Chapter 5: End-of-Trip

FACILITIES

"We would like to see some thought given to the importance of creating bicycle facilities that also are beneficial for people who walk, use a wheel-chair, walker, or push a stroller."

The journey is not complete when a person riding a bicycle pulls off the road. Without safe, accessible, and convenient bicycle parking and other support services, people are less likely to choose to ride a bicycle. Changing rooms, showers, secure bicycle rooms, lockers, and self repair services or spaces for minor maintenance are part of a bicycle-friendly community. Sheltered parking is also integral to increasing mode share in Seattle due to the weather. Providing wayfinding to locate various types of end-of-trip facilities is necessary when installing facilities to ensure users can easily access and locate a place to secure their bicycle.

Providing context-appropriate facilities to enhance Seattle's bicycling network could be as simple as providing short-term bicycle parking outside a grocery store and secure bicycle parking at transit stops. Policies requiring secure long-term bicycle parking in new residential and commercial buildings, or the retrofit of older buildings with secure bicycle parking and shower/changing rooms in large employment centers, will make it easier to make bicycling a habit for future building users. Recognizing that the plan focuses on people of all ages and abilities, bicycle parking should be designed to accommodate a wide variety of bicycle types. Table 5-1 shows the general characteristics of short- and long-term bicycle parking.

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Table 5-1: Characteristics of Short- and Long-Term Bicycle Parking

Criteria	Short-Term Bicycle Parking	Long-Term Bicycle Parking
Parking Duration	Less than two hours	More than two hours
Typical Fixture Types	Bicycle racks and on-street corrals	Lockers or secure bicycle parking (racks provided in a secured area)
Weather Protection	Unsheltered or sheltered	Sheltered or enclosed
Security	High reliance on personal locking devices and passive surveillance (e.g., eyes on the street)	Restricted access and/or active supervision
		Unsupervised: "Individual-secure," e.g., bicycle lockers "Shared-secure," e.g., bicycle room or locked enclosure
		Supervised: Valet bicycle parking Video, closed circuit television, or other surveillance
Typical Land Uses	Commercial or retail, medical/ healthcare, parks and recreation areas, community centers, libraries	Multi-family residential, workplace, transit, schools

Visual Guide to Bicycle Parking

Short-Term Parking

Short term bicycle parking is generally intended to be used for two hours or less by customers, patrons, or visitors to an establishment.

Sidewalk Parking

Typical sidewalk parking frequently includes staple racks, which allow multiple bicycles to be locked to both sides of the rack.

Shelters

Short- and long-term bicycle parking can be accommodated with shelters, or weather protection, which allows the bicycles to stay relatively dry when parked outside in the Seattle winter months. Sheltered bicycle parking can be on public or privately-owned land.

On-street Bicycle Corral

On-street bicycle corrals minimize sidewalk clutter, free up space for pedestrians and other uses (such as sidewalk cafes), and increase bicycle parking at locations with high demand, such as neighborhood business districts. On-street bicycle corrals are a more efficient use of right-of-way space than a car parking space, as nearly 10-12 bicycles can park in 1 car parking space. This allows more people to access the business district and support local businesses. There will be more demand for bicycle parking as higher-quality bicycle facilities are installed and bicycle ridership grows.

Temporary (Event) Parking

Temporary (event) parking typically consists of portable racks that meet the demand for an event. Racks are clustered together, providing a higher level of security than if people were to park the bicycles on their own. Event staff can monitor the area, providing people with peace of mind while they are away from their bicycle.

Long-Term Parking

Long-term bicycle parking areas are intended to be used all day and/or night. Prime users are employees, residents, students, or travelers leaving their bicycles at airports, bus stops or rail stations.

Bicycle Lockers

Bicycle lockers provide the most secure type of parking, available either by subscription or upon demand, and are frequently found at transit stations.

Secure Bicycle Parking facilities

Secure bicycle parking facilities are free-standing buildings, or enclosed areas within a larger structure (for example, an enclosed portion of a parking garage). Secure bicycle parking facilities are particularly useful at major destinations that attract all-day users, such as transit centers or employment centers. Some secure bicycle parking facilities offer access to bicycle repair tools, pumps, showers, or other amenities. Consideration for secure bicycle parking facilities are also desirable at long-distance transportation hubs such as airports, bus transfer facilities, and passenger train stations.

Wayfinding for Parking

Long-term bicycle parking is often sited in locations not visible from the front door. Wayfinding signs provide clear direction and help people locate bicycle parking facilities.

