



BIKEWAYS ILLUSTRATED

What are “Bikeways”?

Bellingham uses the term **bikeways** to refer to the entire spectrum of bicycle facility types installed or planned on public streets comprising the **Primary Bicycle Network** → in the [2014 Bicycle Master Plan](#).

A variety of bikeway facilities and markings are **illustrated** on the following pages; organized from least to most expensive.

Additional information is available on the [Interactive Bike Map](#)





BELLINGHAM BIKEWAYS ILLUSTRATED

Bellingham's 2014 [Bicycle Master Plan](#) is based on guidance and best practices and from multiple sources, including, but not limited to:

- [MUTCD](#) = Manual on Uniform Traffic Control Devices
- [AASHTO](#) = American Association of Highway Transportation Officials
- [NACTO](#) = National Association of City Transportation Officials
- [WSDOT](#) = Washington State Department of Transportation Design Manual
- **Local knowledge and professional expertise** regarding land use development context; multimodal transportation system; and transportation plans and studies.

Excerpt from the

[NACTO Urban Bikeway Design Guide](#)

(2nd Edition, 2014), Introduction, page xi:

*“For each treatment in the Guide, the reader will find three levels of guidance: **In all cases, we encourage engineering judgement to ensure that the application makes sense for the context of each treatment, given the many complexities of urban streets.**”*

Bike Boulevards

- Comprise 39%, or 52 miles, of Bellingham's 170-mile Primary Bicycle Network; shown in **pink** on Bicycle Network Map
- Low-stress bikeways installed on **residential streets** that have low vehicle speeds (20-25 mph) and low vehicle traffic volumes (less than 2,000 vehicles per day) as a less direct, but more comfortable route for people on bikes.
- Not intended to be off-limits to cars, but where necessary, physical traffic calming devices can be used to control cut-through vehicle traffic, volume, and speed to optimize Bike Boulevards for use by people on bikes.
- Shared Lane Markings (SLMs) – also called “sharrows” – are installed on the street surface to alert drivers to the presence of people on bikes, as well as guidance for bikers.
- [Bicycle wayfinding signage](#) (*see last page*) is installed along bike boulevards to help inform people on bikes of direction, distance, and time to major destinations.



Shared lane marking on the Nevada Street Bike Boulevard installed in 2018 between Lakeway Drive and Byron Avenue. Traffic calming features installed to slow vehicle speeds that were recorded as too high.

Marked Bicycle Lanes

- Comprise 34%, or 46 miles, of Bellingham's 170-mile Primary Bicycle Network; shown in **blue** on Bicycle Network Map
- Bellingham's **arterial street** standard includes dedicated 5-foot wide bicycle lanes marked with:
 - White stripe measuring 4" to 8" wide;
 - Bicycle symbols with directional arrows;
- Required to be installed by developers when arterial street frontage is improved with new development
- Marked bike lanes on arterial streets provide the most direct route to popular destinations, but bikers typically experience a higher level of traffic stress than on bike boulevards.
- Marked bicycle lanes have been installed in every neighborhood throughout Bellingham.



Marked bicycle lane installed in 2003 on Magnolia Street arterial between Garden Street and Ellis Street in the York Neighborhood.

Arterial Shared Lane Markings

- Shared Lane Markings (SLMs) are not a preferred treatment on arterial streets, but may be installed where necessary, such as:
 - Where there is a lack of physical space to install dedicated and marked bicycle lanes on either side of the arterial street;
 - The downhill portion of arterial bike climbing lanes;
 - Short arterial connections between dedicated bikeways; and
 - To show people on bike where to position themselves in traffic.
- Arterial SLMs have been installed on Hawthorn, 14th St, Cornwall, Lincoln, Woburn, and Yew.
- Due to lack of physical space between curbs for dedicated bike lanes, SLMs may need to be installed on other sections of arterial streets in Bellingham.



Arterial SLMs installed in 2014 on 14th Street collector arterial between Boulevard and Harris Avenue in the South Hill Neighborhood.

Bicycle Climbing Lanes

- Dedicated marked bike lane installed on the uphill side of relatively steep arterial street where:
 - There is a lack of physical space to install dedicated and marked bicycle lanes on both sides;
 - People on bikes need a dedicated space separated from vehicle lane due to uphill speed differential;
 - SLMs are installed on the downhill portion of bike climbing lanes due to less speed differential and to show people on bikes where to position themselves in traffic;
- Bicycle climbing lanes have been installed on Lincoln, Woburn, Yew, Bay-Chestnut, and Ellis



Bike climbing lane installed in 2015 on Lincoln Street collector arterial between Meador Avenue and Lakeway Drive in the Puget Neighborhood.

