

## **GUIDE TO THE**

# CITY OF LOS ANGELES BICYCLE PARKING ORDINANCE



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# SHORT-TERM BICYCLE PARKING

Short-term bicycle parking consists of bicycle racks located outside buildings or on public sidewalks or public streets that are free to the user. Short-term bicycle parking is necessary for short stays where the key goal is visible and convenient parking that is in close-proximity to a building's main entrance.



### Racks

Racks can take a variety of shapes and forms but most commonly consist of an inverted-U design. Bicycle racks are primarily used for short-term bicycle parking in publicly accessible places.



### **Bicycle Corrals**

Bicycle Corrals provide on-street bicycle parking, typically by replacing a single curbside parking space. Bicycle Corrals can typically accommodate 12 parked bicycles by replacing a single vehicle parking space.



Long-term bicycle parking facilities are needed to provide a high level of security and protection from theft and weather. Long-term parking should be installed in locations that are well-lit where people may safely leave their bicycles unattended for long periods of time.



### Lockers

Lockers can be rented to individuals or made available to the public through the installation of code locks or locking mechanisms such as a U-lock. Lockers can typically be rented for set periods of time such as 3 months, 6 months, or a year.



### **Bike Room & Bike Cages**

Bike rooms and bike cages provide longterm bicycle parking for apartment buildings and large employment centers. A bike room is often a room of its own that is easily accessible and where bicycles can be parked safely. Bike cages are similar to bike rooms but may be a sectioned off area of a larger room or garage.



### Bicycle Transit Centers/ Bike Stations

These amenities are indoor facilities that are accessible to members of the general public. They are usually staffed by employees that offer bike repairs, rentals, information, and other commercial activities.

### OFF-STREET AUTOMOBILE PARKING REQUIREMENTS. (LAMC Section 12.21.A.4)

New or existing automobile parking spaces required by the Code for all uses may be replaced by bicycle parking at a ratio of one automobile parking space for every four bicycle parking spaces provided. Notwith-standing the foregoing, no more than 20% of the required automobile parking spaces for nonresidential uses shall be replaced at a site (Figure 1).



Figure 1

Residential buildings may replace 10% of the required automobile parking with bicycle parking. Automobile parking spaces for residential projects or buildings located within 1,500 feet of a portal of a fixed rail transit station, bus station, or other similar transit facility as defined by Section 12.24 Y may replace up to 15% of the required automobile parking spaces with bicycle parking. If a residential building has applied for and received a density bonus under Section 12.22A.25, 30% of the required automobile parking may be replaced. In such cases, the replacement of automobile parking with bicycle parking shall be implemented in lieu of the parking options in Section 12.22A.25(d) (Figure 2).

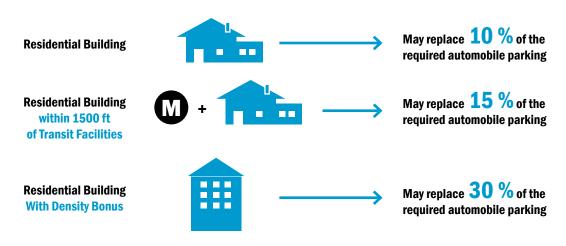


Figure 2

Bicycle parking installed pursuant to this Section may be installed in existing automobile parking spaces and shall not be considered to violate the maintenance of existing parking as defined by Section 12.21A.4(m). The ratio of short- to long-term bicycle parking provided for pursuant to this Section shall be provided in accordance with the requirements set forth for each use as defined by Section 12.21.A.16(a).

### **BICYCLE PARKING AND SHOWER FACILITIES. (LAMC Section 12.21.A.16)**

### **Bicycle Parking Requirements (LAMC Section 12.21.A.16.d)**

### **Short-Term Bicycle Parking. (LAMC Section 12.21.A.16.d.1)**

Short-term bicycle parking shall consist of bicycle racks that support the bicycle frame at two points. Racks that support only the wheel of the bicycle are not permissible (Figure 3).

- Racks shall allow for the bicycle frame and at least one wheel to be locked to the racks (LAMC Section 12.21.A.16.d.1.i).
- The bicycle rack shall allow for the use of a cable as well as a U-shaped lock (LAMC Section 12.21.A.16.d.1.ii).
- If bicycles can be locked to each side of the rack, each side shall be counted toward a required space (LAMC Section 12.21.A.16.d.1.iii).
- Racks shall be securely anchored to a permanent surface (LAMC Section 12.21.A.16.d.1.iv).
- If more than 20-short term bicycle parking spaces are provided, at least 50% shall be covered by a roof or overhang (LAMC Section 12.21.A.16.d.1.v).

