

Bicycle Parking

An Update to Portland's Bicycle Parking Zoning Code

Zoning Code
Amendments

Discussion
Review Draft

August 2018



Bureau of Planning and Sustainability
Innovation. Collaboration. Practical Solutions.

City of Portland, Oregon
Ted Wheeler, Mayor • Susan Anderson, Director



PBOT
PORTLAND BUREAU OF TRANSPORTATION
Commissioner: DAN SALTZMAN | Interim Director: CHRIS WARNER

The City of Portland complies with all non-discrimination, Civil Rights laws including Civil Rights Title VI and ADA Title II. To help ensure equal access to City programs, services and activities, the City of Portland will reasonably modify policies/ procedures and provide auxiliary aids/ services to persons with disabilities. Call 503-823-5185, TTY 503-823-6868 or Oregon Relay Service: 711 with such requests, or visit <http://bit.ly/13EWaCg>

The Bureau of Planning and Sustainability is committed to providing meaningful access. For accommodations, modifications, translation, interpretation or other services, please contact at 503-823-7700, or use City TTY 503-823-6868, or Oregon Relay Service 711.

Traducción o interpretación	Chuyển Ngữ hoặc Phiên Dịch	翻译或传译	Письменный или устный перевод
Traducere sau Interpretare	Письмовий або усний переклад	翻訳または通訳	Turjumida ama Fasiraadda
	الترجمة التحريرية أو الشفهية	ການແປພາສາ ຫຼື ການອະທິບາຍ	
503-823-7700 www.portlandoregon.gov/bps/71701			

How to Comment and Next Steps

Comments on the Bicycle Parking Code Update Discussion Draft are directed to City staff as part of their development of a formal code amendments proposal. Comments from the public and other parties will be used to inform staff development of the Proposed Draft, which will be considered by the Planning and Sustainability Commission in Fall/Winter 2018. The public will have an opportunity to provide formal testimony on the Proposed Draft.

Comments

The Bureau of Planning and Sustainability (BPS) and the Bureau of Transportation (PBOT) will accept comments on this Discussion Draft through:

October 1, 2018

Send your comments to:

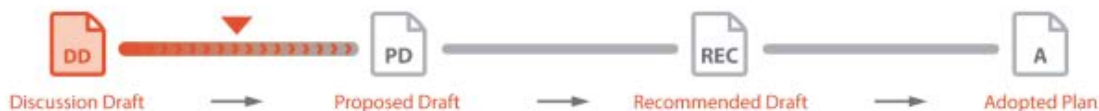
E-mail: bicyclecodeupdate@portlandoregon.gov

Mail: City of Portland Bureau of Transportation
Attn: Bicycle Parking Code Update Project
1120 SW 5th Ave, Suite 800
Portland, OR 97204

Project Website: <https://www.portlandoregon.gov/transportation/70439>

Next Steps

Comments on the Discussion Draft accepted through October 1, 2018



Proposed Draft: Based on *Discussion Draft* feedback, a *Proposed Draft* will be published in Fall 2018 for Planning and Sustainability Commission (PSC) consideration. At that time, the public will be invited to submit formal public testimony to the PSC in writing or in person, at a public hearing tentatively scheduled for November 2018. The Commission may amend the proposal and will subsequently vote to recommend the changes and draft plan to Portland City Council. This is then called the *Recommended Draft*.

Recommended Draft: City Council will hold an additional public hearing and take formal public testimony on the *Recommended Draft*. The City Council may amend the *Recommended Draft* before they vote to adopt the plan. This will likely occur in Spring 2019.

Acknowledgments

Portland City Council

Ted Wheeler, *Mayor, Commissioner-in-charge*
 Chloe Eudaly, *Commissioner*
 Nick Fish, *Commissioner*
 Amanda Fritz, *Commissioner*
 Dan Saltzman, *Commissioner*

Portland Planning and Sustainability Commission

Katherine Schultz (Chair); Michelle Rudd (Vice Chair); Chris Smith (Vice Chair); Jeff Bachrach; André Baugh, Ben Bortolazzo; Mike Houck; Katie Larsell; Andres Oswill; Eli Spevak; Teresa St. Martin

<p>Bureau of Planning and Sustainability Susan Anderson, Director Joe Zehnder, Chief Planner</p> <p>Project Staff and Contributors – Bureau of Planning and Sustainability Eric Engstrom, Principal Planner Phil Nameny, Planner II Tyler Bump, Senior Economic Planner Sara Wright, Community Outreach</p> <p>Project Staff and Contributors – Portland Bureau of Transportation Sarah Figliozzi, Program Coordinator Liz Hormann, TDM II Specialist Roger Geller, Bicycle Coordinator Mauricio Leclerc, Supervising Transportation Planner</p> <p>Project Staff and Contributors – Bureau of Development Services Jeff Mitchem, Planner II - Design & Historic Resources Brea Pike-Salas, Planner II - LUS Planning & Zoning</p>	<p>Stakeholder Advisory Committee Todd Boulanger, The Street Trust Clint Culpepper, Portland State University Kathryn Doherty-Chapman, Go Lloyd Roger Geller, PBOT Jeff Mitchem, BDS Tom Kilbane, Urban Renaissance Group Keith Liden, Bicycle Advisory Committee (BAC) Shayna Rehberg, alternate BAC Phil Nameny, BPS Jeff Owen, TriMet Hannah Silver, GBD Architects Chris Smith, Planning and Sustainability Commission Susan Steward, BOMA Jean Pierre Veillet, Siteworks Design Build Felicia Williams, Neighbors West-Northwest District Coalition</p>
--	--

Table of Contents

Section I.	Introduction	6
Section II.	Relationship to the Comprehensive Plan	8
Section III.	Public Involvement	13
Section IV.	Proposal and Analysis.....	16
Section V.	Zoning Code Amendments	27
	33.266 Parking, Loading, and Transportation Demand Management.....	28
	33.120 Multi-Dwelling Zones	80
	33.130 Commercial/Mixed Use Zones	82
	33.229 Elderly and Disabled High Density Housing	84
	33.258 Nonconforming Development	86
	33.266 Parking, Loading, And Transportation And Parking Demand Management	88
	33.510 Central City Plan District	90

Section I: Introduction

Project Summary

The City of Portland envisions a vibrant city where the majority of residents can meet all basic daily needs, including commuting to work, by having the option to use active forms of transportation like walking, bicycling and transit.

In addition to this overarching active transportation vision, Portland has a goal that 25 percent of all trips are made using a bicycle by 2030. The Bureau of Transportation is working to build the connected safe network of bicycle infrastructure that will support this goal. However, we will not be able to reach this goal without making sure that people have a place to safely and securely park a bicycle at the end of their trips.

Similar to other cities, the City of Portland Zoning Code requires the inclusion of long- and short-term bicycle parking in new development and some redevelopment permits. The current text of the bicycle parking section of City Code was largely written and adopted in 1996. While there was a significant update in 2004 to address short-term bicycle parking needs, the bicycle parking section of Title 33 has been largely dormant for 20 years. Meanwhile, the bicycle commute mode split in Portland has increased from 1.2 percent in 1996 to just over 7 percent in 2014. Even so, Portland has hit a plateau in its bicycle mode split over the last few years. The code update project is one of the City's tools to continue to support and encourage bicycling as a mode of transportation.

Framing the Work

Several City policy and planning documents guided the update to the bicycle parking requirements, including:

Comprehensive Plan 2035

The Comprehensive Plan 2035 guides long-range land use and transportation planning. The plan focuses on improving Portland as a place that is walkable, bikeable and transit-friendly, and includes a specific policy goal of providing sufficient, usable bicycle parking throughout the city.

Climate Action Plan for 2030

In 1993, Portland was the first city in the United States to create a local action plan for cutting carbon emissions. The 2015 Climate Action Plan outlines the specific actions the City and Multnomah County will take to reduce greenhouse gas emissions, including:

- Reduce daily per capita vehicle miles traveled by 30 percent from 2008 levels by 2030.
- Create vibrant neighborhoods where 80 percent of residents can easily walk or bicycle to meet all basic daily, non-work needs and have safe pedestrian or bicycle access to transit by 2030.

City Adopted Mode Split Goals

Mode split is the percentage of travelers using a particular type of transportation. For this project, the City of Portland's bicycle mode split goals were used to guide the updated methodology for the required amounts of bicycle parking.

- Portland Bicycle Plan for 2030 – 25% bicycle mode split for all trips by 2030
- Transportation System Plan – 25% bicycle mode split for commute trips by 2035

Why is Bicycle Parking Important?

To meet the City target of 25% mode split, safe, accessible, and convenient bicycle parking needs to be a component of all new development and redevelopment. We know that the lack of safe, accessible, convenient bicycle parking creates a barrier for people who want to choose bicycling for transportation or recreation.¹

In their 2012 report on *Barriers to Cycling*, the Community Cycling Center found that the lack of a safe and secure place to park a bicycle is a key barrier for bicycling as transportation or recreation. For example, after an audit conducted by the Community Cycling Center and property managers with Hacienda CDC, the lack of safe and secure bicycle parking was elevated as a top priority. The audit found that over a two-year period, 85 bicycles had been stolen from residents, which was nearly 1 bicycle per household. After the audit, Hacienda CDC provided secure bicycle parking in existing buildings, and began including lockable bike storage into the design of new buildings owned by the affordable housing organization.

Major Proposed Changes

The Discussion Draft proposes changes to the bicycle parking chapter. This project focused on ensuring that new development and major redevelopment provides secure and convenient short and long-term bicycle parking. The proposals include the following amendments:

- **Update the minimum required amounts of short- and long-term bicycle parking.**
- **Expand the use of geographic tiers to all Use Categories, creating two different rates of required bicycle parking based on geography.**
- **Enhance security standards to help prevent bike theft.**
- **Expand options for space saving rack configurations.**
- **Accommodate a variety of types of bicycles and people of all abilities.**
- **Limit the in-unit allowance for required long-term bicycle parking.**

¹ Buehler, R. Determinants of bicycle commuting in the Washington, DC region: The role of bicycle parking, cyclist showers, and free car parking at work. *Transportation Research Part D: Transport and Environment*, Vol. 17, No. 7, 2012, pp. 525–531.

Section II: Relationship to Comprehensive Plan

Comprehensive Plan Guiding Principles

The Bicycle Parking Code Update Project helps implement the following guiding principles of the City of Portland Comprehensive Plan in the following ways.

- **Economic Prosperity.** *Support a low-carbon economy and foster employment growth, competitiveness, and equitably-distributed household prosperity.*

This project advances this principle by supporting low-cost, low-carbon transportation options for all Portlanders. Transportation is the second highest household cost and owning a car can cost a family approximately \$8,500 a year.² These standards support low-cost, active transportation options which can provide tangible economic benefits to individuals and households across Portland.

- **Human Health.** *Avoid or minimize negative health impacts and improve opportunities for Portlanders to lead healthy, active lives.*

This project advances this principle by supporting the use of bicycles as a form of transportation and recreation. Regular physical activity, including the use of active transportation, helps improve overall health and fitness and reduces risk for many chronic diseases. This project helps facilitate active mobility by providing safe and secure place to park and store a bicycle.

- **Environmental Health.** *Weave nature into the city and foster a healthy environment that sustains people, neighborhoods, and fish and wildlife. Recognize the intrinsic value of nature and sustain the ecosystem services of Portland's air, water, and land.*

This project helps implement this principle by increasing the supply of bicycle parking, which supports bicycling, a low-carbon transportation option. Climate change threatens not just Oregon's natural treasures, but also Portlanders' jobs and health. Nearly 40 percent of all local carbon emissions come from transportation sources. Utilizing active transportation is one of the key strategies to reduce carbon emissions from the transportation sector.

- **Equity.** *Promote equity and environmental justice by reducing disparities, minimizing burdens, extending community benefits, increasing the amount of affordable housing, affirmatively furthering fair housing, proactively fighting displacement, and improving socio-economic opportunities for underserved and underrepresented populations. Intentionally engage underserved and underrepresented populations in decisions that affect them. Specifically recognize, address, and prevent repetition of the injustices suffered by communities of color throughout Portland's history.*

This project helps implement this principle by establishing standards for bicycle parking that consider the needs of people with all abilities and by supporting the ease and convenience of low-cost transportation.

² AAA, "True Cost of Vehicle Ownership", <https://newsroom.aaa.com/tag/cost-to-own-a-vehicle/>, 2017

- **Resilience.** *Reduce risk and improve the ability of individuals, communities, economic systems, and the natural and built environments to withstand, recover from, and adapt to changes from natural hazards, human-made disasters, climate change, and economic shifts.*

This project helps implement this principle in that the promotion of bicycling supports compact development at the neighborhood level and the use of low-carbon transportation options. End of trip facilities to support bicycling is one important element of developing a low-carbon resilient infrastructure system for the City of Portland.

Goals and Policies

The Comprehensive Plan 2035 includes goals and policy language designed to support and further the guiding principles. The Bicycle Parking Code Update Project primarily supports Chapter 9: Transportation. However, the project also supports the closely-linked goals and policies around development, urban form and the environment. These span the breadth of the Comprehensive Plan, but most clearly relate to the goals and policies of the following chapters of the Comprehensive Plan: Chapter 3, Urban Form; Chapter 4, Design and Development; Chapter 5, Housing; Chapter 6, Economic Development; Chapter 7, Environment and Watershed Health; and Chapter 10, Land Use Designations and Zoning.

Key Comprehensive Plan Goals and Policies supported by the Bicycle Parking Code project are listed below.

Urban Form

Goal 3.A A city designed for people - Portland’s built environment is designed to serve the needs and aspirations of all Portlanders, promoting prosperity, health, equity, and resiliency. New development, redevelopment, and public investments reduce disparities and encourage social interaction to create a healthy connected city.

Goal 3.B A climate and hazard resilient urban form – Portland’s compact urban form, sustainable building development practices, green infrastructure, and active transportation system reduce carbon emissions, reduce natural hazard risks and impacts, and improve resilience to the effects of climate change.

Policy 3.1 Urban Design Framework. Use the Urban Design Framework (UDF) as a guide to create inclusive and enduring places, while providing flexibility for implementation at the local scale to meet the needs of local communities.

Policy 3.4 All ages and abilities. Strive for a built environment that provides a safe, healthful, and attractive environment for people of all ages and abilities.

Policy 3.5 Energy and resource efficiency. Support energy-efficient, resource-efficient, and sustainable development and transportation patterns through land use and transportation planning.

Design and Development

Goal 4.A Context-sensitive design and development – New development is designed to respond to and enhance the distinctive physical, historic, and cultural qualities of its location, while accommodating growth and change.

Goal 4.C Human and environmental health – Neighborhoods and development are efficiently designed and built to enhance human and environmental health: they protect safety and livability; support local access to healthy food; limit negative impacts on water, hydrology, and air quality; reduce carbon emissions; encourage active and sustainable design; protect wildlife; address urban heat islands; and integrate nature and the built environment.

Policy 4.1 Pattern areas. Encourage building and site designs that respect the unique built natural, historic, and cultural characteristics of Portland’s five pattern areas described in Chapter 3: Urban Form.

Policy 4.10 Design for active living. Encourage development and building and site design that promotes a healthy level of physical activity in daily life.

Housing

Policy 5.36 Impact of regulations on affordability. Evaluate how existing and new regulations affect private development of affordable housing, and minimize negative impacts where possible. Avoid regulations that facilitate economically-exclusive neighborhoods.