Buffer-Separated Bicycle Lanes

- Painted buffer physically separating the bike lane and traffic in vehicle lanes
- Buffer can vary in width depending on space available between curbs on arterial street, but ideally 3-5 feet
- Can be supplemented with vertical elements at conflict points
- Buffer-separated bike lanes have been installed on Barkley, Roeder, Chestnut, & Cordata and in 2020 Samish-Maple-Ellis between I-5 and Cornwall Avenue

Buffer-separated bicycle lane installed in 2019 on Roeder Avenue arterial between Bellwether Way and Squalicum Parkway through the Waterfront District.



Buffer-Separated Bicycle Lanes with On-Street Parking

- Marked bike lane with a painted buffer between bike lane and parked car and/or vehicle travel lane
- Installed against on-street parking on arterial streets where physical space is available
- Helps protect people on bikes from injury due to vehicle doors opening into bike lane
 - Marked bike lanes against on-street parking without painted buffer separation must be a minimum of 6-feet wide
- Buffer can vary in width depending on space available between curbs on arterial street, but ideally 2-3 feet
- Buffered bike lanes with on-street parking have been installed on Ohio, State, and Puget



Parking buffered bicycle lane installed in 2018 on Puget Street arterial between Potter and Lakeway in the Puget Neighborhood.

Parking Protected Bicycle Lanes

- Installed between curb and on-street vehicle parking on arterial streets
- Painted buffer between bike lane and parked car helps protect bicyclist from vehicle doors opening into bike lane
- Buffer can vary in width depending on space available between curbs on arterial street, but ideally 2-3 feet
- In order for bike lane to be swept and maintained:
 - Requires posted parking restrictions to allow nighttime street sweeping; or
 - Purchase of special narrow street sweeping machinery to fit between curb and parked vehicles to avoid damage
- Parking protected bike lanes have been installed on Forest and North Cordata



Parking protected bicycle lane installed in 2017 on Forest Street arterial between Ivy Street and Rose Street in the Sehome Neighborhood.

Off-Street Cycle Track

- Exclusive bikeway in its own right-of-way separated and/or raised from vehicle lanes and sidewalks
 - May be separated by street trees and landscape strips or hardscape elements
 - May be one-way or two-way
 - Requires additional infrastructure at signalized intersections to minimize conflict between people on bikes and in vehicles
 - Requires significant amount of additional public right-of-way
 - Very expensive to construct

Cycle track installed in 2019 on Granary and Laurel Avenue arterials between Roeder Avenue and Cornwall Avenue → through the Downtown portion of the Waterfront District.



Bicycle Treatments at Intersections (1)

- Used on arterial streets at intersections with residential or commercial side streets to highlight a transition zone between bikes and vehicles →
- For people on bikes, white dashed lines indicate continuation of a marked bike lane and alert them of the potential for a vehicle to cross the bike lane
- For drivers, white dashed lines highlight the presence of a bike lane and indicate that they may cross the bike lane if people on bikes are not approaching

White dashed lines installed in 2016 to continue the Champion Street bike lane across the intersection with Railroad Avenue in downtown Bellingham.



Bicycle Treatments at Intersections (2)

- Green dashed boxes at right-turn lanes
- Used at intersections where a bike lane ends to highlight a transition zone between bikes and vehicles, such as a right-turn lane →
- Also used across problem side streets where bicycle injuries have occurred (Northwest/Aldrich and Northwest/W. Maplewood)

Green dashed boxes installed in 2016 between the dedicated right-turn lane and the green bike box at the Champion/Cornwall intersection in downtown Bellingham. The dedicated right-turn lane is a heavy and critical right turn for WTA high-frequency transit buses. This same treatment was installed at Cornwall/Alabama in 2015 for the same reasons.



Bicycle Treatments at Intersections (3)

- Green [Bike Boxes](#) at Traffic Signals – [video](#)
- Used to provide people on bikes with a safe way to enter a dedicated left-turn lane from a marked bike lane on the right side of the street.
- Allows people on bikes to be at the front of the left-turn or through vehicle queue, be more visible to drivers, reduce conflict between bikes and vehicles, and clear the intersection faster.
- Additional information is available on the [Interactive Bike Map](#)



Green Bike Box installed in 2016 at the Champion/Cornwall intersection in downtown Bellingham.

Bicycle Treatments at Intersections (4)

- Pedestrian Hybrid Beacon more commonly known by the acronym “High-intensity Activated crossWalk”
- HAWK crosswalk signals – [video](#)
- Originally designed as mid-block crossing signal for pedestrians
- Bike HAWK crossing adapted for joint use by people on bikes
 - [Bike Hawk brochure](#) ([City of Tucson, AZ](#))
- Green markings on one side of intersection require contra-flow crossing by people on bikes



Bellingham's first "Bike HAWK" crossing installed in 2019 at the Lakeway/Grant intersection on the Grant Street Bike Boulevard in the York Neighborhood.

