

*City of East Point:  
Jefferson Park Community Channel  
Improvements Project.*

<b>Project:</b>	Design and Construction Supervision for an open channel storm water system to replace damaged storm pipes at Jefferson Park in East Point	
<b>Client:</b>	City of East Point	
<b>Location:</b>	City of East Point, Atlanta, Georgia	
<b>Completion:</b>	Completed	

**Objective:** To eliminate flooding and improve downstream water quality in the Jefferson Park Community in East Point.

In February 2008, MME was engaged by the City of East Point to develop detailed designs and construction-grade plans for the Jefferson Park Community Project. The project is located within Brookdale Park in the Jefferson Park Community of East Point in the headwaters of the South River in the Upper Ocmulgee basin.

The existing drainage system within the limits of the project consisted of two parallel 60-inch underground corrugated metal pipes leading to a concrete culvert at Sylvan Road. Over time, the metal pipes failed and got separated, forcing the flowing storm runoff to scour out a large area immediately downstream from the point of failure. If left unattended, the scoured area would have continued to increase in length and width, which would have led to further damage to the park and potentially could pose significant threat to safety for the surrounding residential neighborhood. Upstream of the park is approximately 460 acres of primarily residential development.

MME completed the drainage study and final designs for the proposed Jefferson Park Community Channel Improvements. The drainage study included multiple SWMM models to examine the hydraulic capacity, flow rates and water surface elevations along the proposed channel for the 25-year and 100-year storm events.

The project design recommended the removal of the existing deteriorated pipes to be replaced by an open channel drain through the park (approximately 900 ft), inclusive of pedestrian bridge, drop structures, vegetated channel banks with a combination of grass, shrubs and trees and channel bottom covered with specialty reinforced earth devices to allow grass cover to withstand velocities up to 9ft/s.

Excavation was limited to what is required to install the new headwall and any erosion control devices to prevent scouring at the upstream end of the project. The design and installation of the Jefferson Park Community Channel Improvements satisfied the criteria for Level I: Preferred as defined in the *Streambank and Shoreline Stabilization Guidance* developed by the Georgia Department of Natural Resources.

Construction was completed in July 2009 and proved adequate during the intense rainfall which occurred in September and October 2009 when several other areas in Georgia were inundated with flood waters.