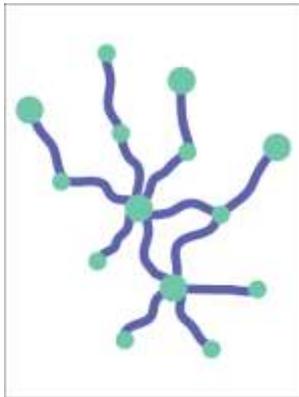


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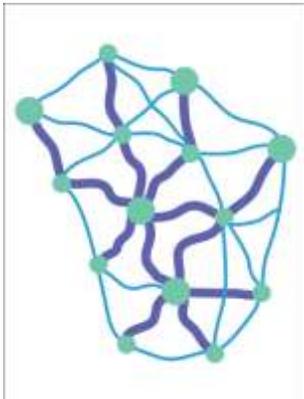
Regional Bicycle Network Concepts, Functional Classes & Design Guidelines

REGIONAL BICYCLE NETWORK CONCEPT

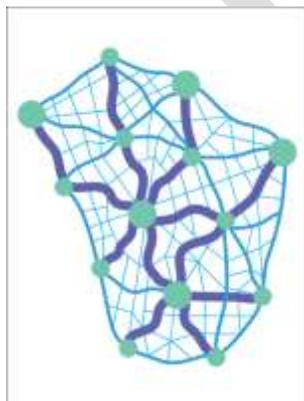
A dense network of off-street trails, in-street separated bikeways, bicycle boulevards and other bicycle facilities make up the regional bicycle network. Regional Bicycle Parkways form the spine of the regional bicycle network and connect **Regional Bicycle and Pedestrian Districts**, areas, such as the region's urban centers, where bicycle activity is highest or has the potential to be high. The regional bicycle network has a functional hierarchy similar to that of a street network. The functional classification system described below replaces the current bicycle network classification system in the Regional Transportation Plan.



Regional Bicycle Parkways are a new functional class for bicycles and are the highest functional class for bicycle facilities. Bicycle Parkways are high quality and high priority routes and make up the spine of the bicycle network – the highways of bicycle travel. They provide safe, comfortable and efficient bicycle travel within and between centers. They provide connections to key destinations and routes outside of the region. Parkways can be any type of facility designed to parkway standards. Facility types can include shared use paths, separated in-street bikeways and bicycle boulevards. Shared use paths identified as regional bicycle parkways are also regional pedestrian parkways. Adequate width and separation between pedestrians and bicyclists are provided on shared use path parkways.



Regional Community Bikeways can be any type of facility, including off-street trails, separated in-street bikeways and bicycle boulevards. On-street community bikeways located on arterial and collector streets are designed to provide separation from traffic on streets with higher auto speeds and volumes. Community bikeways provide connections to regional bicycle parkways and to destinations that parkways do not reach– they are the arterials of bicycle travel.



Local Bikeways trails, streets and connections not identified as regional bicycle parkway or community bikeway. Local bikeways are the local collectors of bicycle travel. They are typically shorter routes with less bicycle demand and use. These routes are not identified on the regional bicycle map, but are an important part of the system allowing for door to door bicycle travel.

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FUNCTIONAL CLASS AND DESIGN TYPES

High level design guidelines were identified for completing and upgrading the region’s bicycle and pedestrian networks. The guidelines serve as a checklist to ensure that the regional active transportation network is developed to make walking and bicycling easy, safe and comfortable. The guidelines should be used in conjunction with fully developed design guidelines such as those listed below. Note that Metro’s guidelines recommend wider widths for shared use paths and separated bikeways.

