

City of Vancouver

Bicycle Parking Guidelines



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1. INTRODUCTION

Using this Guide

This guide is intended to provide comprehensive information regarding short and long-term bicycle parking. It addresses the permitting process, design guidelines, bicycle rack specifications, and installation recommendations. This guide is intended to be a resource for new development as well as for property and business owners who want to add bicycle parking on private property or in the public right-of-way.

This guide will serve as a reference document for determining layout and spacing, materials, installation, and overall best practices on short- and long-term bicycle parking.

Chapter 2 provides information on short-term parking, including types of short-term bicycle parking facilities, acceptable bicycle racks, how to request sidewalk bicycle racks, and the permit process for privately installing bicycle racks.

Chapter 3 provides information on long-term parking, including types of long-term bicycle parking facilities, placement guidelines, and best practices for providing long-term bicycle storage for employees and residents.

Chapter 4 includes bicycle rack specifications and examples, placement guidelines, rack material, and information on mounting and installation.

The **Appendix** contains the Vancouver Municipal Code (VMC) Section 20.945.050 on Bicycle Parking Design Standards as well as VMC Section 20.670.040, which includes bicycle parking requirements specific to the Heights District.

Background Information

Guiding Documents

The following documents provide the primary sources and inspiration for this guide.

- Vancouver Municipal Code Section 20.945.050
- Association of Pedestrian and Bicycle Professionals (APBP) *Bicycle Parking Guidelines, 2nd Edition*

Bicycle Parking Classifications

Bicycle parking facilities can be classified as either short-term or long-term. More details on the different types of bicycle parking facilities are provided in Chapters 2 and 3.

- **Short-term bicycle parking facilities** include bicycle parking that is convenient, easily accessible, and within 50 feet of the main entrance to the building for bicycles parked 2 hours or less in one location. Short-term bike parking is normally provided by bicycle racks or corrals.

- **Long-term bicycle parking facilities** include bicycle parking that is lockable and located in a secure location and intended for bicycles parked longer than 2 hours. A secure location is defined as one in which the bicycle parking is clearly visible at all times by employees or residents, or in which the bicycle parking is provided within a lockable room, lockable enclosure, or a bicycle locker.

Table 1: Bicycle Parking Classifications

Classification	Parking Type	Description
Short-Term Bicycle Parking	Bicycle Racks on Public Property	<ul style="list-style-type: none"> – Typically installed by the City of Vancouver – Most commonly located on the sidewalk – Typically unsheltered
	On-Street Bicycle Corrals	<ul style="list-style-type: none"> – Installed by the City of Vancouver – Placed in the roadway, normally in place of a parking space – Contains multiple bicycle racks; located where demand is greater than what can be accommodated on the sidewalk
	Bicycle Racks on Private Property	<ul style="list-style-type: none"> – Installed by private developers, business or property owners – Public and/or private use – Sheltered or unsheltered
Long-Term Bicycle Parking	Bicycle Lockers	<ul style="list-style-type: none"> – Locked enclosure for one bicycle – Utilizes either on-demand key card access or single-user key
	Bicycle Cages	<ul style="list-style-type: none"> – Typically located in a parking garage, although can also be freestanding – Access controlled
	Bicycle Rooms	<ul style="list-style-type: none"> – Typically located within an office or multifamily housing building – Access controlled – May include lockers, changing rooms, and/or showers
	Special Event Bicycle Parking	<ul style="list-style-type: none"> – Setup for large public events – Attendant present on-site for added security – Typically located in enclosed areas with one point of entry

2. SHORT-TERM BICYCLE PARKING

Providing ample short-term bicycle parking is important so when people get to their destination, they have an accessible and secure place to lock their bike. Being unable to do so may prevent some people from using their bike and cause others to have to lock their bike to poles or other undesignated locations, which might block pedestrian access or cause damage to trees or other structures. This chapter provides information on types of short-term bicycle facilities, best practices and the process of requesting or permitting a bicycle rack.



