

TTC Mount Dennis Parking Lot

Year of Construction: 2023

Location: Toronto, ON

Product Installed: Ecoraster Bloxx

System: Permeable Paving

CASE STUDY

CHALLENGE

Expanding an on-grade bus and employee parking area adjacent to an existing bus parking lot for Toronto Transit Commission (TTC) with minimal addition of stormwater infrastructure.

SOLUTION

TTC implemented Ecoraster Bloxx permeable pavement system to meet their pavement and stormwater management requirements.

PROJECT OVERVIEW

TTC needed to expand parking for buses and employees beside an existing bus parking lot, transforming a grassed area into a functional space.

The challenge was to minimize the addition of site servicing pipes, as excess runoff during large rainfalls events would have overwhelmed the nearby municipal sewer system if traditional asphalt paving was introduced.

To address this concern, the TTC design team opted for Ecoraster Bloxx permeable pavement system, which was implemented in more than 3,000 sqm across the parking laneways and sidewalk features.

Ecoraster Bloxx is designed to handle heavy vehicle loads while enabling stormwater infiltration through the perforated cell walls. The system's base was composed of 200mm layer of 19mm clear stone and 30mm layer of 6.7mm clear stone leveling course, further enhancing water permeability and reducing the need for extensive stormwater infrastructure.

The installation of the Bloxx layers (1m x 1.33m x 0.05m deep) was efficient, achieving a rate of over 125 sqm per person per hour. The custom manufactured concrete pavers were then inserted into the empty cells, forming a stable surface. Made from recycled LDPE, the base of the layers prevents paver heaving, eliminating tripping hazards. Additionally, its flush profile enables snow plowing, making it functional year-round.

Ecoraster Bloxx effectively mitigated the risk of runoff overwhelming the city sewer, unlike a traditional asphalt lot.

