

## Chapter 8 - Introduction

### 8.1 Chapter Overview

**8.1.1 Discussion**—The Minneapolis Bicycle Program has had tremendous success in attracting new bicyclists and reducing the bicycle crash rate. Past bicycle program success has been due in large part to the cooperation of public agencies including the U of M, the Minneapolis Park and Recreation Board, Three Rivers Park District, MnDOT, and Hennepin County in addition to the work of several non-profit groups advocating for bicycle funding, community involvement, and good urban design.



**Above:** Public art along the Midtown Greenway

To date, the bicycle program strategy has been to focus on arterial trails first with on-street connections to the arterials second. This strategy has produced significant results in terms of attracting new bicyclists and providing popular routes that are separated from motor vehicles. Significant federal investment through the Non-Motorized Transportation Pilot (NTP) Program has supplemented the existing capital budget, resulting in several miles of new trails, bike lanes, and bicycle boulevards. From 2000 to 2009, total bikeway mileage in the city increased from 95.5 miles to 127.8 miles, contributing to bicycle commute work trips doubling from 1.9% in 2000 to 3.8% in 2009 based on Census statistics. In terms of capital funding, over \$50 million was spent between 2000 and 2009. Over \$284 million worth of bicycle projects have been identified in this plan (\$134 million total excluding the Grand Rounds completion) in addition to \$3 million dollars worth of non-infrastructure initiatives. If all of the projects listed in this plan are to be completed by 2040, then \$9.8 million per year will need to be secured to keep pace with that goal. When completed, \$1.8 million will be required on an annual basis to operate and maintain the bikeway system. An additional \$2.6 million per year will be needed to implement all of the suggested non-infrastructure initiatives. The pace in which bicycle projects and initiatives can realistically be implemented in the future will be based on available funding. Current economic conditions have resulted in revenue reductions, which have presented difficult choices for local communities, including Minneapolis. State cuts in Local Government Aid have resulted in significant maintenance budget reductions. These budget challenges present an opportunity to re-evaluate project/initiative priorities and to pursue innovative funding arrangements. Many of the initiatives listed in this plan are intended to be funded with private dollars and not funded with public dollars.

Although there are many benefits to bicycling (including personal health, air quality, reduced congestion, reduced traffic damage to roadways, reduced expenditures on motor vehicles/fuel, increased livability, and increased bicycle-related tourism), this chapter will focus on the costs.

### 8.1.1 Discussion – Continued

The implementation of this plan will include the funding and construction of a variety of new bike lanes, bicycle boulevards, and trails. The cost for these projects varies widely depending on whether they are completed independently or in coordination with other maintenance and reconstruction efforts.

Acquisition costs, engineering challenges, or unanticipated conditions may drive the budget for a project beyond what was originally projected. The list below gives a general sense for the cost to implement various types of infrastructure:

- Off-street Trails – Approximately. \$3 million/mile
- Bicycle Boulevards – Approximately \$100,000 - \$500,000 per mile
- Bike lanes – Approximately. \$30,000 - \$50,000 per mile

Each type of infrastructure has advantages and disadvantages. For example, bike lanes can be implemented quicker and cheaper than trails. Although off-street trails take longer to plan and cost more, trails appeal to a broader range of people and can function as bicycle freeways.

This chapter examines funding and implementation strategies that pertain to both capital and maintenance programs. The goals/objectives/benchmarks in Chapter 6 will only be met if the resources to pursue them are identified. Much of this chapter focuses on the identification of existing funding sources for both infrastructure projects and non-infrastructure initiatives.

## 8.2 Capital Program Funding

**8.2.1 Infrastructure Funding Sources**—Many infrastructure funding sources require a local match or have other conditions that go with the funding. It usually takes multiple funding sources to fully fund a bicycle infrastructure project. Some of the most common capital funding sources are:

Federal Funding—Federal SAFETEA-LU Surface Transportation Program (STP) funds and Federal Transportation Enhancement (TE) funds have been used to fund most major trail projects in Minneapolis. The program is administered by the Metropolitan Council and MnDOT. The Transportation Advisory Board of the Metropolitan Council awards projects on a bi-annual schedule and MnDOT supervises project construction. Most federal STP and TE projects in the Twin Cities region require a 20% match plus design/engineering fees to be paid with local sources. Based on past projects it takes 65 cents of local money to match a dollar in federal funding when factoring in all project costs. Once a project is awarded funding it is programmed 5 years into the future for construction.



**Above:** 18<sup>th</sup> Ave NE Trail in winter

### 8.2.1. Infrastructure Funding Sources - (Continued)

Federal Earmarks—In the past, members of Congress have been allowed to set aside funding for special projects in their district. It appears that this funding option has been terminated, however there is still discussion about restoring the practice in a more competitive manner. The Midtown Greenway, Cedar Lake Trail, and Martin Sabo Bridge have all received earmarks in the past.

Federal One-Time Programs—The Non-Motorized Transportation Pilot Program and TIGER grants are two examples of recent federal programs that have appropriated significant funding toward bicycle projects in a number of cities. Rules on how to spend the funds vary widely and the funding opportunities typically do not reoccur.

State Bonds—On a bi-annual basis, the State of Minnesota creates a bonding bill with specific projects and programs included. There is typically no funding match needed, however there may be other conditions applied to this funding by the legislature.

DNR Funding—The Department of Natural Resources (DNR) administers a number of grant programs including the Local Trail Connections Program and Regional Trail Grant Program. The DNR administers yearly solicitations for projects to be built within a year of the award date.

Legacy Funding—This new funding source was created when voters passed a sales tax referendum to improve the outdoors and the arts. There is a yearly solicitation for trails and the program is administered by the DNR.