Providing bike parking helps prevent unwanted bike parking scenarios

Types of Short-Term Bicycle Parking

Standard bicycle racks on public property



Bicycle racks at Esther Short Park

- City-owned bicycle racks located in the public right-of-way (ROW) that are installed by the City of Vancouver.
- Businesses and property owners can request to have a standard bicycle rack installed in the ROW near their property. These racks are provided at no cost to the business or property owner and City staff will work with representatives from the business on location selection. Please see “Requesting or Permitting Bicycle Racks” below on process for requesting a City-owned bicycle rack.

Custom bicycle racks on public property



Custom bicycle rack in Vancouver, WA

- Custom bicycle racks that are located in the public ROW may be privately-owned, installed and maintained; in some cases, community members or organizations have donated funding for custom racks and then worked with the City to design and install the racks.
- All privately purchased bicycle racks must go through the permitting process. Please see “Requesting or Permitting Bicycle Racks” below for more information.

Bicycle racks on private property



- Privately-owned, installed and maintained bicycle racks that are located on private property.
- Privately-owned bicycle racks that are located on private property do not require a permit.

- Owners should consult the Bicycle Rack Specifications Section of this document to ensure proper bicycle parking spacing and site design.

Bicycle racks at Clark College
On-street bicycle corrals



Bicycle corral at W 8th & Esther

- City-owned bicycle racks located in the public right-of-way (ROW) that are installed and maintained by the City of Vancouver.
- Contains multiple racks, normally placed in the roadway in place of a vehicle parking space, and are located in areas with greater demand than what can be accommodated on the sidewalk.
- Businesses with a high demand for short-term bicycle parking should contact Shannon Williams for more information and to see if bicycle corrals are feasible at their location. Please see “Requesting or Permitting Bicycle Racks” below for more information.

Best Practices in Short-Term Bicycle Parking

Short-term bicycle parking facilities should be provided in a convenient and well-lit area that is within 50 feet of the main entrance to the building, highly visible, and readily accessible to all users. Short-term bicycle parking should be usable for people of all ages and abilities and adhere to the following best practices:

- A user should not need to travel up or down stairs to reach bike parking facilities;
- All racks should be able to support the bicycle at two points so that the bicycle will not fall;
- All racks should allow a user to lock the bicycle frame and one wheel to the rack with a high security, U-shaped lock;
- Bicycle parking should be visible to the public and ideally visible from within the destination;
- Bicycle parking should be well-lit for use outside of daylight hours and for added security;
- Weather protected bicycle parking makes bicycle transportation more viable for daily and year-round use; and
- Where possible, include some bicycle parking spaces that allows for bicycles with a larger footprint (3' x 10'), such as cargo bikes and bikes with trailers or trail-a-bikes.

Section 4, Bicycle Rack Specifications, Installation Information, and Placement Guidelines, includes examples of acceptable versus non-acceptable rack types and placement guidelines.

Requesting or Permitting Bicycle Racks

Please contact Transportation Planning staff at (360) 487-7947 or TransPlanning@cityofvancouver.us with questions on requesting or permitting bicycle racks, including guidance on site design and/or purchasing a rack.

How to Request a City-Installed Bicycle Rack or Corral in the Public Right-of-Way (ROW)

- The City of Vancouver will provide up to two free bicycle racks on the public sidewalk in front of a business as long as space permits.
- Email your request to Shannon.Williams@cityofvancouver.us, and please include the following information with your request:
 - Name and address of business
 - Requester's name, phone number and email address
 - If the requester is not the property owner, has the property owner given approval? Please provide the name and phone number of the property owner.
 - Please indicate if you are requesting a bicycle rack or an on-street corral
 - How many racks would you like installed?
 - Preferred location of rack (optional)
- Staff will contact the requester to coordinate installation.

