
Public Works Project Status

October 2015

Construction continues on several public works projects in the City of Reidsville, one of these being the completion of the repainting of the city's Vance Street water tank.

The Vance Street tank was constructed in 1939 by the R.D. Cole Manufacturing Company out of Newman, Georgia, which was founded in 1854 as Cole and Barnes. They were originally known as manufacturers of saw mill equipment.

The Vance Street tank is one of the City's three 500,000 gallon elevated water storage tanks in addition to the Thompsonville tanks and the Holiday Loop tank.

The project to refurbish the exterior of the Vance Street tank began with the Contractor completely shrouding the tank and sand blasting off all of the original and reapplied coats from the surface of the metal. Following that the tank was primed, painted with a finish color coat and clear coated to help preserve the color coat.



As part of the refurbishment project the City installed a "corral" on top of the tank. The purpose of the corral is to provide space by which the City can rent access to the tank to telecommunication firms. Currently the City has a contract with Sprint for use of the tank to mount cellphone antennas. Adequate corral posts were installed to be able to accommodate several additional firms as well as provide space for the City to mount equipment such as antennas for communicating between the tank and the water treatment plant.



The water and wastewater plant projects continue to proceed with the focus of the work being equipment installation and electrical improvements. The solids handling building is nearly complete on the outside. The primary purpose of the new solids handling building is to house the new drum thickeners and the sludge press, as well as the associated control panels and other electrical gear.



Sludge Thickener



Sludge Dewaterer

The **Sludge Thickeners** are expected to operate on a continuous basis and so there are two units supplied as part of the project. The purpose of the thickeners is to partially dewater waste sludge prior to sending it to the digesters, where the sludge is broken down. It is anticipated that the new thickeners will be able to thicken the sludge to approximately 4.5% solids, compared to the 1.5% solids current capacity. The City annually disposes of approximately 13 million gallons of sludge. Thickening the sludge to 4.5% reduces the volume to approximately 4.5 million gallons instead.

The **Sludge Dewatering** unit is expected to be used less frequently, normally only when the weather or other issues prevent land application from occurring. This sludge dewatering unit will produce a sludge cake of approximately 22% solids, which is dry enough to store and handle with conventional equipment such as backhoes and dump trucks. This drier material can then either be land applied or disposed of in a landfill.



The reconstruction of the aeration basin to convert from the present method of aeration of surface mixers to coarse bubble diffusers is nearly complete. The change to coarse bubble diffusers will give the plant operators better control over the aeration process as well as eliminate the issues caused by the freezing of splashing water in the winter. The aeration basins are the primary process by which wastewater is rendered safe for disposal back to the environment. By controlling the amount of oxygen in the water the plant can facilitate the growth of various types of organisms in the basin which utilize the raw sewer as a food source. Some organisms tend to perform better in an anaerobic (no oxygen) or anoxic (low oxygen) environment. Others prefer an aerobic (free oxygen available) environment.

Work continues at the City's water plant as well with the next major tasks being the installation of the Lake Aeration System and the replacement of the Greensboro pump. To arrange a tour, please contact Kevin Eason, Director at keason@ci.reidsville.nc.us