



## The City of North Newton Builds New Water Production System

**T**he city of North Newton has constructed a new water production system that will provide all future water needs to its 1759 citizens. The city's new water tower was featured in TNEMEC's 2016 calendar and annual tank of the year contest receiving 490 votes. The city formerly purchased all water from the city of Newton directly to the south of North Newton. When traveling down Main Street in Newton you would almost not realize you had left one community and entered the other since no physical divisions such as a river are crossed. Yet the two towns are distinctly different with their own government, zip codes and post offices.

Originally North Newton grew out of the idea of a need for a church college. In 1887 a Mennonite Rev. and Newton Businessman named David Goerz, surveyed the open prairie in what is now North Newton in preparation for Bethel College's first structure, the Administration Building. On October 12, 1888 a group of 2,500 people gathered on the property to lay the cornerstone for the building. The dedication sermon was based on the 1 Corinthians 3:11, which is the source of the Bethel College motto: "For other foundation can no one lay than is laid which is Jesus Christ." The building took five years to complete. On September 20, 1893 there was a dedication for the new facility and classes began. With its natural limestone exterior, the Administration Building is now a National Historic Landmark at the center of the growing campus and cultural center.

After Bethel College was chartered in 1887 a primarily Mennonite community began to develop around the campus. The residents were mostly people associated with the college.



**Public Works Director Danny Bisoni checks the new control system.**



**This photo shows the screen of the control system installed by Comm-Tronix, Wichita, Kan.**

The college grew and so did the community, which continued a close relationship with the college and the General Conference Mennonite Church.

Although the college was founded in 1887 and the first public water supply system was installed in 1912 it wasn't until 1938 that North Newton actually was incorporated as a Harvey county city. According to a former North Newton Mayor John F. Schmidt, sewer related problems on the college campus is what led to the community to

incorporate as a city in order to take advantage of federal funding that was available only to incorporated municipalities.

In those days during the Great Depression the city of Newton did want not to take on any more area through annexation and the area north of 12th Street was mostly rural and undeveloped. The residents of the area decided to incorporate in order to take full advantage of President Franklin D Roosevelt's federal financial assistance programs available only to public

municipalities in order to construct sewer lines between Newton and North Newton.

According to a 1981 interview with former City Clerk Leonard C. Kreider, many of the first city officials were professors at the Bethel College or local businessmen. "We probably had the best educated and sharpest council of any city of the third class in Kansas," he said.

The city formerly received all its water through five meters connected to the city of Newton. Due to price

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**North Newton constructed two new wells as their water source. This photo shows one installation.**

increases over the years from the city of Newton, the city of North Newton decided to embark on a study and feasibility study to see if they could produce their own water. Louis Funk with Bartlett & West, Inc., from the Topeka, Kan. office conducted the study. It was determined that the system would pay for itself over the 20-year financial term with KDHE. Purchasing water from another water system in the area Harvey RWD 1 was also looked at however the cost was higher than the city expected and the

district may have had problems supplying the 60,000,000 gallons consumed annually by the 621-service connections in North Newton.

The new system consists of a beautiful new 300,000-gallon, 120-foot pedesphere type elevated tank, eight miles of 10-inch transmission line, two new water wells, two old well

renovations, and the new SCADA control system.

Veteran Waterworks industry professional Danny Bisoni and public works director for the city comments on how he really appreciates the new control and monitoring system that can be ran from a smart phone or any computer with internet access or of course from his desk in his office. The system is a SCADA system that goes through a secured Web site and was installed by Comm-Tronix of Wichita, Kan.

The control system is equipped with all the latest bells and whistles and lets the operator monitor 26 parameters some of which include low-high level condition, loss of chlorine feed, chlorine residuals, fluoride feed, phosphate feed, flow rate problems, loss of communication signal, loss of AC power, flood alarm, pressure alarm, high fluoride alarm, total gallons and flow rate in gpm.

The city is also currently upgrading their metering system with the phone read system that sounds very promising in terms of determining water loss over a 24-hour period, customer leakage and billing disputes. The system will alert the customer and city personnel if abnormal usage is encountered and customers are able to access their own meter usage history with their smart phone. This should eliminate billing disputes and the typical water loss problems of waiting through a complete billing cycle to determine if there is a water loss and exactly how much it is or isn't.

Water rates did not have to be increased to service the \$3.7 million debt. The city uses an increasing block rate structure. Current water rates in North Newton are \$14.65 minimum with 300 cubic feet included then \$5.30/100 cubic feet up to 600 cubic feet, \$5.60/100 cubic feet from 600-1,200 cubic feet and \$6.00/100 cubic feet for usage above 1,200 cubic feet.

Engineers for the project were Bartlett & West, Inc. of Topeka, Kan. Contractors were Nowak Construction, of Goddard, Kan.; Comm-Tronix, Wichita, Kan.; Sargent Drilling of Salina, Kan.; and, Maguire Iron, Sioux Falls, SDak. The project was funded with the KDHE State Revolving Loan Fund.

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*Jon Steele has been employed by KRWA as a Circuit Rider since 1995. Jon is certified as a water and wastewater operator. He has more than twenty-five years experience in public works, construction and industrial arts.*



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