Seattle Municipal Code Requirements for Bicycle Parking

Seattle's practice of requiring short- and long-term parking for new construction and redevelopment is established in the municipal code. Minimum bicycle parking requirements hold developers accountable to provide necessary end-of-trip facilities for specific land uses. Off-street bicycle parking requirements for Downtown Seattle are listed in the Seattle Municipal Code SMC 23.49.019, and requirements for areas beyond the downtown area are detailed in SMC 23.54.015.

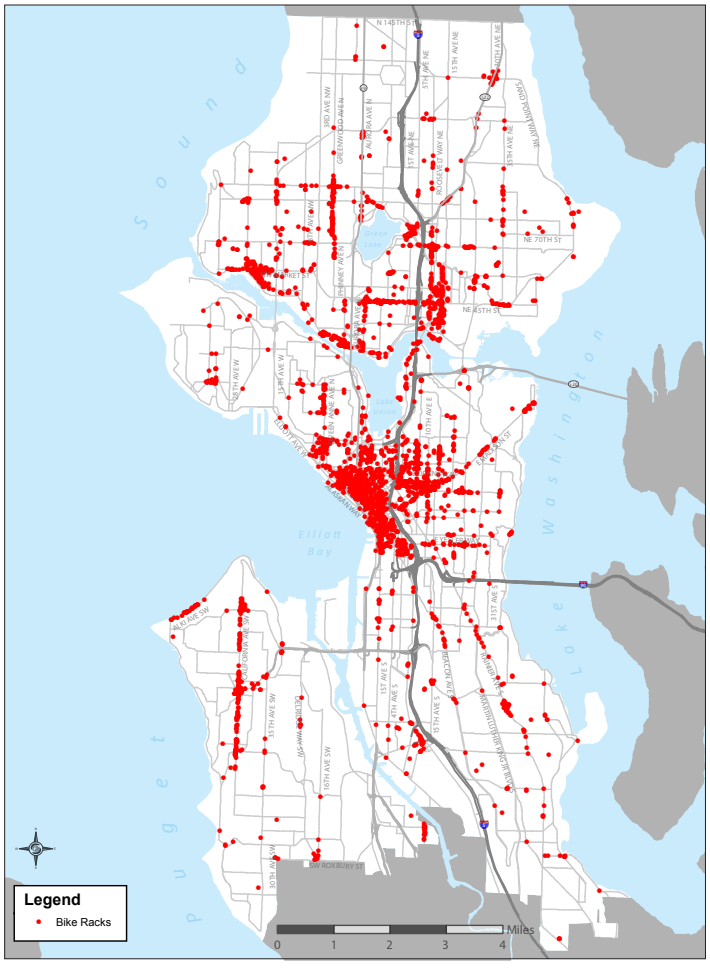
SMC 23.49.019 does not specify whether the parking provided must be short-term, long-term, or a combination of the two. The code requires that bicycle parking be provided in "a safe, accessible and convenient location," and that it be installed according to the manufacturer's directions and SDOT design criteria. If covered auto parking is provided, required long-term bicycle parking must also be covered. A sample of the minimums, shown below, is consistent with practices used in many other US cities:

- **Office:** 1 space per 5,000 square feet of gross floor area of office use
- **Retail:** 1 space per 5,000 square feet of retail use (applies for uses exceeding 10,000 square feet of gross floor area)
- **Residential:** 1 space per 2 dwelling units
- **Buildings with 250,000 square feet of gross office floor area or greater** are required to provide shower facilities and clothing storage areas for bicycle commuters at a ratio of one shower per gender for each 250,000 square feet of office use. These facilities must be easily accessible to and from the bicycle parking facility.

A detailed code review is found in Appendix 5A.

Inadequate bicycle parking facilities often results in bicycles locked in inappropriate places.