Economic Development

Goal 6.B Development - Portland supports an attractive environment for industrial, commercial, and institutional job growth and development by 1) maintaining an adequate land supply; 2) a local development review system that is nimble, predictable, and fair; and 3) high-quality public facilities and services.

Policy 6.28 Poverty reduction. Encourage investment in, and alignment of, poverty-reduction efforts that address economic development, land use, transportation, housing, social services, public health, community development, and workforce development.

Environment and Watershed Health

Goal 7.A Climate – Carbon emissions are reduced to 50 percent below 1990 levels by 2035.

Transportation

Goal 9.E Equitable transportation – The transportation system provides all Portlanders options to move about the city and meet their daily needs by using a variety of safe, efficient, convenient, and affordable modes of transportation. Transportation investments are responsive to the distinct needs of each community.

Policy 9.3 Transportation System Plan. Maintain and implement the Transportation System Plan (TSP) as the decision-making tool for transportation related projects, policies, programs, and street design.

Policy 9.5 Mode share goals and Vehicle Miles Traveled (VMT) reduction. Increase the share of trips made using active and low-carbon transportation modes. Reduce VMT to achieve targets set in the most current Climate Action Plan and Transportation System Plan, and meet or exceed Metro’s mode share and VMT targets.

Policy 9.8 Affordability. Improve and maintain the transportation system to increase access to convenient and affordable transportation options for all Portlanders, especially those who have traditionally been underserved or underrepresented or have historically borne unequal burdens.

Policy 9.9 Accessible and age-friendly transportation system. Ensure that transportation facilities are accessible to people of all ages and abilities, and that all improvements to the transportation system (traffic, transit, bicycle, and pedestrian) in the public right-of-way comply with the American with Disabilities Act of 1990. Improve and adapt the transportation system to better meet the needs of the most vulnerable users, including the young, older adults, and people with different abilities.

Policy 9.10 Geographic policies. Adopt geographically-specific policies in the Transportation System Plan to ensure that transportation infrastructure reflects the unique topography, historic character, natural features, system gaps, economic needs, demographics, and land uses of each area. Use the Pattern Areas identified in Chapter 3: Urban Form as the basis for area policies.

Policy 9.20 Bicycle transportation. Create conditions that make bicycling more attractive than driving for most trips of approximately three miles or less.

Policy 9.21 Accessible bicycle system. Create a bicycle transportation system that is safe, comfortable, and accessible to people of all ages and abilities.

Policy 9.55 Parking management. Reduce parking demand and manage supply to improve pedestrian, bicycle and transit mode share, neighborhood livability, safety, business district vitality, vehicle miles traveled (VMT) reduction, and air quality. Implement strategies that reduce demand for new parking and private vehicle ownership, and that help maintain optimal parking occupancy and availability.

Policy 9.61 Bicycle parking. Promote the development of new bicycle parking facilities including dedicated bike parking in the public right-of-way. Provide sufficient bicycle parking at high-capacity transit stations to enhance bicycle connection opportunities. Require provision of adequate off-street bicycle parking for new development and redevelopment. Encourage the provision of parking for different types of bicycles. In establishing the standards for long-term bicycle parking, consider the needs of persons with different levels of ability.

Policy 9.63 New development impacts. Prevent, reduce, and mitigate the impacts of new development and redevelopment on the transportation system. Utilize strategies including transportation and parking demand management, transportation system analysis, and system and local impact mitigation improvements and fees.

Land Use Designations and Zoning

Policy 10.4 Amending the Zoning Code. Amendments to the zoning regulations must be done legislatively and should be clear, concise, and applicable to a broad range of development situations faced by a growing city. Amendments should:

10.4.a Promote good planning:

1. Effectively and efficiently implement the Comprehensive Plan.
2. Address existing and potential land use problems.
3. Balance the benefits of regulations against the costs of implementation and compliance.
4. Maintain Portland's competitiveness with other jurisdictions as location in which to live, invest, and do business.

10.4.b. Ensure good administration of land use regulations:

1. Keep regulations as simple as possible.
2. Use clear and objective standards wherever possible.
3. Maintain consistent procedures and limit their number.
4. Establish specific approval criteria for land use reviews.
5. Establish application requirements that are as reasonable as possible, and ensure they are directly tied to approval.
6. Emphasize administrative procedures for land use reviews while ensuring appropriate community engagement in discretionary decisions.
7. Avoid overlapping reviews.

10.4.c. Strive to improve the code document:

1. Use clear language.
2. Maintain a clear and logical organization.
3. Use a format and layout that enables use of the document by lay people as well as professionals.
4. Use tables and drawings to clarify and shorten the document.
5. Identify and act on regulatory improvement suggestions.

Section III: Public Involvement

Development of the Bicycle Parking Code Update Project concepts and the resulting Discussion Draft Zoning Code proposals were informed by a range of public involvement activities. This section outlines those activities and next steps for public involvement.

Stakeholder Advisory Committee Process

To facilitate a conversation amongst the various interested parties, PBOT convened a Stakeholder Advisory Committee (hereafter referred to as Committee) to advise on the preliminary phase of the update to the bicycle parking chapter. The Committee met seven times from February 2016 to October 2017.

The Committee was composed of technical experts from City Bureaus, community members and business representatives. The Committee was an advisory body providing direction and recommendations to the PBOT Director. The culmination of the Committee's work was formalized in a [Recommendation Report](#) and presented to the Portland Planning and Sustainability Commission in November 2017.

The purpose of the Committee was to provide early input to PBOT in developing the general concepts of the code amendments. Then PBOT staff worked closely with BPS staff to develop the actual code amendments that are in this document.

Stakeholder Advisory Committee's Guiding Principles

The following guiding principles were developed and adopted by the Committee to provide the overarching direction for the package of recommendations for updating the bicycle parking chapter.

Principle A – Adequate Amount of Bicycle Parking

The amount of bicycle parking is adequate to accommodate future increases in demand, specifically the City's 25% bicycle mode split goal for all trips.

Principle B – Prioritizing Bicycle Parking

Bicycle parking is intentionally planned, with consideration for location and within the design of the building. Bicycle parking is available via a direct and accessible route.

Principle C – Accessible and Convenient Bicycle Parking

Bicycle parking accommodates users of all ages and abilities as well as a variety of different types of bicycles.

Principle D – Bicycle Parking is Secure and Safe to Use

Design provides sufficient security provisions to prevent bike theft and promotes safe spaces for users (e.g. lighting, visibility and location).

Principle E – Bicycle Parking is Feasible

Requirements allow for innovation and adaptability in design, while being straightforward to implement. Requirements consider project feasibility and cost implications.

Apartment Community Survey

In March 2017, staff conducted an online community survey to gather input from people who live in apartment buildings and own bicycles. This user survey asked a range of questions including: the name of the apartment building, the number of bikes owned by the household, the major challenges of parking a bicycle at the building, and the user's preference for where to park their bicycle. The survey garnered 323 total responses. Out of the 323 responses, 260 came from people who live in apartments. The remaining responses came from people who do not currently live in apartments, but had general comments about bicycle parking needs and standards.

The summary of the survey results can be read in the appendices of the Stakeholder Advisory Committee Recommendation Report. These are several key takeaways:

- The majority of responses (67%) indicated that people who live in apartments and own a bicycle, preferred to park their bicycle in a secure room dedicated to bicycle parking.
- Respondents identified the following as the most challenging part of parking a bicycle at their apartment:
 - I'm concerned about the safety/ security of my bicycle in the bike room – 27%
 - There are no bicycle parking facilities at my building – 21%
 - The bike room is too full – 18%
 - Parking a wet, muddy bike in my unit is causing damage – 17%

It is important to note that the responses came almost exclusively from people who live in market-rate apartment buildings. To broaden the scope of the survey, PBOT staff worked with Portland Housing Bureau (PHB) staff to target the community survey to affordable housing tenants, property managers and developers.

While the response rates were lower, staff were able to gather some important feedback via the survey and the exercise led to more in-depth conversations with affordable housing providers about bicycle parking. Tenants of affordable housing prioritized the same top three barriers to parking their bicycles at their homes as the general population did (above).

The following are key points PBOT staff heard from affordable housing developers:

- Developments on small sites make fitting in all development requirements, including bicycle parking very difficult.
- Usage of bicycle parking at some sites, in particular those that serve elderly and disabled populations and very low-income, is very low.
- It is important for the standards to be flexible.

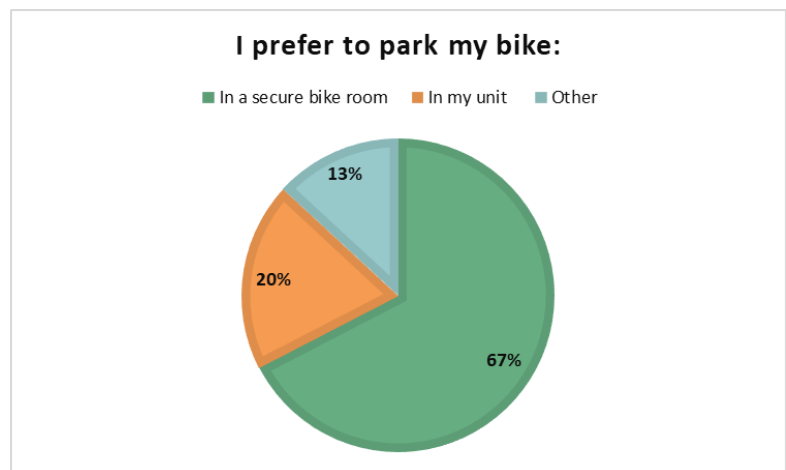


Figure 1 – Results from Community Survey (general survey) – where do people prefer to park their bicycle?

Online Open House

Prior to wrapping up the Stakeholder Advisory Committee's Recommendation Report, PBOT conducted an Online Open House to gather feedback on the entire package of recommendations coming from the Stakeholder Advisory Committee. The Online Open House provided an early opportunity for public feedback on the early code concepts.

The following were some general themes in the feedback received from the Online Open House:

- General agreement on all the recommendations.
- Very strong support for the requirements to accommodate different types of bikes (i.e. cargo bikes, bikes with trailers, and electric bikes).
- Strong support for increasing the proportion of racks that are usable for people of all abilities.

This public input informed the development of the conceptual themes for the Bicycle Parking Code Update Project. During the next phases of the project more public outreach and engagement is planned.

Site Visits and Case Studies

Throughout 2017 and 2018, PBOT staff conducted site visits to apartment buildings to tour bicycle parking facilities and interview property managers about bicycle parking. Site visits are useful to assess various bicycle parking configurations in action, assess the usage rates of bicycle parking facilities, and see what is working and what isn't working for bicycle parking at specific apartment buildings.

In the fall of 2017, PBOT staff worked with Guardian Real Estate Services, developer, owner and operator of a number of affordable housing projects in Portland, to visit a few sites, including the NAYA Generations Apartments and Miracles Central Apartments.

Details on some of the site visits can be found in Appendix F in the [Stakeholder Advisory Committee's Recommendation Report](#).

Development of Discussion Draft

All of this input has informed the development of the Discussion Draft. During the development of the Discussion Draft, staff spoke informally with a variety of people interested in the bicycle parking code requirements. This included Bureau of Development Services staff, Bureau of Planning and Sustainability staff, developers of market rate and affordable residential developments, property managers, residents of apartment buildings, bicycle advocates, and others who were interested in bicycle parking standards.

Additionally, several outreach events are planned in August and September to coincide with the release of this Discussion Draft to provide information and gather community and stakeholder input. Visit the project website for dates and locations.

Section IV: Proposal and Analysis

This section summarizes the major Zoning Code changes proposed by the Bicycle Parking Code Update Project. This section briefly describes each proposal, provides an explanation of the problems and policy issues the proposal is intended to help address. The proposals are organized based on the Guiding Principles of the Stakeholder Advisory Committee.

Adequate Amount of Bicycle Parking to accommodate future increases in demand, specifically the City’s 25% bicycle mode split goal for all trips.

Proposals:

1. Adopt two geographic tiers for minimum bicycle parking amounts to be applied to all Use Categories.
2. Calculate amounts of long- and short-term bicycle parking based on data points, including trip generation rates, employees per square footage, and visitation rates.

Issues Addressed:

The majority of Table 266-6, which sets the minimum required bicycle parking amounts for all Use Categories, has not been updated since 1996. Therefore, a major section of the code update project is focused on updating the amounts of required long-term and short-term bicycle parking to better reflect current and goal bicycle mode splits.

Proposal Approach:

1. A Tiered Approach to Bicycle Parking

Although the City of Portland has a citywide goal of 25% of people using a bicycle for all trips, mode splits are different throughout the city. The map below illustrates that bicycle mode splits are currently higher in the Central City and the Inner Neighborhoods.

Under the current Zoning Code Multi-Dwelling developments have two different required bicycle parking minimums, one for the Central City and one for the rest of the city. This approach accounts for a higher bicycle mode split and thus demand for bicycle parking in the Central City.

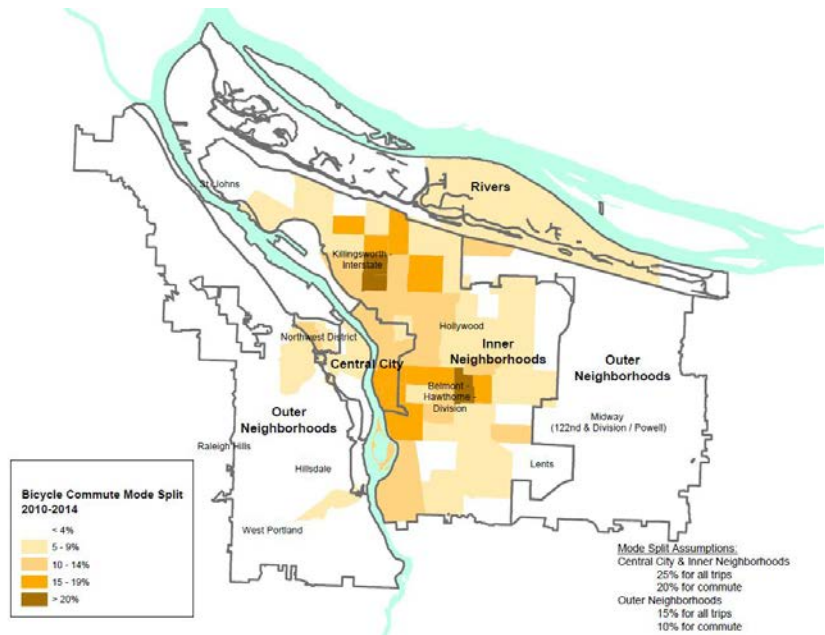


Figure 3 – Bicycle Commute Mode Split 2010-2014. The darker shading is higher bicycle mode split.

This project proposal expands the use of tiered standards to all of the Use Categories in Table 266-6.

The tiers are based on the Pattern Areas in the Comprehensive System Plan 2035 and the Transportation System Plan (TSP):

1. Rivers
2. Central City
3. Inner Neighborhoods
4. Western Neighborhoods
5. Eastern Neighborhoods

Additionally, staff looked at the four identified Bicycle Districts in the TSP. The Gateway Bicycle District was the only Bicycle District that was not within the Central City or the Inner Neighborhood Pattern Areas. As such, it is recommended for inclusion in Standard A as described below.

