
BIKE
PARKING
GUIDE
GROUND CONTROL
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Innovative Bike & Board Parking

INDEX

The Bicycle Parking Guide offers simple tips and tools to plan out a successful bike parking project.

THE BENEFITS OF BICYCLE PARKING

CURB APPEAL

People appreciate attractive facilities, millennials in particular are drawn in by businesses or housing units that offer amenities and support active transportation. Bicycle parking adds appeal to infrastructure.

REPUTATION

Gain positive exposure by staying in tune with the bicycle-friendly movement. Recognition by The League of American Bicyclists and earning LEED Credits are a way to bolster your reputation. Investing in bicycle parking and supporting cyclists is great PR.

COMMUTER BENEFITS

Qualified employers and employees can be reimbursed for commuting expenses. The National Center for Transit Research is a good place to start for employers to support their employees with commuting costs, like providing $20 a month for cycling, that may be claimed as business expenses.

REVENUE

The economic impact of cycling and cycling infrastructure has been widely studied, and has proven to not only benefit businesses, but also the entire city. Cyclists spend more money at businesses, save the city money, increase tourism, and sales tax revenue.

AMENITIES & LONG-TERM BIKE PARKING

Bicycle parking can be treated as an amenity, not just a requirement. Apartments and multifamily housing can incorporate long-term bicycle parking as a benefit for the tenants. Luxury apartment buildings in particular, include bicycle parking as a feature alongside pools and gyms.

REPLACING CAR PARKING

Bicycle parking is less expensive than car parking, which is better for businesses. City governments worried that transportation revenue will be reduced by replacing car parking will find that bicycle parking makes up for it with increased sales taxes. One shopper in a single car can be replaced by 8-12 shoppers in a single bicycle corral.

HEALTH & WELLNESS

Encouraging cycling amongst employees means happy, productive, healthy employees. Over long periods of time health costs are reduced.

ENVIRONMENTAL IMPACT

Alternative and active transportation can largely reduce vehicle carbon emissions, but it needs the support to get there. Increasing bicycle parking, bike lanes, and other infrastructure by extension will encourage more cycling, which encourages a greener world.

ORDINANCES

The first item to cross off your to-do-list is checking ordinances and meeting those requirements. Ordinances vary by location and building type, but there are tools to help get the planning started.

WHAT ORDINANCES WILL TELL YOU:

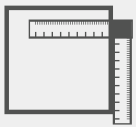
The number of bicycles needed to be parked.

If you need to have Class 1bike parking, Class 2, or both.

Other requirements, such as location or types of racks.

WHAT TO LOOK FOR:

Look for these specifications when browsing ordinances to find what applies to your project.



Bikes per sq ft minimums, especially for offices, retail, and other businesses.

Bikes per dwelling unit ratios, including student housing or multi-family housing.

Minimum bikes per vehicle parking ratios & percentages

Bikes per employee or guest ratios, esp. for arenas or other large venues

BIKE PARKING CLASSES

CLASS 1: LONG-TERM PARKING

Class 1 bicycle parking is considered long-term parking and requires shelter from most, if not all, elements. Long-term parking caters to residents, public transit users, employees, or similar riders.

Bike lockers, or any bike rack may be used in conjunction with rooms, cages, supervised spaces, or other facilities, as long as weather-protection and security needs are met.

DENSITY: If high quantities of bikes need to be parked, two-tier or vertical racks are recommended. Lift-assist racks or on-ground racks may be needed to accommodate elderly, disabled, or non-standard bicycle types.

SECURITY: People need to feel comfortable leaving their bicycles for over 2 hours. Not only should racks be U-lock compatible, but the storage facility containing the racks should also be lockable.

CLASS 2: SHORT-TERM PARKING

Short-term parking, or Class 2 bicycle parking, is intended for a couple of hours. Class 2 parking caters to riders visiting businesses, institutions, event centers, or other short-term trips.

LOCATION: The right location is necessary for success of short-term parking. High-traffic, well-lit areas that are obvious to a rider and next to building entrances will ensure people are using the bike racks.

SECURITY: Bike racks that are made of sturdy materials and U-lock compatible design will help riders secure their bikes in public places. Location is also vital for security; parking should be next to highly visible and well-lit areas.

USER-FRIENDLY: Riders will neglect racks that are difficult to use or placed in an inconvenient spot.

LOCATION

Local ordinances vary in requirements so it is important to confirm the details those specific ordinances when choosing a location. The right location is crucial for successful parking.

PARKING INDOORS OR OUTDOORS?

If your parking is indoors, visibility is lessened, so proper signage must lead riders to their destination.

Outdoor parking should be visible and a natural place to park their bikes as riders arrive at their destination.

IS YOUR LOCATION A PROBLEM AREA?

Even the best racks go unused if they are installed in the wrong location. Areas that are hidden, out of sight, or inconvenient should be avoided.

