Puget Sound Regional Council

Bicycle and Pedestrian Advisory Committee Agenda

Date: Tuesday, May 9, 2023 from 10:00 a.m.-12:00 p.m.
Online Meeting Only: Use Zoom Connection Information Provided Below

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1. **Welcome and Introductions (10:00)**

2. **Action: Approval of Meeting Summary – March 14, 2023* (10:05)**

3. **Action: Pedestrian and Bicycle Facility Typology Update* (10:10)**
   PSRC staff will present the final version of the updated pedestrian and bicycle facility typology, as detailed in the attached memorandum. The committee will discuss the updated typology, then take action to recommend the final typology. Potential applications of the updated typology will be discussed under Agenda Item 4. Members are asked to thoroughly review the updated typology in advance of the meeting.

4. **Discussion: Pedestrian and Bicycle Facility Inventory Work Program* (10:55)**
   PSRC staff will present the planned work program for the upcoming pedestrian and bicycle facility inventory update, set to begin in spring 2023. The committee will discuss and provide feedback on the work program.

5. **Discussion: Repackaged Active Transportation Plan (11:40)**
   PSRC staff will provide a brief update on the final repackaged PSRC Active Transportation Plan (ATP), revised based on committee feedback received at the March meeting. The development of an ATP from existing Regional Transportation Plan (RTP) content was called for as an amendment to the RTP.

6. **Roundtable: Announcements of Pedestrian/Bicycle Activities (11:45)**
   Committee members provide brief updates on local/regional events and other items of interest. Members can also comment on state/federal regulations and other issues impacting bicycle and pedestrian planning in the region.

7. **Next Meeting: July 11, 2023: 10:00 a.m. – 12:00 p.m.**

8. **Adjourn (12:00 p.m.)**

* Supporting materials attached

For more information, contact Sarah Gutschow at (206) 587-4822 or sgutschow@psrc.org

Zoom Participation Options:

To join audio/video conference:

https://psrc-org.zoom.us/j/89863006900?pwd=ajNSb2l5Y3lhWVdxQUkzUFdvOUJLUT09

To join via cellphone (1-touch dial):

One tap mobile
8335480276,,89863006900#,,,,*973462# US Toll-free
8335480282,,89863006900#,,,,*973462# US Toll-free

To join via phone:

833 548 0276 US Toll-free
833 548 0282 US Toll-free

Meeting ID: 898 6300 6900
Passcode: 973462

Other Formats:

- Sign language and communication material in alternate formats can be arranged given sufficient notice by calling (206) 464-7090 or TTY Relay 711.
- العربية | Arabic, 中文 | Chinese, Deutsch | German, Français | French, 한국어 | Korean, Русский | Russian, Español | Spanish, Tagalog, Tiếng việt | Vietnamese, visit https://www.psrc.org/contact-center/language-assistance

Puget Sound Regional Council

Bicycle and Pedestrian Advisory Committee Meeting Summary

Date: March 14, 2023
Location: Online/Remote Only

Welcome and Introductions

Eric Goodman, Chair (Community Transit), welcomed everyone at 10:00 a.m. He then took a roll call and confirmed the members and alternates present.

Approval of Meeting Summary

The summary for the January 10, 2023 BPAC meeting was approved.

Discussion: Committee Outreach and Engagement

Sarah Gutschow, PSRC, provided an overview of the outreach meetings conducted with committee members in late 2022 and early 2023. This included key points on how the feedback gathered will be incorporated into PSRC's bicycle and pedestrian work program and continued committee engagement efforts.

For more information, contact Sarah Gutschow at sgutschow@psrc.org.

Discussion: DRAFT Repackaged Active Transportation Plan

Sarah provided an update on the draft repackaged Active Transportation Plan (ATP). The development of an ATP from existing Regional Transportation Plan (RTP) content was called for as an amendment to the RTP. The committee was asked to provide feedback on the overall flow and clarity of the draft plan.

Members provided some initial feedback on the draft at the meeting and requested that PSRC staff send them the draft in an interactive format to make it easier to provide comments. Sarah said that staff would send out the draft after the meeting in an interactive format for additional feedback.

The presentation is available on the PSRC website here.

For more information, contact Sarah Gutschow at sgutschow@psrc.org.

Discussion: Bicycle and Pedestrian Facility Typology Update

Sarah and Nick Johnson, PSRC, presented the updated bicycle and pedestrian facility typology, revised based on committee feedback received at and following the January

meeting. The committee discussed and took an interactive survey to confirm the proposed purpose(s) of the typology, as further described in the accompanying memo. Members also asked questions about how the typology could be applied as part of PSRC's federal funding processes and for encouraging consistency in data collection and mapping at the local level. Sarah said those questions would be further addressed at upcoming meetings.

The committee then provided further feedback on the content, format and categorizations of facility types in the typology, and took an interactive survey for outstanding questions in these topic areas. Sarah said that they would send out the survey after the meeting for further feedback. The comments received would be incorporated into the final version for review and recommendation at the May meeting. Nick said that at the May meeting they would also be further discussing the draft work program for updating the regional pedestrian and bicycle facility inventory, scheduled to begin later in 2023.

The presentation is available on the PSRC website here.

For more information, contact Sarah Gutschow at sgutschow@psrc.org or Nick Johnson at njohnson@psrc.org .

Discussion: Transit Access Work Program

Gil Cerise, PSRC provided an update on the agency's draft work program for transit access, including pedestrian and bicyclist access to transit. Staff then presented on efforts to recruit stakeholders with expertise in transit access to serve on an ad hoc working group to advise on next steps for the work program.

