

Guidelines for the Design and Management of Bicycle Parking Facilities

DRAFT

September 12th, 2024

*Note: the table below gives an overview of the structural changes, where **blue** indicates new sections and **red** indicates removed sections. For the rest of this document, most of the content has been updated with new recommendations added, regardless of the similar section titles. Any text highlighted in **yellow** is a proposed draft change to amend the Zoning By-law 569-2013, which has not been submitted to Council/Committee.*

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Comparison of Structure and Content	
2008 Version	Current Draft
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1.1 Background	Removed the subsection and combined with 1. Introduction
2. DESIGN GUIDELINES FOR BICYCLE PARKING ON PROPERTY OUTSIDE OF THE PUBLIC RIGHT-OF-WAY	2. BICYCLE PARKING ON PROPERTY OUTSIDE OF THE PUBLIC RIGHT-OF-WAY
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2.2 Criteria for Good Quality Bicycle Parking	2.2 Criteria for Good Quality Bicycle Parking
2.3 Short-term Bicycle Parking <ul style="list-style-type: none"> 2.3.1 Rack Design 2.3.2 Covered Bicycle Parking 2.3.3 Installation 	2.3 Rack Design
2.4 Long-term Bicycle Parking <ul style="list-style-type: none"> 2.4.1 Bicycle Lockers 2.4.2 Bicycle Cages 2.4.3 Indoor Bicycle Parking (Parking Garage) 2.4.4 Indoor Bicycle Parking (Bike Room) 	2.4 Bicycle Parking Area Design <ul style="list-style-type: none"> 2.4.1 Weather Protection 2.4.2 Spacing 2.4.3 Indoor Parking Area 2.4.4 Outdoor Parking Area 2.4.5 Bicycle Locker 2.4.6 Bicycle Cage 2.4.7 Emerging Technologies 2.4.8 Transit Stations
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2.6 Emerging Technologies and Innovations	
2.7 Bicycle Parking Issues by Development Type	Removed
3. SITE DESIGN STRATEGIES	
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3.2 Stairways	2.5.1 Accessibility
3.3 Bicycle Paths On-Site	2.5.2 Convenience
3.4 Designing for Convenience	2.5.3 Safety and Security
3.5 Signage	
3.6 Safety and Security	
3.7 Creating Attractive Bicycle Parking	Removed and replaced by 2.3(vii)

4. BUILDING MANAGEMENT, OPERATIONS AND EMPLOYER-BASED STRATEGIES	4. MANAGEMENT AND OPERATIONS OF BICYCLE PARKING FACILITIES
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5. BICYCLE PARKING FACILITIES IN THE PUBLIC RIGHT-OF-WAY	3. BICYCLE PARKING FACILITIES IN THE PUBLIC RIGHT-OF-WAY
5.1 New Developments Program 5.2 Bicycle Rack Placement and Design	3.1 New Developments 3.2 Bicycle Rack Placement and Design
5.3 Long-term Parking	Removed
6. POLICY CONTEXT	5. POLICY CONTEXT
6.1 City of Toronto Official Plan 6.2 City of Toronto Bike Plan 6.3 Toronto Green Development Standard 2008 6.4 City of Toronto Zoning By-Law Project 6.5 Vibrant Streets Guidelines	5.1 Official Plan 5.2 Zoning By-law 569-2013 5.3 Cycling Network Plan 5.4 Toronto Green Standard Version 4 5.5 Waterfront Toronto Green Building Requirements Version 3 5.6 City of Toronto Vibrant Streets Guidelines 5.7 Toronto Complete Streets Guidelines
6.6 National and International Environmental Standards and Certifications 6.7 Provincial Policies	Removed

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1 INTRODUCTION

As Toronto evolves into a city with an accessible transportation network, it necessitates the prioritization of walking, cycling, and public transit for easy people and goods movement within neighbourhoods and connections to regional networks. In accordance with the City of Toronto's growth management objectives, current City policies and implementation measures provide for the accommodation and growth of bicycle transportation through an increase in high-quality bicycle infrastructure.

This document, *Guidelines for the Design and Management of Bicycle Parking Facilities*, is intended to support these objectives by providing a framework for the development of high-quality bicycle parking facilities. With a focus on accessibility, convenience, safety and security, this document offers comprehensive recommendations for the design, construction, and management of high-quality bicycle parking facilities on private properties, public rights-of-way, and transit stations. In addition, this document also includes recommendations for operational and retrofitting strategies. Existing City policies that support the development of high-quality bicycle parking facilities are summarized for reference.

Through the adoption of these best practices, the City of Toronto will advance its commitment to a sustainable transportation system, creating a safe, comfortable, and bicycle-friendly environment that encourages people of all ages, abilities and means to bicycle for everyday transportation, recreation and commercial activity.

2 BICYCLE PARKING ON PROPERTY OUTSIDE OF THE PUBLIC RIGHT-OF-WAY

Bicycle parking standards primarily deal with the quantity and type of facilities required. However, there are key design strategies that specifically address the quality of bicycle parking. The following guidelines will assist in the design and development of high-quality bicycle parking facilities that will successfully meet the needs of cyclists and will work to encourage and support bicycle use.

2.1 Bicycle Parking Definitions

There are two categories of bicycle parking:

“Short-term” bicycle parking

- Also known as bicycle parking spaces for use by *visitors* to a building (Zoning By-law 569-2013)
- Intended for day use only
- Includes bicycle racks in an easily accessible location
- Available for public use
- Sheltered or unsheltered

“Long-term” bicycle parking

- Also known as bicycle parking spaces for use by the *occupants* or *tenants* of a building (Zoning By-law 569-2013)
- Intended for use over several hours or overnight
- Includes bicycle racks in an enclosed, secured area with controlled access
- Includes individual, secure enclosures like bicycle lockers

2.2 Criteria for Good Quality Bicycle Parking

Although there are a wide variety of design strategies that can be used to implement good quality bicycle parking, there are three main criteria that must be satisfied:

(i) Accessibility

- Bicycle parking spaces are close to building entrances.
- Bicycle parking spaces are preferred to be located at ground level. If located on a different floor due to limitations, access is complemented by a bicycle-friendly ramp or elevator.
- There are no obstacles for reaching bicycle parking spaces (e.g., manual doors, stairs, narrow hallway, steep slopes).
- Separate, dedicated bicycle ramps (e.g., with a maximum slope of 7%) into bicycle parking areas are desirable.
- Clear and well-placed wayfinding signage is provided.

(ii) Safety and Security

- Bicycle racks or lockers are made from high quality materials and firmly secured to the ground, floor, or wall.
- Bicycle parking spaces are regularly monitored by security personnel.
- Bicycle parking spaces are located in well-lit areas.
- Short-term bicycle parking is located in a public area with high pedestrian flows to provide informal surveillance.
- Long-term bicycle parking is located in a designated, access-controlled area to reduce the interaction between vehicles, pedestrians, and thieves.

(iii) Convenience

- Bicycle parking spaces are easy to locate and access.
- Bicycle racks, lockers, and related equipment are easy to use.
- Accommodation is made for a variety of bicycle sizes, styles, and attachments.
- Wherever possible, bicycle parking spaces are situated close to bicycle-friendly routes on-site and public bikeways.

2.3 Rack Design

There are several types of bicycle parking rack designs available for bicycle parking on property outside of the public right-of-way. The following key features of rack design determine their quality and suitability. Bicycle rack installations on the sidewalk in the public right-of-way will be discussed in Section 3.2.

- (i) **Materials:** Galvanized steel or industrial grade materials are preferred for rack designs. In contrast, rack designs should avoid using wood, soft metals, untreated metals that will rust, and cast composites that are brittle and may crack under impact. For rack designs that have welded sections, materials like stainless steel that do not weld strongly should be avoided, as weakly welded rack joints are easier for thieves or vandals to break.
- (ii) **Finishing:** Racks should have a smooth outer surface that will not damage or scratch bicycle frames.
- (iii) **Locking bar:** The locking bar of a bicycle rack should have a minimum thickness of 0.75 inches (approximately 1.9 centimetres).
- (iv) **Two points of contact:** There should be at least two points of contact between the bicycle and the rack. This allows both the frame and at least one wheel to be locked to the rack and supports the bicycle (Figure 1).
- (v) **Space:** Racks should provide adequate space between bicycles to minimize interference and enable proper locking. A variety of racks should be provided to accommodate for different bicycle sizes and styles (e.g., extra space for oversized bikes, larger tray for wider bike tires, customized space for cargo bikes).
- (vi) **Detectability:** A design that ensures the bicycle rack is easily detectable, especially for visually impaired people.
- (vii) **Anchoring:** All bicycle racks should be firmly secured to the ground, floor, or wall by bolting them to a hard surface, where tamper-proof bolts are preferred.
- (viii) **Aesthetics:** Bicycle racks can be designed to coordinate with and complement site design, street furniture or other amenities on-site. However, to ensure its security and user-friendliness, functionality should take precedence over appearance when considering rack design.