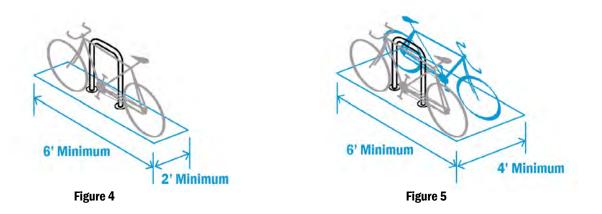


Figure 3

### **Design Standards (LAMC Section 12.21.A.16.e)**

### Dimensions. (LAMC Section 12.21.A.16.e.1)

- Each bicycle parking space shall be a minimum six feet (72 inches) in length (LAMC Section 12.21.A.16.e.1.i) (Figure 4).
- Short-term bicycle parking spaces shall be a minimum of two feet (24 inches) wide (LAMC Section 12.21.A.16.e.1.ii) (Figure 4).
- If two bicycles are to be locked on a rack, the space shall be minimum four feet (48 inches) wide and six feet (72 inches) length (Figure 5).



- Individual racks installed side by side to one another that allow bicycles to be locked to either side of the rack shall be spaced a minimum of 30 inches on center; (The bike racks shall be placed minimum 48 inches apart if bicycles are to be locked on both sides of each rack) (LAMC Section 12.21.A.16.e.1.ii.1) (Figure 6).
- Racks installed parallel to walls shall be a minimum of 30 inches from the wall (LAMC Section 12.21.A.16.e.1.ii.2) (Figure 7).

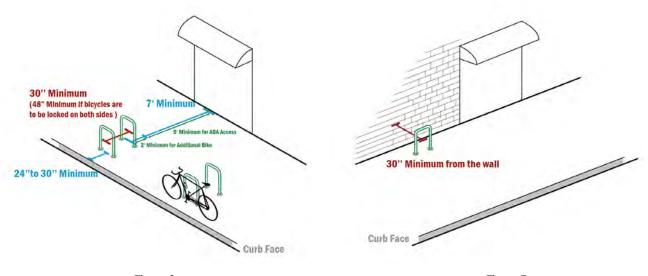


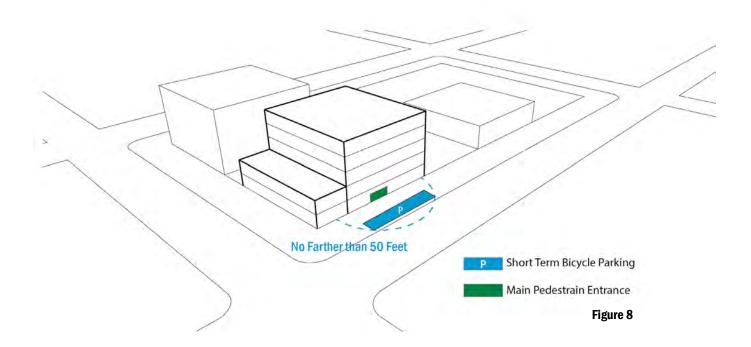
Figure 6 Figure 7

### Siting Requirements. (LAMC Section 12.21.A.16.e.2)

### Short-Term Bicycle Parking. (LAMC Section 12.21.A.16.e.2.ii)

For new construction, short-term bicycle parking shall be located outside buildings. For existing buildings where exterior space is inadequate, short-term bicycle parking may be located inside the building or on the level of the parking garage closest to the ground floor with a direct access to a public street.

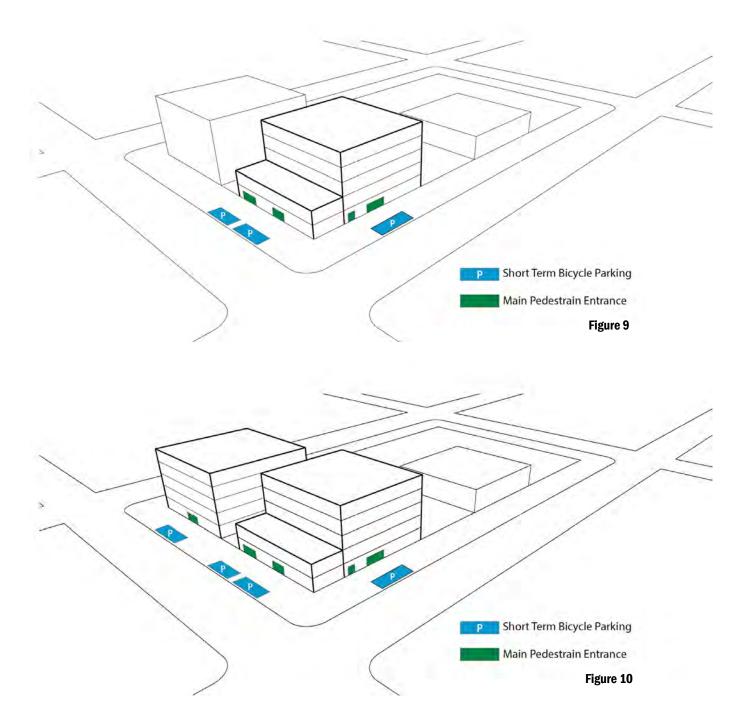
- For new developments, short-term bicycle parking shall be located to maximize visibility from the main entrance. For existing buildings, where short-term bicycle parking is located within buildings or parking garages, signage is required at each building entrance as per Section 12.21A 16(d)(4) (LAMC Section 12.21.A.16.e.2.ii.a).
- Short-term bicycle parking spaces shall be located <u>no farther than 50 feet</u> of walking distance from a main pedestrian entrance or the walking distance from a main pedestrian entrance to the nearest off-street automobile parking space, whichever is closer (LAMC Section 12.21.A.16.e.2.ii.b) (Figure 8).