The presentation is available on the PSRC website here.

For more information, contact Gil Cerise at gcerise@psrc.org.

Roundtable: Announcements of Bicycle/Pedestrian Activities

During the roundtable, the committee received updates and announcements from the following members and guests:

- Don Willott, North Kitsap Trails Association
- Kristin Kinnamon, BIKES Club of Snohomish County
- Kenneth Loen
- Sarah Gutschow, PSRC
- Gil Cerise, PSRC

Adjourn

The meeting adjourned at approximately 12:00 p.m.

***Members and Alternates Present**

See attached attendance roster for the member or alternate representing each agency/jurisdiction at the meeting; additional alternates present are listed below.

***Alternates, Interested Parties, and PSRC Staff Present**

Stela Abed, City of Bellevue; Brianne Blackburn, Pierce County; Crystal Koch, KPHD; Weston Ott, City of Lakewood; Rose Weiker

PSRC: Alexa Leach, Monica Adkins, Gil Cerise, Sarah Gutschow, Nick Johnson, Jean Kim

**All attendees were present via remote participation.*

BPAC Attendance Roster (Members and Alternates represented)

Date: March 14, 2023 10:00am - 12:00pm

Jurisdiction		Name
King County		
County (2)		John Vander Sluis (Roads)
		Robert Foxworthy (Parks)
		Jennifer Knauer (Roads) (Alt.)
	x	*Peter Dane (Parks) (Alt.)*
Metro City: Seattle (1)	x	David Burgesser
		Aditi Kambuj (Alt.)
Metro City: Bellevue (1)		VACANT
		Franz Loewenherz (Alt.)
Other Cities/Towns (6)		Anthony Avery (Federal Way)
	x	Tobin Bennett-Gold (Kenmore)
	x	Doug McIntyre (Sammamish)
	x	Kimberly Scrivner (Kirkland)
	x	Erik Preston (Kent)
	x	James Webb (Auburn)
		VACANT (Alt.)
		VACANT (Alt.)
		VACANT (Alt.)
		VACANT (Alt.)
		VACANT (Alt.)
		VACANT (Alt.)
Kitsap County		
County (1)		David Forte (Public Works)
	x	*Melissa Mohr (Public Works) (Alt.)*
Metro City: Bremerton (1)	x	Chris Dimmitt
		Vicki Grover (Alt.)
Other Cities/Towns (1)		Chris Wierzbicki (Bainbridge Island)
		Anthony Burgess (Poulsbo) (Alt.)
Pierce County		
County (1)	x	Shawn Phelps (Public Works)
		Brianne Blackburn (Parks) (Alt.)
Metro City: Tacoma (1)	x	Liz Kaster
		Jennifer Kammerzell (Alt.)
Other Cities/Towns (2)		Jack Ecklund (University Place)
		VACANT
		Michael Kosa (Sumner) (Alt.)
	x	*Jeremy Metzler (Edgewood) (Alt.)*

Jurisdiction		Name
Snohomish County		
County (1)	x	Aaron Lee (Public Works)
		VACANT (Alt.)
Metro City: Everett (1)	x	Christina Curtis
		VACANT (Alt.)
Other Cities/Towns (2)		Jesse Hannahs (Marysville)
		VACANT
		VACANT (Alt.)
		VACANT (Alt.)
Other Agency Representation		
State		
Urban Mobility/Access or Multimodal Planning (1)	x	Thomas Noyes (WSDOT, Vice Chair)
		Matthew Kenna (Alt.)
NW and Olympic Regions (1)	x	Kenneth Loen
		Ashley Carle (Alt.)
Transit		
Regional Transit - ST (1)		VACANT
		Janine Sawyer (Alt.)
Local Transit (2)	x	Malva Slachowitz (King County Metro)
	x	Eric Goodman (Community Transit, Chair)
		Justin Resnick (WSF) (Alt.)
		VACANT (Alt.)
Public Health		
Public Health (2)		Jennifer Halverson-Kuehn (Tacoma-Pierce County Health Department)
		Megan Moore (Kitsap Public Health District)
		Keri Moore (Snohomish Health District) (Alt.)
	x	*Richard Gelb (Public Health Seattle/King County) (Alt.)*
Tribes		
Muckleshoot Tribal Cncl (1)		VACANT
		VACANT (Alt.)
Puyallup Tribe (1)		Robert Barandon
		VACANT (Alt.)
Suquamish Tribe (1)		VACANT
		VACANT (Alt.)
NON-VOTING		
King County (1)		Dr. Jocelyn Enabulele (Roni LifeWorks)
Kitsap County (1)	x	Brian Watson (BicycleTeacher)
Pierce County (1)		Larry Leveen (ForeverGreen Trails)
Snohomish County (1)	x	Kristin Kinnamon (Sharing Wheels Comm. Bike Shop/BIKES Club of Snohomish County)
State/Region (1)		Vicky Clarke (Cascade Bicycle Club)
At-Large (2)		Phillip Miller (UW Transportation Services)
	x	Don Willott (North Kitsap Trails Association)

as of 2/2023

Puget Sound Regional Council

Memorandum

May 9, 2023

To: Bicycle and Pedestrian Advisory Committee

From: Sarah Gutschow, Senior Planner

Subject: **Pedestrian and Bicycle Facility Typology Update**

IN BRIEF

At the May 9th meeting, PSRC staff will present the final version of the regional pedestrian and bicycle facility typology, revised based on feedback received at previous committee meetings. The committee will review and discuss the final version, as shown in Attachment A, then take action to recommend the updated typology.

