



**Environmental
Hydraulics
Group**

Hydraulic Design & Analysis
- Water & Sewage

**Project: Block 17 Water System – Water
System Distribution System**

1997-501

Location: Vaughan, Ontario

Client: RAND Engineering Corp.

Completed: March 1999

Description: Block 17 includes a proposed 120 ha residential development with an estimated demand of 200 L/s within a pressure district with a peak consumption of 10 m³/s. This individual development must be integrated into a long term, ongoing regional water distribution network for which hydraulic models already exist.

The Region's water supply parameters for flow and pressure were used as boundary conditions for Block 17. The City's water demand estimates were taken into consideration in revising the water distribution model for this area.

Benefit to the Client: EHG staff determined the water demand for the proposed development area and identified the deficiencies of the existing pressure district system. Approximately 2000 pipes were modelled for this network, beginning with the City's existing model and incorporating a number of modifications to reflect existing and proposed conditions. EHG coordinated between various government agencies to harmonize the design criteria applicable to this fast-growing area.

EHG recommended a cost-effective water supply and distribution scheme for the proposed development, taking into account peak and minimum hour as well as fire flow conditions. While conditions inside the Block 17 development area were found to be acceptable, some improvements to nearby areas were identified.

