



Minneapolis Pedestrian Master Plan

ACCESS MINNEAPOLIS Ten-Year Transportation Action Plan



**ADOPTED BY CITY COUNCIL
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Executive Summary

Everyone walks, whether young or old, whether on foot or using a mobility device, whether as a walking trip alone or in conjunction with driving, taking transit, or bicycling. Walking is an essential mode of transportation for everyone in Minneapolis, and it contributes to the success of public transit, vibrant business districts, healthy citizens, and safe neighborhoods.

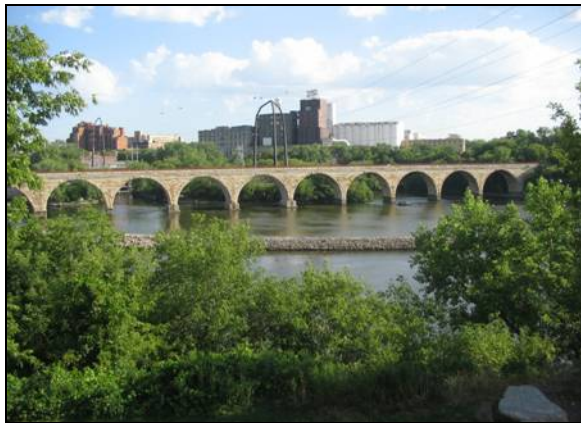
Minneapolis has an extensive sidewalk system, many great places to walk, and many programs and policies oriented to improving walking and the pedestrian environment. But there's room for improvement. Some of the most common barriers to walking identified by the public through the *Minneapolis Pedestrian Master Plan* process relate to conflicts between pedestrians and cars at intersections and along busy streets; streets that lack trees and have little buffer from traffic lanes; and maintenance issues related to snow, newspaper boxes, and construction zones.

The *Minneapolis Pedestrian Master Plan* is one of six components of *Access Minneapolis*, the City's transportation action plan to implement the transportation policies articulated in *The Minneapolis Plan for Sustainable Growth*, the City's long-range comprehensive plan. The plan was developed under the guidance of the City's Pedestrian Advisory Committee and contains detailed implementation strategies focused upon 7 goals for making Minneapolis a great walking city where people choose to walk for transportation, recreation, and health:

- Goal 1: A Well-Connected Walkway System
- Goal 2: Accessibility for All Pedestrians
- Goal 3: Safe Streets and Crossings
- Goal 4: A Pedestrian Environment that Fosters Walking
- Goal 5: A Well-Maintained Pedestrian System
- Goal 6: A Culture of Walking
- Goal 7: Funding, Tools and Leadership for Implementing Pedestrian Improvements

GOAL 1: A WELL-CONNECTED WALKWAY SYSTEM

Pedestrians need a well-connected network of walkways to provide direct access to many origins and destinations and facilitate short walking trips. Minneapolis' historic street grid provides small block sizes that are appropriately sized for walking throughout most of the city and an extensive sidewalk system covering 92% of streets. The City also has a large bicycle/pedestrian trail system, over 100 pedestrian/bicycle bridges, and an 8 mile network of skyways in downtown. Maintaining and improving the connectivity of these walkway systems is essential to increasing walking in Minneapolis.



The landmark Stone Arch Bridge across the Mississippi River is an important connection in the pedestrian network.



This section of Osseo Road in North Minneapolis is an example of a street with no sidewalks.

Implementation Strategies

Objective 1.1: Complete the Sidewalk Network (see also 5.2, 7.2)

- 1.1.1 Establish sidewalks as standard infrastructure.
- 1.1.2 Investigate funding sources and legal mechanisms to fill sidewalk gaps.
- 1.1.3 Investigate and prioritize options to fill sidewalk gaps at parks, schools, cemeteries and railroad crossings.
- 1.1.4 Track sidewalk gaps.

Objective 1.2: Maintain and Improve Pedestrian Network Connectivity

- 1.2.1 Add new pedestrian connections where possible.
- 1.2.2 Maintain existing pedestrian connections.

Objective 1.3: Improve Skyway-Sidewalk Connectivity

- 1.3.1 Improve skyways consistent with the recommendations in the Access Minneapolis Downtown Transportation Action Plan.
- 1.3.2 Evaluate existing skyway-sidewalk connectivity.

Objective 1.4: Improve Pedestrian Wayfinding Information (see also 6.3)

- 1.4.1 Implement pedestrian wayfinding improvements where needed and where maintenance responsibilities are established.
- 1.4.2 Develop citywide wayfinding signage guidelines.

GOAL 2: ACCESSIBILITY FOR ALL PEDESTRIANS

Pedestrians of all ages and ability levels need to be able to safely and conveniently travel on foot or with a mobility device. Accessible pedestrian facilities benefit a broad range of users, including people with temporary and permanent disabilities, senior citizens, children on bicycles, and adults with wheeled luggage, strollers/wagons or grocery carts.

A part of the Americans with Disabilities Act (ADA), originally passed in 1990, required that infrastructure in the public right of way be made accessible to all users, which triggered significant changes to the design and construction of pedestrian facilities. As a result, pedestrian curb ramps were installed at nearly all intersections in Minneapolis. However, the pedestrian system is not yet fully accessible and barriers remain.



People of all ages and abilities need to safely and conveniently travel as pedestrians.



All pedestrians benefit from accessible facilities, including pedestrians with wheeled luggage.

Implementation Strategies

Objective 2.1: Identify & Remove Accessibility Barriers on Pedestrian Facilities (see also 3.4, 5.1 – 5.4, 7.2)

- 2.1.1 Prepare and maintain an updated Americans with Disabilities Act (ADA) Transition Plan.
- 2.1.2 Inventory and prioritize corrections to accessibility barriers at curbs.
- 2.1.3 Inventory and prioritize corrections to accessibility barriers on sidewalk corridors.
- 2.1.4 Inventory and prioritize corrections to accessibility barriers on pedestrian bridges.

Objective 2.2: Improve and Institutionalize Best Design Practices for Accessibility (see also 5.4, 7.1)

- 2.2.1 Improve the curb ramp standard template.
- 2.2.2 Review and update the standard specifications for best practices in accessible design.
- 2.2.3 Establish regular staff training programs and materials on accessible design.
- 2.2.4 Update design standards and guidance as accessibility standards are improved.

GOAL 3: SAFE STREETS AND CROSSINGS

Pedestrians need to be able to safely and conveniently cross streets and travel along streets. Concerns about the safety of crossing streets was a common concern reported through the pedestrian master planning process.



Curb extensions such as these crossing Lake Street shorten pedestrian crossings and improve visibility between pedestrians and drivers.



The intersection of Cedar Avenue and Washington Avenue ("Seven Corners") is a complex intersection with a high incidence of pedestrian crashes.

Implementation Strategies

Objective 3.1: Reduce Pedestrian-Related Crashes (see also 7.2, 7.3)

- 3.1.1 Investigate the cause of pedestrian-related crashes at high crash intersections and corridors.
- 3.1.2 Review pedestrian-related traffic crashes regularly.
- 3.1.3 Investigate improvements to pedestrian-related crash reporting.

Objective 3.2: Promote Safe Behavior for Drivers, Bicyclists and Pedestrians (see also 6.2, 7.4)

- 3.2.1 Educate pedestrians, bicyclists and motorists about rights and responsibilities.
- 3.2.2 Enforce traffic laws.

Objective 3.3: Improve Pedestrian Safety for the Most Vulnerable Users (see also 6.1)

- 3.3.1 Continue to implement the School Pedestrian Safety Program.
- 3.3.2 Investigate creation of new focused pedestrian safety improvement programs for other vulnerable users.

Objective 3.4: Improve Traffic Signals for Pedestrians (see also 2.1)

- 3.4.1 Inventory and prioritize corrections to accessibility barriers at traffic signals.
- 3.4.2 Develop a plan for installing pedestrian countdown signals citywide.
- 3.4.3 Evaluate signal timing for pedestrians in all signal retiming efforts.
- 3.4.4 Inventory and prioritize corrections to accessibility barriers at signal push buttons.
- 3.4.5 Explore new technologies for pedestrian signal actuation and push buttons.

Objective 3.5: Improve Crosswalk Markings

- 3.5.1 Improve the visibility of crosswalk pavement markings.
- 3.5.2 Investigate potential improvements to the current crosswalk marking practice.

GOAL 4: A PEDESTRIAN ENVIRONMENT THAT FOSTERS WALKING

In addition to needing physical walkway connections, accessible pedestrian facilities and safe street crossings, pedestrians need a walking environment that feels safe and secure, that is interesting, that offers conveniences, and that attracts other people walking. Many of these elements are achieved through the land uses and walking destinations along the sidewalk. However, other elements within the public right-of-way also contribute to a pedestrian environment that fosters walking, including: a buffer from moving traffic, adequate sidewalk and boulevard space, trees, adequate sidewalk lighting, appropriately-designed pedestrian facilities on bridges, street furniture, public art, and places for people to socialize.



The weekly farmers market on Nicollet Mall one is one of the most popular pedestrian experiences in the City.



This section of Franklin Avenue is a high quality pedestrian environment, including benches, trees, pedestrian-level lighting, and comfortable sidewalk widths.

Implementation Strategies

Objective 4.1: Design Streets with Sufficient Space for Pedestrian Needs (see also 7.1)

- 4.1.1 Design streets with sufficient sidewalk and boulevard width for all required uses of the Pedestrian Zone.

Objective 4.2: Design Bridges and Underpasses for Pedestrian Needs (see also 4.3, 7.1)

- 4.2.1 Design bridges and underpasses for pedestrians.

Objective 4.3: Provide Appropriate Street Lighting for Pedestrian Needs (see also 4.2)

- 4.3.1 Implement the street lighting policy.
- 4.3.2 Encourage private property owner participation in night-time lighting efforts.

Objective 4.4: Provide Street Furniture Appropriate for Pedestrian Needs (see also 5.3)

- 4.4.1 Implement a coordinated street furniture program.
- 4.4.2 Continue to provide trash receptacles for pedestrian use.
- 4.4.3 Continue to implement the Art in Public Places program and other arts partnerships that enhance the pedestrian environment.

Objective 4.5: Foster Vibrant Public Spaces for Street Life (see also 6.3, 7.5)

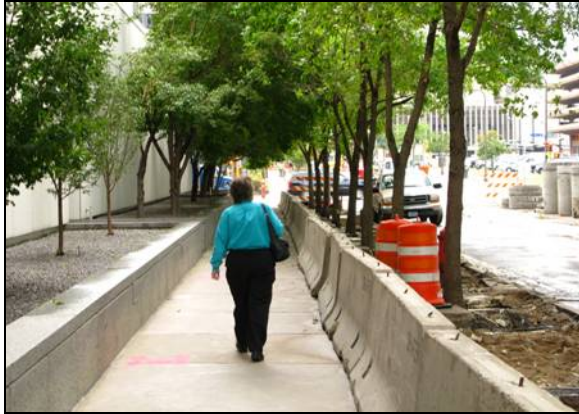
- 4.5.1 Investigate innovative and practical ways to create vibrant public spaces for pedestrians.

Objective 4.6: Foster Healthy Trees and Greening along Sidewalks (see also 7.1)

- 4.6.1 Develop tree and landscaping design guidelines.

GOAL 5: A WELL-MAINTAINED PEDESTRIAN SYSTEM

Many of the concerns raised through the *Minneapolis Pedestrian Master Plan* process relate to the everyday operations and maintenance of the pedestrian system, including snow and ice clearance, sidewalk repair, regulation of newspaper boxes and sidewalk cafes, and sidewalk closures in work zones.



During construction, pedestrian safety and accessibility needs to be maintained.



Sidewalks that are not well cleared of snow can remain icy and slippery all winter.

Implementation Strategies

Objective 5.1: Ensure Effective Snow and Ice Clearance for Pedestrians (see also 2.1, 7.4)

- 5.1.1 Create a social norm of snow clearance through communications and education.
- 5.1.2 Establish priorities for sidewalk snow clearance, including high pedestrian traffic areas.
- 5.1.3 Improve enforcement and monitoring of private property owner responsibilities for snow clearance.
- 5.1.4 Support property owners with snow and ice clearance assistance options.
- 5.1.5 Explore reducing city snow clearance responsibilities on pedestrian facilities.

Objective 5.2: Maintain Sidewalks in Good Repair (see also 1.1, 2.1)

- 5.2.1 Inspect and repair sidewalks in an effective time frame.
- 5.2.2 Prioritize and implement improvements to sidewalks at railroad crossings.
- 5.2.3 Continue to coordinate the annual sidewalk repair program with repair of sidewalks adjacent to public property.

Objective 5.3: Manage Encroachments on Sidewalks (see also 2.1, 4.4, 7.4)

- 5.3.1 Enforce sidewalk café standards.
- 5.3.2 Review and consider updates to the City's existing sidewalk café standards.
- 5.3.3 Implement and enforce the newsrack ordinance.
- 5.3.4 Educate the public on requirements and best practices for maintaining the public right-of-way and reporting problems.

Objective 5.4: Maintain Pedestrian Safety and Accessibility in Construction Zones (see also 2.1, 2.2)

- 5.4.1 Develop guidelines for safety and accessibility in work zones.
- 5.4.2 Establish regular staff training programs and materials on the City's practices for safety and accessibility in work zones.
- 5.4.3 Re-examine the City's existing policy and rate structure for sidewalk closures.

GOAL 6: A CULTURE OF WALKING

In order to get more people to walk in Minneapolis, physical infrastructure improvements are very important, but equally important are efforts to change people's personal habits, cultural norms, and perceptions about walking. A lot of people rely on automobiles for travel to destinations that are walkable in Minneapolis. In order to change people's habits and perceptions, the City needs help to foster a culture of walking.

One of the ways that the City is promoting walking is through the Bike Walk Ambassador Program. The program is currently staffed by four ambassadors and several summer youth ambassadors who provide give presentations, lead walks, and host events within Minneapolis and 13 adjacent communities.



Integrating walking into one's daily routine depends not only on the physical environment and proximity of walkable destinations, but also on individual habits and cultural norms.

Implementation Strategies

Objective 6.1: Promote Walking for Youth (see also 3.3)

- 6.1.1 Implement the Minneapolis Safe Routes to Schools Plan.
- 6.1.2 Promote walking to youth events.

Objective 6.2: Promote Walking for Adults (see also 3.2)

- 6.2.1 Promote walking for health purposes.
- 6.2.2 Promote walking to work.

Objective 6.3: Showcase and Celebrate Great Walking Experiences (see also 1.4, 4.5)

- 6.3.1 Develop walking maps.
- 6.3.2 Develop walking tours
- 6.3.3 Promote/develop public walking celebrations.
- 6.3.4 Foster positive public messaging about walking.

GOAL 7: FUNDING, TOOLS AND LEADERSHIP FOR IMPLEMENTING PEDESTRIAN IMPROVEMENTS

Although Minneapolis has a lot of great places to walk and good pedestrian facilities in many areas of the City, there are a lot of potential pedestrian facility improvements. To implement improvements, the City needs to proactively prioritize pedestrian needs alongside other transportation needs, while also ensuring that ongoing opportunities to improve pedestrian facilities through infrastructure improvements and new development are maximized.

The *Minneapolis Pedestrian Master Plan* includes a prioritized list of over 150 potential pedestrian improvement projects which may be used as the basis for an ongoing pedestrian improvement program. Pedestrian design guidelines that illustrate best practices in designing pedestrian facilities were also developed in conjunction with the plan and are published as Chapter 10 of the City's *Design Guidelines for Streets and Sidewalks*.

Implementation Strategies

Objective 7.1: Implement Best Practices for Pedestrian Facility Design (see also 2.2, 4.1, 4.2, 4.6)

- 7.1.1 Utilize and improve the City's Design Guidelines for Streets and Sidewalks.

Objective 7.2: Integrate Pedestrian Improvements into Capital Improvement Programs (see also 1.1, 2.1, 3.1)

- 7.2.1 Develop a pedestrian improvement program.
- 7.2.2 Evaluate all infrastructure projects for potential pedestrian improvement opportunities.
- 7.2.3 Coordinate the pedestrian improvement program with other improvement opportunities.

Objective 7.3: Improve Tools to Identify, Plan, Design, & Evaluate Pedestrian Improvements (see also 3.1)

- 7.3.1 Improve how Travel Demand Management Plans address pedestrian needs.
- 7.3.2 Evaluate methods to quantify pedestrian needs.
- 7.3.3 Measure pedestrian demand.
- 7.3.4 Evaluate the effectiveness of pedestrian improvements.

Objective 7.4: Foster Effective Pedestrian Advocacy and Stewardship (see also 3.2, 5.1, 5.3)

- 7.4.1 Continue and improve the Pedestrian Advisory Committee.
- 7.4.2 Encourage public reporting of pedestrian issues to 311.
- 7.4.3 Support neighborhood advocacy for pedestrian improvements.

Objective 7.5: Pursue New Funding Tools for Pedestrian Facilities (see also 6.3)

- 7.5.1 Investigate increased use of public-private partnerships.
- 7.5.2 Investigate cost-sharing programs.
- 7.5.3 Investigate creation of broader improvement districts.



Chapter 1 - Introduction

WHY WALKING MATTERS

Transportation and Equity

Everyone walks, whether young or old, whether on foot or using a mobility device, whether as a walking trip alone or in conjunction with driving, taking transit, or bicycling. Walking is an essential mode of transportation for everyone who lives, works, plays in or visits Minneapolis.

Walking is the only mode of transportation universally affordable to everyone. It is particularly important to Minneapolis residents who do not drive, including children, many people with disabilities, many senior citizens, and people who cannot afford to own and operate a car.¹ Walking and walking in conjunction with transit and bicycling provides equitable access to jobs, recreation, community, goods and services for all citizens.

Walking is also a critical component of the public transportation system. In order to make public transit a viable choice for more people, the walking environment to/from and at transit stops must be safe, comfortable and convenient.

Community and Economy

People want to live in neighborhoods that are safe and walkable. Streets and neighborhoods feel safer and are safer when people are out walking. People who walk get to know their neighbors.

Walking and walkable environments support the local economy. The most successful commercial districts in Minneapolis rely on high levels of foot traffic. Vibrant public spaces are attractive to both employers and employees when choosing where to locate. Pedestrians support local businesses while en-route to other destinations. Cities with vibrant walkable places attract tourists.

¹ In Minneapolis, according to the US Census American Communities Survey 2005-2007 3 year estimates, 9% of workers who live in Minneapolis live in households with no car available; 15% of Minneapolis residents 16 years and older have a disability; 18% of Minneapolis residents are under 15 years, and 8% of Minneapolis residents are 65 years or older.

Public Health and Environment

Walking is a great form of physical fitness; it's one of the simplest and cheapest ways to be active. In the field of public health, there is growing interest in walking and walkable environments as tools to help manage obesity and heart disease. Studies demonstrate total physical activity is substantially higher among people living in high-walkable, compared to low-walkable communities.^{2,3} In Minneapolis, 56% of adults are considered overweight, an additional 20% of adults are considered obese⁴, and 14% of Minneapolis school children are considered overweight.⁵

Increasing walking and improving walking are critical components of reducing greenhouse gas emissions. Walking relies on human power and has negligible environmental impact. Quality walking environments and a culture of walking help to make transit a viable choice, improve air quality, and provide healthy trees and quality greenspaces.

WALKING IN MINNEAPOLIS

Minneapolis has many great places to walk. Nicollet Mall, the Stone Arch Bridge, and the Grand Rounds parkway and trail system are well-loved and well-used places to walk for both residents and visitors. Minneapolis' historic urban form – with its tight street grid and extensive sidewalk system, commercial development along transit corridors and nodes, and neighborhood parks – provides a pedestrian-oriented network of good places to walk throughout the City's neighborhoods.

Minneapolis has a lot of people walking. According to the US Census, in 2007, Minneapolis was the #9 City for the share of residents who walk to work among the 50 largest cities by number of workers living there. Over 6% of workers living in Minneapolis commuted to work primarily by walking in 2007 (12,000 people), and an additional 13% (25,000 people) used public transit as their primary means of transportation to work. (See Table 1.) Walking rates are even higher when considering all types of trips, not just commute to work trips. The 2000 Metropolitan Council Travel Behavior Inventory showed that 13% of all trips within Minneapolis are made by walking, compared with 5.6% for the Seven County region.⁶

Minneapolis has many programs and policies oriented to improving walking and the pedestrian environment, such as the School Pedestrian Safety Program, pedestrian-oriented overlay zoning regulations, Street and Sidewalk Design Guidelines, and Art in Public Places Program to name a few.

But there's room for improvement. Some of the most common barriers to walking identified by the public through the *Minneapolis Pedestrian Master Plan* process relate to conflicts between pedestrians and cars at intersections and along busy streets; streets that lack trees and have little buffer from traffic lanes; and maintenance issues related to snow, newspaper boxes, and construction zones.

² Frank LD, Schmid TL, Sallis JF, Chapman J, Saelens BE. Linking objectively measured physical activity with objectively measured urban form: findings from SMARTRAQ. *American Journal of Preventive Medicine* 2005;28(2 Suppl 2):117-25.

³ Saelens BE, Sallis JF, Black JB, Chen D. Neighborhood-based differences in physical activity: an environment scale evaluation. *American Journal of Public Health* 2003;93(9):1552-8.

⁴ Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia, 2006.

⁵ Centers for Disease Control and Prevention (CDC). *Youth Risk Behavior Survey Data*. Atlanta, Georgia, 2007.

⁶ *Snapshot Minneapolis: Bicycling and Walking 2007*, Transit for Livable Communities, <http://www.tlcmnnesota.org/pdf/snapshotminneapolis.pdf>.