However, if people are leaning bicycles againstrails, trees, or buildings, consider placing bike parking at those locations.

OUTDOOR SEATING AND BIKE PARKING?

If your project has a lot of outdoor seating, like a business front, consider indoor parking.

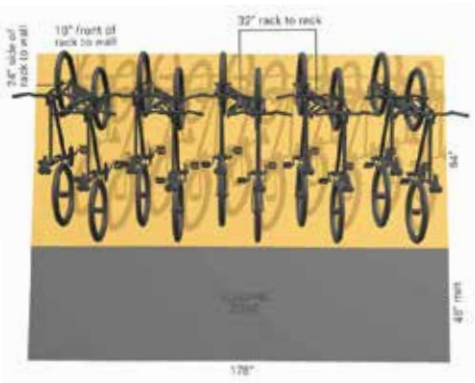
If you must park outdoors, racks cannot interfere with walkways and should be orderly and high-density.

SPACING

Determine how many bikes per square foot you need, then what type of bike rack suits those spacing requirements. The following spacing dimensions are using average bicycles, more room may be needed for cargo or e-bikes.

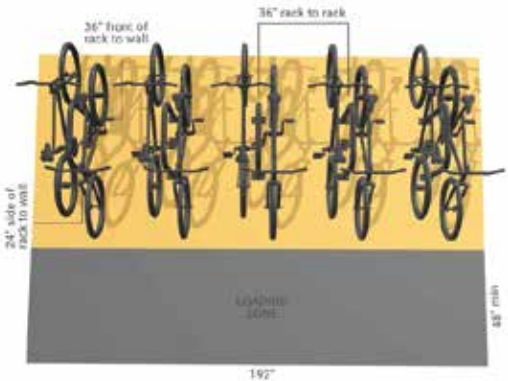
BIKE DOCK

- 2 bikes
- 48” - 60” loading zone
- 32” rack-to-rack spacing



INVERTED-U

- 2 bikes
- 48” - 60” loading zone
- 36” rack-to-rack spacing

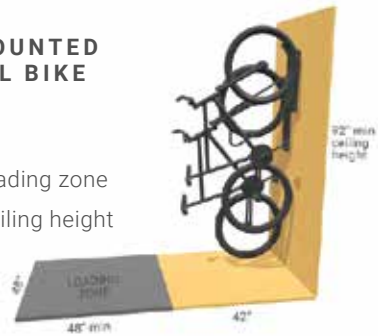


*Racks without wheel docks leave room for imperfect parking or bikes that slip and fall. Bikes that slip and tip could cause liability issues as well as a bad rider experience.

SPACING (CONT.)

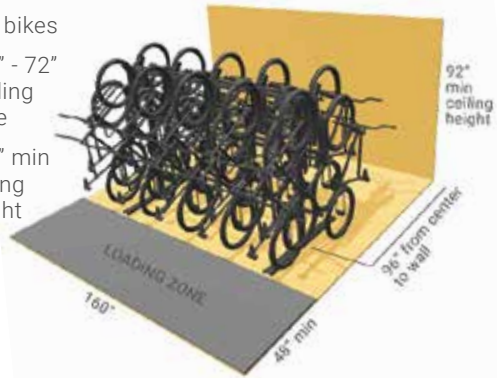
WALL-MOUNTED VERTICAL BIKE RACK

- 2 bikes
- 48” min loading zone
- 92” min ceiling height



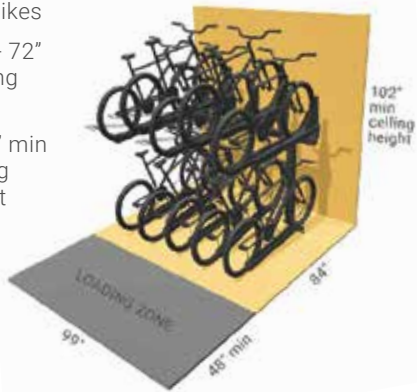
FREE-STANDING VERTICAL BIKE RACK

- 20 bikes
- 48” - 72” loading zone
- 92” min ceiling height



TWO-TIERED BIKE RACK

- 10 bikes
- 48” - 72” loading zone
- 102” min ceiling height



LAYOUTS

Our layouts use APBP guidelines and practical setbacks for sidewalk and bike room parking. APBP (Association of Pedestrian and Bicycle Professionals) sets the standard for user friendly layouts that meet many ordinances across the nation.