 For buildings with more than one main pedestrian entrance, short term bicycle parking shall be split evenly among all main pedestrian entrances (LAMC Section 12.21.A.16.e.2.ii.c) (Figure 9).

### • Multiple Buildings. (LAMC Section 12.21.A.16.e.2.v)

For a development site with multiple buildings, required bicycle parking shall be sited in smaller bicycle parking facilities located near the pedestrian entries for each building, rather than in one centralized facility in accordance with the rules for locating bicycle parking provided in this Paragraph (Figure 10).



### Lighting (LAMC Section 12.21.A.16.e.3)

• Adequate lighting shall be provided to ensure safe access to bicycle parking facilities in accordance with Section 12.21A.5(k).

### Signage (LAMC Section 12.21.A.16.e.4)

• Where bicycle parking is not clearly visible from the street, legible reflectorized signs shall be permanently posted at the street entrances to each site indicating the availability and location of bicycle parking within the site. All signs must comply with Section 14.4.7.



**Lighting for Bike Parking Facilities** 



**Bike Parking Signage** 

### Additional Requirements and Allowances. (LAMC Section 12.21.A.16.f.)

### Bicycle Parking in the Public Right-of-Way (LAMC Section 12.21.A.16.f.1)

- Short-term bicycle parking spaces located immediately in front of a site within the public right-of-way (ROW) may be counted towards the short-term bicycle parking requirements of said site (LAMC Section 12.21.A.16.f.1.i).
- Business operators or property owners may install and maintain their own racks within the public ROW unless a City owned rack already exists (LAMC Section 12.21.A.16.f.1.ii) (Figure 11).
  - Business operators or property owners are responsible for applying for a permit with the Bureau of Engineering (BOE) to install short-term bicycle parking within the public ROW. A BOE permit may be issued only after the business operator or property owner receives issuance of plan approval or a permit by the Department of Transportation (LADOT) pursuant to LAMC Section 85.04 (LAMC Section 12.21.A.16.f.1.ii.a).
  - All bicycle parking installed in this manner shall meet the rules and regulations set out by the BOE Standard Plan S-671-1 (LAMC Section 12.21.A.16.f.1.ii.b).
  - Business operators or property owners who choose to install bicycle parking in the public ROW are responsible for maintaining the racks according to the standards set forth in a Covenant Maintenance Agreement with LADOT (LAMC Section 12.21.A.16.f.1.ii.c).

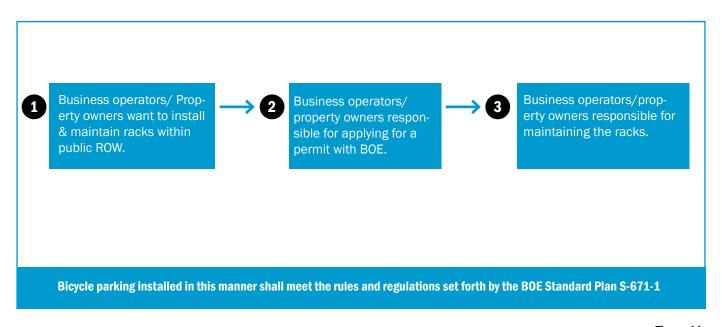
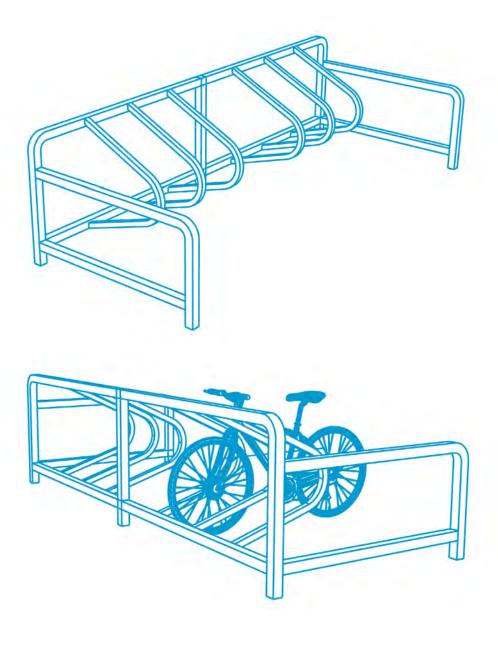


