



## Project Description



Water storage tanks are found throughout our state, however their use and function is often different. Some are for reserve storage of water for emergency situations, some for fire protection systems, while others are used as a primary source of potable water for facilities or municipalities. Any required repairs or modifications can involve an enormous amount of planning and coordination. This was the case facing the Town of Crewe and several state run facilities located nearby.

During a planned inspection it was determined that repairs and re-lining of their main water storage tank would be necessary. A temporary storage tank along with an operational pump station would be needed prior to taking the permanent water storage tank offline.

Waco has many years of experience in projects involving water treatment, storage and delivery. Each project has its own set of unique conditions and this one would be no different. The Department of Behavioral Health and Developmental Services awarded the contract to Waco which began the work in October of 2015.

The ideal location for this facility would require clearing a nearby forested area and grading the site. Once this was completed, work began on pouring the concrete foundations that would support the 400,000 gallon temporary water storage tank, two (2) 15,000 gallon hydro –pneumatic tanks and the pump station generators. Waco’s close coordination with our concrete subcontractor during the late fall and winter months would be critical to keeping the project on schedule.

The temporary water tower structure was unique in that the roof was installed first and then each section of the tank walls were jacked up and bolted into place. The other aspects of this project included a hot tap of a 16 inch diameter pipe into the main service line and the setting of a concrete vault with an altitude valve to control water pressure.

### Project Facts:

Gary Drake – Project Manager  
Todd Ackermann – Project Superintendent.  
400,000 gallon Glass Lined tank  
Pump station: Two 50 HP Pumps (800 GPM)  
Two 150 HP Pumps (3200 GPM)  
Two 15,000 gallon Hydro-pneumatic tanks  
Start date: 10/2015  
Finish Date: 4/2016  
Contract amount: \$ 1,765,000

The power needs for the pump station would not be simple. The pump station has four (4) pumps: two 50 HP (800 gallons per minute) pumps and two 150 HP (3200 gallons per minute) pumps. In order to provide the initial starting power and insure reliable continuous service the Waco team determined that a larger 750 KW diesel generator would be required rather than the smaller KW unit initially specified by the manufacturer.

The project was completed in time to begin the main water storage tank repairs scheduled for the summer of 2016. The temporary pump station and system will remain in place for 6 months and should be set to remove from the site in October of 2016.



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