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BC Ferries
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Re: Next Generation of Ferries - Bicycle Parking

HUB Cycling a non-profit organization that has spent the last 21 years removing barriers to cycling in Metro Vancouver, while cultivating the health, environmental, and economic benefits that active transportation can bring. We've educated thousands of people, motivated thousands more, and championed improvements that benefit current and future bike commuters. We are Metro Vancouver's leader in making cycling an attractive choice for everyone.

The purpose of this letter is to provide BC Ferries with our recommendations for improving the [Next Generation of Ferries](#) for cycling. We start by explaining how cycling furthers BC Ferries' Sustainability Plan. We then set out our design recommendations for better bike storage on the next generation of ferries.

Cycling and BC Ferries' Sustainability Plan

BC Ferries provides a critical service for cyclists wishing to travel regionally. Cycle tourism is a significant economic driver for many of BC Ferries' destinations. Better cycling design benefits those local economies, while promoting sustainable and healthy transportation options throughout the province. In its *2018 Sustainability Plan*, BC Ferries emphasizes the importance of reducing its greenhouse gas emissions¹. By incentivizing customers to travel by bike rather than car, BC Ferries can make further significant reductions in greenhouse gas emissions.

¹ [BC Ferries' Journey Towards Sustainability](#) (2018)

Bike Parking on Ferries

HUB Cycling encourages ample and quality bike racks on the next generation of BC Ferries' fleet. Many current vessels have inadequate, or no bicycle racks which disincentivizes cycling because of a concern of damage or theft to passengers' bike or bike parts. Figure 1 demonstrates some of the lack of infrastructure where bicycles are simply leaned against the wall or each other, which is neither secure against theft nor stable, and makes unloading frustrating and inefficient for all passengers.



Figure 1. Many of BC Ferries' current fleet does not include parking for passengers with bicycles. *Left: MV Queen of Nanaimo, Summer 2017.*

Up to 10 bicycles can fit in a single vehicle parking spot, increasing potential passenger capacity and revenues for BC Ferries. The following considerations should be included in planning for improved bike parking on future vessels:

- Bike parking should be provided for a minimum of 5%² of passengers
- All bicycle parking spaces should have a minimum vertical clearance of 1.9 metres, should be a minimum of 0.3 metre in width and should be:
 - a minimum of 1.8 metre in length if the bicycles are to be placed horizontally; or

² Given the growing increase in use of bicycles for transportation, this target should increase upon demand, as well as in the design of future vessels.

- a minimum of 1.0 metre in length if the bicycles are to be placed vertically.
- All bicycle parking should be independently accessible by means of an aisle of a minimum width of 1.2 metres. This allows users to access their bikes regardless of other users' presence. Importantly, the appropriate space width allows for bicycles with pannier bags to fit in the spaces. Note the accessibility barriers for vertical bicycle parking. Some users are unable to lift their bicycles to the vertical position; it is harder to secure them; fenders or panniers may not be compatible with vertical parking. Alternating height horizontal racks are more space efficient.
- All required public bicycle spaces should be independently accessible by means of an aisle with a minimum width of 1.2 metres which is separate from pedestrian access. There shall be unrestricted access behind the space of a minimum length of 0.5 metre.
- Consider the added capacity when placing a bike rack accessible from both sides, where space allows.
- Bicycle parking racks should be constructed of sturdy theft-resistant material and should have secure theft-resistant anchoring to the floor or ground.
- The bicycle rack should support the bicycle frame above the centre of gravity and should enable the bicycle frame *and* front wheel to be locked with the rack using a U-style lock.
- A minimum of 70 percent of the indoor secure bicycle spaces should provide for the bicycles to be placed horizontally on the floor or ground. This is the most accessible for bicycles of all sizes and shapes and riders of all ages and abilities.
- Vertical bicycle space racks should support the bicycle without the bicycle being suspended on the wheels. No more than 30% of the bicycle spaces should be vertical.
- Provision for e-bike users, including charging points at racks and in passengers deck lounges

Other BC Ferries have retractable bike racks that clearly provide for a place for bikes. Given the retractable nature of these racks, the next generation of ferries could be equipped with a large number of them, thereby allowing for expanded bike storage access in the summer months (see Figure 2).

