CITY OF STUART
CITY COMMISSION MEETING
March 11, 2019

Land Development Code Amendments

Bicycle Parking

- Currently, the LDC requires large scale commercial development that is 20,000 SF or more of total gross floor area of the building to provide bicycle amenities on development site.

- 20,000 – 50,000 SF → One bike rack
  50,000 – 100,000 SF → Two bike racks
  100,000 or above → Four bike racks

- Each bike rack must store not less than six bicycles (typically wave bike racks).

- The code doesn't provide specific requirement for bike rack design or placement on site, which could lead to poor bike rack choices and failure to usage due to wrong placement.

Existing Requirements

BICYCLE RACK SELECTION

Source: Association of Pediatrician and Bicycle Professionals

RACKS TO AVOID

Because of performance concerns, APBP recommends 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.

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Example

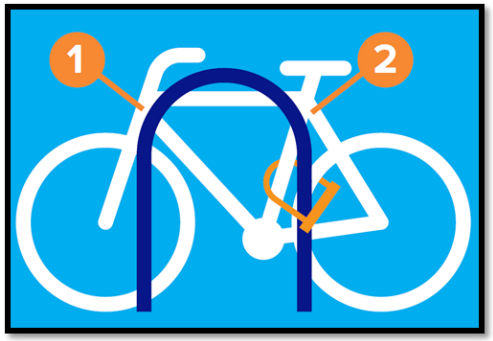
Bike Racks to Avoid

- The downtown parking study recommended installation of bicycle racks at key locations in the downtown to encourage bicycling as an alternative mode to commute.

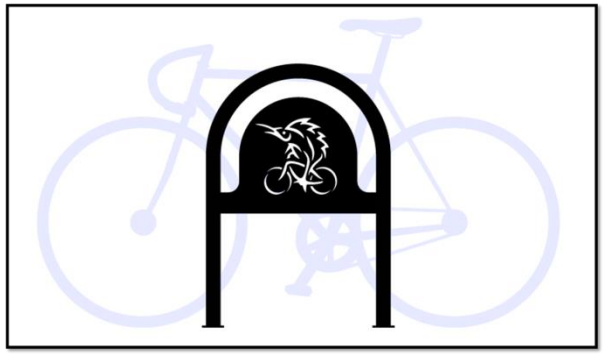
- The most commonly used bike racks are the inverted “U” hoop rack, round rack, bike hitch or some variation of the inverted “U” design.

- Features of an acceptable bike rack include:

  - Stable structure securely anchored in a permanent foundation.
  - Ability to support two points of contact with the bike.
  - Design that prevents the bike from tipping over.
  - Ability to support a variety of bike sizes and frame shapes.
  - Allow both the frame and at least one wheel of the bike to be secured with a lock.



- In November 2018, the CRA/City Commission approved the design for bike rack to be installed in the City's right-of-way and public places in downtown Stuart.



- The custom design bike racks will help create identity, visibility, and branding for a bike friendly community.

- The CRA/City Commission directed staff to amend the land Development Code to include acceptable bike rack design and requirements to encourage alternate modes of transportation.

Background

- The proposed bicycle parking requirements will apply to new developments, substantial improvements or an addition to existing building.

- Applicable to non-residential or multi-family development requiring 10 or more off-street vehicular parking spaces.

- Single-Family homes, duplex and Assisted Living Facility are exempt from bicycle parking requirements.

- Bicycle parking facility may consist of short-term bicycle parking, long-term bicycle parking or combination of both.

  - Short-term is typically outdoors and not protected from the weather (retail stores).

  - Long-term is typically covered bicycle parking spaces (inside parking garages or bicycle lockers) and should be encouraged for multi-family development for residents and office buildings for employees.

- Non-Residential Development
  - Two bicycle parking spaces (1 bicycle rack) for the first 10 off-street vehicular parking spaces.
  - Two additional bicycle parking spaces for each additional 30 required off-street vehicular parking spaces
  - In no case shall more than 20 bicycle parking (10 bicycle racks) be required.
- Multi-family Development
  - Two bicycle parking spaces (1 bicycle rack) per 5 units within the CRA
  - Two bicycle parking spaces (1 bicycle rack) per 10 units outside the CRA.
  - In no case shall more than 20 bicycle parking (10 bicycle racks) be required.

- Bicycle Rack Design

  - Required bicycle rack shall meet the City's approved bicycle rack design. Inverted "U" rack with the City's custom laser cut logo plate with a light green powder-coated finish. Design supports two bicycles.

