

Design Standards for Public Bike Share (PBS) Rezoning and Development Application Requirements

Authority - General Manager of Engineering Services (GMES)

Guiding Principles for Station Siting:

Opportunities for station siting include providing connections to transit, high pedestrian areas such as proximity to commercial/shopping districts, parks, community facilities and amenities, higher education institutions and within residential neighbourhoods. Ideally, stations should be on or near comfortable cycling facilities to encourage the use of the near bike network. As well, stations need to be located for maximum visibility with unrestricted public access 24 hours a day, 365 days a year.

PBS stations will be located on both public right-of-way and on statutory rights-of-way secured on private zoned lands. Based on best practices, stations will be located at a minimum every 200-300m, or approximately every 2-3 blocks. The size of each PBS station is based on the relative demand expected taking into consideration adjacent land uses, population, transit nodes, recreational destinations, and other trip generating sources.

PBS Requirements for rezoning and development applications:

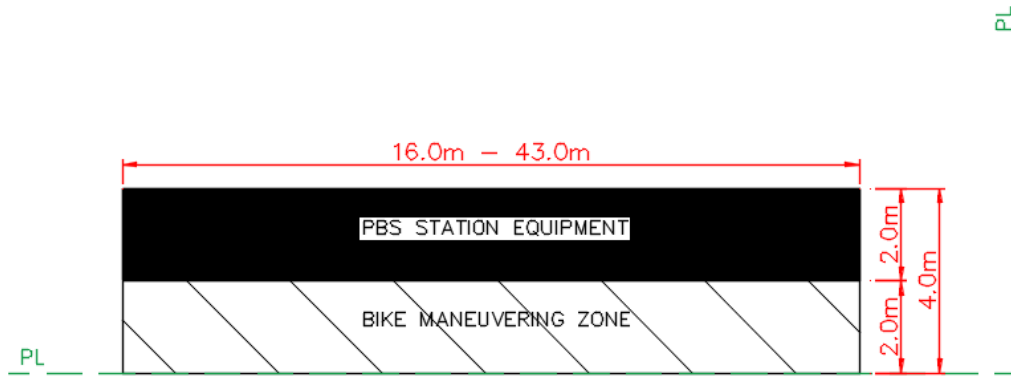
“Arrangements shall be made, to the satisfaction of the General Manager of Engineering Services and Director of Legal Services, for a Right of Way for the provision of space to accommodate a Public Bike Share (PBS) Station.”

1. **Size:** At a minimum^[1] a [*site specific station size*] sized station shall be accommodated. The full length of the space is to be continuous. The physical station with docked bicycles is 2m wide and has a required bicycle maneuvering zone of 2m for a total width of 4m^[2].

[1] Minimum length for stations on private sites is 16m. Specific size of station is subject to demand and determined by GMES.

[2] There is also the option for bi-directional stations which require a total width of 8m

Sample scenario illustrated below. Layout may vary depending on site conditions.



2. **Location:** The station must be fully located on private property while still clearly visible to the public with 24/7 public access. The preferred location is near the intersection^[3] of [site specific intersection] to allow easy access to the street.

