Application for URBAN DESIGN COMMITTEE Review

Department of Planning and Development Review
Planning & Preservation Division
900 E. Broad Street, Room 510
Richmond, Virginia 23219
(804) 646-6335
http://www.richmondgov.com/CommitteeUrbanDesign

Application Type

- ☐ Addition/Alteration to Existing Structure
- ☐ New Construction
- ☐ Streetscape
- ☐ Site Amenity
- ☐ Encroachment
- ☐ Master Plan
- ☐ Sign
- ☑ Other

Review Type

- ☐ Conceptual
- ☐ Final

Project Name: City of Richmond Bike Parking Racks

Project Address: Citywide

Brief Project Description (this is not a replacement for the required detailed narrative): Currently one style of bike parking rack is approved for citywide use. Several different bike rack designs have been used in various city projects to date, sometimes without adequately serving parking needs. This application seeks approval of several rack styles that can be used by the City as appropriate to address site-specific conditions and parking demand.

Applicant Information

(on all applications other than encroachments, a City agency representative must be the applicant)

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City Agency: CAO's Office Phone: 804-6467141

Address: 900 E. Broad Street, Ste 1502

Main Contact (if different from Applicant): _____

Company: _____ Phone: _____

Email: _____

Submittal Deadlines

All applications and support materials must be filed no later than 21 days prior to the scheduled meeting of the Urban Design Committee (UDC). Please see the schedule on page 3 as actual deadlines are adjusted due to City holidays. **Late or incomplete submissions will be deferred to the next meeting.**

Filing

Applications can be mailed or delivered to the attention of "Urban Design Committee" at the address listed at the top of this page. **It is important that the applicant discuss the proposal with appropriate City agencies, Zoning Administration staff, and area civic associations and residents prior to filing the application with the UDC.**

UDC Background

The UDC is a ten member committee created by City Council in 1968 whose purpose is to advise the City Planning Commission on the design of projects on City property or right-of-way. The UDC provides advice of an aesthetic nature in connection with the performance of the duties of the Commission under Sections 17.05, 17.06 and 17.07 of the City Charter. The UDC also advises the Department of Public Works in regards to private encroachments in the public right-of-way.

Bike Parking Racks – Urban Design Committee Application

Project Purpose:

The City of Richmond has begun installing many bike parking racks throughout the City to meet the needs of cyclists for secure and convenient bike parking while also better managing the existing parking demand which often relies on virtually any item one may secure their bicycle to. This includes benches, trashcans, sign posts, fences, parking meters, and even street trees among other items. Bike racks serve to encourage bicycling for routine transportation trips while also providing functional street furniture, improving the function of our sidewalks and better managing our public spaces.

Currently the City has one style of rack approved for use, the "bike hitch", also known as a post-and-ring bike rack. This rack has the benefit of being configured for several types of installation; retrofit of parking meters to serve a dual function, retrofitting old headless parking meter posts, and surface-mounted on a sidewalk. Images of each configuration of this rack are included in the Appendix to this document.

The approved rack provides flexibility of installation in a variety of contexts and is compact, however the rack only accommodates up to two (2) bicycles. Some locations in the City have significant bike parking demand and racks that can accommodate multiple bikes are needed where there is adequate space for installation of a larger rack. Additionally, other rack designs provide better support and more locking points for different sizes and types of bicycles. Having several approved bike rack styles will allow City staff to select and install a bike rack that is best suited to the parking demand and site conditions specific to any particular location.

Project Background:

Beginning in FY2012 the City of Richmond included CIP funding for the procurement and installation of bike parking racks throughout the City. To date more than 200 of the post-and-ring racks have been installed with another 150 pending installation before the end of calendar year 2014. The City has been receiving requests for bike parking racks at many locations around the City, some of which have high parking demand. As a result additional bike rack designs are needed to most appropriately address both the level of demand as well as the space available at any given location. The varying conditions present throughout the City results in some locations needing a bike rack that is different than the currently approved design, especially when accommodating larger numbers of bikes. Though the post-and-ring rack can be installed in multiples it is a more costly and labor-intensive process than installing a single large-capacity rack.

