

Bus Terminal

Year of Construction: 2017

Location: Vaughan, ON

Product Installed: HydroChain

Category: Stormwater Management

CASE STUDY

CHALLENGE

Design and install a subsurface stormwater management system to handle runoff from a new bus terminal. The system needed to fit between newly constructed buildings and beneath pavement used by public buses – making space and structural integrity key considerations.

SOLUTION

HydroChain Stormwater System was selected to meet the project's space and performance requirements, offering a total capacity of 285m³ to effectively manage stormwater within the site's tight footprint.

SPECIAL NOTE

The solution utilized 216 HydroChain S-29 chambers, each approximately 1.5m high x 0.9m wide x 0.9m long and weighing just 14.5kg. Terrafix collaborated with the project engineer to design a system with an overall footprint of roughly 21m x 16m x 1.4m depth. The chamber's open bottom design allows water to infiltrate into surrounding soils.

Fabricated from fibre-reinforced plastic, these modular chambers are lightweight and easy to handle, enabling efficient, labour-saving installation. Installation was performed by a four-person crew and an excavator operator. The installation process included:

- Excavating the trench
- Wrapping it with a non-woven geotextile
- Adding clear stone bedding
- Connecting the chambers and end caps
- Backfilling around rows of chambers with clear stone
- Wrapping the assembly with non-woven geotextile
- Final backfilling prior to pavement installation

The HydroChain system optimizes land use while delivering dependable, sustainable stormwater management – particularly suited to high-density urban and commuter-oriented developments. Out of site, the system quietly retains and filters stormwater runoff – allowing public buses to operate directly above it without disruption.