The following two tiers are proposed to be applied to all Use Categories in Table 266-6 for the required amounts of both long-term and short-term bicycle parking:

Standard A – Central City, Inner Neighborhoods, and Gateway Plan District (green)

Standard B – Western and Eastern Neighborhoods, River (blue)

Adopting a tiered approach is a strategy to account for the differences in bike use and thus bike parking demand in Portland. Additionally, a tiered approach for setting target mode share rates for the different pattern areas is also employed in the TSP.

There was some concern expressed from the public through comments on the Bicycle Parking Online Open House and in an initial briefing of the Portland Planning and Sustainability Commission (PSC), that a lower bicycle parking requirement in the outer neighborhoods (Standard B), supports the perception that these neighborhoods are often overlooked for investment in bicycle infrastructure. It is important to note that PBOT is committed to improving and expanding bicycle infrastructure everywhere in the City, and lower bicycle parking rates do not reflect a lower level of commitment.

While the proposal is for a higher required number of bicycle parking spaces in Standard A, the amounts of required bicycle parking for Standard B, are being increased as well. The Standard B amounts are based on a target of 15% bicycle mode split for all trips and 10% for commute trips. For context, the current bicycle commute mode split in the Eastern Neighborhoods is under 4%. With further public investment and monitoring, these standards may be modified in the future.

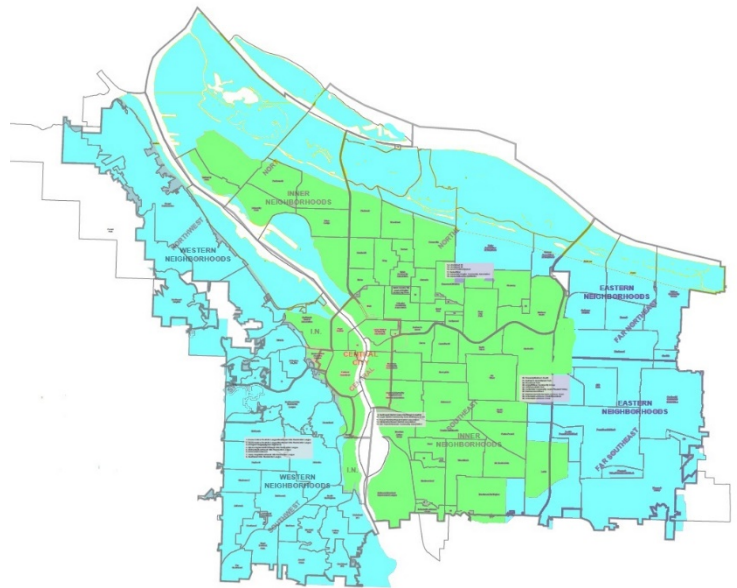


Figure 4 – Illustrative map for tiered bicycle parking standards.
 Standard A (green) – Central City, Inner Neighborhoods, and Gateway Plan District
 Standard B (blue) – Western and Eastern Neighborhoods, River

2. Minimum Required Amount Calculations

The required numbers of bicycle parking spaces were calculated using data points such as the average square footage per employee (or employee density); visitation rates from Transportation System Development Charges, and target bicycle mode split to build out the methodology for updating the amounts. The two tables below offer examples on how long-term and short-term bicycle parking amount standards were developed for Office Use:

How to calculate amount of required long-term bicycle parking (for Table 266-6) for Office Use:

Assumptions:

- *Employee density of 350 sq. ft. per employee**
- *Commute mode split Standard A = 20%*
- *Commute mode split Standard B = 10%*

*Standard A = 1,000 sq. ft. ÷ 350 x 20% = .57 spaces per 1,000 sq. ft.
= 1,000 sq. ft. ÷ .57 = **1 long-term space per 1,754 sq. ft.** rounded to **1,800 sq. ft.***

*Standard B = 1,000 sq. ft. ÷ 350 x 10% = .29 spaces per 1,000 sq. ft.
= 1,000 sq. ft. ÷ .29 = **1 long-term space per 3,440 sq. ft.** rounded to **3,500 sq. ft.***

**Note: Employee density from City of Portland Bureau of Planning and Sustainability: Economic Opportunities Analysis - Sections 2/3 Supply & Demand, Figure 35, Square Feet per Employee, p 46.*

How to calculate amount of required short-term bicycle parking (for Table 266-6) for Office Use:

Assumptions:

- *TSDC* rate = 1-person trip per 1,000 sq. ft. per PM peak*
- *20% visitor rate*
- *Mode Split Standard A = 25%*
- *Mode Split Standard B = 15%*

*Standard A = 1 x 20% x 25% = .05 spaces per 1,000 sq. ft.
= 1,000 sq. ft. ÷ .05 = **1 long-term space per 20,000 sq. ft.***

*Standard B = 1 x 20% x 15% = .03 spaces per 1,000 sq. ft.
= 1,000 sq. ft. ÷ .03 = **1 long-term space per 33,333 sq. ft.** rounded to **33,000 sq. ft.***

** TSDC - Transportation System Development Charge*

During much of the time that staff was working with the Stakeholder Advisory Committee on updating the bicycle parking chapter, the TSP Proposed Draft Stage Three included a 15% commute mode split goal. However, this mode split goal was changed to 25%, with the release of the TSP Proposed Draft in August 2017. Staff, with support of the Stakeholder Committee, continued with the 15% target citywide commute modes split for the long-term bicycle parking methodology and calculation. The following main points helped influence that decision:

- A 15% commute mode split is still moving the dial forward on increasing the total amount of bicycle parking.
- Staff and the Stakeholder Committee spent considerable time coming to group consensus on the formula and are comfortable with the amounts of bicycle parking produced by a 15% target.
- The 15% target represents an incremental step, moving toward the 25% commute mode split by 2035.
- Zoning Code is intended to represent a “minimum” requirement. Some developers will do more, but the focus is on what is needed as a baseline for development that is being developed now.
- There was general acknowledgement that one drawback of continuing with the 15% commute mode split, is that there is a lack of direct policy support; since nothing in current policy points to a 15% commute mode split goal.

Finally, staff did ground truth the amounts of required bicycle parking produced by the formulas with requirements from comparable cities and what the development market is already producing for bicycle parking. For example, in the Office Use example, Portland is seeing a number of developers in the “Standard A” areas building to a higher bicycle parking standard of 1 space per 1,000 square feet to accommodate demand.

Long-term Bicycle Parking – Portland Proposed Amounts versus Other Cities							
Use Category	Portland Proposed Code (proposed 2018)	Boulder, CO (2014)	Seattle, WA (2018)	Los Angeles, CA (2017)	Wisconsin, WI (2014)	San Francisco, CA (2013)	PBOT 1994 Task Force Recommendations
Household Living – Multi-Dwelling	Standard A – 1.5 per unit	2 per unit (75% long-term and 25% short-term)	1 per unit	1 per unit	1 per unit up to 2-bedrooms, ½ space per add’l bedroom.	1 per unit. For buildings containing more than 100 dwelling units, 100 spaces plus 1 for every 4 units.	1 per unit; unless garages are provided, in which case, none are required
	Standard B – 1.1 per unit						
Retail Sales and Services	Standard A – 1 per 3,800 sq. ft.	1 per 750 sq. ft. (25% long-term and 75% short-term)	1 per 4,000 sq. ft.	1 per 2,000 sq. ft.	1 per 2,000 sq. ft.	1 per 7,500 sq. ft.	1 per 8,000 sq. ft.
	Standard B – 1 per 7,500 sq. ft.						
Retail Sales and Services – Restaurant and Bar	Standard A – 1 per 2,300 sq. ft.	1 per 750 sq. ft. (25% long-term and 75% short-term)	1 per 5,000 sq. ft.	1 per 2,000 sq. ft.	5% of capacity of persons	1 per 7,500 sq. ft.	N/A
	Standard B – 1 per 4,800 sq. ft.						
Office	Standard A – 1 per 1,800 sq. ft.	1 per 1,500 sq. ft. (75% long-term and 25% short-term)	N/A	1 per 5,000 sq. ft.	1 per 2,000 sq. ft.	1 per 5,000 sq. ft.	1 per 3,000 sq. ft.
	Standard B – 1 per 3,500 sq. ft.						
Medical Centers	Standard A – 1 per 2,700 sq. ft.	1 per 1,500 sq. ft. (75% long-term and 25% short-term)	1 per 4,000 sq. ft.	1 per 5,000 sq. ft.	1 per 2,000 sq. ft.	1 per 15,000 sq. ft. (Hospitals or In-Patient Clinic) 1 per 5,000 (Medical Offices or Out-patient clinic)	1 per 7,000 sq. ft.
	Standard B – 1 per 5,500 sq. ft.						

Prioritizing Bicycle Parking to be intentionally planned, with consideration for location and within the design of the building.

Proposals:

3. Specify options for location of long-term bicycle parking.
4. Limit the amount of allowable required racks that can be placed in residential units; while establishing design standards to ensure usability when bicycle parking spaces are provided in residential units.
5. In mixed-use developments, ensure all building tenants have access to long-term bicycle parking.
6. Require applicants to provide sufficient bicycle rack detail in submitted plans.

Issues Addressed:

During the code concept phase the following key priorities were identified for required long-term bicycle parking:

- Easy to find
- Access without stairs
- Direct access (preferably direct entry from the street if possible)
- Prominent location

The proposed updates to the bicycle parking chapter aim to provide more clarity for bicycle parking in new or redeveloped buildings. These proposals are focused on location and accessibility of long-term bicycle parking. In some cases, the City has seen bicycle parking requirements added at the very end of a project, without much consideration to how people will find or access these spaces, and as a result bicycle parking racks are hidden in back corners of buildings or parking garages.

The following proposals provide clearer direction as to the appropriate locations of long-term bicycle parking.

Proposal Approach:

3. Options for long-term bicycle parking location

The proposal lists location options for where long-term bicycle parking may be provided.

Required long-term bicycle parking may be provided in one or more of the following locations:

- Within the building, including on the ground floor or on individual building floors;
- On-site, including in parking areas;
 - If long-term bicycle parking is located in underground parking areas, then it must be located on the level closest to the ground floor of the building.
- In an area where the closest point is within 300 feet of the site; or
- *In a residential unit. The requirements for in residential units are addressed below.*

4. Standards for bicycle parking in dwelling units

The current bicycle parking code allows long-term bicycle parking spaces within residential units to count toward the required bicycle parking minimum, as long as a 2' X 6' footprint is provided for each bike and a rack is provided that meets the current code standards.

This allowance creates challenges for tenants, including, but not limited to:

- Bicycle racks being placed in unusable locations in the unit
- Bicycle racks being removed and not returned when new tenants move in
- Damage deposits being lost when wet, muddy bikes are parked in residential units
- Contradicts the strong user preference for secure bicycle parking rooms, rather than in-unit parking (from the PBOT Community Survey: Bicycle Parking in Apartments, 2017)

PBOT staff conducted site visits at apartments around the city. While there were examples of effective bicycle parking, there were many more examples where a hook was placed in the residential unit in a way that made it hard to use such as in the bedroom, right next to or over the bed. In other cases, the bicycle rack, or multiple racks, were placed a significant distance from the front door, requiring the user to roll the bicycle through to the opposite end of the unit. Overwhelmingly, secure bike parking rooms were at, or over, capacity with parked bicycles. This was even the case in buildings permitted after 2010, when the 1.5 and 1.1 spaces per unit requirement went into effect.

Most cities in the United States **do not allow** bicycle parking spaces in an apartment unit or on a balcony to count toward the required long-term bicycle parking. For example, none of the following cities allow required long-term bicycle parking to be placed in-unit or balconies: San Francisco, CA; Vancouver, B.C.; Los Angeles, CA; Seattle, WA; Chicago, IL; Madison, WI; Cambridge, MA.

Staff still heard from developers that requiring all required long-term bicycle parking to be outside of the dwelling units has an impact on the space programming, which impacts development costs.

The proposed requirement represents a compromise position where 20 percent of required long-term bicycle parking can be accommodated in-unit if additional standards are met. These additional standards include:

- Racks provided in-unit would not need to be as substantial as previously required (example, a bicycle hook would be acceptable).
- The five-foot maneuvering space must still be provided.
- No more than one required bicycle parking space can be provided in one dwelling unit.

Staff initially proposed to address the issue of racks being placed in unusable locations in the unit by including a requirement that bicycle racks needed to be placed within 15 feet of the front door of the dwelling unit. Staff removed this requirement in the *Discussion Draft* due to feasibility and programming concerns by our Bureau partners.

5. Access for all building tenants in mixed-use buildings

An issue elevated during the code concept development was ensuring that all tenants, especially in mixed-use developments can access the building's long-term bicycle parking spaces.

The proposal states that developments with multiple primary uses must provide access to bicycle parking for all tenants. For example, in a mixed-use building, spaces dedicated to long-term bicycle parking must be accessible for retail/ commercial tenants and employees, as well as residential tenants. The bicycle parking can be provided in a common space with restricted access or in multiple separate location, but all tenants must have access to at least the amount of long-term bicycle parking that is required for the appropriate Use Category.

6. Provide sufficient bicycle rack detail in submitted plans

The code does not currently require the inclusion of details about the bicycle parking racks in submitted plans. Although the Bureau of Development Services (BDS) staff typically require this information from in land use review or building permit applications, codifying the requirement helps to ensure consistent review of required bicycle parking.

The proposed approach is similar to Joint Use Parking (33.266.110) and Environmental Zones (33.430.130) requirements for submittal of necessary documentation as part of a building permit or zoning application.

Accessible and Convenient Bicycle Parking that accommodates users of all ages and abilities as well as a variety of different types of bicycles.

Proposals:

7. Require a minimum percentage of long-term bicycle parking to be provided in horizontal racks.
8. Provide a few bicycle parking spaces for larger bikes, like recumbents or bikes with trailers.
9. Provide a few electrical outlets in a bicycle parking room for charging e-bikes.
10. Ensure that double-decker bicycle racks include a lift-assisted mechanism to access the upper tier.

Issues Addressed:

The Comprehensive Plan 2035 calls for establishing the standards for long-term bicycle parking that considers the needs of persons with different levels of ability. Further, the PBOT Community Survey of apartment users identified that 27% of the respondents reported owning some other type of bike, e-bike, cargo bike, etc. The proposals in this category are aimed at increasing the availability of racks for non-standard bicycles as well as ensure that a proportion of bicycle spaces can accommodate different levels of ability (specifically, reducing the need to lift bicycles

To reduce the burden of these additional long-term bicycle parking requirements on small developments, the following proposals are only triggered when a development is required to have more than 20 required long-term bicycle parking spaces.

Proposal Approach:

7. Minimum percentage of horizontal racks

When the current code language was developed over 20 years ago, the assumption was that all bicycle parking was provided in ground-mounted, horizontal racks. However, advances in rack design now allow for the use of wall-mounted, vertical racks and double-decker racks. While these vertical, wall-mounted racks provide space-efficient bicycle parking, they create usability issues for people who are not able to lift their bikes onto a wall-mounted rack or for people with bikes that do not fit vertically, due to length, fender placement, etc.

To provide bicycle parking space that does not require lifting of a bicycle, a minimum of 30% of required spaces must be in a horizontal rack or on the lower level of a stacked bicycle parking racks. This will ensure the provision of racks that can be used by people of all abilities, while still maintaining the flexibility for developers to use space-efficient options in constrained building space.

