

# Leavenworth Cons. RWD 1 Completes New Storage Tank

This new storage tank is another example of the commitment by a rural water district to meet growing demands.



Concrete is being placed for the base of the new storage tank.



The forms for concrete pillar begin to rise.



This view of the interior of the concrete pillar shows the "floating floor" used by the construction crew as it was raised another ring.

Leavenworth Consolidated Water District No. 1 is in the process of constructing a 1.0 million gallon, elevated water storage tank to serve the water demands of the district patrons for the foreseeable future. The new water storage tank will replace a 100,000-gallon water tower that previously occupied the same site near 155th and State Avenue at Basehor, just west of Kansas City.

The RWD serves nearly 2,000 customers. The service area is bounded on the north by the city of Lansing and then extends southeast of Lansing to the Wyandotte County line and then south in a corridor several miles wide to Basehor. The district has always provided water service to individual customers living in Basehor.

Operations Manager Mike Fulkerson reports that the need for increased water storage capacity was first identified in a study conducted in 2004 and later confirmed through a more specific study conducted in 2009. Both studies concluded

that increased water storage would be needed in the future to ensure the water district could meet the domestic and fire suppression needs of the area. The project will not only add additional storage, but it will also increase the water pressure for customers in the southern portions of the district's service area. The new water storage facility will also provide for redundancy in the district's water storage



**The center column stem is elevated into place on April 18, 2011.**

capabilities, pairing it with an existing 750,000-gallon water storage tank near 147th and Hollingsworth Road.

The water tower project, which began construction in September of 2010, is scheduled to be ready for use in August 2011. The water tower has a 40-foot diameter by 100-foot tall, architecturally-designed, concrete column that supports a 70-foot wide by 50-foot tall steel bowl. The design is meant to be more aesthetically pleasing for the surrounding area and will also allow the water district to realize a lower life cycle cost than other designs.

The cost for the new tank project is \$2.2 million. That includes everything from the tank itself, legal fees, permits, engineering, connection of new 20-inch water main to the tank, storm sewer for the overflow, etc. The tank is being funded by a local bank; the loan is being guaranteed by USDA Rural Development. The district appreciates the assistance of Loan Specialist Dan Fischer of the Manhattan, KS area office. The district is also contributing \$500,000 of funds to the project from its capital improvement account.

The contractor for the project is Phoenix Fabricators, Sebree, Kentucky. The project consultant is Jim Challis with the firm of Ponzer-Youngquist Consulting Engineers & Land Surveyors, Olathe, KS.

### Old tank comes down

Although the water district tried find a user for the old tower through either selling or giving the tower to a community in need of a smaller water tower, it was soon realized that, even as a gift, there were no willing participants due to the cost of demolition, hauling and reconstructing the tower.



**On April 18, 2011, workers finished welding of the bowl.**



**This old 100,000-gallon tank was demolished after no other water system expressed interest in the tank.**



**The concrete base is at the 14th ring level in this January 19, 2011.**

Removal was limited to demolishing the tank and hauling it away for scrap. Iseler Demolition, Inc., Romeo, Michigan was called in to remove the tower. Iseler provided the lowest cost bid for the removal. Iseler stated in their bid they would be able to demolish and remove all components of the tower in one day. And they did. According to Operations Manager Mike Fulkerson, crews from Iseler arrived at the site at 8:00 a.m. and were departing for their next job precisely at 2:00 p.m. Their advanced planning and preparation was the key to the swift removal of the tower.



**Workers from Iseler Demolition made short order of cutting up the tank for scrap iron.**

*All photos in this article are courtesy of District Operations Manager Mike Fulkerson.*