RECOMMENDED ACTION

The Bicycle and Pedestrian Advisory Committee should recommend the updated regional pedestrian and bicycle facility typology, as shown in Attachment A, for use in PSRC's regional data collection and inventory work, as well as to encourage consistency across the region.

DISCUSSION

Background

The PSRC regional bicycle and pedestrian facility typology categorizes and defines pedestrian, bicycle and shared use facilities and other active transportation roadway treatments. The current version was originally produced in consultation with the BPAC as part of the 2014 Active Transportation Plan (ATP), an appendix to the Regional Transportation Plan adopted in 2014, and subsequently updated in 2018. To-date, the typology has primarily been used to identify facility types in PSRC's regional bicycle and pedestrian facility data inventory, last updated in 2020. In addition, the typology includes other facility and treatment types that were not mapped in the inventory but are included for informational purposes.

PSRC staff began work to update the pedestrian and bicycle facility typology in late 2022. At its November 2022 meeting, BPAC members reaffirmed a preference for using national and state guidance to update the facility and treatment definitions, and provided feedback on the resources PSRC should use to inform this update.

At the January and March 2023 meetings, PSRC staff presented drafts of the updated pedestrian and bicycle facility typology. The committee reviewed the drafts and gave extensive feedback on the structure, categories, and content of the typology. Members also provided guidance on quality local examples of the facility and treatment types included in the typology. Attachment A shows the final version of the typology, with recent revisions based on feedback received from the March 14th meeting. Attachment B details the specific committee feedback provided in March and shows how it was incorporated into the final version.

Summary of Changes from 2018 Typology

In response to committee feedback, PSRC staff made several significant changes to update the regional typology from the 2018 version, as summarized below:

- Added introductory text to explain the purpose and usage of the typology;
- Used state and national design guidance to inform the typology content and categorizations. The updated typology includes citations and links to relevant resources for further guidance;
- Added local quality examples from the region for various facility and treatment types;
- Added the additional facility types of raised bicycle lanes and advisory shoulders; and
- Regrouped and added additional information on various treatment types under the categories of “street design elements” and “intersection and crossing design elements”.

NEXT STEPS

As next steps, the updated typology will be used for PSRC’s upcoming pedestrian and bicycle facility data collection and analysis efforts. Additionally, at upcoming meetings the committee will discuss other potential applications of the typology for encouraging consistent terminology usage at the regional and local level and serving as a technical guidance resource for local jurisdictions and the general public.

Lead Staff: For more information, please contact Sarah Gutschow at sgutschow@psrc.org or 206-587-4822.

Attachment A: Regional Bicycle and Pedestrian Facility Typology (May 2023)
Attachment B: Summary of March 2023 BPAC Feedback and PSRC Responses

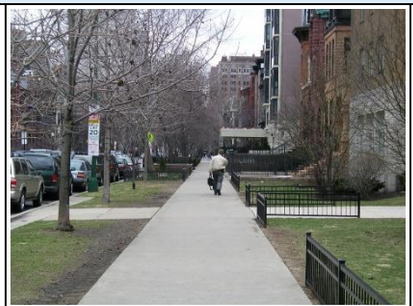
Attachment A: PSRC Pedestrian and Bicycle Facility Typology (May 2023)

The Puget Sound Regional Council (PSRC)'s Regional Pedestrian and Bicycle Facility Typology serves to inform PSRC's pedestrian and bicycle facility data collection and analysis work. Additionally, the typology is intended to help guide and inform local pedestrian and bicycle planning and encourage more consistent terminology and data collection across the region.

How to use the typology: The typology categorizes and describes a variety of facility and treatment types meant primarily for the use and/or comfort of pedestrians, bicyclists and other active transportation users. Facility categories and definitions are compiled from state and national design guidance resources produced by the National Association of City Transportation Officials (NACTO), American Association of State Highway and Transportation Officials (AASHTO), Federal Highway Administration (FHWA), and Washington State Department of Transportation (WSDOT).

There are five subcategories of facility and treatment types, including pedestrian facilities, bicycle facilities, shared use facilities, street design elements, and intersection and crossing design elements. The table includes basic information on the definition and purpose for each facility type and treatment, as well as selected implementation guidance and hyperlinks to the relevant resource(s) used for the descriptions. The tables also feature illustrative images and local examples from the PSRC region for each facility and treatment type. The linked resources provide additional guidance for anyone seeking more thorough information on the design and implementation of each type of infrastructure. As a note, the typology includes minimal criteria for facilities to be identified under each category, but local implementers are encouraged to go above and beyond these most basic requirements when designing facilities and treatments.

The typology overviews both facility types that are included in the regional pedestrian and bicycle facility data inventory (see pages 16-29) and additional treatment types that are not part of the regional inventory but could be considered for inclusion in local data collection efforts, including street, crossing and intersection design elements. PSRC's regional inventory only includes pedestrian and bicycle facilities on minor and principal arterials and shared use paths on separate rights-of way that provide for connections between destinations, rather than internal circulation. All other pedestrian and bicycle facility and treatment information can be collected at the local level but does not meet thresholds for inclusion in the regional inventory. The purpose of providing this additional information on other types of facilities and treatments is to help inform and encourage consistency in local pedestrian and bicycle planning and data collection efforts.