Map 5-1: Public Bicycle Parking



Strategies	Actions
5.1 Update the Seattle Municipal Code (SMC) bicycle parking requirements	**5.1.1 Mandate minimum bicycle parking requirements** for short- and long-term use. Consider requiring secure bicycle parking for all new buildings, at or above, the minimum bicycle parking requirements. Prohibit property owners to forgo minimum bicycle parking requirements for non-residential uses. Differentiate and clarify short- and long-term bicycle parking requirements and add information about bicycle rack type, design, placement, security, wayfinding, and access.
	5.1.2 Revise the residential bicycle parking requirement. The new requirement should specify applications, including multi-family residences, a minimum number of units, apart-pods (or any other Department of Planning and Development multi-family terminology in the future) or a combination thereof. Require a mix of bicycle parking types that accommodate a variety of family-friendly bicycles for all ages and abilities and wayfinging signage to locate it..
	5.1.3 Allow secure bicycle parking to substitute for a portion of required automobile parking.
	5.1.4 Develop illustrated design guidelines for developers and building managers to facilitate the installation of well-designed sheltered bicycle parking, secure bicycle parking, and wayfinding signage.
	5.1.5 Include a provision for 24/7 bicycle parking access in requirements for long-term bicycle parking located in parking garages.
	5.1.6 Require self-service bicycle repair facilities as part of long-term bicycle parking.
	5.1.7 Develop standards for electric bicycles (e-bicycles) in reference to long-term parking and charging stations within new multi-family residential and commercial development and include wayfinding signage guideline.

Bicycle Parking in the Public Right-of-way

Bicycle racks on sidewalks and on-street bicycle corrals are types of bicycling parking that bicycle riders may find in the public right-of-way. A current inventory of public bicycle parking is shown in Map 5-1.

The Seattle Bicycle Spot Improvement Program is the primary method for installing public bicycle parking. This is a program for bicycle racks in the public right-of-way to serve commercial buildings, schools, and multi-family residential developments. The racks are maintained by SDOT.

The Seattle Bicycle Spot Improvement Program takes a proactive approach to installation of bicycle parking at community centers and libraries, and emphasizes rack placement in neighborhood business districts and in traditionally underserved areas.

On-street bicycle racks in the public right-of-way.

Chapter 5 Strategies and Actions: Bicycle Parking

Strategies	Actions
5.2 Develop a bicycle parking implementation program	**5.2.1 Develop a bicycle parking demand estimation methodology** that utilizes land uses and densities for Urban Villages and evaluate with the Race and Social Justice Equity Toolkit. Provide for a variety of bicycle types, including those for all ages and abilities.
	5.2.2 Prioritize the installation of bicycle racks and on-street bicycle corrals in high-demand locations. High-demand locations include, but are not limited to, neighborhood business districts, community centers, libraries, universities and colleges, employment centers, parks, and schools. Determine when bicycle parking should be sheltered bicycle parking, such as at schools where students/staff will park their bicycles for extended periods of time. Ensure installation is distributed equitably throughout the city by reviewing annual progress with a Race and Social Justice lens.
	5.2.3 Create a process that allows the city to use curb space for on-street bicycle corrals. Work with neighborhood business districts to identify locations that will replace on-street parking with on-street bicycle corrals. Install on-street bicycle corrals at strategic intersection locations where vehicle parking is not allowed.
	5.2.4 Create a Client Assistance Memo (CAM) to define how private entities can install bicycle parking in the right-of-way. The CAM should address installation guidance, permitting fees, responsibilities for maintenance, replacement, abandoned bicycles, and/or liability insurance. Consider a policy to increase implementation of public bicycle racks similar to SDOT's "Plant a Tree in the Right-of-Way" program where permit fees are waived and informational brochures are created to encourage the public to participate.
	5.2.5 Develop a graphic identity and citywide branding and wayfinding strategy for Seattle's bicycle parking.
	5.2.6 Continue to research, experiment with, and update the bicycle rack standards, types of racks, and installation details in the Right-of-Way Improvements Manual, and add standards for on-street bicycle corrals.

Bicycle Parking Inventory

SDOT maintains an inventory of short-term bicycle parking within the right-of-way, which by definition does not include parking on private property.

New installations are included in the inventory, but currently SDOT does not report on the condition of existing racks, the need to replace parking, or racks missed in the initial inventory.

Bicycle lockers are one strategy for weatherproof, secure bicycle parking.

Chapter 5 Strategies and Actions: Parking Inventory

Strategies	Actions
5.3 Ensure that bicycle parking in the right-of-way is inventoried every five years and provide the data to the public	**5.3.1 Maintain and continually update a digital inventory** of public bicycle parking locations on the city website.
	5.3.2 Integrate bicycle parking data into city-sponsored mapping and digital applications that depict the bicycle network as it grows.

Abandoned Bicycles and Locks

Abandoned bicycles are bicycles that have been locked to a public bicycle rack and left there. Abandoned locks could be those that are attached to the abandoned bicycle or locks attached to the bicycle rack. Currently the Seattle Police Department (SPD) manages and collects abandoned bicycles after a notice has been attached to the bicycle for 72 hours. SPD then holds the abandoned bicycles until the SPD Quartermaster provides them to be sold at auction.