Figure 1 Two Points of Contact

2.4 Bicycle Parking Area Design

The design of bicycle parking areas should consider a variety of factors, such as weather protection, spacing, location, and emerging technologies.

2.4.1 Weather Protection

Sheltered or covered bicycle parking areas can offer weather protection and aid in protecting bicycles and cyclists from rain, wind, and snow. It can also help protect bicycles from accidental damage by providing greater separation from a sidewalk or vehicle parking area. An enclosed structure provides the best shelter. However, a simple low-cost covering may also provide adequate weather protection (e.g., racks installed underneath awnings, overhangs, or stairways).

2.4.2 Spacing

Zoning By-law 569-2013 (Reg. 230.5.1.10) requires bicycle parking spaces have a minimum length of 1.8 metres, a minimum width of 0.6 metres, and a minimum vertical clearance of 1.9 metres (Figure 2). Bicycles placed in a vertical position on a wall, structure, or mechanical device are required to have a minimum horizontal clearance of 1.2 metres from the wall, a minimum width of 0.6 metres, and a minimum vertical clearance of 1.9 metres (Figure 3). Stacked bicycle parking spaces are required to have a minimum vertical clearance of 1.2 metres for each bicycle parking space (Figure 4).

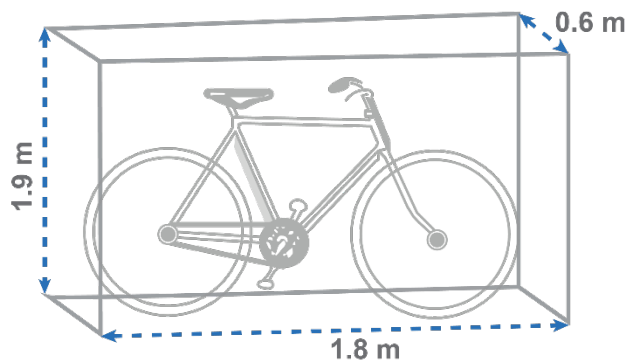


Figure 2 Minimum Dimensions of A Standard/Horizontal Bicycle Parking Space

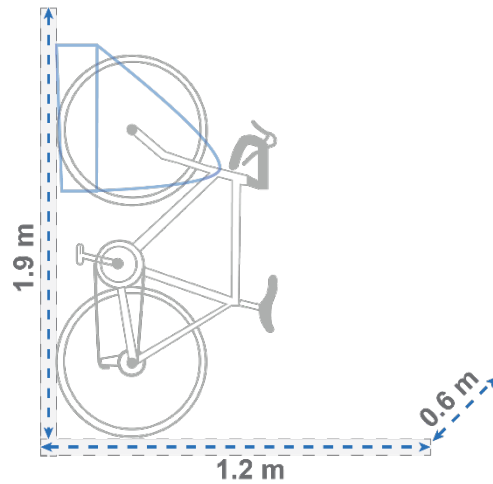


Figure 3 Minimum Dimensions of A Vertical Bicycle Parking Space

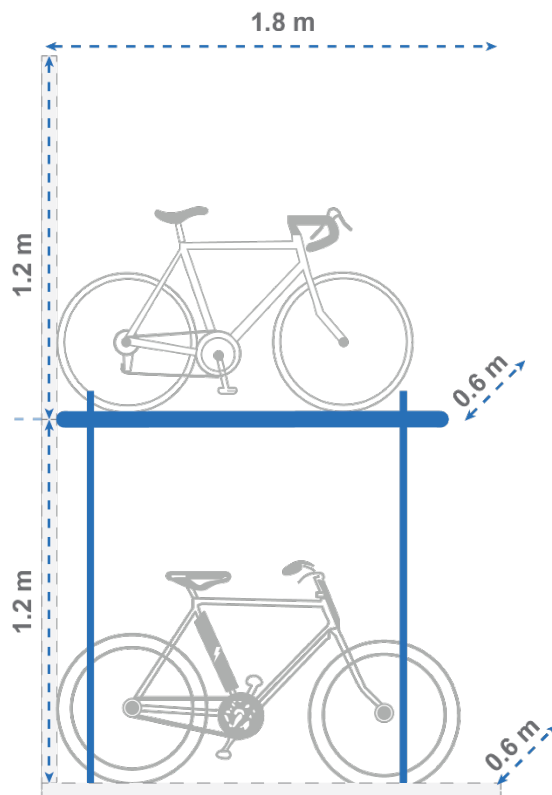


Figure 4 Minimum Dimensions of Stacked Bicycle Parking

The minimum width of 0.6 metres is intended to provide enough space for the handlebars and pedals of adjacent bicycles to not interfere with each other when

bicycles are inserted or removed from the rack and when they are locked in the rack. It *may* be acceptable to reduce the width requirement if the design of the parking spaces offsets the handlebars and pedals of adjacent bicycles:

- Angled bicycle parking (Figure 5): the width requirement may be reduced so that the space between adjacent bicycles is 0.5 metres (measured perpendicular to bicycles) and the length requirement may be reduced to 1.4 metres (measured perpendicular to adjacent walls), if the angled bicycle parking area is designed to be accessed without having to turn the bicycle around (i.e., one-way bicycle parking aisle).
- Staggered bicycle parking (Figure 6): the width requirement may be reduced to 0.4 metres, if the difference in levels between any adjacent bicycles is at least 0.25 metres. Depending on the design of the rack, the entire bicycle or just one wheel may be raised. The lifting height should not exceed 0.35 metres for ease of access.
- Staggered vertical bicycle parking (Figure 7): the width requirement may be reduced to 0.4 metres, if the extra space required for the vertical clearance can be satisfied. The exact requirement of the vertical clearance will depend on the design of the rack, but it will be more than 1.9 metres (i.e., minimum requirement in the Zoning By-law) and may be up to 2.5 metres. Similar to horizontal staggered bicycle parking, a vertical offset between adjacent bicycles should be 0.25-0.35 metres to allow for handlebar clearance.

The width requirement should not be reduced if the bicycle parking is intended for a use that would require more space (e.g., outside of a shopping area where a bicycle may be loaded with goods). Additionally, if access is required between adjacent bicycles (e.g., to engage the rack locking mechanism), the width requirements should not be reduced.

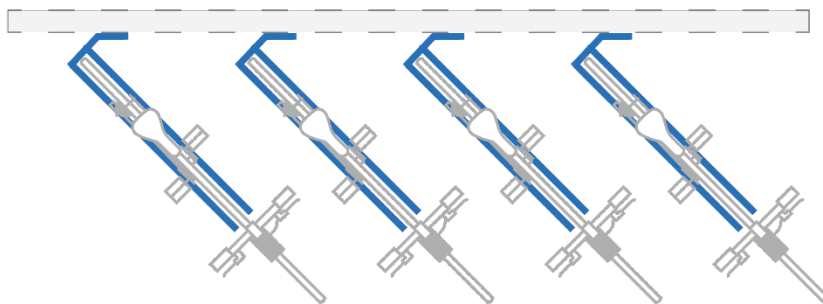


Figure 5 Example of Angled Bicycle Parking



Figure 6 Example of Staggered (Horizontal) Bicycle Parking

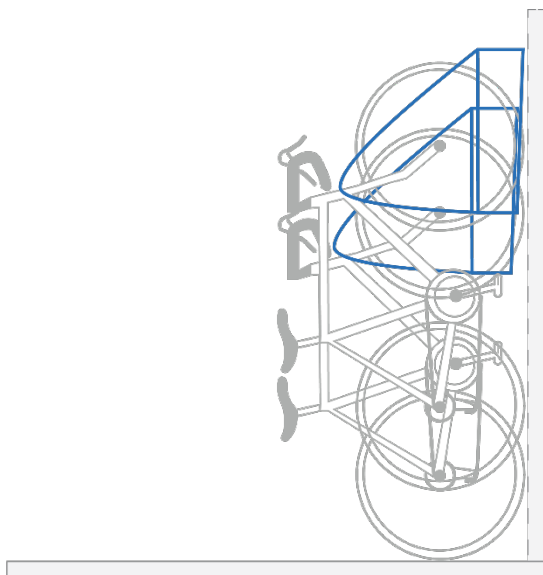


Figure 7 Example of Staggered Vertical Bicycle Parking

For racks that hold 2 bicycles (e.g., Figure 8), the minimum distance from the rack to a nearby object is recommended as following, where the distance should be measured from the centre of rack:

