

Section 6

Off-street Bicycle Space Regulations

6.1 Number of Bicycle Spaces

6.1.1 General Requirements

Unless otherwise provided in Schedule C or a CD-1 By-law, in all districts, the number of spaces required for the off-street parking of bicycles shall be calculated according to section 6.2.

6.1.2 Bicycle Space Requirement Exemptions

The required number of off-street bicycle spaces need not be provided where any additions, alterations or changes of use to a building existing on October 17, 1995 would, in total, result in an increase of less than 10 percent of the number of spaces required before the additions, alterations or change in use.

6.1.3 Uses Not Listed

If a use is not listed in the tables, the number of bicycle spaces shall be calculated on the basis of a similar use as determined by the Director of Planning.

6.1.4 Multiple-Use Developments

For the purposes of this section uses with the same formula for determining required bicycle spaces shall be considered to be of the same class. If a development contains parking for more than one use as listed in section 6.2, the total number of bicycle spaces shall be the sum of the bicycle spaces required for the various classes of uses calculated separately and, unless otherwise permitted by the Director of Planning, in consultation with the City Engineer, taking into account the time-varying demand of uses, a bicycle space required for one use shall be deemed not to meet the requirement for any other use in that development.

6.1.5 Floor Area Calculation

Where gross floor area is used to calculate the number of required bicycle spaces, it shall be calculated in the same manner as the floor space ratio of the applicable district schedule or official development plan.

6.1.6 Rounding of Fractional Numbers

Where the calculation of total required bicycle spaces results in a fractional number, the nearest whole number shall be taken, unless specified otherwise in section 6.2. A fraction of one-half shall be rounded up to the next whole number.

6.2 Table of Number of Required Off-Street Bicycle Spaces

Bicycle spaces shall be required for any buildings classified in column 1 in accordance with the corresponding standards listed in column 2.

	Column 1 Building Classification	Column 2 Required Bicycle Spaces	
		Class A	Class B
6.2.1	Dwelling		
6.2.1.1	Dwelling Uses, except as provided for in sections 6.2.1.2, 6.2.1.3, 6.2.1.4, and 6.2.1.6.	No Requirement.	No Requirement.
6.2.1.2	Multiple Dwelling, Infill Multiple Dwelling, or three or more dwelling units in conjunction with another use, except as provided for in sections 6.2.1.3 and 6.2.1.4.	A minimum of 1.25 spaces for every dwelling unit.	A minimum of 6 spaces for any development containing a minimum of 20 dwelling units.
6.2.1.3	Multiple Dwelling or three or more dwelling units in conjunction with another use located within the area bounded by Cypress Street, W. 49th Avenue, Larch Street and W. 37th Avenue, except as provided for in section 6.2.1.4; Dwelling Units with a gross floor area less than 37 square metres, except as provided for in section 6.2.1.4; Residential Unit associated with and forming an integral part of any artist studio. Multiple Dwellings in RM-7, RM-7N and RM-7AN (not including Rowhouse). Multiple Dwellings in RM-9A and RM-9AN Multiple Dwellings in RM-10 and RM-10N Rowhouse in RM-7, RM-7N and RM-7AN, Multiple Dwelling and Rowhouse in RM-8, RM-8N, RM-8A and RM-8AN, Multiple Dwelling and Rowhouse in RM-9, RM-9N and RM-9BN.	A minimum of 0.75 space for every dwelling unit. A minimum of 2.25 spaces for every dwelling unit. A minimum of 1.25 spaces for every dwelling unit.	A minimum of 6 spaces for any development containing a minimum of 20 dwelling units. A minimum of 1 space for every 5 dwelling units up to and including 19 dwelling units, and a minimum of 6 spaces for any development containing a minimum of 20 dwelling units. No requirement.
6.2.1.4	Three or more dwelling units designated solely for senior citizens' housing under the provisions of the National Housing Act or the Housing Construction (Elderly Citizens) Act, or similar use.	1 space per unit less than 56m ² 2 spaces per unit greater than 50m ² and less than 77m ² 3 spaces per unit greater than 77m ² A minimum of 1.25 spaces for every dwelling unit.	A minimum of 6 spaces for any development containing a minimum of 20 dwelling units. No requirement.
6.2.1.5	Seniors Supportive or Assisted Housing.	A minimum of 0.25 space for every dwelling unit.	A minimum of 6 spaces for any development containing a minimum of 20 dwelling units.