Abandoned bicycles, or in some cases wheels, inhibit convenient and safe usage of bicycle racks.

Chapter 5 Strategies and Actions: Abandoned Bicycles

Strategies	Actions
5.4 Develop a process for abandoned bicycle removal with re-purposing options	**5.4.1 Work with SPD to establish partnerships with non-profit bicycle groups or bicycle shops** to create a program to store, repair, and redistribute abandoned bicycles.

Bicycle Parking at Transit Stations

Improving bicycle access to transit increases urban mobility and encourages multimodal travel, extending the reach of public transit. Bicycling can expand the service areas of light rail stations and bus stops. Light rail and buses, in turn, can increase the reach of a bicycle trip.

Seattle recognizes that trips are increasingly becoming multimodal in the region. SDOT and its transit partners are using a number of methods to meet the transportation needs of a growing region, including improving bicycle access to transit. Adequate secure bicycle parking at transit stations, transit hubs, and heavily-use bus stops plays a crucial role. Because no single agency has authority over a cross region commute, it is essential that transit agency partners are involved in efforts to provide, maintain, and operate secure bicycle parking in Seattle.

Secure bicycle parking should not be viewed as an amenity, but rather as a necessary and a vital part of the city's transportation infrastructure. Secure bicycle parking has the potential to increase both bicycle and transit ridership. If secure bicycle parking is strategically located, it is possible for other user groups (e.g. area commuters) to also utilize the bicycle parking. As SDOT and its transit partners strive to meet the transportation needs of a growing region, recognizing that trips are becoming increasingly multimodal, improving bicycle access to transit is critical as is adequate secure bicycle parking at transit stations, transit hubs, and heavily-use bus stops. Transit agency partner involvement is crucial to the success of providing secure bicycle parking.

The 2007 BMP advised using a parking demand estimating methodology developed by the PSRC in 2001 to determine the appropriate number of bicycle parking spaces at light rail stations. This method takes into account a variety of factors, including the number of jobs within a quarter-mile radius of the station area, bicycle commute mode share, long-haul and short-haul transit boardings accessed by bicycle, and forecasted demand of average daily boardings. The approach does not account for other factors

Chapter 5 Strategies and Actions: Transit Stations

Strategies	Actions
5.5 Provide short- and long-term secure bicycle parking at high-capacity transit stations, transit hubs, and heavily-used bus stops.	**5.5.1 Coordinate with transit agencies and large institutions** to develop clear, comprehensive, and consistent bicycle parking demand estimation and documentation methodologies.
	5.5.2 Support transit agency partners in their efforts to track quality and quantity of bicycle parking at transit stations.
	5.5.3 Partner with local and regional transit agencies and large institutions to coordinate funding, construction, operations and maintenance of long-term, secure bicycle parking facilities. Develop a universal on-demand bicycle parking access and fee system, as well as wayfinding, for future secure bicycle parking facilities.
	5.5.4 Integrate bicycle parking into the development of all new high-capacity transit stops, such as RapidRide stops and Bus Rapid Transit stops.

known to influence bicycle parking demand, such as on-board bicycle capacity, quality of bicycle parking at a transit station, or Seattle's increasing bicycle mode share for commute-to-work and access-to-transit trips. Providing the correct amount of secure bicycle parking at Link light rail stations and at other high-capacity transit stops is part of providing a welcoming bicycle environment.

Temporary (Event) Bicycle Parking

Currently, there is no requirement or guiding policy to provide additional bicycle parking at events in Seattle. Temporary bicycle parking may be provided at vendor discretion. Seattle provides temporary bicycle parking at city events, public meetings, and upon request for partners events.

Temporary bicycle parking at a UW Huskies game.

Chapter 5 Strategies and Actions: Event Parking

Strategies	Actions
5.6 Require attended bicycle parking at large/special events	**5.6.1 Define thresholds determining what large/special events will require attended bicycle parking.**
	5.6.2 Develop event parking guidelines for organizers. Events can be accommodated by potential partners for bicycle valet services using a variety of temporary event parking strategies.
	5.6.3 Require vendors to obtain a permit for temporary event bicycle parking. The application for the permit would stipulate a certain percentage of bicycle parking per the estimated number of attendees and standard arrangement of bicycle parking.

SODO Station