



**CASE STUDY:** This project consisted of the design and installation of new sections of culvert pipe, as well as the placement of Terra-Crete™ at the South Miami Boulevard Culvert.

## TERRA-CRETE™

### THE PROJECT

This project consisted of the design and installation of new sections of culvert pipe and placement of Terra-Crete at the South Miami Boulevard Culvert in Durham. UMA's work was completed in two phases. It consisted of invert plating and utilizing joint sealing methods, and also installing a new pipe section to repair one that had degraded beyond a plating repair.

### THE CHALLENGE

After the original work was complete the existing pipe section that had degraded beyond a plating repair required a new pipe section to be installed, due to the lateral and utilities running through it, and unusual repair method was required to fix this section of the pipe.

#### The Customer

Private Developer

#### Location

Durham,  
North Carolina

#### Type

Infrastructure

#### Date of Project Completion

August 2019

#### Interesting Fact

Terra-Crete™ is much lighter than traditional grout as well as having other characteristics that make it a great option for this application.



# CASE STUDY

## THE SOLUTION

UMA installed 150 linear feet of the bolted insert pipe system to repair the degraded portions. After new sections were installed, non-shrink grout bulkheads were placed on both ends of the pipe. These bulkheads were utilized to hold the Terra-Crete™ in place, and to aid in the placement of the material with a progressive cavity pump. Once the void between the degraded existing pipe and newly installed liner pipe was filled, the bulkheads were removed.

## THE RESULTS

The portion of the pipe that had degraded beyond repair was left with a new liner system, which allowed the pipe to still function as originally designed. Terra-Crete™ is much lighter than traditional grout as well as having other characteristics that make it a great option for this application. It was used to fill the annular voids that surrounded the new pipe. The material that was placed had a density of 30 pounds per cubic foot and an average strength of 140 PSI.



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