Net Debt Bonds—Net Debt Bonds are local property tax funds managed by the City of Minneapolis. Perhaps the most flexible of the capital funding sources listed, these funds can be used for a local construction match, for design and engineering fees, and internal overhead. Net Debt Bond projects are determined as part of the annual city budget process.

Private and Corporate Donations—Private donation and corporate gifts can be accepted by the city for capital projects. These funds must be accepted by the City Council and Mayor.

### 8.2.2 Non-Infrastructure Funding Sources—There are several funding sources that are commonly used for education, enforcement, and encouragement initiatives in addition to infrastructure:

Health Industry Funding—BCBS funding, HCMC.

Bike Industry Funding—This funding is often used for encouragement projects.

### 8.2.2 Non-Infrastructure Funding Sources - Continued

Safe Routes to School Funding—Federal funding that is passed through the states for education and infrastructure improvements. Many schools also dedicate staff time toward this effort.

Private and Corporate Donations—Funding from individuals and businesses.

Foundations and Industry Groups—Groups such as Bikes Belong and the McKnight Foundation often fund programming projects.

Fundraisers—Bike rides and bike races make excellent fundraisers for non-infrastructure projects.

NRP Funding—Neighborhood funds can be used for educational and enforcement initiatives.

## 8.3 Maintenance Funding

**8.3.1 Funding Sources**—There are not as many maintenance funding sources as there capital funding sources for bicycle projects. The Minneapolis Park and Recreation Board and City of Minneapolis currently maintain trails, streets, and parkways with operating dollars that come from state and local sources. To ensure adequate upkeep over the long term, the City should pursue dedicated sources for the maintenance of off-street trails.

## 8.4 Funding Matrix

**8.4.1 Infrastructure Projects** – The projects identified in Chapter 7 are further defined in the project matrix. Completing the Bikeways Master plan will add approximately 183 miles of bikeways at an estimated cost of \$270 million (2011 dollars). The capital costs were estimated based on past project costs per mile and are based on known conditions. Typically it costs about \$50,000 to stripe a bike lane, \$100,000 per mile to install a bicycle boulevard, and \$3,000,000 per mile to construct a trail. It currently costs \$2 per linear foot to maintain a trail, bike boulevard, or bike lane. Maintenance costs include signage replacement, new pavement markings, sweeping, plowing snow, sand/salt applications, and minor pavement restoration. It is estimated that when the system is complete (357 miles of bikeways) it will cost \$1,320,000 to maintain it on an annual basis. As can be seen in the project matrix, there are substantial costs to constructing and maintaining the proposed system. It will take at least 30 years to complete the bicycle network and considerable resources to properly maintain it.

The project matrix identifies which agency will take the lead on project construction and which agency will need to maintain the facility when completed. Most routes will need to be maintained by Minneapolis Public Works or the Minneapolis Park and Recreation Board. Three Rivers Park District and Hennepin County also construct and maintain bicycle facilities within the city. It is also important to note that several existing trails will need to be resurfaced within the next 30 years. While the capital cost for those projects are shown, no new mileage will be created. Because of this, maintenance costs will not increase.

## 8.4.1 Infrastructure Projects - Continued

Table 8.1 - Downtown Projects

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
D-1	2nd Street Gap	\$300,000	Federal Grant/ Net Debt Bonds	\$1,800	City	MPRB
D-2	2 <sup>nd</sup> Ave and Marquette Ave	\$50,000	City Net Debt Bonds	\$20,760	City	City
D-3	3rd Avenue Bikeway	\$25,000	City Net Debt Bonds	\$18,046	City	City
D-4	5th/6th Street Bikeways	\$25,000	City Net Debt Bonds	\$20,820	City	City
D-5	13th Ave Gap	\$5,000	City Net Debt Bonds	\$1,940	City	City
D-6	Downtown Bike Lane Cleanup	\$25,000	City Net Debt Bonds	Existing bikeways-no additional cost.	City	City
D-7	Dunwoody Blvd Trail	\$1,000,000	Federal Grant/ City Net Debt Bonds	\$5,800	City	City
D-8	Groveland Ave/ Pillsbury Ave Bikeway	\$15,000	City Net Debt Bonds	\$5,520	City	City
D-9	Harmon Bike Lanes	\$50,000	City Net Debt Bonds	\$3,200	City	City
D-10	Hennepin Avenue Extension	\$25,000	City Net Debt Bonds	\$5,400	City	City
D-11	Loring Bikeway Extension	\$500,000	Federal Grant/ City Net Debt Bonds	\$5,400	City	City
D-12	U of M Trail Extension	\$1,000,000	Federal Grant	\$2,400	City	City
D-13	Washington Avenue Gap	\$25,000	City Net Debt Bonds/ Hennepin County Funding	\$4,260	City/ County	City/County
D-14	Yale Bikeway	\$10,000	City Net Debt Bonds	\$2,400	City	City
<b>Total</b>		<b>\$3,055,000</b>		<b>\$97,746</b>		