8. Provide spaces for large types of bicycles including cargo bikes and bikes with trailers

The current code requirements do not accommodate different types of bicycles that have become much more common over the past few years, including cargo bikes, long-tail bikes and bikes with trailers. As Portland continues to work towards its bicycle mode split goal, it is important to support all types of people who ride, which means bicycle parking for a variety of bicycle types.

The proposal requires a minimum of 5 percent of required bicycle parking spaces with a larger footprint of 3 feet by 10 feet, which must be provided in a horizontal rack.

9. Provide spaces for e-bikes

E-bikes are increasingly popular nationally and in Portland. Electric and electric-assist bikes have the capacity to reduce barriers to riding a bicycling, including trip distance, topography, time and physical exertion.

The proposal requires that at least 5 percent of required spaces must have a power outlet accessible to the horizontal bicycle parking spaces.

10. Double-decker racks are required to have a lift-assist mechanism

Double-decker, stacked bicycle racks are a space saving option that provides two levels of bicycle parking. This is a very space-efficient option, but it must be convenient and usable in order to meet Portland’s bicycle parking goals. Parking a bicycle onto the top rack of a double-decker bicycle rack would mean lifting a bike approximately four to five feet off the ground and placing in the bicycle parking space. This was not deemed usable by staff or the Stakeholder Advisory Committee. Therefore, the code proposal includes a requirement that double-decker bicycle racks have a lift-assist mechanism to aid the user in parking their bicycle on the upper rack. The lift assist eliminates the need to fully lift a bicycle.






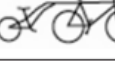



BICYCLE TYPE		DIMENSIONS (FEET)		
		Length	Height	Width
Standard Bicycle		6	4	2
Child Bicycle		5	2-3	2
Tandem Bicycle		9	4	2
Cargo Bicycle		8	4	3
Bicycle+Trailer Bike		10	4	2
Bicycle + Child Trailer		10	4	3
Bicycle and Child Seat		6	5	2
Recumbent Bicycle		7	4	3

Figure 4 – Table of various dimensions for bicycles. Taken from San Francisco’s Zoning Administrator Bulletin No. 9 – Bicycle Parking Requirements: Design and Layout

Bicycle Parking is Secure and Safe to Use where design provides sufficient security provisions to prevent bicycle theft and promotes safe spaces for users.

Proposals:

11. Streamline and narrow the security requirements for long-term bicycle parking to help prevent bicycle theft.
12. Enhance personal safety by requiring lighting for long-term bicycle parking.
13. Require 100% of long-term bicycle parking to be covered to provide weather protection.

Issues Addressed:

Security was very important for the Stakeholder Advisory Committee and for the people who provided input in early public engagement activities. In Portland, nearly 3,000 bikes are reported stolen to the police each year, and this represents just a fraction of the actual number of bikes that are stolen and not reported.

Proposal Approach:

11. Streamline security requirements for long-term bicycle parking

BDS staff provided feedback that most projects satisfy the security requirement for long-term bicycle parking by placing racks in a locked room or enclosure (secure bike room or in-unit placement). However, some projects have satisfied the security requirement by less secure options, including solely relying on video surveillance. Additionally, BDS staff expressed a preference to streamline and simplify this security section by providing fewer options to meet the code.

During the Online Open House respondents provided strong feedback that a camera should also be required as an additional element of bicycle parking security. This camera requirement was not included in the final proposal, in order to focus on the most important element of security, which is a locked enclosure. Also, cameras can break or be removed after the building is built, and thus are not as effective as a permanent measure.

The security standards proposal removes a number of the standalone security options, and instead provides three options for long-term bicycle parking security:

- 1) A lockable room or enclosure, with restricted access and designated for bicycle parking;
- 2) A bicycle locker; or
- 3) Placement in a residential unit, per the standards for in-unit bicycle parking.

12. Lighting requirements

Adequate lighting helps ensure personal safety for people using bicycle parking areas. Since short-term bicycle parking is located near the main entrance of buildings, staff assume that the area would already include lighting. However, for long-term bicycle parking that could be placed in a basement or in an underground parking area, lighting is an important security component.

The proposal for lighting is based on existing standards in Title 33 under pedestrian standards for commercial/ mixed use zones (33.130.205) and multi-dwelling zones (33.120.210).

13. Weather Protection

The current code only requires 50 percent of the required long-term bicycle parking spaces to be covered. However, staff and the Stakeholder Advisory Committee felt very strongly that 100 percent of long-term bicycle parking should be covered and include weather protection.

The proposal also more clearly defines weather protection, including stipulating the dimensions of a cover and how far the cover must extend beyond the bicycle footprint.

Bicycle Parking is Feasible and requirements allow for innovation and adaptability in design, while being straightforward to implement; additionally, requirements consider project feasibility and cost implications.

Proposals:

- 14.** Increase options for space saving racks in code.
- 15.** Streamline spacing requirements for horizontal racks to match the right-of-way standards.
- 16.** Exempt bike room space from Floor Area Ratios.

Issues Addressed:

During the code concept development phase and the work with the Stakeholder Advisory Committee, there was agreement that it was important to support and improve project feasibility. The current code makes it difficult for development projects to use space saving racks like vertical wall racks and double-decker, stacked racks.

Proposal Approach:

14. Increase options for space saving racks in code

The current bicycle parking code only addresses standards for horizontal, floor-mounted rack placement and spacing. However, there are many rack designs available that allow for closer spacing between bikes, with a vertical stagger that provides enough space to avoid handlebar and pedal conflicts. Narrower spacing makes it easier to provide more bicycle parking in a smaller area.

BDS and PBOT are already allowing these “space saving” racks through the modification and adjustment process, but codifying the standards streamlines the development process.

The proposals address spacing standards for vertical, wall racks and double-decker, stacked racks, both of which are common rack designs in development.

15. Streamline spacing standards for horizontal racks

The proposal also includes spacing standards for horizontal racks that match the requirements in PBOT’s bike parking in the right-of-way guidelines. These proposals allow for additional flexibility in rack configuration, while still maintaining usability of the racks.

16. Exempt bike room space for FAR

The recent amendments to the Commercial/ Mixed Use Chapter (33.130) included an FAR (Floor Area Ratio) exemption for structured parking up to a maximum FAR of 0.5 to 1. The proposal creates a FAR exemption at a similar rate for long-term bicycle parking provided outside of the dwelling unit. This helps promote development of the most effective type of bicycle parking, secure bicycle parking rooms.

It is important to note that the Better Housing by Design Project that is updating the multi-dwelling zones chapter and is proposing the same FAR exemption for structured parking. If that proposal is adopted, then the Bicycle Parking Code project also proposes to include bicycle parking rooms in that chapter as well.

Section V: Zoning Code Amendments

This section presents staff proposed zoning code amendments. The section is formatted to facilitate readability by showing draft code amendments on the right-hand pages and related commentary on the facing left-hand pages. Proposed new code is shown as underlined and current code proposed for deletion is shown with a ~~strikethrough~~.

Note: Sections of the existing code have been substantially rewritten, and the order of the current code sections have been moved around for the proposed zoning code amendments. Therefore, the majority of the new code is underlined. The commentary identifies where the code language has mostly stayed the same, but because of the reorganization and re-numbering of the sections, the language is underlined.

Commentary on draft Chapter 33.266.200 code amendments is in summary form. For more detail on the concepts, research and background related to the draft code amendments, see the [Report of the Bicycle Parking Stakeholder Advisory Committee: Recommendations on the Bicycle Parking Code Update 2016-2017](#).

This project deals primarily with Chapter 33.266.200, however there are some proposed changes additional sections of Title 33, as follows:

- 33.120 Multi-Dwelling Zones
- 33.130 Commercial/ Mixed Use Zones
- 33.229 Elderly and Disabled High Density Housing
- 33.258 Nonconforming Development
- 33.266 Parking, Loading, And Transportation And Parking Demand Management
- 33.510 Central City Plan District

Commentary

33.266.200 Purpose

These amendments update the City's bicycle mode split goal to match the current policy of 25% of all trips to be made by bicycle by 2030 and add the term security to the purpose statement.

During early public outreach and code concept development a number of concerns were raised around bicycle theft and the need for more secure bicycle parking. This amendment adds bicycle security as a goal articulated in the purpose statement.

33.266 Parking, Loading, and Transportation and Parking Demand Management

266

Bicycle Parking:

33.266.200 Purpose

~~33.266.210 Required Bicycle Parking~~ Minimum Required Bicycle Parking

33.266.220 Bicycle Parking Development Standards

33.266.200 Purpose

Bicycle parking is required for most use categories to encourage the use of bicycles by providing safe and convenient places to park bicycles. These regulations ensure adequate and secure short and long-term bicycle parking based on the demand generated by the different use categories and on the level of security necessary to encourage the use of bicycle for short and long stays. These regulations will help meet the City's goal that ~~10~~25 percent of all trips be made by bicycle.

Commentary

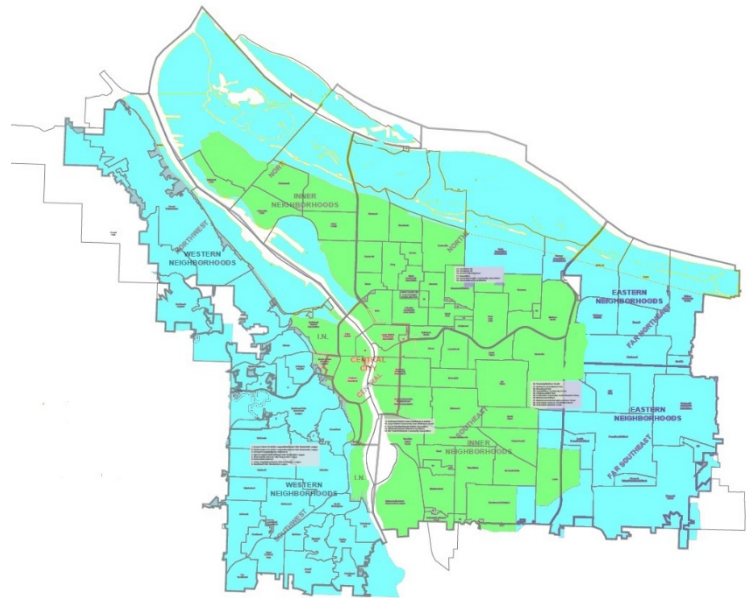
33.266.210.A. Number of spaces required.

This amendment will expand the tiered approach that is used for the Multi-Dwelling developments in the current code chapter, to all use categories in Table 266-6. A tiered approach for the number of required bike spaces accounts for differences in bike use and thus bike parking demand in Portland. While Portland has a citywide goal of 25% bicycle mode split of all trips, bicycle use rates are different in various parts of the city, and meeting the 25% citywide goal means higher and lower rates in various parts of the city.

The Transportation System Plan (TSP) uses a tiered approach for setting target mode split rates for the five different Pattern Areas.

The proposed code will introduce two new standard rates based on the TSP Pattern Areas and the Bicycle Districts. Standard A (green) - Central City, Inner Neighborhoods, Gateway Plan District and Standard B (blue) - Western and Eastern Neighborhoods. The Gateway Bicycle District was the only bicycle district outside of Central City or the Inner Pattern Area, so it was incorporated into the Standard A.

The intent of developing a tiered system was to acknowledge that a one-size fits all approach does not necessarily work for development across Portland.



Recommended Geographic Tiers

Note that a new map reflecting the boundaries of Standard A and B will be created and included in 33.266.210.

33.266.210.B. Calculations involving more than one use. This section has been moved, so it is underlined, but there are no changes to the content.

33.266.210 Minimum Required Bicycle Parking

- A. Number of spaces required.** The required minimum number of bicycle parking spaces for each use category is shown in Table 266-6. No bicycle parking is required for uses not listed. Minimum bicycle parking is calculated on a geographic hierarchy based upon current and future bicycle usage. Standard A applies to sites within the Central City Plan District, the Inner Pattern Areas and in the Gateway Plan District. All other sites are subject to Standard B; refer to Map XXX-X.
- B. Calculations involving more than one use.** The required minimum number of bicycle parking spaces is based on the primary uses on a site. When there are two or more separate primary uses on a site, the required bicycle parking for the site is the sum of the required parking for the individual primary uses.

Commentary

Updated Table 266-6 - Minimum Required Bicycle Parking Spaces

With the exception of a few changes in 2010, the majority of the minimum required bicycle parking space amounts, in Table 266-6, have not been updated since 1996. These amendments are to update the minimum required amounts of long- and short-term bicycle parking. The updates to the minimum required amounts are based on data points, including average square footage per employee (long-term rates); visitation rates (short-term rates); and target mode split goals. The full methodology can be read under the Proposal and Analysis Section (see page 21).

Note: During much of the time that staff was working with a Stakeholder Committee on updating the bicycle parking chapter, the TSP Proposed Draft "Stage Three" included a 15% commute mode split goal. However, this mode split goal was changed to 25%, with the release of the TSP Proposed Draft in August 2017. Unrelated to the issue of an appropriate City target commute mode split, staff and the Committee continued with the 15% as the target citywide commute mode split for the long-term bicycle parking methodology and calculation. This decision was based on the significant stakeholder consensus around the minimum required amounts based on 15% that had been built over the yearlong stakeholder advisory committee work.

Adding new Specific Uses to Table 266-6:

These amendments will add additional Specific Use Categories into Table 266-6:

- Add a new Specific Use to Group Living to separate more social service related group living such as nursing homes, transitional housing and assisted living from other group living development that is serving a more traditional household living function, but are classified as Group Living. This change was a result of feedback from affordable housing developers and the Portland Housing Bureau.
- Add a new Specific Use to Retail Sales and Services to distinguish bars and restaurants because they have a much higher visitor rate than the majority of other retail sales categories. Additionally, Bars and restaurants have a higher employee density than other retail services.

Commercial Parking:

The proposal is to exempt Commercial Parking facilities that have fewer than 10 vehicle spaces from the long-term bicycle parking requirements. With the implementation of the Comprehensive Plan Update, the regulations allowing the creation or conversion of parking areas into commercial parking were expanded. It is now possible in some commercial zones for a portion of a structured parking garage to be developed for commercial parking. It is also possible for non-required accessory parking to be converted to commercial parking. The conversion or creation of a smaller set of parking to be used for commercial parking, either for the general public or for sharing shouldn't trigger a requirement to add long-term bike parking.