Table 1: Top Cities for Residents Walking to Work*

| Ranking | City | % Walk | %Transit | Total Workers |
|---------|---------------------------------|-------------|--------------|----------------|
| 1 | Boston, MA | 13.3% | 34.0% | 304,214 |
| 2 | Washington, DC | 11.1% | 36.4% | 289,798 |
| 3 | New York, NY | 10.3% | 54.6% | 3,683,489 |
| 4 | San Francisco, CA | 9.7% | 33.0% | 416,568 |
| 5 | Seattle, WA | 8.3% | 18.6% | 323,233 |
| 6 | Philadelphia, PA | 7.9% | 25.3% | 572,404 |
| 7 | Baltimore, MD | 7.0% | 19.4% | 263,159 |
| 8 | Honolulu, HI | 6.8% | 11.1% | 173,270 |
| 9 | Minneapolis, MN | 6.4% | 13.4% | 189,612 |
| 10 | Chicago, IL | 5.4% | 26.7% | 1,230,933 |
| 11 | Oakland, CA | 5.2% | 15.8% | 161,892 |
| 12 | Milwaukee, WI | 4.6% | 8.5% | 248,894 |
| 13 | Portland, OR | 4.4% | 11.2% | 280,933 |
| 14 | Denver, CO | 4.3% | 7.7% | 291,538 |
| 15 | Tucson, AZ | 4.0% | 3.2% | 236,760 |
| 16 | Atlanta, GA | 3.8% | 11.7% | 207,771 |
| 17 | Los Angeles, CA | 3.7% | 11.3% | 1,742,084 |
| 18 | Long Beach, CA | 3.6% | 6.9% | 204,949 |
| 19 | Sacramento, CA | 3.4% | 2.8% | 200,919 |
| 20 | Raleigh, NC | 3.1% | 2.2% | 185,874 |
| 21 | Detroit, MI | 2.7% | 8.5% | 249,970 |
| 22 | Columbus, OH | 2.7% | 3.1% | 353,418 |
| 23 | San Diego, CA | 2.6% | 4.5% | 621,733 |
| 24 | Anaheim, CA | 2.6% | 5.1% | 156,826 |
| 25 | Colorado Springs, CO | 2.5% | 1.5% | 192,675 |
| 26 | Tulsa, OK | 2.4% | 0.8% | 184,146 |
| 27 | Louisville/Jefferson County, KY | 2.4% | 4.0% | 256,522 |
| 28 | Albuquerque, NM | 2.4% | 2.2% | 245,248 |
| 29 | El Paso, TX | 2.2% | 2.3% | 236,142 |
| 30 | Kansas City, MO | 2.2% | 3.8% | 208,658 |
| 31 | San Antonio, TX | 2.2% | 3.3% | 567,166 |
| 32 | Houston, TX | 2.2% | 4.9% | 956,581 |
| 33 | Omaha, NE | 2.1% | 1.3% | 187,010 |
| 34 | Las Vegas, NE | 2.1% | 5.0% | 257,012 |
| 35 | Memphis, TN | 2.1% | 2.6% | 271,901 |
| 36 | Fresno, CA | 2.0% | 2.4% | 194,244 |
| 37 | Virginia Beach, VA | 2.0% | 0.8% | 229,737 |
| 38 | Austin, TX | 2.0% | 4.9% | 403,818 |
| 39 | San Jose, CA | 2.0% | 3.8% | 441,854 |
| 40 | Mesa, AZ | 1.9% | 2.5% | 220,085 |
| 41 | Phoenix, AZ | 1.8% | 4.0% | 699,789 |
| 42 | Charlotte, NC | 1.8% | 3.3% | 339,129 |
| 43 | Indianapolis, IN | 1.7% | 1.5% | 372,802 |
| 44 | Arlington, TX | 1.4% | 0.2% | 182,105 |
| 45 | Dallas, TX | 1.4% | 4.2% | 577,991 |
| 46 | Wichita, KS | 1.4% | 0.6% | 172,952 |
| 47 | Jacksonville, FL | 1.3% | 1.4% | 389,675 |
| 48 | Nashville-Davidson, TN | 1.2% | 2.3% | 300,017 |
| 49 | Fort Worth, TX | 1.2% | 1.1% | 296,006 |
| 50 | Oklahoma City, OK | 1.0% | 0.7% | 254,536 |

* among top 50 US cities by number workers 16 years and older living there

Source: 2007 American Communities Survey, U.S. Census

PLAN PURPOSE AND CONTENTS

Plan Purpose

The purpose of the *Minneapolis Pedestrian Master Plan* is to:

Provide guidance on making Minneapolis a great walking city where people choose to walk for transportation, recreation, and health.

The specific tasks of this plan were to:

1. Assess the current condition of the pedestrian environment
2. Assess the effectiveness of current policies and practices
3. Prioritize physical improvements over the next 20 years
4. Develop a pedestrian design guide
5. Recommend funding and implementation strategies

The results of Tasks 1, 2, and 5 are integrated into the 7 goals which form the bulk of this plan. Task 3 is included in Appendix C and addressed in Goal 7. Task 4 is published under separate cover as part of the City's *Design Guidelines for Streets and Sidewalks* and is addressed specifically in Goal 7.

Plan Organization

The plan chapters are organized as follows:

1. *Introduction* – Chapter 1 introduces the importance of walking and walkable communities, the purpose of the pedestrian master plan, the organization of the plan, pedestrian issues which are not addressed in the plan, and a summary of public input into the plan.
2. *Planning Context* – Chapter 2 explains the relationship of the *Minneapolis Pedestrian Master Plan* to other city plans, regional plans and initiatives which address walking, city zoning regulations related to pedestrians, and city commissions and committees working on pedestrian issues.
3. *Where People Walk* – Chapter 3 presents a summary of information gathered through the planning process on where people currently walk and where the city expects more pedestrians in the future.
4. *Goal 1: A Well-Connected Walkway System* – Chapter 4 addresses issues related to sidewalk continuity and the connectivity of the walkway system, including a discussion of right-of-way vacations.
5. *Goal 2: Accessibility for All Pedestrians* – Chapter 5 addresses issues related to accessibility for all pedestrians, Americans with Disabilities Act (ADA) requirements, and implementation of best practices for accessible design of pedestrian facilities.
6. *Goal 3: Safe Streets and Crossings* – Chapter 6 addresses issues related to crossing the street and reducing conflicts between pedestrians and motor vehicles, including characteristics of pedestrian-related traffic crashes, traffic safety education/enforcement, safety for children and senior citizens, traffic signals, and crosswalk markings.
7. *Goal 4: A Pedestrian Environment that Fosters Walking* – Chapter 7 addresses issues related to physical width of sidewalks and boulevards, sidewalks on vehicular bridges and underpasses, street lighting, trees, street furniture, and fostering vibrant public spaces for street life.

8. *Goal 5: A Well-Maintained Pedestrian System* – Chapter 8 addresses maintenance and operations issues such as snow and ice clearance, sidewalk repair, managing encroachments on sidewalks, and maintaining pedestrian safety and accessibility in construction zones.
9. *Goal 6: A Culture of Walking* – Chapter 9 addresses education, outreach and programming efforts for increasing rates of walking and influencing individual and cultural travel habits and perceptions related to walking.
10. *Goal 7: Funding, Tools and Leadership for Implementing Pedestrian Improvements* – Chapter 10 addresses overall funding, tools and leadership for implementing pedestrian improvements.
11. *Implementing the Plan* – Chapter 11 includes a summary of the goals, objectives and strategies in Chapters 4-10 and next steps for implementing the plan.

The Plan appendices include:

- A. *Existing Condition and Plan Maps* – Appendix A includes over 25 maps of existing conditions of pedestrian facilities, indicators of pedestrian demand, and City policy maps relevant to pedestrians.
- B. *The Minneapolis Plans Goals and Policies Related to Pedestrians* – Appendix B includes many of the goals and policies in *The Minneapolis Plan for Sustainable Growth* related to pedestrians.
- C. *Priority Improvement Projects Evaluation* – Appendix C includes the methodology and results of the prioritization of over 150 pedestrian improvement projects developed for the *Minneapolis Pedestrian Master Plan*.
- D. *Laws and Ordinances* – Appendix D includes selected state statutes and city ordinances related to pedestrians.
- E. *Potential Funding Sources* – Appendix E includes a listing of potential funding sources for pedestrian improvements.
- F. *Public Engagement* – Appendix F includes detailed summaries of public input received through three public meetings and an online survey.

What the Plan Does Not Address

In addition to the 7 goals in this plan, there are two other essential elements of great walking cities which are very important to the City of Minneapolis, but are not addressed in this plan because they are addressed through other plans and regulations.

- *A Density and Diversity of Land Uses that Support Walking.* Pedestrians need a density and diversity of destinations to which they can walk. Neighborhoods with mixed land uses, such as housing, offices, stores, restaurants, public services, parks, banks, etc., make walking a more feasible mode of travel. *The Minneapolis Plan for Sustainable Growth* includes extensive policies related to directing growth to areas where access by walking, bicycling and transit is more feasible. These policies are included in Appendix B and explained further in Chapter 2.
- *Building and Site Design Oriented to Pedestrians.* Pedestrians need buildings and private property which has a traditional urban form. Buildings that front the street and sidewalk and have street level uses foster active sidewalks and promote access by walking, bicycling and transit. *The Minneapolis Plan for Sustainable Growth* includes extensive policies related to urban design (see Appendix B). The City's zoning regulations help the City to implement these design policies; a discussion of which is included in Chapter 2.

PUBLIC INVOLVEMENT AND STAKEHOLDER INPUT

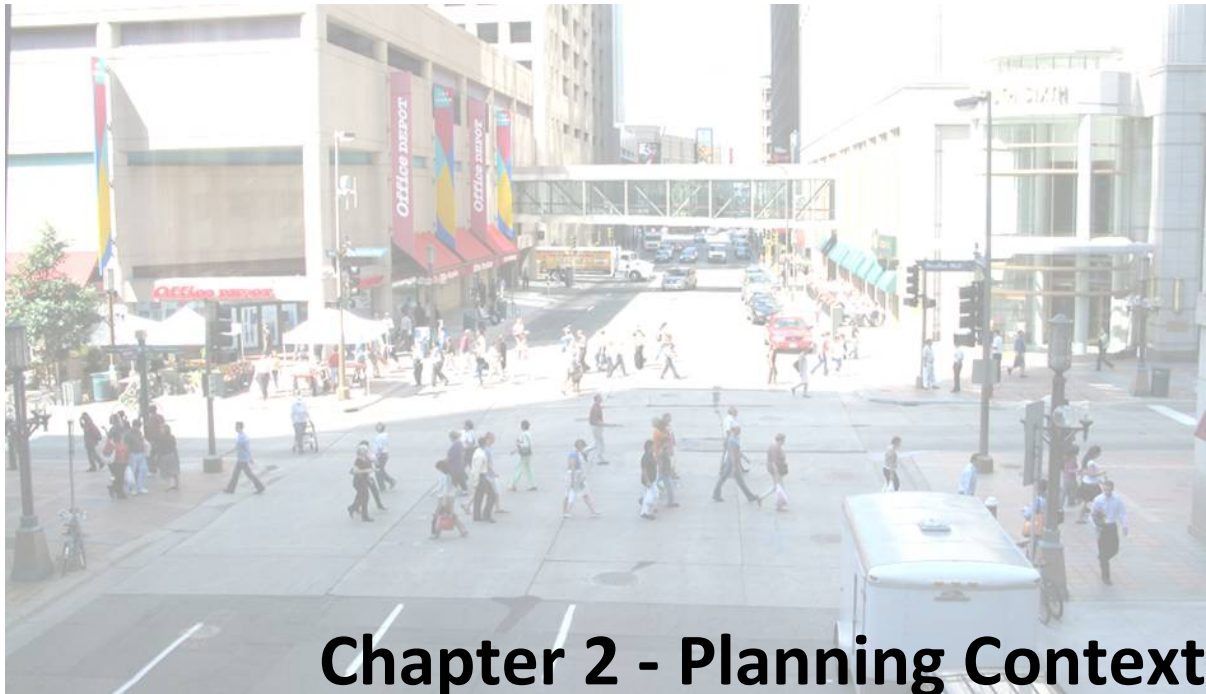
The *Minneapolis Pedestrian Master Plan* process was initiated in January 2008. Two advisory committees guided the planning process: the Pedestrian Advisory Committee and a team of City staff from Public Works and Community Planning and Economic Development. The membership of these committees is included in the acknowledgements at the beginning of this plan.

Public input was obtained through:

- A public meeting in March 2008, which provided residents with an introduction to the plan and was attended by 105 people; a summary of this meeting is in Appendix F.
- An online survey following the March 2008 public meeting which was completed by 120 people, a summary of which is in Appendix F.
- A second public meeting in September 2008, which was attended by 57 people; a summary of this meeting is in Appendix F.
- A third public meeting in July 2009, which was attended by 44 people; a summary of this meeting is in Appendix F.
- Emails to the City's pedestrian listserve, which has over 1,400 subscribers, and other stakeholders.
- Press releases and project website
- Presentations to various other stakeholder individuals and groups.



March 2008 *Pedestrian Master Plan* public meeting

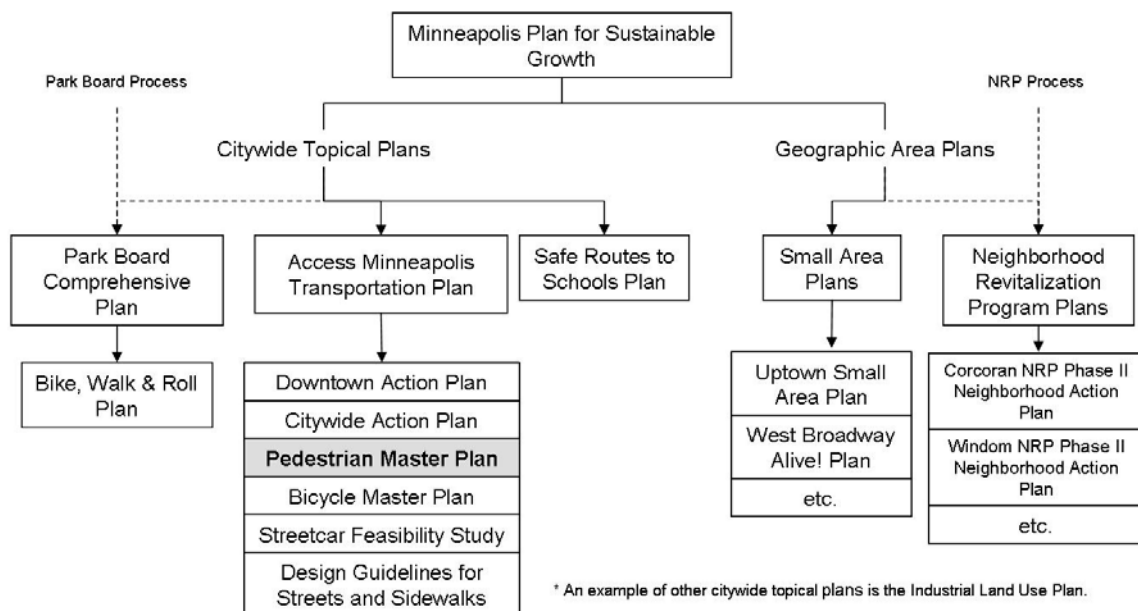


Chapter 2 - Planning Context

RELATIONSHIP TO OTHER CITY PLANS

The *Minneapolis Pedestrian Master Plan* is one of six components of *Access Minneapolis*, the City's transportation action plan to implement the transportation policies articulated in *The Minneapolis Plan for Sustainable Growth*, the City's long-range comprehensive plan. The policies of *The Minneapolis Plan* are often advanced through more detailed plans, such as *Access Minneapolis* and the *Minneapolis Pedestrian Master Plan*, as shown in Figure 1.

Figure 1: Relationship of Minneapolis Plans Addressing Pedestrian Needs



Access Minneapolis Transportation Action Plan⁷

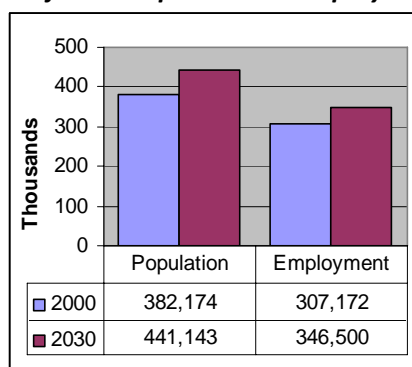
In addition to the *Minneapolis Pedestrian Master Plan*, the other five components of *Access Minneapolis* include:

- *Downtown Action Plan.* The Downtown Action Plan was approved by City Council in June 2007. The most significant pedestrian-related recommendations are shown in Map A-2 and include development of priority pedestrian corridors, improved pedestrian connectivity between downtown and adjacent neighborhoods, and improved connections between the sidewalks and skyway system.
- *Citywide Action Plan.* The Citywide Action Plan is anticipated for City Council approval in Summer 2009. The Citywide Action Plan is a multi-modal plan, but defers to the *Minneapolis Pedestrian Master Plan* and *Minneapolis Bicycle Master Plan* for specific pedestrian- and bicycle-related issues.
- *Bicycle Master Plan.* The Bicycle Master Plan is underway and anticipated for completion in late 2009.
- *Streetcar Feasibility Study.* The initial phase of the Streetcar Study was completed in January 2008, and subsequent financial feasibility analysis is underway.
- *Design Guidelines for Streets and Sidewalks.* The Design Guidelines were completed in February 2008 to assist in planning and designing complete streets that support and encourage walking, bicycling and transit use while promoting safe operations for all users. The guidance is the parent document for the Pedestrian Design Guidelines developed through the *Minneapolis Pedestrian Master Plan* (see Chapter 10).

The Minneapolis Plan for Sustainable Growth⁸

The *Minneapolis Plan for Sustainable Growth* has many goals and policies related to pedestrians, which are detailed in Appendix B. Of particular importance is the Plan's guidance on future growth. Over the next 25 years, Minneapolis is expected to grow by nearly 60,000 residents and 40,000 employees, as shown in Figure 2.

Figure 2: Projected Population & Employment Growth



Source: *The Minneapolis Plan for Sustainable Growth*

⁷ <http://www.ci.minneapolis.mn.us/public-works/trans-plan>

⁸ <http://www.ci.minneapolis.mn.us/cped/mplsplan.asp>

The Plan directs this growth in a sustainable, concentrated manner to specific areas of the City that are well served by public transit and that can support a mixture and density of land uses to serve access by walking, bicycling and transit:

*Minneapolis will develop and maintain a land use pattern that strengthens the vitality, quality and urban character of its downtown core, commercial corridors, industrial areas, and neighborhoods while protecting natural systems and developing a sustainable pattern for future growth.*⁹

These growth areas are called “designated land use features” in the plan and are shown in Map A-1. They include downtown, 18 activity centers, 18 commercial corridors, 65 neighborhood commercial nodes, 41 community corridors, 4 growth centers, and 12 transit station areas. The plan has extensive guidance on the importance of planning and designing these designated land use features to be oriented to pedestrian needs (see Appendix B).

The designated land use features in Map A-1 are used for prioritizing various city programs, such as eligibility for the City’s Great Streets program. They were also used for the pedestrian improvement project prioritization in Appendix C.

Other City Plans

Other City plans relevant to pedestrians include:

- *Minneapolis Small Area Plans*¹⁰ - The City’s Community Planning and Economic Development Department completes one or more small area plans every year to provide more detailed guidance on implementing the policies of *The Minneapolis Plan*. These plans often recommend infrastructure improvements related to improving the walkability of the city, including new streets, new trails, lighting and streetscape, and public plazas.
- *Neighborhood Revitalization Program Plans*¹¹ - Since it was established in 1990, the Neighborhood Revitalization Program (NRP) has supported the development of numerous neighborhood plans and subsequent implementation of these plans for Minneapolis’ 84 neighborhoods. Many of these plans have prioritized and resulted in funding and implementation of improvements to the pedestrian environment.
- *Minneapolis Safe Routes to Schools Strategic Plan*¹² - *Minneapolis Safe Routes to School; Helping Minneapolis Youth be Lean and Green* is a plan developed jointly by the City of Minneapolis Department of Health and Family Support (MDHFS) and the Minneapolis Public Schools (MPS). It contains policy and program recommendations aimed at creating efficient, sustainable, safe and healthy ways for children in Minneapolis to travel to and from school. This plan is further discussed in Chapter 9.
- *MPRB Trail Activity Plan*¹³ - The Minneapolis Park and Recreation Board (MPRB) is currently developing a *Trail Activity Plan* to guide the programming and infrastructure guidelines for the following activities: biking, in-line skating, walking, mountain biking, hiking, running and BMX

⁹ The Minneapolis Plan for Sustainable Growth, July 2008 Draft, Chapter 1, Page 1.

¹⁰ <http://www.ci.minneapolis.mn.us/cped/plans.asp>

¹¹ <http://www.nrp.org>

¹² <http://www.ci.minneapolis.mn.us/dhfs/saferoutes.pdf>

¹³ <http://www.minneapolisparcs.org/default.asp?PageID=1099>

riding. The plan is a result of the recommendations in the MPRB's Comprehensive Plan. The plan is anticipated for completion in 2009.

REGIONAL PLANS AND INITIATIVES RELATED TO PEDESTRIANS

There are a number of other plans and initiatives related to pedestrians in the Twin Cities region that support the goals of the *Minneapolis Pedestrian Master Plan*, including:

- *Bike Walk Twin Cities*¹⁴ - Bike Walk Twin Cities is a federally-funded initiative to increase biking and walking for transportation purposes in Minneapolis and neighboring communities. It is part of the federal Nonmotorized Transportation Pilot Program (NTPP), which provides \$21.5 million for each of four pilot communities over a four year period to "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."¹⁵ Transit for Livable Communities is designated by federal law to administer the Minneapolis pilot program. To date, Bike Walk Twin Cities has funded the City's Bike Walk Ambassador Program (see chapter 9), various bicycle and pedestrian infrastructure improvements, and a portion of this plan.
- *2030 Regional Transportation Policy Plan*¹⁶ - The 2030 Regional Transportation Policy Plan (TPP) presents the Metropolitan Council's policies and plans to guide development of the region's transportation system to the year 2030. It addresses problems and issues in preserving the region's mobility and describes actions that will be undertaken to preserve, improve and expand the region's highways, transit and other transportation modes. The most recent version of the TPP was adopted by the Metropolitan Council in January 2009 and includes a new chapter on pedestrians and bicyclists.
- *Hennepin County Active Living Initiative*¹⁷ - Hennepin County has led an active living partnership since 2006. Active living is a way of life that integrates physical activity into daily routines through activities such as biking, walking and/or taking transit. Seven cities and six private organizations in Hennepin County have worked together to plan, provide and promote active living environments and opportunities for everyone. Activities have included a complete streets workshop, walking workshops and presentations about active living to public and private organizations throughout the county. As a result of this initiative, in February 2009, the Hennepin County Board adopted a resolution in support of developing a Complete Streets policy. The policy is currently under development.
- *Mn/DOT Complete Streets Study*¹⁸ - In the 2008, the Minnesota Legislature directed the Minnesota Department of Transportation (Mn/DOT) to study "the benefits, feasibility, and cost of adopting a complete streets policy applicable to plans to construct, reconstruct, and relocate

¹⁴ <http://www.fhwa.dot.gov/environment/bikeped/ntpp.htm>

¹⁵ Section 1807 of the Safe, Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), P.L. 109-59 established the federal Nonmotorized Transportation Pilot Program (NTPP) in August 2005. The four pilot communities are Columbia, Missouri; Marin County, California; Minneapolis, Minnesota; and Sheboygan County, Wisconsin. <http://www.fhwa.dot.gov/environment/bikeped/ntpp.htm>

¹⁶ <http://www.metrocouncil.org/planning/transportation/TPP/2008/index.htm>

¹⁷ <http://www.co.hennepin.mn.us/portal/site/HCIInternet/menuitem.77d27cbcd42457649bfa04a6c8c06498/?vgnextoid=cf2ab31e5d09f110VgnVCM2000000a124689RCRD>

¹⁸ <http://www.dot.state.mn.us/planning/completestreets/index.html>

streets and roads.” The legislation specified that the study should include “safe access for all users, including pedestrians, bicyclists, motorists, and transit riders” and “safe pedestrian travel, including for people with disabilities, on sidewalks and street crossings.” Mn/DOT is currently developing the study, which must be completed by December 2009.