Above: Bicycle parking in Downtown Minneapolis

### 8.4.1 Infrastructure Projects - Continued

**Table 8.2 - North Minneapolis Projects**

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
N-1	8th Ave N Bikeway	\$25,000	City Net Debt Bonds	\$10,080	City	City
N-2	16th Ave N Bikeway	\$25,000	City Net Debt Bonds	\$9,640	City	City
N-3	26th Avenue North Trail	\$3,000,000	Federal Grant/ City Net Debt Bonds	\$21,520	City	City
N-4	33rd Ave Bike Blvd	\$250,000	Federal Grant/ City Net Debt Bonds	\$17,700	City	City
N-5	37 <sup>th</sup> Avenue North	\$300,000	City Net Debt Bonds	\$4,610	City	City
N-6	49th Ave N Trail	\$1,500,000	Federal Grant/ City Net Debt Bonds	\$10,130	City	City
N-7	53rd Avenue Bikeway	\$25,000	City Net Debt Bonds	\$13,400	City	City
N-8	Bryant Avenue Bike Lanes	\$50,000	City Net Debt Bonds	\$11,440	City	City
N-9	Camden Bridge Approaches	\$500,000	Federal Grant/ City Net Debt Bonds	\$2,450	City	City
N-10	Humboldt Ave Bike Blvd/ Greenway	\$3,100,000	City Net Debt Bonds	\$14,880	City	City
N-11	Golden Valley Road Bikeway	\$100,000	City Net Debt Bonds/County Funds	\$12,980	City/ County	City/County
N-12	Irving Bike Boulevard/ Greenway	\$1,200,000	City Net Debt Bonds	\$22,140	City	City
N-13	Knox Avenue Bike Boulevard	\$10,000	City Net Debt Bonds	\$3,678	City	City
N-14	Luce Line Extension	\$500,000	Federal Grant/ City Net Debt Bonds	\$7,030	City	City
N-15	Lyndale Ave Bike Lane	\$50,000	City Net Debt Bonds	\$10,800	City	City



**Above:** A parked bicycle in Downtown Minneapolis

**8.4.1 Infrastructure Projects – Continued**

**Table 8.2 - North Minneapolis Projects (Continued)**

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
N-16	Oak Park Bike Boulevard	\$100,000	City Net Debt Bonds	\$10,050	City	City
N-17	Osseo Road Trail	\$100,000	City Net Debt Bonds/County Funds	\$3,160	City/ County	City/ County
N-18	Queen Avenue North Bikeway	\$10,000	City Net Debt Bonds	\$5,120	City	City
N-19	Penn Avenue Bikeway	\$100,000	City Net Debt Bonds/County Funds	\$47,440	City/ County	City/ County
N-20	Ryan Lake Trail	\$250,000	Federal Grant/ City Net Debt Bonds	\$5,200	City	City
N-21	Thomas Avenue Bike Boulevard	\$50,000	City Net Debt Bonds	\$31,730	City	City
N-22	Upper River Trails	\$15,000,000	Federal Grant/ City Net Debt Bonds/ Legacy	\$32,260	MPRB	MPRB
N-23	Webber Parkway Bike Lane	\$25,000	MPRB Funding	\$4,550	MPRB	MPRB
N-24	West Broadway	\$300,000	City Net Debt Bonds/County Funds	\$10,476	City/ County	City/ County
<b>Total</b>		<b>\$26,570,000</b>		<b>\$337,464</b>		



**Above:** Lowry Avenue North bike lanes

## 8.4.1 Infrastructure Projects – Continued

Table 8.3 - Northeast Minneapolis Projects

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
NE-1	4 <sup>th</sup> St S	\$15,000	City Net Debt Bonds	\$4,292	City/ MPRB	City/MPRB
NE-2	4 <sup>th</sup> St SE	\$25,000	City Net Debt Bonds	\$9,960	City/ County	City/County
NE-3	4 <sup>th</sup> St SE	\$10,000	City Net Debt Bonds	\$9,600	City	City
NE-4	5 <sup>th</sup> Avenue NE	\$5,000	City Net Debt Bonds	\$3,590	City	City
NE-5	5th Street NE Bike Lanes	\$10,000	City Net Debt Bonds	\$3,860	City	City
NE-6	18th Ave NE Trail	\$4,000,000	Federal Grant/ City Net Debt Bonds	\$17,580	City	City
NE-7	27th Ave Bike Bridge	\$5,000,000	Federal Grant/ City Net Debt Bonds	\$2,080	City	City
NE-8	27th Ave NE Trail	\$3,000,000	Federal Grant/ City Net Debt Bonds	\$10,800	City	City
NE-9	29th Ave Bike Blvd	\$250,000	City Net Debt Bonds	\$10,600	City	City
NE-10	33rd Ave Bikeway	\$75,000	City Net Debt Bonds	\$10,600	City	City
NE-11	37th Avenue NE Bike Lanes	\$150,000	City Net Debt Bonds	\$17,052	City	City
NE-12	BNSF Corridor	\$15,000,000	Federal Grant/ City Net Debt Bonds	\$17,560	City	City
NE-13	Bottineau Trail	\$4,000,000	Federal Grant/ City Net Debt Bonds	\$17,870	City	City
NE-14	Cedar Lake Trail Bridge	\$5,000,000	Federal Grant/ City Net Debt Bonds	\$3,580	City	City
NE-15	Church Street Bike Lanes	\$250,000	City Net Debt Bonds	\$3,320	City	City
NE-16	Emerald Bikeway	\$10,000	City Net Debt Bonds	\$2,464	City	City
NE-17	Grand Rounds Missing Link	\$150,000,000 (includes trail, parkway construction, property acquisition, and new park)	Federal Funding/ MPRB Funding	\$21,300	MPRB	MPRB

## 8.4.1 Infrastructure Projects – Continued

Table 8.3 - Northeast Minneapolis Projects (Continued)

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
NE-18	Hennepin Ave Bike Lane	\$300,000	City Net Debt Bonds/County Funds	\$23,950	City/ County	City/ County
NE-19	Hennepin Bike Bridge	\$6,000,000	Federal Grant/ City Net Debt Bonds	\$2,160	City	City
NE-20	Kasota Bike Lanes	\$50,000	City Net Debt Bonds	\$7,550	City	City
NE-21	Marshall Street Bike Lanes	\$250,000	City Net Debt Bonds/County Funds	\$27,376	City/ County	City/ County
NE-22	Minneapolis Diagonal Pavement Renovation	\$1,000,000	City Net Debt Bonds	No additional cost	City	City
NE-23	Pleasant Ave SE	\$25,000	City Net Debt Bonds	\$3,084	U of M	U of M
NE-24	Spring Street Bikeway	\$25,000	City Net Debt Bonds	\$10,220	City	City
NE-25	Stinson Blvd	\$100,000	City Net Debt Bonds/County Funds	\$21,910	City/ County	City/ County
NE-26	University Avenue Bike Lanes	\$250,000	City Net Debt Bonds/County Funds	\$5,030	City	City
NE-27	Upper River Trails	\$10,000,000	Federal Grant/ City Net Debt Bonds/Legacy	\$26,950	MPRB	MPRB
NE-28	Washington Avenue Gap	\$5,000,000	City Net Debt Bonds/County Funds	\$3,025	City/ County	City/ County
<b>Total</b>		<b>\$209,775,000</b>		<b>\$297,363</b>		

Above: A shoulder and sidewalk along the 3<sup>rd</sup> Avenue Bridge.