		<u>Long-term Spaces</u>		<u>Short-term Spaces</u>	
<u>Uses</u>	<u>Specific Uses</u>	<u>Standard A</u>	<u>Standard B</u>	<u>Standard A</u>	<u>Standard B</u>
<u>Residential Categories</u>					
<u>Household Living</u>	<u>Multi-Dwelling</u>	<u>2, or 1.5 per unit</u>	<u>2, or 1.1 per unit</u>	<u>2, or 1 per 20 units</u>	<u>2, or 1 per 20 units</u>
	<u>Elderly and Disabled Housing</u>	<u>2, or 1 per 8 units</u>	<u>2, or 1 per 10 units</u>	<u>2, or 1 per 20 units</u>	<u>2, or 1 per 20 units</u>
<u>Group Living</u>		<u>2, or 1 per 4 bedrooms</u>	<u>2, or 1 per 4 bedrooms</u>	<u>2, or 1 per 20 bedrooms</u>	<u>2, or 1 per 20 bedrooms</u>
	<u>Covenant Based Development [2]</u>	<u>2, or 1 per 5 bedrooms</u>	<u>2, or 1 per 10 bedrooms</u>	<u>2, or 1 per 20 bedrooms</u>	<u>2, or 1 per 20 bedrooms</u>
	<u>Dormitory</u>	<u>2, or 1 per 4 bedrooms</u>	<u>2, or 1 per 4 bedrooms</u>	<u>4 spaces</u>	<u>4 spaces</u>
<u>Commercial Categories</u>					
<u>Retail Sales and Services</u>		<u>2, or 1 per 3,800 sq. ft. of net building area</u>	<u>2, or 1 per 7,500 sq. ft. of net building area</u>	<u>2, or 1 per 2,700 sq. ft. of net building area</u>	<u>2, or 1 per 4,400 sq. ft. of net building area</u>
	<u>Temporary Lodging</u>	<u>2, or 1 per 20 rentable rooms</u>	<u>2, or 1 per 20 rentable rooms</u>	<u>2, or 1 per 40 rentable rooms; and 1 per 5,000 sq. ft. of conference, meeting room</u>	<u>2, or 1 per 40 rentable rooms; and 1 per 10,000 sq. ft. of conference, meeting room</u>
	<u>Restaurant and Bar</u>	<u>2, or 1 per 2,300 sq. ft. of net building area</u>	<u>2, or 1 per 4,800 sq. ft. of net building area</u>	<u>2, or 1 per 1,000 sq. ft. of net building area</u>	<u>2, or 1 per 1,600 sq. ft. of net building area</u>
<u>Office</u>		<u>2, or 1 per 1,800 sq. ft. of net building area</u>	<u>2, or 1 per 3,500 sq. ft. of net building area</u>	<u>2, or 1 per 20,000 sq. ft. of net building area</u>	<u>2, or 1 per 33,000 sq. ft. of net building area</u>
<u>Commercial Parking [1]</u>		<u>10, or 1 per 10 auto spaces</u>	<u>10, or 1 per 10 auto spaces</u>	<u>None</u>	<u>None</u>
<u>Commercial Outdoor Recreation</u>		<u>2, or 1 per 12,500 sq. ft. of net building area or per CU</u>	<u>2, or 1 per 25,000 sq. ft. of net building area or per CU</u>	<u>2, or 1 per 2 acres</u>	<u>2, or 1 per 3 acres</u>
<u>Major Event Entertainment</u>		<u>10, or 1 per 10,000 sq. ft. of net building area or per CU review</u>	<u>10, or 1 per 20,000 sq. ft. or net building area or per CU review</u>	<u>10, or 1 per 40 seats or CU review</u>	<u>10, or 1 per 40 seats or per CU review</u>
<u>Industrial Categories</u>					
<u>Manufacturing and Production</u>		<u>2, or 1 per 5,000 sq. ft. of net building area</u>	<u>2, or 1 per 9,000 sq. ft. of net building area</u>	<u>2, or 1 per 67,000 sq. ft. of net building area</u>	<u>2, or 1 per 111,000 sq. ft. of net building area</u>
<u>Warehouse and Freight Movement</u>		<u>2, or 1 per 12,500 sq. ft. of net building area</u>	<u>2, or 1 per 25,000 sq. ft. of net building area</u>	<u>2, or 1 per 200,000 sq. ft. of net building area</u>	<u>2, or 1 per 333,000 sq. ft. of net building area</u>

Commentary

Updated Table 266-6 - Minimum Required Bicycle Parking Spaces - Continued

Adding new Specific Uses to Table 266-6:

These amendments will add additional Specific Use Categories into Table 266-6:

- In current code, Light Rail Station and Transit Centers are combined under one Specific Use line. This amendment will separate the two combined Specific Uses under Basic Utilities into two separate lines. This acknowledges the differences in bicycle parking needs for a Light Rail Station and a Transit Centers.

Chapter 33.920.400 provides examples of Specific Uses under Basic Utilities and separates out Light Rail Stations and Transit Centers. The following info provides more detail about the differences these two specific uses:

- Light Rail Transit Stations - A location where light rail vehicles stop to load or unload passengers, on a station platform. Generally, this is equivalent to "Transit Station" defined in 33.910.
- Transit Centers - where multiple transit lines and sometimes light rail lines converge on one location; examples include Hollywood Transit Center and Parkrose Transit Center.

Given the various use cases for bicycle parking at light rail stations and transit centers and that TriMet usually charges for using its bike lockers and bike cages, both short- and long-term bicycle parking are required to ensure various types of demands are met.

- This proposal adds the new Specific Use of Libraries, Community Centers and Museums to the Community Service Use Category, to account for the higher visitor rate than more general Community Service uses. Current code only distinguishes Park and Ride under the Community Service Use Category.
- This amendment reconfigures the breakout of Specific Uses under Schools to better match the most prevalent grade structures at elementary, middle and high schools in Portland. For Schools, long-term bicycle parking is intended to serve staff and students because they are at the site for a number of hours during the day. The short-term bicycle parking is intended to serve parents dropping off kids, or other short-term visitors to the school.
- This amendment adds required short-term bicycle parking for the Daycare Use Category. Long-term bicycle parking is for the employees of the daycare, but short-term bicycle parking is needed for parents who are dropping-off or picking up their children and for other visitors.

		<u>Long-term Spaces</u>		<u>Short-term Spaces</u>	
<u>Uses</u>	<u>Specific Uses</u>	<u>Standard A</u>	<u>Standard B</u>	<u>Standard A</u>	<u>Standard B</u>
<u>Institutional Categories</u>					
<u>Basic Utilities</u>	<u>Transit Centers</u>	<u>30 spaces, or per CU or IMP review</u>	<u>30 spaces, or per CU or IMP review</u>	<u>12 spaces, or per CU or IMP review</u>	<u>12 spaces, or per CU or IMP review</u>
	<u>Light Rail Stations</u>	<u>12 spaces, or per CU or IMP review</u>	<u>12 spaces, or per CU or IMP review</u>	<u>4 spaces, or per CU or IMP review</u>	<u>4 spaces, or per CU or IMP review</u>
<u>Community Service</u>		<u>2, or 1 per 6,700 sq. ft. of net building area</u>	<u>2, or 1 per 12,500 sq. ft. of net building area</u>	<u>2, or 1 per 6,300 sq. ft. of net building area</u>	<u>2, or 1 per 10,000 sq. ft. of net building area</u>
	<u>Libraries, community centers and museums</u>	<u>2, or 1 per 3,000 sq. ft. of net building area</u>	<u>2, or 1 per 5,900 sq. ft. of net building area</u>	<u>2, or 1 per 1,200 sq. ft. of net building area</u>	<u>2, or 1 per 2,000 sq. ft. of net building area</u>
	<u>Park and Ride</u>	<u>12, or 5 per acre, or per CU or IMP review</u>	<u>12, or 5 per acre, or per CU or IMP review</u>	<u>6 spaces, or per CU or IMP review</u>	<u>6 spaces, or per CU or IMP review</u>
<u>Parks and Open Areas</u>		<u>None</u>	<u>None</u>	<u>2, or 1 per 2 acres or per CU review</u>	<u>2, or 1 per 3 acres or per CU review</u>
<u>Schools</u>	<u>Grades K through 5</u>	<u>4 per classroom or per CU or IMP review</u>	<u>2 per classroom or per CU or IMP review</u>	<u>2, or 1 per 25,000 sq. ft. or per CU or IMP review</u>	<u>2, or 1 per 100,000 sq. ft. or per CU or IMP review</u>
	<u>Grades 6 through 8</u>	<u>5 per classroom or per CU or IMP review</u>	<u>3 per classroom or per CU or IMP review</u>	<u>2, or 1 per 25,000 sq. ft. or per CU or IMP review</u>	<u>2, or 1 per 100,000 sq. ft. or per CU or IMP review</u>
	<u>Grades 9 through 12</u>	<u>5 per classroom or per CU or IMP review</u>	<u>5 per classroom or per CU or IMP review</u>	<u>2, or 1 per 25,000 sq. ft. or per CU or IMP review</u>	<u>2, or 1 per 100,000 sq. ft. or per CU or IMP review</u>
<u>Colleges</u>	<u>Excluding dormitories (see group living, above)</u>	<u>2, or 1 per 10,000 sq. ft. of net building area or per CU or IMP review</u>	<u>2, or 1 per 20,000 sq. ft. of net building area or per CU or IMP review</u>	<u>2, or 1 per 10,000 sq. ft. of net building area or per CU or IMP review</u>	<u>2, or 1 per 16,000 sq. ft. of net building area or per CU or IMP review</u>
<u>Medical Centers</u>		<u>2, or 1 per 2,700 sq. ft. of net building area or per CU or IMP review</u>	<u>2, or 1 per 5,500 sq. ft. of net building area or per CU or IMP review</u>	<u>2, or 1 per 50,000 sq. ft. of net building area or per CU or IMP Review</u>	<u>2, or 1 per 100,000 sq. ft. of net building area or per CU or IMP Review</u>
<u>Religious Institutions</u>		<u>2, or 1 per 11,000 sq. ft. of net building area</u>	<u>2, or 1 per 25,000 sq. ft. of net building area</u>	<u>2, or 1 per 14,000 sq. ft. of net building area</u>	<u>2, or 1 per 25,000 sq. ft. of net building area</u>
<u>Daycare</u>		<u>2, or 1 per 3,000 sq. ft. of net building area</u>	<u>2, or 1 per 6,000 sq. ft. of net building area</u>	<u>2, or 1 per 25,000 sq. ft. of net building area</u>	<u>2, or 1 per 33,000 sq. ft. of net building area</u>

Commentary

Updated Table 266-6 - Minimum Required Bicycle Parking Spaces - Continued

<u>Uses</u>	<u>Specific Uses</u>	<u>Long-term Spaces</u>		<u>Short-term Spaces</u>	
		<u>Standard A</u>	<u>Standard B</u>	<u>Standard A</u>	<u>Standard B</u>
<u>Other Categories</u>					
<u>Aviation and Surface Passenger Terminals</u>		<u>2, or 1 per 4,500 sq. ft. of net building area or per CU or IMP review</u>	<u>2, or 1 per 4,500 sq. ft. of net building area or per CU or IMP review</u>	<u>None</u>	<u>None</u>
<u>Detention Facilities</u>		<u>2, or 1 per 5,000 sq. ft. of net building area or per CU or IMP review</u>	<u>2, or 1 per 5,000 sq. ft. or per CU or IMP review</u>	<u>None</u>	<u>None</u>

[1] No long-term bicycle parking is required for a Commercial Parking facility with less than 10 vehicle parking spaces.

[2] Covenant Based Development are defined as projects with a covenant with Portland Housing Bureau that house people in transition and with special needs, including veterans, people with disabilities, people recently out of prison, in rehab or treatment with extremely limited to no income.

Note: Wherever this table indicates two numerical standards, such as “2 or 1 per 3,000 sq. ft. of net building area,” the larger number applies.

Commentary

33.266.220.B. Where these standards apply.

This proposal adds language to clarify where each of the subsections of the chapter apply, regarding all bicycle parking standards, long-term bicycle parking and short-term bicycle parking.

33.266.220.C. Standards for all bicycle parking.

There are no substantial changes to the purpose or the Development Standards. However, since there is a re-ordering of the entire code chapter to put the standards for all bicycle parking first, followed by long-term and then short-term bicycle parking standards, these sections are underlined.

33.266.220 Bicycle Parking Development Standards

- A. Purpose.** These standards ensure that required bicycle parking is designed so that people of all ages and abilities are able to securely lock their bicycle without undue inconvenience and the bicycles will be reasonably safeguarded from theft and accidental damage.
- B. Where these standards apply.** The standards of Subsection C and D apply to required long-term bicycle parking, and the standards of Subsection C and E apply to required short-term bicycle parking.
- C. Standards for all bicycle parking.** Required long-term and short-term bicycle parking must be provided in lockers or racks that meet the following standards:
 - 1. Bicycle Racks.** Where required bicycle parking is provided in racks, the racks must meet the following standards:
 - a.** The bicycle frame and one wheel can be locked to the rack with a high security, U-shaped shackle lock if both wheels are left on the bicycle;
 - b.** The rack must support the bicycle at two points, including the frame, and must support the bicycle in a stable position so that the bicycle cannot be pushed or fall in a manner that will damage the wheels or components; and
 - c.** The rack must be securely anchored with tamper-resistant hardware.

Commentary

33.266.220.C. Standards for all bicycle parking.

2. Bicycle Parking Space, Aisle, and Clearance Dimensions and Table 266-7

This amendment adds a new Table 266-7 to show all required minimum dimensions for the various bicycle parking configurations; including bicycle space depth, width, height, aisle requirements, and vertical and wall clearances. Table 266-7 includes the standard spacing footprint as well as alternative spacing requirements as described below.

a. Standard Bicycle Parking Spacing Requirements

This amendment maintains the 2 foot by 6 foot bicycle footprint, but adds a third dimension for height/ depth of a bicycle. The 3 feet 4 inch (40 inch) depth measurement is particularly important for vertical bicycle parking racks; since the current code does not address vertical dimensional standards. The bicycle footprint is intended to provide the baseline space requirement for a bicycle parking space. This baseline is to be used for measuring all bicycle parking spaces unless explicitly stated in code.

The amendment also moves the required maneuvering aisle requirements from the Access section. The standard 5 foot required aisle is measured from the end of the depth of bicycle (6 ft if placed horizontally, or 3 feet 4 inches if placed vertically).

These interim diagrams are to illustrate the footprint. Final code diagrams will be developed for the Proposed Draft:

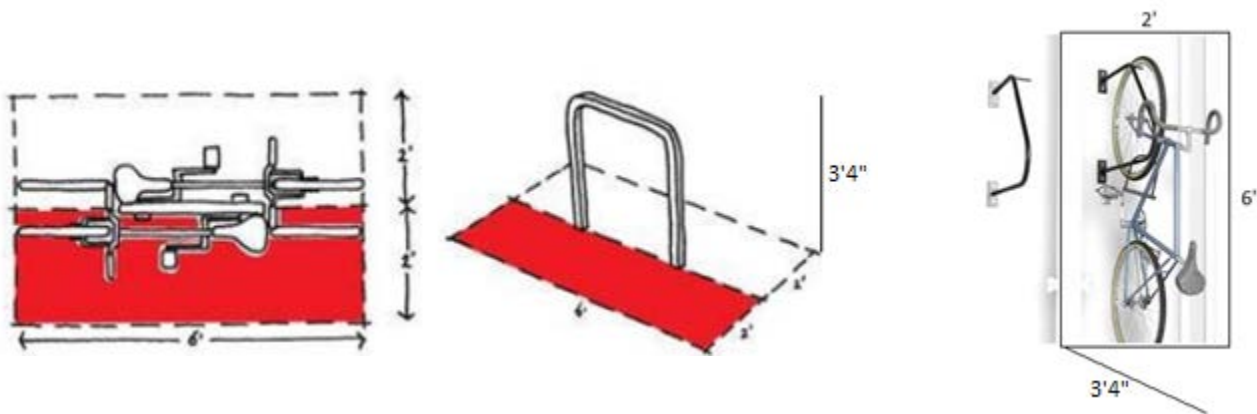


Table 266-7							
Minimum Dimensions for Bicycle Parking Spaces [1]							
		<u>Bicycle Space Depth</u>	<u>Bicycle Space Width</u>	<u>Bicycle Space Height</u>	<u>Maneuvering Aisle Width</u>	<u>Vertical Clearance</u>	<u>Clearance from Walls</u>
Standard Footprint		6 ft.	2 ft.	3 ft. 4 in.	5 ft.	--	2 ft. 6 in.
Alternative Spacing							
	<u>Horizontal Spaces: Placed Side by Side</u>	6 ft.	1 ft. 6 in.	3 ft. 4 in.	5 ft.	--	2 ft. 6 in.
	<u>Horizontal Spaces: Wall Attached</u>	6 ft.	2 ft.	3 ft. 4 in.	5 ft.	--	1 ft.
	<u>Horizontal Spaces: Diagonal (45-60 degree)</u>	6 ft.	1 ft. 6 in.	3 ft. 4 in.	5 ft.	--	3 ft.
	<u>Vertical Spaces [2]</u>	40 in.	1 ft. 5 in.	6 ft.	5 ft.	7 ft.	--
	<u>Stacked Spaces [3]</u>	6 ft. 6 in.	1 ft. 5 in.	4 ft. 6 in.	8 ft.	8 ft. 6 in.	--

Notes:

[1] See Figures 266-XXX.