MINNEAPOLIS ZONING REGULATIONS

While generally not part of the public right-of-way, the design and use of private property can have a significant impact on the public pedestrian environment. The public pedestrian environment is typically the front door to private property, and the design of the public and private realms go hand in hand.

The City of Minneapolis has a number of land use regulations in its zoning code that help the City to implement the objectives of *The Minneapolis Plan for Sustainable Growth*. Many of the provisions of the zoning code are oriented to improving the quality of the built environment for pedestrians. This section summarizes some of the most significant provisions in the zoning code for pedestrians.

Site Planning

The City’s zoning code (Chapter 530) includes site plan review standards intended to promote development that is compatible with the land use and urban character of the City. Specific elements of the zoning code for most zoning districts include:

- building placement that reinforces the street wall and building placement no more than 8 feet from the front lot line
- building walls with architectural detail, restrictions on blank, uninterrupted walls, and minimum requirements for the amount and location of windows (30% of first floor walls on most nonresidential uses)
- pedestrian walkways connecting building entrances to public sidewalks
- required screening of parking lots adjacent to public streets, sidewalks, or pathways
- required active uses or window displays in parking garages adjacent to public streets, sidewalks or pathways

Pedestrian Oriented Overlay Districts

The City’s zoning code (chapter 551) also includes a provision for Pedestrian Oriented Overlay Districts. The purpose of these districts is to preserve and encourage the pedestrian character of commercial areas and to promote street life and activity by regulating building orientation and design and accessory parking facilities, and by prohibiting certain high impact and automobile-oriented uses. There are currently 17 Pedestrian Oriented Overlay Districts in Minneapolis, including many of the activity centers and commercial corridors identified in *The Minneapolis Plan for Sustainable Growth*.

Off-Street Parking Requirements

The City’s zoning code (chapter 541) regulates the number of off-street parking and loading spaces that must be provided when establishing or expanding land uses in Minneapolis. Off-street parking regulations are an important element of creating a good walking city. An oversupply of off-street parking can encourage driving instead of walking or taking transit, and it conflicts with the traditional urban character of walkable cities.

In January 2009, the City updated its off-street parking regulations to better retain and enhance Minneapolis' traditional urban and transit-oriented character. Changes included eliminating minimum parking requirements in the downtown zoning districts, establishing parking maximums (a strategy previously limited to the City's Pedestrian Oriented Overlay Districts), and substantially lowering the off-street parking requirements for small-scale restaurants and coffee shops.

Pedestrian Plazas

In February 2009, the City amended its zoning code (chapter 535) to establish development standards for pedestrian plazas to promote year-round gathering places designed to enhance pedestrian access, interaction and visibility, reinforce public spaces, create community identity, promote public safety, and visually enhance development. The standards were developed to resolve issues arising from past plaza developments, such as lack of seating, lack of landscaping and other amenities, and poor pedestrian access.

CITY COMMISSIONS AND COMMITTEES

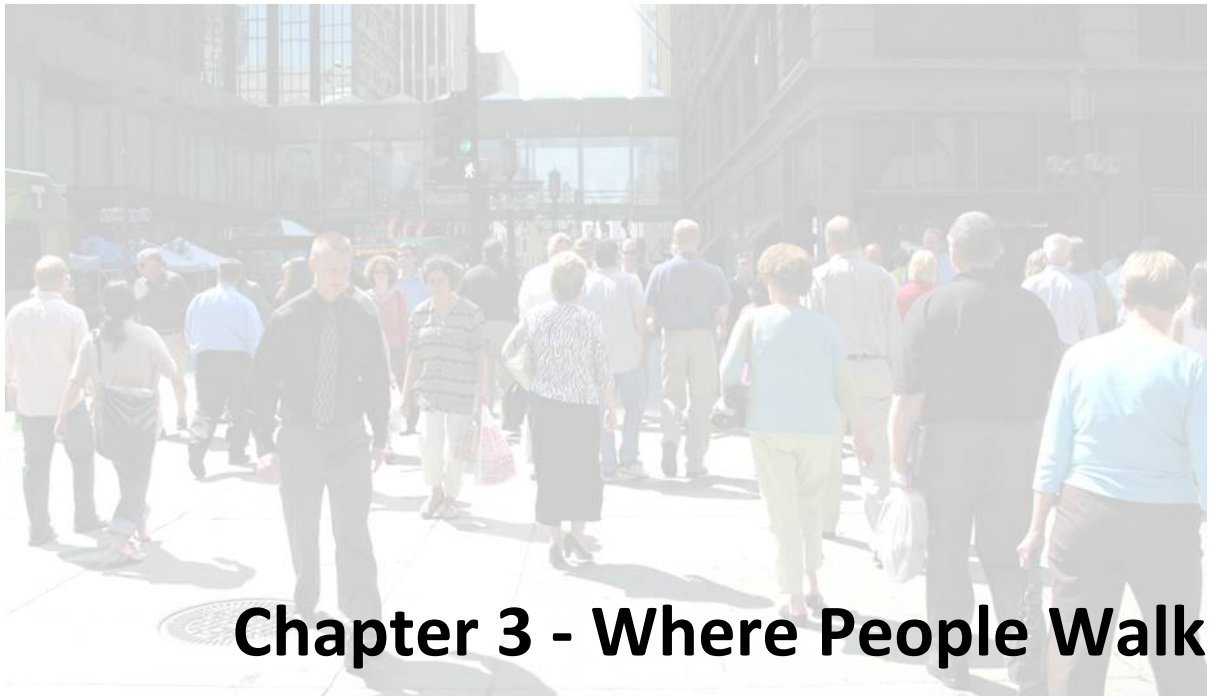
The Minneapolis Pedestrian Advisory Committee (PAC) was established in 2007 concurrent with early development of the *Minneapolis Pedestrian Master Plan* and the beginning of the Non-Motorized Transportation Pilot Program. The mission of the Pedestrian Advisory Committee is to advise the Mayor and City Council on policies, programs, and actions for improving pedestrian safety, mobility, accessibility, and comfort; for promoting walking for transportation, recreation, and health purposes; and for strengthening the linkage between the pedestrian environment and public transportation.

The PAC includes 25 members representing the following organizations and constituencies:

- Minneapolis neighborhood residents (5 members)
- City Departments, including City Attorney's office, Public Works, Community Planning and Economic Development, Public Health, Police, Fire, and Communications
- Partner agencies and organizations, including Hennepin County, Metro Transit, Metropolitan Council, Minneapolis Park and Recreation Board, Minneapolis Public Schools, Minnesota Department of Transportation, University of Minnesota, 5th District U.S. Congressional Office, City of Lakes Chamber of Commerce, Walking Minneapolis
- Other advisory committee representatives, including Minneapolis Senior Citizen Advisory Committee to the Mayor and City Council, Minneapolis Advisory Committee on People with Disabilities, Minneapolis Bicycle Advisory Committee

In addition to the PAC, the City of Minneapolis has several other commissions and committees that advise the City on issues related to improving the pedestrian environment and increasing walking. These include:

- Minneapolis Advisory Committee on People with Disabilities
- Minneapolis Tree Advisory Commission
- City Planning Commission
- Public Health Advisory Committee
- Senior Citizens Advisory Committee to the Mayor and City Council
- Skyway Advisory Committee
- Special Service District Boards, including the recently created Downtown Improvement District



Minneapolis is a densely-populated urban environment, and people walk throughout the city. Nevertheless, there are some areas where existing and potential future pedestrian demand is higher than others. A number of indicators of where people walk have been gathered through the *Minneapolis Pedestrian Master Plan* process. This information was used to help prioritize pedestrian improvement projects, as documented in Appendix C, and may be useful in the future to prioritize pedestrian improvements.

***The Minneapolis Plan* Designated Land Use Features**

As described in Chapter 2, *The Minneapolis Plan for Sustainable Growth*, directs future growth to the designated land use features in Map A-1. These are the locations where pedestrian-oriented development are anticipated to increase and, as a result, pedestrian volumes are anticipated to increase; however, they also largely reflect existing concentrations of pedestrians. This is particularly true for the commercial corridors, community corridors, neighborhood commercial and some of the activity centers.

Population and Employment

Where population and employment concentrations are higher, pedestrian volumes are also likely to be higher. Some areas of Minneapolis, particularly downtown and the University of Minnesota area have high concentrations of population and employment. Map A-6 shows the relative densities of population and employment for the City.

Commercial Land Use

Pedestrian volumes are often higher in commercial areas. The location of commercial uses in Minneapolis are located largely along the commercial corridors, activity centers, and neighborhood commercial nodes that are designated land use features for future development in *The Minneapolis Plan for Sustainable Growth*. Map A-7 shows existing commercial areas.

Other Pedestrian Generators

Other important pedestrian generators in Minneapolis are shown in Map A-8 and include:

- Public and private K-12 schools
- Colleges and university campuses
- Sports arenas and other major venues
- Public libraries
- Hospitals
- Museums, theaters, and other cultural institutions
- Parks and park recreation centers

Public Transit

Every transit user is a pedestrian for some portion of the trip taken using transit. Unlike in the suburbs where many transit users drive to park n ride lots, in Minneapolis transit users walk to the transit stop using the sidewalks, crosswalks, boulevards, and street lighting that are part of the citywide pedestrian system

Minneapolis has an extensive and growing transit system, including

- an extensive network of bus routes, many of which have service every 15 minutes or better and which serves thousands of riders daily
- the existing Hiawatha light rail transit (LRT) line, which serves over 30,000 riders a day and is currently being extended to the new Twins Ballpark and Northstar Commuter Rail station downtown
- the future Northstar Commuter Rail line, which is scheduled to open in 2009 with a terminus station at the new Twins Ballpark downtown
- a future bus rapid transit (BRT) corridor along I-35W in south Minneapolis with a station at 46th Street, which is currently undergoing final design
- the future Central Corridor LRT line, which is scheduled to open in 2014 with stations planned for 19th/Cedar/Washington Avenue, U of M East Bank, Stadium Village, and 29th/University

Map A-4 shows the City's planned Primary Transit Network (PTN), developed as part of the *Access Minneapolis Citywide Transportation Action Plan*. The PTN is a network of bus and rail corridors along which the City and Metro Transit intend to improve the quality of transit service, the quality of transit facilities, and the density of development. The Definite PTN corridors are the transit corridors that are already the most densely developed and that have service at least every 15 minutes through most of the week. These corridors are closely aligned with the designated land use features in Map A-1.

In addition, actual boardings by bus stop and train station are available and are shown in Map A-9, which provides useful detail on concentrations of transit passengers along the PTN.

Density and Diversity of Walkable Destinations

One of the characteristics of walkable communities is the density of and proximity of destinations that allow people to go about their daily lives by walking. Neighborhoods that have parks, schools, stores, restaurants, and other destinations within walking distance make it easier for people to walk and may be an indication of areas with higher pedestrian volumes.

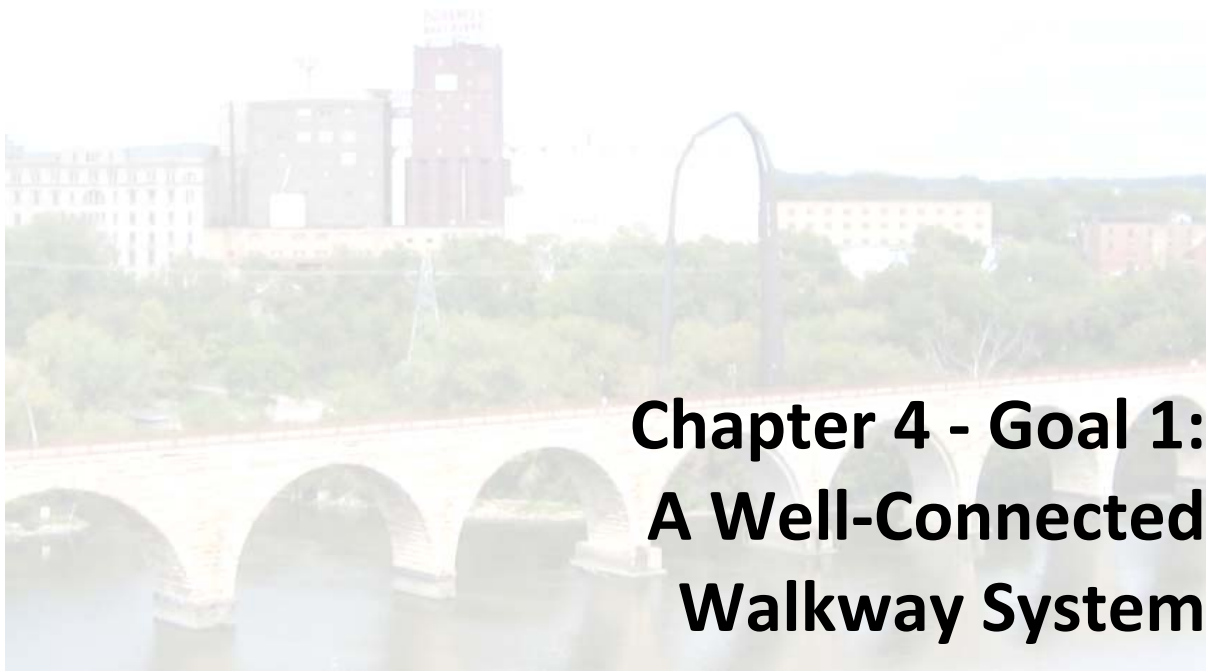
One source for this information is walkscore.com¹⁹, a website that calculates a “walkscore” for a given address or intersection by locating nearby stores, restaurants, schools, parks, and other destinations using online information. It measures the concentration of destinations that people typically need to access for daily living and calculates a score from 0 to 100, where 0 is “car dependent” and 100 is “walker’s paradise.” It does not measure the quality of the pedestrian environment, the accessibility or connectivity of the pedestrian network, or the design of buildings and parking lots, and therefore is not a complete measure of the walkability of an area. However, it provides a good snapshot of the density and proximity of pedestrian destinations in different parts of the City.

In Minneapolis, the “walkscore” of various locations around the City was entered into the website and is summarized on Map A-10.

Pedestrian Counts

During 2007 and 2008, pedestrian counts were conducted at strategic locations as part of the Bike/Walk Twin Cities program (see Map A-5). Among the locations with the highest estimated daily pedestrian volumes were Washington Avenue SE on the east bank of the University of Minnesota campus (21,700 pedestrians), Nicollet Mall (17,900 pedestrians), and 15th Avenue SE in Dinkytown (7,200 pedestrians).

¹⁹ www.walkscore.com



Chapter 4 - Goal 1: A Well-Connected Walkway System

Pedestrians need a well-connected network of walkways to provide direct access to many origins and destinations and facilitate short walking trips. Minneapolis' historic street grid provides small block sizes that are appropriately sized for walking throughout most of the city. The existing pedestrian network in Minneapolis (see Map A-11) is extensive and provides many great places to walk, including:

- Over 1,000 miles of streets and vehicular bridges with adjacent sidewalks or trails (92% of total streets)
- 18 miles of bicycle/pedestrian trails not adjacent to streets, including the Midtown Greenway and portions of the Minnehaha Creek trail, Kenilworth Trail, and Cedar Lake Trail
- Over 100 pedestrian/bicycle bridges, including 3 bridges over the Mississippi River, 18 bridges over freeways or limited access roadways, 9 bridges over surface streets, 5 bridges over railroads, and many small bridges over creeks
- Several pedestrian streets or plazas, including Milwaukee Avenue, Loring Greenway, Chicago Avenue between 2nd Street and West River Parkway
- An 8 mile network of skyways in downtown Minneapolis

However, there are opportunities to improve the connectivity of the pedestrian network in Minneapolis.

***Objective 1.1:
Complete the Sidewalk
Network***

***Objective 1.2: Maintain
and Improve Pedestrian
Network Connectivity***

***Objective 1.3: Improve
Skyway-Sidewalk
Connectivity***

***Objective 1.4: Improve
Pedestrian Wayfinding
Information***

OBJECTIVE 1.1: COMPLETE THE SIDEWALK NETWORK

Sidewalks are basic infrastructure that improve safety by separating pedestrians from moving traffic and reducing the need for pedestrians to cross the street unnecessarily. Even in industrial areas, sidewalks are necessary facilities that provide safe access between transit service and job opportunities.

92% of surface streets in Minneapolis have complete sidewalks on both sides of the street (see Map A-12 and Table 2). The remaining 7% of streets missing sidewalks on one or both sides equates to over 75 centerline miles of street and over 110 miles of potential sidewalk infill need.



This section of Osseo Road in North Minneapolis has no sidewalks.

Table 2: Sidewalk Inventory Summary

| | Street Centerline Miles | | Linear Sidewalk Miles* |
|--|-------------------------|-------------|------------------------|
| | Miles | % | |
| Streets with Complete Sidewalks | 994 | 92% | 1,715 |
| Sidewalks on both sides | 864 | 80% | 1,606 |
| Sidewalk on one side sufficient | 117 | 11% | 109 |
| No sidewalks needed | 13 | 1% | 0 |
| Streets with Incomplete Sidewalks | 76 | 7% | 108 |
| Gaps on both sides** | 40 | 4% | 75 |
| Gaps on one side | 35 | 3% | 33 |
| Unknown*** | 12 | 1% | 23 |
| Total | 1,081 | 100% | 1,845 |

* Assumed to be 93% of the length of the centerline, based upon average 32 foot wide street 495 foot block length

** Assumes streets with no sidewalks require sidewalks on both sides.

*** Sidewalk gaps on the "unknown" streets have not been verified, but are mostly in the Heritage Park area where new streets with sidewalks are being constructed.

Source: Minneapolis Pedestrian Master Plan Sidewalk Inventory

The "easy" sidewalk gaps to fill have generally already been completed. The remaining gaps can be difficult to fill for a number of reasons:

- *There is no program for sidewalk infill.* While the City has an annual sidewalk repair program, there is no program for filling sidewalk gaps. Sidewalk infill typically occurs only as a part of new development, not as part of the sidewalk repair program or street renovation projects. Funding of sidewalk infill is currently the responsibility of adjacent property owners.
- *Sidewalk gaps near parks, cemeteries and railroad crossings are challenging to fill and maintain.* Many of the sidewalk gaps on higher volume roadways are adjacent to parks, cemeteries, and railroads. The City cannot assess these land owners for the cost of installing and maintaining sidewalks, as it can for sidewalks adjacent to private property. Current state law restricts the taking of cemetery property for transportation purposes without the consent of the cemetery owners (see Appendix D – Minnesota Statutes 306.14). The Park Board has historically managed

maintenance costs by prioritizing interior walking paths within parks over sidewalks adjacent to the street. (Further discussion of maintaining sidewalks across railroad tracks is in Chapter 8.)

- *Physical constraints.* Some remaining sidewalk gaps have significant physical constraints, such as the loading docks on streets in the downtown Warehouse District or streets with mature trees in the sidewalk area.

An initial priority list of sidewalk infill has been identified through public input and are included in Appendix C.

Implementation Strategies

1.1.1 Establish sidewalks as standard infrastructure.

The City will consider sidewalks on both sides of all streets that provide access to properties or to transit as basic infrastructure. The City will seek to fill sidewalk gaps as opportunities arise, including through new development, street reconstruction projects, and the annual sidewalk repair program.

1.1.2 Investigate funding sources and legal mechanisms to fill sidewalk gaps.

The City will investigate funding tools and legal mechanisms to fill sidewalk gaps, including the current requirement that private property owners fund 100% of the cost of sidewalk infill and a potential 50/50 cost share program similar to the bike rack cost share program where the cost is shared equally between the City and property owner.

1.1.3 Investigate and prioritize options to fill sidewalk gaps at parks, schools, cemeteries and railroad crossings.

The City will collaborate with the Park Board, School District, cemeteries and railroads to identify strategies and priorities to provide safe access where sidewalk gaps exist at parks, schools, cemeteries, and railroad crossings.

1.1.4 Track sidewalk gaps.

The City will maintain the inventory of sidewalk gaps prepared for the Pedestrian Master Plan.

See also:

Objective 5.2: Maintain Sidewalks in Good Repair

Objective 7.2: Integrate Pedestrian Improvements into Capital Improvement Programs

OBJECTIVE 1.2: MAINTAIN AND IMPROVE PEDESTRIAN NETWORK CONNECTIVITY

Minneapolis' existing street grid provides blocks that are typically between 330 and 660 feet in length, which makes it easy to get around by walking compared to many suburban areas. However, there are locations where the street grid is much larger due to the freeway, railroads, and large developments, as well as natural barriers such as the river and lakes. Low pedestrian network connectivity deters walking by increasing walking distances and walking times.

Areas with low pedestrian network connectivity have been mapped and are shown in Map A-13. These areas are defined as an effective block size perimeter of 3960 feet - double the size of a typical 330 x 660 foot block. There are a number of adopted City plans that identify improvements to the pedestrian network through new bicycle/pedestrian trails and bridges, new streets with sidewalks, and new sidewalk "shortcuts" through large blocks. These improvements are shown on Map A-14. These connections and a few others recommended through public input were included in the pedestrian improvement needs evaluation in Appendix C.



This block in the North Loop is over 2,000 ft long.

Street Vacations

One of the major challenges the City faces in maintaining the connectivity of the pedestrian network is related to requests to vacate streets, typically for private development. Street vacations can facilitate redevelopment by providing larger parcels for developments. In some cases, street vacations have no impact on the pedestrian network; however, in many cases, street vacations result in larger block sizes and increase the distance pedestrians must walk to reach destinations. This is a challenge for maintaining a pedestrian scale street grid. The City also receives some requests to vacate a portion of the existing sidewalk to increase the development footprint, which may negatively impact the quality and accessibility of the pedestrian network.