GET YOUR LAYOUT RIGHT, THE FIRST TIME

- For outdoor parking, plan around trees, planters, curbs, benches, or other objects.
- For indoor parking, plan around HVAC ducts, fire hydrants, containers, or other objects.
- Confirm ceiling height is compatible with vertical and two-tier bike racks for indoor parking.
- Cargo bikes, e-bikes, or bikes with trailers may need to be accommodated

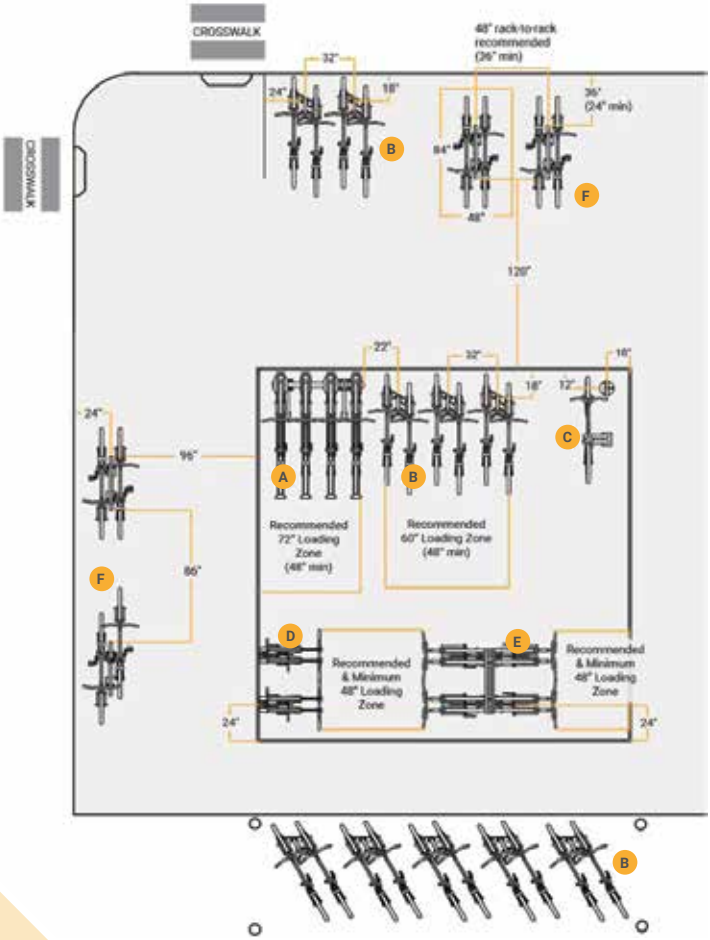
INVERTED U & POST RACKS

- 24" from the rack to the street will allow 2 bikes to be parked.
- 36" is needed to park 2 bikes if the rack is placed by a wall or next to another rack.
- 72" from rack tip to rack tip is APBP recommended, 86" spacing is often successful account for user parking errors on racks without controlled footprints.

STREET CORRALS

Although APBP recommends 96"-120" walkways, the reality is that paths and sidewalks are not often that wide. Bicycle corrals give room for pedestrians by replacing on average 1 car with 8-12 bikes.

SETBACKS AND WALKWAYS



- A Two-tier stackable rack
- B Bike Dock
- C Repair station
- D Wall-mounted vertical bike rack
- E Free standing vertical bike rack
- F Inverted-U

SURFACES & MOUNTING OPTIONS

The information provided here outlines what racks and anchors work with each surface type.

SURFACES

CONCRETE
Compatible with all surface mounted racks. Inexpensive and easy to work with.
INSTALLATION: Wedge Anchor or Drop-in anchors

ASPHALT OR PAVEMENT
If concrete is underneath, use free-standing orspecialty anchor systems.
USE: Asphalt Anchor with epoxy.

PAVERS
Without concrete, use a free-standing surface mounted rack or pour concrete to use an in-ground mount.
USE: Rack embedment or additional stingers

GRASS OR DIRT
Without a stable base to anchor a rack, use a freestanding surface mounted rack or pour concrete to use an in-ground mount.
USE: In-ground stingers

WALLS

CONCRETE
Compatible with all wall mounted racks
USE: Strike Anchor or Wedge Anchors

BRICK OR BLOCKS
Compatible with all wall mounted racks
USE: Strike anchor

STEEL STUDDED WALLS
Properly engineered for cantilever loads.
USE: Toggle nut style fasteners. Must use a unistrut style rails or ledger boards.

WOOD STUDDED WALLS
Properly engineered for cantilever loads.
USE: Ledger boards need to be used with lag screws.

CHOOSING A BIKE RACK

DOES YOUR BIKE RACK SERVE ITS PURPOSE? A bike rack is much more than a bent piece of metal. Racks can serve a purpose beyond a place to park a bike; if chosen carefully, they can significantly benefit a project.

ARE HIGH-SECURITY RACKS WORTH IT?

Cyclists heavily rely on U-locks to secure their property. U-locks should secure the bike frame, one tire, and the bike rack simultaneously. Bike racks that are not U-lock compatible may go unused.

