

KRWA Assists KAN STEP Water Projects

This past year, I have provided assistance to several KANSTEP projects. Personally, I appreciate the opportunity to work alongside the local people as they labored to install three water systems. These projects were in Jamestown, northwest of Concordia in Cloud County, at Culver, about 15 miles northwest of Salina, and in Turon, which is located approximately 30 miles southwest of Hutchinson. The city of Enterprise also had a project and thanks to the very efficient leadership and skills of Enterprise Utility Director Paul Froelich, assistance by KRWA was not as excessive as in the other communities. I want to take this opportunity to give these other projects some publicity.

Jamestown – streets and tree roots!

The project at Jamestown began in June 2014. The project involved the installation of 5,988 linear feet (LF) of 4-inch C900 PVC waterline; 960 LF of 2-inch CL 200 PVC; 2,450 LF of 3/4-inch polyethylene service line; tracer wire; 14 gate valves; six two-way fire hydrant assemblies; 52 new meter pits and service settings, along with numerous other appurtenances. The project design was by Schwab - Eaton, PA, Beloit, KS. Grant administration was provided by North-Central Kansas Planning Commission, Beloit.

This project involved about 20 blocks of city water lines. Jamestown had sustained numerous waterline breaks and had no way to isolate sections of the distribution system because of inoperable valves. As of February 1, 2016 the project is complete except for one fire hydrant and some street repairs where mains and service lines were installed. The first section that was installed was along Elm Street. The goal was to save the asphalt and so it was decided to install the 4-inch main on the right-of-way on the east side of the street. This is an old part of the community and the yards and homes haven't changed for a long time with many mature trees. Backhoeing was very slow because of tree roots; some were the size of telephone poles.



Matt Gilbert has his foot on a pail to divert the spray of water while Jacob Thoman makes another cut on an old cast iron pipeline on the Jamestown water system project.

More volunteers participated as trenching began in the summer of 2015. We potholed utilities and excavated with a hoe and by hand. On a weekend or two each month, a group of volunteers would be on site trenching and installing pipe. Four blocks of main could be completed usually in a weekend. It was evident that trenching was much faster than backhoeing and repairing and patching asphalt was not going to be a major obstacle. In September more volunteers began to show up and assist in the project; progress improved; the weather was favorable too.

Persistence pays off at Culver

Culver began work in the spring of 2015. Work began after deciding where to start and some confusion on how fittings and procedures of constructing a water system were explained by the engineer and KRWA. The first day the city's backhoe broke down. And the trencher the city purchased would not dig a trench wide enough to install 6-inch pipe. Despite these first-day setbacks, volunteers continued to work on a very hot and steamy day to use the small hoe on the front of the trencher to install at least some pipe that day.

Culver went through many ups and downs on equipment problems during the project. One volunteer especially spent time helping repair



In spite of the difficulty with equipment on the first day of the project, March 15, 2014, volunteers at Culver installed the pipeline that would connect to the city's existing water storage tank.

equipment. Finally a better excavator was rented. There were days when volunteers in Culver were working in several locations. As of February 1, just a few meters and street repairs remain to be completed. There seemed to be a lot of conflicts with a change in government officials but thanks to the city clerk and others, the project progressed. Presently the system pressure is limited to 35 to 38 pounds because a small portion of the old system is still being used. That was the original system's operating pressure; some users had booster pumps to provide better pressure in their homes. Those will not be needed once the new system is fully operating. Culver's project included: 10,800 feet of PVC pipeline; 1,700 feet of service main line; 20 gate valves; 57 meter settings; eight fire hydrants, four flush hydrant settings and 12,800 feet of tracer wire. The project engineer was BG Consultants, Manhattan. Grant administration was provided by North-Central Kansas Planning Commission, Beloit, Kan.



The water system improvement project in Turon is being funded through a \$300,000 KAN STEP Grant. This photo shows how local people can cut a straight ditch with a backhoe.

Turon project nearing completion

The city of Turon started work on a complete replacement of their water system in April 2015. There is some disappointment on the project because the number of people who attended the kickoff meeting have not shown up to help on the project. As a result city operator Jeff Branscom and some hired hands have done most of the system work up to the end of January 2016 with substantial guidance and assistance from KRWA. But in spite of that, all the mains have been installed, disinfected and flushed with only three blocks remaining. Jeff Branscom also suffered a severe illness during the project which delayed work. Some installation was made without installing connections to branch lines, valves or hydrants. As a result of the mayor demanding that policy on the project, the operator now finds himself having to maintain and operate what is in effect dual water systems while existing services are disconnected and attached to the new mains. The main reason for the project was to reduce

water loss from leaks, improve fire flows and have a more operable system with new valves.

The project consultant is RMA Engineering, Minneapolis, Kan. Grant administration is being provided by SEKEDO, Wichita, Kan

All these projects were recipients of KAN STEP grants which are funded through the Community Development Block Grant program administered by the Kansas Department of Commerce. This issue carries another article about the water project at Enterprise. This is a good program that can help low to moderate income communities obtain facilities that they may otherwise not be able to afford. Check out the photos on the KRWA Web site of various projects. The link is www.krwa.net, then under "Technical Assistance".

Doug Guenther has worked as a Technical Assistant for KRWA for 16 years. Doug worked for the City of Oakley in the Water and Electric Department for eight years. He has also worked several years for an industry supplier. Doug is a Class II Certified Water Operator.





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