

ENGINEERING PROJECTS

Site 1: 33 Oak Hollow Court Drainage Project

Originally, this road had a consistent cross-slope so that the stormwater sheetflowed across the road and into the gutter and curb inlet on the downhill side of the road. However, when this road was resurfaced a crown was created which caused stormwater to pond on the uphill side of the road and adjacent property because the stormwater was unable to sheet flow across the road and get into the existing drainage system. Public Works installed a catch basin on the uphill side of the road and installed an 18" RCP across the road to tie into the existing drainage system.

Site 2: 120 Duck Pond Rd. Pipe Lining Project

At this site, there was an existing 18" RCP running from the road down the side property line between two properties. This pipe had a lot of separation at its joints mostly due to tree roots, which were starting to form blowouts on the ground surface. Digging up this pipe to replace it would have entailed digging up and replacing a driveway, retaining wall, and cutting down a row of trees and shrubs that lined the entire property line. This option would have been very expensive and time consuming. Instead, Public Works had a cured-in-place pipe liner installed in the existing pipe. The new liner will prevent any further separation of the joints, which will prevent any further blow outs from forming. No existing structures had to be disturbed, and the entire process was completed in one day.

Site 3: 1816 Spotswood Drive Drainage Project

There was an existing 30" RCP coming from the road that changed to a 30" CMP and continued down the side property line to an existing ditch running parallel to the rear property line. The CMP had separated from the RCP causing one blowout, and several pieces of rebar had been driven down through the CMP pipe further down the line which was causing other blowouts. Public Works replaced the damaged CMP with 30" HDPE.

Site 4: 7201 Coachmaker Road Drainage Project

There was an existing 36" RCP that runs from the road down the property line in between # 7201 and # 7203 Coachmaker Rd. This pipe had separation at its joints throughout the length of it, and it also had damage caused by a power pole and telephone pedestal being installed on top of it. This caused a great deal of flooding in the front yards and in the roadway in front of these two properties. The pipe was replaced and its location shifted slightly to avoid the conflict with the pole and pedestal.

Site 5: Wildewood Downs Entrance Project

The southern entrance into this apartment complex intersects with Mallet Hill Rd. On the northern side of this intersection, the shoulder alongside Mallet Hill Rd. was built up to such a degree that it was decreasing the site distance and causing safety issues for vehicles pulling out of the complex. Public Works regraded the shoulder to ensure that there is now sufficient site distance at the intersection.

Site 6: 328 Blue Horse Circle Drainage Project

This location is a wooded lot at the intersection of Blue Horse Circle and Stallion Drive. There was an 18" CMP that ran from the road down through the woods to a pond at the rear of the property. Because the pipe ran through a heavily wooded area, there were many blockages in the pipe due to tree roots, which in turn caused stormwater to back up and significantly flood the road. Public Works cleared a portion of the woods and replaced the pipe with an 18" HDPE.

Site 7: Brookview Lane Cul-De-Sac Paving Project

The cul-de-sac at the end of Brookview Circle was unpaved, and during heavy rain events, the dirt from the cul-de-sac wash being washed down into the rest of the road and into one citizen's front yard. Public Works paved the unpaved portion and installed curb and gutter.

Site 8: 118 Chelveston Drive Drainage Project

At this site, there was an existing ditch that picked up stormwater from the rear of the property and carried it down about halfway through the property to an existing pipe that started out as an 18" VCP and then changed into a 24" RCP. Parts of the ditch were blocked by tree roots, and the 18" portion of the pipe was undersized. Both of these conditions lead to flooding on the property. Public Works removed the ditch and replaced all of the pipe with new 24" HDPE.

9. 404 Valhalla Drive Drainage Project

There was a 48" CMP running from the road down the side property line to a very shallow concrete ditch that turned and ran across the rear corner of the property. Once this ditch got to the rear property line, it shallowed out and turned back into sheetflow as it ran through a lightly wooded area down to an existing drainage system at Fore Avenue. The ditch was very undersized which caused the rear of this property to experience significant flooding. Public Works removed the ditch and installed a new 48" HDPE through this property and through the wooded area down to the existing Fore Avenue drainage system.

Site 10: Hounds Court S. Roadway Project

At the intersection of Hounds Court S. and Musket Lane, the roadway was much wider than the typical roadway and had large turning radii. This was leading to some drivers making the turn at excessive speeds, going well above the posted speed limit. In some instances, some vehicles were even leaving the roadway and driving up onto the yard at the intersection because they were trying to make the turn too quickly. Public Works removed enough of the asphalt to bring the width of the road and the turning radii back down to typical dimensions.

Site 11: 305 Olde Springs Road Drainage Project

At this site, there was an existing 24" RCP that ran from the road down to a yard inlet at the rear of the property. When the house was built on the property, the left rear corner of it was built on top of the pipe. This caused the pipe to weaken in that area and joint separations to occur which then caused that portion of the house to settle. The settling in turn caused the foundation and a portion of the wall to crack. Public Works relocated the pipe away from the house and filled in the existing pipe with flowable fill.

Site 12: 10 Raintree Court Drainage Project

There was an existing 18" RCP that ran across the backyard of this property. About halfway through the property, the pipe changed to an ACP. The pipe outfall originally discharged onto the neighboring property but over the years had become buried. The pipe was very shallow with the top exposed at one point, and a blowout had formed where the pipe changed from concrete to asbestos. Just replacing the pipe and uncovering the outfall would have lead to flooding on the neighboring property. Instead, Public Works installed a bend on the upstream portion of the pipe and installed new pipe down to an existing ditch behind the rear of the property.

Site 13: American Avenue Drainage Project

There was an existing shallow swale that tied into a deeper drainage ditch at the rear of several properties along American Avenue. The swale was not deep enough to handle the amount of stormwater draining to it, and this was leading to flooding in several of the properties. Public Works redefined the ditch, and made it deeper to accommodate the amount of stormwater coming to it.