Project Summary

Casement Avenue Slope Failure; Emergency Repair
PID 83365, Federal ID LAK032
Lake County Engineer's Project 07-011-02
Painesville Township, Lake County, Ohio

- **Roadway Design / Build Team**
- **Stormwater Pollution Prevention Plan**
- **Right-of-Way and Topographic Surveying**
- **Construction Layout Staking**

This project included the relocation of 0.52 miles of Casement Avenue to the east of the existing roadway. The existing roadway had been damaged due to severe erosion and slumping occurring along the Grand River, which was affecting the structural integrity of Casement Avenue.

The scope of the project included designing the 36' wide roadway profile to meet ODOT criteria for a 35 MPH design speed, providing a storm sewer collection system, a storm water pollution prevention plan, and a traffic control plan.

The storm sewer system for this project was unique in the fact that it was constructed of perforated pipe with the purpose of infiltrating the storm water into the ground as much as possible, reducing the outlet flows and eliminate the need for additional storm water management. In some cases, the outlet flow was reduced to zero. The storm sewer is designed to carry the entire ten-year design storm event like a traditional system. This will allow for the system to function as a traditional storm system if the soil infiltration is reduced in the future. Additionally, this innovative filtrating storm sewer system also served as a Best Management Practice and provided the required water quality volume storage.

Foresight Engineering Group, Inc. also coordinated with the Lake County Engineer's Office and several utility providers, to organize and schedule utility relocations necessary for construction of the roadway.

Lake County, Ohio

Schematic Plan from Casement Avenue Improvement Plans