**Long-term erosion control protection.**

**Project Profile**

**LOCATION:**
Ajax, Ontario

**PRODUCT:**
ArmorFlex Class 40 (Open Cell)

**PROJECT PARTNERS:**

- **Owner**
  Town of Ajax
- **Consultant**
  EMC Group Ltd.
- **Contractor**
  Giffels (GC), Hard-Co Construction Ltd. (Subcontractor)
- **Completion Date**
  September 2011

Green initiatives were incorporated into design of the new Audley Recreation Centre building and park. Features include stormwater management, water conservation, energy reduction, waste management, and use of recycled content.

**Challenge**

The Audley Recreation Centre and surrounding park areas were designed to a LEED Silver standard. In order to meet this standard, the contractor worked closely with the architect to implement erosion control measures, and recycling of construction materials.

A significant part of this project was the development of two stormwater management ponds. The client was looking for a permanent solution to prevent erosion along the inlets and spillways of the ponds. In addition, the ponds are part of a public outdoor area, therefore aesthetics were also important.

**Solution**

Nilex, in conjunction with our supplier Armortec, reviewed the requirements and were able to provide the client with hydraulic calculations, along with the technical and performance benchmarks required for this project. Based on these benchmarks, Nilex recommended the ArmorFlex Class 40 open cell Articulating Concrete Block Revetment System.
The ArmorFlex system consists of precast concrete blocks that are cable, pre-assembled mats that can be lifted into place to provide flexible, stable protection in high flow, high-scour applications. When installed with a site-specific geotextile filter, the system allows for hydrostatic pressure relief and the establishment of vegetation. Once installed, the ArmorFlex system requires minimal maintenance.

Results

The focus of this project was performance. Nilex was able to provide technical support information on the product, as well as onsite installation support. In addition to providing long-term erosion protection and vegetation establishment, installation of the ArmorFlex mats further reduced the environmental impact of the project by reducing the number of haul trucks required for material delivery, compared to a rip-rap installation.

The Nilex Advantage

Nilex is committed to unearthing better results. Whether it’s for a civil, resource or environmental project, we offer the latest engineered and technically-superior materials and techniques to save our customers time and money, minimize the need to move or remove earth, and reduce the need for granular materials.

With over 35 years of experience, a long-standing commitment to the environment and highly qualified staff, Nilex delivers the products and technologies that give clients an economic advantage with environmental benefit.

Installation

The ArmorFlex system was provided in pre-assembled mats that were custom made to suite the contours of the stormwater pond inlets and spillways. Nilex provided the contractor with a mat layout and irregular mats were labeled in accordance with the drawing to further ease installation. ArmorFlex is easy to install. It can be easily off-loaded and lifted into place with minimal equipment. For this project, an excavator, fitted with spreader bars was used to off-load and place the material.

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