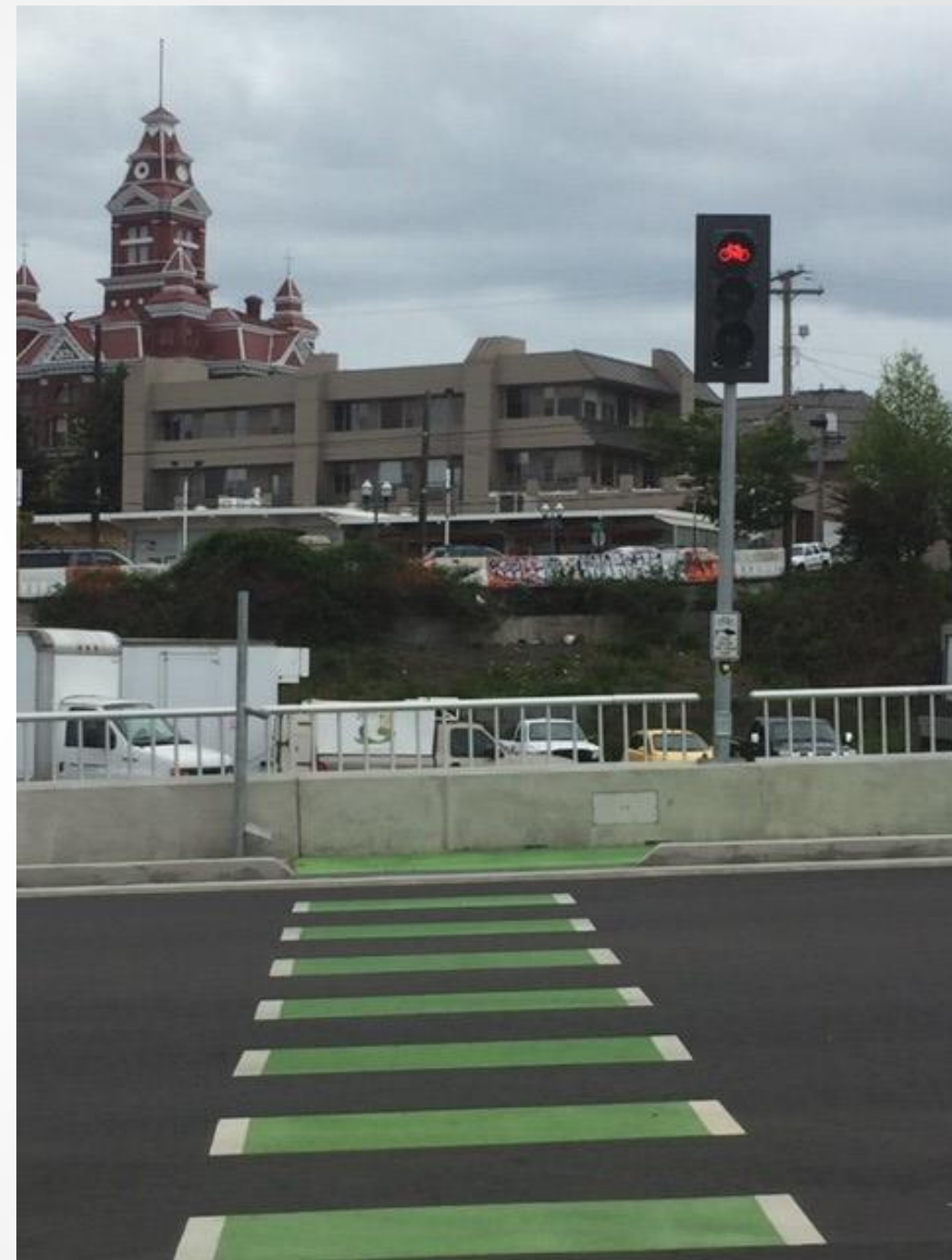
Bicycle Treatments at Intersections (5)

- On-Street [Bike Stencils](#) at Traffic Signals – [video](#)
 - Allows people on bikes to trigger green light



- Dedicated Bicycle Signal →
 - Protected movement for bicyclists

Bellingham's first dedicated bicycle signal installed in 2019 at the Granary and Roeder Avenue intersection in the Downtown portion of the Waterfront District.



Bicycle Wayfinding Signage

- [Bicycle Wayfinding Plan](#) completed in 2016
- Informs people on bikes of destinations ahead, mileage to ride, and estimate of travel time
- Two continuous bike routes marked in 2018
 - Wharf Street to City limit via Northwest Avenue
 - Texas Street to downtown via Kentucky-Cornwall →
- All future capital projects on Primary Bicycle Network will include bicycle wayfinding signage
- Installation of signs on bike network in existence prior to 2018 will take many years to complete
- Public Works & GIS staff are actively working on prioritizing bike routes for short-term signing

Bicycle Wayfinding Sign installed in 2018 on Texas Street in the Roosevelt Neighborhood.



Questions & Contact Information:

Chris Comeau, AICP-CTP, Transportation Planner
Bellingham Public Works Engineering
360.778.7946 ccomeau@cob.org

