

BICYCLE PARKING

Among the necessary supports for bicycle transportation, bike parking stands out for being both vital and easy. Still, it requires some attention to get it right. Bike parking may go unused if it's not more appealing to users than the nearest sign post. A minor mistake in installation can make a quality rack unusable. The variety of bicycle sizes, shapes, and attachments continues to increase, and good bike parking should accommodate all types.

The Sitka Cycling Club has created this guide as a starting point for people planning to purchase or install bike parking fixtures for downtown Sitka.

Ride on!



The Sitka Cycling Club promotes safe and fun cycling in Sitka, Alaska.



BICYCLE RACK SELECTION

WHAT MAKES A GOOD RACK?

PERFORMANCE CRITERIA FOR BIKE PARKING RACKS

CRITERIA	DETAILS
Supports bike upright without putting stress on wheels	The rack should provide two points of contact with the frame—at least 6" apart horizontally. Or, if a rack cradles a bicycle's wheel, it must also support the frame securely at one point or more. The rack's high point should be at least 32".
Accommodates a variety of bicycles and attachments	The racks serve nearly all common bike styles and attachments—if installed with proper clearances (see placement section). Avoid designs and spacing that restrict the length, height, or width of bicycles, attachments, or wheels.
Allows locking of frame and at least one wheel with a U-lock	A closed loop of the rack should allow a single U-lock to capture one wheel and a closed section of the bike frame. Rack tubes with a cross section larger than 2" can complicate the use of smaller U-locks.
Provides security and longevity features appropriate for the intended location	Steel and stainless steel are common and appropriate materials for most general-use racks. Use tamper-resistant mounting hardware in vulnerable locations. Rack finish must be appropriate to the location (see materials and coatings section).
Rack use is intuitive	First-time users should recognize the rack as bicycle parking and should be able to use it as intended without the need for written instructions.

SINGLE RACKS

There is wide variation among specific racks, resulting in inconsistent usability and durability. Below are examples of racks that meet the performance criteria.

OFF THE SHELF STYLES

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.

CUSTOM RACKS



Custom racks celebrate our unique town. One or two points of ground contact. Design should be sure to meet the performance criteria.



RACKS TO AVOID

RACKS TO AVOID

Because of performance concerns, we recommend selecting other racks instead of these.

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.

BICYCLE RACK PLACEMENT

Effective bike parking depends on two main factors:
1) proximity to the destination and
2) ease of use.

The footprint of a typical bicycle is 6'x2'.

Location

Bike parking should be visible from and close to the entrance it serves—50' or less is a good benchmark. Weather-protected parking makes bicycle transportation more viable for daily and year-round use, and it can reduce the motivation for users to bring wet bicycles into buildings. Using existing building eaves and canopies is an economical way or consider a shelter. Area lighting is important for any location likely to see use outside of daylight hours.

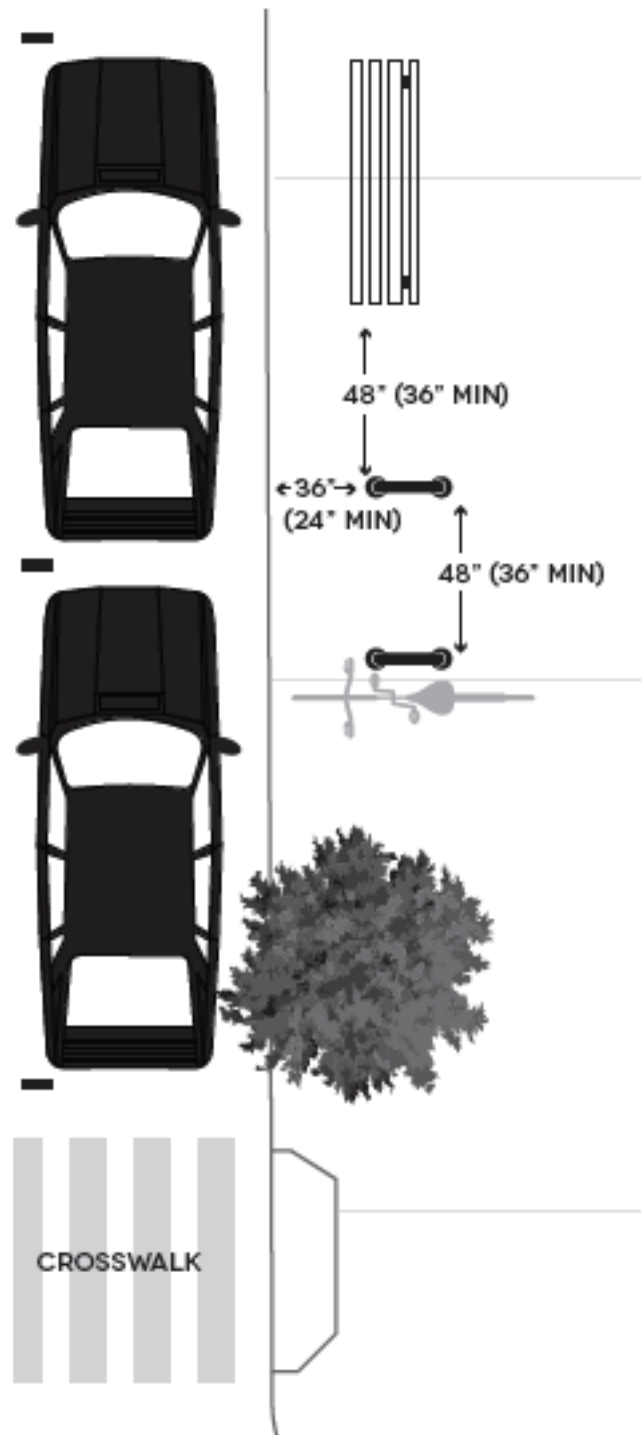
Security

All racks must be sturdy and well-anchored, but location determines the security of parking as much as any other factor. Users seek out parking that is visible to the public, and they particularly value racks that can be seen from within the destination.

