



## MEMORANDUM

To: City Planning Commission Ordinance Revisions Committee

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DATE: January 28, 2025

SUBJECT: Proposed Amendment to Unified Development Code (UDC) –  
Bicycle Parking Requirements and Standards Analysis

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The Planning Commission and staff identified the need to update the City's bicycle parking requirements and standards given the City's goals to increase bicycle use and to improve usability, design, and accessibility of bicycle parking. Below are diagnoses and commentary with conceptual amendments for discussion.

### **DIAGNOSIS AND COMMENTARY #1 - Update and Simplify the Required Parking Tables**

Parking Standards on site plans are articulated in Section 5.19, Chapter 55 of the Unified Development Code, and the Required Parking for each permitted use (or special parking district) are outlined in Tables 5.19-1 and 5.19-2. The current minimum parking requirements are lower than comparison cities, particularly for multi-family housing, and three classes of bicycle parking – rather than two – may be unnecessary.<sup>1</sup> Additionally, since the tables are set up according to each permitted use in the UDC, they are cumbersome and could be simplified.

#### **Considerations:**

Points to consider when updating the required parking tables:

- Increasing required bicycle parking minimums for residential uses. The UDC currently requires 1 bicycle parking space for every 5 dwelling units (of which 50% of spaces provided are Class A and 50% are Class C). For residential uses in Special Parking Districts (D1, D2), the current requirement is 1 space for every 2,500 sq ft of residential space. Comparison cities generally require between 1 and 2 long-term spaces per unit in multi-family residences, with additional requirements for short-term spaces to accommodate visitors. To keep up with Ann Arbor's goals and other cities' requirements, the number of required bicycle parking spaces should be increased for multi-family dwelling uses. Further research is required by staff to determine if there should be changes in minimum requirements for other uses.
- Creating a required bicycle parking table that is separate from the vehicle required parking table in the UDC. Currently all parking requirements are in Tables 5.19-1 and 5.19-2. Comparison cities have separate tables for vehicle and bicycle parking which

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<sup>1</sup> The comparison cities that were surveyed for this memorandum are Boston, MA; Davis, CA; Madison WI; and Portland, OR. These were chosen because they represent different states across the country, have recently updated their bicycle parking standards (2-8 years) and are considered bicycle-friendly cities by various biking organizations.

help streamline information. If the tables were separate in the UDC, some use categories may be eliminated from the table if there is no bicycle parking required (ex. outdoor storage or home occupation) or some use categories may be condensed if the requirements are the same (ex. Manufacturing, Processing, Assembly, and Fabrication may become one row instead of four). This would greatly condense requirement tables and make information more easily legible.

**TABLE 1: REQUIRED RATES FOR DIFFERENT LAND USES**

	BUILDING USE	VISITOR PARKING SPACES <sup>+</sup> (short-term)	EMPLOYEE/ RESIDENT PARKING SPACES <sup>+</sup> (long-term)	SHOWERS <sup>+</sup>	LOCKERS <sup>+</sup>	BIKESHARE STATIONS <sup>+</sup>	BIKESHARE CONTRIBUTION <sup>+</sup>
RESIDENTIAL	1 to 3-Unit	N/A	1 per unit	N/A	N/A	N/A	N/A
	Multi-Unit (4 or more units)	1 per 5 units (4 minimum)	1 per unit (0.5 per unit for senior housing)	N/A	N/A	Space for a 15-dock or 19-dock station	\$275 per unit (\$75K or \$49K minimum)
	Institutional Housing (College, university, and other)	1 per 20 beds (4 minimum)	1 per 2 beds	N/A	N/A	Space for a 15-dock or 19-dock station	\$137.50 per bed (\$75K or \$49K minimum)
NON-RESIDENTIAL	Office/Admin	1 per 20,000 sf (6 minimum)	1 per 2,500 sf	1 per 60,000 sf (1 minimum)	1 per 6,000 sf (1 minimum)	Space for a 15-dock or 19-dock station	\$0.28 per sf (\$75K or \$49K minimum)
	Industrial	1 per 40,000 sf (6 minimum)	1 per 12,000 sf (6 minimum)	1 per 480,000 sf (1 minimum)	1 per 48,000 sf (1 minimum)	Space for a 15-dock or 19-dock station	\$0.10 per sf (\$75K or \$49K minimum)
	Retail	1 per 5,000 sf	1 per 3,000 sf	1 per 60,000 sf (1 minimum)	1 per 6,000 sf (1 minimum)	Space for a 15-dock or 19-dock station	\$0.37 per sf (\$75K or \$49K minimum)
	Institutional <sup>+</sup>	1 per 2,500 sf	1 per 2,500 sf	1 per 20,000 sf (1 minimum)	1 per 2,000 sf (1 minimum)	Space for a 15-dock or 19-dock station	\$0.42 per sf (\$75K or \$49K minimum)
	Lodging (Hotels, motels, inns, hostels)	1 per 20,000 sf (6 minimum)	1 per 5,000 sf	1 per 20,000 sf (1 minimum)	1 per 2,000 sf (1 minimum)	Space for a 15-dock or 19-dock station	\$75K or \$49K minimum