### 8.4.1 Infrastructure Projects - Continued

**Table 8.4 - Southwest Minneapolis Projects**

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
SW-1	24th Street South Bikeway	\$100,000	City Net Debt Bonds	\$12,380	City	City
SW-2	31st Street Bikeway	\$125,000	City Net Debt Bonds	\$15,930	City	City
SW-3	35th/36th Street Bikeway	\$200,000	City Net Debt Bonds	\$14,000	City	City
SW-4	36th Street Bikeway	\$50,000	City Net Debt Bonds	\$5,540	City	City
SW-5	42nd Street Bike Lanes	\$100,000	City Net Debt Bonds	\$12,180	City	City
SW-6	46th Street Bikeway	\$150,000	City Net Debt Bonds/County Funds	\$12,120	City/ County	City/ County
SW-7	49th St Bike Boulevard	\$250,000	City Net Debt Bonds	\$26,466	City	City
SW-8	50th Street Bike Lanes	\$250,000	City Net Debt Bonds/County Funds	\$28,490	City/ County	City/ County
SW-9	54th Street/ Diamond Lake Bikeway	\$200,000	City Net Debt Bonds	\$17,580	City	City
SW-10	58th/60th Bikeway	\$200,000	City Net Debt Bonds	\$22,240	City	City
SW-11	Cedar Lake Parkway Trail Reconstruction	\$500,000	Federal Funds/ MPRB Funding	No additional cost	City	City
SW-12	Cedar Lake Trail Reconstruction	\$200,000	City Net Debt Bonds	\$37,972	City	MPRB
SW-13	Douglas Ave Bikeway	\$50,000	City Net Debt Bonds	\$10,610	City	City
SW-14	Ewing Avenue Bikeway	\$15,000	City Net Debt Bonds	\$4,026	City	City
SW -15	Excelsior Blvd Bike Lanes	\$25,000	City Net Debt Bonds/County Funds	\$9,036	City/ County	City/ County
SW-16	France Ave Bike Lanes	\$150,000	City Net Debt Bonds/County Funds	\$25,770	City/ County	City/ County



**Above:** Bike rack at Green Central Park.

### 8.4.1 Infrastructure Projects - Continued

**Table 8.4 - Southwest Minneapolis Projects (Continued)**

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
SW-17	Franklin Avenue Bike Lane	\$250,000	City Net Debt Bonds/County Funds	\$17,630	City/ County	City/ County
SW-18	Fremont Avenue Ramp	\$250,000	Federal Grant/ City Net Debt Bonds	\$800	City	City
SW-19	Irving Bikeway	\$50,000	City Net Debt Bonds	\$10,734	City	City
SW-20	Kenwood Parkway	\$50,000	MPRB	\$17,750	MPRB	MPRB
SW-21	Kenilworth Trail Reconstruction	\$1,500,000	Metropolitan Council/ SW LRT	No additional cost	City	MPRB
SW -22	Lake of the Isles Routes	\$50,000	MPRB Funding	\$32,296	City/ MPRB	City/MPRB
SW -23	Lake Street	\$25,000	City Net Debt Bonds/County Funds	\$5,512	City	City
SW-24	Linden Hills Signed Routes	\$75,000	City Net Debt Bonds	\$22,366	City	City
SW-25	Midtown Greenway Renovation	\$1,000,000	Federal Grant/ City Net Debt Bonds	No additional cost	City	City
SW-26	Nicollet Ave Bike Lane	\$250,000	City Net Debt Bonds	\$29,758	City	City
SW-27	Penn Ave Bike Bridge	\$3,000,000	City Net Debt Bonds/County Funds	\$800	Met Council	City
SW-28	Pleasant Avenue Ramp	\$250,000	Federal Grant/ City Net Debt Bonds	\$800	City	City
SW-29	Pleasant Avenue Bike Blvd/ Greenway	\$3,300,000	City Net Debt Bonds	\$40,492	City	City



**Above:** Bike rack at Annunciation School.

## 8.4.1 Infrastructure Projects - Continued

Table 8.4 - Southwest Minneapolis Projects (Continued)

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
SW-30	Soo Line Trail	\$4,000,000	Federal/ Three Rivers Park District	\$54,040	Three Rivers Park District	Three Rivers Park District
SW-31	Upton/ Sheridan Bikeway	\$50,000	City Net Debt Bonds	\$21,890	City	City
SW-32	William Berry Trail Reconstruction	\$500,000	MPRB Funding	No additional cost	City	City
SW-33	Zenith Ave Bikeway	\$150,000	City Net Debt Bonds	\$24,400	City	City
<b>Total</b>		<b>\$17,315,000</b>		<b>\$532,808</b>		



