

## **Pedestrian/Bicycle Overcrossings: Lessons Learned**

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[Play stream of Rory Renfro's seminar presentation](#)



### **BACKGROUND**

Pedestrian/bicycle overcrossings serve many different types of users, and represent one of the most important elements of a community's non-motorized transportation network. They provide critical links in the pedestrian/bicycle transportation system by joining areas separated by a variety of barriers.

This study aims to inform planners, designers, and other parties who developing new pedestrian/bicycle overcrossings, or improving existing facilities. A review of national and local design guidelines, case studies, and other reports informed the findings of this report.

### **RESEARCH**

This study examines location, design, and other parameters of pedestrian/bicycle overcrossings, and evaluates how well they serve their intended users. The findings are based on detailed field assessments of 29 diverse bridges in terms of age, length, access provisions, what they cross, and several other elements.

### **FINDINGS**

The report provides detailed profiles of the 29 different overcrossings, including location, connections, nearby alternative crossings, degree of out-of-direction travel to reach it, accessibility, conditions, and design elements.

### **CONCLUSIONS**

Overcrossings should be sited on logical walking and bicycling routes, and should be easy to access from the surrounding network. This requires providing the infrastructure and

other components (e.g. sidewalks, bicycle lanes, intersection treatments, wayfinding tools, etc.) necessary to conveniently access the bridge area. This includes identifying existing and desired pedestrian/bicycle travel patterns.

Pedestrian/bicycle overcrossings work best when the "barrier" being traversed is depressed below the natural ground line. Bridges flush with surrounding streets and paths minimize the need for access ramps to overcome a vertical elevation gain. On the other hand, bridges sited above the natural ground line are challenged with providing suitable access for multiple users while offering a reasonable level of convenience. The planning and design of future highways, roads, and rail corridors should include this consideration whenever possible.

Overcrossings should also include necessary provisions for mobility-impaired users (e.g. elevators, or ramps with level landings). Wider stairways and access ramps with broader turns (e.g. avoiding switchbacks) facilitate easier maneuverability for all users, and can minimize potential conflicts between users traveling at varying speeds.

Although pedestrians and bicyclists may continue to use existing overcrossings with various deficiencies, planners and designers should not use this to justify building inadequate bridges in the future. Lessons learned from previous experiences should guide the design of high-quality overcrossings meeting the functional and convenience needs of pedestrians and bicyclists.