*Figure 1. Required bicycle parking for different land uses, Boston Bike Parking Guidelines (2021). Boston has greatly simplified their required bicycle parking table by separating it from the vehicle parking and simplifying the categories into residential and non-residential with specific sub-categories.*

- Eliminating Class B bicycle parking. Currently, Section 5.19.7.C outlines three classes of bicycle parking – A (enclosed), B (covered), and C (fixed racks). Comparison cities and organizations like the National Association of City Transportation Officials (NACTO) outline just two classes: long-term and short-term. Having three classes adds an extra layer of complexity that other cities and organizations have not found necessary, and Ann Arbor should similarly move to two classes. As part of this change, the design guidelines in the UDC for the classes should be clarified (See Diagnosis and Commentary #2) and the percentage of each class required by use should be updated.

## DIAGNOSIS AND COMMENTARY #2 – Update Design Guidelines

Section 5.19.7 Design of Bicycle Parking Facilities outlines the City’s existing design guidelines, which are not robust and generally vague. For example, 5.19.7.A states “All *bicycle parking spaces* must be easily accessible, well lit, and durable, and securely anchored to pavement, floors, or walls.” Terms like “easily accessible” are unclear, making it difficult for applicants to interpret and for staff to enforce. These can be clarified with more specific guidelines for location, room layout, dimensional requirements, and more. Additionally, there are now industry

best practices for rack types that should be included in the Design Guidelines. Comparison cities generally follow the criteria for racks outlined in the Association of Pedestrian and Bicycle Professionals' "Essentials of Bike Parking," attached to this memorandum.

### **Considerations:**

Points to consider when developing more specific design guidance for bicycle parking<sup>2</sup>:

- **Location.** A designated maximum distance from doors (interior and exterior), stairs, and elevators. Specifying ground floor, first floor, or lower levels (noting there may be financial implications of requiring ground floor bike rooms if that area could also be a residential unit or commercial space). Clarifying if bicycle parking can be within units.
- **Security.** Considering the security of both bikes and users. Specifying materials for rooms with transparency in mind. Specifying lighting requirements.
- **Accessibility.** Adding details about appropriate doors (ability to maneuver with bikes). Clarifying room layout. Ensuring location and racks are easy to access for all. Adding signage to make parking easy to find.
- **Dimensions.** Adding dimensions for spaces that include non-traditional bikes such as e-bikes, cargo bikes, tandem bikes, etc. Specifying when space-saving dimensions may be used.
- **Acceptable racks.** Clarifying which (if any) racks are not approvable and which are preferred. Developing a ratio for the acceptable amount of space-saving racks vs standard floor-level racks. Identifying if outlets are necessary near racks for charging.

### **DIAGNOSIS AND COMMENTARY #3 – Comprehensive and Clear Approach to Bicycle Parking**

Currently, the City of Ann Arbor's bicycle infrastructure regulation and administration is divided across three areas. Planning Services administers bicycle parking requirements within private development through the Unified Development Code (UDC). The Downtown Development Authority (DDA) administers a network of bicycle parking infrastructure in the downtown area within public rights-of-way and within parking structures. In many cases, they also take over maintenance of private development required Class C parking in this area once it is installed to their design standards during the construction process. The Transportation Division of the City Engineering Department identifies routes, administers construction, and oversees maintenance of the city's network of bikeways. While there are clear divisions of responsibilities between the various areas, a comprehensive, user-friendly bicycle system should be considered; bicycle parking is more viable where users have access to bikeways, for example. Just as personal automobile infrastructure was constructed considering parking at both ends of a trip and the roadways connecting the two, bicycle infrastructure should be addressed equally.