A secondary consideration is that of providing an opportunity to utilize bike racks that enhance the City's streetscapes and public spaces. There have been a number of people voicing support for more creative, whimsical and sculptural bike racks. Members of several business districts and special overlay districts (e.g. Arts District) have expressed enthusiasm for creating bike racks that are unique to their district and reflective of some element of their district. Additionally, the 2015 World Cycling Championships seek to create awareness of the upcoming event, as well as a legacy of improved bicycling conditions in the City of Richmond. Incorporating a logo related to the event would be an

opportunity to capitalize on both of those aims of the event. Currently the Greater Richmond Chamber of Commerce is pursuing a project dubbed “Go Bike” which would develop an artistic topper to be added to a limited number of city-owned bike racks. However that would require use of a rack design referred to as a “staple” that is conducive to that project concept (presented in the Appendix).

Project Budget and Funding Sources:

The City’s approved and proposed budget have CIP line items for procuring and installing bike racks. Custom racks would be more costly to fabricate and there is the potential for leveraging local business or corporate contributions to offset those greater costs. Projects such as “Go Bike” would use a standard production racks that have the ability to have custom logos or adornments added in a modular format, allowing semi-customization at a low cost.

Construction Program Description:

To date DPW’s Bridge Division staff have provided the installation services for the majority of the racks installed to date. Future installations will continue to utilize their cost-effective services, paid for through the budget allocated in the CIP. The post-and-ring racks currently being procured are being fabricated locally as part of the City’s Workforce Development initiative which is training and certifying new welders.

Estimated Project Construction Start Date:

With funding available for procurement of additional quantities of the currently approved bike rack the installations will continue as more stock is procured on an as needed basis or until CIP funds are depleted. However more locations are coming to the City’s attention where larger-capacity racks are needed and would be more suitable than installation of multiple post-and-ring racks.

Other Considerations:

Various city projects have installed a range of bike racks previously, reflecting both a need for multiple types of bike racks, as well as needed guidance on the most functional types of racks to ensure that racks which are installed provide the greatest utility.

Installation of larger racks, where warranted, allows greater flexibility and less costly installation at times. Examples include several locations within the James River Park System where a few concrete footers could be used to mount a couple large racks to provide capacity for more than a dozen bikes. Installation of the comparable capacity in post-and-ring racks would require a large concrete pad and far more points of attachment.

Appendices:

I. Examples of Existing City Bike Racks
II. Examples of Bike Racks for Consideration (Approval)

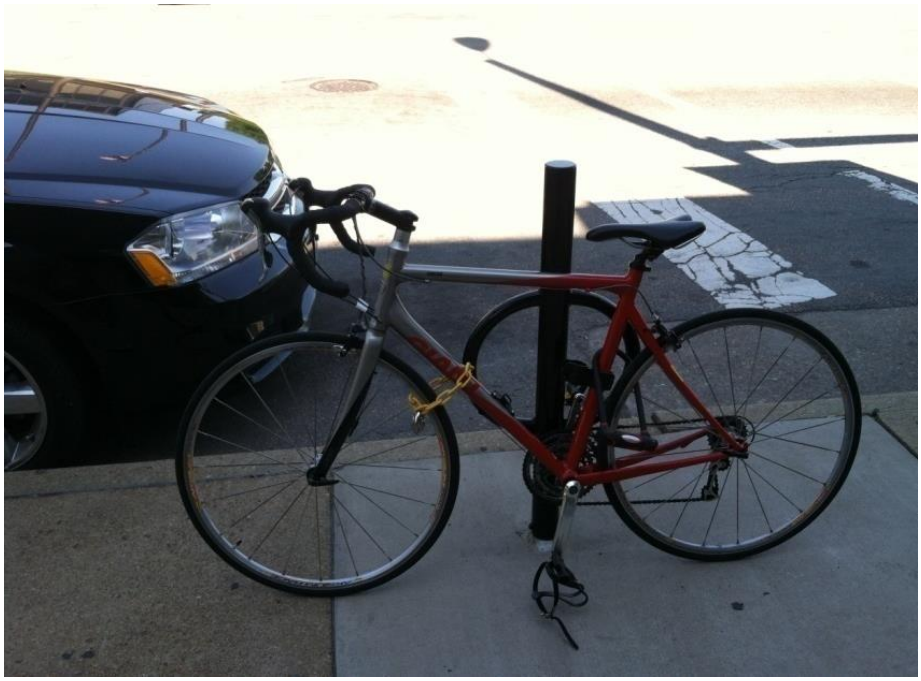
Appendix I – Examples of Existing City Bike Racks