Installation surface

A sturdy concrete pad is an ideal surface for installing bicycle parking. In-ground or surface-mount flanges are typical installation techniques. Installing on asphalt requires additional specialized techniques specific to asphalt.

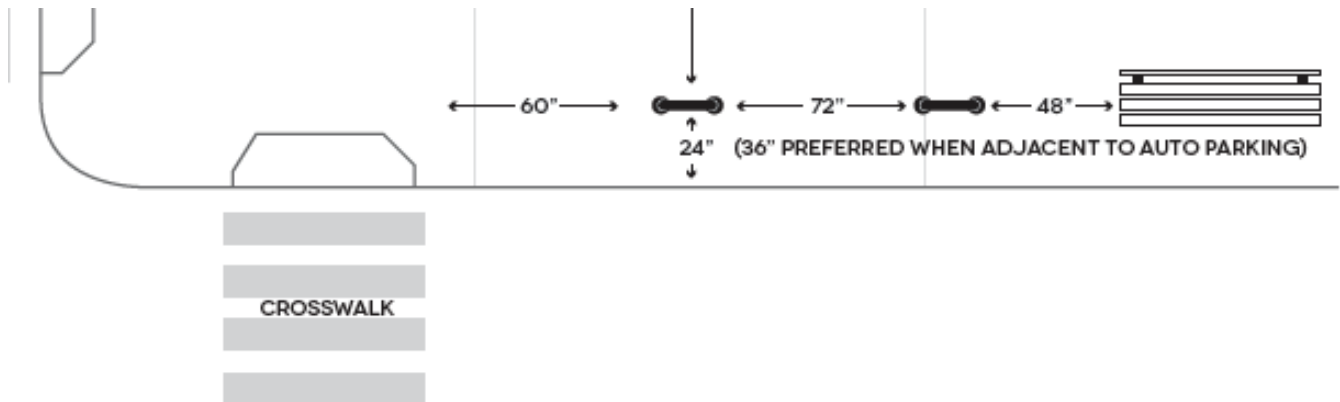
PERPENDICULAR TO CURB



Sidewalk racks adjacent to on-street parking should be placed between parking stalls to avoid conflicts with opening car doors

PARALLEL TO CURB

When installing sidewalk racks, maintain the pedestrian through zone. Racks should be placed in line with existing sidewalk obstructions to maintain a clear line of travel for all sidewalk users.



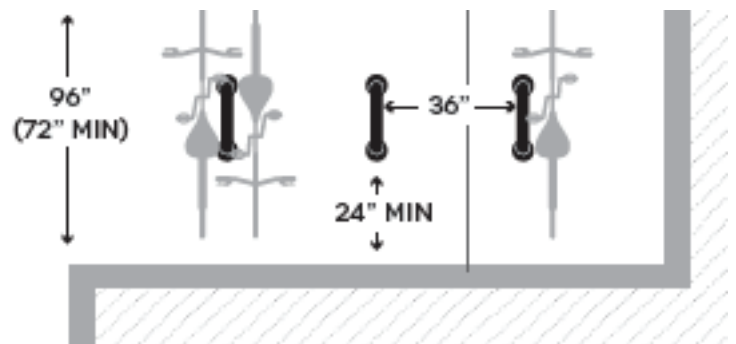
GROUP OF RACKS LAYOUT



For multiple racks, allow a minimum clearance of 36" between racks to allow bikes to park on either side of the rack and room to circulate between the bikes.

AT BUILDINGS

Racks installed next to a building should have a minimum clearance of 24" to allow room for the front or back tire.



BICYCLE RACK SHELTERS

Covered bicycle parking facilities are extremely attractive in our local climate. The addition of a roof requires some additional considerations such as roof span, setbacks, clearances and local codes.

Span

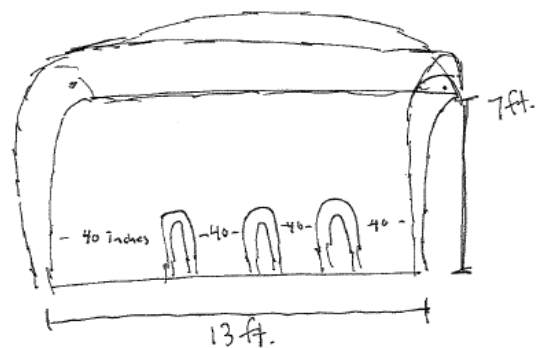
The span should be deep enough to provide sufficient shelter for the length of the bicycle, ideally a minimum of eight feet.



Prefabricated structures examples



Site specific customized shelter



Concept of a new Herring Shelter