Permitting Process for Privately-Installed Bicycle Racks in the ROW

- Developers or businesses who want to install a custom bike rack or who do not want to wait for a City-installed rack will need to submit a Street Use Permit, including a \$28 permit fee.
- Custom bike racks will need to be approved by the City of Vancouver.
- Follow the guidelines in this document to ensure the custom bike rack is an approved rack. Installation guidelines must be followed, and the installation location is subject to City approval.
- Street Use Permit process is as follows:
 - Fill out the [Street Use Permit Application](#) (select Type B);
 - Include a signed and notarized [Hold Harmless Agreement for Long-Term Right-of-Way/Object in City Right-of-Way form](#);
 - Include a dimensional site plan (11" x 17" paper size preferred) that illustrates placement of the bicycle rack and spacing from curb, buildings, street furniture, etc.;
 - Use the placement guidelines in this guide to ensure proper spacing requirements are met
 - Include manufacturer's information for the proposed bicycle rack, including image or sketch of rack with rack dimensions, material, finish, and security bolt type; and
 - Send all information to Shannon Williams at Shannon.Williams@cityofvancouver.us

Bicycle Racks on Private Property

- Bicycle racks are encouraged throughout the community; however, the City is unable to install bicycle racks on private property. All bicycle racks installed on private property must be privately purchased, installed and maintained. Permits are not required.
- It is recommended to use this guide when purchasing a bicycle rack and determining where to place the bicycle rack on private property.

3. LONG-TERM BICYCLE PARKING

Not having a place to adequately store a bicycle for longer periods of time (several hours or longer) may prevent some people from riding their bikes due to security concerns. Long-term bicycle storage should be provided to ensure employees, students, residents, commuters, and others have access to secure bicycle storage options for several hours or longer. Secure long-term bicycle parking is that which is located on-site in a well-lit, convenient and secure location.

A secure location is defined as one in which the bicycle parking is clearly visible at all times from employee work areas or residences, or in which the bicycle parking is provided within an access controlled room, enclosure, or bicycle locker. This chapter provides guidance on the various types of long-term bicycle facilities and best practices in long-term bicycle parking.

Please note that adding long-term bicycle storage may require a Building Permit if it involves certain updates, including but not limited to changes to electrical systems, new framing, or constructing a free-standing building. Visit the City's [Building and Permitting Services website](#) for more information.

Types of Long-Term Bicycle Parking

Bicycle Lockers



BikeLink locker at Main & W 11th

- Bicycle lockers are locked enclosures for one bicycle that utilize either an on-demand key card access or a single-user key.
- Most bicycle lockers are privately owned, installed and maintained, although the City of Vancouver does have multiple bicycle lockers located throughout downtown for public use. Visit www.bikelink.org/map to view bike locker locations.

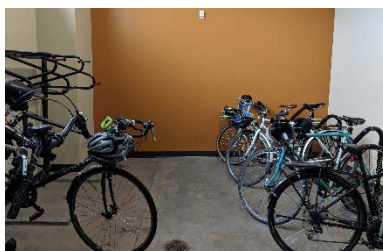
Bicycle Cages



Portland State University Bicycle Cage
Source: Portland State University

- Bicycle cages are typically located in a parking garage, but they can be free standing as well. If the bicycle cage is free-standing, it should be covered and well-lit.
- Access is controlled through an on-demand key card, a single-user key, or code access.

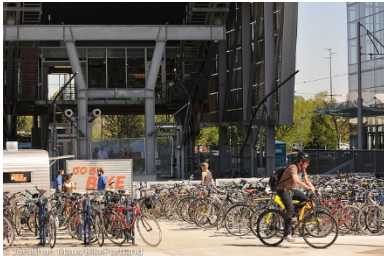
Bicycle Rooms



- Bicycle rooms are typically located within an office or multifamily housing building.
- Access is controlled through an on-demand key card, a single-user key, or code access.