The Minneapolis Plan for Sustainable Growth includes several policies related to maintaining the street grid:

- 2.1.4: Preserve the existing transportation grid through right-of-way preservation and acquisition.
- 2.3.4: Maintain the street grid, reconnecting it where possible, and discourage the creation of superblocks that isolate pedestrians and increase walking distances.
- 10.15: Wherever possible, restore and maintain the traditional street and sidewalk grid as part of new developments.
- 10.15.1: Consider street vacations as a last resort to preserve the network of city streets and arterials.

Implementation Strategies

1.2.1 Add new pedestrian connections where possible.

As opportunities arise, the City will consider adding pedestrian connections in areas of poor connectivity through new sidewalks, trails or streets, including through new development, street reconstruction, or major freeway reconstruction.

1.2.2 Maintain existing pedestrian connections.

The City will seek to maintain the connectivity of the existing pedestrian network, including when evaluating street vacation requests and potential bridge closures.

OBJECTIVE 1.3: IMPROVE SKYWAY-SIDEWALK CONNECTIVITY

The downtown skyway system (see Map A-3) is a unique asset that provides convenient, climate-controlled access between offices, retail, hotels, and parking ramps in the core of downtown. However, for those who don't use the skyways regularly, they can be confusing and difficult to navigate. Internal wayfinding guidelines have been implemented at the skyway level, but access to the skyway system from the sidewalk can be difficult to find. Pedestrians need visible, easy to identify access to and from the skyway, especially when the most direct trip involves walking on-street.



Skyways need to have highly visible street-level access

The *Access Minneapolis Downtown Transportation Action Plan* (consistent with the *Downtown East/North Loop Master Plan*) includes a number of recommended actions related to the skyway system, including:

- Encouraging skyway expansion only within the downtown core and other key high-intensity uses, as shown in Map A-3
- Promoting building architecture and skyway bridge design in new developments to physically and visually connect the sidewalk with the skyway
- Constructing stair towers at the edges of the skyway system
- Expanding the use of skyway wayfinding signage and coordinating it with other wayfinding in downtown
- Improving sidewalk-skyway access in existing buildings
- Working with property owners to encourage consistent hours of operation, maintenance levels, and security practices.

Implementation Strategies

1.3.1 *Improve skyways consistent with the recommendations in the Access Minneapolis Downtown Transportation Action Plan.*

The City will implement the skyway-related recommendations in the *Access Minneapolis Downtown Transportation Action Plan* related to skyway expansion, skyway and building design, skyway-sidewalk vertical access, wayfinding, hours of operation, maintenance and security.

1.3.2 *Evaluate existing skyway-sidewalk connectivity.*

The City will identify the locations of all sidewalk-skyway connections and prioritize locations needing improved skyway-sidewalk wayfinding or other improvements.

OBJECTIVE 1.4: IMPROVE PEDESTRIAN WAYFINDING INFORMATION

While the pedestrian network provides physical connections to destinations, sometimes it is necessary to provide additional information to help people navigate the pedestrian network.

Street name signs provide the most basic wayfinding information for pedestrians and should be oriented towards both pedestrians, as well as motorists.

In addition, in locations where larger numbers of pedestrians who are generally not familiar with an area congregate, such as cultural institutions, convention centers, entertainment districts, sports arenas, transit stations, and major tourist destinations, additional navigation information via wayfinding signs, kiosks, and/or maps may be needed. Wayfinding information is most appropriately placed at critical wayfinding decision points along a route. Wayfinding signage may also be coordinated with development of walking maps (see Objective 6.3: Showcase and Celebrate Great Walking Experiences).

Existing pedestrian wayfinding signage in Minneapolis includes downtown map kiosks on Nicollet Mall, directional signs to major destinations in downtown Minneapolis, and vicinity maps at light rail stations. The skyway system also has a system of wayfinding signage (see Objective 1.3: Improve Skyway-Sidewalk Connectivity). While there are standards for the skyway level wayfinding system, there is little guidance or standards on street-level wayfinding either downtown or citywide. Chapter 10 of the City's *Design Guidelines for Streets and Sidewalks* includes some guidance on wayfinding signage design and placement, but additional guidance is needed to facilitate the ease of implementing future wayfinding projects as funding becomes available.

One of the biggest challenges to providing wayfinding signage is funding for the ongoing maintenance of the signs. Wayfinding signage needs to be maintained as the infrastructure becomes worn or damaged and as the information becomes outdated over time. Responsibility and funding for maintenance of wayfinding signage must be established before wayfinding infrastructure is installed.



These wayfinding kiosks on Nicollet Mall help pedestrians and particularly visitors get around by walking.

Implementation Strategies

1.4.1 Implement pedestrian wayfinding improvements where needed and where maintenance responsibilities are established.

The City will continue to work with community partners to implement pedestrian wayfinding improvements in appropriate locations and where funding and responsibility for maintenance of signage is established.

1.4.2 Develop citywide wayfinding signage guidelines.

The City will develop wayfinding signage guidelines to foster consistent placement, use and design of wayfinding signage and to create a highly legible Minneapolis wayfinding system.

See also:

Objective 6.3: Showcase and Celebrate Great Walking Experiences



Chapter 5 - Goal 2: Accessibility for All Pedestrians

Pedestrians of all ages and ability levels need to be able to safely and conveniently travel on foot or with a mobility device. Accessible pedestrian facilities benefit a broad range of users, including people with temporary and permanent disabilities, senior citizens, children on bicycles, and adults with wheeled luggage, strollers/wagons or grocery carts.

A part of the Americans with Disabilities Act (ADA), originally passed in 1990, required that infrastructure in the public right of way be made accessible to all users, which triggered significant changes to the design and construction of pedestrian facilities. As a result, pedestrian curb ramps were installed at nearly all intersections in Minneapolis. However, the pedestrian system is not yet fully accessible and barriers remain.

Objective 2.1: Identify and Remove Accessibility Barriers on Pedestrian Facilities

Objective 2.2: Improve and Institutionalize Best Design Practices for Accessibility



All pedestrians benefit from accessible facilities.

OBJECTIVE 2.1: IDENTIFY AND REMOVE ACCESSIBILITY BARRIERS ON PEDESTRIAN FACILITIES

The ADA requires state and local governments of 50 or more employees to have an updated self-evaluation and ADA Transition Plan²⁰ to identify, prioritize and schedule improvements to remove accessibility barriers, including for pedestrian facilities. Minneapolis does not have a complete and updated ADA Transition Plan for pedestrian facilities. The City recently drafted an Accessible Pedestrian Signal (APS) Transition Plan; however, there is no similar plan for removing accessibility barriers on other portions of the pedestrian system.

Potential accessibility barriers on the pedestrian system include:

- **Curb Ramps.** Although the majority of corners in Minneapolis have curb ramps, many curb ramps were constructed before current ADA standards and have substandard designs such as excessive slopes or diagonal orientation, which can make them difficult, unusable, and sometimes dangerous. Current practice requires curb ramps to be replaced when they are “defective” (i.e., cracked, crumbling, or heaving), but not when they have substandard designs. Curb ramps are currently replaced as part of the sidewalk repair program, street reconstruction projects, and many new developments. There is no inventory of the condition and design of curb ramps in Minneapolis.
- **Sidewalks.** Potential accessibility barriers on sidewalks include steep cross-slopes on sidewalks, sidewalk driveway crossings that do not maintain an accessible cross-slope, heaving or cracked sidewalk panels, heavily textured sidewalk surfaces, vertical obstructions in the sidewalk, and horizontal protruding objects that are not detectable to blind pedestrians. While there is no inventory of the location of these types of accessibility barriers, many of these problems may be present on streets with very narrow pedestrian zone widths (see Chapter 7 and Map A-22). The City’s annual sidewalk repair program for defective sidewalks, as explained Chapter 8, can help to correct some of these barriers.
- **Pedestrian Signals.** Pedestrian signals need to be accessible to all users, including the WALK and DON’T WALK visual indications, as well as the design and placement of push buttons at actuated signals. These issues are addressed in Chapter 6.



This curb ramp is very steep and difficult to maneuver.



This sidewalk corridor is too narrow.

²⁰ FHWA Clarification of FHWA's Oversight Role in Accessibility Memorandum, September 12, 2006, www.fhwa.dot.gov/civilrights/ada_memo_clarificationa.htm.

- *Maintenance of Pedestrian Facilities.* The pedestrian system needs to be maintained and operated to be accessible to all users. Many of the most common accessibility complaints in Minneapolis relate to the day-to-day maintenance of the system, addressed in Chapter 8.
- *Pedestrian Bridges.* A few pedestrian bridges in Minneapolis are accessible only by stairs.

Implementation Strategies

2.1.1 Prepare and maintain an updated Americans with Disabilities Act (ADA) Transition Plan.

The City will complete an updated ADA Transition Plan for accessibility improvements that are the responsibility of the City and its contractors and will update that Plan periodically.

2.1.2 Inventory and prioritize corrections to accessibility barriers at curbs.

In coordination with the ADA Transition Plan, the City will inventory the presence, design and condition of curb ramps at legal crosswalks and prioritize bringing those curb ramps into current standards.²¹ The prioritization methodology should consider both the severity of the accessibility barrier and the magnitude of demand associated with a particular location. This work could be integrated into the annual sidewalk inspection program.

2.1.3 Inventory and prioritize corrections to accessibility barriers on sidewalk corridors.

In coordination with the ADA Transition Plan, the City will inventory the presence of accessibility barriers in sidewalk corridors and develop a plan for removing those accessibility barriers. This work could be integrated into the annual sidewalk inspection program.

2.1.4 Inventory and prioritize corrections to accessibility barriers on pedestrian bridges.

In coordination with the ADA Transition Plan, the City will inventory accessibility of existing pedestrian bridges.

See also:

Objective 3.4: Improve Traffic Signals for Pedestrians

Objective 5.1: Ensure Effective Snow and Ice Clearance for Pedestrians.

Objective 5.2: Maintain Sidewalks in Good Repair

Objective 5.3: Manage Encroachments on Sidewalks

Objective 5.4: Maintain Pedestrian Safety and Accessibility in Construction Zones

Objective 7.2: Integrate Pedestrian Improvements into Capital Improvement Programs

²¹ Sample inventory forms can be found in: *Designing Sidewalks and Trails for Access*, FHWA, 2001.

OBJECTIVE 2.2: IMPROVE AND INSTITUTIONALIZE BEST DESIGN PRACTICES FOR ACCESSIBILITY

When pedestrian facilities are altered due to redevelopment projects, utility repair, or other projects, they need to be replaced with facilities that meet pedestrian accessibility needs. City staff and contractors who design and construct pedestrian facilities need to understand what makes the pedestrian system accessible and integrate accessible design and construction into their projects. There are a lot of different people who do this work; therefore, clear and consistent information on accessible design and construction needs to be integrated into city practices.

What constitutes accessible design can be confusing because accessibility standards have changed and are anticipated to change again. Currently adopted federal ADA standards, the Americans with Disabilities Act Accessibility Guidelines (ADAAG), were developed principally for buildings and site work and are difficult to apply to pedestrian facilities in the public right-of-way. New standards, the Public Rights of Way Accessibility Guidelines (PROWAG)²², are drafted and have been undergoing review for several years, but they have not yet been adopted by the US Department of Justice to become the new standard. In the meantime, the Federal Highway Administration (FHWA) has recommended the PROWAG as the best practice for the design of sidewalks and street crossings.²³ The FHWA has also recommended use of its guide, *Designing Sidewalks and Trails, Part II, Best Practices Design Guide*.²⁴

The Pedestrian Design Guide developed through the *Minneapolis Pedestrian Master Plan* includes best practice guidance from the PROWAG and other sources. Implementing these best practices will require educating staff, updating some standard specifications, and integrating accessibility requirements into various city practices.

With regard to curb ramps, there are some specific challenges with the current curb ramp standard.

First, the current curb ramp standard requires a single curb ramp in one direction of travel at two-way stop sign controlled intersections and at intersections with no traffic control, even though sidewalks and legal crosswalks are provided in all directions. This design requires pedestrians to change direction of travel in the street, which is a potentially unsafe maneuver. Second, it is difficult to construct two perpendicular curb ramps per corner using the Mn/DOT curb ramp standard template on typical Minneapolis corners. As a result, some curb ramps are being constructed with one ramp per corner, with running or cross slopes that exceed the standard, or with an insufficient level landing pad at the top of the ramp.



This curb ramp is an example of a design which could make it easier to fit two perpendicular curb ramps per corner than the current standard. Source: *Accessible Public Rights of Way: Planning and Designing for Alterations*, Institute of Transportation Engineers, July 2007.

²² Revised Draft Guidelines for Accessible Public Rights-of-Way, November 23, 2005, www.access-board.gov/prowag/index.htm

²³ FHWA Public Rights-of-Way Access Advisory Memorandum, January 23, 2006, www.fhwa.dot.gov/environment/bikeped/prwaa.htm.

²⁴ www.fhwa.dot.gov/environment/sidewalk2

Implementation Strategies

2.2.1 Improve the curb ramp standard template.

The City will revise the current curb ramp standard to accommodate pedestrian crossings at all legal crosswalks (typically two per corner) and to provide more design options to fit two perpendicular curb ramps at typical Minneapolis intersections. Because the City uses the Mn/DOT standard curb ramp template, it may be desirable to coordinate this strategy with Mn/DOT. Refer to the *Pedestrian Design Guide* for more information on curb ramp design best practices, including best practice standards from the Michigan DOT and Chicago DOT.

2.2.2 Review and update the standard specifications for best practices in accessible design.

In addition to the standard curb ramp template, the City will review other standard specifications, including the standard sidewalk specifications²⁵, and make appropriate updates to reflect the design best practices in the *Pedestrian Design Guide* and other accessibility guidelines.

2.2.3 Establish regular staff training programs and materials on accessible design.

The City will provide staff with the necessary training and information to implement accessible pedestrian facilities.

2.2.4 Update design standards and guidance as accessibility standards are improved.

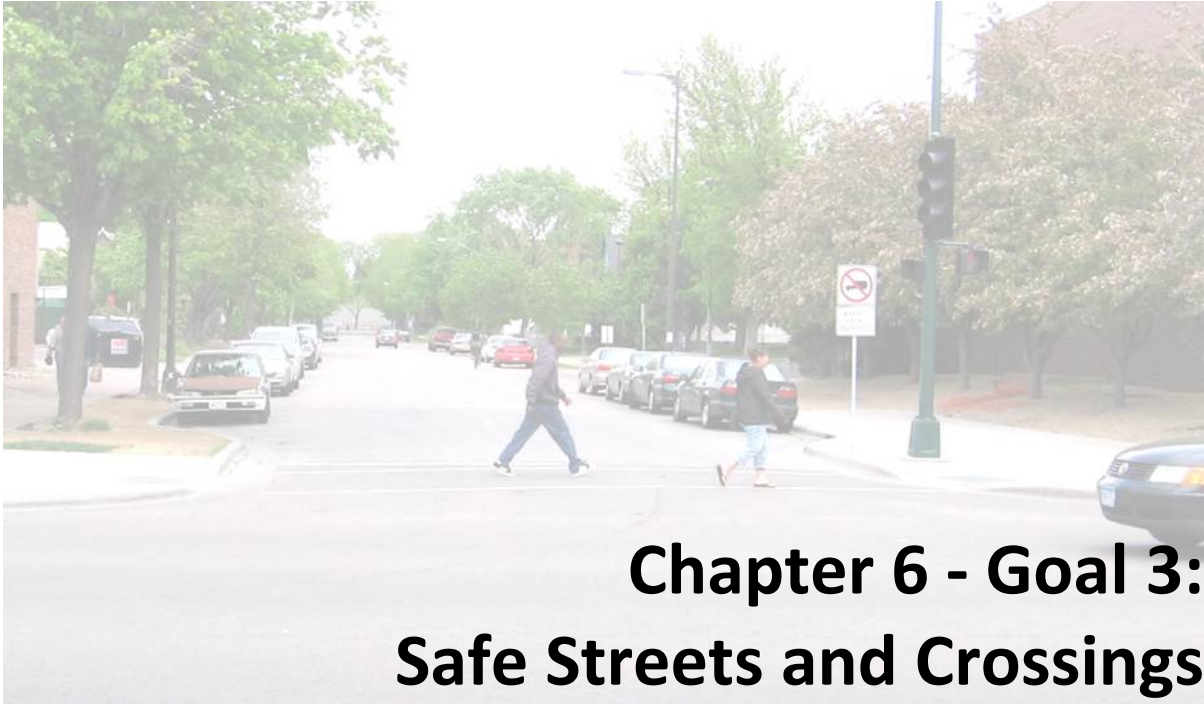
The City will update its design standards and design guidelines as new federal ADA standards, such as the anticipated final Public Rights of Way Accessibility Guidelines, are adopted.

See also:

Objective 5.4: Maintain Pedestrian Safety and Accessibility in Construction Zones

Objective 7.1: Implement Best Practices for Pedestrian Facility Design

²⁵ Special Provisions for the Construction of Concrete Sidewalks, Curb, Curb and Gutter, Alleys and Drive Approaches, City of Minneapolis Public Works Department.



Chapter 6 - Goal 3: Safe Streets and Crossings

Pedestrians need to be able to safely and conveniently cross streets and travel along streets. Concerns about the safety of streets was a common concern reported through the pedestrian master planning process.

In developing the *Pedestrian Master Plan*, information on several factors related to safety of streets were gathered, including:

- **Traffic Speeds** - Motor vehicle speeds have a huge impact on pedestrian safety. Faster vehicle speeds make it much more difficult for pedestrians to judge safe gaps in traffic for crossing, as shown in Figure 3. Most streets in Minneapolis have a posted speed limit of 30 mph, as shown in Map A-15, and most local residential streets with on-street parking have an actual average operating speed of 23-28 mph. The City also has a speed display trailer program, through which neighborhoods and individuals may request a speed display trailer that informs drivers of their actual travel speed and contributes to reduced travel speeds.
- **Number of Traffic Lanes** - The more lanes of traffic a pedestrian must cross, the more potential conflicts with vehicles, the longer the crossing distance, and generally the higher the volume of traffic. The number of existing traffic lanes is shown in Map A-16.
- **Complex Intersections** - Intersections of diagonal streets and intersections with two or more multi-lane streets create complex intersections, which are typically more difficult and inconvenient places for pedestrians to cross. These locations typically have longer crossing distances, minimum pedestrian crossing signal time, higher traffic volumes, and longer wait time

**Objective 3.1: Reduce
Pedestrian-Related
Crashes**

**Objective 3.2: Promote
Safe Behavior for
Drivers, Bicyclists and
Pedestrians**

**Objective 3.3: Improve
Pedestrian Safety for
the Most Vulnerable
Users**

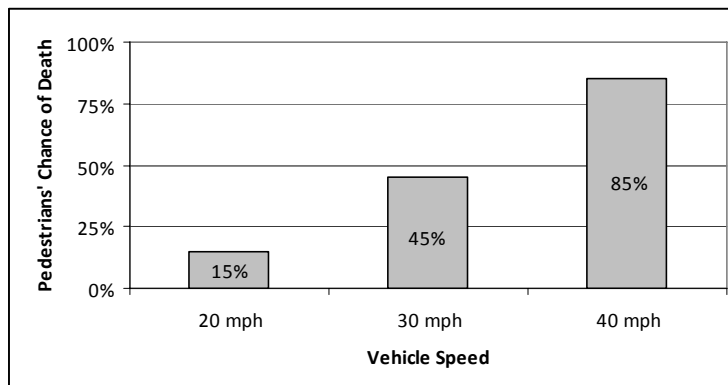
**Objective 3.4: Improve
Traffic Signals for
Pedestrians**

**Objective 3.5: Improve
Crosswalk Markings**

at signals. Many of these locations are included in the pedestrian improvement needs evaluation in Appendix C.

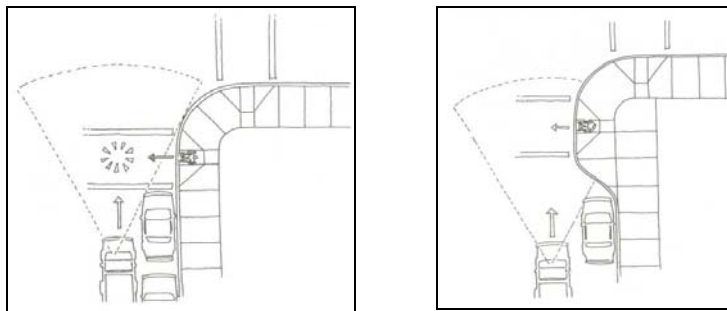
- **Freeway Interchanges** - Pedestrian crossings across freeway ramp intersections have particular concerns for pedestrian safety. Automobiles exiting from the freeways are traveling at higher speeds and are transitioning from a pedestrian-free environment. Vehicles entering freeways are accelerating and focused on merge maneuvers. Many of these locations are included in the pedestrian improvement needs evaluation in Appendix C.
- **Curb Extensions** - Curb extensions (an extension of the curb into the on-street parking lane) improve pedestrians' ability to cross the street by shortening the crossing distance, improving sight lines between vehicles and pedestrians (see Figure 4), and providing additional space for accessible curb ramps, utilities, and street furniture at corners. Curb extensions are increasingly being used in street reconstruction projects in Minneapolis. Map A-18 shows the location of curb extensions in Minneapolis. There are approximately 180 intersections in Minneapolis with curb extensions at one or more corner, and an additional 130 intersections on the parkway system.²⁶ This information was used in the pedestrian improvement needs evaluation in Appendix C as one of several factors contributing to an enhanced pedestrian environment. The Pedestrian Design Guide includes detailed guidance on the design and use of curb extensions.

Figure 3: Pedestrians' Chance of Death if Hit by Motor Vehicle



Source: Killing Speed and Saving Lives, UK Department of Transportation

Figure 4: Safety Benefits of Curb Extensions



Source: Designing Sidewalks and Trails for Access, FHWA.

²⁶ An intersection was considered to have a curb extension if the curb was extended at the intersection on one or more corner at a crosswalk. Most of the parkway system does not have on-street parking, so intersections on the parkways next to a parking bay were considered to have curb extensions.