Type	Image	Definition	Purpose	Implementation Guidance	Local Examples
Pedestrian Facilities[1]					
Sidewalks[2]		The sidewalk is an accessible pathway that runs parallel to the street. The sidewalk should have a minimum cross-section of 5 feet, exclusive of other amenities, to be large enough for two people walking side by side. Sidewalk Zones have four components: 1. Frontage Zone 2. Pedestrian Through Zone 3. Street Furniture/Curb Zone 4. Enhancement/Buffer Zone	The sidewalk ensures that pedestrians have a safe and adequate place to walk. As conduits for pedestrian movement and access, they enhance connectivity and promote walking. Safe, accessible, and well-maintained sidewalks are a fundamental and necessary investment for urban areas and have been found to enhance general public health and maximize social capital.	• Sidewalks should be 5–7 feet wide in residential settings and 8–12 feet in downtown or commercial areas. • Sidewalk design should go beyond the bare minimum in width and amenities. Pedestrians and businesses thrive where sidewalks have been designed at an appropriate scale, with sufficient lighting, shade, and street-level activity. • Sidewalks should be delineated by a vertical and horizontal separation from moving traffic to provide adequate buffer space and a sense of safety for pedestrians. • On more rural or suburban roads, a shared-use path or walkway adjacent to the main roadway can serve as a substitute for a sidewalk.	

[1] All referenced definitions from the “Pedestrian Facilities” and “Bicycle Facilities” sections can be found in NACTO’s *Urban Bikeway Design Guide* or *Urban Street Design Guide.*

[2] PSRC’s regional inventory only includes information for sidewalks on minor and principal arterials. Data for sidewalk facilities on local and collector roads may be collected at the local level.

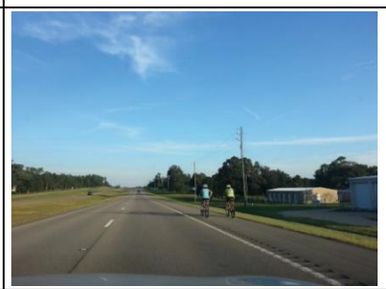
Type	Image	Definition	Purpose	Implementation Guidance	Local Examples
Bicycle Facilities[3]					
Mapping Category: Low Separation					
Shared Lane Markings		Shared Lane Markings, or "sharrows," are road markings used to indicate a shared lane environment for bicycles and automobiles.	Among other benefits, shared lane markings reinforce the legitimacy of bicycle traffic on the street, recommend proper bicyclist positioning, and may be configured to offer directional and wayfinding guidance.	• The shared lane marking is a pavement marking with a variety of uses; it is not a facility type and should not be considered a substitute for bike lanes, cycle tracks, or other separation treatments where these types of facilities are otherwise warranted or space permits.	• 76th Ave north of 196th St in Lynnwood.
Neighborhood Greenways		Neighborhood Greenways are streets with low motorized traffic volumes and speeds, designated and designed to give bicycle travel priority. These streets can be enhanced using a range of design treatments tailored to existing conditions and desired outcomes. These are also known as Bicycle Boulevards outside of the Pacific Northwest.	Neighborhood Greenways discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets.	• Neighborhood greenways should be considered where local streets offer a continuous route along low-traffic streets and should follow a desire line for bicyclists. • Neighborhood greenways should meet strict targets of fewer than 3,000 motor vehicles per day (1,500 preferred) and a speed of no more than 25 mph. • Neighborhood Greenways can utilize vertical and horizontal speed control elements for traffic calming. • They can be considered an **"All Ages and Abilities"** facility when vehicle volumes and speeds are low.[4]	• North Seattle Neighborhood Greenway. • Rainer Valley Neighborhood Greenway in South Seattle.

[3] PSRC's regional inventory only includes information for bicycle facilities on minor and principal arterials. Data for bicycle facilities on local and collector roads may be collected at the local level.

[4] Facility types were identified as "All Ages and Abilities" based on NACTO's *Designing for All Ages & Abilities.*

Type	Image	Definition	Purpose	Implementation Guidance	Local Examples
Mapping Category: Moderate Separation					
Striped Bike Lanes		A striped bike lane is defined as a portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. These are also referred to as conventional bike lanes or simply bike lanes.	Striped bike lanes enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions. They also facilitate predictable behavior and movements between bicyclists and motorists.	• Striped bike lanes are most helpful on streets with ≥ 3,000 motor vehicle average daily traffic and with a posted speed ≥ 25 mph and/or streets with high transit vehicle volumes. • If sufficient space exists, separation should be provided between bike lane striping and parking boundary markings to reduce door zone conflicts. • Varieties of striped bike lanes include Contra-Flow Bike Lanes and Left-Side Bike Lanes.	• Washington Ave in Downtown Bremerton from 5th St to Manette Bridge. • Washington Blvd between SR 104 and Central Ave in Kingston.
Buffered Bike Lanes		Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.	Buffered bike lanes provide greater distance between motor vehicles and bicyclists than conventional bike lanes and appeal to a wider cross-section of bicycle users. They can also encourage bicyclists to ride outside of the door zone when the buffer is between parked cars and the bike lane.	• These are typically applied anywhere a standard bike lane is being considered or on streets with extra width. • The buffer shall be marked with 2 solid white lines. If at or wider than 3 feet, these should have interior diagonal cross hatching or chevron markings.	• SE Newport Way in Bellevue from Somerset Blvd SE to Factoria Blvd SE. • NE 65th Street in Seattle from 20th Ave to 5th Ave NE.