- (i) To a wall, curb, or other obstacle (not including another bicycle rack), as shown in Figure 9:
 - a. Minimum 1.5 metres for racks perpendicular to a wall or other obstacle
 - b. Minimum 0.7 metres for racks parallel to a wall or other obstacle
- (ii) To another bicycle rack, as shown in Figure 10:
 - a. Minimum 2.5 metres for racks both parallel to a wall or other obstacle (3.5 metres preferred in areas with high bicycle parking turnover)
 - b. Minimum 1.0 metre for racks both perpendicular to a wall or other obstacle



Figure 8 Post and Ring¹

¹ [“Toronto Bike Locks”](#) by Steve Jones Photos is licensed under CC BY-NC-ND 2.0

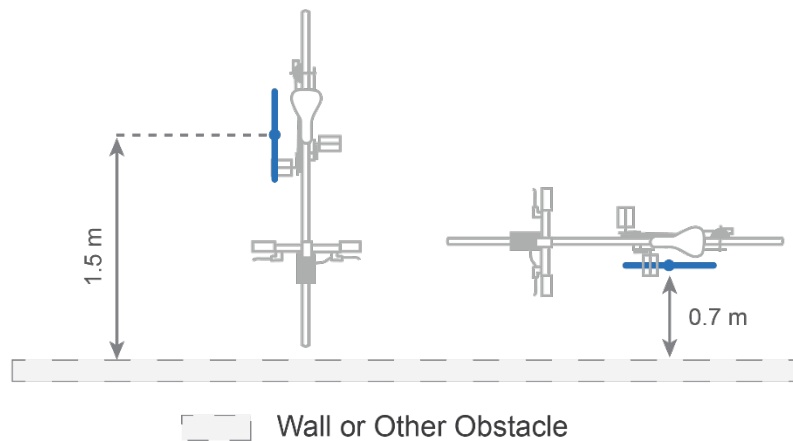


Figure 9 Minimum Distance from a 2-Bike Rack to a Wall

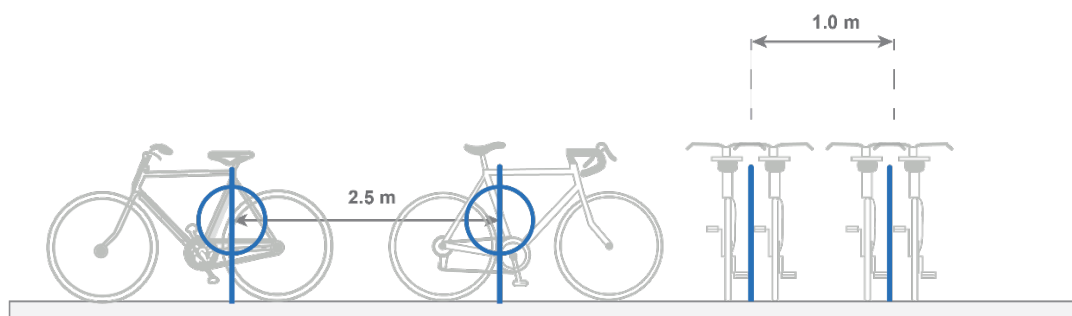


Figure 10 Minimum Distance from a 2-Bike Rack to Another Rack

For racks that hold more than 2 bicycles (e.g., Figure 11), the minimum distance from the rack to a nearby object is recommended as following, where the distance should be measured from the far end of the rack:

- (i) Distance from the rack to a wall or other obstacle, as shown in Figure 12:
 - a. Minimum 0.45 metres if bicycles are parked parallel to a wall or other obstacle
 - b. Minimum 2.5 metres if bicycles are parked perpendicular to a wall or other obstacle and rack has double-sided access

- c. Minimum 0.6 metres if bicycles are parked perpendicular to a wall or other obstacle and rack has single-sided access (side facing wall would not accommodate bicycles)
- (ii) Aisle width for parallel racks, as shown in Figure 13:
 - a. 1.8 metres for a single-tier bicycle rack
 - b. 2.5 metres for a multi-tier bicycle rack (e.g., stacked bicycle parking spaces) or oversized bicycle parking spaces
- (iii) Space between rack ends for a linear series of racks placed end to end, as shown Figure 14:
 - a. 0.9 metres for maximum parking capacity



Figure 11 Multi-bike Rack²

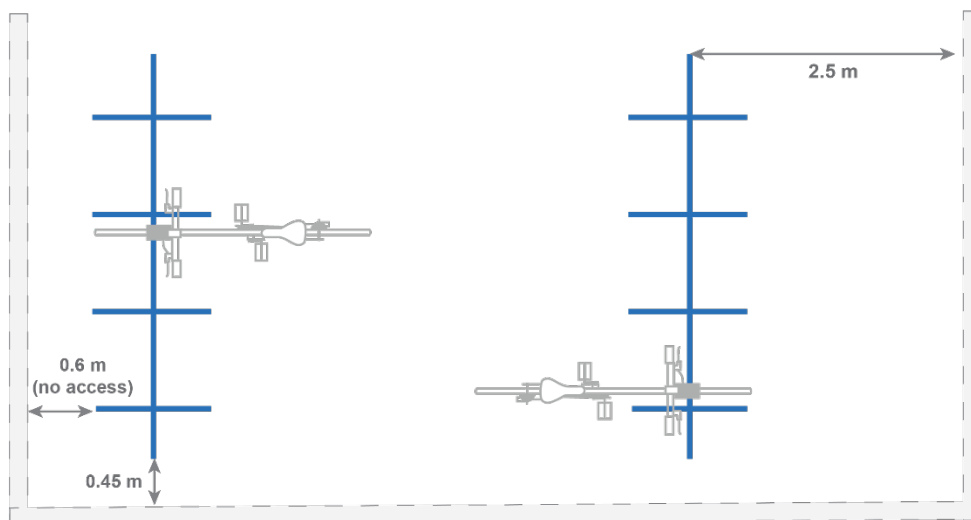


Figure 12 Minimum Distance from a Multi-bike Rack to a Wall or Other Obstacle

² “Where to lock it” by Toronto Metropolitan University

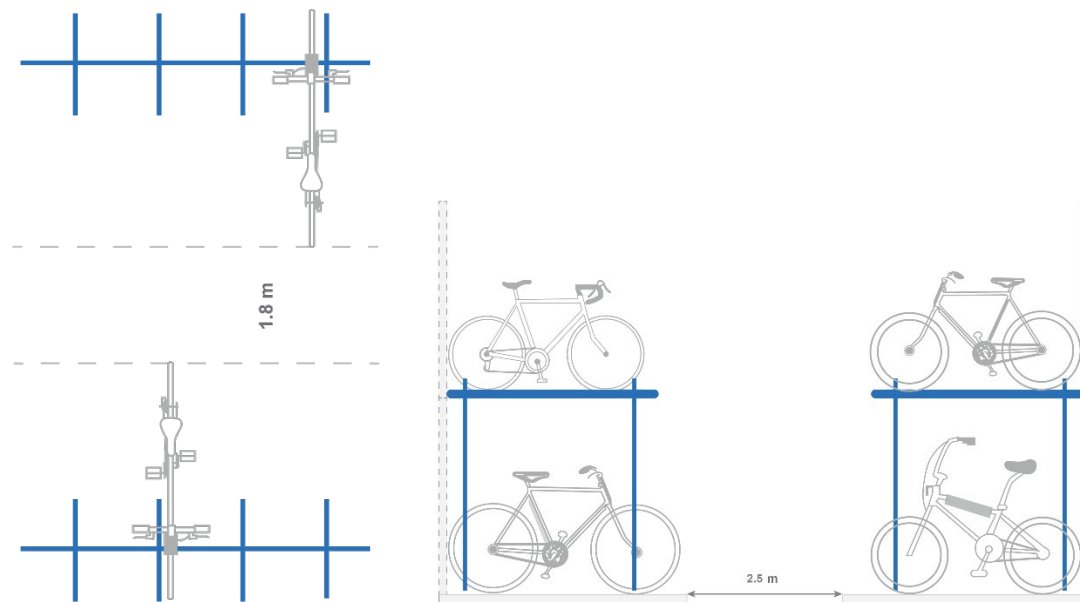


Figure 13 Minimum Aisle Width for Parallel Racks

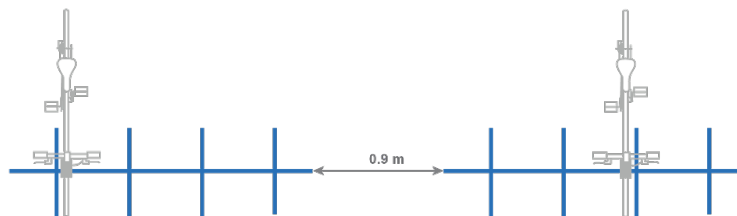


Figure 14 Minimum Distance between Rack Ends for a Linear Series of Racks Placed End to End