OBJECTIVE 3.1: REDUCE PEDESTRIAN-RELATED CRASHES

As the largest urban area in the State of Minnesota, Minneapolis has a lot of pedestrians and a lot of traffic, resulting in a high occurrence of pedestrian-related traffic crashes, relative to the rest of the state. 31% of the pedestrian crashes in the State of Minnesota from 2002 to 2006 occurred in the City of Minneapolis, and an additional 17% occurred in St. Paul.²⁷ However, compared with peer cities Minneapolis has a relatively low incidence of pedestrian-related crash deaths. Minneapolis ranked 40th out of the 47 cities with year 2000 populations over 350,000 for pedestrian crash deaths per capita, as shown in Table 3.

In Minneapolis, there are approximately 250 pedestrian-related traffic crashes that are reported to the police every year. This number varies from one year to another, but has been relatively constant over the past five years (see Figure 5).

The City of Minneapolis maintains a database of all traffic crashes in the City reported by the Minneapolis Police Department.²⁸ An analysis of the 1,443 pedestrian-related traffic crashes 2002-2006 in this database showed the following trends:

- *Pedestrian crashes are a significant component of traffic fatalities and severe injuries in Minneapolis.* When a pedestrian gets hit by a car, injuries are highly likely. Pedestrian crashes comprised approximately 4% of all reported traffic crashes in Minneapolis, but 25% of all crashes resulting in a fatality and 21% of all crashes resulting in a severe injury.
- *Pedestrian crashes occur throughout the year.* Unlike bicycle crashes, pedestrian crashes in Minneapolis are not seasonal; they occurred steadily throughout the year, as shown in Figure 6.
- *More pedestrian crashes occur at intersections, than away from intersections.* 68% of pedestrian crashes occurred within 15 feet of the intersecting street curb. In most cases, these crashes occurred in the area where a legal crosswalk typically exists, but they may also include crashes in the middle of the intersection or on the sidewalk at intersections.²⁹
- *Many pedestrian crashes involved a left-turning vehicle.* As shown in Table 4, 27% of pedestrian crashes involved a left-turning vehicle, in contrast to 10% involving a right-turning vehicle. 16% of pedestrian crashes occurred at signalized intersections when the pedestrian had a WALK signal and the vehicle was turning left.
- *Few pedestrian crashes occur when a vehicle is turning right at a red light.* As shown in Table 4, only 2% of pedestrian crashes involve a vehicle turning right at a red light when the pedestrian is crossing with a WALK signal.³⁰ Through the *Pedestrian Master Plan* process, several comments were received related to perceived pedestrian safety benefits of No Turn On Red (NTOR) vehicle restrictions. However, research nationally and in Minneapolis has shown no pedestrian safety benefits of NTOR restrictions in most circumstances. NTOR is most effective as a safety measure

²⁷ Source: Mn/DOT Office of Traffic, Safety, and Technology.

²⁸ The database does not include crashes reported by the State Patrol, which are typically on the freeway system, and may not include all crashes reported by Metro Transit Police and University of Minnesota police.

²⁹ This trend was also confirmed through a review of pedestrian-related crashes from the state's crash database for 2002-2006, which showed that 63% of pedestrian crashes in Minneapolis occurred at intersections, compared with 55% statewide.

³⁰ This figure is even lower for total traffic crashes: only 0.6% of total traffic crashes in Minneapolis involved a vehicle turning right at a red light.

in locations with limited sight lines, multi-legged intersections, or school crosswalks. The City will continue to implement its 2005 guidelines for the use of NTOR restrictions.

- *Downtown and busy commercial corridors have a high incidence of pedestrian-related traffic crashes.* As shown in Map A-20, 23% of all pedestrian crashes occurred in downtown, where the majority of streets are under the City's jurisdiction. Within downtown, pedestrian crashes are particularly concentrated in the Hennepin and 1st Avenue N corridors. Outside of downtown, pedestrian crashes are concentrated on busy commercial corridors, many of which are under County jurisdiction. 28% of all pedestrian crashes occurred on the following County corridors: Lake Street, Franklin Avenue, Lyndale Avenue S, Cedar Avenue S, West Broadway and Penn Avenue N. Many of these locations have high traffic volumes and high pedestrian volumes, and do not necessarily indicate a high rate of pedestrian-related traffic crashes.

The City's Traffic Division currently maintains a database of traffic crashes in the City and meets monthly to review traffic crash trends and discuss locations of potential concern. Hennepin County at the Minnesota Department of Public Safety also maintain crash databases. The City's database does not currently have information about the age of pedestrians involved in crashes, and it does not contain crash rates for either vehicular crashes or pedestrian-related crashes. The City also does not track near-misses, which could indicate locations with potential safety issues.

Many of the high crash intersections and corridors identified in Map A-20 are included in the pedestrian improvement needs evaluation in Appendix C.

Implementation Strategies

3.1.1 Investigate the cause of pedestrian-related crashes at high crash intersections and corridors.

The City will collaborate with jurisdictional partners to investigate the causes of pedestrian-related crashes at locations with high numbers of crashes, including: downtown, Cedar Avenue, West Broadway, Penn Avenue N, Hennepin Ave S, Lyndale Avenue S, Franklin Avenue, Nicollet Avenue, Chicago Avenue, 26th and 28th Streets, and the Central/Hennepin/University/4th area.

3.1.2 Review pedestrian-related traffic crashes regularly.

The City will review pedestrian-related traffic crashes regularly and report to the Pedestrian Advisory Committee annually on pedestrian-related traffic crash trends.

3.1.3 Investigate improvements to pedestrian-related crash reporting.

The City will investigate improvements to its database and reporting on pedestrian-related crashes to include age of pedestrian and other enhancements to improve evaluation of pedestrian crashes, such as crash rates. One potential resource is the crash typing software, Pedestrian and Bicycle Crash Analysis Tool³¹.

See also:

Objective 7.2: Integrate Pedestrian Improvements into Capital Improvement Programs

Objective 7.3: Improve Tools to Identify, Plan, Design, and Evaluate Pedestrian Improvements

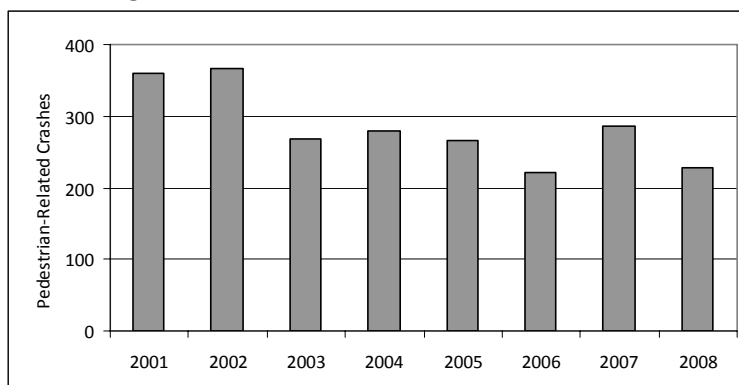
³¹ <http://www.walkinginfo.org/facts/pbcats/index.cfm>

Table 3: Pedestrian Crash Deaths for Cities with Population over 350,000

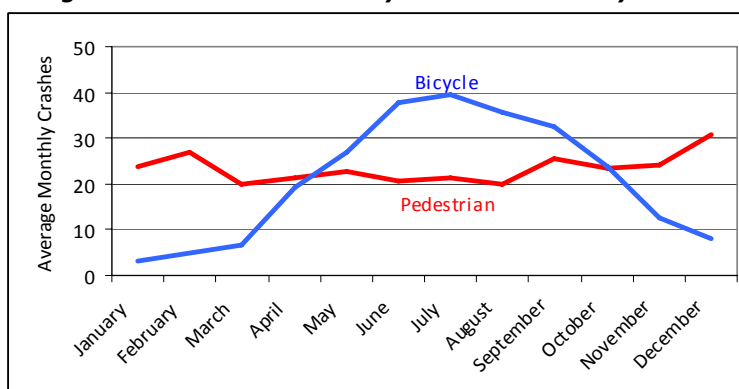
| Ranking | City | Pedestrian Crash Deaths 1997-2006 | 2000 Population | Average Annual Pedestrian Fatality Rate per 100,000 Population |
|-----------|------------------------|-----------------------------------|-----------------|--|
| 1 | Miami, FL | 212 | 362,470 | 5.8 |
| 2 | Detroit, MI | 415 | 951,270 | 4.4 |
| 3 | Atlanta, GA | 171 | 416,474 | 4.1 |
| 4 | Phoenix, AZ | 540 | 1,321,045 | 4.1 |
| 5 | Denver, CO | 207 | 554,636 | 3.7 |
| 6 | Albuquerque, NM | 160 | 448,607 | 3.6 |
| 7 | Dallas, TX | 406 | 1,188,580 | 3.4 |
| 8 | San Francisco, CA | 240 | 776,733 | 3.1 |
| 9 | Tucson, AZ | 149 | 486,699 | 3.1 |
| 10 | Jacksonville, FL | 225 | 735,617 | 3.1 |
| 11 | Memphis, TN | 198 | 650,100 | 3.0 |
| 12 | Honolulu, HI | 103 | 371,657 | 2.8 |
| 13 | Fort Worth, TX | 148 | 534,694 | 2.8 |
| 14 | Oakland, CA | 110 | 399,484 | 2.8 |
| 15 | Fresno, CA | 117 | 427,652 | 2.7 |
| 16 | Sacramento, CA | 111 | 407,018 | 2.7 |
| 17 | Las Vegas, NV | 129 | 478,434 | 2.7 |
| 18 | Kansas City, MO | 119 | 441,545 | 2.7 |
| 19 | Los Angeles, CA | 986 | 3,694,820 | 2.7 |
| 20 | Washington, DC | 151 | 572,059 | 2.6 |
| 21 | Houston, TX | 514 | 1,953,631 | 2.6 |
| 22 | San Antonio, TX | 281 | 1,144,646 | 2.5 |
| 23 | San Diego, CA | 292 | 1,223,400 | 2.4 |
| 24 | Chicago, IL | 687 | 2,896,016 | 2.4 |
| 25 | New Orleans, LA | 112 | 484,674 | 2.3 |
| 26 | Tulsa, OK | 90 | 393,049 | 2.3 |
| 27 | El Paso, TX | 129 | 563,662 | 2.3 |
| 28 | Oklahoma City, OK | 114 | 506,132 | 2.3 |
| 29 | New York, NY | 1,743 | 8,008,278 | 2.2 |
| 30 | Philadelphia, PA | 328 | 1,517,550 | 2.2 |
| 31 | Charlotte, NC | 114 | 540,828 | 2.1 |
| 32 | Austin, TX | 135 | 656,562 | 2.1 |
| 33 | Baltimore, MD | 133 | 651,154 | 2.0 |
| 34 | Portland, OR | 107 | 529,121 | 2.0 |
| 35 | San Jose, CA | 171 | 894,943 | 1.9 |
| 36 | Milwaukee, WI | 107 | 596,974 | 1.8 |
| 37 | Long Beach, CA | 80 | 461,522 | 1.7 |
| 38 | Boston, MA | 102 | 589,141 | 1.7 |
| 39 | Columbus, OH | 108 | 711,470 | 1.5 |
| 40 | Minneapolis, MN | 58 | 382,618 | 1.5 |
| 41 | Seattle, WA | 85 | 563,374 | 1.5 |
| 42 | Cleveland, OH | 61 | 478,403 | 1.3 |
| 43 | Mesa, AZ | 44 | 396,375 | 1.1 |
| 44 | Indianapolis, IN | 85 | 781,870 | 1.1 |
| 45 | Omaha, NE | 42 | 390,007 | 1.1 |
| 46 | Colorado Springs, CO | 36 | 360,890 | 1.0 |
| 47 | Virginia Beach, VA | 41 | 425,257 | 1.0 |

Source: NHTSA National Pedestrian Crash Report, June 2008, Table A-7

(<http://www-nrd.nhtsa.dot.gov/Pubs/810968.pdf>); US Census, 2000

Figure 5: Annual Pedestrian-Related Crashes

Source: City of Minneapolis Crash Database, 2001-2008

Figure 6: Pedestrian and Bicycle Crash Trends by Month

Source: City of Minneapolis Crash Database, 2002-2006

Table 4: Actions Preceding Pedestrian-Related Crashes

| VEHICLE ACTION | PEDESTRIAN ACTION | | | | | | | TOTAL |
|---------------------------|-------------------------------|--------------------------|----------------------------------|----------------------------------|------------------------|-------------|--------------|---------------|
| | CROSSING WITH SIGNAL IN XWALK | CROSSING IN MARKED XWALK | CROSSING AGAINST SIGNAL IN XWALK | CROSSING WITHOUT SIGNAL OR XWALK | DARTING INTO TRAFFIC** | UNKNOWN* | OTHER | |
| VEHICLE FOLLOWING ROADWAY | 3.1% | 2.4% | 5.8% | 10.6% | 9.5% | | 11.9% | 43.4% |
| MAKING LEFT TURN | 15.6% | 4.5% | 1.4% | 3.3% | 0.2% | | 1.6% | 26.5% |
| MAKING RIGHT TURN | 3.3% | 1.5% | 0.3% | 1.2% | 0.3% | | 0.8% | 7.3% |
| RIGHT TURN ON RED | 2.3% | 0.4% | 0.3% | 0.1% | | | 0.1% | 3.2% |
| OTHER | 1.5% | 0.6% | 0.6% | 1.5% | 1.5% | 9.4% | 5.8% | 20.7% |
| TOTAL | 25.8% | 9.4% | 8.3% | 16.6% | 11.4% | 9.4% | 20.3% | 100.0% |

* **UNKNOWN** refers to crashes with no recorded pedestrian action, but two vehicle actions. These crashes may involve two vehicles and a pedestrian, and the vehicle actions only being entered in database.

** Prior to 2003, **DARTING INTO TRAFFIC** was not a valid crash report entry.

Source: City of Minneapolis Crash Database, 2002-2006

OBJECTIVE 3.2: PROMOTE SAFE BEHAVIOR FOR DRIVERS, BICYCLISTS AND PEDESTRIANS

Pedestrian safety is a shared responsibility among motorists, pedestrians, and bicyclists. The most effective solutions to improving pedestrian traffic safety involve a combination of engineering solutions, along with education and enforcement. Through the Pedestrian Master Plan process, many pedestrian safety concerns were raised regarding motorist compliance with the crosswalk law and bicyclists riding on sidewalks.

Minnesota state law requires motorists to stop for a pedestrian who has entered the crosswalk (stepped off the curb) at a marked or unmarked crosswalk, provided the pedestrian has not suddenly walked into the path of a vehicle that is so close that the driver cannot stop (see Appendix D). However, many motorists and pedestrians either don't understand or don't comply with this law. Failure of a motorist to yield to pedestrians is one of the most commonly cited barriers to walking cited by the public through the master planning process.

While the Bike/Walk Ambassador program provides some guidance on pedestrian safety in their work, there are currently no active pedestrian safety education campaigns underway serving Minneapolis. One example of a pedestrian safety education campaign is shown in Figure 7 from Calgary, Canada.³²

Figure 7: Calgary Pedestrian Safety Campaign



Bicyclists are legally permitted by state law (see section 169.222 in Appendix D) and City ordinance (Chapter 490.140) to ride on sidewalks and have the same rights and duties applicable to pedestrians on sidewalks unless posted otherwise. Bicyclists must yield right-of-way to pedestrians on sidewalks and may not ride on sidewalks in business districts. Business districts are defined in state law as street frontages that have at least half of the frontage occupied by buildings in use for business for at least 300 feet.

Bicyclists are more likely to ride on sidewalks where there is not an on-street bicycle lane and where traffic volumes are higher, as shown in Table 5. The City is continuing to expand the bicycle network through new on-street facilities, off-street trails, and development of a Bicycle Master Plan. Continued development of bicycle facilities and education is needed to reduce real and perceived conflicts between bicyclists and pedestrians.

³² http://www.calgary.ca/docgallery/bu/roads/pedestrian_safety_brochure.pdf

Table 5: Factors Influencing Bicyclists Riding on Sidewalks

| Type of Bicycle Facility | Volume of Motor Vehicle Traffic* | Number of Count Locations | Average % of Bicyclists Riding on Sidewalk |
|--------------------------|----------------------------------|---------------------------|--|
| No Bicycle Facility | High | 10 | 39% |
| No Bicycle Facility | Moderate | 16 | 33% |
| No Bicycle Facility | Low | 9 | 28% |
| On-Street Bike Lane | Moderate | 6 | 18% |

* Motor vehicle traffic volumes were defined as high (greater than 15,000 per day), moderate (5,000-15,000 per day), low (less than 5,000 per day)

Source: City of Minneapolis 2008 Bicycle Counts

Implementation Strategies

3.2.1 Educate pedestrians, bicyclists and motorists about rights and responsibilities.

The City will collaborate with regional partners to help educate the public about the pedestrian safety and traffic laws. Potential efforts include the Bike/Walk Ambassador Program, press releases, information on the City's website, school traffic safety education programs, driver education programs, and public media campaigns.

3.2.2 Enforce traffic laws.

The City will investigate opportunities to improve enforcement of traffic violations that endanger pedestrians. One option is the use of crosswalk "stings," whereby police officers, behaving in accordance with traffic laws, provide education, warnings, and citations to motorists who violate traffic laws in a particular location. To ensure public support of these operations, crosswalk stings are typically well-publicized in advance and provide clear identification of the crosswalk, sight distance, and the presence of pedestrians. Another option is to prioritize investigating crashes involving pedestrians and prosecuting the responsible party.

See also:

Objective 6.2: Promote Walking for Adults

Objective 7.4: Foster Effective Pedestrian Advocacy and Stewardship

OBJECTIVE 3.3: IMPROVE PEDESTRIAN SAFETY FOR THE MOST VULNERABLE USERS

The City receives numerous concerns and questions about traffic safety from the public, many of which are related to pedestrian safety near parks, schools, and senior housing. The City's Traffic division investigates every pedestrian safety complaint and makes improvements where needed.

One proactive approach to improving pedestrian safety for vulnerable users is the City's School Pedestrian Safety Program, through which City traffic operations staff work with each K-8 school to evaluate safety and operations and identify opportunities



School-patrolled crossing in Seward neighborhood

to increase the number of students walking to school. The program also works with schools to identify school patrolled intersections; eliminate or reduce conflicts among buses, vehicles, and pedestrians; and identify needs for short-term and long-term infrastructure improvements. Typical improvements include overhead school crossing signs, durable pavement markings at crosswalks, highly visible sign posts for regulatory signs, speedwagons, and separated parent and bus pick-up/drop-off activities. The program also assesses school patrol practices and the need for adult supervision at school crossings. Some schools have implemented walking and bicycling curriculum programs, as well.

Reviews of all 87 K-8 schools in Minneapolis was completed in June 2009. A similar approach could be applied for pedestrian safety near parks and senior housing.

Implementation Strategies

3.3.1 Continue to implement the School Pedestrian Safety Program.

The City will complete implementation of the School Pedestrian Safety program.

3.3.2 Investigate creation of new focused pedestrian safety improvement programs for other vulnerable users.

The City will investigate using the school pedestrian safety program model for other types of vulnerable users, such as a Safe Routes to Parks program or a Safe Routes for Seniors program. The City will pursue potential funding sources to support these potential programs.

See also:

Objective 6.1: Promote Walking for Youth

OBJECTIVE 3.4: IMPROVE TRAFFIC SIGNALS FOR PEDESTRIANS

Traffic signal design has a significant impact on the convenience and safety of crossing the street. There are approximately 800 signalized intersections in Minneapolis, all of which have pedestrian signal heads (see Map A-17). There are a number of potential challenges with the existing design of traffic signals for pedestrians in Minneapolis; however, work has begun to address many of these issues:

- *More countdown timers are being installed in Minneapolis.* Countdown timers show the number of seconds remaining in the signal for pedestrians to cross the street and help pedestrians to safely decide if they have enough time. The City of Minneapolis began installing countdown timers as part of all new signal installations in 2008. There are currently over 70 intersections in Minneapolis with countdown timers (see Map A-17). The proposed 2009 version of the Manual on Uniform Traffic Control Devices (MUTCD) is expected to require that all signalized intersections with pedestrian crosswalks have countdown timers within the ten year compliance period specified in the MUTCD.
- *More accessible pedestrian signals (APS) are being installed in Minneapolis.* The information that pedestrian signals provide through the WALK and DON'T WALK visual indications is not accessible to blind and low vision pedestrians. Accessible pedestrian signals (APS) provide an audible and vibro-tactile indication of the WALK interval. There are currently 11 APS in Minneapolis (see Map A-17), and the City has obtained federal funding to install APS in 15 additional locations. The City has also drafted an APS transition plan, under which all traffic signals will be evaluated and prioritized for APS installation over the next 10 years.
- *Upcoming standards will require more walk time for pedestrians in signal timing.* The standard pedestrian crossing speed used to calculate signal crossing time is changing to better reflect the needs of an aging population, those with mobility impairments, and other slower-moving pedestrians. The proposed 2009 MUTCD requires that signal timing for the pedestrian clearance time be based on a pedestrian crossing speed of 3.5 feet per second (2.0 mph) and a total



Countdown Timer



Accessible Pedestrian Signal



This push button is not accessible or convenient for all pedestrians.

WALK plus flashing DON'T WALK time of 3.0 feet per second (2.3 mph), instead of the former 4.0 feet per second (2.7 mph).

- *Some signals with push buttons are inaccessible or confusing to use.* Approximately 40% of signals in Minneapolis are actuated signals, requiring pedestrian activation via a push button (see Map A-17). Actuated signals are being used increasingly in Minneapolis because they provide more flexibility in managing traffic and make it possible to provide the necessary walk time for pedestrians, particularly at signals with low pedestrian volumes. However, intersections with push buttons can cause frustration for pedestrians who don't know if the push button is working and if the signal system has received the pedestrian's call. Some push buttons have also been installed in locations that are not accessible and convenient for all pedestrians to reach, and older push button designs require too much strength for some people to activate. There is currently no inventory of the condition and design of pedestrian signal push buttons.

Implementation Strategies

3.4.1 *Inventory and prioritize corrections to accessibility barriers at traffic signals.*

In coordination with the ADA Transition Plan, the City will complete and implement the Accessible Pedestrian Signals (APS) Transition Plan, currently proposed, which outlines the methodology for evaluating and prioritizing APS installations at all signalized intersections over a ten year period.

3.4.2 *Develop a plan for installing pedestrian countdown signals citywide.*

The City will develop a plan and priorities for installing pedestrian countdown signals citywide over the ten year period anticipated to be required by the proposed 2009 version of the MUTCD.