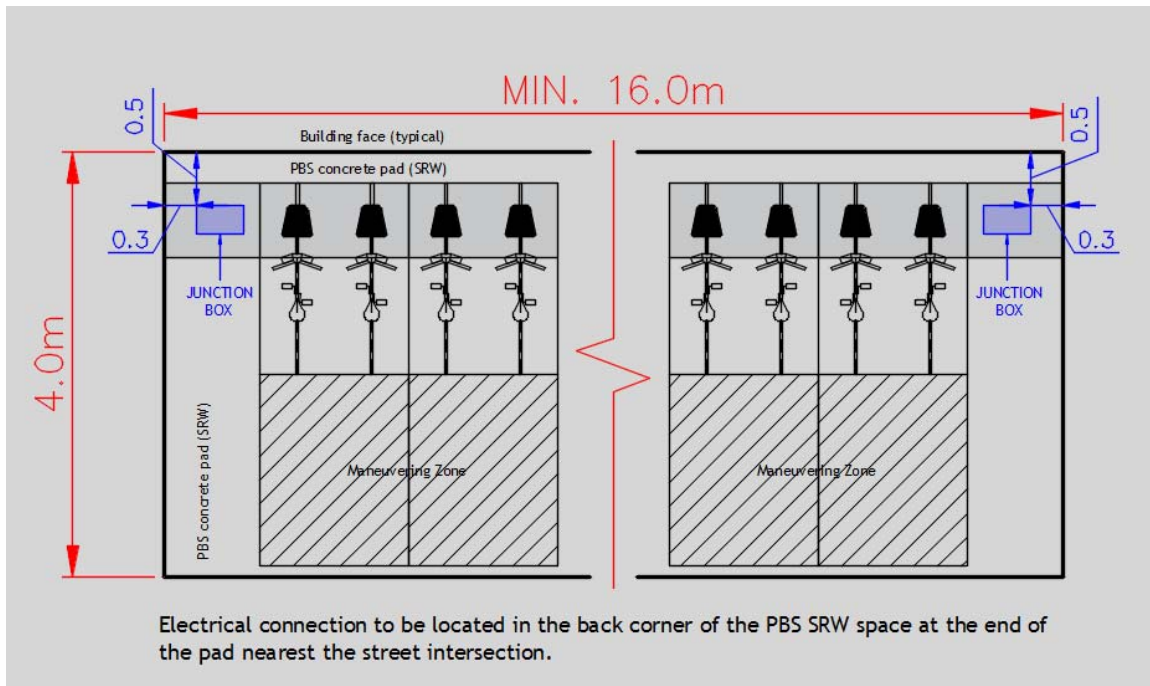
[3] Stations are typically located on site close to an intersection rather than mid-block to avoid cycling on sidewalks. For sites adjacent to an existing or future cycling facility, the station is typically located to provide easy access to the bikeway.

3. **Access:** Consideration for placement of building elements (e.g. fire department connections, HVAC vents, hose bibs, etc.) and landscaping that require frequent access and maintenance directly adjacent to the PBS space. These elements shall not be in conflict or cause frequent disruption to the PBS station.
4. **Surface treatment:** A hard surface, CIP concrete (saw cut or broom finished) is required with no utility access points (including vents, drains, etc.) within the PBS station footprint (except as noted below). Any utility access point within 1m of the PBS space is to be identified and shown in a detailed drawing submitted. Other firm, paved materials are subject to approval.
5. **Grades:** The surface must be leveled with a maximum cross slope of 3% and have a consistent grade (i.e. no grade transitions) along the length with a maximum slope of 5%. At minimum, spot elevations at the four corners of the station must be provided.
6. **Sun exposure:** There must be a minimum of 5m vertical clearance from ground level to the top of the station in order to maximize sun exposure as station operates on solar power. Ideally the station should receive 5 hours of direct sunlight a day.
7. **Power:** Provision of an electrical service and electrical power is to be available in close proximity to the PBS station. Show power source connection on the landscape and site plans. Details as per Schedule A.

SCHEDULE A

A 53mm RPVC conduit is to be installed between a three phase 4 wire 120/208 V, or single phase 3 wire 120/240 V panel closest to the bike station. The conduit shall be installed in a sand bed at the depth of 600mm, and a warning electrical tape shall be placed over the duct at a 300 mm depth. An electrical panel shall provide 3 branch circuits protected by a 20A, 3p circuit breaker in the case of a 3 phase panel; or two branch circuits protected by a 30A, 2p breaker in the case of a single phase panel. A weatherproof outdoor rated and lockable junction box, such as the Old Castle Duralite D1324B18FA(P)DUO-COV-T2 (Tier 22 rated High Density Polymer Concrete Composite, 11x18x18", open bottom, c/w stainless steel hardware, penta head bolts for securing lead, provision for installing 3/4" RPVC pipe for securing cables) or other boxes to the satisfaction of the City Engineer shall be installed within the bike share footprint. The conduits shall be capped in the box, and shall have a pull string inside. The top of the junction box shall be flush with the surrounding pavement. Installation must be in accordance with the latest Canadian Electrical Code. All products used in the installation must be CSA or cUL approved (or equivalent) and suitable for the application.

SKETCH A



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