Project Case Studies

Project Profile

Date: 2009

Name: Concord City Place Park

Owner: Concord Adex Inc.

Architect: The Planning Partnership

Contractor: Aldershot Landscaping Co.

Size: Approximately 1000m^2 vertical face area

Background and Challenges

As part of the mega residential condo development scheme in Toronto's downtown core, the developer proposed to create an 8-acre oasis exquisitely contoured and blended into the surrounding nature named as City Place Park. It would use "not just art works and other features but also the topography itself to capture a sense of the country and its spirit" as described by the art consultant of the project. One of the key features of the park is the artificial slope (the bluff), which was required to be designed and constructed with the materials (soils) excavated from the sites during the construction of the condo towers. Not only were these materials containing a high percentage of fines (usually problematical for slope works) but also contaminated, making off-site disposal almost impossible.

Solution

Working together with the architect and the geotechnical engineer (DCS), Terrafix proposed TerraSlope 45, the geogrid reinforced slope or Retained Soil System (RSS) up to 10m high to fulfill the requirements of the "Bluff". Terrafix provided stamped construction drawings/specifications of the RSS slope and all geosynthetic materials for construction, in addition, Terrafix also provided periodical site assistance to help the contractor to install the slope. With the thoughtful design process and careful construction control, TerraSlope 45 has successfully overcome all the challenges encountered and has been constructed as planned. The park opened to the public late 2009.

Advantages

The TerraSlope 45 RSS slope system comprises a biaxial geogrid wrapped face enhanced by a permanent erosion control mat to facilitate the vegetation with the core structure of high performance SG geogrid reinforcement catering to the on-site soil material to ensure the long term stability of the slope. With such unique configuration, not only is the system very robust, but also is flexible so that other features such as an Armour stone wall, access or landscape berms, stair cases and plating requirements could be accommodated.

The final constructed product is a robust, aesthetically pleasant and cost-effective system.