3.4.3 *Evaluate signal timing for pedestrians in all signal retiming efforts.*

As part of the programmed retiming of all traffic signals citywide in 2009-2012 and other future signal retiming activities, the City will evaluate signal timing for pedestrians and provide recommended pedestrian crossing times and other signal timing improvements.

3.4.4 *Inventory and prioritize corrections to accessibility barriers at signal push buttons.*

In coordination with the ADA Transition Plan, the City will inventory the condition and placement of push buttons at actuated traffic signals citywide and prioritize improvements to ensure that all pedestrians may conveniently and accessibly use push buttons.

3.4.5 *Explore new technologies for pedestrian signal actuation and push buttons.*

The City will explore new technologies for detecting pedestrians at signals, such as automatic pedestrian detection, and for making pedestrian signal push buttons more convenient, such as "hot response" buttons that give a visual indication that the signal system has received the pedestrian's call.

See also:

Objective 2.1: Identify and Remove Accessibility Barriers on Pedestrian Facilities

Objective 7.2: Integrate Pedestrian Improvements into Capital Improvement Programs

OBJECTIVE 3.5: IMPROVE CROSSWALK MARKINGS

Minneapolis has a dense street grid, and there are over 7,000 intersections in Minneapolis. Legal crosswalks, whether marked or unmarked, exist at all legs of all intersections where sidewalks normally exist, including T-intersections, except where closed by ordinance and appropriately signed. Legal crosswalks also exist at marked midblock crossings.

Crosswalk pavement markings are used at some intersections to direct pedestrians to safe crossings and to alert drivers to the potential presence of pedestrians. Minneapolis' current policy is to mark crosswalks at all signalized intersections, designated midblock crosswalks, and school patrolled crossings. The standard crosswalk pavement marking style is two transverse (lateral) lines at most locations and high visibility markings (longitudinal lines striped parallel to the direction of traffic) at all midblock crosswalks and selected school patrolled crossings, as shown in Figure 8.

There are a number of challenges with current crosswalk marking practices:

- Maintenance funding is constrained.* The City maintains approximately 4,000 marked crosswalks. There are currently insufficient funds to replace all existing crosswalks on an annual basis. This constraint makes it difficult to justify installing new crosswalk markings or higher cost continental style crosswalk markings.
- Latex paint fades quickly.* Crosswalks in Minneapolis are generally marked with latex paint once every other year. With Minneapolis' weather conditions, crosswalks often are completely faded by the time they are repainted. Reflective roadway tape and thermoplastic materials have been used in selective locations and last longer, but these materials also cost more than latex paint. The City currently installs reflective roadway tape at crosswalks as budget allows.
- Pedestrians place high value on crosswalk markings; however, crosswalk markings alone do not improve pedestrian safety.* Through the Pedestrian Master Plan process, the City has received numerous comments about the importance of having more safe, marked crosswalks at intersections, particularly in commercial corridors, at transit stops, at parks, and near senior housing. Marked crosswalks are an indicator to pedestrians of the safety of street crossings and the overall quality of pedestrian facilities. Crosswalk markings direct pedestrians to safer crossing locations and are a component of the overall design and operation of pedestrian street



High-visibility crosswalk marking at Hiawatha School

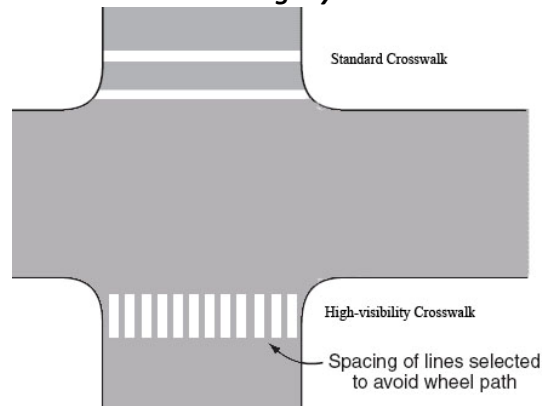


Crosswalk paint fades quickly with Minnesota winters.

crossings; however, traffic research has not shown an increased safety benefit from marking crossings alone. Marked crosswalks are often seen by the public as a low-cost solution to improve the safety and convenience of street crossings, but other factors influence the safety of crosswalks, including visibility between pedestrians and drivers, traffic speeds, traffic control, crossing distance, number of traffic lanes, and use of other warning devices.

- *Crosswalk marking practices vary by jurisdiction.* Many cities in Minnesota and across the country mark more types of crosswalks and use high-visibility style crosswalk markings to a greater extent than does Minneapolis.

Figure 8: Crosswalk Marking Styles Used in Minneapolis



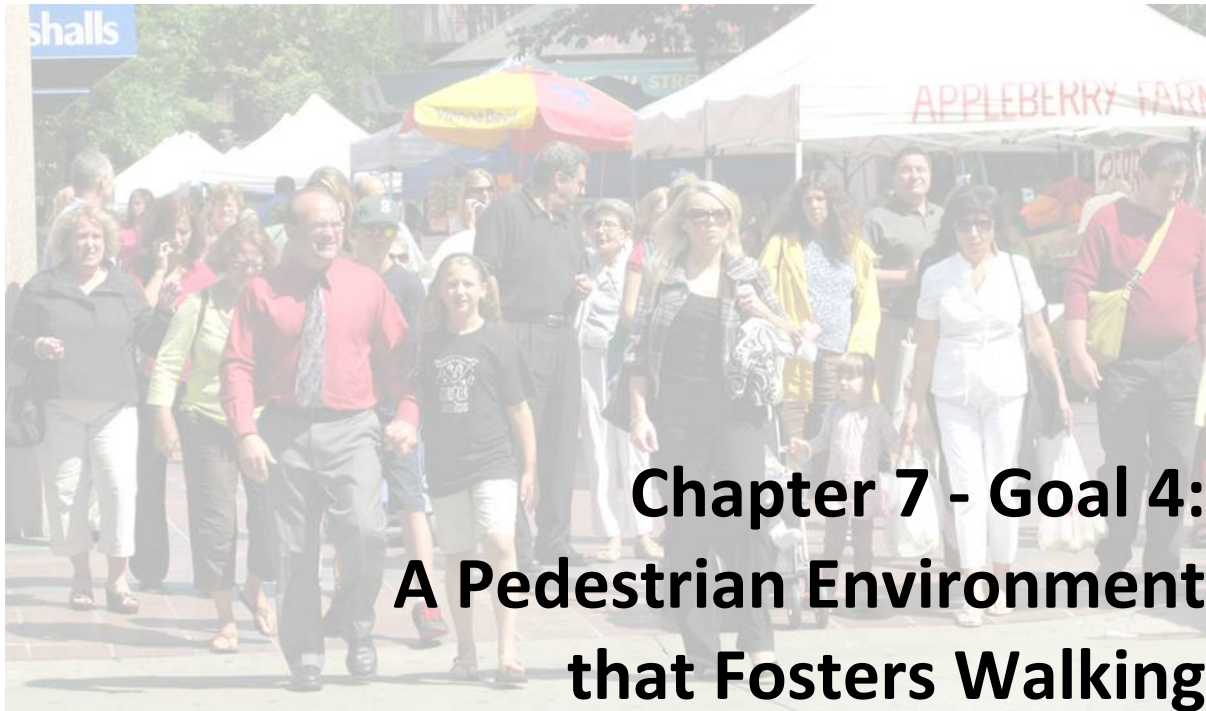
Implementation Strategies

3.5.1 Improve the visibility of crosswalk pavement markings.

The City will evaluate strategies to improve the visibility of existing crosswalk markings, including increased use of durable pavement marking materials, and implement promising strategies.

3.5.2 Investigate potential improvements to the current crosswalk marking practice.

The City will evaluate its current practice for the placement and design of crosswalk pavement markings at intersections and midblock locations, in particular the appropriate use of standard (transverse) crosswalk markings and high-visibility (longitudinal) crosswalk markings, as well as potential appropriate use of other crosswalk marking designs, considering best practices for pedestrian safety, the costs of installing and maintaining crosswalk markings, potential revenue streams for maintaining crosswalk markings, and Pedestrian Advisory Committee input. The results of this evaluation and potential revisions to the crosswalk marking practice will be reported to the City Council.



Chapter 7 - Goal 4: A Pedestrian Environment that Fosters Walking

In addition to needing physical walkway connections, accessible pedestrian facilities and safe street crossings, pedestrians need a walking environment that feels safe and secure, that is interesting, that offers conveniences, and that attracts other people walking. Many of these elements are achieved through the land uses and walking destinations along the sidewalk. However, other elements within the public right-of-way also contribute to a pedestrian environment that fosters walking, including: a buffer from moving traffic, adequate sidewalk and boulevard space, trees, adequate sidewalk lighting, appropriately-designed pedestrian facilities on bridges, street furniture, public art, and places for people to socialize.



This section of Franklin Avenue has high quality pedestrian environment, including benches, trees, pedestrian-level lighting, and comfortable sidewalk widths.

Objective 4.1: Design Streets with Sufficient Space for Pedestrian Needs

Objective 4.2: Design Bridges and Underpasses for Pedestrian Needs

Objective 4.3: Provide Appropriate Street Lighting for Pedestrian Needs

Objective 4.4: Provide Street Furniture Appropriate for Pedestrian Needs

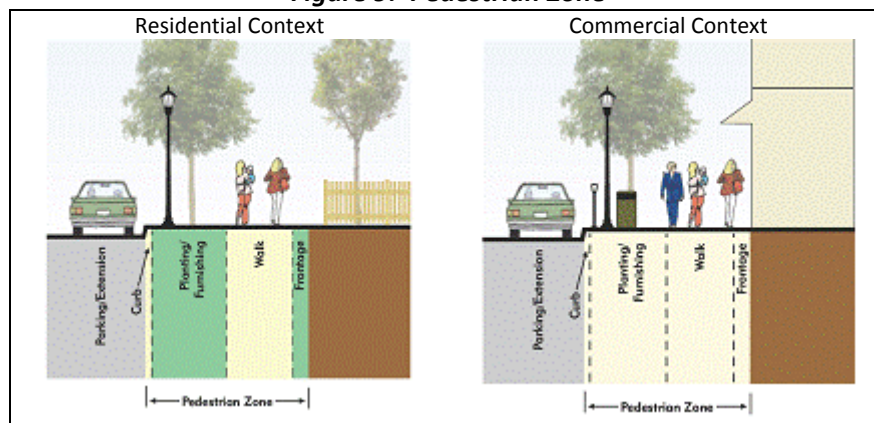
Objective 4.5: Foster Vibrant Public Spaces for Street Life

Objective 4.6: Foster Healthy Trees and Greening along Sidewalks

OBJECTIVE 4.1: DESIGN STREETS WITH SUFFICIENT SPACE FOR PEDESTRIAN NEEDS

Pedestrians need sufficient space on street corridors and at corners for not only walking, but also to buffer pedestrians from traffic lanes and building walls and to provide space for trees, bus shelters, trash receptacles, utilities, and traffic control. The space between the face of the curb and the property line is defined in the City's *Design Guidelines for Streets and Sidewalks* as the "Pedestrian Zone," and it includes several distinct subzones: Curb Zone, Planting/Furnishing Zone, Through Walk Zone, Frontage Zone (see Figure 9). The guidelines recommend a minimum 12 foot pedestrian zone width on all streets and a recommended 15 foot pedestrian zone width on most non-local streets.

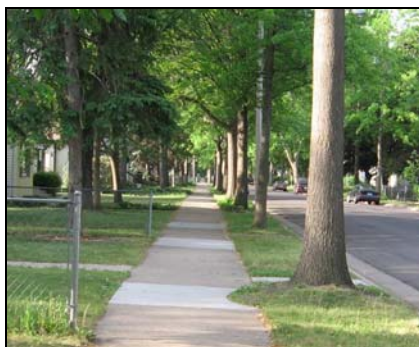
Figure 9: Pedestrian Zone



Source: *Minneapolis Design Guidelines for Streets and Sidewalks*

Most local streets in Minneapolis have a 12 foot pedestrian zone width. As shown in Table 6 and Map A-21, out of the over 700 centerline miles of local or Park Board streets with sidewalks on at least one side, 78% have a pedestrian zone width of 12 feet or wider, and only 11% have a width of less than 12 feet; the width of the remaining 11% is unknown.

In contrast, out of the nearly 300 centerline miles of non-local streets (Mn/DOT Trunk Highways, County State Aid Highways, and Municipal State Aid Streets), only 33% have a pedestrian zone width of at least 12 feet, and 30% have a pedestrian zone width of 9 feet or less (see Map A-22 and Table 6). This is a significant concern because these non-local streets have higher pedestrian volumes than local streets due to commercial districts, transit and other pedestrian generators; higher traffic volumes and a greater need for a buffer between pedestrians and traffic; and more elements to place in the pedestrian zone than local streets, such as more traffic signals, street signs, utility boxes, parking meters, bus shelters, trash receptacles, newspaper boxes, and sidewalk cafes.



Typical local street with 12 ft wide pedestrian zone



Non-local street with 6 ft wide pedestrian zone

Narrow pedestrian zone width contributes to a number of problems, including:

- Lack of buffer from moving traffic
- Insufficient space for snow storage
- Insufficient space for accessible clearance around utilities or bus shelters
- Difficulty in maintaining an accessible sidewalk grade, particularly at driveway crossings
- Difficulty in fitting accessible curb ramps at corners
- Insufficient space for trees and street furniture

Achieving the recommended 12-15 foot pedestrian zone width can be challenging, given demands for traffic lanes, parking lanes, bike lanes, and retaining walls or landscaping behind the sidewalk. The *Design Guidelines for Streets and Sidewalks* provides guidance on ways to achieve the recommended minimum 12-15 foot pedestrian zone width, which may include utilizing existing right-of-way behind the sidewalk, reducing the street width through reduction in the number of traffic lanes or the width of traffic lanes, removing on-street parking, or using curb extensions to provide the pedestrian zone width at the locations that need it most.

Table 6: Pedestrian Zone Widths on Minneapolis Streets

| Pedestrian Zone Width | Local/Park Board Streets | | Non-Local Streets (TH, CSAH, MSA) | | All Streets | |
|-----------------------|--------------------------|------|-----------------------------------|------|------------------|------|
| | Centerline Miles | % | Centerline Miles | % | Centerline Miles | % |
| 5-6 ft | 8 | 1% | 18 | 6% | 27 | 3% |
| 7-9 ft | 12 | 2% | 73 | 24% | 85 | 8% |
| 10-11 ft | 57 | 8% | 61 | 20% | 117 | 11% |
| 12-14 ft | 482 | 66% | 75 | 25% | 557 | 54% |
| 15+ ft | 91 | 12% | 24 | 8% | 114 | 11% |
| No Data | 80 | 11% | 48 | 16% | 129 | 13% |
| Total | 729 | 100% | 298 | 100% | 1,027 | 100% |

Note: The Pedestrian Zone shown is the minimum width from the face of curb to the back of sidewalk on one or both sides of a block on streets with sidewalks on at least one side. It does not include the Frontage Zone on streets with a grass boulevard between the back of sidewalk and property line (typical of local residential streets).

Source: Minneapolis Street Widths Database

Implementation Strategies

4.1.1 Design streets with sufficient sidewalk and boulevard width for all required uses of the Pedestrian Zone.

The City will utilize the *Design Guidelines for Streets and Sidewalks* in all infrastructure improvements to provide the sidewalk and boulevard width needed to accommodate the four distinct pedestrian zones (edge zone, furnishing/planting zone, through walk zone, and frontage zone).

See also:

Objective 7.1: Implement Best Practices for Pedestrian Facility Design

OBJECTIVE 4.2: DESIGN BRIDGES AND UNDERPASSES FOR PEDESTRIAN NEEDS

Bridges

In addition to the over 100 bicycle/pedestrian bridges, Minneapolis has 190 vehicular bridges that serve pedestrians (see Map A-25 and Table 7). Vehicular bridges provide pedestrians with connections across major barriers, such as rivers, freeways, railroads, and creeks. Because bridges are expensive to construct and maintain, they are much less frequently spaced than the rest of the street and sidewalk network, and pedestrians have few alternative routes. The quality of the pedestrian environment on bridges over the river and the freeways are of particular concern to pedestrians because these bridges are among the longest and serve areas of high pedestrian activity.



The Nicollet Avenue bridge over Minnehaha Creek was retrofitted with wider sidewalks.

Most vehicular bridges have sidewalks on both sides of the bridge, the most notable exception being the 10th Avenue bridge over the Mississippi, which is the longest bridge in the City. However, despite the presence of sidewalks, vehicular bridges can present particular challenges in providing a pedestrian zone that is adequately sized, safe and attractive for pedestrians.

- *Most bridges in Minneapolis have been built with insufficient sidewalk space.* Over 75% of sidewalks on vehicular bridges are 8 feet or narrower, as shown in Table 8. Notable exceptions are the Hennepin Avenue bridge over the Mississippi River, the 3rd Avenue bridge over I-94, and the Nicollet Avenue bridge over Minnehaha Creek. Bridges are expensive to construct, and every additional foot of sidewalk adds significant cost to a bridge. However, bridges in Minneapolis serve the most densely populated urban area in the state. The City has sought wider sidewalks on reconstructed bridges over the freeways; however, Mn/DOT's practice has been to construct 8 foot sidewalks. One exception is the future 46th Street bridge over I-35W, which will have 10-20 foot sidewalks at the Bus Rapid Transit station. The *Design Guidelines for Streets and Sidewalks* includes guidance on recommended sidewalk widths on bridges.
- *Most bridges have minimal buffer between pedestrians and moving traffic lanes.* Bridges often have wide vehicle lanes and a wide shoulder, typically matching the width of approaching streets. Unlike on street approaches to bridges where on-street parking helps to buffer pedestrians from traffic and provide some side friction to slow vehicle speeds, there is no on-street parking and vehicle speeds often higher on bridge. Some long bridges, such as the Lake Street bridge over the Mississippi River, have a barrier between moving traffic lanes and the sidewalk.
- *Some bridges do not have pedestrian-oriented lighting.* Bridges do not have the benefit of adjacent land uses, which provide "eyes on the street" and lighting from adjacent buildings to provide pedestrians with a sense of personal security. Some bridges have been retrofitted with pedestrian level lighting and decorating fencing, such as the Riverside Avenue bridge over I-94.

Table 7: Vehicular Bridges With Sidewalks

| Type of Crossing | Average Length (feet) | Number of Bridges |
|------------------|-----------------------|-------------------|
| River | 1,100 | 13 |
| Freeway | 271 | 62 |
| Railroad | 254 | 35 |
| Other | 113 | 81 |
| Total | | 190 |

Source: Mn/DOT Bridge Inventory

Table 8: Sidewalk Widths on Vehicular Bridges

| Bridge Sidewalk Width (feet) | % of Total Bridge Mileage |
|------------------------------|---------------------------|
| 4-6 ft | 18% |
| 7-9 ft | 66% |
| 10-11 ft | 7% |
| 12+ ft | 9% |
| Total | 100% |

Source: Mn/DOT Bridge Inventory

Underpasses

Pedestrian facilities under bridges are often unappealing pedestrian environments due to poor lighting, blocked sight lines, narrow sidewalks, and bridge pier design that create locations for people to hide. In addition, under bridge environments do not have the benefit of adjacent land uses that provide “eyes on the street.” Real and perceived personal security is a significant concern in under bridge environments. The locations of all pedestrian facilities under vehicular bridges have not been identified.

Implementation Strategies

4.2.1 Design bridges and underpasses for pedestrians.

The City will design bridges and underpasses to encourage walking. Best design practices are defined in the *Design Guidelines for Streets and Sidewalks* and include sufficient sidewalk width, pedestrian scale lighting on bridges and well-lit and highly visible sidewalks on underpasses, and strategies to appropriately manage vehicle speeds on bridges. The City will work with partner agencies to encourage consistent practices for the design of bridges in Minneapolis.

See also:

Objective 4.3: Provide Appropriate Street Lighting for Pedestrian Needs

Objective 7.1: Implement Best Practices for Pedestrian Facility Design

OBJECTIVE 4.3: PROVIDE APPROPRIATE STREET LIGHTING FOR PEDESTRIAN NEEDS

Pedestrians need street lighting which contributes to personal safety, traffic safety and a high quality pedestrian environment.

Minneapolis currently has a variety of types of street lights, the most common being high level lighting attached to wood utility poles. Standalone high level lighting also exists where there are no utility poles, such as in downtown and major intersections. Low and mid level ornamental lighting (defined as 20 feet or lower) exists in some commercial districts and residential neighborhoods, as well as along the entire parkway system. The location of existing low and mid level ornamental lighting is shown on Map A-23.

Low and mid level ornamental lighting is generally considered preferable in high pedestrian use areas because it is typically installed to provide more lighting and more uniform lighting on sidewalks; its aesthetic design also contributes to a coherent streetscape. Historically, low and mid level ornamental lighting has been funded and implemented when property owners have voluntarily petitioned the City to assess them for the cost of the lighting. This petition process could occur as part of a street reconstruction project or a standalone street lighting project.

In December 2008, the City Council changed the City's street lighting policy, which will result in more lighting appropriate for pedestrian needs in more areas. The policy specifies an appropriate amount and uniformity of lighting in downtown, pedestrian areas, and residential areas. It requires installation of non-wood pole street lighting with all street reconstruction projects and most redevelopment projects, unless property owners petition to opt out of the improvement. The cost of the lighting is assessed to property owners. Pedestrian areas were defined by the pedestrian-oriented land use features from *The Minneapolis Plan for Sustainable Growth* – activity centers, neighborhood commercial nodes, commercial corridors, and community corridors – as well as the Primary Transit Network; these are shown in Map A-24.



The street lighting on this section of Franklin Avenue serves both pedestrian and vehicular needs through a combination of low-level ornamental lighting and high-level shoebox style lighting.

Implementation Strategies

4.3.1 Implement the street lighting policy.

The City will implement the recently-adopted street lighting policy, which will result in more lighting appropriate for pedestrian needs in more areas.

4.3.2 Encourage private property owner participation in night-time lighting efforts.

The City will investigate strategies to encourage private property owner participation in keeping porch and storefront lighting on at night.

See also:

Objective 4.2: Design Bridges and Underpasses for Pedestrian Needs

OBJECTIVE 4.4: PROVIDE STREET FURNITURE APPROPRIATE FOR PEDESTRIAN NEEDS

Street furniture such as bus shelters, benches, bicycle racks, newspaper racks (see Chapter 8), kiosks, trash/recycling bins, public art, etc. are important infrastructure for pedestrians. But if poorly managed, street furniture can clutter the sidewalk, become a nuisance, and become an accessibility barrier.