In addition to conventional bicycles, extra-large space should be provided for oversized bicycles (e.g., cargo bikes, adaptive bikes, fat-tire bikes). An oversize bicycle parking space should have a minimum length of 2.4 metres, a minimum width of 1.0 metre, and a minimum vertical clearance of 1.9 metres (Figure 15). Spaces for oversized bicycles should not be stacked or in a vertical position.

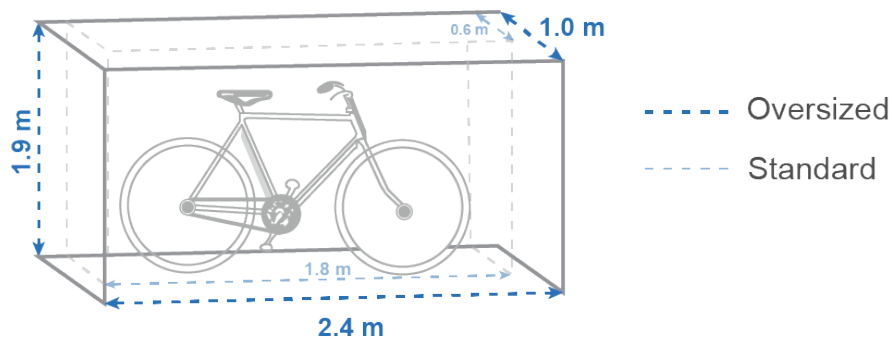


Figure 15 Minimum Dimensions of an Oversized Bicycle Parking Space

Decisions on the placement and spacing of all bicycle parking racks must include consideration for pedestrian movement. Bicycle racks should never be placed in a way that will interfere with pedestrian access to or from the bicycle parking facility or other pedestrian destinations on-site.

2.4.3 Indoor Parking Area

Indoor bicycle parking can be provided as a dedicated room or a designated parking area inside the building. The best design for indoor bicycle parking is a secured and well-lit bicycle room that can be easily accessed from the street level and restricted to the designated users only. The following features should be considered for the design of indoor bicycle parking:

- (i) Proximity to entrance: Bicycle parking should be accessible from the street level. The preferred location of indoor bicycle parking is the ground level. If space is limited on the ground level, indoor bicycle parking can also be located on the second storey of the building or on levels of the building below-ground commencing with the first level below-ground and moving down, which can be complemented by a bicycle-friendly ramp or elevator. Interactions between bicycles and automobiles in the parking garage should be minimized. Zoning by-law 569-2013 requires short-term bicycle parking spaces to be no more than 30 metres from a pedestrian entrance to the building for buildings in the following zone categories:
 - a. Residential Zone [Reg. 230.10.1.20(2)]
 - b. Residential Apartment Zone [Reg. 230.20.1.20(2)]
 - c. Commercial Zone [Reg. 230.30.1.20(2)]
 - d. Commercial Residential Zone [Reg. 230.40.1.20(2)]
 - e. Commercial Residential Employment Zone [Reg. 230.50.1.20(2)]
 - f. Employment Zone [Reg. 230.60.1.20(1)]
 - g. Institutional Zone [Reg. 230.80.1.20(2)]

- (ii) **Controlled access:** Access to indoor bicycle parking areas should be restricted to the designated users only. A lockable room is preferred for long-term bicycle parking spaces since it can be combined with security systems (e.g., keys, cameras) to minimum the risk of bicycles being stolen. If short-term bicycle parking spaces are provided in a secured bicycle room, the design of its security system must consider the difference between a short-term user's access to a building (e.g., visitor) and a long-term user's (e.g., resident).
- (iii) **Capacity:** For large developments where a large number of bicycle parking spaces are required, providing several small bicycle parking rooms with separate access controls can improve security by giving fewer people access to each bicycle room.
- (iv) **Space:** Adequate space should be provided between bicycles to avoid interference and facilitate locking. Extra-large parking spaces should be provided to accommodate a variety of bicycle sizes, styles, and attachments (e.g., cargo bikes, adaptive bikes, bikes with trailers for kids or grocery). **As required by the Zoning By-law, at least 5% of the long-term bicycle parking spaces should be oversized spaces and not be stacked or in a vertical position.** Special rack design can be used to prevent conventional bikes from using the oversized spaces, such as a low bar for locking cargo bikes (Figure 16) or a ground anchor for using chain locks (Figure 17).
- (v) **Access and path:** When bicycle parking spaces are located inside a building, a bicycle-friendly path should be provided for cyclists to travel between the bicycle parking area and the streets. This includes, but is not limited to, a bike elevator or a dedicated bike ramp (a maximum slope of 7%), **a passageway or hallway with adequate width (e.g., minimum requirement in the Zoning By-law is 1.8 metres but a width of 3.0 metres is preferred for two-way bicycle traffic),** a reduced number of doors along the path, automatic door openers, and markings of directional arrows for bicycle traffic. All doors used to access bicycle parking areas should have a minimum swing angle of 90 degrees, except for sliding doors. Additional door width may be required to accommodate the use of extra-large bikes, especially where oversized bicycle parking spaces are provided. In addition to the path between the bicycle parking area and the streets, it is also important to provide a direct and convenient for the bicycle users to travel between the bicycle parking area and their residential/rental units.
- (vi) **Lighting:** The bicycle parking room/area and the path to it should be well-lit to ensure safety and accessibility for the users.
- (vii) **Maintenance facilities:** Reserving an area in the bicycle parking room for self-serve bicycle repair and maintenance increases the usefulness of the facility. Zoning by-law 569-2013 defines "bicycle maintenance facilities" as "an area for bicycle repairs and maintenance which may include work space, a repair stand and an air pump for inflating bicycle tires". The provision of bicycle maintenance facilities is required for a building with 5 or more long-term bicycle parking spaces [Reg. 230.5.1.10(12)]. For the developments with a large number of bicycle parking spaces, adding a wash station to the bicycle maintenance facilities can improve the cleanliness of the bicycle parking area, prolong the lifespan of bicycle components, and attract more users.
- (viii) **Shower and change facilities:** For non-residential buildings, the shower and change facilities are important for the cyclists who have a long commute or who

are required to observe a professional dress code. The distance between shower facilities and long-term bicycle parking should be minimized. If there is limited room for a dedicated shower and change facility in the bicycle parking area, alternative arrangements can be made to share other shower facilities on-site (e.g., in a fitness centre), provided the size and proximity is appropriate. The overall capacity of shower and change facilities should reflect the amount of long-term bicycle parking on-site. **Zoning By-law 569-2013 requires a building having uses, other than dwelling units or transit stations, to provide shower and change facilities if 5 or more long-term bicycle parking spaces are required (or if any long-term bicycle parking space is required for Education Use, Post-Secondary School, Private School, Public School, or Hospitals) [Reg. 230.5.1.10(7)].**



Figure 16 Example of Low Bars for Locking Cargo Bikes³

³ [“Cargo Bike Parklet in London - Hackney”](#) by Meristem Design



Figure 17 Example of Ground Anchor for Bike Locking⁴

2.4.4 Outdoor Parking Area

Outdoor bicycle parking can be provided in the form of stand-alone racks or a designated parking area outside the building. The best design for outdoor bicycle parking is to be weather protected and located near the main building entrance. The following features should be considered for the design of outdoor bicycle parking:

- (i) Proximity to entrance: Bicycle parking should be located as close to the building entrance as possible, which ensures high visibility for cyclists and improves bicycle security with staff and pedestrian surveillance. Regardless of being indoor or outdoor, Zoning by-law 569-2013 requires short-term bicycle parking spaces to be no more than 30 metres from a pedestrian entrance to the building for buildings in the zone categories listed in Section 2.4.3.
- (ii) Access: Outdoor spaces are commonly used for short-term bicycle parking, where the bicycle racks should be easily detectable and available for public use. Although bicycle racks can be designed to match the architectural style of a building, the functionality of a bicycle rack should take precedent over appearance to ensure its detectability and user-friendliness.
- (iii) Capacity: For the locations with a lower turnover rate (e.g., short-term bicycle parking outside a terminal station), sufficient bicycle racks should be provided to ensure there is bicycle parking available throughout the day.
- (iv) Space: Adequate space should be provided between bicycles to minimize interference and facilitate locking. Considering the purposes of destinations, extra-large spaces should be provided to accommodate a variety of bicycle styles and attachments (e.g., cargo bike parking at a grocery store, bikes with trailers

⁴ [“Torc Ground Anchor review”](#) by Warren Rossiter

for toddlers at a daycare centre, bicycle parking for delivery at a residential tower). Examples of extra-large bikes are shown in Figure 18.