Type	Image	Definition	Purpose	Implementation Guidance	Local Examples
Mapping Category: High Separation					
Protected Bike Lanes		Protected bike lanes are physically separated from motor traffic and distinct from the sidewalk. They provide space that is intended to be exclusively or primarily used for bicycles and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. Protected bike lanes may be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level. Protected bike lanes are also known as Cycle Tracks, Separated Bikeways, and On-Street Bike Paths.	By separating bicyclists from motor traffic, protected bike lanes can offer a higher level of security than bike lanes and are attractive to a wider spectrum of the public.	• Protected bike lanes are most helpful on streets with parking lanes, high levels of bicyclist stress, and/or high volumes of bicycle travel. • Protection can come in the form of raised medians, on-street parking, flexible delineators, bollards, or grade separation. • Conflicts at intersections can be mitigated using parking lane setbacks, bicycle markings through the intersection, and other signalized intersection treatments. • These are considered **"All Ages and Abilities"** facilities.	• 2nd Ave in Downtown Seattle from Denny Way to South Main St.
Raised Bike Lanes		Raised bike lanes are bicycle facilities that are vertically separated from motor vehicle traffic. Many are paired with a furnishing zone between the bikeway and general purpose travel lane and/or pedestrian area. A raised bike lane may allow for one-way or two-way travel by bicyclists.	Raised bike lanes can offer an additional level of protection from motor vehicles and improve bicyclist comfort.	• These can visually reduce the width of the street when provided adjacent to a travel lane. • These are considered **"All Ages and Abilities"** facilities.	• East 64th Street in Tacoma.

Type	Image	Definition	Purpose	Implementation Guidance	Local Examples
Shared Use Facilities[5]					
Mapping Category: Shared Use					
Shared Use Paths[6] *(page 5-1 of the linked guide)*		Shared use paths (SUPs) are linear corridors that are physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Path users are generally non-motorized and may include, but are not limited to, bicyclists; pedestrians (including walkers and people using wheelchairs); and skaters and scooter users.	Shared use paths can serve a variety of purposes, including providing shortcuts that increase route directness; commuting routes between residential areas and job centers or schools; and recreational opportunities. Shared use paths can also provide nonmotorized access to areas that are otherwise served only by limited-access highways.	• Typically, widths range from 10-14 ft, with 8 feet. acceptable in some defined circumstances. • Sidepaths (p. 4-7) are a specific type of shared use path that run adjacent to the roadway. Sidepaths should satisfy the same design criteria as shared use paths in independent rights-of-way. • Hard, all-weather pavement surfaces are generally preferred, but unpaved surfaces may be appropriate in some circumstances. Unpaved pathways should be constructed of materials that are firm and stable. • These are considered **"All Ages and Abilities"** facilities.	• Interurban Trail in King and Pierce counties. • Lowell Riverfront Trail in Everett. • Burke Gilman Trail from Ballard to the City of Bothell. • Chief Sealth Trail in Seattle. • Foothills Trail in Tacoma. • Finn Hill Rd between Olhava Way and Rhododendron Ln in Poulsbo.
Paved Shoulders[3] *(page 4-7 of the linked guide)*		Paved shoulders are most often used as shared-use facilities on rural roadways. They differ from bike lanes and other shared use facilities in that they are not exclusively travel lanes.	Adding or improving paved shoulders on busier or higher-speed rural roads can improve mobility and comfort for bicyclists and pedestrians and reduce crashes.	• The best use of paved shoulders as bicycle and pedestrian facilities is on rural roadways that connect town centers and other major attractors. • Paved shoulders should be at least 4 ft wide. Additional shoulder width is desirable on roadways with high motor vehicle speeds (over 50 mph); high	

[5] PSRC's regional inventory only includes information for shared use paths that provide for connections between destinations, rather than internal circulation. Data for other shared use paths may be collected at the local level.
[6] Definitions for these are sourced from the *Guide for the Development of Bicycle Facilities* (AASHTO, 2012) and images are sourced from the *Small Town and Rural Design Guide* (FHWA, 2016).

Type	Image	Definition	Purpose	Implementation Guidance	Local Examples
				numbers of large vehicles; or if static obstructions exist. • Shoulders are not an exclusive nonmotorized facilities and may also be used by parked or slow-moving vehicles. • Rumble strips are not recommended on shoulders used by bicyclists unless there are minimum clear paths for bicycle travel.	
Advisory Shoulders[7]		Advisory shoulders create usable shoulders for bicyclists and pedestrians on roadways that are otherwise too narrow to accommodate one. The shoulder is delineated by pavement marking and optional pavement color. Motorists may only enter the shoulder when no bicyclists are present and must overtake these users with caution due to potential oncoming traffic. Advisory Shoulders are also known as Edge Lane Roads or Advisory Bike Lanes.	Roads with advisory shoulders accommodate low to moderate volumes of two-way motor vehicle traffic and provide a prioritized space for bicyclists and pedestrians with little or no widening of the paved roadway surface.	• These function well within rural and small town traffic and land use contexts. • Advisory shoulders are a new treatment type in the United States and no performance data has yet been collected to compare to the substantial body of international experience. • In order to install advisory shoulders, an approved Request to Experiment is required as detailed in Section 1A.10 of the Manual on Uniform Traffic Control Devices (MUTCD).	• Everett will be installing one near Silver Lake in the future.