[2] The alternative spacing allowed for vertical bicycle parking spaces requires a minimum vertical stagger of 8 inches between each space.

[3] The alternative spacing allowed for stacked bicycle parking spaces requires a vertical stagger to be included in the manufacturer design.

2. Bicycle Parking Space, Aisle, and Clearance Dimensions. Bicycle parking spaces, aisles and clearances must meet the minimum dimensions contained in Table 266-7.

a. Standard Bicycle Parking Space Requirements.

- (1) The standard required bicycle footprint is 2 feet wide, 6 feet long and 3 feet 4 inches tall.
- (2) Bicycle parking spaces must not interfere with the pedestrian circulation system.
- (3) The area devoted to the bicycle parking space must be hard surfaced.
- (4) There must be an aisle at least 5 feet wide behind all required bicycle parking spaces to allow room for bicycle maneuvering. Where required short-term bicycle parking is adjacent to a sidewalk, the maneuvering area may extend into the right-of-way.
- (5) A wall clearance of 2 feet 6 inches must be provided between bicycle rack and wall. See Figure XX.

Commentary

33.266.220.C. Standards for all bicycle parking.

Bicycle Parking Space, Aisle, and Clearance Dimensions.

b. Alternative Spacing Requirements

Although the 2' x 6' x 40" (3'4") bicycle footprint is the baseline standard for a bicycle parking space. There are configurations of bicycle racks that due to layout and stagger, eliminate handlebar and pedal conflicts between bicycles. Thus, allowing for greater flexibility in accommodating more bicycle parking spaces in less overall space.

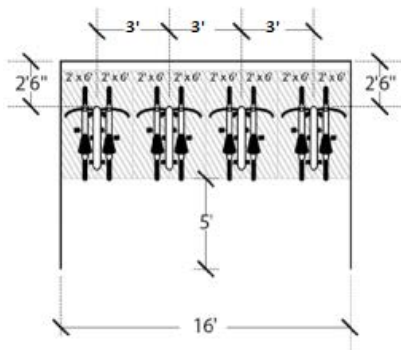
These amendments provide alternative layouts, and dimensional standards found in Table 266-7 that can be applied in lieu of the typical required bicycle footprint. If an applicant wants to deviate from the prescribed layouts (over the next few pages), they must demonstrate how the standard bicycle parking footprint is maintained.

Horizontal Spacing Requirements

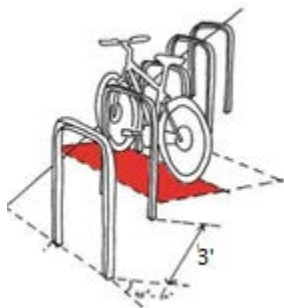
These amendments provide consistency and to streamline standards for bicycle parking, allowing other options for horizontal racks dimensional standards to match the requirements of PBOT's bike parking in the right-of-way guidelines.

These figures are meant to illustrate the spacing standards found in Table 266-7, formal diagrams will be developed for the final code.

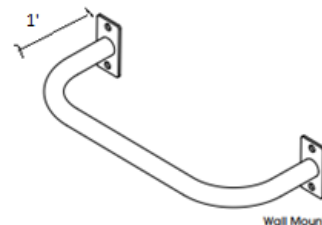
1. Min. 3 feet between side-by-side racks



2. Min. 3 feet distance between horizontal racks placed on 45 to 60 degree angle



3. Horizontal racks attached to wall must provide a 1 foot clearance between rack and wall.



b. Alternative Spacing Requirements. Under the following bicycle parking layouts, the corresponding dimensional standards found in Table 266-7 can be applied as alternative minimum dimension requirements.

(1) Horizontal bicycle parking spaces. Horizontal bicycle parking spaces secure the parked bicycle horizontal to the ground.

- Horizontal: Placed Side by Side. A minimum distance of 3 feet between racks is required. See Figure XXX
- Horizontal Spaces Diagonal. A minimum of 3 feet between racks, measured on center, is required for racks that are placed on a diagonal of 45 to 60 degrees. See Figure XXX
- Horizontal Spaces: Wall Attached. A minimum of 1 foot clearance must be provided between rack and wall. See Figure XXX

Commentary

Development Standards - Alternative Spacing Requirements (continued)

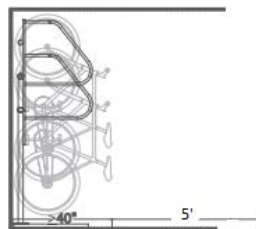
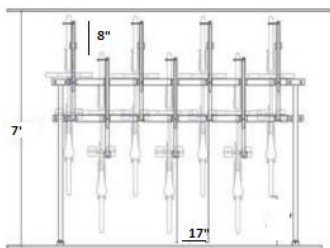
These amendments add detail for the spacing requirements for vertical and stacked bicycle parking. While these are commonly used types of bicycle parking, developers are required to get an adjustment or modification for use in projects.

These types of bicycle parking are known as "space saving" and allow for more bicycle parking to be accommodated in a smaller area. The inclusion of these standards in code will allow these "space saving" racks without requiring an adjustment or modification.

Vertical Bicycle Parking Spacing Requirements

These amendments add the following spatial standards for vertical, wall racks.

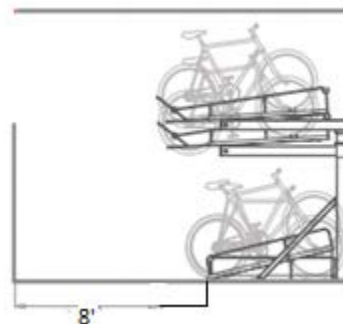
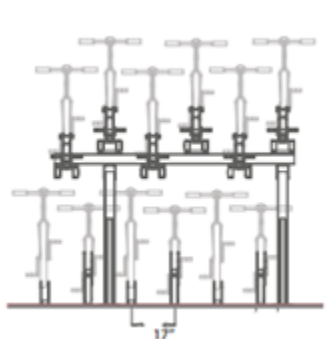
- Minimum 1 ft. 5 in. (17 inch) spacing between each rack space, with a minimum vertical stagger of 8 inches.
- At least 40 inches must be provided for the depth of the vertical bicycle parking space, measured from the wall to the required aisle (new dimension of the bicycle footprint).
- A minimum of 7 feet of vertical clearance from floor to ceiling.



Stacked Bicycle Parking Spacing Requirements

These amendments add the following spatial standards for stacked, bicycle parking.

- A minimum of 1 ft. 5 in. (17 inch) spacing between spaces, with a vertical stagger between each space.
- A minimum of 8 ft. 6 in. of vertical clearance is needed between the floor and ceiling for stacked bicycle parking.
- A maneuvering aisle of 8 feet is required behind the rack.



(2) Vertical bicycle parking spaces. Vertical bicycle parking secures the parked bicycle perpendicular to the ground. See Figure XXX

- The reduced spacing standard allowed for vertical bicycle parking spaces, found in Table 266-7, and requires a minimum vertical stagger of 8 inches between each space.

(3) Stacked bicycle parking spaces. Stacked bicycle parking are racks that are stacked, one tier on top of another. Bicycles are horizontal when in the final stored position. See FigureXXX.

- The reduced spacing allowed for stacked bicycle parking spaces, found in Table 266-7, requires a vertical stagger between each space.
- The rack must include a mechanically-assisted lifting mechanism to mount the bicycle on the top tier.
- A minimum of 8 feet 6 inches of vertical clearance is needed between the floor and ceiling for stacked bicycle parking.
- A maneuvering aisle of 8 feet is required, measured from the rack.

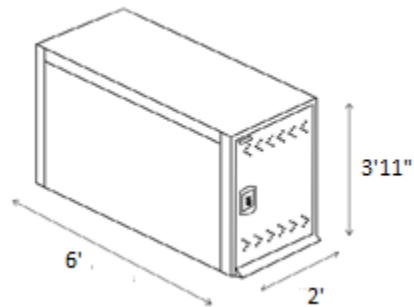
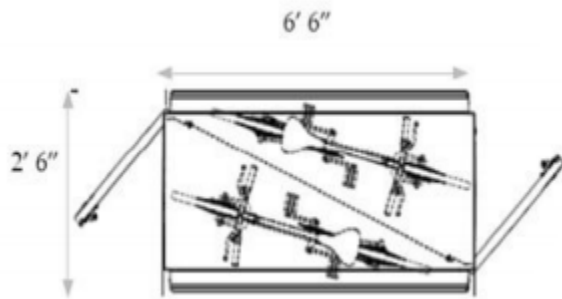
Commentary

3. Bicycle Lockers.

These amendments add specific dimensions for bicycle lockers, to set a minimum standard that will allow lockers to efficiently fit bicycles.

The amendment adds dimensional standards for triangular locker layouts that allow for two bikes to utilize a single locker space.

Also, a minimum access door height of 3 feet 11 inches (47 inches) is added for all bicycle lockers.



3. Bicycle lockers. Bicycle lockers are fully enclosed and secure bicycle parking spaces.
 - a. The locker must be securely anchored to the ground.
 - b. There must be an aisle at least 5 feet wide behind all bicycle lockers to allow room for bicycle maneuvering.
 - c. Locker Dimensions. All bicycle lockers must meet one of these:
 - (1) The locker space has a minimum depth of 6 feet, with an access door of 2 feet wide and a minimum height of 3 feet 11 inches.
 - (2) A locker space provided in a triangle locker layout for two bicycle parking spaces must have a minimum depth of 6 feet 6 inches; and an access door with a minimum width of 2 feet 6 inches; and a minimum height of 3 feet 11 inches. See Figure XXX

Commentary

4. Access Requirements

Current code only requires that short-term bicycle parking is accessed via an accessible route and was silent on access to long-term bicycle parking. Code defines accessible route (33.910) as a route that can be used by a disabled person using a wheelchair and that is also safe for and usable by people with other disabilities. This amendment requires that least one access route to both short-term and long-term bicycle parking areas are designed such that a person doesn't have to lift their bicycle over any obstacles, including stairs or a curb. The amendment removes the term "accessible route" in lieu of providing clarity that access to all required bicycle parking should not include lifting the bicycle over any obstacles

Additionally, the amendment moves the existing signage requirements to this paragraph because directional signage is important to being able to access short- and long-term bicycle parking.

Finally, the maneuvering aisle requirements are moved into the Bicycle Parking Space, Aisle, and Clearance Dimensions section in order to group spacing requirements together.

4. Access Requirements.

a. Bicycle parking must be accessed through a route that does not require the lifting of a bicycle over any obstacles, including stairs, steps or curbs.

b. Signage.

(1) Light rail stations and transit centers. If required bicycle parking is not visible from the light rail station or transit center, a sign must be posted at the station or center indicating the location of the bicycle parking.

(2) Other uses. If required bicycle parking is not visible from the streets or main building entrances, a sign must be permanently posted at the main entrance indicating the location of the bicycle parking.

Commentary

5. Bicycle Parking Information in Plans.

Current code does not require that applicants provide any detail in their applications regarding the types of bicycle racks to be used for a development. These amendments codify the level of detail and information needed for consistent review of required bicycle parking. This includes the new requirements for a minimum amount of horizontal bicycle parking, accommodating a larger bicycle footprint, and e-bikes. Applicants need to demonstrate compliance with these requirements by submitting specific information with either their building permit or land use review applications.

BDS staff asks for much of this information, but this section adds clarity and consistency regarding what is required.

This approach is similar to how Joint Use Parking (33.266.110) and Environmental Zones (33.430.130) include enhanced detail of necessary documentation to be submitted as part of a building or zoning permit application or land use review.

5. Bicycle Parking Information in Plans. The following information must be submitted with applications for a building permit or land use review:
- a. Location, access route to long-term bicycle parking and number of bicycle parking spaces for short-term and long-term bicycle parking requirements;
 - b. The model or design of the bicycle parking facilities to be installed;
 - c. Dimensions of all aisles; and
 - d. If applicable, information adequate to illustrate the racks and spaces that satisfy the minimum horizontal requirement, the racks and spaces that accommodate a larger bicycle footprint, and the location of the required electrical outlets.

Commentary

33.266.220.D. Standards for long-term bicycle parking.

Purpose. The amendments to the purpose statement emphasize that long-term bicycle parking should be convenient, easy to find, accessible and secure for employees, students, residents, commuters and other who need a place to park a bicycle for more than a few hours.

D. Standards for Long-Term Bicycle Parking.

1. Purpose. Long-term bicycle parking is located in convenient, secure and weather-protected facilities intended for employees, students, residents, commuters and others who need secure bicycle parking for several hours, a work-day or overnight. The intent of these standards is to allow bicycle parking to be easy to find, accessible and within a reasonable distance in order to encourage bicycle use.

Commentary

33.266.220.D. Standards for long-term bicycle parking.

2. Development Standards

a. Location Standards.

Amendments in this section address the location standards for long-term bicycle parking. The code details the appropriate locations for long-term bicycle parking. The list is comprehensive, and long-term bicycle parking must be provided in one of the listed options.

Long-term bicycle parking can be located in one of the following locations:

- Within a building - where bicycle parking can be on the ground floor or other floors of the building. However, given the access requirements, if long-term bicycle parking is provided on floors other than the ground floor, then there must be elevator access to these other floors.
- On-site - where bicycle parking can be located on-site, including in parking areas. If the bicycle parking is located on-site but outside of the building, then all the required long-term bicycle parking spaces must be covered. Additionally, if bicycle parking is provided in underground, structured parking areas then the bicycle parking must be located on the parking level that is closest to the ground floor of the building.
 - Note: Staff removed a proposed requirement that limited the slope of access ramps to underground bicycle parking areas based on construction feasibility and permit review concerns. However, to reduce the potential burden of users having to traverse multiple underground parking levels, staff have added the location provision to limit bicycle parking areas in structured, underground parking areas to the level closest to the ground floor.
- In an area within 300 feet from the site - this option is being maintained from current code so that long-term bicycle parking can be in a location where the closest point is within 300 feet of the development site. This provision is not commonly used, but it provides flexibility for a developer to locate required long-term bicycle parking off-site.

2. Development Standards. Required long-term bicycle parking must be provided in lockers or racks that meet the following standards:

a. Location Standards. Required long-term bicycle parking may be provided in one or more of the following locations:

(1) Within the building, including on the ground floor or on individual building floors;

(2) On-site, including in parking areas;

- If long-term bicycle parking is located in underground, structured parking areas then it must be located on the level closest to the ground floor of the building.