Above: Downtown Minneapolis

### 8.4.1 Infrastructure Projects - Continued

**Table 8.5 - South Minneapolis Projects**

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
S-1	10th Avenue Bikeway	\$500,000	City Net Debt Bonds	\$9,120	City	City
S-2	12th Ave Bike Blvd	\$250,000	City Net Debt Bonds	\$12,920	City	City
S-3	17th Bike Blvd	\$500,000	City Net Debt Bonds	\$31,390	City	City
S-4	21st Ave Bike Route	\$50,000	City Net Debt Bonds	\$19,660	City	City
S-5	29th Ave Bike Route	\$25,000	City Net Debt Bonds	\$14,740	City/ County	City/County
S-6	28 <sup>th</sup> Street/Dorman Bikeway	\$75,000	City Net Debt Bonds	\$14,784	City	City
S-7	31st Street Bikeway	\$100,000	City Net Debt Bonds	\$32,780	City	City
S-8	11th Ave Trail	\$500,000	City Net Debt Bonds/County Funds	\$5,264	City/ County	City/ County
S-9	32nd Street Bike Blvd	\$100,000	City Net Debt Bonds	\$14,604	City	City
S-10	35 <sup>th</sup> and 36 <sup>th</sup> Street	\$50,000	City Net Debt Bonds	\$19,840	City	City
S-11	38th Ave Bike Route	\$75,000	City Net Debt Bonds	\$18,250	City	City
S-12	38th Street Bikeway	\$75,000	City Net Debt Bonds	\$25,264	City	City
S-13	42nd Street Bike Lanes	\$250,000	City Net Debt Bonds	\$49,218	City	City
S-14	46th Ave Bikeway	\$50,000	City Net Debt Bonds	\$21,524	City	City
S-15	46 <sup>th</sup> Street Bike Lane	\$100,000	City Net Debt Bonds/County Funds	\$14,200	City/ County	City/ County
S-16	46th Street Bike Lane	\$100,000	City Net Debt Bonds/County Funds	\$6,620	City/ County	City/ County



**Above:** Park Avenue Bike Lane at 25<sup>th</sup> Street.

## 8.4.1 Infrastructure Projects - Continued

Table 8.5 - South Minneapolis Projects (Continued)

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
S-17	50 <sup>th</sup> Street Bikeway	\$7,500	City Net Debt Bonds/County Funds	\$2,940	City	City
S-18	54th Bikeway	\$50,000	City Net Debt Bonds	\$7,700	City	City
S-19	60th Street/ Cedar Frontage Road Bike Lanes	\$75,000	City Net Debt Bonds	\$17,528	City	City
S-20	Bloomington Bikeway	\$250,000	City Net Debt Bonds	\$41,900	City	City
S-21	Bloomington Avenue Ramp	\$500,000	City Net Debt Bonds	800	City	City
S-22	Chicago Ave Bike Lanes	\$50,000	City Net Debt Bonds	\$18,538	City	City
S-23	Diamond Lake Road Bike Lanes	\$25,000	City Net Debt Bonds	\$4,030	City	City
S-24	Edgewater Blvd	\$15,000	City Net Debt Bonds	\$5,140	City	City
S-25	Franklin Avenue Bike Lanes	\$250,000	City Net Debt Bonds/County Funds	\$20,730	City/ County	City/ County
S-26	Hiawatha Trail East	\$3,000,000	Federal Grant/ City Net Debt Bonds	\$26,022	City	City
S-27	Hiawatha Trail Lighting	\$1,000,000	Federal Grant/ City Net Debt Bonds/ Metro Transit	\$7,000	City/ Metro Transit	City/ Metro Transit
S-28	Lake Hiawatha Trail	\$1,500,000	MPRB Funding	18,500	MPRB	MPRB
S-29	LRT Station Area Improvements	\$1,000,000	Federal Grant/ City Net Debt Bonds	\$10,000	City/ Metro Transit	City/ Metro Transit
S-30	LRT Trail Gap	\$500,000	Federal Grant/ City Net Debt Bonds	\$11,764	City	City

Above: Minnehaha Avenue Bike Lane at 35<sup>th</sup> Street.

## 8.4.1 Infrastructure Projects - Continued

Table 8.5 - South Minneapolis Projects (Continued)

ID #	Project Name	Estimated Capital Cost	Capital Funding Source	Estimated Annual Operating Cost	Project Lead/ Facility Owner	Maintenance Responsibility
S-31	Midtown Greenway Renovation (Includes Security System Upgrades)	\$1,000,000	City Net Debt Bonds	No Additional Cost	City	City
S-32	MG Bridge over the River	\$12,000,000	Federal Grant/ City Net Debt Bonds	\$4,484	City/ County	City/ County
S-33	MG Bloomington Ramp	\$500,000	Federal Grant/ City Net Debt Bonds	\$800	City	City
S-34	Nokomis Bikeway	\$50,000	City Net Debt Bonds	\$10,420	City	City
S-35	Nokomis Signed Routes	\$25,000	City Net Debt Bonds	\$11,222	City	City
S-36	Oakland Bike Lane	\$3,000,000	Federal Grant/ City Net Debt Bonds	\$40,480	City	City
S-37	Portland Ave Bike Lanes	\$150,000	City Net Debt Bonds/County Funds	\$16,680	City/ County	City/ County
<b>Total</b>		<b>\$27,947,500</b>		<b>\$572,072</b>		



Above: Whitney Bridge over I-94 between Loring Park and the Sculpture Garden.

**8.4.2 Non-Infrastructure Initiatives** – Non-infrastructure initiatives identified in Chapter 7 are further defined in this section to suggest estimated maximum annual costs, a potential lead agency, likely partner agencies, and potential funding sources.

