

Main Street Markham South Reconstruction

Project: Main Street Markham South Reconstruction

Location: Markham, ON

Owner: City of Markham

Engineer: MMM Group

Contractor: Dagmar

Approving Agency: MOE, MNR, DFO

Product: Stormceptor: 2 STC 750, 1 STC 2000 and 2 STC 9000 series units



A key strategic priority for the City of Markham in Ontario was the reconstruction of Main Street, in order to manage increased traffic which resulted from past decade's development. In addition to the road reconstruction, this \$5,500,000 project included much-needed upgrades to Markham's water main, storm sewers, and associated service connections. The project has also enhanced the existing streetscape, and showcases the residential, commercial, and heritage communities of Markham.

Phase three of the project called for the rebuilding of Main Street Markham South. This reconstruction phase included road widening, and the complete rebuilding of the Main Street Markham bridge. A major aspect of this overall project was that no water quality treatment existed prior to this reconstruction effort. City officials addressed this issue by including stormwater treatment of the runoff from Main Street Markham South and of the rebuilt bridge, before discharging into the nearby Robinson Creek. Implementation of stormwater treatment was highly desired as the Robinson Creek and the Rouge River are headwaters habitat for the endangered fish, Redside Dace, and which into Lake Ontario.



Engineers at MMM used PCSWMM for Stormceptor to properly select and size each Stormceptor unit, based on the site's five drainage areas and pollutant removal requirement. PCSWMM for Stormceptor provides a detailed technical output that can be submitted with an MOECC ECA application, with unit technical specifications and drawings available online. Re-sizing can also be easily undertaken if a site's drainage parameters change, which is common during the life of a major project.

To meet the sediment removal performance requirement, engineers at MMM Group specified five Stormceptor STC oil & grit separators of various sizes. In Ontario, Stormceptor is licensed and manufactured by Forterra, which supplied the five units installed along the reconstructed Main Street. Added benefits of selecting Stormceptor along this busy roadway are spill capture and the inclusion of a Quality Assurance Plan that covers maintenance for up to 5 years. The proven performance coupled with these features help ensure protection of this environmentally-sensitive watershed for years to come.