Racks with hollow or round tubing are easily cut and should be avoided, choose square tubing, steel or solid materials.

WHAT IT MEANS TO BE RIDER-FRIENDLY?

Bicycle racks that are rider-friendly are easy to operate and access. A rack is not rider-friendly if handlebars are in constant conflict, spacing is difficult to navigate, or the rack damages the bicycle with bending or scraping.

Accommodating all demographics, based on age, ability, or bicycle type, is another part of rider-friendly bicycle parking.

DO YOU WANT MORE VISITORS?

Many businesses think custom, colorful racks will pull in more customers. These racks may look good, but if the purpose is to support cycling customers, they fall short.

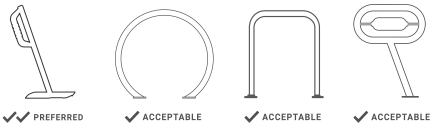
Customers value convenience over appearance, so choose functional and recognizable bike racks over fun shapes.

THE BASICS OF GOOD BIKE PARKING

GOOD RACKS

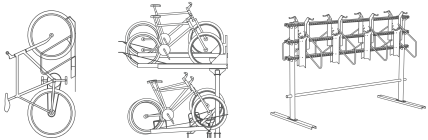
PREFERRED VS. ACCEPTABLE

Acceptable bike racks have two points of contact and U-lock compatibility. For the best performance, bike docks have wheel wells.



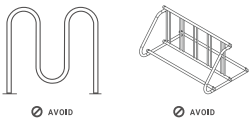
TWO-TIERED & VERTICAL

These racks are optimal for high-density parking, often used in long-term storage when high quantity parking is important.



BAD RACKS

These racks have a long history of damaging bikes, being low-security, and generally difficult to use.



MATERIALS & FINISHES

WHAT TO LOOK FOR

AVOID RUST & CORROSION

Hollow racks with a closed base often build moisture internally and rust from the inside-out, reducing the lifespan of the product.

Look for racks with an open-design, that not only drain moisture, but allow the interior to be coated with a protective finish to prevent corrosion.

WHAT'S BEST FOR THE BIKE?

Metal bike racks can scrape, dent, or chip bicycle frames.

Look for products that have protective guards around lockable loops to prevent metal-to-metal contact.

If the product doesn't have the loops, thermoplastic finishes are more bicycle-friendly than galvanized or steel.

PREVENTING THEFT

Square tubing is more difficult to cut than round, but solid materials will be the most theft-resistant.

Docks, post, and ring racks have lockable loops to lean bikes solid steel loops for highest security.

FINISHES

THERMOPLASTIC

- Highest rating in marine or snowy landscapes, helps prevents rust for long periods of time.
- Withstands direct impact and damage from elements.
- Typically available in black or silver.

STANDARD WARRANTY: 20 years

STAINLESS STEEL

- Extremely durable, long lifespan, low-maintenance.
- May have smooth or mirror shine finish.
- More expensive than other finishes.
- Most resistant to cutting.

STANDARD WARRANTY: 20 years

HOT-DIPPED GALVANIZED

- Abrasion-resistant, durable finish.
- Low maintenance, rarely requires touch-ups.
- Slightly rough texture.
- Common in environments with harsh conditions.

STANDARD WARRANTY: 10 years

POWDER COAT

- Comes in many different colors.
- Inexpensive finish.
- Low durability, chips and peels to expose metal.
- Needs regular maintenance.

STANDARD WARRANTY: 1 year

FUNDING OPTIONS

Funding opportunities are available in every city, from local to state government benefits, to clubs or nation-wide organizations. Use the following information for ideas and resources for funding your own project!

PUBLIC FUNDING
Work with your local bike advocates to win public funding for bike parking. Many states and cities will pay for bike parking out of their transportation budget, but only in response to public demand. Your local advocacy organization can create that demand by emphasizing bicycling's high value for the public tax dollar. Find an advocacy organization near you to begin a public funding strategy. Use best practices and examples of funding and advocacy campaigns for inspiration.

DONORS, BRANDING, & SPONSORSHIP
Use donations, like San Luis Obispo's Racks with Plaques program, to fund bicycle parking. With custom messaging opportunities, a rack can display a company brand or sponsor for additional revenue.

GRANTS
Organizations such as People for Bikes offers grant opportunities for businesses or that focus on bicycling and active transportation development.

ANCILLARY REVENUE
Bicycle parking can pay for itself! Compared to car parking, bicycle parking is cheap and will create more business revenue over time.

Each city and project is different, so additional ancillary revenue methods may not always apply or be appropriate for the situation. For example, if car parking is free, bicycle parking should be free; so other methods generating ancillary revenue could benefit your project.

Some facilities have successfully increased revenue by creating valet parking, absorbing the costs of parking into rent, or adding storage fees. Bike sharing may be another way to add parking, but also increase revenue.

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