**Table 8.6 – Education Initiatives**

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
ED-1	Bike Map	\$10,000	City	MPRB State of MN	Private or non-profit funding
ED-2	Tourism Packet	\$10,000	Meet Minneapolis	Local Businesses	Private funding
ED-3	Development and implementation of Safe Routes to School curriculum	\$250,000	Minneapolis Schools	Public Works	Federal, School District funding
ED-4	Community Bike Course	\$10,000	Non-profit groups, Neighborhood groups	Public Works Minneapolis Schools	Private funding
ED-5	Staff Development	\$10,000	City	MPRB State of MN	Non-profit grants
ED-6	Education for Professional Drivers	\$10,000	Local businesses	State of MN, Minneapolis Schools	Private funding
ED-7	Helmet Education	\$10,000	Hospitals and Health Industry	State of MN, Minneapolis Schools	Private or non-profit funding
ED-8	Radio and TV Public Service Announcements	\$1,200,000	City	MPRB State of MN	Private funding
ED-9	Utility Bill Inserts	\$200,000	City	-	Private funding
ED-10	Advertising Bicycle Initiatives On-Line	\$100,000	Non-profit groups, local businesses	Public Works Minneapolis Schools	Private funding
ED-11	Rent Billboards to Promote the Rules of the Road	\$100,000	Non-profit groups, local businesses	Public Works, Minneapolis Schools	Private funding
ED-12	Marketing to Promote Bicycling and Bicycle Safety	\$50,000	State, non-profit groups	Public Works, Minneapolis Schools	Private funding
ED-13	Positive TV and Radio Stories on Biking	\$0	City, Media	State, MPRB	No additional cost
ED-14	Cyclopath/ Cycloplan	\$100,000	Non-profit groups	Local Cities, Met Council	Private funding
ED-15	Free educational materials for bicyclists	\$10,000	Local businesses	Neighborhood groups	Private funding

## 8.4.2 Non-Infrastructure Initiatives – Continued

### Table 8.6 – Education Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
ED-16	Earn-a-Bike program	\$50,000	Non-profit groups	Minneapolis Schools, MPRB	Private funding
ED-17	Bicycle videos for educational purposes	\$25,000	Non-profit groups	City, MPRB, Minneapolis Schools	Private funding
ED-18	Expand the number of bicycle rodeos	\$50,000	Non-profit groups	MPRB, MPD	MPRB funding
<b>Total</b>		<b>\$2,195,000</b>			

### Table 8.7 – Encouragement Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
ENC-1	Bike/Walk Week	\$25,000	TMO	Non-profit groups, local businesses, neighborhood groups	Private funding
ENC-2	Expand Bike Share	See Table 8.9	Non-profit groups	-	Private funding, non-profit grants
ENC-3	Policies to Increase Biking to School	\$0	Minneapolis Schools	Neighborhood groups	To be done with existing resources
ENC-4	Developers install bicycle facilities	Varies; costs not calculated.	Local businesses	-	Private funding
ENC-5	Developers to install bicycle parking	Varies; costs not calculated	Local businesses	-	Private funding
ENC-6	Continue 50/50 Cost Share Program	\$40,000	City	Local businesses	City funding, private funding
ENC-7	Bicycle Kit Giveaway	\$25,000	Bike shops, bicycle industry	U of M, MPS City	Private funding
ENC-8	Bicycle Commuting Contests Between Businesses or Schools	\$10,000	Local businesses, Minneapolis schools	-	Private funding

## 8.4.2 Non-Infrastructure Initiatives –

Table 8.7 – Encouragement Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
ENC-9	General Bicycle Themed Contests	\$10,000	Local businesses, Neighborhood Groups	-	Private funding
ENC-10	Commuter Fairs	\$5,000	TMO, Local Companies	City	TMO
ENC-11	Implement Ciclovía/Open Streets	\$75,000	Non-profit groups	City, County	Private funding
ENC-12	U-Lock Cost Share Program	\$10,000	Local bike shops, bicycle industry	-	Non-profit grants
ENC-13	Bicycle Maintenance Club	\$25,000	Local bike shops, bicycle industry, business	-	Private funding
ENC-14	Improve Bike Program Website	\$5,000	City	-	City funding
ENC-15	Youth Bike Trips	\$25,000	Non-profit groups, local businesses	-	Private funding
ENC-16	Amateur Bike Race	\$50,000	Non-profit groups, local businesses	-	Private funding
ENC-17	Children's Bike Map	\$10,000	Non-profit groups, local bike shops	-	Non-profit grants
ENC-18	Public Art Mural	\$10,000	Non-profit groups, neighborhood groups	-	Private funding
ENC-19	Bicycle Advisory Committee Exchange	\$5,000	Bicycle Advisory Committee	City	Private funding
ENC-20	Bicycle Giveaways	\$20,000	Local bike shops, bicycle industry	-	Bicycle industry
ENC-21	Fleet Bicycles for Employees	\$10,000	City	Nice Ride MN	Non-Profit grants
<b>Total</b>		<b>\$360,000</b>			

## 8.4.2 Non-Infrastructure Initiatives – Continued

Table 8.8 – Enforcement Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
ENF-1	Crash and Safety Campaign	\$20,000	City	State, County, MPRB	Federal and state grants
ENF-2	Anti-Theft Campaign	\$25,000	City	State, County, MPRB	Public safety budgets, non-profit grants
ENF-3	Bicycle Registration	\$0	City	State, County, MPRB	This should be a cost/revenue neutral initiative
ENF-4	Promote 311	\$0	City	-	Existing city budgets
ENF-5	Bike Bait Program	\$25,000	Minneapolis Police	MPRB Police, U of M Police	Non-profit grants
ENF-6	First Time Offender Program	\$5,000	Minneapolis Police	MPRB Police, U of M Police	Non-profit grants
ENF-7	Bicycle Safety Education Course	\$5,000	Minneapolis Police	MPRB Police, U of M Police	Non-profit grants
ENF-8	Trail Patrolling by Bike	\$10,000	Minneapolis Police	MPRB Police, U of M Police	City funding
ENF-9	Ticket Fees for Moving Violations	\$0	Policy Makers	Court System	To be done with existing resources
ENF-10	Bicycle Patrol Program	\$10,000	Minneapolis Police	MPRB Police, U of M Police	City funding
ENF-11	Enforcement Needs for Safe Routes to School	\$25,000	Minneapolis Police	MPRB Police, U of M Police	Non-profit grants
ENF-12	Downtown Improvement District Ambassadors	\$0	Downtown DID	City	To be done with existing resources
ENF-13	Parking in Bike Lanes	\$0	Minneapolis Police	Truck Unions, Shipping Companies, Postal Service	To be done with existing resources
ENF-14	Targeted Enforcement	\$0	Minneapolis Police	MPRB Police, U of M Police	To be done with existing resources