Bicycle room in Vancouver City Hall

Monitored Bicycle Parking



Monitored bike parking valet at OHSU
Source: J. Maus/BikePortland

- Bicycle rooms may include lockers, changing rooms, and/or showers, especially if primarily used by commuters.
- Temporary monitored bicycle parking may be provided by permanent or temporary bike racks that are set up for large public events to provide active transportation options for attendees.
- Permanent monitored bicycle parking is sometimes used in locations with a large number of bicycle commuters.
- The monitored bicycle parking area is typically located in an enclosed area with one point of entry.
- There should always be an attendant present at the point of entry for security and assistance to those using the bike parking area.
- Monitored bicycle parking can be provided for free or for a fee, depending on the organization providing the bicycle parking.

Best Practices in Long-Term Bicycle Parking

Long-term bicycle parking should be located within an access controlled room or enclosure or in a bicycle locker. Users of long-term bicycle parking generally value security and weather protection that let them park their bikes for several hours or longer without unreasonable concern for loss or damage. Long-term bicycle parking should be usable for people of all ages and abilities and adhere to the following best practices:

- At least some of the spaces should be at ground-level or on the lower rack of a stacked bicycle parking rack;
- Two-tier racks should have lift assistance for upper-tier parking;
- Ensure a pedestrian path of at least 5 feet in width to allow proper access to each space;
- All routes to the bicycle parking location and parking spaces should be well-lit so that it can be used at night;
- Where possible, include bicycle parking that allows for bicycles with a larger footprint (3' x 10'), such as cargo bikes and bikes with trailers or trail-a-bikes;
- Provide access to electrical outlets for at least some of the parking spaces for electric bike charging; and
- Locker rooms and shower facilities are recommended if bike storage is primarily used by commuters

4. BICYCLE RACK SPECIFICATIONS, INSTALLATION INFORMATION & PLACEMENT GUIDELINES

Bicycle Rack Selection

Acceptable bicycle parking will allow the user to lock their bike securely and will support the bicycle frame at two locations. Staple or Inverted “U” bicycle racks are recommended because they meet the basic requirements listed below, although a Hoop and Post-style rack also meets City requirements. All bicycle racks must:

- Support a bicycle frame at two points to keep a locked bicycle in an upright position;
- Have a minimum height of 32 inches;
- Allow the bicycle to be locked with a U-lock through the frame and at least one wheel; and
- Be securely installed with tamper-proof hardware to prevent removal by thieves.

Acceptable Short-Term Bicycle Racks

RACKS FOR ALL APPLICATIONS

When properly designed and installed, these rack styles typically meet all performance criteria and are appropriate for use in nearly any application.

INVERTED U also called staple, loop



Common style appropriate for many uses; two points of ground contact. Can be installed in series on rails to create a free-standing parking area in variable quantities. Available in many variations.

POST & RING



Common style appropriate for many uses; one point of ground contact. Compared to inverted-U racks, these are less prone to unintended perpendicular parking. Products exist for converting unused parking meter posts.

Source: Association of Pedestrian and Bicycle Professionals "Essentials of Bike Parking"

Unacceptable Short-Term Bicycle Racks

The following styles of bicycle racks do not meet City requirements and are not recommended. The City will not install the following rack types in the public ROW.

WAVE

also called undulating or serpentine



Not intuitive or user-friendly; real-world use of this style often falls short of expectations; supports bike frame at only one location when used as intended.

SCHOOLYARD

also called comb, grid



Does not allow locking of frame and can lead to wheel damage. Inappropriate for most public uses, but useful for temporary attended bike storage at events and in locations with no theft concerns. Sometimes preferred by recreational riders, who may travel without locks and tend to monitor their bikes while parked.

COATHANGER



This style has a top bar that limits the types of bikes it can accommodate.

WHEELWELL



Racks that cradle bicycles with only a wheelwell do not provide suitable security, pose a tripping hazard, and can lead to wheel damage.

