

System maps critical – for a growing RWD or city

Bentley, Kansas is a small 100-year old town located in northern Sedgwick County. Bentley is gaining a lot of interest from the metropolitan areas of Wichita, Hutchinson and Newton. Bentley has a robust business district that includes a Halstead Bank branch, Countryside Construction, Future Industrial Machines, the Bentley Corner (which houses a convenience store, gas station and the Road Kill Cafe), the Bentley Car Wash and U.S. Post Office.

Bentley is a town where everybody knows everybody and if they don't know who you are, and you stick around for a while they will know you by the time you leave. Bentley's population is approximately 425 – and it's growing. Townsfolk have a lot of motivation. They are bringing new things to the community, including a new Community Senior Center that is going to be built next spring through the KAN STEP program. That project could be the anchor for the planned development of a large park and recreation area. And there's a new housing development that is bringing new families into the community.

Having accurate water and wastewater utility maps is considered critical at Bentley. Because the city's public works director or the general contractor who did the work may not be around in the future, Bentley's city staff and

council have decided to move forward to establish a GIS/GPS mapping project. The city recently entered into a contract with KRWA for their mapping service. Kansas Rural Water Association will provide

to their maps in the future, Fisher explains further, "We will no longer have to pay for map updates through the individual projects. We will provide city utility maps to the design consultants."

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data collection and produce the city's maps. As Bentley makes additions to existing utilities, the new infrastructure will be updated periodically through the mapping program. Bentley currently has maps but those maps are not accurate.

The process

At Bentley, as in other communities, KRWA's goal is to make sure the project is as efficient as possible. Communication with the city's staff has expedited the process of locating and collecting the data

with GPS. Data collection requires only seconds on any location. Data is stored in a file with "X" and "Y" coordinates and an assigned reference or identification number. Once the entire utility system is collected, the data is brought back to the KRWA office and projected onto the latest aerial photos furnished either

from the local county appraiser or from the Data Access and Support Center (DASC) Web site. Routing of the utility lines onto the aerial photo is the tricky part because the line locations often have to be interpreted, or estimated as to their



*Jesse Knight
GPS/GIS Mapping Tech*



The above view of Bentley is from the Post Office looking north. The city water storage tank can be seen in the background.

City Clerk Laura Fisher explains, "One of the main reasons the city of Bentley is developing new maps is because we want to avoid having to re-create maps each time a new development or improvement project is completed." Because the city will have the control and access

locations. Using the best, common sense utility minds that are available at KRWA, the lines are connected in what we think is the proper manner to match what's out there in the system.

wants to improve their mapping. I hope you will give KRWA a chance to help you move in that direction. We would be pleased to attend a board or council meeting, demonstrate the software and show

session, "Development of GIS for Improved Digital Management Services," that will answer many GIS questions. The day-long session will be presented by some of the best GIS people in the



Above: Looking to the southeast from the top of the Bentley water storage tank, one of the new housing developments is rapidly filling with new homes.

Right: The project sign for the new Bentley Senior Service Center marks the start for not only the Senior Center but possibly a new city park and recreation area.

you other projects and provide an estimate for your project.

region. Look at the session description on page 66 of this magazine. I hope to see you there!

KRWA Annual Conference

The upcoming KRWA Annual Conference has a preconference

Check plots (proofs) are printed and submitted back to the operator/manager for review for any corrections, line routing changes or other information that the utility wishes to have appear on their final map products. KRWA then makes those modifications.

The next step is for a KRWA staff person to visit the system with the digital files on a laptop with a large screen projector so more people can be involved, to review the maps step by step to make sure all corrections or modifications have been made in order to meet the system's specifications.

The last step is to print a final set of maps and produce a digital map set. Training is provided to the utility on how to view the digital files and print out certain segments for work orders, locates or other city needs.

Digital mapping is coming. In my experience at KRWA, I've met some very nice people in systems and in county offices. Everyone

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