- (v) Weather protection: Coverings should be provided for outdoor bicycle parking spaces to protect racks and bicycles from rain, snow, or accidental damage for a prolonged lifespan. This also provides the protection for cyclists when engaging the rack locking mechanism.
- (vi) Racks: Bicycle racks should be made of high-quality materials to avoid rusting or cracking, prevent them from scratching bicycle frames, and protect bicycles from thieves. There should be at least two points of contact between the bicycle and the rack, which allows both the frame and at least one wheel to lock to the rack and supports the bicycle.



Figure 18 Examples of Extra-large Bikes⁵

2.4.5 Bicycle Lockers

Bicycle lockers can be individual storage units (e.g., Figure 19) or a storage unit for multiple bicycles (e.g., Figure 20). They are weather-protected, enclosed, and operated by a controlled access system that may use keys, swipe cards, key fobs, or an electronic keypad located on a locker door. Some locker systems are set up for multiple users (e.g., coin operated or secured with personal locks). On average, two typical vehicle parking spaces (of 5.6 metres by 2.6 metres each) can accommodate 10 bicycle parking spaces (using five individual bicycle lockers) or 12 bicycle parking spaces (using two multi-bicycle lockers), though this may vary depending on the locker model.

⁵ [“Urban cycling initiatives lead to liveable cities”](#) by Niels Hoé, HOE360



Figure 19 Example of Individual Bicycle Lockers⁶



Figure 20 Example of Multi-bicycle Lockers⁷

There are several bicycle locker designs available. Costs and quality of design may vary considerably. Security and durability are important criteria to consider when selecting a bicycle locker. Integrated solar panels have been included on certain models for recharging electric bicycles. Options for user access can vary from a simple, single-use key system to a multi-user system that allows secure access through smart card technology or electronic keypads.

Individual bicycle lockers are primarily used as long-term bicycle parking spaces. These are best placed away from sidewalks and areas with high pedestrian traffic. They are preferred to be located close to building entrances if placed on the ground level, or within range of security surveillance if placed on the second level or the first below-

⁶ ["Bicycle Parking"](#) by City of Toronto

⁷ ["Bike Link bicycle lockers at the Murray station"](#) by An Errant Knight is licensed under CC-BY-SA-4.0

ground level. Transparent panels are available on select models to allow surveillance of locker contents (e.g., Figure 21).



Figure 21 Example of Individual Lockers with Transparent Panels⁸

Multi-bicycle lockers are primarily used as short-term bicycle parking spaces. These can be placed in a curb lane that allows for vehicle parking (e.g., Figure 22). A multi-bicycle locker should not only restrict the shared access to a selected number of users with its security system (e.g., a keypad on the locker door) but also support individual users securing their bike to built-in racks inside (e.g., by securing the bicycle to the rack with one's own lock).



Figure 22 Example of Multi-bicycle Locker on a Curb Lane⁹

The implementation of bicycle lockers typically require a level surface and adequate clearance for the opening of locker doors. Hard surfaces, such as concrete or stone, are preferred but requirements may vary for different locker models. Anchor bolts are used

⁸ [“ProPark View-Thru”](#) by CycleSafe

⁹ [“Bikehangar”](#) by Cyclehoop

to fix lockers into place. High quality, durable models that can withstand regular use, intense weather conditions and potential vandalism should be used.

2.4.6 Bicycle Cage

Bicycle cages are enclosed spaces for bicycle storage, which can be individual storage units (e.g., Figure 23) or storage rooms for multiple bicycles (e.g., Figure 24). They can be used for both indoor and outdoor bicycle parking, while a weather-protection roof should be included for outdoor parking. A controlled access system should be equipped with bicycle cages to restrict the access to an individual user or multiple designated users.



Figure 23 Example of Individual Bicycle Cage¹⁰

¹⁰ "[American Fork Station bicycle lockers](#)" by An Errant Knight is licensed under CC-BY-SA-4.0



Figure 24 Example of A Multi-bicycle Cage¹¹

Walls of bicycle cages should be made of tight, strong mesh or perforated metal sheets to prevent attempts to cut through the cage or to reach through and trip the door latch or inside handle. Cage doors and roof should fit tightly against the cage walls. Both the cage itself and bicycle racks inside it must be firmly secured to the ground, floor, or wall. Access must comply with the Ontario Building Code.

For security purposes, smaller cages are preferred in order to limit the number of people with access to any one cage. For instance, scattered multi-bicycle cages may be preferable for providing indoor bicycle parking at large developments, since it reduces an individual user's access to other bicycles as well as averages the distance between bicycle parking and different building entrances.

2.4.7 Emerging Technologies

With an increasing demand of using bicycles as an alternative to automobiles, new innovations and technologies continue to emerge for personal and commercial use. In contrast to conventional bikes, new types of bicycles may require special consideration for storage and parking. A few examples are:

- Cargo bikes
 - An oversized parking space is required
 - May require different locking mechanisms than conventional bikes
 - Bike ramps on staircases are typically too steep or too narrow
- Adaptive bikes
 - An oversized parking space is required, and priority should be granted

¹¹ "[Bike Cage @ MIT](#)" by Prayitno Photography is licensed under CC BY 2.0

- May require different locking mechanisms than conventional bikes
- Bike ramps on staircases are typically too steep or too narrow
- Price is generally higher thus additional security may be required for theft prevention
- Electric bikes
 - An oversized parking space may be needed
 - Bike ramps on staircases may not work, depending on tire width and attachments
 - Energized outlets may be needed for non-removable batteries and extra space may be required to connect a bike charger to the outlet; however, the risk of lithium-ion battery fire and their implications must be taken into consideration

2.4.8 Transit Stations

Bicycle parking should be provided at transit stations to promote cycling to transit and further develop the integrated multi-modal transportation system. The capacity of bicycle parking should be estimated based on the forecast ridership and access mode shares. As required by Zoning By-law 569-2013, short-term bicycle parking must be provided at a heavy rail transit station and long-term bicycle parking must be also provided if it is an interchange or terminal station. Bicycle maintenance facilities must be provided on the same lot with the required minimum dimensions.

Bicycle parking at transit stations should be located at grade and placed in a highly visible area. Where feasible, it should be placed within 30 metres of the station entrance (e.g., an underground subway station's entrance on the street) or within 50 metres of the platform (e.g., an at-grade outdoor train platform). Outdoor bicycle parking spaces should be provided with weather protection to protect cyclists and bicycles, and indoor bicycle parking should be equipped with lighting to ensure safety and security.

Considering that transit stations often have multiple entrances and a mix of transportation modes (e.g., walking, buses, pick-up/drop-off), it is important to place clear signage to guide bicycle users to parking areas, and to put markings on the ground or walls to alert other users of bicycle traffic. It is preferred to provide short-term bicycle parking close to each entrance, particularly near entrances that are accessible via cycling routes included in the City's Cycling Network Plan¹².

Other design aspects of bicycle parking areas at transit stations should follow the recommendations in Section 2.4.3 and Section 2.4.4, such as space, access, path, lighting, and weather protection.

2.5 Site Design

In addition to providing quality bicycle parking facilities, the following site elements and features can be included in the design of a site to create a bicycle-friendly environment and increase usage of bicycle parking facilities.