There are a variety of different ways that the City provides and maintains street furniture.

- *Bus Shelters and Bus Benches.* Some bus shelters are owned and maintained by Metro Transit; others are owned and maintained by CBS Outdoor through a franchise agreement with the City. Bus benches are generally owned and operated by US Bench through a license with the City. Some of these facilities are in poor condition, have missing wall panels, or obstruct the Through Walk Zone on sidewalks. The City is currently developing a Coordinated Street Furniture Program to replace these facilities, improve their placement and provide a higher level of maintenance. Other types of street furniture may also be included in the program.



Poorly placed street furniture can make walking inconvenient, unappealing, and sometimes inaccessible.

- *Trash Receptacles.* Pedestrians need a place to dispose of trash. The City currently provides and services trash receptacles at all downtown intersections, all bus shelters, and all commercial corridor intersections. The standard trash receptacle is a large plastic container that may be serviced mechanically by a garbage truck. In some circumstances, a concrete receptacle is used. The City also offers an adopt-a-litter-container program by which the City will provide a trash receptacle in the public right-of-way if the property owner agrees to service it; property owners may also pay a monthly fee through their utility bill for the City to service a trash receptacle. Decorative trash receptacles are not a City standard because they are more costly to maintain, but are used in some areas where special service districts fund their maintenance. The Coordinated Street Furniture Program that the City is currently developing may replace and service some trash receptacles.
- *Public Art.* The City's Art in Public Places program has been a regular part of the City's capital improvement program since 1992. It is a program of the Department of Community Planning and Economic Development Planning Division and is overseen by the City's Public Arts Administrator. More than three dozen projects have been commissioned through Art in Public Places.
- *Benches and Other Street Furniture.* Some areas have benches and other street furniture outside of bus stops. These elements are often funded and maintained through a special service district. In other cases, they are maintained by a property owner through an encroachment permit. Benches are a component of making the pedestrian system accessible to seniors and people with mobility disabilities, as they provide a place to rest along the way.

Implementation Strategies**4.4.1 *Implement a coordinated street furniture program.***

The City will implement a coordinated street furniture program to improve the condition and placement of bus shelters, bus benches, and potentially other street furniture.

4.4.2 *Continue to provide trash receptacles for pedestrian use.*

The City will continue to provide trash receptacles at all downtown intersections, all bus shelters, and all commercial corridor intersections and consider options for increasing the number trash receptacles in high pedestrian use areas, taking into account maintenance costs.

4.4.3 *Continue to implement the Art in Public Places program and other arts partnership that enhance the pedestrian environment.*

The City will continue to implement the successful Art in Public Places program to integrate public art into the pedestrian environment. The City will also support other arts partnerships that enhance the pedestrian environment and that comply with City policies and regulations.

See also:

Objective 5.3: Manage Encroachments on Sidewalks

OBJECTIVE 4.5: FOSTER VIBRANT PUBLIC SPACES FOR STREET LIFE

People like to walk where there are other people and comfortable places to sit and socialize. The design and use of private property has a significant impact on the vibrancy of streets. Streets with active street-level businesses and a mixture of land uses generate pedestrian activity. As described in Chapter 2, *The Minneapolis Plan for Sustainable Growth* and the City's zoning regulations promote pedestrian-oriented land use and site design practices, including recent changes to the City's zoning regulations related to pedestrian plazas on private property.



Nicollet Mall Farmers Market

In addition, there are other things that can be done in the public right-of-way to foster vibrant public spaces for street life.

- *Sidewalk Cafes* - Sidewalk cafes can contribute to a more vibrant street life and walking environment, but they need to be properly designed and regulated to ensure accessibility. Chapter 8 addresses the design and regulation of sidewalk cafes.
- *Street Vendors* – Street vendors, such as the Thursday farmers market on Nicollet Mall, the hot dog vendor on Nicollet Mall, and street musicians, make the streets and sidewalks fun and interesting destinations in themselves. Walking Minneapolis, the private sector initiative described in Chapter 9, has developed a concept to use street vendors and other sidewalk activities to help link the many walkable destinations in downtown with a fun and interesting walking experience along the way.
- *Temporary/Flexible Spaces for Pedestrian Activities* – Cities around the country are experimenting with different ways to create spaces for pedestrian activities in the public right-of-way. Examples include pocket parks, temporary sidewalk café parking lane boardwalks³³, and flexible parking zones³⁴. These examples may or may not be appropriate for Minneapolis, but they illustrate creative ways to foster street life that could benefit Minneapolis.

For all of these activities, it is essential to ensure that they are properly maintained, safely operated, and ensure accessibility for all pedestrians.

Implementation Strategies

4.5.1 Investigate innovative and practical ways to create vibrant public spaces for pedestrians.
The City will investigate new approaches for creating vibrant public spaces for street life. This could include expanded use of street vendors, pocket parks, and spaces for sidewalk cafes.

See also:

Objective 6.3: Showcase and Celebrate Great Walking Experiences

Objective 7.5: Pursue New Funding Tools for Pedestrian Facilities

³³ Halifax, Nova Scotia: http://www.tc.gc.ca/programs/environment/UTSP/docs/casestudiesPDF/cs41E_sidewalkCafes.pdf

³⁴ Mountain View, California

OBJECTIVE 4.6: FOSTER HEALTHY TREES AND GREENING ALONG SIDEWALKS

Pedestrians like to walk along streets where there are boulevard trees or other natural landscaping. Boulevard trees visually and physically buffer pedestrians from traffic lanes, provide shade on sidewalks, and provide shelter from light rain and wind. Landscaping, such as planters and boulevard gardens, beautifies the walking environment and shows stewardship of the pedestrian environment. A healthy urban tree canopy also helps to reduce air pollution, manage stormwater runoff, and reduce the urban heat island effect.

Despite years of losing trees to disease, there are over 220,000 street trees in Minneapolis. Healthy, mature trees are common on local residential street boulevards. *The Minneapolis Plan for Sustainable Development* includes a policy to achieve a minimum no net loss of the urban tree canopy. The Minneapolis Park and Recreation Board is responsible for planting and maintaining trees in the public right-of-way and plants hundreds of trees annually.

On non-local streets, particularly in business districts and non-residential areas, healthy, mature street trees are less common. One challenge is the lack of planting boulevards and limited above-ground space between the curb and private property typically found on non-local streets (see Objective 4.1: Design Streets with Sufficient Space for Pedestrian Needs for more information on this issue). Other challenges include the density of above-ground utilities and street furniture along the curb, underground utilities that limit space for tree roots, the volume and condition of soils underground needed for healthy tree roots, and the limited amount of pervious surface needed to provide sufficient water and air to the underground roots.



Tree-lined boulevards are common on local, residential streets and provide an appealing walking environment.

To address these challenges, the City's Public Works Department in coordination with the Park and Recreation Board and the Tree Advisory Commission is developing design guidelines for trees and landscaping at the direction of City Council. These guidelines will be published as Chapter 9 of the *Design Guidelines for Streets and Sidewalks*, similar to the Pedestrian Facility Design Guidelines developed through the Pedestrian Master Plan (see Objective 7.1: Implement Best Practices for Pedestrian Facility Design).

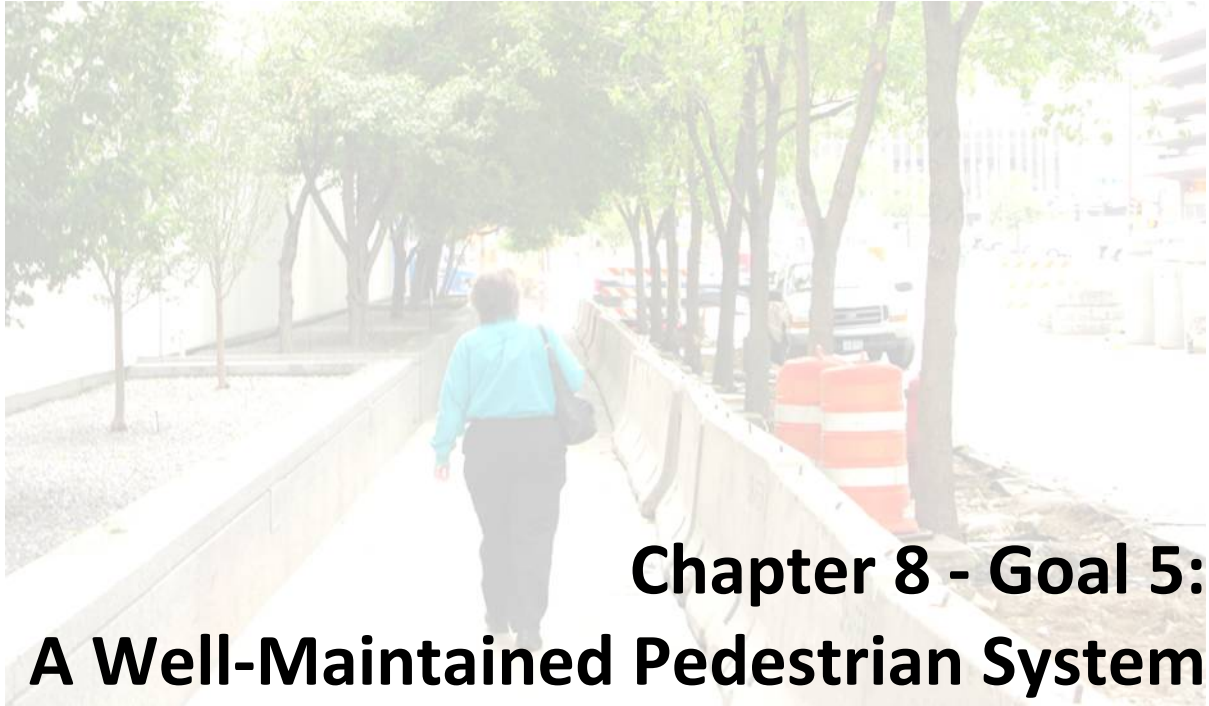
Implementation Strategies

4.6.1 Develop tree and landscaping design guidelines.

The City in coordination with the Minneapolis Park and Recreation Board will develop and implement guidelines for trees and landscaping in the public right-of-way, consistent with previous City Council direction. These guidelines will be published as Chapter 9 of the *Access Minneapolis Design Guidelines for Streets and Sidewalks*.

See also:

Objective 7.1: Implement Best Practices for Pedestrian Facility Design



Chapter 8 - Goal 5: A Well-Maintained Pedestrian System

Many of the concerns raised through the *Minneapolis Pedestrian Master Plan* process relate to the everyday operations and maintenance of the pedestrian system, including snow and ice clearance, sidewalk repair, regulation of newspaper boxes and sidewalk cafes, and sidewalk closures in work zones. This chapter addresses these issues. Other maintenance issues addressed in other chapters include crosswalk markings (see Chapter 6) and street furniture (see Chapter 7).

Objective 5.1: Ensure Effective Snow and Ice Clearance for Pedestrians.

Objective 5.2: Maintain Sidewalks in Good Repair

Objective 5.3: Manage Encroachments on Sidewalks

Objective 5.4: Maintain Pedestrian Safety and Accessibility in Construction Zones

OBJECTIVE 5.1: ENSURE EFFECTIVE SNOW AND ICE CLEARANCE FOR PEDESTRIANS.

Pedestrians need sidewalks, crosswalks, and other pedestrian facilities to be safe and accessible year round. Incomplete snow clearance discourages people from walking and using transit, poses significant accessibility barriers for many pedestrians, and can pose safety hazards for pedestrians who find it easier to walk in the street. Poor snow and ice clearance on pedestrian facilities is one of the biggest concerns raised through the *Minneapolis Pedestrian Master Plan* process, as shown in Table 9.

Table 9: Online Survey Results Related to Snow Clearance

| How well do current snow removal policies work? | % Agree |
|---|---------|
| Sidewalks on city-owned property are cleared in a timely manner | 79% |
| Existing snow removal system is effective | 69% |
| Transit stops and stations are cleared in a timely manner | 63% |
| Snow build-up at curb ramps is routinely cleared | 42% |
| Property owners clear sidewalks in a timely manner | 38% |
| The enforcement policy is effective | 36% |

Source: Pedestrian Master Plan Online Survey, 2008; 111 respondents

Snow and ice clearance on pedestrian facilities in the public right-of-way is the responsibility of the City. The City manages that responsibility by requiring property owners to clear snow and ice on sidewalks and curb ramps adjacent to their properties. City ordinance (see Appendix D, Chapter 445) requires property owners of single family or duplex residential properties to clear sidewalks within 24 hours of end of snowfall and requires property owners of commercial and multi-family residential units to be cleared within 4 hours of end of snowfall.

If the ordinance required time period has expired and a complaint about failure to clear sidewalk snow is received, the City's Public Works Department Sidewalk Inspections Division takes the following actions:

- An inspection is performed; a warning letter is sent (only one Warning Letter is sent to the property owner in a given snow season); and if a subsequent inspection has found non-compliance, a \$102 citation may also be issued.
- After the warning letter has been sent, a commercial property may be re-inspected within 1 business day, and a residential property may be re-inspected within 5 business days. If the re-inspection has found non-compliance, a snow removal work order will be issued and the property owner assessed for the cost of snow removal.
- Most sidewalk snow removal work orders are completed within 1 week.
- In addition, City ordinance 445.40 allows the City to revoke business licenses or permits for not complying with the snow and ice clearance requirements.

During the 2007-2008 snow season, the City received over 6,000 complaints about improper snow and ice clearance on sidewalks. Just under half of the complaints came from the public, mostly through 311, and the rest came from field inspectors. About



Sidewalks like this that are not well cleared of snow remain icy and slippery all winter.

75% of complaints were for residential properties. Most complaints resulted in property owners clearing snow or ice; only 1/3 of complaints resulted in City crews removing snow and assessing property owners for the cost. Less than 20 citations were issued.

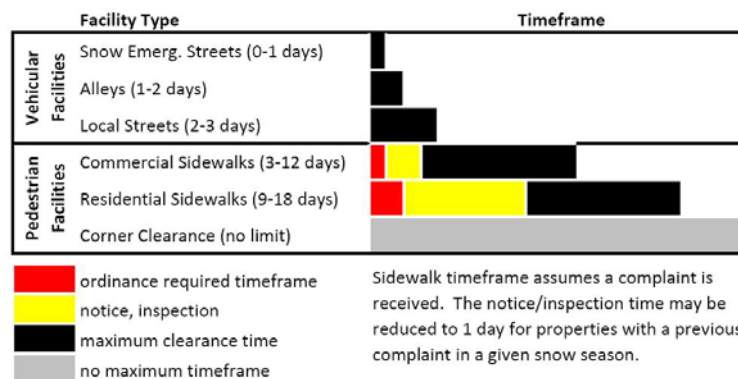
Residents who are unable to clear snow may contact the sidewalk inspector and request more time to remove the snow and ice from their public sidewalk. The City's Senior Citizen Ombudsman can also offer assistance to seniors and disabled property owners and can identify community groups who can offer their services to shovel for a fee. The city also offers free sand at several locations.

City crews are responsible for snow and ice clearance at crosswalks, sidewalks on bridges, pedestrian refuge islands, and bus stops without shelters. After snow clearance on City streets and alleys is completed according to the three-day snow emergency clearance schedule, the City then dispatches crews to clear the snow piles that form between the crosswalk and the curb ramps due to snow plow clearance of streets. Some locations, such as downtown corners, commercial corridors, off-street trails and sidewalks on bridges, are cleared during the first two days of snowfall, using crews that are not responsible for street snow clearance. Clearance of snow at corners is considered an enhanced level of service and is provided as resources allow. Some special service districts pay for an enhanced level of snow and ice clearance for sidewalks and curb ramps.

Snow and ice clearance at bus stops without shelters is the City's responsibility; snow and ice clearance at bus stops with bus shelters is the responsibility of the bus shelter owner, currently Metro Transit or CBS Outdoor.

While roadway snow clearance follows a predictable, three-day clearance process, there is no policy to ensure a similar clearance plan for pedestrian facilities, as shown in Figure 10.

Figure 10: Relative Timeframe for Snow Clearance



Challenges with the current practice include:

- *Enforcement of private property owner responsibilities is complaint-based and can be slow.* If a complaint is not received, the sidewalk will generally not be cleared of snow. If a complaint is received, it may take up to 12 days at a commercial property and up to 18 days at a residential property from the date a complaint is received. (See Figure 10)
- *There is no designated timeframe for the snow clearance responsibilities of the City.* While City crews generally prioritize early clearance efforts on commercial districts and high pedestrian use areas, there are no officially designated corridors or areas recognizable to the public for priority snow clearance of pedestrian facilities. There is no designated timeframe for snow clearance of these facilities; in many snowfalls, it may take three weeks to clear all the snow, and with repeated snowfalls, some of these areas may not be completely cleared of snow all winter.

- *Transit stops without shelters are often not adequately cleared of snow.* Snow clearance at bus stops is the responsibility of the bus shelter owner, currently Metro Transit or CBS Outdoor. Snow clearance at bus stops without bus shelters is the responsibility of the City. Many of these bus stops without shelters are not adequately cleared of snow, and it is common for bus riders to board buses either within street intersections or by climbing over snow piles.
- *Curb ramps and corners are often difficult to clear of snow.* Because snow plows travel straight through the intersection and do not plow around corners, a wedge of snow typically remains at corners. It is common for this snow to block the curb ramp, particularly if the curb ramp is diagonal or otherwise not aligned with the crosswalk and sidewalk. Snow frequently remains on curb ramps and curb ramp landings, making drainage difficult and icy conditions likely.

The City currently informs and reminds property owners of their responsibilities to clear sidewalks as part of its communications on snow emergencies and related parking restrictions. Figure 11 shows the portion of the utility bill insert on snow emergencies devoted to sidewalk shoveling, and Figure 12 shows one of the slides shown on its cable station between programs related to shoveling sidewalks. Figure 13 shows a door hanger recently developed by the City of St. Paul and SMART Trips for individuals to use to remind their neighbors of their responsibilities or snow clearance.

Figure 11: City of Minneapolis Utility Bill Insert

Don't forget to keep your sidewalks shoveled!

Please remember to shovel your sidewalks. Children walking to school, your neighbors walking to work, your postal carrier, and especially folks who have a difficult time getting around even without ice and snow rely on you to keep your sidewalks safe.

And it's the law. **City ordinances** require that **commercial properties clear the walks within 4 daylight hours** after the snow stops falling; **residential properties have 24 hours** to shovel the walks. Failure to shovel your walk could lead to a ticket *plus* the cost of City crews shoveling it.

311 For more information, please call **311**

And don't forget your garbage and recycling containers.

Shovel a 36-inch-wide path from your garbage cart and recycling bin to the street or alley.

City ordinances require this path be cleared for **garbage carts and recycling bins within 48 hours** after the snow stops falling. If City crews have to clear them, a fee of **\$30 per cart or bin** will be added to your utility bill.

**Solid Waste & Recycling
612-673-2917**

Need a Translation?

Attention: If you want help translating this information, call 612-673-3737.

Atención: Si desea recibir asistencia gratuita para traducir esta información, llame 612-673-2700.

Ogow: Haddii aad dooneyso in lagaa kaalmeeyo tarjamadda machummaadkani oo lacag la' aan wae 612-673-3500.

Ceeb toom: Yog koj xav tau kev pab txhais cov xov no rau koj dawb, hu 612-673-2800.

Figure 12: City of Minneapolis Cable Station Slide



Figure 13: City of St. Paul / SMART Trips Door Hanger

A Friendly Reminder:

24 HOURS
TO SHOVEL
SIDEWALKS

ST. PAUL CITY NO. 17107, 11-07-04

Hi – I'm a neighbor who relies on sidewalks being clear of snow and ice so that myself and others can get around safely and easily.

Our city requires that snow be removed from sidewalks within **24 hours after a snowfall.**

Not clearing walks can cost you a lot in fines and fees, so please see the other side of this card for helpful tips and resources.

Turn over for important information

Implementation Strategies

5.1.1 *Create a social norm of snow clearance through communications and education.*

The City will improve upon existing efforts to inform and support private property owners with their responsibilities for snow and ice clearance on sidewalks. Opportunities include:

- * Improving existing online information on proper snow and ice clearance, city ordinance requirements, and impacts to pedestrian users of improper clearance through text, photos, and videos.
- * Including information on sidewalk snow clearance with all snow emergency communications, including utility bill inserts and press releases.
- * Encouraging the public to use 311 to report pedestrian facilities that haven't been cleared of snow or ice.
- * Working with neighborhood organizations, business organizations and other stakeholders to educate the public on the importance of proper snow and ice clearance of pedestrian facilities.
- * Developing an approach to inform corner property owners of their particular responsibilities for snow and ice clearance since they are responsible for clearing two street frontages and curb ramps.

5.1.2 *Establish priorities for sidewalk snow clearance, including high pedestrian traffic areas.*

The City will build upon existing priorities for snow and ice clearance on sidewalks to establish a hierarchy of pedestrian facilities for prioritized snow and ice and clearance. The City will focus enforcement of private property responsibilities and City responsibilities for snow and ice clearance according to this priority system, as is currently done for snow clearance on streets.

5.1.3 *Improve enforcement and monitoring of private property owner responsibilities for snow clearance.*

The City will identify strategies to reduce the amount of time it takes to respond to snow removal complaints and investigate the expanded use of enforcement mechanisms, such as citations and business license/permit revocation, which are currently infrequently used.

5.1.4 *Support property owners with snow and ice clearance assistance options.*

The City will investigate expanding the fee-based assistance programs provided to property owners unable to clear snow themselves, using community organizations and youth programs.

5.1.5 *Explore reducing City snow clearance responsibilities on pedestrian facilities.*

The City will explore strategies including public/private partnerships for reducing City responsibilities for snow and ice clearance on pedestrian facilities on or adjacent to public property.

See also:

Objective 2.1: Identify and Remove Accessibility Barriers on Pedestrian Facilities

Objective 7.4: Foster Effective Pedestrian Advocacy and Stewardship

OBJECTIVE 5.2: MAINTAIN SIDEWALKS IN GOOD REPAIR

The City's Sidewalk Inspections Office operates an annual sidewalk repair program that inspects and replaces defective sidewalks throughout the City on a regular basis (see Map A-27). These inspections are often coordinated with major street renovation/reconstruction projects and major development projects. The cost of sidewalk repair is assessed 100% to adjacent property owners.