[7] Definition and image was sourced from the *Small Town and Rural Design Guide* (FHWA, 2016).

Type	Image	Definition	Purpose	Implementation Guidance	Local Examples
Street Design Elements					
Curb Extensions		Curb extensions are horizontal speed control elements that visually and physically narrow the roadway, creating safer and shorter crossings for pedestrians while increasing the available space for street furniture, benches, plantings, and street trees. Curb extension is an umbrella term that encompasses several different treatments and applications, including Gateways, Pinchpoints, Bus Bulbs and Chicanes.	Curb extensions serve as a visual cue to drivers that they are entering a neighborhood street or area.	1. Gateways, or Bulb-outs, are curb extensions installed at the entrance to a residential or low-speed street. 2. Pinchpoints, or Chokers, are applied midblock to slow traffic speeds and add public space. 3. Bus Bulbs are curb extensions that align the bus stop with the parking lane. 4. Chicanes are offset curb extensions that slow traffic speeds considerably.	
Vertical Speed Control Elements		Vertical speed control elements manage traffic speeds and reinforce pedestrian-friendly, safe speeds through grade separation treatments. These include Speed Humps, Speed Tables, and Speed Cushions.	Vertical speed control has been shown to slow traffic speeds, creating a safer and more attractive environment.	• Streets with speed limits of 30 mph and under are good candidates for vertical speed control. • Vertical speed control elements should be applied where the target speed of the roadway cannot be achieved with conventional traffic calming elements. • Vertical speed control elements are most effectively implemented at a neighborhood level, rather than by request on a single street.	

Type	Image	Definition	Purpose	Implementation Guidance	Local Examples
Bicycle Parking[8] *(page 6-1 of the linked guide)*		The wide variety of bicycle parking devices available is generally grouped into two classes, long-term and short-term. The needs for each differ in terms of their design and level of protection. In many locations, a combination of short- and long-term options may be appropriate.	Providing bicycle parking facilities is an essential element in a multi-modal transportation system. Unlike motor vehicles, most bicycles are not equipped with locks or anti-theft devices and do not require a key to operate. In addition to helping prevent theft, installing well-designed bicycle parking facilities in appropriate locations can contribute to a more orderly and aesthetic appearance of sidewalks and building sites.	• Bicycle parking should be provided at all public facilities, should be incorporated into roadway and streetscape projects, and should be an integral aspect of land development and redevelopment processes. • Bicycle parking should be conveniently placed in a location that is highly visible and as close to the building entrance as practical.	
Intersection and Crossing Design Elements					
Crosswalks and Crossings		Crosswalks should be applied where pedestrian traffic is anticipated and encouraged. Where vehicle speeds and volumes are high and pedestrian access is expected at regular intervals, signalized crossings preserve a safe walking environment. Where anticipated pedestrian traffic is low or intermittent, or where vehicle volumes are lower and pedestrian crossings shorter, designers may consider the use of unsignalized crossing treatments such as medians, hybrid or rapid flashing beacons, or raised crossings. Crossings can also be applied	Safe and frequent crosswalks support a walkable urban environment. While application of crosswalk markings alone is not a viable safety measure in all situations, crosswalks benefit and guide pedestrians.	• On streets with higher volume (>3000 ADT), higher speeds (>20 mph), or more lanes (2+), crosswalks should be the norm at intersections. • At schools, parks, plazas, senior centers, transit stops, hospitals, campuses, and major public buildings, marked crosswalks may be beneficial regardless of traffic conditions. • Pedestrian safety islands and median refuge islands can be applied to reduce exposure time. • Accessible curb ramps crosswalks are required by the Americans with Disabilities Act (ADA) at all crosswalks. WSDOT provides extensive	

[8] Definitions for these are sourced from the *Guide for the Development of Bicycle Facilities* (AASHTO, 2012) and the image was sourced from the *Association of Pedestrian and Bicycle Professionals (APBP) Bicycle Parking Guidelines* (APBP, 2010).

Type	Image	Definition	Purpose	Implementation Guidance	Local Examples
		midblock where there is significant pedestrian travel.		design guidance on building ADA compliant pedestrian facilities (Chapter 1510).[9] • Raised crossings can increase visibility, improve yielding behavior, and create a safer crossing environment.	
Bicycle Intersection Treatments		The configuration of a safe intersection for bicyclists may include elements such as color, signage, medians, signal detection, and pavement markings. The level of treatment required for bicyclists at an intersection will depend on the bicycle facility type used, whether bicycle facilities are intersecting, the adjacent street function and land use.	Designs for intersections with bicycle facilities should reduce conflict between bicyclists (and other vulnerable road users) and vehicles by heightening the level of visibility, denoting a clear right-of-way, and facilitating eye contact and awareness with competing modes. Intersection treatments can resolve both queuing and merging maneuvers for bicyclists, and are often coordinated with timed or specialized signals.	Intersection treatments for bicycles can include: • Bike boxes, • Intersection crossing markings, • Two-stage turn queue boxes, • Through bike lanes, • Combined bike lane/turn lane, • Protected bike lane intersection approach, • Protected Intersections	• South 21st St & Fawcett Ave in Tacoma. • Pacific Ave and Burwell St in Bremerton.
Pedestrian Signals		There are many types of pedestrian signals. In general, fixed-time signals are the standard in urban areas for reasons of regularity, network organization, predictability, and reducing unnecessary delay. In certain, less-trafficked areas, actuated signals (push buttons, loop detectors) may be appropriate.	Managing traffic signals is important because signals directly impact the quality of the transportation system. While geometric enhancements to a corridor may demarcate space for bikes and buses and create a more multi-modal cross-section, signal timing influences delay, compliance, safety, and mode choice.	Pedestrian signals at intersections can include: • Fixed and actuated signalizations • Leading Pedestrian Intervals (LPI) • Active warning beacons, (including Rectangular Rapid Flashing Beacons) • Hybrid beacons (including HAWK signals) • Pedestrian scrambles • Accessible Pedestrian Signals (p. 1330-27)	