The following are examples of the approved post-and-ring “bike hitch” bike racks that have been installed throughout the City.

Surface Mount

Parking Meter Retrofit

Bare Post Retrofit



The following are examples of some existing City bike racks that don't meet best practices and design recommendations for optimal functionality.

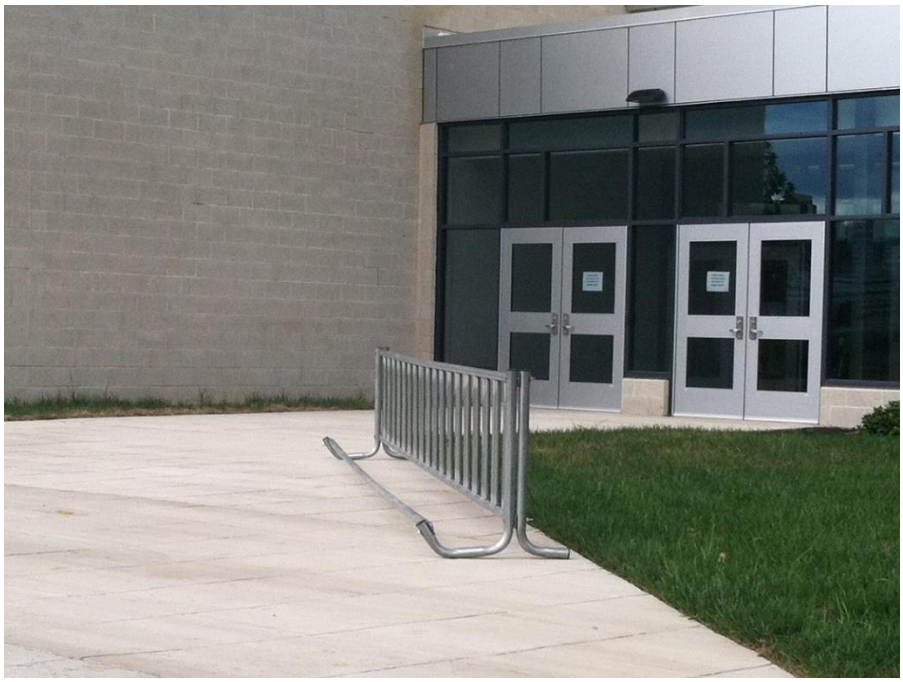
Carytown and City Hall – Large rack with limited capacity

The center section of the rack does not allow locking of a bike frame, rendering the rack non-functional except when locking the bike to the ends of the rack. Placement close to the curb reduces access to the other end, further reducing functionality and capacity.

