



## Foster Park Improvements | City of Union, SC

### Project Highlights

- Park Improvements (mini-amphitheater, multi-use trails, parking lot)
- Pond Improvements (dredging, spill way investigation, bank stabilization)
- Erosion Control Measures (block mats, conveyance pipes)
- Permitting (SC DHEC, US ACOE) and zoning for amphitheater
- Creation of bid documents (drawings, specifications, bid schedule, and contract)

### Client

City of Union

### Description

Foster Park improvements consisted of an ongoing multiyear assignment to upgrade various components within the active park. The park consists of a stormwater pond

which attracts fowl (ducks and geese). In addition, a paved 6' wide multi-use trail encircles the pond allowing for walkers, riders or skaters. An adjacent parking lot and associated playground area allows for easy access to the park.

This project involved preliminary and detailed design, bidding support and construction oversight for park improvements consisting of 5,015 linear feet of new or resurfaced asphalt walkways, placement of 4,800 square feet of concrete block mats and sod, installation of 180 linear feet of new storm drain, dredging the existing pond, and a spillway investigation. The parking lot was upgraded including new pavement markings.

During construction, Rogers & Callcott reviewed shop drawings, approved pay applications, completed construction observation and project closeout.

### Unique Aspects

Due to the park being an active community open space, construction activities needed to accommodate local users. As with all open space improvement assignments,

maintaining operations during working hours is always a challenge. Accommodating park visitors within the construction zone was a challenge, one we overcame. In working with the City, specifications were created that minimized park disturbances which allowed users to enjoy the park while protecting them during construction.

## Lessons Learned

An inspection of the existing spillways was performed by opening both spillways to lower the water level, which allowed a visual inspection of the spillways in which a small amount of debris had collected on the trash racks. A few minor repairs were recommended. A conversation following the inspection indicated the City would perform routine maintenance on the dam and associated spillways.

## Challenges and Solutions

**Challenge #1:** Pieces of the headwall on the downstream side of Spillway 1 were broken, subjecting the surrounding soil to erosion.

**Solution #1:** The City decided to extend the existing pipe and backfill the headwall with dirt to prevent the headwall from collapsing any further.

**Challenge #2:** The City had concerns regarding the existing dam and possible seepage through it from the pond.

**Solution #2:** No seepage was observed from the downstream side of the dam. There was some slight seepage through an 18-inch concrete pipe. This pipe serviced two sluice gates that originally drained the lake. These gates were not operational, but allowed some water to pass. The velocity of the seepage was not high enough to cause erosion and the current condition of the sluice gates was unlikely to cause an emergency condition. Visual inspection of

the concrete pipe conveying flows through the dam showed it was in good condition.

## Outcome

The various improvements were completed while Foster Park remained open, which allowed users to enjoy the park amenities while observing upgrades. The various construction schedules and contracts were managed by Rogers & Callcott and were completed to the City's satisfaction.