- Metro Creating Livable Streets: Street Design Guidelines for 2040 (for pedestrian elements)
- National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide
- Washington County Bicycle Design facility Toolkit
- Oregon Department of Transportation Bicycle and Pedestrian Design Guide
- Institute of Transportation Engineers Designing Walkable Urban Thoroughfares: A Context Sensitive Approach
- AASHTO Guide for the Development of Bicycle Facilities, 4th Edition

Regional Bicycle Network Functional Classification Design Types and Design Guidelines

<p>Functional Class 1 (FC-1) Regional Bicycle Parkway</p> <p>The highest functional class for bicycle facilities. High quality and high priority routes, the highways for bicycle travel, connecting to and through regional centers. Parkways can be any type of facility designed to parkway standards, including off-street shared use paths, separated in-street bikeways and bicycle boulevards. Shared use path bicycle parkways are also pedestrian parkways.</p>	<p>Functional Class 2 (FC-2) Community Bikeway</p> <p>High-quality routes with seamless connections to bicycle parkways. Community bikeways can be any type of facility, including off-street trails, bike lanes and bicycle boulevards. On-street community bikeways located on arterial and collector streets are designed to provide separation from traffic on streets with higher auto speeds and volumes.</p>	<p>Functional Class 3 (FC-3) Local Bikeway</p> <p>Primarily local streets and trails providing the door to door connections for bicycle travel. They are typically shorter routes with less bicycle demand and use. Includes all streets and trails not identified as a bicycle parkway or community bikeway.</p>
<p>FC-1 Design Type A Off-street shared use path</p> <ul style="list-style-type: none"> • Minimum width of 14'; additional width or bifurcation where demand warrants. • Marked high-visibility crosswalks with lighting at all crossings of collector and arterial roads, additional crossing features where appropriate. • Lighting of path is desirable. • Bike signals and detection at signals are desirable. • Way finding and bike parking are included. • Separation of pedestrians and bicyclists. • Seating and pull outs are provided. 	<p>FC-2 Design Type A Off-street</p> <ul style="list-style-type: none"> • Preferred width of 12', minimum width of 10'. • Marked crosswalks with lighting at all crossings of collector and arterial roads, additional crossing features where appropriate. • Lighting of path may be desirable. • Way finding and bike parking are included. 	<p>FC-3 Design Type A Off-street</p> <ul style="list-style-type: none"> • Local standards apply.

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<p>FC-1 Design Type B Low traffic street (ADT <6,000 and posted speed is 30 or less)</p> <ul style="list-style-type: none"> • Where ADT <3,000, bicycle boulevard treatments including traffic calming and diversion measures may be appropriate. • Where bike boulevard treatments are not used, 7' bike lanes are preferred; 6' bike lanes are minimum treatment. Crossing treatments at all crossings of collector and arterial roads. • Context-based traffic calming is desirable. • Lighting along bikeway and at intersections. 	<p>FC-2 Design Type B Low traffic street (ADT <6,000 and posted speed is 30 or less)</p> <ul style="list-style-type: none"> • Where ADT <3,000, bicycle boulevard treatments including traffic calming and diversion measures may be appropriate. • Where bike boulevard treatments are not used, 7' bike lanes are preferred; 5' bike lanes are minimum treatment • Crossing treatments at all crossings of arterial roads. • Context-based traffic calming is desirable. • Lighting along bikeway and at intersections. 	<p>FC-3 Design Type B Low traffic street</p> <ul style="list-style-type: none"> • Local standards apply.
<p>FC-1- Design Type C High traffic street (ADT >6,000 or posted speed is 35 or more)</p> <ul style="list-style-type: none"> • Separation from vehicle traffic is critical. Use cycle tracks, buffered bike lanes (minimum 6' lane, 4' buffer) or protected bikeways such as a parallel path. Attention to treatment of intersections and driveways is critical. Preferential treatments such as green coloring, bike boxes, bike signals, turn queue boxes, and advance stop lines should be used as appropriate. • Arterial-type traffic calming is desirable. • Lighting along bikeway and at intersections. 	<p>FC-2 Design Type C High traffic street (ADT >6,000 or posted speed is 35 or more)</p> <ul style="list-style-type: none"> • Separation from traffic is critical. Buffered bike lanes (minimum 6' lane, 4' buffer) or 7' bike lanes are preferred; 5' bike lanes are minimum treatment.) • Attention to treatment of intersections and driveways is desirable. Preferential treatments such as green coloring, bike boxes, bike signals, turn queue boxes, and advance stop lines may be used as appropriate. • Arterial-type traffic calming is desirable. • Lighting along bikeway and at intersections. 	<p>FC-3 Design Type C High traffic street (ADT >6,000 or posted speed is 35 or more) N/A</p>