Ribbon Rack – most common design that is no longer favored but frequently used

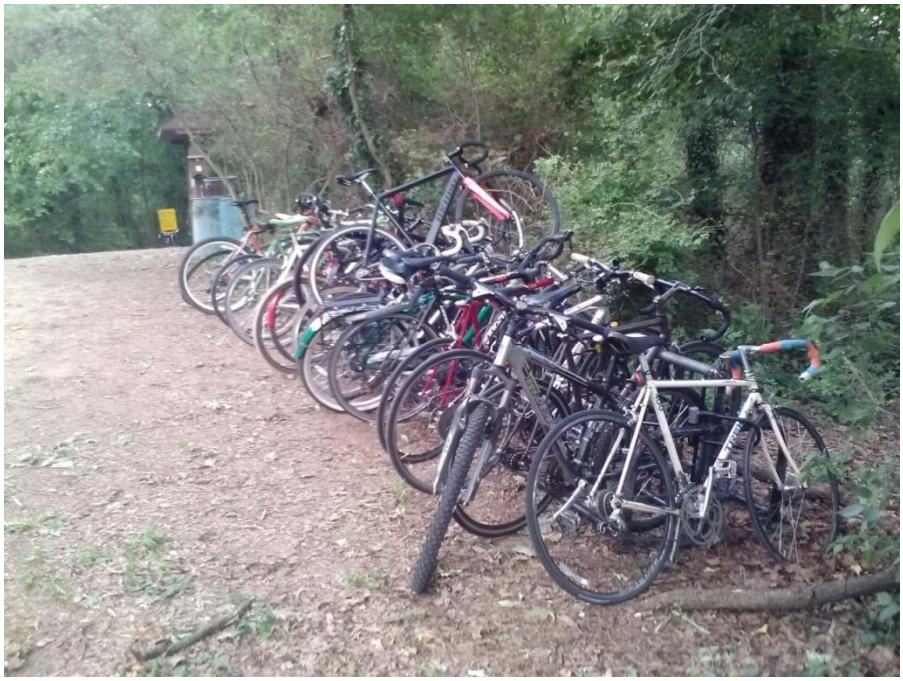
The ribbon (aka wave) racks provide only one point of contact with the bike, allowing for the bike to topple over. This can result in damage to the bike as well as limiting access for other bikes to be secured.

Schools – MLK Middle School with newly installed non-functional "comb" racks



Comb racks, dubbed "wheel benders" provide minimal support, and as designed only allow locking the wheel, not the frame. The photo below shows the chaotic result where bikes are placed with the front wheel over the top of the rack so that the frame can be locked to the rack.

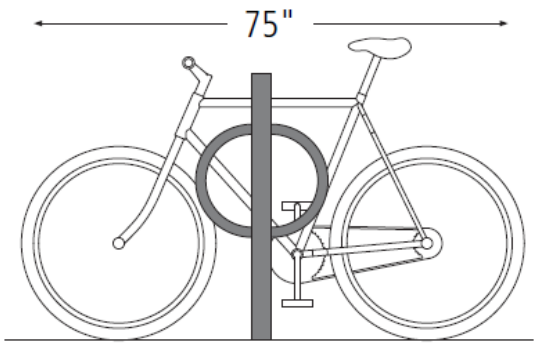
James River Park – chaotic, non-functional "comb" racks

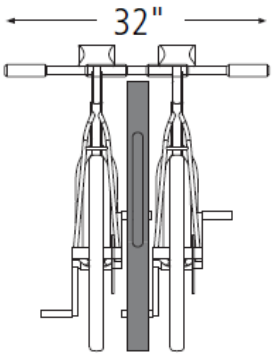


Appendix II – Examples of Bike Racks for Consideration (Approval)

The following are examples of bike racks that provide secure and functional bike parking, including racks that can accommodate multiple bikes. Included with each rack are the general installed dimensions. Bike racks should provide at least two points of contact for the bike frame to both support the bike, as well as provide several locking points.

Individual Racks – Installed in a fashion similar to the post-and-ring rack, oriented parallel or at an angle to the curb, and in singles or multiples as space dictates. All of these racks can be customized with a decorative element incorporated into the rack as shown in several examples. Single racks which are intended to accommodate up to two bikes (one secured to each side of the rack) and all occupy approximately the same functional footprint when in use since the bicycles define the space required.





Arc installed in group of three and example with custom logo

Staple Rack in stainless steel at Federal Courthouse sidewalk.
The "staple" rack is proposed for use with the "Go Bike" project.

