

Foxland Forest Subdivision

The first large Public Works project is located near Smyrna in Foxland Forest Subdivision. This subdivision has experienced flooding for over twenty years. This flooding problem was caused by the improper installation coupled with the lack of maintenance on the primary ditch that carries the storm water from the subdivision approximately 2,700 feet to Rocky Fork Creek.

This primary ditch has never worked properly. In order for the water to flow consistently to Rocky Fork Creek, water had to fill up in the homeowners' yards before it would flow over the high points in the ditch and flow toward the creek. The solution to the flooding was to excavate the ditch to a point where water would flow downhill the entire ditch length from the Subdivision to the creek. Also, the sixty-six inch pipe that carries water in the ditch under Morton Lane had to be lowered by three-and-a-half feet to achieve the proper grade throughout the ditch.

This solution may sound simple, but the major problem with the ditch is that it has a solid rock bottom. To avoid any structural damage to the existing homes, we decided not to use explosives to excavate the rock. Instead, we invested in a hydraulic hoe-ram; this machine basically works like a big jackhammer attached to a wheeled excavator. This process is much slower than using explosives but it is much safer for the community and the affected properties.

We started the project approximately 150 feet from the bank of Rocky Fork Creek, allowing us to work without causing erosion on the banks of the creek. We then started working our way toward the Subdivision lowering the ditch in places up to four feet.

As we repaired the ditch back toward the subdivision, we replaced a driveway culvert that was also improperly installed about three feet too high. We have replaced the pipe under Morton Lane with a seventy-inch pipe that is now installed at the correct elevation.

We have been very conscious of sediment and erosion control, using straw bale check dams for sediment and matting and blown straw to prevent erosion. This project affects approximately 62 homes, and after completion, the affected homes should all see a significant decrease in water problems.

On March 8, 2005 the Town of Smyrna annexed Foxland Forest Subdivision and the properties that contain the entire ditch North of Morton Road. This was an unexpected event that resulted in the Rutherford County Public Works crew not being able to complete this part of the ditch. The Town of Smyrna has been very helpful and has agreed to complete the part of the project that is now in the town in a timely manner. Engineering staff from Rutherford County and the Town of Smyrna have met on-site and will be working together to ensure the project will be completed correctly. Rutherford County has completed the project South of Morton Road. This section has been graded, seeded and strawed. Frequent maintenance checks will be made to evaluate and correct erosion and sediment issues. Any other maintenance questions can be addressed to Project Engineer Eric Hill.

The Foxland Forest drainage project has been considered a success. The residents have stated that during intense rainfall, water flows quickly to the drainage ditch and empties from the subdivision, where in the past the water would have encroached on their houses or stayed in their yards for days. Rutherford County Public Works will monitor the drainage during periods of intense or prolonged rainfall.

The Rutherford County Public Works Department would like to thank the residents of this area for their cooperation and patience.

Before



After



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