- All gates must be lockable, single, or double locks if required by the Railway, Hydro, or other users
- Grounding and bonding is required for metal gates

Site Furnishings

Garbage and Recycling Storage Areas

The Consultant shall verify garbage and recycling bin sizing with station, local municipality and/or service provider to validate garbage enclosure dimensions prior to design. At a minimum, garbage enclosures must be large enough to conceal two 6-yard bins.

The following criteria shall be considered when deciding on a location for a garbage enclosure:

- Garbage truck access
- Staff access / proximity to station
- Place on surplus land (land which cannot be used for anything else)
- Keep away from pedestrian paths and waiting areas
- Keep out of direct view when entering the site
- Where required, gates shall be equipped with "No Parking" signage to ensure accessibility is always maintained (for "No Parking" signage please refer to the Static Signage Standards)
- Consultant to verify signage sizing with GO prior to proceeding

Exterior Bollards

- Shall be integrated with station and bus terminal area design.
- Bollards shall be approximately 200 mm in diameter and fabricated from 304 grade stainless steel with a satin finish.
- The bollards shall project 1000-1200 mm above grade, with a minimum of 300 below grade.
- Bollards shall have a 50 mm contrasting reflective band (or approved equivalent) around the circumference of the bollard at a designated recessed space (to ensure durability), 80 mm below top surface.
- Areas requiring additional safety, such as bus plazas with roll over curbs, shall have 200 mm diameter galvanized steel pipe, concrete filled, and protected with a 304 grade stainless steel cover of minimum 3 mm thickness and two 50 mm contrasting reflective bands around the circumference of the bollard.
- The bollard shall project 1.2 m above grade and set minimum 1.2 m into concrete pier
- At bus fuel storage areas, rail and bus maintenance facilities etc., provide bollards to protect electrical equipment locations and impact protection to hydrants and any other structures or equipment installed within 2.0m of vehicle traffic areas
- These bollards shall be 250 mm diameter concrete filled bollards. See Section E – Building Program, Maintenance Facilities requirements for details
- ~~Shall be 200 mm diameter galvanized steel pipe, concrete filled, and protected with 3 mm minimum thick high density polyethylene 'safety yellow' (or other colour as specified by GO) coloured cover, projecting 1.2 m above grade and set minimum 1.2 m into concrete pier~~
- ~~At bus fuel storage areas, provide 250 mm diameter concrete filled bollards~~
- ~~Provide bollards to protect electrical equipment locations~~

Interior Bollards

- When located in maintenance facilities shall be 150 mm diameter galvanized steel pipe
- Concrete filled
- Protected with 3 mm minimum thick high density polyethylene 'safety yellow' (or other colour as specified by GO) coloured cover
- Projecting 1.2 m. above floor
- Cast with welded plate and 4 anchors into concrete slab

- The bollards shall be equipped with pole sleeve covers
- Interior bollards when located in stations and bus terminals shall be 200 mm in diameter and fabricated from 304 grade stainless steel with a satin finish and shall project 1000-1200 mm above grade, with a minimum of 300 below grade.

Removable Bollards

- Permanently installed receiver below grade, with a top that is flush with the pavement and a cap to prevent dirt accumulation while the post is removed
- Removable post that can be manually lifted out of the receiver to allow access
- Exposed locking mechanism, with a padlock keyed to the station master
- Dimensions, covers and color schemes shall meet Exterior and Interior Bollard's requirements above

Civil Works

Storm Drainage

The design flood criteria for all sites shall comply with the MOE Storm Water Management Practices, Planning and Design Manual, the OPSD and MTO Drainage Manuals, as well as Regional and/or Municipal Storm Water Management requirements. Oil and grit separators and inlet control devices.

Generally surface water flow shall be directed from landscape areas to parking lot catch basins. Catch basins in landscape areas shall be avoided if possible.

Catch Basins

Catch basins shall be located upstream of pedestrian crossing areas, and 1500 mm clear of any driveway curb depressions. Grates shall be diagonal type. Catch basins shall not be located in the path of bus wheels, especially in bus loops.

Retention ponds and catch basin flow restrictors shall be provided in accordance with Storm Water Management requirements. Catch basins shall not be located on walkways and/or in front of building doors.

Gutter Drainage

Gutter drainage shall be restricted to access roads if required to prevent storm run-off onto adjacent property. Road and gutter gradients shall not exceed Fire Access Route requirements.

Ditch Drainage

Where a storm sewer system is not available, or where an “interim” type of development is desired, ditches and related culverts may be used to carry the drainage down one or both sides of the paved areas. Culverts shall have safety grilles at ends, and ditches subject to substantial ponding shall be fenced, for safety, or filled with riprap, and topped with geotextile fabric and granular topsoil and sod.

Grading

Grading shall be designed to avoid excessive slopes and shall be integrated with surrounding landforms to provide slope stabilization and positive flows to the drainage system.

Where existing landforms, or vegetation, are to be preserved, appropriate protection and construction controls shall be designed.

Retaining Wall

The Consultant shall select the optimum permanent retaining method (wood shall not be used for retaining walls). Where concrete retaining walls are in proximity to the public, they shall be sandblasted. Low retaining walls shall be precast concrete units. Gabion walls may be used in non-public areas. Where retaining walls are adjacent to buildings, the material shall be compatible with the architecture.

Stormwater Management

Manage rainwater and snowmelt on-site with designs that encourage infiltration, evapotranspiration and water re-use:

- Sustainable materials paving for parking surface, drive aisles, overflow parking, snow storage areas and other hard surfaces in the parking lot
- Provide a planting medium, composed of good quality soil, with a minimum depth of 0.6m and at least 0.9m depth if trees are planted