

Active Facts:

A simple bike rack



This design was developed using a time-honored principle: watch what people use and give them something very much like it. We noticed that many bicyclists in downtown Missoula, Montana, locked up to railings next to buildings or to posts that hold parking meters or street signs. Cyclists often used these devices even when there were bike racks nearby. Typical reasons included:

- *security (the common bike rack designs didn't allow convenient use of high-security "U" locks, for example);*
- *convenience (racks often weren't located right where they were needed);*
- *ease of use (locking to a railing was easier than figuring out a complicated rack) and*
- *safety (typical "wheel-bender" bike racks that hold the front or rear wheel are feared by cyclists who value their bikes).*

Beginning in 1981, we experimented with the simple design shown above, using it throughout downtown.

Above: Typical downtown sidewalk installation. Each rack holds two bikes (one on either side). Racks are located near popular shops and offices.



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Because of the low cost, hundreds of these racks have been installed over the years. In fact, they have been used in many commercial developments outside the downtown and are built and installed by a small locally-owned welding shop.

To a large extent, this rack design satisfies the concerns listed above. It further satisfies two more important concerns:

- *pedestrian safety (racks on city sidewalks must be non-lethal);*
- *vandal resistance (racks should not invite the attention of vandals; these don't.).*

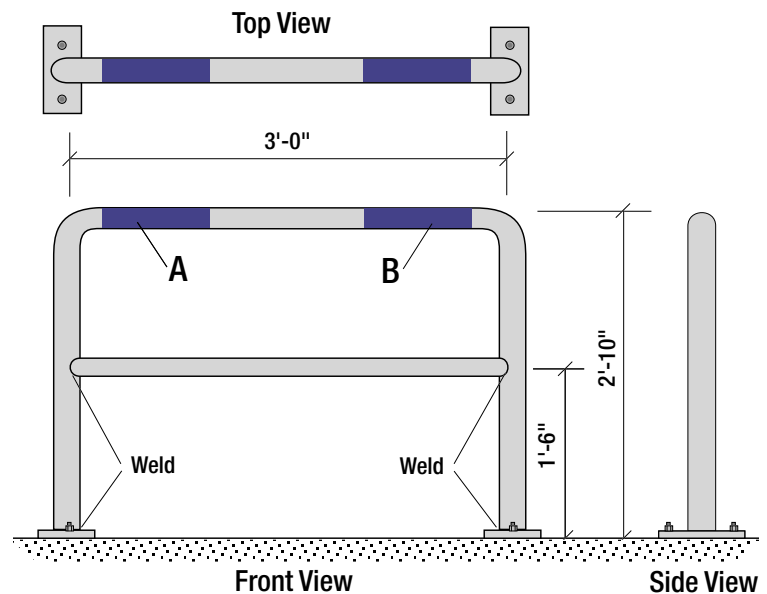
Current practice calls for roughly 2" (outside diameter) Schedule 40 steel pipe bent as shown. We required that the racks be galvanized after fabrication. This is a preferred surface treatment because racks can take a beating from pedals and other parts.

In some cases, we have used "powdercoating," as the surface treatment; powdercoat can be applied in a wide variety of colors, allowing us to match rack color to a particular building's color scheme but is not as durable as galvanizing.

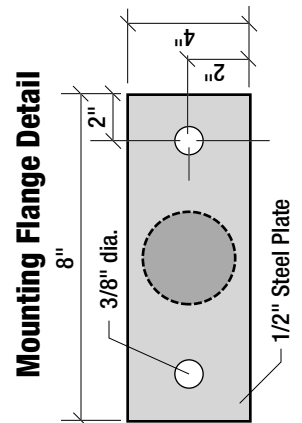
Costs run roughly \$75.00 per rack, depending on the quantity ordered. The cost will also vary depending on steel costs and local conditions. Installation typically costs \$5.00 per rack (we used inexpensive "work-study" university labor).

Racks are mounted to concrete sidewalks using anchor bolts (e.g., "Rawl Studs"). For asphalt areas, we dig holes and pour concrete footings for the racks or attach the racks to concrete pin-down curbs. In the latter case, racks should be 6 inches shorter.

— John Williams



Note: To protect bike frames from possible scratching, apply reflective "Bike Parking" stickers at "A" and "B". These could identify the racks and give bikes something to lean against.



Top: Top, front, and side views of 2-Bike Rack Design. A 4-Bike Rack would be the same height but 7' long.

Above: Detail of mounting flange. If you use a muffler shop, these will have to be provided as they aren't standard exhaust system equipment.



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