	Column 1 Building Classification	Column 2 Required Bicycle Spaces	
		Class A	Class B
	For residential units less than 50 square metres in size.	A minimum of 0.10 space for every residential unit.	No requirement.
	For residential units 50 square metres in size or greater.	A minimum of 0.25 spaces for every residential unit.	No requirement.
6.2.1.6	Principal Dwelling Unit with Lock-off Unit in the C-2, C-2B, C-2C, C-2C1, and C-3A Districts.	For a principal dwelling unit with lock-off unit, a minimum of 1.25 spaces for each principal dwelling unit and a minimum of 0.75 spaces for each lock-off unit.	No requirement for a lock-off unit.
6.2.1.7	Principal Dwelling Unit with a Lock-off Unit in RM-7, RM-7N, RM-7AN, RM-8, RM-8N, RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN.	A minimum of 0.75 spaces for each lock-off unit, in addition to the spaces required for the principal dwelling unit.	No requirement for a lock-off unit.
6.2.2	Institutional		
6.2.2.1	Community Care Facility – Class B; Group Residence; Detoxification Centre.	A minimum of 1 space for every 100 beds.	No requirement.
6.2.2.2	Hospital or other similar use.	A minimum of 1 space for every 17 employees on a maximum work shift.	A minimum of 6 spaces at each public entrance.
6.2.2.3	School - Elementary or Secondary; School - University or College.	A minimum of 1 space for every 17 employees and for secondary schools, universities or colleges, 0.4 space for every 10 students on a maximum attendance period.	A minimum of 0.6 space for every 10 students on a maximum attendance period except that elementary schools shall provide a minimum of 1 space for every 20 students.
6.2.2.4	Church, chapel, place of worship, or similar place of assembly.	No requirement.	A minimum of 6 spaces.
6.2.2.5	Ambulance Station; Child Day Care Facility; Social Service Centre; Community Care Facility – Class A; Seniors Supportive and Assisted Housing.	No requirement.	No requirement.

	Column 1 Building Classification	Column 2 Required Bicycle Spaces	
		Class A	Class B
6.2.3	Cultural & Recreational		
6.2.3.1	Community centre, hall, club, bingo hall, activity centre or similar place of assembly; Casino - Class 1; Library, gallery, museum or aquarium.	A minimum of 1 space for each 500 square metres of floor area used for assembly purposes.	A minimum of 6 spaces for any portion of each 1,500 square metres of floor area used for assembly purposes.
6.2.3.2	Theatre, auditorium, stadium, arena, or similar place with spectator facilities.	No requirement.	A minimum of 6 spaces for any portion of each 300 person seating capacity.
6.2.3.3	Fitness centre.	A minimum of 1 space for each 250 square metres of gross floor area.	A minimum of 6 spaces for any portion of each 500 square metres of gross floor area.
6.2.3.4	Billiard hall; Arcade; Bowling Alley; Curling Rink.	No requirement.	A minimum of 6 spaces for any portion of each 40 tables, games, alleys or ice sheets.
6.2.3.5	Artist Studio, without residential component (See section 6.2.1.3 for requirement for Residential Unit associated with and forming an integral part of an artist studio).	No requirement.	No requirement.
6.2.4	Office		
6.2.4.1	Office Uses	A minimum of 1 space for each 500 square metres of gross floor area.	A minimum of 6 spaces for any development containing a minimum of 2,000 square metres of gross floor area.
6.2.5	Retail & Service		
6.2.5.1	Retail and Service Uses, except as provided for in sections 6.2.5.2 and 6.2.5.3.	A minimum of 1 space for each 500 square metres of gross floor area.	A minimum of 6 spaces for any development containing a minimum of 1,000 square metres of gross floor area.
6.2.5.2	Hotel.	A minimum of 1 space for every 30 dwelling, housekeeping or sleeping units, or any combination thereof.	A minimum of 6 spaces for any development containing a minimum of 75 dwelling, housekeeping or sleeping units, or any combination thereof.

