

Injury Prevention & Streetcar Tracks

How Seattle's streetcar line can coexist safely with people on bicycles

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CHALLENGE AND OPPORTUNITY

Streetcar tracks are a known hazard to people riding bicycles, as the track flangeway -- the gap that secures the streetcar wheel -- is wide enough to catch most bicycle tires.¹ In Portland, where streetcars and bikes are both popular forms of transportation, a survey of more than 1500 people who bike found that 67% had crashed on streetcar tracks.² In Seattle, though no such survey has been conducted, there is anecdotal agreement among people who bike that streetcar tracks are extremely dangerous for riders of all abilities.

Both domestically and abroad, designing streetcar tracks that are safe for travel by all modes is a challenge. The City of Seattle has the opportunity to address this challenge via its Center City Connector project, which will run through downtown (primarily along 1st Avenue and Stewart Street) and link two existing lines.

Cascade's vision is for Seattle to construct an innovative streetcar line that sets an international example of safe design for all modes of travel.



CURRENT BEST PRACTICES

Best practices dictate that parallel protected bike lanes, dedicated rail rights of way and protected intersections are the best known ways to prevent bicyclist injuries on streetcar tracks.¹⁻²

PRIORITIES

The following outlines Cascade's priorities for mitigating harm and improving mobility for people who bike:

1st Avenue

- Slow speeds to 20 mph -- Though best practices advise building a parallel separated bike facility, the right-of-way along 1st Avenue will not accommodate this. We recommend slowing speeds to create a calm environment where people driving and biking can share the general purpose lane that runs adjacent to the planned streetcar. This will help create an inviting "main street" feel to 1st Avenue.

¹ <http://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-016-3242-3>

² http://www.altaplanning.com/wp-content/uploads/Bicycle_Streetcar_Memo_ALTA.pdf

Safe crossings

- Create clearly marked crossings, especially at left turns, to direct people on bikes over tracks at a safe angle (45 to 90 degrees) to mitigate crashes. The current design raises concerns for people who will bike South on Jackson and turn right onto 1st Ave., as well as West on Stewart St. past 7th Ave.

East/West bicycle connections

- Build a protected bike lane (PBL) parallel to the streetcar tracks on Stewart St. (between 7th and 2nd), or, on a parallel street such as Virginia or Pine. Alternatively, plan the Stewart St. corridor with the potential for adding a PBL at a later date. People biking currently lack safe east/west connections downtown.

2nd Avenue

- Connect South end of 2nd Ave. PBL -- The all-ages-and-abilities bike lane on 2nd comes to an abrupt end before intersecting with streetcar tracks on Jackson St. This is an extremely stressful transition for people who bike. A connection between the 2nd Ave. PBL and King St. and Dearborn is needed.

Yesler Way

- Upgrade bike lane safety -- Multiple crashes have occurred along these tracks, including one fatal crash this year. Upgrading the current mix of PBL and sharrows to a fully separated and protected bicycle facility would prevent future crashes.