¹² <https://www.toronto.ca/services-payments/streets-parking-transportation/cycling-in-toronto/cycling-pedestrian-projects/cycling-network-plan/>

2.5.1 Accessibility

Design strategies to enhance the accessibility of bicycle parking range from simple details like providing level access to outdoor bicycle racks from a street, to more complicated designs like incorporating a separate, access controlled, dedicated bicycle ramp into an underground bicycle parking facility.

Where possible, a site plan that includes stairways to the indoor parking or storage area should also include an alternative bicycle-friendly route for bicycles (e.g., a dedicated bike ramp as shown in Figure 25, or a bike elevator as shown in Figure 26). The slope of a bike ramp should be lower than that of a vehicle ramp (i.e., no more than 7%). This will prevent cyclists from having to carry bicycles up and down stairs as well as reduce safety concerns from sharing steep ramps with vehicles.

Stairway ramps (e.g., Figure 27) should be used only as a last resort since the channel may not fit all sizes of bicycle wheels or accommodate bicycles with attachments. If a stairway ramp is implemented, the bicycle wheel channel should be set away from the wall to allow sufficient clearance for the handlebars, providing enough space for cyclists to move bicycles without obstacles.



Figure 25 Example of a Dedicated Bike Ramp for Bicycle Parking¹³

¹³ ["This Dutch City Opened the World's Biggest Bike-Parking Garage"](#), CU2030 / Cropped from original



Figure 26 Example of a Bike Elevator¹⁴

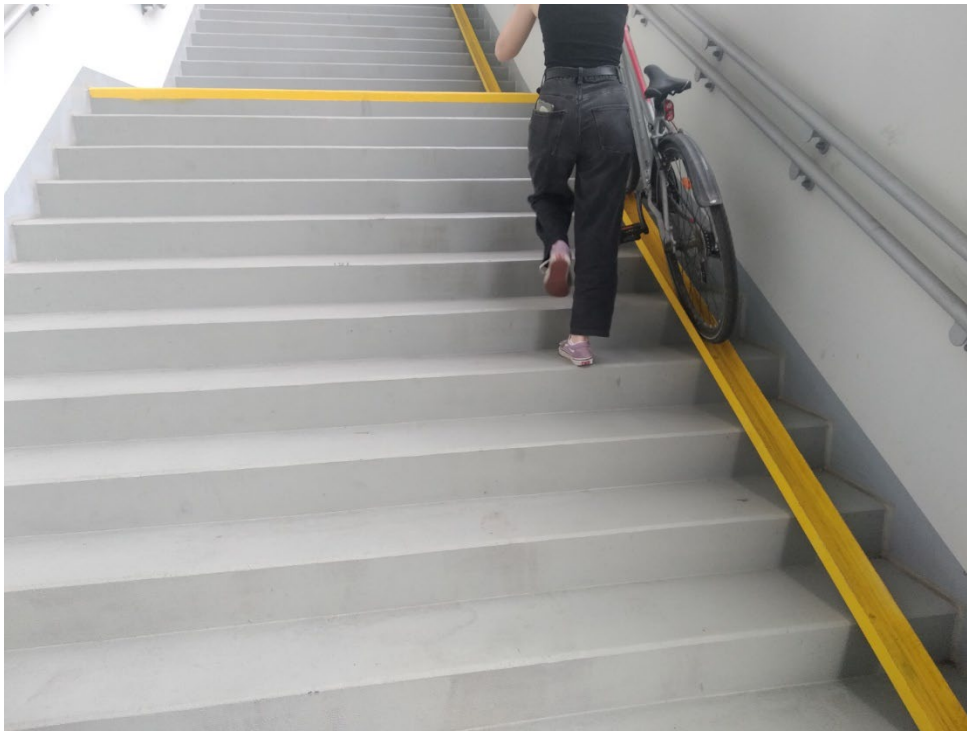


Figure 27 Example of Stairway Ramps¹⁵

For larger developments, on-site bicycle movement should be an important consideration. Dedicated bicycle paths or shared lane markings on vehicle paths could be implemented to accommodate cyclists crossing large parking lots or otherwise traveling on-site. Either the dedicated path or the shared lane should be unobstructed and extend to the edge of the property. The width of a two-way bicycle path should be at least 3.0 metres (3.6 metres is preferred), and it should be separated and clearly marked.

¹⁴ [“World's largest condo bike amenity to be built into Metro Vancouver's future tallest tower”](#) by Kenneth Chan

¹⁵ [“A bike ramp in Poland”](#) by Mateusz Konieczny is licensed by CC0 1.0

It is equally important to ensure that bicycle parking facilities is located so that it does not conflict with access to the site by other transportation modes. Pedestrian access, especially for people who are visually impaired or use mobility aids (e.g., walkers, wheelchairs), must not be hindered by bicycle racks. Bicycle racks should also be located in areas which help minimize interactions between automobiles and bicycles. Larger infrastructure, such as bicycle lockers or cages, can potentially create blind spots and block lines of sight; therefore, it should be installed in such a way as to mitigate or minimize these concerns.

2.5.2 Convenience

Installing short-term bicycle parking spaces in a convenient location and close to building entrances will help to prevent unwanted parking against other street elements, such as trees, wheelchair ramps, utility poles or railings. Buildings with more than one entrance should consider providing bicycle parking close to each entrance and particularly near entrances that are accessible via cycling routes included in the City's Cycling Network Plan¹⁶. Whenever possible, indoor parking facilities should allow 24-hour secure access.

Incorporating the use of signage that is clear and simple to read and understand will help cyclists locate bicycle parking and indicate to pedestrians and motorists that they should expect bicycle traffic on site. Examples of such signage include well-placed symbols, directional arrows, and pavement markers.

2.5.3 Safety and Security

Bicycle parking facility design should maximize safety and security to cyclists and their property. Various strategies can be used to accomplish this, including but not limited to:

- Installing security cameras in bicycle parking areas and along access paths
- Installing appropriate lighting and convex mirrors to minimize blind spots and dark corners
- Locating bicycle parking within view of parking lot attendants, building security, or in a busy area close to other public amenities
- Locating bicycle parking close to building entrances
- Establishing dedicated building entrances and paths for cyclists
- Restricting bicycle parking access to the designated users only
- Installing a “panic button” in bicycle parking areas that would provide a direct line to building security in the event of an emergency

3 BICYCLE PARKING FACILITIES IN THE PUBLIC RIGHT-OF-WAY

Bicycle parking provision on-site on private property is regulated by Zoning by-law 569-2013. However, there are instances where bicycle parking may be provided in the public right-of-way (e.g., on the sidewalk). In these instances, the bicycle parking must comply

¹⁶ <https://www.toronto.ca/services-payments/streets-parking-transportation/cycling-in-toronto/cycling-pedestrian-projects/cycling-network-plan/>

with City standards and guidelines for all street furniture and must be installed by City staff.

3.1 New Developments

Developers may propose bicycle parking on the public right-of-way as part of their designs to provide a higher level of accessibility, security, and convenience for the residents and visitors. These bicycle parking spaces cannot be used to satisfy the requirements of the Zoning By-law. If no bicycle parking is provided on the public right-of-way when a development is constructed, building residents may contact the City and request its installation. As the City continues to promote sustainable transportation and to improve cycling infrastructure, there has been a significant increase in requests for bicycle parking on the public right-of-way.

For any requested bicycle parking facility on the public right-of-way, its number, location, and arrangement will primarily be determined through the development approval process in accordance with the relevant by-laws and guidelines. Transportation Services will provide and install post-and-ring bicycle racks at the developer's expense. Payment of the associated fee becomes one of the conditions of obtaining the building permit. A fee of \$433.92 per bicycle post (in 2024 dollars, subjected to inflationary increase) is applicable, which should be paid at the time when an application to Transportation Services is submitted.

If a request is made by the public (e.g., after the completion of development), Transportation Services will perform site inspections to determine if the suggested location is suitable. All new locations suggested by the public will be considered; however, the City reserves the right to vet all submissions. Stands which are approved are installed free of charge. Details on making a request for bicycle parking on the public right-of-way can be found on the City's website¹⁷.