Figure 11

### **Bicycle Corrals (LAMC Section 12.21.A.16.f.2)**



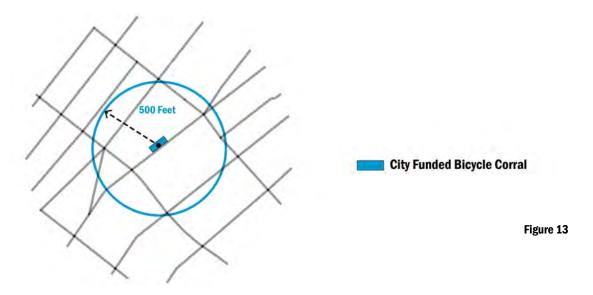
**Diagrams of Bicycle Corral** 

Figure 12

Bicycle Corrals provide on-street bicycle parking, typically by replacing a single curbside vehicle parking space. Bicycle Corrals can accommodate 12 parked bicycles. On-street bicycle parking can be beneficial in locations where there is high demand for bicycle parking, sidewalk space is limited, or sidewalks are busy (Figure 12).

### **Bicycle Corrals (LAMC Section 12.21.A.16.f.2)**

 Any site located within 500 feet of a City funded Bicycle Corral may count up to 4 bicycle parking spaces towards their required short-term bicycle parking spaces (LAMC Section 12.21.A.16.f.2.i) (Figure 13).



- Business operators or property owners may submit an application to the LADOT to install and maintain their own Bicycle Corrals immediately in front of their property in the public ROW (LAMC Section 12.21.A.16.f.2.ii).
  - Businesses or property owners who do so may count all the bicycle parking within the Bicycle Corral towards their required number of short-term bicycle parking spaces. In such cases, short-term bicycle parking installed in such a manner shall not be counted towards the bicycle parking requirements of surrounding businesses (LAMC Section 12.21A.16.f.2.ii.a).
  - Business operators or property owners shall pay the construction and maintenance costs of building said Bicycle Corrals (LAMC Section 12.21A.16.f.2.ii.b).
  - Multiple businesses or property owners may submit an application to the Department of Transportation's Bicycle Program as a group and split the costs to construct and maintain the corral (LAMC Section 12.21A.16.f.2.ii.c).
    - In such cases, a single business shall be responsible for assuming the maintenance responsibilities detailed in a Covenant Maintenance Agreement as outlined below (LAMC Section 12.21.A.16.f.2.ii.c.1).
    - The business responsibility for maintaining the Bicycle Corral may count the full amount of bicycle parking in the corral towards its short-term bicycle parking requirements (LAMC Section 12.21.A.16.f.2.ii.c.2).
    - All other businesses may count up to half of the bicycle parking spaces in the corral towards their required short-term bicycle parking spaces so long as they provide a financial contribution (LAMC Section 12.21.A.16.f.2.ii.c.3).

### **Additional Requirements and Allowances**

- Business operators or property owners shall be responsible for applying for a permit with the BOE to install Bicycle Corrals within the public ROW (LAMC Section 12.21.A.16.f.2.ii.d).
- Business operators or property owners who choose to install Bicycle Corrals within the public ROW shall be responsible for maintaining the racks according to the standards set forth in a Covenant Maintenance Agreement with the LADOT (LAMC Section 12.21A.16.f.2.ii.e).
- If, for any reason, the responsibility for maintaining a Bicycle Corral is returned to the City of Los Angeles, it shall be considered a City funded Bicycle Corral (LAMC Section 12.21A.16.f.2.ii.f).
  - If, for any reason, the City determines that a Bicycle Corral must be removed, business owners shall no longer be able to count the spaces removed toward their required bicycle parking. In such cases, said businesses shall be required to provide any bicycle spaces lost in the removal of the corral. Failure to comply may result in the revocation of a business's Certificate of Occupancy and a fine for Code Violation (LAMC Section 12.21A.16.f.2.iii).