BOLLARD



This style typically does not appropriately support a bike's frame at two separate locations.

SPIRAL



Despite possible aesthetic appeal, spiral racks have functional downsides related to access, real-world use, and the need to lift a wheel to park.

SWING ARM SECURED



These racks are intended to capture a bike's frame and both wheels with a pivoting arm. In practice, they accommodate only limited bike types and have moving parts that create unneeded complications.

Source: Association of Pedestrian and Bicycle Professionals "Essentials of Bike Parking"

Acceptable Long-Term Bicycle Racks

The acceptable short-term bicycle racks shown above may also be used for long-term storage, provided they are located in an access-controlled room or building or in a location within view of residents and/or employees at all times.

Installation Recommendations

When installing a privately-purchased bicycle rack in the public ROW, you will be required to provide installation information to ensure the public ROW is not damaged during installation. If you are installing a bicycle rack on private property, you do not need to get City approval on installation techniques, but the City recommends the following guidelines:

- Concrete is the best surface for installing bicycle parking, although in-ground mounting can be done on other ground surfaces.
- If installing on asphalt, it is recommended to use tamper-resistant anchor techniques specific to asphalt.
- Use tamper-resistant spikes or security nuts.
- Recommended fasteners are shown below.

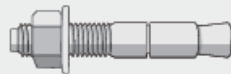
FASTENERS

CONCRETE SPIKE



Installs quickly in concrete with a hammer. Tamper-resistant. Removal may damage concrete and/or rack.

CONCRETE WEDGE ANCHOR



Allows for rack removal as needed. Not tamper-resistant, but can accommodate security nuts (below).