3.2 Bicycle Rack Placement and Design

The placement and design of all street furniture in the public right-of-way is conditioned by City of Toronto's by-laws, guidelines and contractual agreements. Any bicycle racks that are to be placed in the sidewalk are subject to applicable street right-of-way by-laws. The following documents must also be consulted:

- Toronto Accessibility Design Guidelines¹⁸
- City of Toronto Streetscape Manual¹⁹
- City of Toronto Vibrant Streets Guidelines²⁰
- Toronto Complete Streets Guidelines (draft)²¹

¹⁷ <https://www.toronto.ca/services-payments/streets-parking-transportation/cycling-in-toronto/bicycle-parking/>

¹⁸ <https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/design-guidelines/toronto-accessibility-design-guidelines/>

¹⁹ <https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/design-guidelines/streetscape-manual/>

²⁰ <https://www.toronto.ca/services-payments/streets-parking-transportation/enhancing-our-streets-and-public-realm/street-furniture/furniture-design-and-placement/>

²¹ <https://www.toronto.ca/services-payments/streets-parking-transportation/enhancing-our-streets-and-public-realm/complete-streets/complete-streets-guidelines/>

Criteria for the location of street furniture have been developed by Toronto's Coordinated Street Furniture Program and listed in the Vibrant Streets Guidelines. All street furniture in the public right-of-way, including bicycle racks, must satisfy the following placement goals:

- To establish and maintain a distinct, linear pedestrian clearway
- Furniture size to be responsive to width of pedestrian clearway
- For quantity of furnishings to reflect the use patterns and placement opportunities
- For sidewalks and street furniture to be accessible to all users
- To maintain sight lines at intersections
- To respond to surrounding architecture and open space
- To respond to specific site conditions

The Complete Streets Guidelines outlines a refined approach for street design that considers different and competing roles. To ensure the streets safely accommodate all users and enhance local neighbourhood context and character, bicycle parking in the public right-of-way should follow these guidelines:

- Bicycle parking should be considered on every street type
- Bicycle parking is especially important on Main Streets and near common destinations, such as in institutional, mixed-use, and commercial areas.
- Bicycle parking may be seasonal or permanent depending on context and demand.
- Bicycle parking, including the parked bicycles, must not obstruct the pedestrian clearway.
- The space needed to access bicycles while being locked or unlocked should be taken into consideration.

4 MANAGEMENT AND OPERATIONS OF BICYCLE PARKING FACILITIES

In addition to good quality bicycle parking facilities, there are a number of operational and management strategies that will ensure successful use of the facilities provided.

4.1 Bicycle Parking Area Management

Well-managed bicycle parking areas that are in good condition and appear clean and well cared for will be more secure. This can be accomplished by:

- Removing abandoned and derelict bicycles (if possible, storing these bicycles in a designated secure area for a period of time before permanently removing them)
- Keeping the area and access route free from garbage, snow, dirt, and other debris
- When appropriate, providing parking for bicycle couriers in convenient locations (e.g., install post-and-ring racks near the entrance to lobby or concierge) as a valuable additional feature to other short-term parking facilities
- Regular security surveillance through monitored security cameras and periodic foot patrols by security guards to discourage theft and vandalism

- Restricting access to bicycle parking areas to registered bicycle owners by using security card systems, passcode door locks, or non-duplicable keys
- Repairing or replacing damaged bicycle racks in a timely fashion
- Providing a direct line to building security for entry requests and emergency help
- Monitoring and regulating users with the aid of registration systems
- Establishing signage and enforcement to prevent misuse of bicycle parking areas
- Incorporating devices that can detect cyclists into the use of automatic access control mechanisms on parking garage entrances and exits (e.g., security access devices and detectors)
- Monitoring the use of bicycle lockers or individual cages with the aid of registration systems and performing repairs and replacement in a timely manner for damaged or malfunctioning parts

4.2 Bicycle-Friendly Environment and Retrofitting

A bicycle-friendly environment at a building will promote bicycle use, attract more users, and optimize the utilization of bicycle parking facilities. This can be accomplished by considering the management and operation of building amenities, shared spaces, and other systems from a bicycle user's perspective. For instance, the storage of bicycles in a residential or rental unit should be allowed, if it meets the requirements of the provincial Building Code and Fire Code. Rules and regulations that create barriers for bicycle use (e.g., no bicycles in the lobby or elevator) are discouraged and practices which accommodate and support needs of bicycle users and other residents/tenants (e.g., waterproof mats for bicycles in the lobby) are encouraged.

Retrofitting buildings for bicycle parking facilities should be considered for those with outdated or insufficient bicycle parking, especially buildings with an increasing demand for bicycle use. This includes, but is not limited to:

- Providing additional bicycle racks to accommodate different types of bicycles and attachments (e.g., adding wide-tray racks for large-tire bicycles)
- Moving bicycle parking spaces to a preferred location (e.g., moving short-term bicycle parking closer to building entrance, relocating long-term bicycle parking to a secured room)
- Converting an underutilized storage room to a secured bicycle room
- Restricting access to bicycle parking areas to registered bicycle owners (e.g., using a registration system, adding door locks with passcode or key access)
- Installing security cameras in bicycle parking areas and along access paths
- Replacing inadequate bicycle racks (e.g., unstable, unfixed, rusted, narrow spacing)
- Adding weather protection to outdoor bicycle parking spaces
- Attaching devices that can detect cyclists to the access control system of parking garages (e.g., adding the detector for cyclists on vehicle parking garage doors)
- Installing lighting and convex mirrors to minimize dark corners and blind spots
- Adding bicycle maintenance facilities (e.g., repair stands, air pumps)
- Adding wayfinding signage and surface markings
- Providing notice to residents and/or tenants of the bicycle parking upgrades

4.3 Incentives to Encourage Bicycle Use

Economic incentives are often the most effective means of encouraging a change in routine. Examples of incentive programs for promoting bicycle use are:

- Parking cash out: In buildings where tenants, employees or other users are offered subsidized parking, those who use non-automobile modes (e.g., cycling, walking, taking transit, or combined) could be provided with the cash equivalent since they do not require the use of an automobile parking space. This could take the form of a travel allowance to be used for the purchase of bicycles, cycling related equipment, or transit tickets.
- Business travel reimbursements: Employers who reimburse employees for automobile mileage for business trips could also reimburse employees for cycling mileage, when cycling is comparable to driving in the amount of travel time.
- Reward incentives: Providing cyclists with end of year gift certificates to bicycle shops. In exchange for publicity, some bicycle manufacturers have been known to donate bicycles or provide them at low cost.
- Valet parking: Providing valet services for bicycle parking at appropriate locations.
- Hosting cycling-themed functions for employees, company teams for charity rides or bicycle races.

5 POLICY CONTEXT

There are several existing City policies that support the development of high-quality bicycle parking infrastructure as a means to promote sustainable transportation modes, encourage city-wide cycling, reduce auto dependency, and support land- and cost-efficient development. This section briefly discusses selected policies and is intended to provide an overview of the City's on-going and future work on improving bicycle parking and promoting cycling as an alternative. The policies cited in this chapter are for information purposes only, since they may have been changed or updated since this Guideline was created.

5.1 Official Plan

The City's Official Plan supports increased bicycle use through a variety of policies²². Among these policies are specific provisions for bicycle parking in new developments as well as the reduction of auto dependency.

The Official Plan sets out policies for the development of guidelines, programs and infrastructure to create a safe, comfortable and bicycle-friendly environment that encourages people of all ages, abilities and means to bicycle for everyday transportation, recreation and commercial activity and supports the growth objectives of the Plan. This includes not only the expansion and improvement of the Cycling Network but also the provision of convenient high-quality short-term and long-term bicycle parking facilities at key locations throughout the City, which can be achieved by:

²² <https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/official-plan/chapters-1-5/>

- Establishing requirements for short-term and long-term bicycle parking spaces in new developments, including higher-order transit stations;
- Encouraging retrofitting of existing buildings and facilities, particularly workplaces, schools and higher-order transit stations, to incorporate additional long-term and short-term bicycle parking spaces;
- Retrofitting City workplaces and facilities to provide secure bicycle parking;
- Encouraging provided bike parking to be secure and weather protected; and
- Providing community bicycle parking hubs in areas of high bicycle parking demand.

In addition to the facilities for personal bicycles, the Official Plan also contains policies to encourage new developments to include publicly accessible bike share facilities in support of the Travel Demand Management and environmental policies of the Plan.