[9] Sourced from WSDOT's *Design Manual* (WSDOT, 2022)

Type	Image	Definition	Purpose	Implementation Guidance	Local Examples
Bicycle Signals		Bicycle signals and beacons facilitate bicyclist crossings of roadways. Bicycle signals are traditional three lens signal heads with green-yellow and red bicycle stenciled lenses that can be employed at standard signalized intersections and Hybrid Signal crossings. Flashing amber warning beacons are utilized at unsignalized intersection crossings. Push buttons, signage, and pavement markings may be used to highlight these facilities for both bicyclists and motorists.	Bicycle signals make crossing intersections safer for bicyclists by clarifying when to enter an intersection and by restricting conflicting vehicle movements.	• Determining which type of signal or beacon to use for a particular intersection depends on a variety of factors. These include speed limits, average daily traffic (ADT), anticipated crossing traffic, and the configuration bicycle facilities. • Signal detection and actuation is critical for alerting the signal controller of bicycle crossing demand on a particular approach. • Bike scrambles are also sometimes used to mitigate intersection conflicts.	• 2nd Ave in Downtown Seattle. • 6th St and Washington Ave in Bremerton.
Pedestrian and Bicycle Bridges and Tunnels[10]		Pedestrian and bicycle bridges and underpasses separate pedestrians and bicyclists from vehicular traffic and allow for safe, uninterrupted pedestrian and bicycle traffic flow. They are most appropriate for crossing a freeway or other high-speed, high-volume arterial street or rail-line.	Pedestrian and bicycle bridges and tunnels are sometimes appropriate to improve street or route connectivity or provide routes over or under roadways. Overpasses and underpasses are most appropriate when people would otherwise be forced to cross freeways or major multi-lane, high-speed arterial streets to travel. There are also situations where pedestrian signals are not warranted and/or feasible and overpasses and underpasses may be useful during these times.	• Bridges are best suited in areas where the topography allows for a structure without ramps. • Underpasses work best when they can be designed to feel open, well-lit, and safe. • Both bridges and underpasses should be accessible to all pedestrians, including those in wheelchairs.	• John Lewis Memorial Bridge in Seattle. • Union Street Pedestrian Bridge in Seattle. • Amgen Helix Pedestrian Bridge in Seattle.

[10] Definition was sourced from the *National Center for Safe Routes to School (SRTS) Guide* (SRTS, 2015).

References

American Association of State Highway and Transportation Officials. (2012). *Guide for the Development of Bicycle Facilities, Fourth Edition*. https://njdotlocalaidrc.com/perch/resources/aashto-gbf-4-2012-bicycle.pdf

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National Association of City Transportation Officials. (2012). *Urban Street Design Guide*. https://nacto.org/publication/urban-street-design-guide/

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Washington State Department of Transportation. (2022). *Design Manual*. https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/manuals/design-manual

Safe Routes to School. (2015). *Safe Routes to School Guide*. http://guide.saferoutesinfo.org/engineering/pedestrian_and_bicycle_bridges_and_tunnels.cfm

Additional Guidance

National Association of City Transportation Officials. (2019). *Don't Stop at the Intersection*. https://nacto.org/publication/dont-give-up-at-the-intersection/

Federal Highway Administration. (2019). *Bikeway Selection Guide*. https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa18077.pdf

Federal Highway Administration. (2015). *Separated Bike Lane Planning and Design Guide*. https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/separated_bikelane_pdg/page00.cfm

Washington State Department of Transportation. (2022). *Designing for Level of Traffic Stress*. https://wsdot.wa.gov/sites/default/files/2022-06/DesignBulletin2022-01.pdf

Attachment A: Summary of March 2023 BPAC Feedback and PSRC Responses

BPAC Suggestions (incorporated)	PSRC Responses
There was a request that the typology address door zone conflicts when bike lanes are located adjacent to parallel parked cars.	We added the guidance available from NACTO on mitigating door zone conflicts to the buffered bike lane and striped bike lane definitions.
Members requested that the “Intersection Design Elements” section be broadened to “Intersection and Crossing Design Elements”.	This change was made.
There was a request to add curb ramp guidance.	Some basic curb ramp guidance was added to the “crosswalks and crossings” definition, with links to further guidance from other resources.
March BPAC poll results showed that there was interest in adding bicycle parking to the typology.	Bicycle Parking was added to the typology under “Street Design Elements”. As noted, information on treatments under this category can be collected at the local level but does not meet thresholds for inclusion in the regional inventory.
Poll results showed that there was strong interest in expanding pedestrian guidance in the typology.	The sidewalk definition and guidance were updated with more detail from NACTO on facilities in rural and suburban contexts.
Poll results showed strong interest in including a list of additional readings and resources.	This list of additional resources was added, including resources suggested by committee members.
There was a suggestion to better highlight pedestrian facilities by moving them to the beginning of the typology.	This change was made.
BPAC provided additional local examples of facility and treatment types.	These examples were added to the typology.
March BPAC poll results showed interest in including Sidepaths as a subtype of Shared Use Paths.	Sidepaths were removed as a separate type and included under the Shared Use Paths definition. This change will also help address issues in the current inventory caused by grouping adjacent shared use paths with bicycle facilities rather than with separated shared use paths.
BPAC Suggestions (not incorporated)	**PSRC Responses**
The typology should specify when a facility or treatment should not be used.	This suggestion is outside the scope of providing basic facility and treatment type definitions. However, the linked guidance provides more information on this topic.