Bike Corral Installation at 5th St and Main St

### **BICYCLE PARKING AND SHOWER FACILITIES. (LAMC Section 12.21.A.16)**

Parking spaces for bicycles and facilities for employee showers and lockers shall be provided for new development and additions that increase the floor area of a building as follows (LAMC Section 12.21.A.16):

### Land Uses (LAMC Section 12.21.A.16.a)

### Residential (LAMC Section 12.21.A.16.a.1)

- For all residential buildings containing more than three dwelling units or more than five guest rooms, long- and short-term bicycle parking shall be provided. Long-term bicycle parking shall be provided at a rate of one per dwelling unit or guest room. In addition, short-term bicycle parking shall be provided at a rate of one per ten dwelling units or guest rooms. In such cases, a minimum of two short-term bicycle parking spaces shall be provided (Figure 14).
  - In instances where a building may contain both dwelling units and guest rooms, the sum of dwelling units and guest rooms shall be used to determine the amount of long- and short-term parking. Any combination that results in more than five combined dwelling units and guest rooms will require bicycle parking (LAMC Section 12.21.A.16.a.1.i).
  - Developments such as townhouses that include individually accessed private garages for each unit shall not be required to provide long-term bicycle parking (LAMC Section 12.21.A.16.a.1.ii).



Figure 14

### Commercial, Institutional, and Industrial Uses (LAMC Section 12.21.A.16.a.2)

- For all commercial, institutional, and industrial uses that require automobile parking under Subsection 12.21.A.4 (c), (d), (e), and (f), short- and long-term bicycle parking shall be provided as per Table 12.21.A.16(a)(2).
  - For uses listed in Table 12.21.A.16(a)(2) a minimum of two short-term and two long-term bicycle parking spaces shall be provided (LAMC Section 12.21.A.16.a.2.i).
  - After the first 100 bicycle parking spaces are provided for uses listed in Table 12.21.A.16(a)
     (2), additional spaces may be provided at the minimum required by the Los Angeles Green Building Code Article 99.05.106.4 (LAMC Section 12.21.A.16.a.2.ii).

### Table 12.21 A.16(a)(2)

Required Bicycle Parking Spaces per building floor area as defined under LAMC Section 12.03

LAND USE	SHORT-TERM	LONG-TERM		
	BICYCLE PARKING	BICYCLE PARKING		
COMMERCIAL USES				
Office	1 per 10,000 sq.ft. (minimum 2)	1 per 5,000 sq.ft. (minimum 2)		
Warehouse	1 per 10,000 sq.ft. (minimum 2)	1 per 10,000 sq.ft. (minimum 2)		
Health Clubs	1 per 2,000 sq.ft. (minimum 2)	1 per 2,000 sq.ft. (minimum 2)		
Restaurants and Bars, General	1 per 2,000 sq.ft. (minimum 2)	1 per 2,000 sq.ft. (minimum 2)		
Restaurant, small (floor area less than 1000 sq. ft.	2 per restaurant	2 per restaurant		
Retail Stores, General	1 per 2,000 sq.ft. (minimum 2)	1 per 2,000 sq.ft. (minimum 2)		
Retail, Furniture Stores	1 per 10,000 sq.ft. (minimum 2)	1 per 10,000 sq.ft. (minimum 2)		
Trade Schools, Private Universi-	1 per 500 sq.ft. or 1 per 50 fixed	1 per 1000 sq.ft. or 1 per 100		
ties, and Private Colleges	seats whichever is greater (mini- mum 2)	fixed seats whichever is greater (minimum 2)		
Hotels and Hostels	1 per 20 guest rooms (minimum 2)	1 per 20 guest rooms (minimum 2)		
All other Commercial Uses	1 per 10,000 sq.ft. (minimum 2)	1 per 10,000 sq.ft. (minimum 2)		
INSTITUTIONAL USES				
All Institutional Uses	1 per 10,000 sq.ft. (minimum 2)	1 per 5,000 sq.ft. (minimum 2)		
INDUSTRIAL USES				
All Industrial Uses	1 per 10,000 sq.ft. (minimum 2)	1 per 10,000 sq.ft. (minimum 2)		
OTHER USES				
Auditoriums	1 per 350 sq.ft. or 1 per 50 fixed seats whichever is greater (minimum 2)	1 per 700 sq.ft. or 1 per 100 fixed seats whichever is greater (minimum 2)		
Private Elementary Schools, Private High Schools, and Charter Schools	4 per classroom (minimum 2)	1 per 10 classrooms (minimum 2)		