5.2 Zoning By-law 569-2013

Zoning By-law 569-2013 is a comprehensive, city-wide zoning by-law, made up of zoning regulations that apply to properties across the city²³. Chapter 230 specifies the bicycle parking regulations, which includes but not limited to the following:

- Definition of Bicycle Zones in the City
- Definition of long-term and short-term bicycle parking spaces
- Requirements for long-term bicycle parking spaces to be located in a building
- Minimum requirements for the dimension of a bicycle parking space
- Minimum requirements for the vertical clearance of a bicycle parking area
- Requirements for change and shower facilities
- Requirements for bicycle maintenance facilities
- Minimum bicycle parking space rates
- Details relating to the Payment-in-Lieu of Bicycle Parking program

5.3 Cycling Network Plan

The Cycling Network Plan outlines the City's planned investments in the near-term and intentions for the long-term²⁴, with a mandate to connect the gaps in Toronto's existing cycling network, grow the cycling network into new parts of the city, and renew the existing cycling network routes to improve their quality.

The Plan has three main components:

- The Long-term Cycling Network Vision scores proposed streets for their values to the cycling network using cycling impact analyses. Every street through development applications, area studies, and capital projects should be considered for bikeways and other cycling upgrades.
- The Major City-Wide Cycling Routes are comprised of significant corridors within the City (approximately 500 centreline kilometres in 2021), where high order cycling infrastructure has been installed, or is underway, or planned. These

²³ https://www.toronto.ca/zoning/bylaw_amendments/ZBL_NewProvision_Chapter230.htm

²⁴ <https://www.toronto.ca/services-payments/streets-parking-transportation/cycling-in-toronto/cycling-pedestrian-projects/cycling-network-plan/>

cycling routes support a connected system across the Greater Toronto Area by linking with other cycling routes in neighbouring municipalities. This network complements those identified in broader Provincial and City Plans including the Metrolinx Regional Cycling Network Plan and TOcore.

- The Near-Term Implementation Program is a rolling program where Transportation Services regularly reviews the capital implementation program and every three years brings forward new routes based on the Cycling Network Near-Term Program Prioritization Framework. The current Program (2025-2027) proposes approximately 100 centreline kilometres of new and major upgrade bikeways, 40 centreline kilometres of renew projects, and many studies for future implementation.

5.4 Toronto Green Standard Version 4

The Toronto Green Standard is the City's sustainable design and performance requirements for new private and city-owned developments, which consists of tiers of performance with Tier 1 being mandatory and applied through the planning approval process²⁵. The Toronto Green Standard Version 4 came into effect May 1, 2022 for new planning applications.

To support low emissions transportation and mobility, specific performance measures of cycling infrastructure are mandatory (i.e., Tier 1) for residential apartment buildings with four storeys and higher, and all Industrial, Commercial, and Institutional (ICI) developments. New City Agency-, Corporation- and Division-owned residential and non-residential development projects (including additions) that have gross floor areas greater than 100 square metres are also subject to these performance measures.

The performance measures of cycling infrastructure are as following:

- Bicycle parking spaces and shower and change facilities must be provided in accordance with Chapter 230 of Zoning By-law 569-2013.
- Long-term bicycle parking must be provided in a secure controlled-access bicycle parking facility or purpose-built bicycle locker on the first or second storey of the building or on levels below ground commencing with the first level below ground.
- Short-term bicycle parking must be located in a highly visible and publicly accessible location at-grade or on the first parking level of the building below grade.
- For residential uses in a building, at least 15% of the required long-term bicycle parking spaces, or one parking space, whichever is greater, shall include a 120-volt energized outlet adjacent to the bicycle rack or parking space.
- For all uses within 500m of transit station entrances, provide at least 10 additional publicly accessible, short-term bicycle parking spaces, at-grade on the site or within the public boulevard in addition to bicycle parking required by the Zoning By-law 569-2013. Bicycle parking should be weather protected and secure.

²⁵ <https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/toronto-green-standard/>

5.5 Waterfront Toronto Green Building Requirements Version 3

Waterfront Toronto uses two core documents to ensure delivery of green and resilient communities along the waterfront: the Resilience and Innovation Framework for Sustainability and the Green Building Requirements²⁶. The Resilience and Innovation Framework establishes a vision for how to create lasting social, economic and environmental benefits through waterfront revitalization and sets out the process through which the built, social and natural systems will support a Climate Positive community. To ensure development achieves this vision, all Waterfront Toronto projects must meet the targets advanced by the Green Building Requirements .

The Green Building Requirements Version 3 came into effect in January 2021. It contains a variety of requirements for bicycle infrastructure that intends to promote active commuting as an accessible alternative transportation method, reduce vehicle commuting (especially single-occupant vehicle commuting), support low-emission transportation, encourage daily physical activity and create equity through the provision of facilities that are safe, convenient, and secure. Examples are summarized below:

- Considering the safety and security of cyclists and their property (e.g., monitored parking areas, tamper-proof light fixtures, dedicated cyclist-only entrances)
- Providing a long-term bicycle parking room that is fully enclosed and separated from other vehicle parking (e.g., dedicated bicycle-only secure access points, automatic door operators, panic button, lighting)
- Ensuring long-term bicycle parking located on floors other than the ground floor has easy access to an elevator, or ride-in access through a dedicated ramp separated from vehicular traffic
- Providing at least 5% of the required long-term bicycle parking as oversized spaces to accommodate extra-large bikes, which may not be vertical or stacked
- Ensuring the changeroom and shower facilities meet specific requirements for non-residential building types (e.g., at least 1 storage locker per parking space for 50% of the required long-term bicycle parking spaces)
- Providing adequate space for performing repairs and maintenance of bicycles within the storage facility space
- Ensuring at least 15% of the required long-term bicycle parking spaces are equipped with a 120-volt outlet at a maximum distance of 1.1 metres from the bicycle rack
- Providing electric bicycle parking spaces on the ground with a minimum width of 1.0 metre

5.6 City of Toronto Vibrant Streets Guidelines

The Vibrant Streets Guidelines describes the City's guidelines for the development of a new approach to the design, placement, use, accessibility and maintenance for street furniture. It contains the principles for the placement of street furniture. For instance, when placing street furniture within the public right-of-way, furnishings such as bicycle

²⁶ <https://www.waterfronttoronto.ca/our-purpose/innovation-and-climate-leadership/green-and-resilient-communities>

stands should be placed in a way that is integrated with other furnishing and is accessible to cyclists, while mindful of the pedestrian clearway.

In terms of the detailed guidance for the placement of street furniture, there are general guidelines for all street furniture as well as specific rules for different street furniture elements. The specific guidelines for bicycle parking are listed below:

- Must be affixed to the boulevard
- When oriented parallel to a building face or fence must be at least 0.6 metres from the building or fence, unless intended to serve only one bicycle, in which case they may be as close as 0.3 metres
- When perpendicular to a curb, fence, or building face must be at least 1.2 metres back from the curb, fence, or building wall, and 1.0 metre apart (centre to centre)
- A series of bike stands oriented parallel to the curb should be at least 2.5 metres apart, except on high-volume pedestrian walkways, or streets with high-turnover on-street parking, where a minimum separation of 3.5 metres is preferable
- Must not be located directly in front of an entrance to or exit from a building
- Must not block access to permitted boulevard parking spaces or outdoor cafe areas

5.7 Toronto Complete Streets Guidelines (Draft)

Toronto's Complete Streets Guidelines (Draft) help implement the City's Official Plan vision for complete streets and other city building objectives by outlining a refined approach for street design that considers different and competing roles²⁷. This approach reinforces that streets should safely accommodate all users – pedestrians, cyclists, transit services and motor vehicles – and support and enhance local neighbourhood context and character.

The Complete Streets Guidelines outlines several street design principles for cycling and the one specific for bicycle parking is to supply adequate bicycle parking and Bike Share access ("Support and encourage cycling through Toronto's bike sharing system - Bike Share Toronto, and a convenient and adequate supply of bicycle parking, including multi-unit corrals especially in mixed use, institutional, and commercial areas."). This requires the consideration of seasonal changes in demand for bicycle parking as well as the space needed to access bicycles while being locked or unlocked.

Different street types are associated with distinctive objectives when considering bicycle parking design. For example, Downtown & Centres Main Streets aim to provide generous amounts of public bicycle parking that should be coordinated with bicycle parking provided by any adjacent public spaces and buildings. In contrast, the design objective of bicycle parking on Scenic Streets is to ensure adequate space for pedestrians and cyclists with a physical delineator between pedestrians and cyclists for safety and universal accessibility.

²⁷ <https://www.toronto.ca/services-payments/streets-parking-transportation/enhancing-our-streets-and-public-realm/complete-streets/complete-streets-guidelines/>

6 CONCLUSION

Will be updated.