

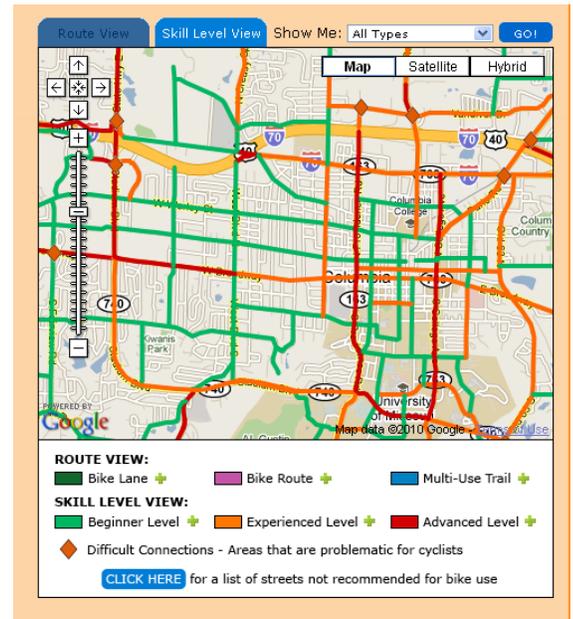


Mapping and GIS: Nonmotorized Transportation Pilot Program

The Nonmotorized Transportation Pilot Program (NTPP) pilot communities have used geographical information systems (GIS) in a variety of ways to plan and implement their project. GIS allows the pilots to quickly visualize data and see trends, relationships, and patterns that may have otherwise been overlooked, leading to more informed and strategic decision making. The following are examples of interesting and effective uses of GIS to support NTPP projects.

Project Selection

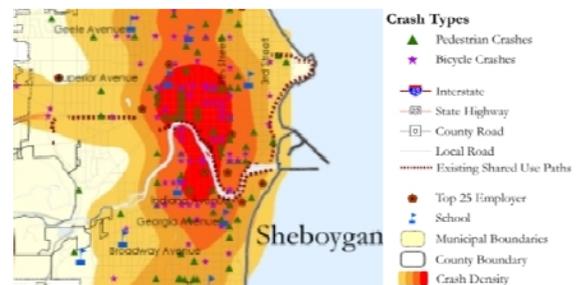
- After receiving project requests exceeding available funds, Sheboygan County established various project selection criteria to prioritize the submissions. The pilot staff calculated density of development in the potential project areas using county and US Census GIS data.
- Several communities use GIS to map bicycle and pedestrian accessibility to activity centers such as major employers, schools, and commercial areas. The resulting maps help to identify priority areas where bicycle and pedestrian accessibility is lacking.
- Using topographical information and bicycle level of service (BLOS) algorithms, several communities are mapping the bicycle “friendliness” of their streets. BLOS algorithms consider automobile traffic counts, road width, pavement quality, parking, and the presence of bicycle facilities. These assessments help direct investments to the most heavily traveled corridors and connect important destinations.



GetAbout Columbia Skill Map
<http://getaboutcolumbia.com/maps.php>

Safety Assessments

- Sheboygan County obtained and geocoded data on bicycle and pedestrian crashes from 2001 to 2005 to identify “hot spots” or key locations to be targeted for improvements. The community is gathering crash data from 2005 to 2009 and will gather data through 2013 to ultimately have a before, during, and after comparison of the safety impacts in these project areas.
- Columbia coded city streets based on skill levels needed to safely bicycle the designated routes. They then created a mapping application for users to determine the most convenient and safest route based on the rider’s skill level. The users simply enter their beginning and destination addresses and the map is generated.

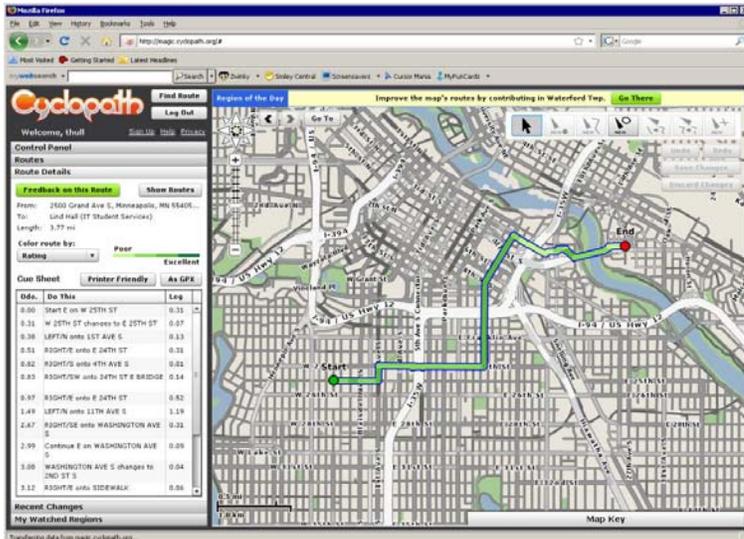


Sheboygan County crash data



Project Information Sharing

- Marin County used GIS to produce an online interactive mapping system that allows users to see existing and planned bicycle and pedestrian network segments. Users can click on segments on the map to bring up fact sheets with additional project information.



Cyclopath user interface

Gathering User Data

- Minneapolis is implementing “Cycloplan”, a web-based GIS planning tool that allows users to create, edit, and rate their own bike routes on a regional basemap. Based on an existing geo-wiki called Cyclopath, Cycloplan will provide a platform for municipal and county planning, public works, and parks departments to (a) share bikeway facility and planning data, (b) provide for interactive engagement of the public for planning and development of a regional bikeway system, and (c) increase responsiveness to issues within their jurisdictions.

For more information, contact:

- Ted Curtis at GetAbout Columbia: ctcurtis@gocolumbiamo.com
- Dan Dawson at Walk Bike Marin: ddawson@co.marin.ca.us
- Aaron Brault at Sheboygan County Non Motorized Transportation Pilot Program: braulacb@co.sheboygan.wi.us
- Tony Hull at Bike Walk Twin Cities: tonyh@tlcminnesota.org

Section 1807 of the Safe, Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users established the Nonmotorized Transportation Pilot Program (NTPP) in August 2005. Over the span of four years (2007-2010), the legislation authorizes \$25 million for each of the NTPP’s four pilot communities to construct and invest in nonmotorized transportation infrastructure and programs. The purpose of the NTPP is “to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load, and represent a major portion of the transportation solution, within selected communities.”

* This research has been funded by the Federal Highway Administration’s Office of Planning, Environment and Realty’s Surface Transportation Environment and Planning Cooperative Research Program (STEP).