	Column 1 Building Classification	Column 2 Required Bicycle Spaces	
		Class A	Class B
6.2.5.3	Bed & Breakfast Accommodation; Funeral Home; Wedding Chapel.	No requirement.	No requirement.
6.2.6	Manufacturing, Transportation & Storage, Utility & Communication Uses, Wholesale		
6.2.6.1	Manufacturing Uses; Transportation and Storage uses; Utility and Communication Uses; Wholesale Uses.	A minimum of 1 space for each 1,000 square metres of gross floor area in the building or 1 space for every 17 employees on a maximum work shift, whichever is the greater.	No requirement.
6.2.7	Parking		
6.2.7.1	Parking Uses.	As determined by the Director of Planning in consultation with the City Engineer.	As determined by the Director of Planning in consultation with the City Engineer.
6.2.8	Agricultural		
6.2.8.1	Agricultural Uses.	No requirement.	No requirement.
6.2.9	Live-Work Use		
		At least 1.25 spaces for every live-work unit.	At least 6 spaces for any development containing 20 or more live-work units.

6.2A Despite section 6.2., for each five Class A bicycle spaces provided on a site in addition to the required number of bicycle spaces for:

- (a) an office use under section 6.2.4.1. or a retail and service use under section 6.2.5.1., there is to be a reduction of 1 in the number of motor vehicle spaces required on the site, except that the maximum number of bicycle spaces on the site which may count toward calculation of the motor vehicle spaces is not to exceed 1 space for each 300 m² of gross floor area, and is to be the difference between the required number of bicycle spaces and the number of bicycle parking spaces provided on the site; and
- (b) a hospital or other similar use under section 6.2.2.2., a school – elementary or secondary or university or college under section 6.2.2.3., or a manufacturing use, transportation and storage use, utility and communication use or wholesale use under section 6.2.6.1., there is to be a reduction of 1 in the number of motor vehicle spaces required on the site, except that the maximum number of bicycle spaces on the site which may count toward calculation of the motor vehicle spaces is not to exceed one space for each 10 employees, and is to be the difference between the required number of bicycle spaces and the number of bicycle parking spaces provided on the site.

6.3 Class A Bicycle Spaces

6.3.1 Application

The requirements of this section 6.3 apply where Class A bicycle spaces are required, and Class A bicycle spaces shall be in compliance with section 6.3.

6.3.2 Bicycle Room Requirement

All required Class A bicycle spaces shall be provided in a separate bicycle room located within a building, except that

- (a) the spaces can be in a building which provides parking for motor vehicles for one particular residential unit only, instead of in a bicycle room, or
- (b) the spaces can be provided in a building in an expanded metal mesh compound which complies with sections 6.3.14, 6.3.15, and 6.3.16 instead of in a bicycle room, or
- (c) the spaces can be provided in a building or private parking area in numbered bicycle lockers which comply with sections 6.3.17, 6.3.18 and 6.3.19 instead of in a bicycle room.

6.3.3 Bicycle Room Security

The bicycle room shall have solid opaque walls, and all solid interior walls shall be painted. All of the interior of the bicycle room shall be visible from the entry door. A motion-activated security light enclosed in a tamper-proof housing shall be provided in each room.

6.3.4 Bicycle Room Doors

Entry doors to the bicycle room shall be a minimum of 75 centimetres in width. Both door and frame shall be constructed of steel. The door shall be hinged on the inside unless hinges are tamper-proof, and shall have a security window constructed of a laminate of tempered glass and polycarbonate in a steel frame for permanent visual access, except that residential developments do not require such security windows. The entry door shall have a separate lock and key or programmed entry system, and the locks shall be high security in nature.

6.3.5 Bicycle Room Size

The bicycle room shall be designed to accommodate a maximum of 40 bicycles, except that:

- (a) this number can be increased to 120 if the room is compartmentalized using expanded metal mesh (see 6.3.14.) with lockable industrial-grade doors into enclosures containing a maximum of 40 bicycles; and
- (b) this number does not include bicycle lockers.