(3) In an area where the closest point is within 300 feet of the site; or

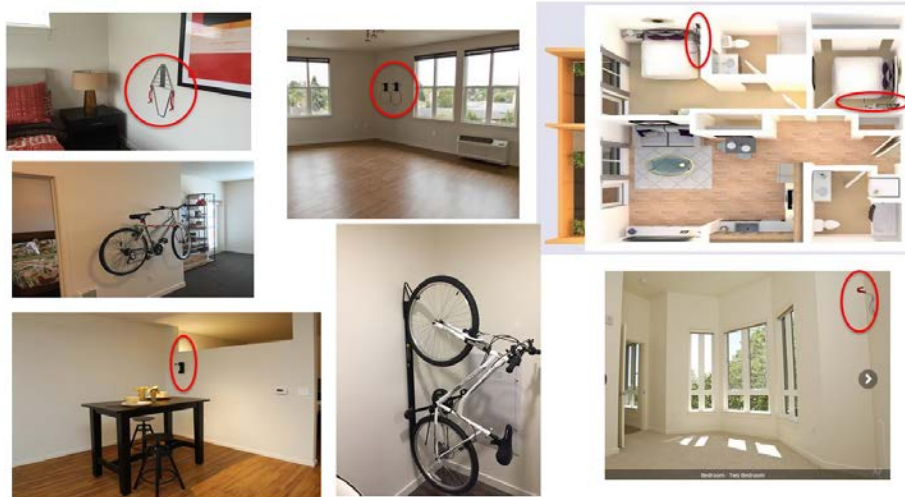
Commentary

Location Standards (continued)

(4) In a dwelling unit.

The final standard for where required long-term bicycle parking can be located, is in a dwelling unit. Staff have heard about a number of issues with bicycle parking spaces in a residential unit, including, but not limited to:

- Bicycle racks being placed in unusable locations in the unit
- Bicycle racks are removed and not returned when new tenants move in
- Damage deposits being lost when wet, muddy bikes are parked in residential units
- A strong user preference to park their bikes in a secure bicycle parking room (PBOT Community Survey: Bicycle Parking in Apartments, 2017)



Additionally, in reviewing the bicycle parking code regulations of other cities across the United States, the majority of cities do not allow bicycle parking spaces in an apartment unit or on a balcony to count toward the required long-term bicycle parking.

On the other hand, requiring all bicycle parking to be outside of the dwelling units has an impact on how space is used in a building, which impacts development costs.

The proposed requirement represents a compromise position where up to 20% percent of required long-term bicycle parking can be accommodated in-unit if additional standards are met. Racks provided in unit would not need to be as substantial as previously required (designed such that a u-lock shackle can lock both bicycle frame and one wheel to the rack).

Staff had previously proposed to address the issue of racks being placed in unusable locations in the unit by including a requirement that bicycle racks needed to be placed within 15 feet of the front door. Staff removed this requirement due to feasibility and programming concerns by our Bureau partners.

(4) Up to 20 percent of required long-term bicycle parking spaces may be provided in a residential dwelling unit, and do not need to meet C.1. above, if they meet the following. No adjustments or modifications are permitted to this section.

- Be provided in a rack that accommodates a 2 foot by 6 foot bicycle footprint, with a 3 foot 4 inch depth measurement.
- Maintain an aisle at least 5 feet wide behind all required bicycle parking to allow room for bicycle maneuvering.
- No more than one required long-term bicycle parking space can be accommodated per dwelling unit.

Commentary

Location Standards (continued)

b. Sites with multiple uses. The amendments to the location standards for long-term bicycle parking also include a provision to ensure that all tenants of mixed use buildings (employees and residents) are ensured access to long term bicycle parking spaces.

Specifically, the proposal stipulates that in developments with multiple primary uses, long-term bicycle parking must be accessible for retail/ commercial tenants as well as residential tenants. The bicycle parking can be provided in a common space with restricted access or in multiple separate locations, but all tenants must have access to at least the amount of long-term bicycle parking that is required for that Use Category.

c. Covered bicycle parking. The amendments to the covered bicycle parking standards state that 100 percent of long-term bicycle parking must be covered, compared to 50 percent in current code. Additionally, this proposal adds dimensional standards for the cover to ensure protection of bicycles from wind-driven rain.

- b. For sites with multiple primary uses, long-term bicycle parking must be provided in an area that can be accessed from each use. If bicycle parking is provided in a commonly shared secure area on the site, the area must be accessible for all tenants.
- c. Covered bicycle parking. All required long-term bicycle parking must be covered. Where required covered bicycle parking is not within a building or locker, the cover must be:
 - (1) Permanent;
 - (2) Impervious; and
 - (3) The dimensions of the cover must project out a minimum of 2 feet beyond the bicycle footprint of the required spaces.

Commentary

33.266.220.D. Standards for long-term bicycle parking.

3. Security Standards

Security is one of the stakeholder advisory group's guiding principles for the bicycle parking code update, and a primary issue addressed by the early community engagement work.

These amendments remove the following options as standalone security provisions:

- Within view of an attendant or security guard;
- Within 100 feet of an attendant or security guard;
- In an area that is monitored by a security camera; or
- In an area that is visible from employee work areas.

b. Lighting

These amendments add lighting standards for long-term bicycle parking and access routes. This language is consistent with the lighting requirement under the pedestrian standards section, 33.130.240.

3. Security Standards.

- a. Long-term bicycle parking must be located in one of the following:
 - (1) A restricted access, lockable room or enclosure, designated primarily for bicycle parking;
 - (2) A bicycle locker; or
 - (3) In a residential dwelling unit, per standards 2.a.(4) above.
- b. All access routes and the bicycle parking spaces must be lighted to a level where the system can be used at night by the employees and residents.

Commentary

4. Additional Development Standards

This section sets new development standards for bicycle racks to ensure usability for people of all abilities and to accommodate a variety of different types of bicycles.

To reduce the burden on smaller developments, these standards only apply to sites where more than 20 long-term bicycle parking spaces are required.

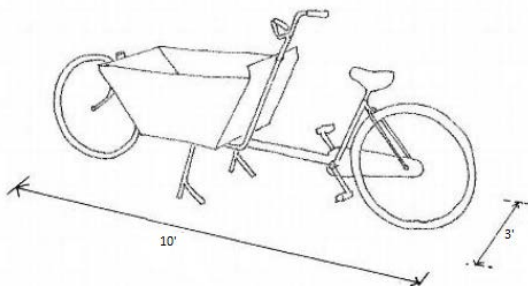
a. Minimum horizontal bicycle parking spaces.

Current code does not distinguish between ground-mounted, horizontal racks and wall-mounted, vertical racks. This has led to the use of exclusively vertical racks in some developments. While vertical racks can be space efficient, they present usability issues for some people and some bicycles.

To provide bicycle parking spaces that do not require lifting of a bicycle, a minimum of 30% of required spaces must be in a horizontal rack or on the lower level of a stacked bicycle parking rack.

b. Parking for larger bicycle footprint.

To accommodate larger bikes like cargo bikes, recumbent bikes, and bikes with trailers, a minimum of 5% of required bicycle parking spaces must accommodate a bicycle footprint of 3 feet by 10 feet and be provided in a horizontal rack. The bicycle parking spaces that fit the larger bicycle footprint standard will also count toward the minimum horizontal bicycle parking spaces.



c. Access to electrical outlets.

The use of e-bikes is continuing to grow nationally, and in Portland. This proposal requires an electrical outlet near 5% of the required bicycle parking spaces to accommodate plug-in electric bikes.

4. Additional Development Standards. The following standards apply to sites where more than 20 long-term bicycle parking spaces are required:
- a. Minimum number of horizontal bicycle parking spaces. At least 30 percent of required spaces must be in a horizontal rack, or on the lower level of a stacked bicycle parking rack.
 - b. Parking for larger bicycle footprint. At least 5 percent of required spaces must accommodate a larger bicycle footprint of 3 feet by 10 feet, placed in a horizontal rack. These spaces are included as part of the requirement for subparagraph a.
 - c. Access to electrical outlets. At least 5 percent of required spaces must have a power outlet accessible to horizontal bicycle parking spaces.

Commentary

33.266.220.E. Standards for short-term bicycle parking

Purpose.

Minor changes made to the purpose statement to highlight that short-term bicycle parking should be publicly accessible and visible for users.

There are no substantial changes to the rest of the standards for short-term bicycle parking, but the number references have changed, therefore this section is entirely underlined. The short-term bicycle parking section was revised in 2004. Beyond needing to adjust the amounts of required short-term bicycle parking, which are addressed in Table 266-6.

E. Standards for Short-term Bicycle Parking.

1. Purpose. Short-term bicycle parking is located in publicly accessible, highly visible locations intended to encourage shoppers, customers, messengers and other visitors to use bicycles. Short-term bicycle parking should serve the main entrance of a building and be visible to pedestrians and bicyclists.
2. Development Standards. Required short-term bicycle parking must be provided in lockers or racks that meet the standards of Subsection 33.266.220.A. and the following standards:
 - a. Location Standards. Required short-term bicycle parking must meet the following location standards:
 - (1) On-site, outside a building;
 - (2) Within the following distances of the main entrance:
 - Building with one main entrance. For a building with one main entrance, the bicycle parking must be within 50 feet of the main entrance to the building as measured along the most direct pedestrian access route. (See Figure 266-8)
 - Building with more than one main entrance. For a building with more than one main entrance, the bicycle parking must be along all façades with a main entrance, and within 50 feet of at least one main entrance on each façade that has a main entrance, as measured along the most direct pedestrian access route. (See Figure 266-9)
 - Sites with more than one primary building. For sites that have more than one primary building, but are not an institutional campus, the bicycle parking must be within 50 feet of a main entrance as measured along the most direct pedestrian access route, and must be distributed to serve all primary buildings (See Figure 266-110);
 - Institutional Campus. On an institutional campus with more than one building or main entrance, the bicycle parking must be either:
 - Within 50 feet of a main entrance as measured along the most direct pedestrian access route; or
 - If the short-term bicycle parking is more than 50 feet from a main entrance, it must be in a common bicycle parking location along a pedestrian access route.

Commentary

33.266.220.E. Standards for short-term bicycle parking (continued)

No change.

b. Bicycle Parking Fund.

- (1) This option may be used only if it is not possible to provide all of the required short-term bicycle parking on-site in a way that complies with all of the standards in Subsection A and D. This option may not be used if:
 - There are surface parking areas, plazas, exterior courtyards, or other open areas on the site, other than required landscaping;
 - Those open areas are large enough, separately or in combination, to accommodate all required short-term bicycle parking; and
 - The open areas meet the location requirements of D.2., above.
- (2) Fund use and administration. The Bicycle Parking Fund is collected and administered by the Bureau of Transportation. The funds collected will be used to install bicycle parking and associated improvements in the right-of-way.
- (3) This option may not be used if any required short-term bicycle parking is provided on site.

Commentary

Strikethrough of Current Code.

Due to the changes in the order of this code chapter and the significant changes to the standards for all bicycle parking standards and long-term bicycle parking standards, all of the current code is strike through.

~~33.266.210 Required Bicycle Parking~~

~~A. Number of spaces required.~~

- ~~1.—The required minimum number of bicycle parking spaces for each use category is shown on Table 266-6. No bicycle parking is required for uses not listed.~~
- ~~2.—The required minimum number of bicycle parking spaces is based on the primary uses on a site. There are no bicycle parking requirements for accessory uses. However, if the required number of spaces for the primary uses is based on net building area, the net building area of accessory uses is included with the primary uses in the calculation. For example, a Manufacturing and Production uses of 45,000 square feet with 15,000 square feet of accessory Office use would have a bicycle parking requirement of 4 spaces, based on 60,000 square feet of net building area. If the primary use is not listed in Table 266-6, no bicycle parking is required for the accessory use.~~
- ~~3.—When there are two or more separate primary uses on a site, the required bicycle parking for the site is the sum of the required parking for the individual primary uses.~~

~~B. Exemptions.~~

- ~~1.—No long-term bicycle parking is required on a site where there is less than 2,500 square feet of gross building area.~~
- ~~2.—No bicycle parking is required for a Commercial Parking facility on a surface parking lot in the Central City plan district.~~

~~33.266.220 Bicycle Parking Standards~~

~~A. Short-term bicycle parking.~~

- ~~1.—Purpose. Short-term bicycle parking encourages shoppers, customers, messengers, and other visitors to use bicycles by providing a convenient and readily accessible place to park bicycles. Short-term bicycle parking should serve the main entrance of a building and should be visible to pedestrians and bicyclists.~~
- ~~2.—Standards. Required short-term bicycle parking must meet the following standards:
 - ~~a.—Short-term bicycle parking must be provided in lockers or racks that meet the standards of Subsection 33.266.220.C.~~~~

Commentary

Strikethrough of current code continued.

- b. ~~Location Standards. Required short-term bicycle parking must meet the following location standards:~~
- ~~(1) Outside a building;~~
 - ~~(2) At the same grade as the sidewalk or at a location that can be reached by an accessible route; and~~
 - ~~(3) Within the following distances of the main entrance:~~
 - ~~Building with one main entrance. For a building with one main entrance, the bicycle parking must be within 500 feet of the main entrance to the building as measured along the most direct pedestrian access route. (See Figure 266-8)~~
 - ~~Building with more than one main entrance. For a building with more than one main entrance, the bicycle parking must be along all façades with a main entrance, and within 50 feet of at least one main entrance on each façade that has a main entrance, as measured along the most direct pedestrian access route. (See Figure 266-9)~~
 - ~~Sites with more than one primary building. For sites that have more than one primary building, but are not an institutional campus, the bicycle parking must be within 50 feet of a main entrance as measured along the most direct pedestrian access route, and must be distributed to serve all primary buildings (See Figure 266-110);~~
 - ~~Institutional Campus. On an institutional campus with more than one building or main entrance, the bicycle parking must be either:~~
 - ~~— Within 50 feet of a main entrance as measured along the most direct pedestrian access route; or~~
 - ~~— If the short-term bicycle parking is more than 50 feet from a main entrance, it must be in a common bicycle parking location along a pedestrian access route.~~
- ~~c. Bicycle Parking Fund.~~
- ~~(1) This option may be used only if it is not possible to provide all of the required short-term bicycle parking on-site in a way that complies with all of the standards in Subsection A and D. This option may not be used if:~~
 - ~~There are surface parking areas, plazas, exterior courtyards, or other open areas on the site, other than required landscaping;~~
 - ~~Those open areas are large enough, separately or in combination, to accommodate all required short-term bicycle parking; and~~
 - ~~The open areas meet the location requirements of D.2., above.~~
 - ~~(2) Fund use and administration. The Bicycle Parking Fund is collected and administered by the Bureau of Transportation. The funds collected will be used to install bicycle parking and associated improvements in the right-of-way.~~
 - ~~(3) This option may not be used if any required short-term bicycle parking is provided on-site.~~

Commentary

Strikethrough of current code continued.

