water department can make significant progress and will eventually complete the project within a reasonable amount of time. Accomplishing this project with the lowest possible cost and minimizing the inconvenience to the citizens makes the projects undertaken by the Leavenworth Water Department financially and politically acceptable to the ratepayers.

The Leavenworth Water Department service area has a population of approximately 50,000 people and includes the cities of Leavenworth and Lansing (Lan-Del Water District) and six rural water districts.



For more info see original article: Leavenworth, KS PPI article (by Gary Armentrout for The Kansas Lifeline, July 2008)

*Please do not hesitate to contact the Alliance with any questions or comments.
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