6.3.6 Bicycle Room, Compound, or Locker Access

The bicycle room, compound, or lockers shall be located no lower than the first complete parking level below grade and shall have direct access to outside, except that a location more than one level below grade may be permitted where an elevator is supplied offering direct access to outside. There shall be no stairs on the access route, except that the Director of Planning may allow stairs provided a wheel ramp of a minimum width of 150 millimetres is provided without cutting into the stair tread.

- 6.3.7 **Bicycle Room, Compound, or Locker Lighting**
Lighting in the bicycle room, compound, or locker area shall provide vertical illumination at floor level of a minimum level of 160 lux, with true colour and a uniformity ratio of at most 3:1.
- 6.3.8 **Bicycle Room, Compound, or Locker Supervision**
The entry door to a bicycle room or bicycle compound, or bicycle lockers, shall be within sight of building or parking security, where such exists, an elevator, or an entrance.
- 6.3.9 **Bicycle Space Size**
All required Class A bicycle spaces shall have a minimum vertical clearance of 1.9 metres, shall be a minimum of 0.6 metre in width and shall be
- (a) a minimum of 1.8 metre in length if the bicycles are to be placed horizontally; or
 - (b) a minimum of 1.0 metre in length if the bicycles are to be placed vertically.
- 6.3.10 **Bicycle Space Access**
All required Class A bicycle spaces shall be independently accessible by means of an aisle of a minimum width of 1.2 metres, except that the Director of Planning, in consultation with the City Engineer, may permit a lesser width, to an absolute minimum of 0.9 metre, where the bicycle spaces served are provided more than the minimum required width. All access shall have a minimum vertical clearance of 1.9 metres.
- 6.3.11 **Bicycle Rack and Bicycle Locker Requirement**
All required Class A bicycle spaces shall require a bicycle rack with individually numbered spaces or a numbered bicycle locker.
- 6.3.12 **Bicycle Rack Design and Security**
Class A bicycle space racks shall be constructed of sturdy theft-resistant material and shall have secure theft-resistant anchoring to the floor or ground. The bicycle rack shall support the bicycle frame above the centre of gravity and shall enable the bicycle frame and front wheel to be locked with a U-style lock.
- 6.3.13 **Horizontal and Vertical Bicycle Spaces**
A minimum of 50 percent of the required Class A bicycle spaces shall provide for the bicycles to be placed horizontally on the floor or ground. Vertical bicycle space racks shall support the bicycle without the bicycle being suspended on the wheels. No more than 30% of the required Class A bicycle spaces may be vertical.
- 6.3.13A **Minimum Number of bicycle lockers**
At least 20% of the Class A bicycle spaces must be bicycle lockers.
- 6.3.14 **Bicycle Compound Security**
The bicycle compound shall extend from floor to ceiling, and have expanded metal mesh and door with a non-reflective coating. The walls and door shall be reinforced by full-height solid steel bars 13 millimetres minimum diameter or square section, spaced no more than 150 millimetres apart, and welded one to another by at least two crossbars no more than 1,200 millimetres apart, or constructed to provide equivalent or greater security. Supports shall be attached to floor and ceiling with tamper-proof or concealed bolts or nuts. Industrial grade chain-link shall be No. 7 gauge or heavier.

6.3.15 Bicycle Compound Doors

Entry doors to the bicycle compound shall comply with section 6.3.4., except that no window is required, and the door may be constructed of expanded metal mesh. The lockset or programmable entry shall be placed in a steel plate box welded to the door structure. The supporting post shall be detailed to receive the striker plate. The doorway shall be detailed to prevent access to the latch from lockside with boltcutters.

6.3.16 Bicycle Compound Size

The bicycle compound shall be designed to accommodate a maximum of 40 bicycles.

6.3.17 Bicycle Locker Location

Bicycle lockers shall be located in a private parking area, parking garage, bicycle room, bicycle compound, or as provided for in section 6.3.2.(a).

6.3.18 Bicycle Locker Design and Security

Bicycle lockers shall be constructed of solid, opaque, and theft-resistant material with a lockable door which opens to the full width and height of the locker. Bicycle locker edges shall be secured with no exposed fittings or connectors. Bicycle lockers shall be weather-proof if located where exposed to the elements.

