

Complete Bridge Survey

Snelling Avenue Bridge

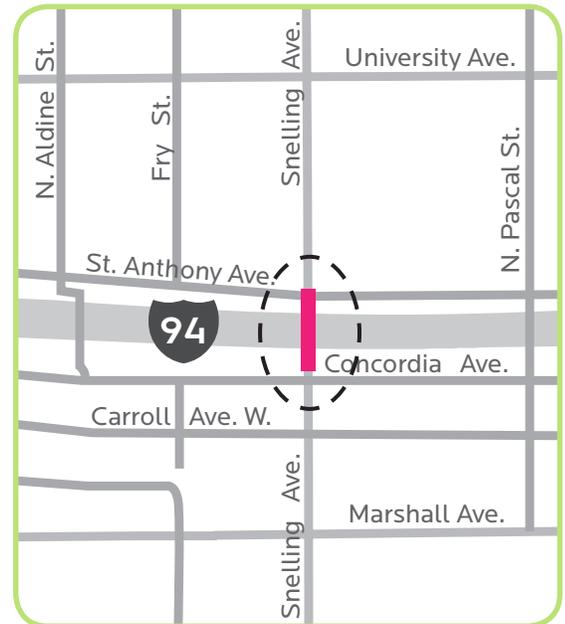
ST. PAUL Smart Trips

in collaboration with: Union Park District Council, Hamline Midway Coalition, and Greenway Transportation Planning

Background

St. Paul Smart Trips developed a Complete Bridges Survey tool in collaboration with Greenway Transportation Planning and community representatives from the Union Park District Council and Hamline Midway Coalition. The goal of the survey was to help the community establish a vision for how bridges can best serve all users—cars, bicycles, pedestrians and those with limited mobility. The group conducted a small-scale survey to test the applicability of the survey tool.

The **Snelling Avenue bridge** was one of two bridges selected to pilot this survey tool. Constructed in 1962, the Snelling Avenue bridge is a multi-modal bridge spanning I-94 and connecting Hamline Midway and Merriam Park East neighborhoods. Snelling is a major trunk road traveled by more than 46,000 vehicles per day including high frequency bus traffic. Bicycle and pedestrian counts conducted in 2009 showed that the bridge handled more than 100 non-motorized movements between 4 and 6 p.m.



Snelling Avenue Bridge
over I-94 in St. Paul, MN

Timing and implementation

Survey data was collected over a period of two months starting with an on-site survey in July of 2009. Questionnaires were distributed to pedestrians and cyclists one morning during the commute period (7 to 9 a.m.) as they crossed the bridge. Participants had the option to return the survey at a later date by US Mail or at an on-site drop box. During this pilot survey, very few questionnaires were completed on site.

Because the bridge evaluation team had limited staff resources, the survey was

supplemented by posting signage at one end of the bridge for one week, with instructions for users to complete a survey and return it to Smart Trips in the envelope provided.

The survey was also made available online for a two-month period and promoted through direct email, council electronic newsletters and posted links on the district council's website, council member's website and the Smart Trips website.



ST. PAUL Smart Trips

55 EAST 5TH ST.
SUITE 202
ST. PAUL, MN 55101
smart-trips.org

651-224-8555

GREENWAY

Greenway Transportation Planning
1338 Keston Street, St. Paul, MN 55108
www.greenway-consulting.com

Survey Results

A total of 35 completed questionnaires were collected about the Snelling Avenue bridge. This included 12 on-site and 23 online responses. The key respondent profiles show that the survey represented a good cross-section of users.

- **16** walk across the bridge at least weekly
- **8** cycle across the bridge at least weekly
- **13** cross the bridge on transit at least weekly
- **26** drive across the bridge at least weekly

Subjects rated the importance and level of satisfaction with various bridge features on a scale of 1 to 5, with 5 indicating very important or excellent. The importance questions provide insight for prioritizing design features for bridges. The level of satisfaction question gives feedback on the current state of the bridge, which can be used to prioritize required improvements as opportunities arise.

The bridge rating is tabulated below and illustrated in the graph that follows.

Audit Data

TABLE 1	ATTRIBUTE	FEATURE RATING	
		IMPORTANCE	SATISFACTION
CONVENIENCE	Directness of route	4.5	4.0
	link to other routes/destinations	4.4	3.9
	Signage/Way-finding	3.7	3.4
ACCESSIBILITY	Ease of crossing roads	4.7	2.1
	Mobility-impaired provision	3.4	2.4
SAFETY	Personal Safety	4.7	2.0
	Separation from other traffic	4.2	2.0
	Speed of other traffic	4.2	2.5
	Winter maintenance	4.6	2.2
COMFORT	Shade/weather protection	3.0	2.2
	Noise barriers	3.1	1.9
	Street lighting	4.1	3.1
	Width of sidewalk	4.1	2.7
	Presence and width of bike lane	4.1	1.4
	Condition of sidewalk surface	4.2	2.8
ATTRACTIVENESS	Condition of road/bike lane surface	4.4	2.2
	Landscaping	3.5	1.8
	Public Art	3.4	1.6
OVERALL BRIDGE SCORE			2.5

Note: Importance scale: 1=Totally unimportant, 2=Unimportant, 3=Somewhat important, 4=Important, 5=Very important
Satisfaction scale: 1=Awful, 2=Problems, 3=Good, 4=Very good, 5=Excellent