SECURITY NUTS

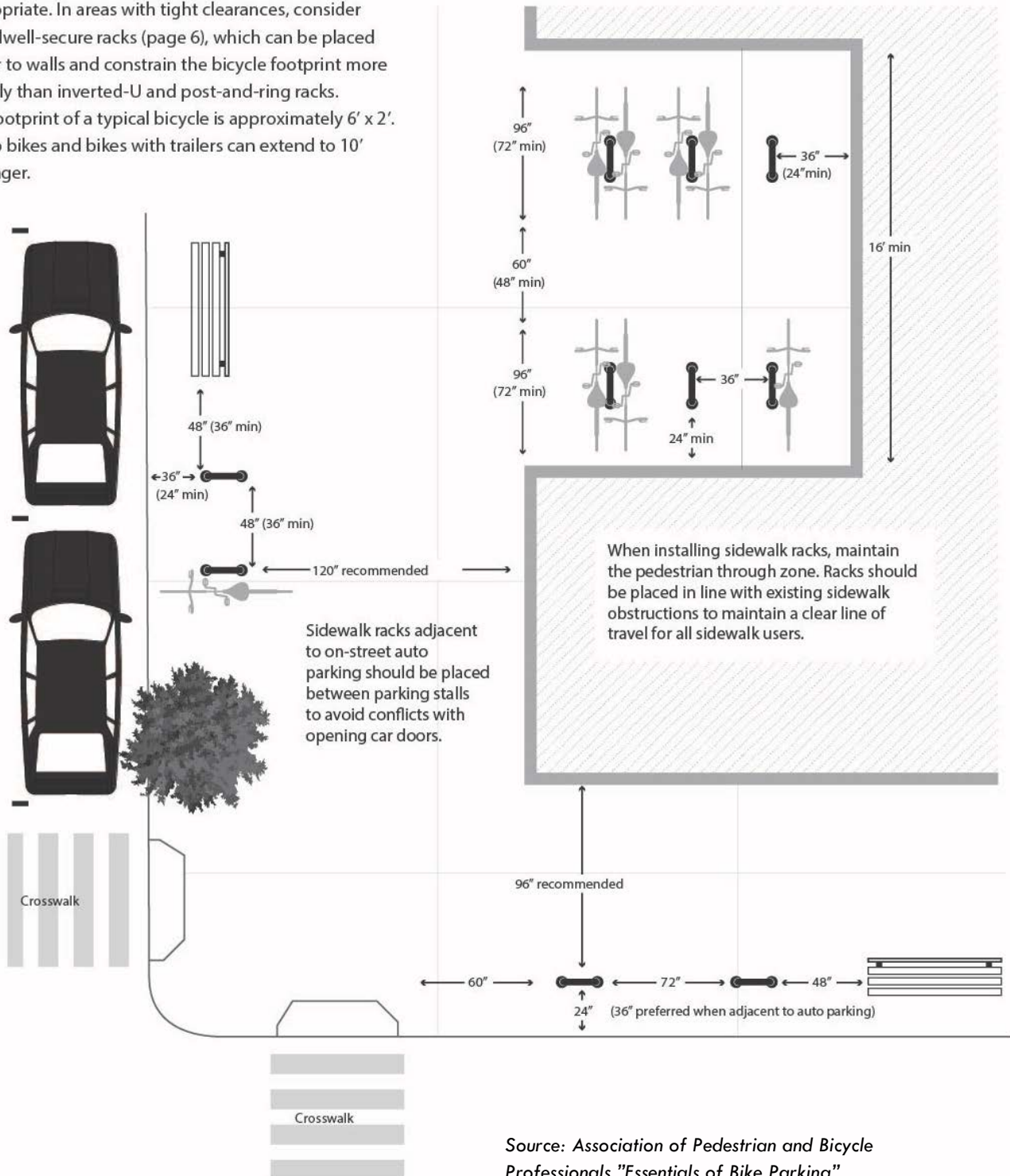


Use with concrete wedge anchors. Security nuts prevent removal with common hand tools.

Source: Association of Pedestrian and Bicycle Professionals "Essentials of Bike Parking"

Placement Guidelines

The following minimum spacing requirements apply to some common installations of fixtures like inverted-U or post-and-ring racks that park one bicycle roughly centered on each side of the rack. Recommended clearances are given first, with minimums in parentheses where appropriate. In areas with tight clearances, consider wheelwell-secure racks (page 6), which can be placed closer to walls and constrain the bicycle footprint more reliably than inverted-U and post-and-ring racks. The footprint of a typical bicycle is approximately 6' x 2'. Cargo bikes and bikes with trailers can extend to 10' or longer.



Source: Association of Pedestrian and Bicycle Professionals "Essentials of Bike Parking"

5. APPENDIX – Bicycle Parking Design Standards from the Vancouver Municipal Code

20.945.050 Bicycle Parking Design Standards.

A. *Standards for all bicycle parking.* Any bicycle parking implemented under this section must meet the following standards:

1. Bicycle parking must be provided at the ground level, and may be provided in floor, or wall racks that must hold bicycles securely by the means of the frame. Bicycles may be tipped vertically for storage, but not hung above the ground. If the bicycle parking is placed in the public right-of-way, it shall not obstruct pedestrian walkways and shall meet all of the requirements outlined in obtainment of the street use permit.
2. Where required bicycle parking is provided with racks, the racks must meet the following standards:
 - a. The parking spaces shall be at least 2' wide and 6' long with an overhead clearance of at least 7', and with a 5' access aisle;
 - b. The rack must hold the bicycle securely by means of the frame. The frame must be able to be supported so that the bicycle cannot be pushed or fall to one side in a manner that will damage the wheels;
 - c. The bicycle frame and one wheel can be locked to the rack with a high-security, U-shaped shackle lock if both wheels are left on the bicycle;
 - d. The rack must be securely anchored with theft-resistant hardware.
3. Where bicycle parking is provided with lockers, such lockers must meet the following standards:
 - a. An area of at least 6' of horizontal distance shall be provided around the entrance of each locker that is free from obstructions, an overhead clearance of at least 7', and with a 5' access aisle; and
 - b. The lockers must be securely anchored.