### Combination of Uses (LAMC Section 12.21.A.16.a.3)

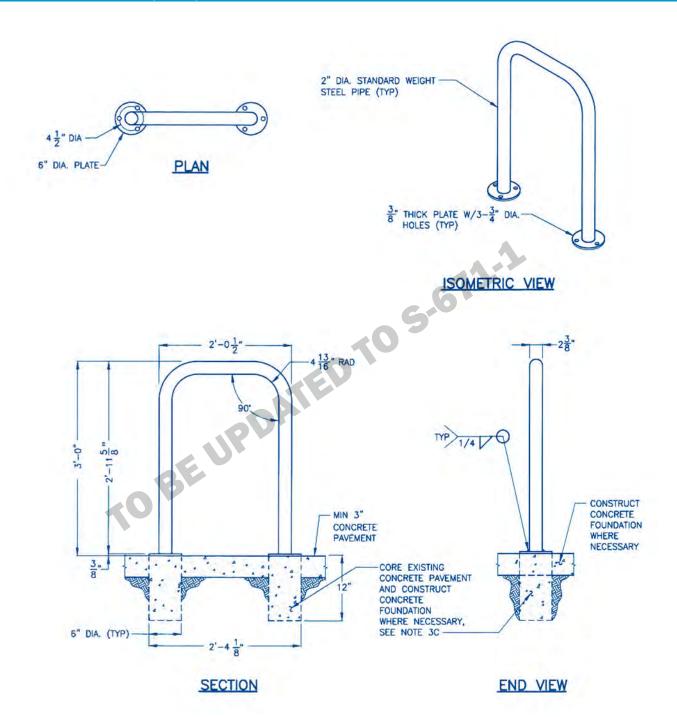
• Where there is a combination of uses on a lot, the number of bicycle parking spaces required shall be the sum of the requirements of the various uses. The exceptions provided in Section 12.21.4(j) for automobile parking shall also apply to bicycle parking.

### Fractions (LAMC Section 12.21.A.16.b)

 When the application of these regulations results in the requirement of a fractional bicycle space, any fraction up to and including one-half may be disregarded, and any fraction over one-half shall be construed as requiring one bicycle parking space.

### Change of Use (LAMC Section 12.21.A.16.c)

• Buildings undergoing a change of use shall not be required to provide bicycle parking. This includes adaptive reuse projects pursuant to Section 12.22.A.26.



BUREAU OF EN	BUREAU OF ENGINEERING DEPARTMENT OF PUBLIC WORKS				CITY OF LOS ANGELES	
BICYCLE RACK			STANDARD PLAN S-671-0			
PREPARED CARLOS MORALES DEPT. OF TRANSPORTATION AMIR SEDADI, P.E. INTERIM GEN. MANAGER RONALD LAU	SUBMITTED  3/6/1/  SAMARA ALI-AHMAD, P.E. DATE ENGINEER OF DESIGN	APPROVED		ROFESSIONAL LEE MICH SERVICE MI	SUPERSEDES	REFERENCES
BUREAU OF ENGINEERING CHECKED PATRICK LEE, P.E. BUREAU OF ENGINEERING	KENNETH REDD, P.E. DATE DEPUTY CITY ENGINEER	Lary Lee Moore GARY LEE MOORE, P.E. CITY ENGINEER	3-14-11 DATE	No. C-49446 Exp. 9.20.12 +	SHEET 1 (	OF 2 SHEETS

### NOTES

### 1. MATERIALS:

- A. PIPE: ASTM A53 GRADE B STANDARD WEIGHT STEEL PIPE; 2 INCH DIA. CONSTRUCTED OF 90 DEGREE BENDS WITH AN INSIDE RADIUS BEND OF 4 13/16 INCHES.
- B. PLATE: ASTM A36 3/8 INCH THICK PLATE WITH THREE 3/4 INCH DIA. HOLES AT 120 DEGREES SPACING.

  BOLT: DRIVE TYPE ANCHOR BOLT MADE OF ZINC PLATED AISI 1038 HEAT TREATED CARBON STEEL, 1/2 INCH
  DIA BY 3 INCHES LONG. THE ANCHOR BOLT, SHALL BE MANUFACTURED BY POWERS FASTENERS
  (WWW.POWERS.COM), ALLIED BOLT INC. (Http://alliedboltinc.com) OR APPROVED EQUIVALENT. NO ANCHOR
  BOLT SHALL CONTAIN ANY SHARP EDGES.
- C. UNLESS SPECIFIED OTHERWISE OR APPROVED BY THE CITY ENGINEER, THE BICYCLE RACK SHALL BE INVERTED—U DESIGN AND SUPPORT THE BICYCLE FRAME (NOT THE WHEEL) AT TWO POINTS.
- D. THE BICYCLE RACK SHALL ALLOW FOR USE OF A CABLE AS WELL AS U-SHAPED LOCK.