The DDA is in the final stages of a Downtown Bike Parking Assessment and Recommendations. This study includes an inventory of existing, new, and removed bike racks in downtown, their usage, type and design, among other features. In the coming months their results will be

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<sup>2</sup> Note that these considerations are directed more towards private development and Class A/long-term spaces. Class C/short-term spaces should follow guidelines similar to the Downtown Design Authority's Downtown Bike Parking Assessment and Recommendations, which will be published soon.

published, which will also include rack design requirements, spacing and location requirements, and relational requirements with other street design features.

The City's Transportation Division has worked closely with the DDA to study the downtown area. Planning staff met with Transportation staff to understand their perspectives on bicycle parking issues throughout the city, both within private development and within public rights-of-way.

#### **Considerations:**

- Given the extent of bicycle infrastructure throughout the city, including bicycle route networks and various typologies of parking, there is a need for as much alignment across City departments and their respective bicycle-related regulations as possible, while recognizing the UDC's purview is restricted to private development.
- Various parking systems, design guidelines, and space requirements warrant a discussion regarding the best outcomes of this update to private development bicycle parking requirements. Determining whether this is best achieved within the UDC with more visuals and diagrams or as a stand-alone guide referenced by the UDC is necessary.
- Defining the role of private developers in our bike network. Understand how regulations can influence and support that role.

#### **NEXT STEPS**

##### Site Visits

Over the coming weeks, staff will conduct informal site visit surveys at several recent developments completed within the last ten years at various locations across the city. Staff intends, where possible, to identify how implemented bicycle parking facilities work for users, along with utilization and functionality under the current code requirements. Staff intends to visit each site once with special emphasis on the design features in place that meet our current code. Staff anticipates a variety of designs, layouts, and locations of bicycle parking, due to the vagueness in our current code, discussed above. The table below summarizes the projects which have been identified for visits.

<b>Building</b>	<b>Address</b>	<b>Use Category</b>	<b>Description</b>
Hoover + Greene	950 Greene	Mixed-use	Athletic campus adjacent student-oriented housing
Zaragon	619 E University	Mixed-use	Campus adjacent mixed-use student-oriented housing
Vic Village South	1116 S University	Mixed-use	Campus adjacent mixed-use student-oriented housing
The Foundry	413 E Huron	Mixed-use	Downtown mixed-use student-oriented housing
618 South Main	618 S Main	Residential	Downtown
The One	2601 Pontiac Trail	Residential	Large residential away from downtown

Zoller	3900 Research Park	Commercial	Research Park office and light industrial building
Former Google building	2300 Traverwood	Commercial	Northeast Ann Arbor office building

*Table 1: Identified developments for site visits to analyze existing bicycle parking facilities in Ann Arbor*

### Meetings with Organizations

Staff will meet with stakeholders such as the Ann Arbor Housing Commission to understand the financial implications of bicycle parking requirements on developments, especially affordable housing developments. Staff will also conduct informal meetings with various community groups associated with bicycle and non-motorized accessibility issues. Staff intends to learn more about the user experience of the current bicycle parking regulations as implemented from these meetings. Groups already identified include:

- Walk Bike Washtenaw
- PEAC
- Common Cycle
- Bicycle Alliance

### Comparison City Review

Staff will continue their analysis and comparison of other cities' regulations and industry standards as they relate to findings from the site visit surveys and conversations with community groups. Through this analysis, staff intends to identify current best practices in bicycle parking design requirements and required spaces by type, as discussed above. Comparison cities already identified include:

- Boston, MA
- Portland, OR
- Madison, WI
- Davis, CA

### Review of Local and Industry Guides

Staff will review published guides from local and industry sources to understand best practices for bicycle parking to help guide decision-making for the updated Design Guidelines, particularly for rack types, location, dimensions, and minimum requirements. Guides already identified include:

- Ann Arbor Downtown Design Authority - Downtown Bike Parking Assessment and Recommendations
- Association of Pedestrian and Bicycle Professionals - Essentials of Bike Parking
- National Association of City Transportation Officials – Urban Bikeway Design Guide
- American Association of State Highway and Transportation Officials – Guide for the Development of Bicycle Facilities

Attachments: Unified Development Code, 9<sup>th</sup> Edition, Section 5.19  
American Association of Pedestrian and Bicycle Professionals, “Essentials of Bike Parking”