ST. PAUL Smart Trips

55 EAST 5TH ST.
SUITE 202
ST. PAUL, MN 55101
smart-trips.org

651-224-8555

Priority Features

Survey respondents reported dissatisfaction with many of the bridge features, as evidenced by the majority of satisfaction ratings below 3 (Good). The feature rated highest is its convenience as a direct and well-connected route. It scores poorly, however, in a number of important aspects, including:

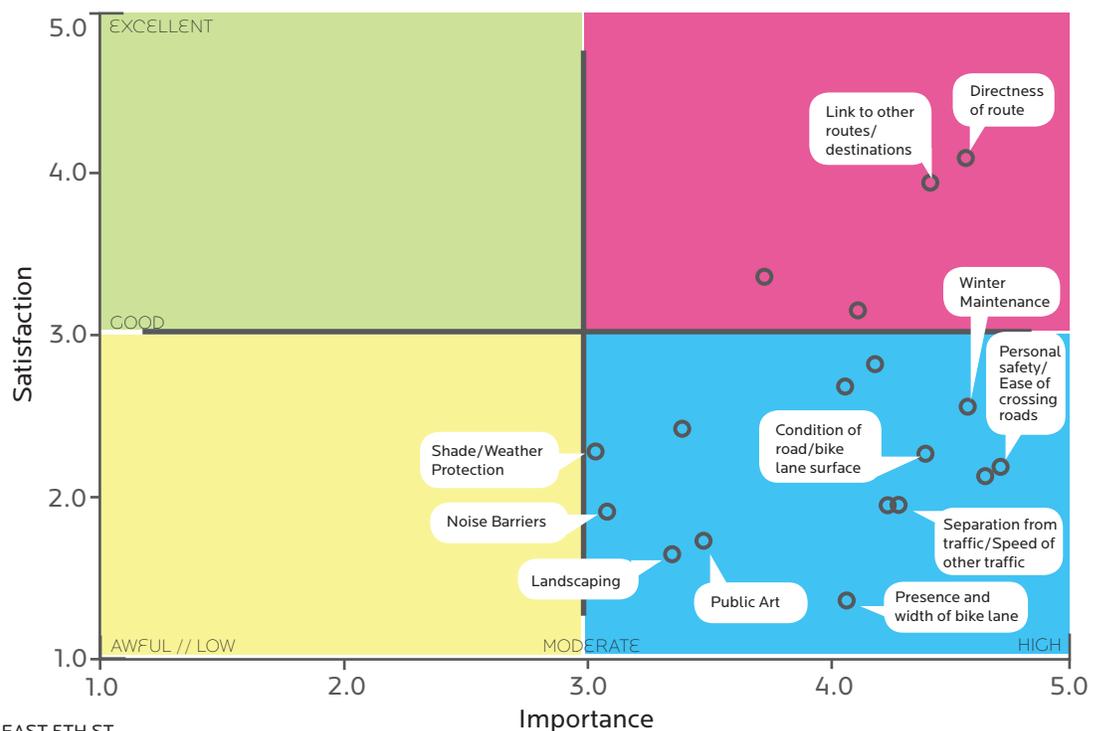
- Personal safety
- Winter maintenance
- Speed of other traffic
- Public art
- Landscaping
- Ease of crossing roads
- Separation from traffic
- Presence and width of bike lane
- Condition of road/bike lane surface

These features of the existing bridge need to be addressed in order to improve user experience. The issues highlighted in the survey mainly relate to safety, indicating that while the bridge is well utilized, users are uncomfortable with their experience. Measures to improve personal safety and facilitate movement should be pursued. The low level of satisfaction indicates an urgent need to address these issues.

Respondents also indicated a low level of satisfaction with the public art and landscaping features, although those were not ranked of high importance.

The overall rating for the bridge, considering all features to be of equal significance, is 2.5, indicating an overall 'Poor' level of satisfaction with the current bridge environment. The survey results point to a desire for an improved and more secure environment for cyclists and pedestrians.

Bridge Rating



ST. PAUL Smart Trips

55 EAST 5TH ST.
SUITE 202
ST. PAUL, MN 55101
smart-trips.org

651-224-8555

Next Steps

The pilot survey demonstrated the effectiveness of the Complete Bridges Survey instrument in gathering user feedback. It was able to identify critical issues affecting bridge walkers and cyclists. This information provided a clear indication of the required bridge improvements and current level of user satisfaction.

While the pilot survey was successful in testing the questionnaire, the limited number of responses did not allow for a full demonstration of the possible levels of analysis, such as by type of user and level of bridge use, demographics and origin-destination information. The survey instrument would therefore benefit from a more robust testing associated with an anticipated bridge improvement project.

Nevertheless, the pilot survey demonstrated the potential for the Complete Bridge Survey to assist communities in developing their vision of how bridges can best serve all users. We look forward to the continued development and application of this tool and our involvement in ensuring Complete Bridges throughout St. Paul. As a result of this effort, the Complete Bridge Survey has been shared with the St. Paul Public Works Department for their discussions with The Minnesota Department of Transportation regarding future bridge projects.

Find the link to download the Complete Bridges Survey Tool at www.smart-trips.org/about

The Complete Bridges survey is the first step in creating a community vision of how bridges can best serve all users—cars, bicycles, pedestrians and those with limited-mobility.

Thanks to the
Union Park District Council
Hamline Midway Coalition and
Greenway Transportation Planning
for their participation and assistance.



GREENWAY



ST. PAUL **Smart Trips**

55 EAST 5TH ST.
SUITE 202
ST. PAUL, MN 55101
smart-trips.org

651-224-8555