6.3.19 Bicycle Locker Size

The minimum inside dimensions of a bicycle locker shall be

- (a) 0.6 metre in width at the door end,
- (b) 0.2 metre in width at the end opposite to the door,
- (c) 1.8 metres in length, and
- (d) 1.2 metres in height.

6.3.20 Conversions in existing buildings

Owners of existing buildings may convert motor vehicle parking spaces to Class A bicycle spaces, at the ratio of 1 motor vehicle parking space to 5 bicycle spaces, to the extent necessary to provide the number of bicycle spaces required under this By-law.

6.3.21 Electrical outlets

Each two Class A bicycle spaces must have an electrical outlet.

6.4 Class B Bicycle Spaces

6.4.1 Application

The regulations of this section 6.4 apply where Class B bicycle spaces are required, and Class B bicycle spaces shall be in compliance with section 6.4.

6.4.2 Bicycle Rack Requirement and Space Size

All required Class B bicycle spaces shall be provided in racks which provide a minimum width of 0.3 metre for each bicycle, except as provided for in section 6.4.6.

6.4.3 Bicycle Space Access

All required Class B bicycle spaces shall be independently accessible by means of an aisle with a minimum width of 1.2 metres which is separate from pedestrian access. There shall be unrestricted access behind the space of a minimum length of 0.5 metre.

6.4.4 Bicycle Rack Design and Security

Class B bicycle space racks shall be constructed of sturdy theft-resistant material and shall have secure theft-resistant anchoring to the floor or ground. The bicycle rack shall support the bicycle frame above the centre of gravity and shall enable the bicycle frame and front wheel to be locked to the rack with a U-style lock.

6.4.5 Bicycle Rack Location

Class B bicycle space racks shall be provided in a convenient, well-lit location that provides visual surveillance by occupants of the building the racks are intended to serve. If the racks are not readily visible to visitors to a site, directional signage to the racks shall be provided.

6.4.6 Bicycle Lockers

Bicycle lockers can be provided for required Class B bicycle spaces instead of bicycle racks, provided the lockers are numbered and are in compliance with sections 6.3.18 and 6.3.19.

6.5 End of Trip Facilities

6.5.1 Where Class A bicycle spaces are required for a non-dwelling use, a minimum number of clothing lockers equal to 1.4 times the minimum number of required Class A spaces shall be provided, and shall be a minimum of 45 centimetres in depth, 30 centimetres in width and 90 centimetres in height with respect to no more than 50% of the lockers and 180 cm in height with respect to at least 50% of the lockers.

6.5.2 Where Class A bicycle spaces are required for a non-dwelling use, water closets, wash basins, showers and grooming stations shall be provided in accordance with sections 6.5.4 and 6.5.5.

6.5.3 Despite the provisions of section 6.5.2, additional water closets, wash basins, showers and grooming stations are not required if on-site facilities are provided as part of an employee fitness centre, provided these facilities meet or exceed the requirements of sections 6.5.4 and 6.5.5, are accessible to employees before and after their work shifts, and are located conveniently in relation to employee Class A bicycle spaces.

6.5.4 The number of water closets, wash basins and showers required by section 6.5.2 shall conform to Table 6.5.

Table 6.5 Bicycle End of Trip Facilities Forming part of 6.5.4			
Required Number of Class A Bicycle Spaces	Minimum Number of Fixtures		
	Water Closets	Wash Basins	Showers
0-3	0	0	0
4-29	2	2	2
30-64	4	2	4
65-94	6	4	6
95-129	8	4	8
130-159	10	6	10
160-194	12	6	12
Over 194	12 plus 2 for each additional 30 bicycle spaces or part thereof	6 plus 2 for each additional 30 bicycle spaces or part thereof	12 plus 2 for each additional 30 bicycle spaces or part thereof

6.5.5 There shall be no less than 1 grooming station for each shower provided, and each station shall be:

- (a) separate from the wash basin;
- (b) equipped with a mirror and an electrical outlet; and
- (c) equipped with a counter top with a minimum width of 600 mm and a minimum depth of 250 mm.