B. *Bicycle parking signing.* Entry and directional signs shall be provided by the property owner if bicycle parking facilities are not directly visible and obvious from the public right-of-way. The signs shall be used to properly direct bicyclists from the public right-of-way to the bicycle parking facilities.

C. *Bicycle rack maintenance.* The property owner of a site shall have a continuing obligation to properly maintain any bicycle parking facilities on their property. The City of Vancouver will maintain any bicycle parking facilities that are in the public right-of-way.

D. *Parking in mixed-use projects.* Bicycle parking for multiple uses may be clustered in one or several locations, and shall meet all other requirements for bicycle parking. For buildings with multiple entrances, bicycle racks should be distributed proportionately at and visible from the various public entrances. Bicycle parking lockers should be located adjacent to an employee entrance. (Ord. M-3643, 2004)

20.670.040 Heights Bicycle Parking Standards

Bicycle parking. Bicycle parking shall be provided to meet acceptable City of Vancouver standards for the HX zone as listed below in table 20.670.040-5, and shall be consistent with the standards of VMC 20.945.050 (<https://vancouver.municipal.codes/VMC/20.945.050>) and *The City of Vancouver Bicycle Parking Guidelines*.

- a) Up to 50 percent of long-term bicycle parking spaces may be provided in individual residential dwelling units, if they meet the following criteria:
 - (1) The bicycle parking is located within 15 feet of the entrance to the dwelling unit
 - (2) The bicycle parking is located in a closet or alcove of the dwelling unit that includes a rack
 - (3) For buildings with no elevators that utilize the in-unit long-term bicycle parking provisions, in-unit long term bicycle parking spaces may only be located in ground floor units.

Table 20.670.040-5 Bicycle Parking Minimums

Uses	Required Short-Term Parking Bicycle Parking	Required Long-Term Bicycle Parking
Residential	.05 per dwelling unit, 2 spaces minimum	1 per dwelling unit for buildings with 5 or more dwelling units
Commercial	1 per 5,000 sf of floor area, 2 spaces minimum	1 per 15,000 sf of floor area, 2 spaces minimum
Office	1 per 25,000 sf of floor area, 2 spaces minimum	1 per 5,000 sf of floor area, 2 spaces minimum
Civic/Institutional Buildings	1 per 5,000 sf of floor area, 2 spaces minimum	1 per 15,000 sf of floor area, 2 minimum
Lodging	2 spaces minimum	1 per 10 rooms, 2 spaces minimum
Parks	1 per 5,000 sf park area, 2 spaces minimum	None

- b) Additional Development Standards. The following standards apply to sites where more than 20 long-term bicycle parking spaces are required and provided in one or more shared bicycle parking facilities outside of individual dwelling units:

- (1) Minimum number of horizontal bicycle parking spaces. At least 20 percent of spaces must be in a horizontal rack, or on the lower level of a stacked bicycle parking rack.
- (2) Parking for larger bicycle spaces. At least 5 percent of spaces must accommodate a larger bicycle space for cargo bikes, placed in a horizontal rack. These spaces must be a minimum of 3 feet (36 inches) in width, 10 feet (120 inches) long with 3 feet and 4 inches (40 inches) of height clearance.
- (3) Electrical outlet requirement. At least 20 percent of spaces must have electrical sockets within four feet of the spaces. Each electrical socket must be accessible to horizontal bicycle parking spaces.

The Vancouver Municipal Code is current through Ordinance M-4257, passed December 17, 2018.

Disclaimer: The city clerk's office has the official version of the Vancouver Municipal Code. Users should contact the city clerk's office for ordinances passed subsequent to the ordinance cited above.

[City Website: www.cityofvancouver.us](http://www.cityofvancouver.us)

City Telephone: (360) 487-8711