Custom inverted U Racks installed too close together. Similar Inverted U rack with custom logo

The inverted U design is a functional design that meets basic criteria, however their placement and positioning need to allow access and provide adequate width for bikes to be locked to the rack. Three feet (3') spacing should be used to ensure access to both sides of the rack, and adequate space should be provide from other obstructions to allow bikes to be placed against the rack.

Fruits & Veggies – possibly located at community gardens

Capacity: 2 per rack.

Footprint: 75”x32”

The footprint is the same as other individual racks such as the existing post-and-ring since it is defined by the bikes locked to it.

Use is intended for community gardens.

Planter

Capacity: 2 per planter/rack.

Footprint: 6’x3.75’

Exact model not currently available in the US and would need to be designed and fabricated.

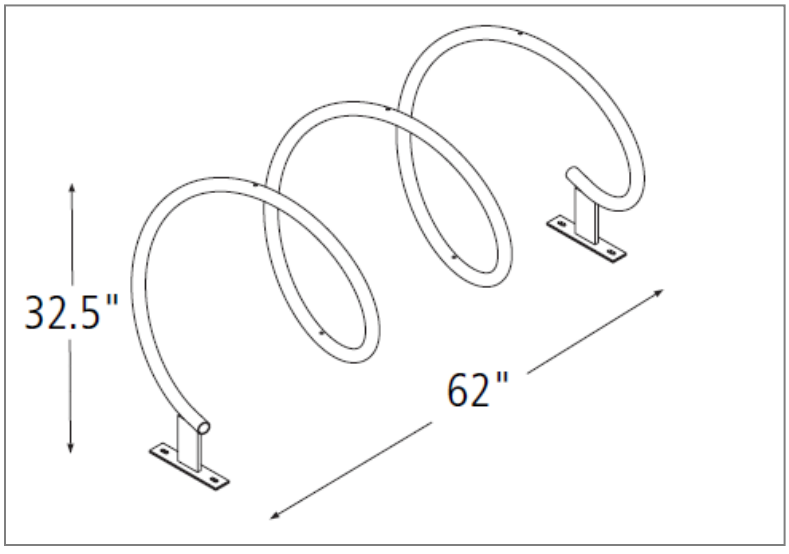
Maintenance best served by “adopting” business.

Can have logo added.

Potential for cost offset by associated fee for businesses requesting planters with custom logos.

Higher Capacity Racks – Examples of large-capacity racks that can accommodate more than one or two bikes, for use at locations where bike parking demand is significant such as public buildings, parks, or commercial areas with heavy bike traffic.

Helix



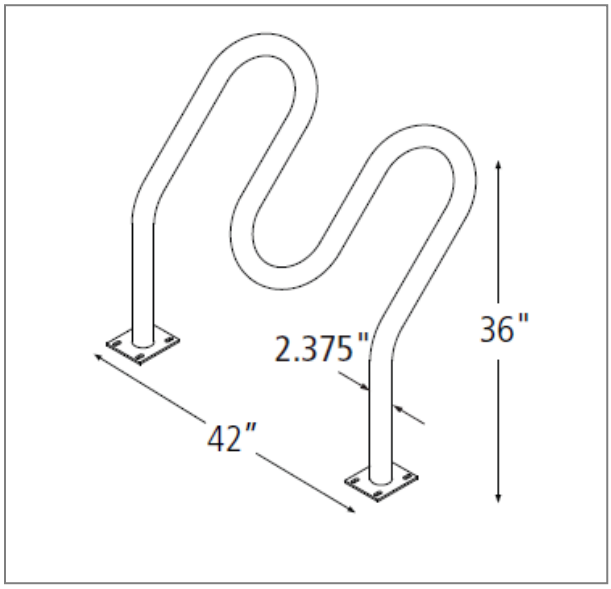
Capacity: 6 bikes.

