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**Mineta Transportation Institute Study:  
Best Ways to Integrate Bicycling and Transit?**

*Successful integration can benefit both modes, increase accessibility, reduce congestion, support environment*

**San Jose, Calif., April 27, 2011** – The [Mineta Transportation Institute](http://www.transweb.sjsu.edu/project/2825.html) (MTI) has just released its Research Report 10-07, *Bicycling Access and Egress to Transit: Informing the Possibilities*. The research evaluates various ways to integrate bicycle riding with transit in a way that maximizes the cost-effective use of both travel modes. In conducting the research, principal investigator Kevin J. Krizek, PhD, focused on five communities – Boulder/Denver, Colorado; Chicago, Illinois; Ithaca, New York; Portland, Oregon; and Santa Clara County, California. The results from seven focus groups within those communities also were included. The report is available for free download at <http://www.transweb.sjsu.edu/project/2825.html>

“When effectively integrated with transit services, bicycling can bring various benefits to communities and will likely increase the use and efficiency of both modes,” said Dr. Krizek. “A core problem exists in that the predominant approach for this integration – that is, allowing bicycles aboard transit vehicles – frequently runs up against capacity restraints. Before we can successfully integrate both modes on a broader scale, we must analyze a broad range of alternatives that considers the travel patterns and needs of individuals as well as the accompanying urban form characteristics.”

To help develop a framework to evaluate the cost effectiveness of different strategies to address the problem, this project included three facets. First, it reviewed the current knowledge, and second, it proposed an analysis framework for communities and transit agencies to consider as they try to maximize bicycle and transit integration. Third, it conducted focus groups with cyclists from five case study communities to gauge integration strategy preferences. A key part of the project was to develop a preliminary application to evaluate four integration strategies based on the focus group discussions and use of the Analytic Hierarchy Process (AHP). These evaluation measures were applied to the five communities.

The AHP ranked cyclists’ preferences for four integration strategies in order of preference: (1) “Bike on transit” (transporting the owner’s bicycle aboard – inside or outside – the transit vehicle), (2) “Bike to transit” (using and parking the owner’s bicycle at a transit access location), (3) “Shared bike” (sharing a bicycle, which would be based at either the transit access or egress point), and (4) “Two bikes” (using an owner’s two bicycles at the access and egress location). Results of the cost effectiveness assessment suggest that “Bike on transit” ranked most cost effective overall, followed by “Bike to transit,” “Two bikes,” and “Shared bike” strategies.

Much of the concern about the three lesser preferred options centers on security issues. Minor adjustments in terms of security could address the current challenge of “Bike on transit” capacity limitations and make the less cost effective strategies comparable to “Bike on transit.” This research revealed several examples of secure bicycle parking efforts. Chicago has built bicycle

parking inside transit stations and several communities have integrated bicycle lockers as part of its bicycle parking. Boulder County is developing bicycle corrals at transit access and egress points as a way to increase transit ridership and reduce congestion on a state highway. These corrals provide an alternative to the “Bike on transit” capacity limitation problem while addressing security and weather concerns. New approaches such as these may help to overcome the apparent challenges of security that plague the three less preferred strategies and help to increase bicycle and transit integration.

The complete report is available for free download from the Mineta Transportation Institute at <http://www.transweb.sjsu.edu/project/2825.html>

## **ABOUT THE AUTHORS**

**KEVIN KRIZEK, PhD** is an associate professor of Planning, Design, and Civil Engineering at the University of Colorado. He is director of the PhD program in Design and Planning and heads the Active Communities/Transportation (ACT) Research Group. His research focuses on travel behavior (specializing in cycling), neighborhood accessibility, health and planning, and sustainable development. Dr. Krizek is a founding editor of the *Journal of Transport and Land Use*, serves as chair of the Transportation Research Board Committee on Telecommunications and Travel, and is on the editorial board of the *Journal of the American Planning Association*. For more information, see [www.kevinjkrizek.org](http://www.kevinjkrizek.org)

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## **ABOUT THE MINETA TRANSPORTATION INSTITUTE**

The Mineta Transportation Institute (MTI) was established by Congress in 1991 as part of the Intermodal Surface Transportation Efficiency Act (ISTEA) and was reauthorized under TEA-21 and again under SAFETEA-LU. The institute is funded by Congress through the US Department of Transportation’s (DOT) Research and Innovative Technology Administration, by the California Legislature through the Department of Transportation (Caltrans), and by other public and private grants and donations, including grants from the US Department of Homeland Security. DOT selected MTI as a National Center of Excellence following competitions in 2002 and 2006. The internationally respected members of the MTI Board of Trustees represent all major surface transportation modes. MTI’s focus on policy and management resulted from the Board’s assessment of the transportation industry’s unmet needs. That led directly to choosing the San José State University College of Business as the Institute’s home. MTI conducts research, education, and information and technology transfer, focusing on multimodal surface transportation policy and management issues. Visit [www.transweb.sjsu.edu](http://www.transweb.sjsu.edu)

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