## 8.4.2 Non-Infrastructure Initiatives – Continued

Table 8.8 – Enforcement Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
ENF-15	Citizen Watch Patrol	\$0	Volunteers	Minneapolis Police, MPRB Police, U of M Police	Volunteers
<b>Total</b>		<b>\$125,000</b>			

Table 8.9 – Engineering Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
ENG-1	Pavement Condition Ratings for Trails	\$5,000	City	-	City funding
ENG-2	Ensure Bikeways are Marked, Signed, Lit, and Address Personal Safety	\$5,000	City	-	City funding
ENG-3	Adequate Bicycle Parking at Transit Hubs	\$2,000	City	Metro Transit	City funding, Metro Transit funding
ENG-4	Accommodate Bicycles at Actuated Signals	\$10,000	City	-	City funding
ENG-5	Traffic Calming along Bike Routes and Mid-Block Trail Crossings	\$25,000	City	-	City, private funding
ENG-6	Implement Bikeway Detour Strategies	\$0	City	-	To be done with existing resources
ENG-7	Install Wayfinding and Informational Signage	\$10,000	City	-	City funding
ENG-8	Design Bicycle Facilities to Meet or Exceed Standards, Pursue Innovative Treatments	\$0	City	Hennepin County, MnDOT, MPRB	To be done with existing resources

## 8.4.2 Non-Infrastructure Initiatives – Continued

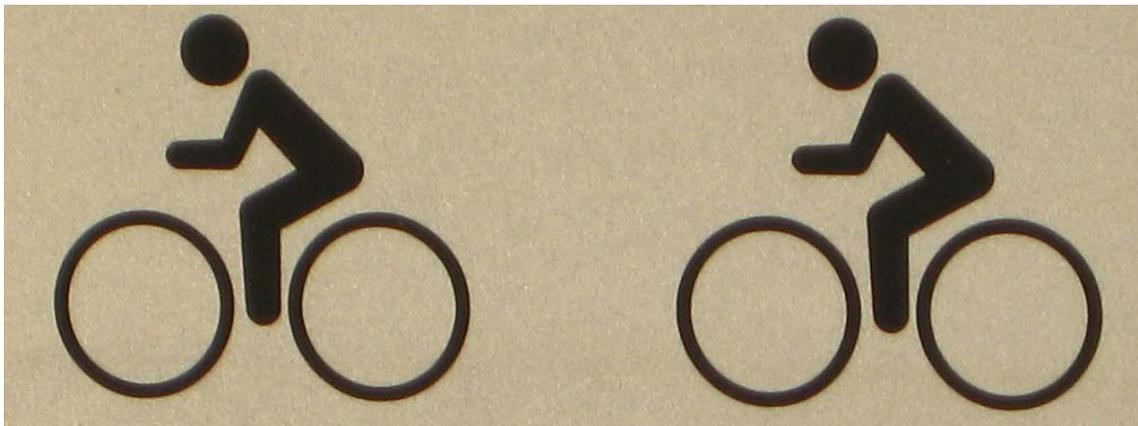
Table 8.9 – Engineering Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
ENG-9	Encourage Building Owners to Install Bicycle Parking, Showers/Lockers, and Bicycle Storage	Varies annually; no cost calculated	City	Private Businesses	Private funding
ENG-10	Complete all of the Routes in the Bikeways Master Plan	Costs shown in funding matrix.	City	Hennepin County, MnDOT, MPRB	Federal, state, county, city, private funding
ENG-11	Ensure that there is Adequate Funding to Build and Maintain Projects Within the Bikeways Master Plan	Costs shown in funding matrix.	City	Hennepin County, MnDOT, MPRB	Federal, state, county, city, private funding
ENG-12	Bicycle Friendly Road and Bridge Design	\$0	City	Hennepin County, MnDOT, MPRB	To be done with existing resources
ENG-13	Trail Crossings	\$50,000	City	-	City funding
ENG-14	Curb Cuts at Cul-de-Sacs and Diverters	\$50,000	City	-	City funding
ENG-15	Replace manhole covers and Storm Sewer Grates	\$25,000	City	-	City funding
ENG-16	Sharrows and Wayfinding Signage	\$50,000	City	-	City funding
ENG-17	Crash Reduction Program	\$50,000	City	-	City funding
ENG-18	Bikeways Cleanup Project	\$50,000	City	-	City funding
ENG-19	Greenways Network	See funding matrix	Non-Profit Groups	City	Private funding
ENG-20	Bicycle Boulevards	See funding matrix.	City	-	Federal grants
ENG-21	Complete Regional Trail System	See funding matrix.	City	MPRB	Federal and state grants
ENG-22	Bike Share Program Expansion	\$2,000,000	Nice Ride MN	City	Federal and private grants