ROW ADA transition plan content should be included for integration with walk, roll, ride facility information.	Some basic information on ADA requirements was included in the intersection crossings definitions. This topic will be further researched as part of PSRC's ongoing ADA transition planning work program.
We should remove shared lane markings/ sharrows from the typology.	Poll results showed that members preferred keeping shared lane markings in the typology. At upcoming meetings, the committee can discuss whether this facility type should be included in analysis and reporting on the regional inventory, or only included in some contexts.
There should be explicit guidance on how to pair facility and treatment types.	This suggestion is outside the scope of providing basic facility and treatment definitions. However, the linked guidance and additional resources provide more information on this topic.
We should remove paved shoulders from the typology.	Poll results showed that members preferred keeping paved shoulders in the typology, either for all areas or specifically for rural areas. At upcoming meetings, the committee can discuss whether this facility type should be included in analysis and reporting on the regional inventory, or only included in some contexts.
We should add additional guidance on viable forms of protection for protected bicycle lanes.	Based on poll results, we have decided not to add further guidance on viable forms of protection for protected bicycle lanes beyond the referenced NACTO guidance. However, we added resources that expand on this topic to the "Additional Guidance" list.

Puget Sound Regional Council

Memorandum

May 9, 2023

To: Bicycle and Pedestrian Advisory Committee

From: Sarah Gutschow, Senior Planner

Subject: **Pedestrian and Bicycle Facility Inventory Work Program**

IN BRIEF

At the May 9th meeting, PSRC staff will present the draft work program for updating the regional pedestrian and bicycle facility inventory. PSRC staff will also share an approach to addressing feedback on local pedestrian and bicycle data in the region.

DISCUSSION

The Regional Transportation Plan (RTP) calls for PSRC "maintain state-of-the-practice analysis and data" to help improve regional mobility.

PSRC's regional pedestrian and bicycle facility inventory provides baseline data for informing regional planning and for identifying needs and gaps in the network. This regional facility inventory was last updated in 2020. As part of the implementation of the RTP, PSRC staff have developed a work program, summarized below, to ensure that the inventory remains accurate and current by working with local jurisdictions to review and update the data.

At the same time, PSRC has also heard feedback from stakeholders on the importance of local pedestrian and bicycle data. PSRC is proposing an approach to improving consistency of local pedestrian and bicycle data across the region.

Regional Facility Inventory Work Program

For the 2020 facility inventory, PSRC used specified thresholds to determine whether facilities would be considered regional facilities. For on-road pedestrian and bicycle facilities, staff only coded facilities on or adjacent to arterial roadways. In consultation with PSRC's Bicycle and Pedestrian Advisory Committee, PSRC refined the criteria for regional shared use facilities on separate rights-of-way to only include routes that afford public access to all active transportation users and provide connections between regional destinations, rather than internal circulation.

PSRC completed a comprehensive regional inventory of pedestrian, bicycle and shared use facilities within these thresholds for the Regional Transportation Plan (RTP), adopted in May 2022. More information about the current inventory can be found in the RTP Appendix A: Transportation System Inventory (see pages 16-29) here.

Beginning in late 2022, PSRC staff began working with the BPAC on the initial work program task of updating the regional pedestrian and bicycle facility typology. Upon finalization of the typology, for the next task staff will work to revise the current inventory to account for any changes to facility terminology, categorizations and criteria.

Once that has been accomplished, staff will reach out to local jurisdictional partners to gather feedback on needed updates to the current inventory. Staff will ask jurisdictions to provide

information on new or modified facilities in their areas, as well as any needed corrections to the current inventory. The goal of this outreach is to receive feedback from every local city, town and county in the region on pedestrian and bicycle facilities which meet the thresholds established for the regional inventory. This input will then be used to update the inventory.

Local Pedestrian and Bicycle Facilities

PSRC has determined that the level of effort to collect pedestrian and bicycle data at the local level is too great and time consuming to accomplish. And yet, a variety of stakeholders have expressed interest in consistent pedestrian and bicycle data across the region. PSRC will engage stakeholders across the region in a separate but related work program to encourage regional consistency in collecting and maintaining pedestrian and bicycle data on all streets and shared use paths.

Encouraging consistent data collection and maintenance will provide multiple benefits to stakeholders interested in this type of facility data beyond the limits of a single jurisdiction. This effort may also provide additional benefit to regional understanding of pedestrian and bicycle planning in the region.

NEXT STEPS

Throughout the regional facility data collection process, PSRC staff will continue to seek technical guidance from the BPAC on both the data collection tasks and future work for analyzing and reporting on the data as part of the next RTP update.

At upcoming meetings, PSRC staff will facilitate conversations on how to encourage regional consistency in facility data collection and analysis, which will help with future updates and maintenance of the regional inventory.

Lead Staff: For more information, please contact Sarah Gutschow at sgutschow@psrc.org or 206-587-4822.