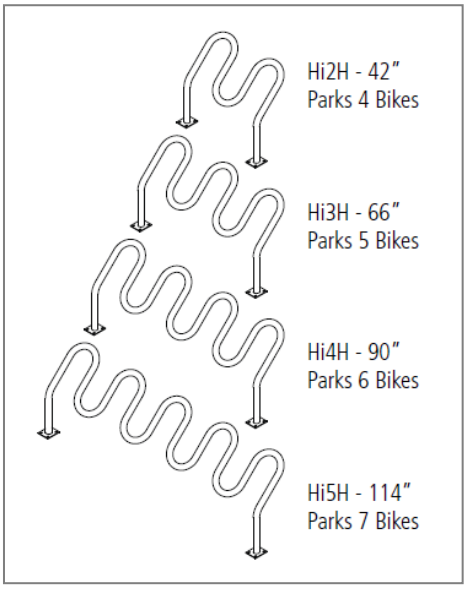
Can be installed in multiples to form a continuous helix.

Footprint (W x L), with bikes secured on both sides:

~108” x62” (or multiples thereof)

High Roller


2.375"
36"
42"


Hi2H - 42"
Parks 4 Bikes
Hi3H - 66"
Parks 5 Bikes
Hi4H - 90"
Parks 6 Bikes
Hi5H - 114"
Parks 7 Bikes

Post-and-Ring installed in multiples

Capacity: 2 per rack.

When installed in multiples, three feet (3’) should be allowed between each.

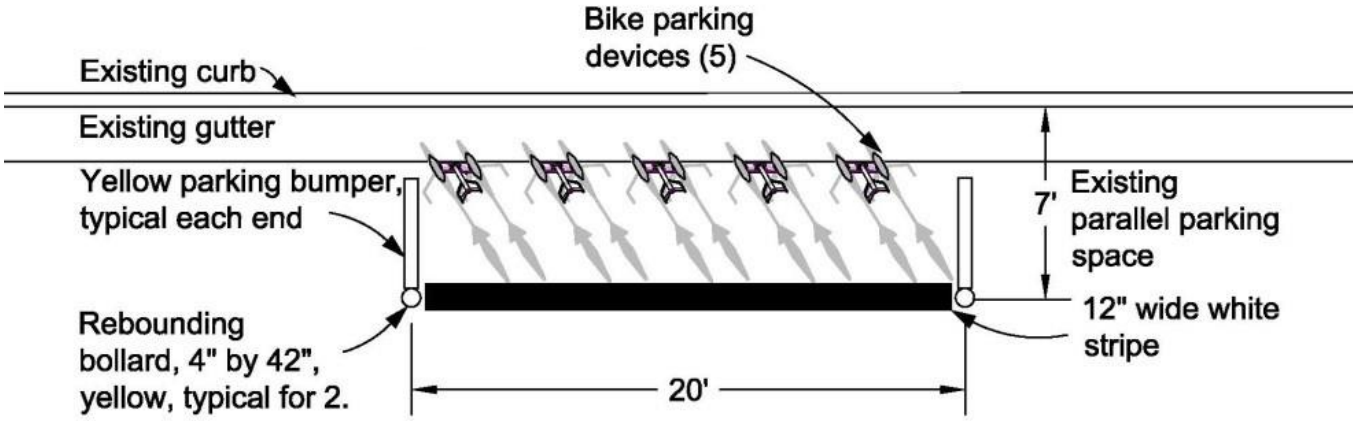
Functional footprint as shown (5 racks, accommodating 10 bikes):

~15’x7’

Requires monolithic poured and reinforced concrete slab.

Bike Corrals – Corrals are large capacity bike racks placed curbside at locations where sidewalk space is inadequate to accommodate high-capacity bike parking. Corrals may use an enclosure to ensure entry/exit occurs from the sidewalk to reduce potential conflicts with traffic on busier streets. They typically consist of a series of staple racks attached to two rails which are then anchored to the pavement. Parking stops, markings, and/or flex posts are used to demarcate them and prevent vehicle encroachment.

Example of a custom enclosure around a bike corral



10-Bike Corral Design