**Table 266-6
Minimum Required Bicycle Parking Spaces**

Use Categories	Specific Uses	Long-term Spaces	Short-term Spaces
Residential Categories			
Household Living	Multi-dwelling	1.5 per 1 unit in Central City plan district; 1.1 per 1 unit outside Central City plan district	2, or 1 per 20 units
Group Living		2, or 1 per 20 residents	None
	Dormitory	1 per 8 residents	None
Commercial Categories			
Retail Sales And Service		2, or 1 per 12,000 sq. ft. of net building area	2, or 1 per 5,000 sq. ft. of net building area
	Temporary Lodging	2, or 1 per 20 rentable rooms	2, or 1 per 20 rentable rooms
Office		2, or 1 per 10,000 sq. ft. of net building area	2, or 1 per 40,000 sq. ft. of net building area
Commercial Parking		10, or 1 per 20 auto spaces	None
Commercial Outdoor Recreation		10, or 1 per 20 auto spaces	None
Major Event Entertainment		10, or 1 per 40 seats or per CU review	None
Industrial Categories			
Manufacturing And Production		2, or 1 per 15,000 sq. ft. of net building area	None
Warehouse And Freight Movement		2, or 1 per 40,000 sq. ft. of net building area	None

Commentary

Strikethrough of current code continued.

Table 266-6 Minimum Required Bicycle Parking Spaces			
Use Categories	Specific Uses	Long-term Spaces	Short-term Spaces
Institutional Categories			
Basic Utilities	Light rail stations, transit centers	8	None
Community Service		2, or 1 per 10,000 sq. ft. of net building area	2, or 1 per 10,000 sq. ft. of net building area
	Park and ride	10, or 5 per acre	None
Parks And Open Areas		Per CU review	Per CU review
Schools	Grades 2 through 5	2 per classroom, or per CU or IMP review	None
	Grades 6 through 12	4 per classroom, or per CU or IMP review	None
Colleges	Excluding dormitories (see Group Living, above)	2, or 1 per 20,000 sq. ft. of net building area, or per CU or IMP review	2, or 1 per 10,000 sq. ft. of net building area, or per CU or IMP review
Medical Centers		2, or 1 per 70,000 sq. ft. of net building area, or per CU or IMP review	2, or 1 per 40,000 sq. ft. of net building area, or per CU or IMP review
Religious Institutions		2, or 1 per 4,000 sq. ft. of net building area	2, or 1 per 2,000 sq. ft. of net building area
Daycare		2, or 1 per 10,000 sq. ft. of net building area	None
Other Categories			
Aviation And Surface Passenger Terminals, Detention Facilities		Per CU Review	Per CU Review

Note: Wherever this table indicates two numerical standards, such as "2, or 1 per 3,000 sq. ft. of net building area," the larger number applies.

Commentary

Strikethrough of current code continued.

B. ~~Long term bicycle parking.~~

- ~~1. Purpose. Long term bicycle parking provides employees, students, residents, commuters and other who generally stay at a site for several hours, a secure and weather protected place to park bicycles. Although long term parking does not have to be provided on site, the intent of these standards is to allow bicycle parking to be within a reasonable distance in order to encourage bicycle use.~~
- ~~2. Standards. Required long term bicycle parking must meet the following standards:~~
 - ~~a. Long term bicycle parking must be provided in lockers or racks that meet the standards of Subsection 33.266.220.C.~~
 - ~~b. Location. Long term bicycle parking must be located on the site or in an area where the closest point is within 300 feet of the site;~~
 - ~~c. Covered Spaces. At least 50 percent of required long term bicycle parking must be covered and meet the standards of Paragraph 33.266.220.C.5., Covered Bicycle Parking; and~~
 - ~~d. Security. To provide security, long term bicycle parking must be in at least one of the following locations:~~
 - ~~(1) In a locked room;~~
 - ~~(2) In an area that is enclosed by a fence with a locked gate. The fence must be either 8 feet high, or be floor to ceiling;~~
 - ~~(3) Within view of an attendant or security guard;~~
 - ~~(4) Within 100 feet of an attendant or security guard;~~
 - ~~(5) In an area that is monitored by a security camera; or~~
 - ~~(6) In an area that is visible from employee work areas.~~

C. ~~Standards for all bicycle parking.~~

- ~~1. Purpose. These standards ensure that required bicycle parking is designed so that bicycles may be securely locked without undue inconvenience and will be reasonably safeguarded from intentional or accidental damage.~~
- ~~2. Bicycle lockers. Where required bicycle parking is provided in lockers, the lockers must be securely anchored.~~
- ~~3. Bicycle racks. The Office of Transportation maintains a handbook of racks and siting guidelines that meet the standards of this paragraph. Required bicycle parking may be provided in floor, wall, or ceiling racks. Where required bicycle parking is provided in racks, the racks must meet the following standards:~~
 - ~~a. The bicycle frame and one wheel can be locked to the rack with a high security, U shaped shackle lock if both wheels are left on the bicycle;~~

Commentary

Strikethrough of current code continued.

- b. A space 2 feet by 6 feet must be provided for each required bicycle parking space, so that a bicycle six feet long can be securely held with its frame support so that the bicycle cannot be pushed or fall in a manner that will damage the wheels or components. See Figure 266-11; and
 - c. The rack must be securely anchored.
4. Parking and maneuvering areas.
- a. Each required bicycle parking space must be accessible without moving another bicycle;
 - b. There must be an aisle at least 5 feet wide behind all required bicycle parking to allow room for bicycle maneuvering. Where the bicycle parking is adjacent to a sidewalk, the maneuvering area may extend into the right-of-way; and
 - a. The area devoted to bicycle parking must be hard surfaced.
5. Covered bicycle parking. Covered bicycle parking, as required by this section, can be provided inside buildings, under roof overhangs or awnings, in bicycle lockers, or within or under other structures. Where required covered bicycle parking is not within a building or locker, the cover must be:
- a. Permanent;
 - b. Designed to protect the bicycle from rainfall; and
 - c. At least 7 feet above the floor or ground.
6. Signs.
- a. Light rail stations and transit centers. If required bicycle parking is not visible from the light rail station or transit center, a sign must be posted at the station or center indicating the location of the parking;
 - b. Other uses. For uses other than light rail stations and transit centers, if required bicycle parking is not visible from the street or main building entrance, a sign must be posted at the main building entrance indicating the location of the parking.
7. Use of required parking spaces.
- a. Required short-term bicycle parking spaces must be available for shoppers, customers, messengers, and other visitors to the site.
 - b. Required long-term bicycle parking spaces must be available for employees, students, residents, commuters, and others who stay at the site for several hours.

Commentary

Chapter 33.120 Multi-Dwelling Zones

33.120.210 Floor Area Ratio

The Better Housing by Design Project is proposing to exempt structured parking from FAR for Multi-Dwelling Zones at the same rate as chapter 33.130.205 Mixed-Use Zones.

It is important to note that this proposal has not been adopted at this point. However, if the adopted code includes an FAR exemption for structured parking, then the Bicycle Parking Project would amend the FAR exemption to allow for long-term bicycle parking provided in a designated structure outside of the dwelling unit to be exempt from FAR at a similar rate as structured parking.

33.120.210 Floor Area Ratio

- A. [no change]
- B. **FAR standard.** The maximum floor area ratios are stated in Table 120-3 and apply to all uses and developments. There is no maximum limit on the number of dwelling units within the allowable floor area, but the units must comply with all building and housing code requirements. Additional floor area may be allowed through bonus options, as described in Section 33.120.211, or transferred as described in Subsection D. Floor area for structured parking and required long-term bicycle parking provided in a restricted access, lockable room or enclosure designated primarily for bicycle parking, up to a maximum FAR of 0.5 to 1, is not calculated as part of the FAR for the site. Adjustments to the maximum floor area ratios are prohibited.
- C. [no change]

Commentary

Chapter 33.130 Commercial/Mixed-Use Zones

33.130.205 Floor Area Ratio

This amendment adds long-term bicycle parking to the existing FAR exemption for structured parking in commercial/ mixed use zones. Any long-term bicycle parking spaces provided outside of the dwelling unit, but within the building is exempt from FAR similar to the exemption for structured parking. This provides an incentive to provide dedicated bicycle parking areas or to include the bicycle parking areas within the structured parking area. The maximum floor area that can be exempt for both of these types of parking is 0.5 to 1 FAR.

33.130.205 Floor Area Ratio

- A. [no change]
- B. **FAR standard.** The maximum floor area ratios are stated in Table 130-2 and apply to all uses and developments. Additional floor area may be allowed through bonus options, as described in Section 33.130.212, or transferred from historic resources per Subsection C. Except in the CR zone, floor area for structured parking and required long-term bicycle parking provided in a restricted access, lockable room or enclosure designated primarily for bicycle parking, up to a maximum FAR of 0.5 to 1, is not calculated as part of the FAR for the site. Adjustments to the maximum floor area ratios are prohibited.
- C. [no change]

Commentary

Chapter 33.229 Elderly and Disabled High Density Housing

33.229.040 Design Standards

The bicycle parking amount for Elderly and Disabled Housing, is being included in the updated Table 266-6; therefore, this separate reference in this chapter is not necessary and this amendment removes the reference.

33.229.040 Design Standards

C. Parking and passenger loading.

1. [no change]
2. Bicycle Parking. The project must meet the bicycle parking requirements of Chapter 33.266, Parking and Loading.
 - ~~b. Exception. The minimum required long-term bicycle parking for units restricted by covenant is one space for every eight units.~~
3. [no change]

Commentary

Chapter 33.258 Nonconforming Development

33.258.070

Under current code, if a site with development not meeting the current development standards makes improvements above a financial trigger, then the "nonconforming" development must be brought closer to current standards. This includes bringing short- and long-term bicycle parking up to code. However, there are two exemptions to the standard. If a development does not have accessory surface parking or if the development is within the Central City or Lloyd District, then only short-term bicycle parking must be brought up to code standard.

This results in less long-term bicycle parking being installed for remodeling projects, especially in areas like the Central City, where Portland has a very high bicycle mode split. The amendments in this section remove the exemption for developments within the Central City or Lloyd District, but maintain the exemption for developments that do not have accessory surface parking, since sites without accessory surface parking would have to repurpose existing building area to gain compliance.

However, new language is added to require projects that meet the threshold of a major remodel to upgrade both required short-term and long-term bicycle parking to code standards. As defined below, major remodels are large scale renovations or additions to a building that are more likely to include revisions to site and floor plans that can incorporate bike parking.

Definition of major remodel (33.910): Projects where the floor area is being increased by 50 percent or more, or where the cost of the remodeling is greater than the assessed value of the existing improvements on the site. Assessed value is the value shown on the applicable county assessment and taxation records for the current year.

There are a number of examples in code where the major remodel definition is used as a threshold to apply standards, including, but not limited to the following examples:

- 33.130.282: The large site pedestrian connectivity standard applies to major remodels if the site is over 5-acres (i.e. this would be above any NCU).
- 33.229.010 & 33.229.030: The elderly housing bonuses and standards are only eligible for new development and major remodeling projects.
- 33.292.020 The superblock requirements get triggered for major remodels that also have certain requirements
- 33.510.211 CCPD requires a shadow study for a major remodeling project that increases a building height above 100-ft on certain sites along the Parks blocks.
- 33.510.223 CCPD bird safe glazing requirements apply to a major remodel that is also altering at least 75% of the façade
- 33.510.225 CCPD ground floor active use standards apply to major remodels on certain frontage streets

33.258.070 Nonconforming Development

D. Development that must be brought into conformance.

2. Nonconforming development with an existing nonconforming use, allowed use, limited use, or conditional use. Nonconforming development associated with an existing nonconforming use, an allowed use, a limited use, or a conditional use, must meet the requirements stated below. When alterations are made that are over the threshold of Subparagraph D.2.a., the site must be brought into conformance with the development standards listed in Subparagraph D.2.b. The value of the alterations is based on the entire project, not individual building permits.
 - a. [no change]
 - b. Standards which must be met. Development not complying with the development standards listed below must be brought into conformance or receive an adjustment.
 - (1) [no change]
 - (2) [no change]
 - (3) Bicycle parking by upgrading existing racks and providing additional spaces in order to comply with 33.266.220, Bicycle Parking subject to the following:
 - Major remodeling projects must meet the standards for long-term and short-term bicycle parking;
 - Sites with surface parking must meet the standards for long-term and short-term bicycle parking;
 - In all other situations, the standards ~~Sites that do not have accessory surface parking or are inside the Central City Core Area or Lloyd District, as shown on Map 510 8, are not required to meet this standard for long-term bicycle parking, but are required to meet this standard~~ for short-term bicycle parking must be met.

Commentary

Chapter 33.266 Parking, Loading, And Transportation And Parking Management

33.266.110.D. - Exceptions to the minimum number of parking spaces.

This amendment adds an exemption to the minimum number of parking spaces by replacing the existing vehicle parking with bicycle parking. The proposal is to allow required vehicle parking areas to be converted to accommodate required bicycle parking minimums.

Current code allows a number of exceptions to the minimum required parking spaces if developments include items that are beneficial to overall livability; tree preservation, transit-oriented plazas, carshare spaces and bikeshare stations. There is an existing exemption for parking, if a development includes more bicycle parking than required, but this proposal is to allow a reduction in required parking if sites need that space for the minimum required bicycle parking.

This amendment is also similar to the 33.266.130.G.3.e. where the amount of required vehicle parking can be reduced by the amount needed to accommodate the minimum interior parking lot landscaping required by current code.

This proposal was added as "c", so the remainder of the current exemptions are renumbered below.

33.266 Parking, Loading, And Transportation And Parking Demand Management

266

33.266.110.D

D. Exceptions to the minimum number of parking spaces. The minimum number of required parking spaces may be reduced as follows

1. [no change]
2. Other exceptions. The minimum number of required parking spaces may not be reduced by more than 50 percent through the exceptions of this Paragraph. The 50 percent limit applies cumulatively to all exceptions in this Paragraph:
 - a. [no change]
 - b. [no change]
 - c. Replacement of existing parking with bicycle parking. Existing required parking areas may be converted to bicycle parking to accommodate required bicycle parking minimums. The amount of parking required is reduced by the amount needed to accommodate the minimum bicycle parking required.
 - d. [no change]
 - e. [no change]
 - f. [no change]
 - g. [no change]

Commentary

Chapter 33.510 Central City Plan District

33.510.261.G. - Preservation Parking and 33.510.261.I. - All parking built after (insert effective date)

This amendment removes the references to bicycle parking in this chapter to clean-up the multiple, sometimes conflicting references to bicycle parking requirements. The update to Table 266-6 addresses the required bicycle parking amounts for Commercial Parking, and the regulations don't need to be repeated under the Central City Plan District Chapter.

33.510.261.G

G. Preservation Parking. The regulations of this subsection apply to Preservation Parking. Adjustments to this subsection are prohibited.

1. [no change]
2. [no change]
3. [no change]
4. [no change]
5. ~~Bicycle parking. Preservation Parking facilities must provide 1 long-term bicycle parking spaces for every 14 motor vehicle parking spaces.~~

33.510.261.I

I. All parking built after (insert effective date). The regulations of this subsection apply to all new parking regardless of type.

1. [no change]
2. [no change]
3. [no change]
4. [no change]
5. [no change]
6. [no change]
7. ~~Bicycle parking. Bicycle parking is regulated by Chapter 33.266, Parking and Loading. For most types of development, bicycle parking requirements are based on the primary use, such as Office or Retail Sales And Service. For Commercial Parking, which includes Visitor Parking, bicycle parking is based on the number of motor vehicle parking spaces. There are additional bicycle parking requirements for Preservation Parking, see Paragraph G.5.~~