### 2. MATERIAL FINISH:

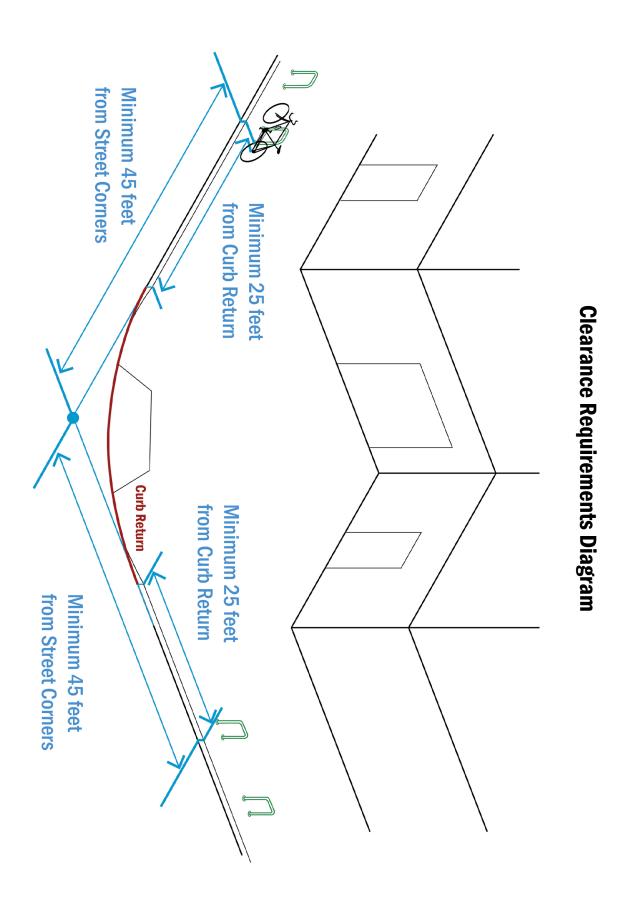
- A. ALL METAL COMPONENTS INCLUDING ALL BOLT HOLES SHALL HAVE MINIMUM 4 MIL THICK BLACK COLORED, LONG WEARING, MILDEW AND ULTRAVIOLET RAY RESISTANT ELECTROSTATIC POLYESTER COATING MADE OF TRIGLYCIDYL (TGIC) APPLIED IN THE FACTORY PRIOR TO DELIVERY. OTHER ALTERNATE COATINGS ARE CITY APPROVED POLYVINYL, THERMOPLASTIC OR POWDER COATING.
- B. BEFORE COATING APPLICATION, THE BICYCLE RACK SHALL BE SANDBLASTED AND EPOXY PRIMED.
- C. ALL FINISH COATINGS SHALL BE MAINTAINED BY THE INSTALLER. ANY DAMAGED SURFACE AREA INCLUDING THOSE RESULTED FROM THE INSTALLER'S OPERATION SHALL BE REPAIRED TO THE CITY ENGINEER'S SATISFACTION WITH APPROVED MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. ALL WASTE SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE EPA AND/OR CALIFORNIA STATE REQUIREMENTS.