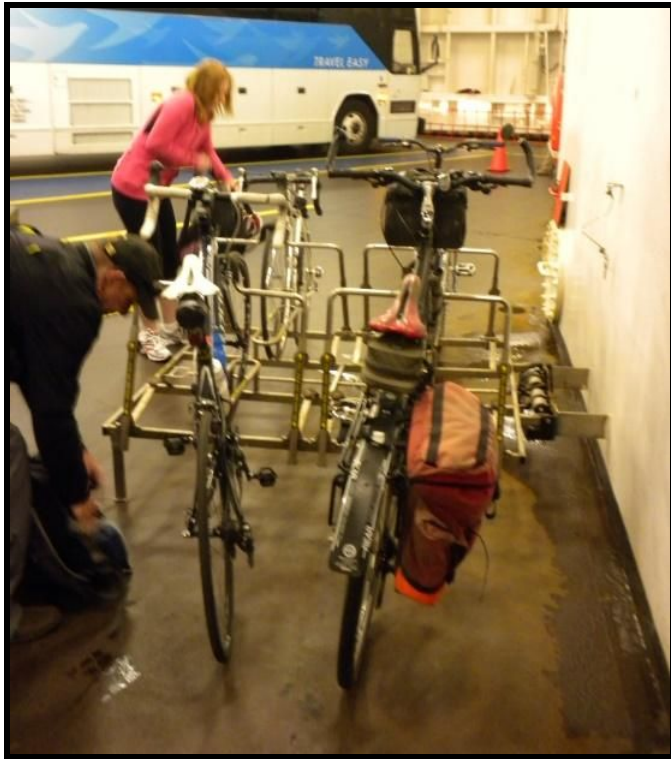


Figure 2. Retractable bicycle racks can be folded up when not in use. *BC Ferries*

Where horizontal space is a design concern in the next generation of ferries, a further space efficient design is used by the Seattle-Bremerton ferry (see Figure 3). Due to the accessibility concerns of using vertical racks, HUB Cycling recommends allocating a maximum of 30% of on-board bicycle storage for this type of design.



Figure 3. Vertical racks work well if space is limited but are less accessible than horizontal designs. *Washington State Ferries*

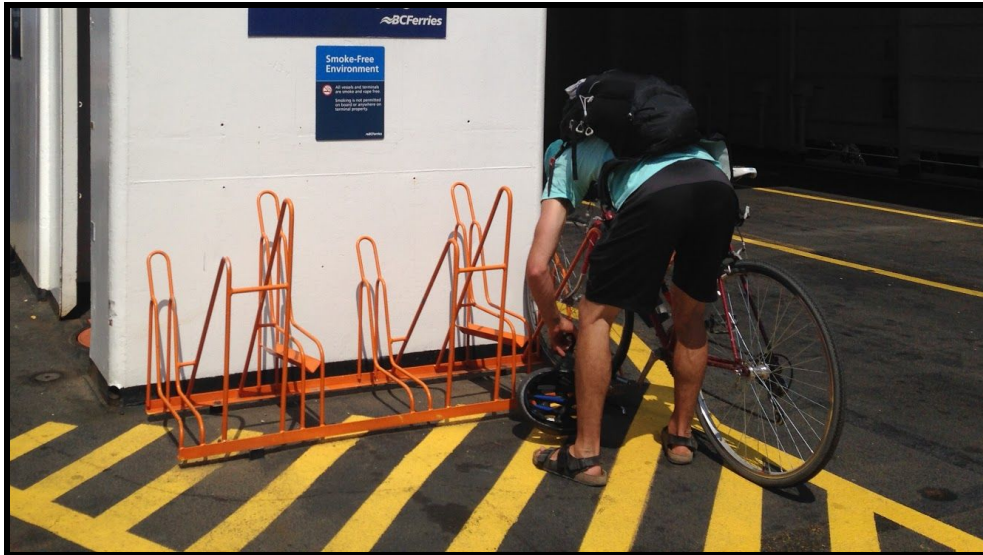


Figure 4.
Example of
horizontal bike
storage on the
*MV Bowen
Queen.*

Communication and Marketing

A system-wide approach facilitating ticketing and terminal-vessel access / egress for All Ages and Abilities (AAA) of people on bikes, that includes:

- Wayfinding signage on new vessels, directing passengers with bicycles where to park
- Locations of bicycle storage areas on communication materials, such as on-board vessel maps, BC Ferries' website, etc.
- Clearer wayfinding signage directing passengers arriving by bike where to purchase tickets (ex. through walk-on vs. motor vehicle ticket booths)

In conclusion, by better providing for passengers with bicycles, we believe that the next generation of ferries will further BC Ferries' Sustainability Plan and the growth of local economies within its ports of call.

We appreciate your consideration of this letter and we would be happy to meet to discuss these and other cycling oriented improvements in the future.

Sincerely,

Alex Clarkson
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