UW Taskar Center Proviso Brief, Nov 2024



Photo: Street level view of Bellevue, WA

Taskar Center for Accessible Technology (TCAT) is housed within the Paul G. Allen School for Computer Science & Engineering at the University of Washington.

The Issue

In countless neighborhoods, sidewalks are either deteriorating or simply don't exist, and people choose against active transportation when they can for lack of knowledge about where they would feel and be safe. Planners, too, are feeling the impact of this missing data. King County, for example, has expressed a need to improve sidewalks around transitional housing facilities but doesn't know where to start. Without a clear picture of sidewalk conditions, they don't know which areas lack basic accessibility or safety features like proper sidewalk width. This gap in information makes it nearly impossible to set concrete project plans or evaluate the environmental and access impacts of new work in these areas. Access to data about sidewalks is essential for supporting sustainable, equitable, and inclusive communities.

The Proviso Project

Under the directive of the state legislature and using innovative technology developed by the Taskar Center for Accessible Technology, Washington State is now creating a comprehensive, high-quality pedestrian network dataset called OS-CONNECT. This project provides the data and tooling to support safety initiatives like Complete Streets and Vision Zero. With this data, state agencies, local governments, and community organizations will have the information they need to address critical accessibility, safety, and equity gaps within the transportation network. In historically overburdened areas, this can mean identifying where crumbling or missing sidewalks are, and improving conditions for residents to safely access work, transit, schools, and other services. Ensuring this sidewalk dataset is updated and expanded will help Washington provide all residents, especially vulnerable populations, with safe, accessible, and sustainable transportation options.

OS-CONNECT:

OpenSidewalks Consistent Network for Equity and Community Transportation

APPROACH

In the first biennium, this project has:

- Mapped sidewalks in areas covering 50% of Washington residents;
- Trained planners and community groups to use and contribute to the dataset;
- Created a plan to expand sidewalk mapping to reach 100% of Washington's population in the next biennium.

OUTCOMES

With this data, state and local agencies, local governments, and community organizations can:

- Provide travelers with information on accessible routes;
- Prioritize sidewalk improvements;
- Support Complete Streets policies;
- Improve safety and access in underserved areas.

THE ROAD AHEAD

If funded, in the next biennium this project will:

- Complete sidewalk maps for 100% of Washingtonians;
- Expand data to include safety features like lighting and crosswalk conditions;
- Develop tools for planners and communities to maintain and update sidewalk data;
- Support integration of sidewalk data into statewide navigation and safety applications.

Track OS-CONNECT coverage in WA state: https://viewer.sidewalks.washington.edu/

The Work

This effort is designed to give planners, policy makers, and community advocates the data they need to improve pedestrian infrastructure, particularly in historically underserved areas. The work began by reviewing national best practices in data collection and accessibility standards. Drawing on input from planners and community organizations, the team established a data schema through the OpenSidewalks framework, which identifies sidewalk conditions, access points, and obstacles. This structured approach ensures that sidewalk data is both thorough and practical for on-the-ground use in planning and evaluation processes.

This project also included direct collaboration with key stakeholders, including King County Metro, WSDOT, and Disability Rights Washington, to gain insights into their specific sidewalk data needs and challenges. Further, TCAT has worked closely with transit agencies and local governments to ensure the data is accessible and usable in both planning and community contexts, providing targeted guidance on how this data can support safety, accessibility, and Complete Streets projects across the state.

Current Biennium Results

Through this first biennium, The OS-CONNECT Team has produced a high quality, AI-generated human vetted network-graph inventory of sidewalks across 3,600 square kilometers, covering areas where over 50% of Washingtonians live. By the end of this biennium, we expect to complete sidewalk inventories for 80% of the state's population.



*Graph is for illustrative purposes only

Implications for Planners and Travelers

Washington's transportation agencies often struggle with resource constraints when it comes to collecting and updating data on sidewalks, intersections, and ramps, particularly on local roads. With this data, agencies will be able to generate the insights needed to effectively assess and improve pedestrian safety and access.For travelers, this sidewalk dataset means access to real-time information about safe and accessible routes, especially in areas where sidewalks are in poor condition or non-existent.

Road Ahead: The Next Biennium

The Taskar Center's work emphasized the importance of collaborating with both agencies and affected communities to align project planning with local needs. Key steps include building community profiles to identify areas with sidewalk gaps, promoting inclusive public involvement, and evaluating the impact of transportation investments. If funded, the next biennium will complete the sidewalk inventory for all state residents, helping Washington build a pedestrian infrastructure that prioritizes safety, accessibility, and equity in underserved areas.

PROVISO PROJECT INFORMATION

TITLE: Unified Open Sidewalks Dataset for Washington State

LEAD INVESTIGATOR:

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PROVISO REFERENCE NUMBER: ESB 1124 .111

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OpenSidewalks is a program within the Taskar Center for Accessible Technology at the University of Washington with funding from the U.S. Department of Transportation ITS4US Program. In partnership with Gaussian Solutions, OpenSidewalks has spearheaded the creation of the OS-CONNECT dataset.

MORE INFORMATION

https://tcat.cs.washington.edu https://sidewalks.washington.edu

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