8.4.2 Non-Infrastructure Initiatives –

**Table 8.9 – Engineering Initiatives**

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
ENG-23	Preventative Maintenance/ Improved Maintenance	\$100,000	City	MPRB	City funding
ENG-24	Infrastructure Needs for Safe Routes to School	\$50,000	City	Minneapolis Schools	Federal grants
ENG-25	Downtown Bike Station Operations	\$50,000	Bike Industry	-	Private funding
ENG-26	Green Wave Corridor	\$50,000	City	-	Non-profit grants
ENG-27	Bike Racks	\$50,000	City	-	City funding
ENG-28	50/50 Bike Rack Cost Share Program	\$40,000	City	-	City funding
ENG-29	Renovation/ Reconstruction	Varies; no cost calculated.	City	-	City funding
ENG-30	Bike Racks on Buses	Costs have not been determined.	Metro Transit	Suburban Opt-Out Providers	Transit Provider Funding
ENG-31	Replace Non-Conforming Signs and Pavement Markings	\$50,000	City	MRPB, County, MnDOT	City funding
ENG-32	Bicycle Detour Routes	Varies; done as part of capital project budgets	City	MRPB, County, MnDOT	City funding
<b>Totals</b>		<b>\$2,722,000</b>			



**Above:** Bicycle symbols on a trail sign.

## 8.4.2 Non-Infrastructure Initiatives –

Table 8.10 – Equity Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
EQ-1	Materials in Multiple Languages	\$5,000	City	-	City funding.
EQ-2	Reach out to Minority Groups	\$0	City	-	To be done with existing resources
EQ-3	Ensure that City Neighborhoods are Connected to a Bicycle Facility	\$0	City	-	To be done with existing resources
EQ-4	Add facilities in North Minneapolis, NE Minneapolis, and South of Minnehaha Parkway	\$0	City	MPRB, Three Rivers Park District	To be done with existing resources
EQ-5	Expand Bike Share Program	See Table 8.9	Nice Ride MN	City	Federal and private grants
EQ-6	Cycling Programs for Children and Seniors	\$25,000	Non-Profit Groups	Community Groups	Non-profit funding
EQ-7	Improve ratio of men to women cyclists	\$0	Non-Profit Groups	Community Groups	To be done with existing resources
EQ-8	Make bicycling more appealing to minorities	\$0	Non-Profit Groups	Community Groups	To be done with existing resources
EQ-9	Reconstruction and Renovation projects to accommodate bicycles per the Bike Plan Map	Varies; no cost calculated.	City	County, MPRB, MnDOT	City funding
EQ-10	Present Elected Officials with project trade-offs	\$0	City	-	To be done with existing resources
<b>Totals</b>		<b>\$30,000</b>			



Above: Trail approaching Target Field.

## 8.4.2 Non-Infrastructure Initiatives –

Table 8.11 – Evaluation Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
EV-1	Bike Counts	\$0	City	Non-Profit Groups	Use volunteers
EV-2	Analyze Bicycle Mode Share Data	\$0	City	County, MPRB, MnDOT, Non-Profit Groups	To be done with existing resources
EV-3	Publish a Progress Report on the Bicycle Master Plan's Progress	\$5,000	City	County, MPRB, MnDOT	City funding
EV-4	Continue to Collect, Analyze, and Report Crash Statistics	\$0	City	County, MPRB, MnDOT	To be done with existing resources
EV-5	Continue to Track Bicycle Theft Statistics	\$0	City	U of M, Hennepin County, MPRB	To be done with existing resources
EV-6	Continue to Track Bicycle Related 311 Calls	\$0	City	-	To be done with existing resources
EV-7	Evaluate Bikeway Quality	\$0	City	MPRB	To be done with existing resources
EV-8	Track and Report the Number of Bicycling Education and Outreach Events in the City	\$0	City	MPRB, Minneapolis Schools	To be done with existing resources
EV-9	Allocate City Resources to Leverage Outside Funding	Varies	City	MnDOT, Hennepin County, U of M, MPRB	To be done with existing resources
EV-10	Regularly Update the Bicycle Master Plan	\$25,000	City	Bicycle Advisory Committee	City funding
EV-11	Monitor the number of students biking to school.	\$0	Minneapolis Schools	Non-Profit Groups, Community Groups	To be done with existing resources
EV-12	Count the number of bicyclists using parkways and parkway trails.	\$0	MPRB	Volunteers	Use volunteers

## 8.4.2 Non-Infrastructure Initiatives –

Table 8.11 – Evaluation Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
EV-13	Continue to conduct bicycle parking counts on a quarterly basis.	\$0	City	Volunteers	Use volunteers
EV-14	Create more opportunities for public suggestions. Advertise 311 to cyclists	\$0	City	-	To be done with existing resources
EV-15	Continue Results Minneapolis and Sustainability Reporting	\$0	City	-	To be done with existing resources
EV-16	Continue to work with Colleges/ Universities to conduct research projects.	\$0	City	Colleges and Universities	To be done with existing resources
EV-17	Work with other agencies to install and evaluate innovative bicycle treatments.	\$0	City	County, MnDOT, MPRB	To be done with existing resources
EV-18	Work with other agencies to determine system-wide crash trends and create a combined strategy to reduce crashes including the Toward Zero Deaths initiative	\$0	City	County, MnDOT, MPRB	To be done with existing resources
EV-19	Work with local hospitals and emergency rooms to track the type and severity of bicycle injuries.	\$0	City	Local Hospitals	To be done with existing resources
EV-20	Obtain insurance data to supplement police reports to better monitor property damage.	\$0	City	Insurance Companies	To be done with existing resources

## 8.4.2 Non-Infrastructure Initiatives –

Table 8.11 – Evaluation Initiatives

ID #	Project Name	Estimated Maximum Annual Cost	Potential Lead Agency	Likely Partner Agency	Potential Funding Source
EV-21	Perform Bicycle Counts at all Colleges and Universities	\$0	Colleges and Universities	Volunteers	Volunteers to perform counts
<b>Totals</b>		<b>\$30,000</b>			



Above: Minneapolis Booth at the Minnesota Bicycle Expo.