- Alternative Bicycle Rack Design – at the discretion of the development director:

  - Inverted "U" hoop rack, round rack, hitch rack or some variations of the upside down "U" design. Custom artistic design racks may be provided if it meets the criteria of acceptable bicycle rack design:
    - ✓ Designed to accommodate two bicycle parking spaces per rack.
    - ✓ Galvanized, stainless steel, powder-coated finish or weather-proof surface.
    - ✓ Support two points of contact with the bicycle.
    - ✓ Supports variety of bike sizes and frame shapes.
    - ✓ Allows at least 1 wheel of the bicycle to be secured with a lock.
    - ✓ Visible to pedestrians.

BICYCLE PARKING EXAMPLES

Uses	Gross Floor Area/Units	Parking Requirement[1]	Existing Bicycle Parking Requirement[2]	Proposed Bicycle Parking Requirement [3]
Walmart	221,881 SF	888 spaces	4 racks (24 bicycles)	16 racks (32 bicycles)[4]
Costco	154,300 SF	618 spaces	4 racks (24 bicycles)	11 racks (22 bicycles)[4]
Aldi	17,837 SF	89 spaces	None	4 racks (8 bicycles)
600 Ocean Blvd (Office bldg.)	4,489 SF	23 spaces	None	2 racks (4 bicycles)
Wawa's	5,943 SF	59 spaces	None	3 racks (6 bicycles)
Azul (Triangle property)	49 units (53,953 SF)	106 spaces (providing 12 racks/24 bicycles)	None	10 racks (20 bicycles)[5]

[1] The proposed bicycle parking standards shall apply to non-residential and multi-family developments requiring 10 or more off-street vehicular parking spaces.

[2] Bicycle racks required only for large-scale commercial development with a minimum of 20,000 SF gross floor area. The type of bike rack required is not provided, however, the code requires that each bike rack must store not less than 6 bicycles. Calculations based on a typical wave, spiral or schoolyard racks that support minimum 6 bicycles.

[3] Non-residential developments - Inverted "U" rack supports 2 bicycles
- Two bicycle parking spaces (1 bicycle rack) or the first 10 required vehicular parking spaces.
- Two additional bicycle parking spaces (1 additional bicycle rack) for each additional 30 required vehicular parking spaces.

[4] Not required to exceed 20 bicycle parking spaces (10 inverted "U" racks).

[5] Multi-family developments - Inverted "U" rack supports 2 bicycles
- In/CRA: Two bicycle parking spaces (I bicycle rack) per 5 units.
- Out/CRA: Two bicycle parking spaces (1 bicycle rack) per 10 units.



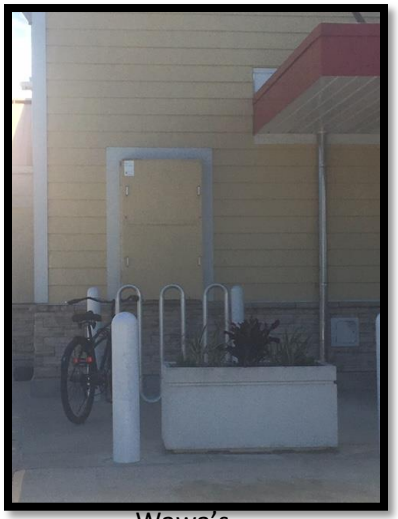
Water's Edge Dermatology



Aldi Shopping Plaza



Barron Shoppes



Wawa's



Walmart – Bicycle Rack 1



Walmart – Bicycle Rack 2

Site Visit

- Bicycle Parking Facility Design Standards:
  - Permanently affixed to a hard surface.
  - Preferably near the primary entrance of the building.
  - Located in well-lit areas.
  - If located in the vehicular parking area, the bicycle parking spaces shall be separated by some barriers such as curbs.
  - Provided on the development site, unless provided in the ROW by the City.
  - Identified using signage around the area.
  - Racks may be oriented parallel, diagonal or perpendicular to sidewalks.
  - It can be placed as a single rack by itself in key areas/building entrances or multi racks side-by-side .
  - It shall comply with minimum setbacks from infrastructure.

- The development directly shall have the authority to determine the most appropriate location for bicycle parking during the site plan review.

- The development director shall have the authority to modify from the bicycle parking requirements including but not limited to situations in which compliance cannot be met due to physical site constraints and it should be noted on the site plan.

- Approve Ordinance No. 2396-2019 amendments to the Land Development Code to establish bicycle parking facility and rack design standards.

RECOMMENDATION