### 3. MOUNTING PROCEDURES:

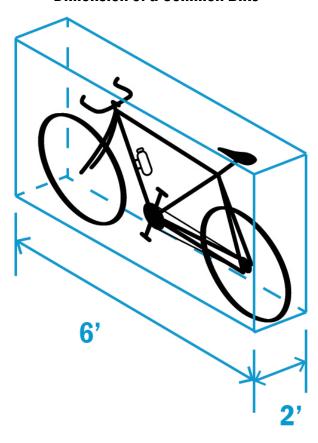
- A. ALL BICYCLE RACKS SHALL BE INSTALLED IN THE SIDEWALK FURNITURE ZONE AT A LOCATION APPROVED BY THE DEPARTMENT OF TRANSPORTATION (http://www.ladot.lacity.org/tf\_development\_review.htm) AND THE CITY ENGINEER. A MINIMUM 48 INCH WIDE UNOBSTRUCTABLE SIDEWALK MUST BE MAINTAINED. NO INTERFERENCE WITH THE PEDESTRIAN ACCESS AND/OR THE EGRESS TO THE PARKING ZONE SHALL BE PERMITTED.
- B. UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER, ALL INSTALLATIONS SHALL CONFORM WITH THE FOLLOWING CLEARANCES AND APPLICABLE AMERICANS WITH DISABiliTIES ACT (ADA) REQUIREMENTS:
  - MINIMUM 45 FEET CLEARANCE FROM ALL STREET CORNERS TO PROVIDE THE REQUIRED VISIBILITY TRIANGLE.
  - MINIMUM 45 FEET CLEARANCE FROM BUS STOP, BUS SHELTER, OR ITS REQUIRED CLEAR APPROACH AREA. FOR ARTICULATED BUS STOP, MINIMUM 55 FEET CLEARANCE SHALL BE PROVIDED.
  - MINIMUM 25 FEET FROM ANY PORTION OF THE BEGINNING OF THE CURB RETURN (BCR), THE END OF THE CURB RETURN (ECR), THE TOP OF THE CURB OF ANY CURB RAMP OR ALLEY INTERSECTION.
  - MINIMUM 48 INCHES CLEARANCE FROM ANY FIRE DEPARTMENT CONNECTION; STAND PIPE; INLET, OUTLET, OR DRAIN PIPE THAT ARE INSTALLED AT THE EXTERIOR OF THE BUILDING. PROVIDE MINIMUM 48 INCHES CLEAR SIDEWALK ACCESS FROM THE STREET CURB TO THE FIRE FACILITIES.
  - . MINIMUM 24 INCHES CLEARANCE FROM THE CURB FACE.
  - MINIMUM 63 INCHES (36 INCHES PLUS 27 INCHES WHEEL SPACE) CLEARANCE BETWEEN ANY PART
    OF THE RACK OR RACK POST, AND ANY SIDEWALK FURNITURE OR IMPROVEMENT INCLUDING BUT NOT
    LIMITED TO STREET TREE AND TREE WELL, PARKING METER, STREET LIGHTING STANDARD, TRAFFIC
    SIGN OR POST, HYDRANT, OTHER UTILITY FACILITY AND ITS ACCESS OPENING.
  - IF ADDITIONAL RACK IS INSTALLED SIDE BY SIDE, IT SHALL HAVE MINIMUM 30 INCHES CLEARANCE BETWEEN THE RACKS OR THE RACK POSTS.
  - IF ADDITIONAL RACK IS INSTALLED END TO END, IT SHALL HAVE AT LEAST 90 INCHES (36 INCHES PLUS TWO-27 INCHES WHEEL SPACE) CLEARANCE BETWEEN THE RACKS OR RACK POSTS.
  - MINIMUM 3 INCHES CLEARANCE FROM ANY EXPANSION JOINT OR CONTROL JOINT IN THE CONCRETE PAVEMNT. DO NOT AFFIX BICYCLE RACK OVER OR NEAR ANY UTILITY FACILITY, STORM DRAIN CATCH BASIN OR STRUCTURE.
- C. ALL BOLT HOLES IN THE CONCRETE PAVEMENT OR THE CONCRETE FOUNDATION SHALL BE PREDRILLED HOLES, 1/2 INCH DIA, BY 2 3/4 INCHES DEEP. PRIOR TO INSTALLATION, ALL BOLT HOLES SHALL BE CLEANED OF DUST OR DELETERIOUS MATERIAL. ALL ANCHOR BOLTS SHALL BE DRIVEN VERTICALLY THROUGH THE SUPPORT PLATE INTO THE BOLT HOLES UNTIL THE HEAD IS FIRMLY SEATED AGAINST THE SUPPORT PLATE. NO PROTRUDING OR NON-FLUSH ANCHOR BOLTS SHALL BE USED.
- D. FOR CONCRETE PAVEMENT THAT IS LESS THAN 3 INCHES THICK, CONSTRUCT CONCRETE FOUNDATION IN ACCORDANCE WITH THE SPECIFIED DETAILS. FOR CONCRETE PAVEMENT THAT IS NOT LEVEL, USE HOT DIPPED GALVANIZED STEEL OR STAINLESS STEEL WASHERS TO LEVEL THE RACK AND THE SUPPORT PLATES BEFORE DRIVING THE ANCHOR BOLTS. FILL ALL OPENINGS AND VOIDS WITH NON-SHRINK GROUT AFTER ERECTION OF THE BICYCLE RACK.

### 4. COVENANT AND MAINTENANCE AGREEMENT:

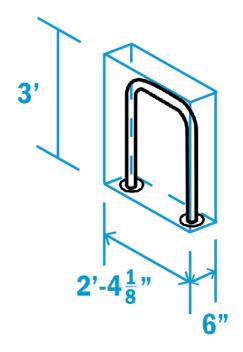
A. ALL BICYCLE RACKS INSTALLED UNDER WORK PERMIT SHALL BE MAINTAINED BY THE PERMITTEE. THE PERMITTEE SHALL COMPLETE THE COVENANT & AGREEMENT (C&A) FORM, AVAILABLE FROM THE DEPARTMENT OF TRANSPORTATION PERMIT OFFICE, EXECUTE IT WITH THE CITY AND RECORD IT WITH THE LOS ANGELES COUNTY REGISTRAR—RECORDER, SUBMIT A COPY OF RECORDED C&A TO THE CITY ENGINEER BEFORE A WORK PERMIT CAN BE ISSUED.



### **Dimension of a Common Bike**



### **Dimension of a Common Bike Rack**





# **Generally Unacceptable Bike Racks**



Photo Credit: https://www.flickr.com/search/?text=bike%20rack https://www.google.com/search?hl=en&q=fahrradständer+stein&tbm

### REFERENCES

APBP. (2010). *Bicycle Parking Guidelines, (2nd Ed.)* Available at https://apbp.site-ym.com/?page=Publications

City of Los Angeles. (2013) *Bicycle Parking Ordinance*. Retrieved from http://clkrep.lacity.org/onlinedocs/2012/12-1297-s1\_misc\_1-15-13.pdf

City of Vancouver. COMING TO A STOP: All Ages and Abilities Bicycle Parking in New and Existing Development. Retrived from

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