Many cities do not have a sidewalk repair program, and Minneapolis' program is an effective means of maintaining sidewalks and curb ramps, but there are some challenges:

- *Property assessments do not apply to public property.* Land owned by public agencies, such as the Minneapolis Park and Recreation Board (MPRB), Minneapolis Public Schools (MPS), and government buildings, cannot be assessed, and public funds must be used to repair these sidewalks. This issue was also addressed in Chapter 4. The City's Sidewalk Inspections Division coordinates its annual sidewalk repair program with other public entities, such as MPRB and MPS, allowing these public entities to use the City's sidewalk inspectors and sidewalk repair contractor for sidewalk repair along streets adjacent to these public properties. Depending upon their budgets and priorities, these public entities may or may not choose to coordinate their sidewalk repair needs with the annual sidewalk repair program.
- *Legal barriers prevent sidewalk repair across railroad tracks.* It is illegal to assess the railroad the cost of a repair for any infrastructure that exists on railroad property, and the City is required to file a permit to perform work within railroad right of way to repair sidewalks across railroad tracks. There are over 90 at-grade freight railroad crossings in Minneapolis. Many of these crossings have incomplete walking surfaces or walking surfaces that are an extension of the asphalt roadway crossing the tracks. This is an accessibility and safety issue because it forces pedestrians to walk in the street to cross the tracks. An inventory of sidewalks crossing at-grade railroad tracks is shown in Map A-28 and Table 10.
- *The frequency of the sidewalk repair inspection cycle has decreased.* The cycle of sidewalk inspection has decreased from a 10 year cycle to the current 12-14 year cycle. Current funding levels will allow the city to gradually resume the 10 year cycle.
- *"Temporary" asphalt patching may remain for years.* When the Sidewalk Inspections Office receives complaints of defective sidewalks that are outside of the annual sidewalk repair program area, the sidewalk is typically patched with asphalt on a temporary basis at no cost to the property owner, and a permanent repair occurs when the sidewalk cycles through the annual repair program, which could be a number of years later. This is primarily an aesthetic issue and not an accessibility issue.



This railroad crossing on Marshall Avenue NE is an example of a location with complete sidewalks approaching the tracks, but an incomplete walking surface crossing the tracks.

Table 10: Condition of Sidewalks Crossing At-Grade Railroad Tracks

| Type of Rail Service | Presence of Sidewalks Leading up to Tracks | Number of Railroad Crossings by Primary Sidewalk Crossing Material | | | Total Crossings |
|----------------------|--|--|-----------------|------------|-----------------|
| | | Concrete Surface* | Asphalt Surface | No Surface | |
| Freight | Complete Sidewalks | 9 | 31** | 5 | 45 |
| Freight | Incomplete Sidewalks | 3 | 9 | 31 | 43 |
| LRT | Complete Sidewalks | 23 | | | 23 |
| Trolley | Complete Sidewalks | | 1 | | 1 |
| Total | | 35 | 41 | 36 | 112 |

* Concrete crossings of freight railroad tracks often include asphalt between the railroad tracks and the sidewalk.

** 2 of the freight crossings with incomplete sidewalks and a concrete surface have concrete on one side of the street and asphalt on the other side of the street.

Implementation Strategies

5.2.1 *Inspect and repair sidewalks in an effective time frame.*

The City will continue to implement an annual sidewalk repair program and will seek to resume and maintain an appropriate frequency of inspections and repairs to maintain safe and accessible sidewalks.

5.2.2 *Prioritize and implement improvements to sidewalks at railroad crossings.*

The City will prioritize improvements to existing sidewalks crossing railroad tracks and investigate funding and implementation strategies to ensure these crossings are safe and accessible.

5.2.3 *Continue to coordinate the annual sidewalk repair program with repair of sidewalks adjacent to public property.*

The City will continue to work with the Minneapolis Park and Recreation Board, Minneapolis Public Schools, and other public entities to support and encourage coordinated inspection and repair of sidewalks adjacent to public property with the annual sidewalk repair program.

See also:

Objective 1.1: Complete the Sidewalk Network

Objective 2.1: Identify and Remove Accessibility Barriers on Pedestrian Facilities

OBJECTIVE 5.3: MANAGE ENCROACHMENTS ON SIDEWALKS

There are a lot of things that are placed in the sidewalk corridor, which can clutter the sidewalk, and create accessibility barriers, and contribute to a poorly maintained pedestrian system. Some of the most common encroachment issues reported by pedestrians are:

- *Sidewalk Cafes* - Sidewalk cafes are a private use of the public right-of-way that if properly designed and operated can contribute to a more vibrant street life and walking environment. However, sidewalk cafes need to be carefully managed as they can also degrade the quality of walking by narrowing the physical space available for walking, trees, street furniture, and other needs in the Pedestrian Zone. It is not uncommon for sidewalk cafes to gradually, if unintentionally, expand into the Through Walk Zone. As of October 2008, there were 230 licensed sidewalk cafes in Minneapolis. Sidewalk cafes in Minneapolis are licensed and enforced by the City's Regulatory Services Department.



Sidewalk cafes foster street life, but need to be managed to ensure accessibility.

The City's sidewalk café standards provide specific guidance on the layout of sidewalk cafes on sidewalks. Generally sidewalk cafes are allowed on sidewalks 12 feet or narrower if a 4 foot clear, unobstructed Through Walk Zone is maintained and on sidewalks wider than 12 feet if a minimum 6 foot Through Walk Zone is maintained. The current annual license fee for sidewalks cafes is \$325 for cafes with 30 or fewer seats, and \$468 for cafes with more than 30 seats. Violations of the sidewalk café license can result in a progressive administrative fine between \$200 and \$2000.

- *Newspaper Boxes* - Newspaper boxes are often poorly maintained and improperly placed to restrict pedestrian movement and accessibility. In December 2008, the City Council adopted an ordinance to improve the regulation of newspaper boxes (Title 17, Chapter 464). The ordinance includes detailed requirements regarding the placement of newspaper boxes and institutes a new newsrack license fee to fund the City's administration and enforcement costs for regulating newspaper boxes.



These newspaper boxes are too close to the crosswalk .

- *Sandwich Boards* - Portable "sandwich board" signs can restrict pedestrian movement and accessibility if placed where pedestrians need to walk. City ordinance (Title 20, Chapter 543) allows portable signs outside downtown on sidewalks if they are placed in the Planting/Furnishing Zone or Frontage Zone, but not in the Through Walk Zone (see Figure 9). Within downtown, portable signs may be allowed if permitted in connection with an approved valet parking license or sidewalk café permit.
- *Vegetation Maintenance* - Overgrown hedges, landscaping or trees behind the sidewalk can narrow the effective sidewalk width or reduce visibility for pedestrians; these issues are the responsibility of private property owners and enforced by the City's Regulatory Services Department. Similarly, boulevard trees and boulevard gardens may become overgrown and

narrow the effective sidewalk width or reduce visibility; maintenance of boulevard trees is the responsibility of the Park Board, and regulation of boulevard gardens is the responsibility of Public Works.

Implementation Strategies

5.3.1 Enforce sidewalk café standards.

The City will continue to enforce the requirements of the sidewalk café standards.

5.3.2 Review and consider updates to the City's existing sidewalk café standards.

The City will also review the requirements of the sidewalk café standards for compatibility with the *Design Guidelines for Streets and Sidewalks* and consider updates to the café standards as appropriate.

5.3.3 Implement and enforce the newsrack ordinance.

The City will implement and enforce the recently adopted newsrack ordinance, which requires all newspaper boxes to be licensed, the fees from which will fund the City's enforcement of the placement and maintenance of newspaper boxes.

5.3.4 Educate the public on requirements and best practices for maintaining the public right-of-way and reporting problems.

The City will improve communication tools and online information to inform the public and property owners of requirements for maintaining landscaping, fencing, newspaper boxes, sandwich boards, and other potential encroachments into the public sidewalk, as well as how to report problems.

See also:

Objective 2.1: Identify and Remove Accessibility Barriers on Pedestrian Facilities

Objective 4.4: Provide Street Furniture Appropriate for Pedestrian Needs

Objective 7.4: Foster Effective Pedestrian Advocacy and Stewardship

OBJECTIVE 5.4: MAINTAIN PEDESTRIAN SAFETY AND ACCESSIBILITY IN CONSTRUCTION ZONES

During construction, pedestrian access via sidewalks and crosswalks may be altered or restricted. Temporary alterations to the pedestrian network can significantly affect the safety, accessibility, and convenience of walking. The City currently charges daily closure fees for sidewalks (\$0.15 per lineal foot per day outside downtown and \$0.25 in downtown) and traffic lanes (\$0.50 per lineal foot per day outside downtown and \$1.00 in downtown). Challenges with current practices for construction zones include:

- *Practices for maintaining accessible and safe pedestrian access through construction zones is inconsistent.* While the Minnesota Manual on Uniform Traffic Control Devices (Part 6, Chapter 6D) provides guidance on pedestrian safety and accessibility in work zones, there is not training or policy in place to ensure it is in use by all city crews and private contractors.
- *Sidewalks may be closed without a temporary walkway on one side of the street in downtown.* There are no requirements for providing a temporary walkway when a sidewalk is closed, unless the sidewalks on both sides of the street are closed. While this may be appropriate in most of the city, it causes considerable inconvenience for large numbers of pedestrians in downtown and other high pedestrian activity areas.



Pedestrian safety and accessibility needs to be maintained in work zones.

Implementation Strategies

5.4.1 Develop guidelines for safety and accessibility in work zones.

The City will develop guidelines for staff and contractors on safety and accessibility in work zones, drawing upon guidance in the Manual on Uniform Traffic Control.

5.4.2 Establish regular staff training programs and materials on the City's practices for safety and accessibility in work zones.

The City will provide staff and contractors with the necessary information to implement the City's recommended practice for safety and accessibility in work zones, including potentially integrating the training into the Public Works Department's annual Safety Days programs.

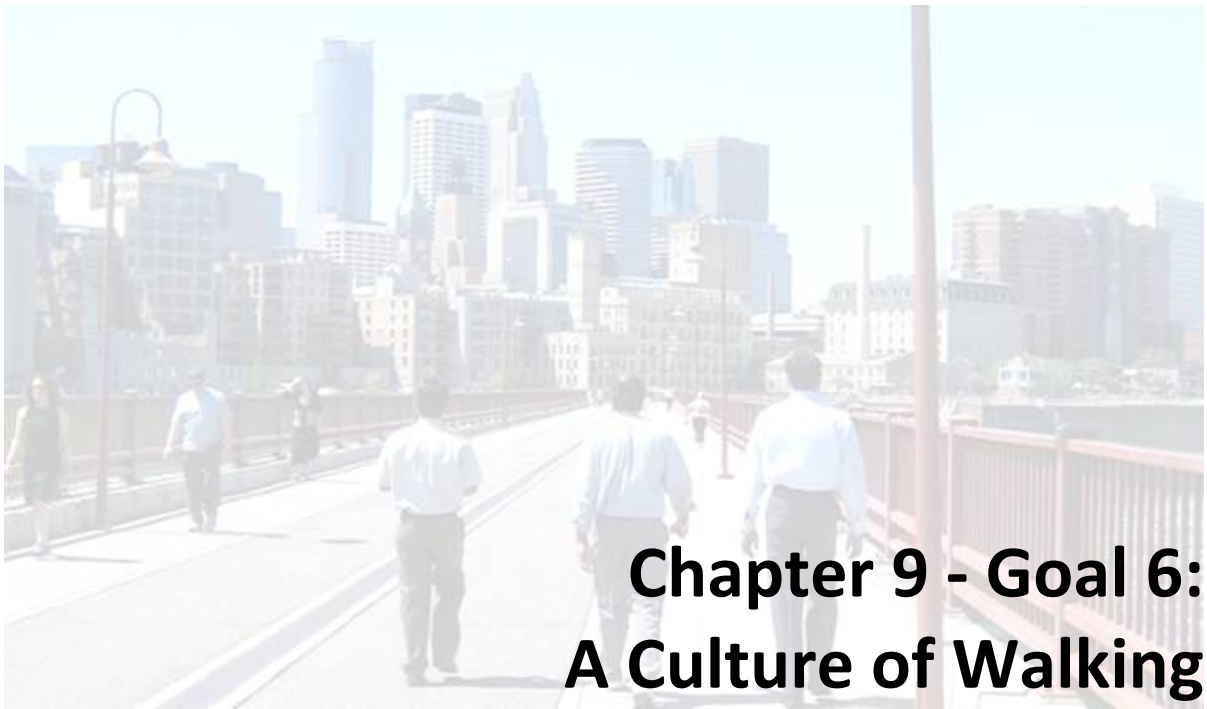
5.4.3 Re-examine the City's existing policy and rate structure for sidewalk closures.

The City will re-examine its current policy and rate structure for sidewalk closures. The examination should include the feasibility of requiring a temporary pedestrian route be provided in high pedestrian use areas when the sidewalk on one side of the street is closed. Tradeoffs to be considered include cost and traffic impacts associated with providing a temporary walkway.

See also:

Objective 2.1: Identify and Remove Accessibility Barriers on Pedestrian Facilities

Objective 2.2: Improve and Institutionalize Best Design Practices for Accessibility



Chapter 9 - Goal 6: A Culture of Walking

In order to get more people to walk in Minneapolis, physical infrastructure improvements are very important, but equally important are efforts to change people's personal habits, cultural norms, and perceptions about walking. A lot of people rely on automobiles for travel to destinations that are walkable in Minneapolis. In order to change people's habits and perceptions, the City needs help to foster a culture of walking.

One of the ways that the City is promoting walking is through the Bike Walk Ambassador Program, a three-year education and promotion effort funded through 2010 by Bike/Walk Twin Cities (see Chapter 2). The program is currently staffed by four ambassadors and several summer youth ambassadors who give presentations, lead walks, and host events within Minneapolis and 13 adjacent communities.



***Objective 6.1:
Promote Walking for
Youth***

***Objective 6.2:
Promote Walking for
Adults***

***Objective 6.3:
Showcase and
Celebrate Great
Walking Experiences***

OBJECTIVE 6.1: PROMOTE WALKING FOR YOUTH

*Minneapolis Safe Routes to School; Helping Minneapolis Youth be Lean and Green*³⁵ is a plan developed jointly by the City of Minneapolis Department of Health and Family Support (MDHFS) and the Minneapolis Public Schools (MPS). It contains policy and program recommendations aimed at creating efficient, sustainable, safe and healthy ways for children in Minneapolis to travel to and from school. The Plan was completed in 2008 and presented to the Minneapolis City Council and Minneapolis Public School Board.

The Plan is part of an international Safe Routes to Schools (SRTS) movement³⁶ that grew primarily out of concerns about increasing rates of childhood obesity and the need to create opportunities for children to be physically active each day. Prior to the development of this plan, the City had already been implementing a School Pedestrian Safety Program, as explained in Chapter 6, and utilizing limited federal SRTS program funding administered by Mn/DOT.³⁷



The Plan is currently being implemented through a Safe Routes to Schools working group consisting of staff from MPS, MDHFS, the Minneapolis Police Department, the Minneapolis Park and Recreation Board (MPRB), the Bike Walk Ambassador program, and other stakeholders. One of the tasks the working group work has undertaken is to develop a city-wide, uniform process for mapping safe routes in Minneapolis neighborhoods. In addition, the School District currently has funded a part-time coordinator to help implement the plan recommendations, and the City awarded mini-grants in 2008 to 14 schools to support individual school SRTS efforts, such as walking school bus programs, National Bike Walk to School Day events, and bike locks for students to rent. Finally, the Minneapolis Public Schools is currently undergoing a major restructuring that will likely result in reductions in student bussing and an increase in children walking to school.

In addition to encouraging walking to school, the Bike Walk Ambassador program works with the MPRB and youth organizations to encouraging youth to bike and walk to other youth activities.

Implementation Strategies

6.1.1 Implement the Minneapolis Safe Routes to Schools Plan.

The City will work with the Minneapolis Public Schools and other partner agencies to implement the Minneapolis Safe Routes to School Strategic Plan.

6.1.2 Promote walking to youth activities.

The City will promote walking among youth to other activities in addition to school, consistent with work underway by the Bike Walk Ambassador Program.

See also:

Objective 3.3: Improve Pedestrian Safety for the Most Vulnerable Users

³⁵ <http://www.ci.minneapolis.mn.us/dhfs/saferoutes.pdf>

³⁶ National Center for Safe Routes to School. <http://www.saferoutesinfo.org>

³⁷ <http://www.dot.state.mn.us/saferoutes>

OBJECTIVE 6.2: PROMOTE WALKING FOR ADULTS

There are a number of initiatives to increase walking among adults, including:

- *Bike Walk to Work Week* - Bike Walk to Work Week is a week-long program used to encourage people to walk or bike to their place of employment instead of driving their personal vehicle. This program involves guides for walking and biking routes and activities at the plaza of the Hennepin County Government Center. The Bike Walk Ambassador Program currently leads Bike Walk to Work Week activities.
- *Guaranteed Ride Home Program* - The Guaranteed Ride Home Program is operated by Metro Transit to allow people who walk or bicycle to work or school 3 or more days per week to request emergency vouchers for a free transit ride or cab fare amounting to \$25.
- *Steps to a Healthier Minneapolis* - Steps to a Healthier Minneapolis is funded by the U.S. Department of Health and Human Services to reduce the burden of chronic illnesses by addressing several related risk factors including physical inactivity. Funding for this program began in 2004 and is scheduled for five years. Steps activities have encouraged active living in community, healthcare, school and worksite settings and are focused in Minneapolis neighborhoods with the greatest health disparities: North Minneapolis, Northeast Minneapolis, and Phillips. In 2006, Steps awarded mini-grants to community organizations to conduct walking groups and campaigns to increase physical activity among residents.
- *Get Fit Twin Cities* - The City is also involved in a partnership with St. Paul to improve nutrition and physical fitness through the “Get Fit Twin Cities” physical fitness challenge. This is an annual program every January through May. Participants register as individuals or teams and record the minutes of physical activity and weight loss they accomplish. In 2007, there were 7500 participants and 1400 teams.

Implementation Strategies

6.2.1 Promote walking for health purposes.

The City will continue to promote walking for health purposes, including through programs such as the Steps to a Healthier Minneapolis.

6.2.2 Promote walking to work.

The City will continue to promote walking to work, including through programs such as Bike Walk to Work Week.

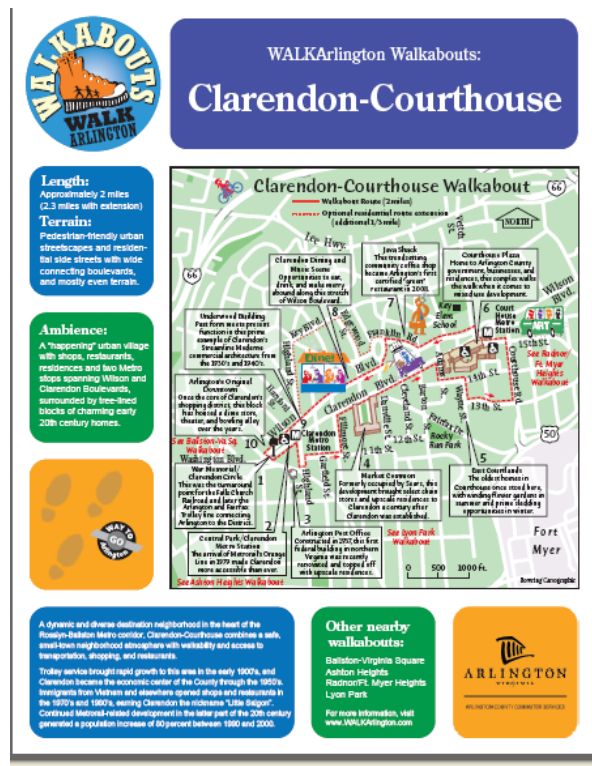
See also:

Objective 3.2: Promote Safe Behavior for Drivers, Bicyclists and Pedestrians

OBJECTIVE 6.3: SHOWCASE AND CELEBRATE GREAT WALKING EXPERIENCES

People need to experience and hear about fun and interesting places to walk and view walking as a positive part of living, working, playing in and visiting Minneapolis. Currently, there are a number of efforts upon which to build a positive public awareness of walking, including:

- *Walking Minneapolis* - Walking Minneapolis is a private sector initiative within the City dedicated to promoting and improving walking in downtown Minneapolis. The scope of the program includes the planning of a series of walking experiences, the designation of specific routes where primary walking paths will occur, and the creation of a non-profit privately funded organization that will take responsibility for the funding, programming, marketing, operation, maintenance, repair, and management of these amenities.
- *Heritage Preservation Commission Walking Tours* – The Minneapolis Heritage Preservation Commission and the Minneapolis Department of Economic Development sponsor free, guided walking tours from May to September in various locations throughout the City.
- *Fun Runs/Walks* - There are a number of annual fun runs/walks typically in the Park Board system every year. These events attract large numbers of walkers/runners and are good opportunities to promote walking. Examples include the March of Dimes Walk, the Walk for Alzheimer's, AvonWalk, etc.



The Walk Arlington website (www.walkarlington.com) hosts a series of "curated walks" which include detailed maps, YouTube videos, text descriptions and photographs of over 20 different walks in Arlington, Virginia.

Implementation Strategies

6.3.1 Develop walking maps.

The City will collaborate with other public and private entities to develop walking maps that showcase great places to walk in Minneapolis. Potential partners could include the Bike/Walk Ambassador Program, Walking Minneapolis, Hennepin County, Meet Minneapolis, and local business associations. Examples include:

- * Seattle, WA: www.feetfirst.info/mapping
- * Arlington, VA: www.walkarlington.com/go/walks.html
- * Boston, MA: www.walkboston.org
- * Portland, OR: www.oregonmetro.gov/walk

6.3.2 Develop walking tours

The City will collaborate with other public and private entities to develop and promote walking tours, such as the current Minneapolis Heritage Preservation Commission Walking Tours. These tours could be promoted in conjunction with the walking maps referenced above.

6.3.3 Promote/develop public walking celebrations.

The City will collaborate with other public and private entities to showcase and encourage walking through public celebrations. Opportunities could include

- * an annual walking celebration that showcases the many programs and resources for walking
- * one or more summer street closures to celebrate and enjoy bicycling and walking, such as the Sunday Streets in San Francisco, Summer Streets in New York City and the Sunday Parkways in Portland, Oregon
- * a combined walkability audit and walking celebration, such as the Pasadena Playhouse District Association Walkabout³⁸

6.2.4 Foster positive public messaging about walking.

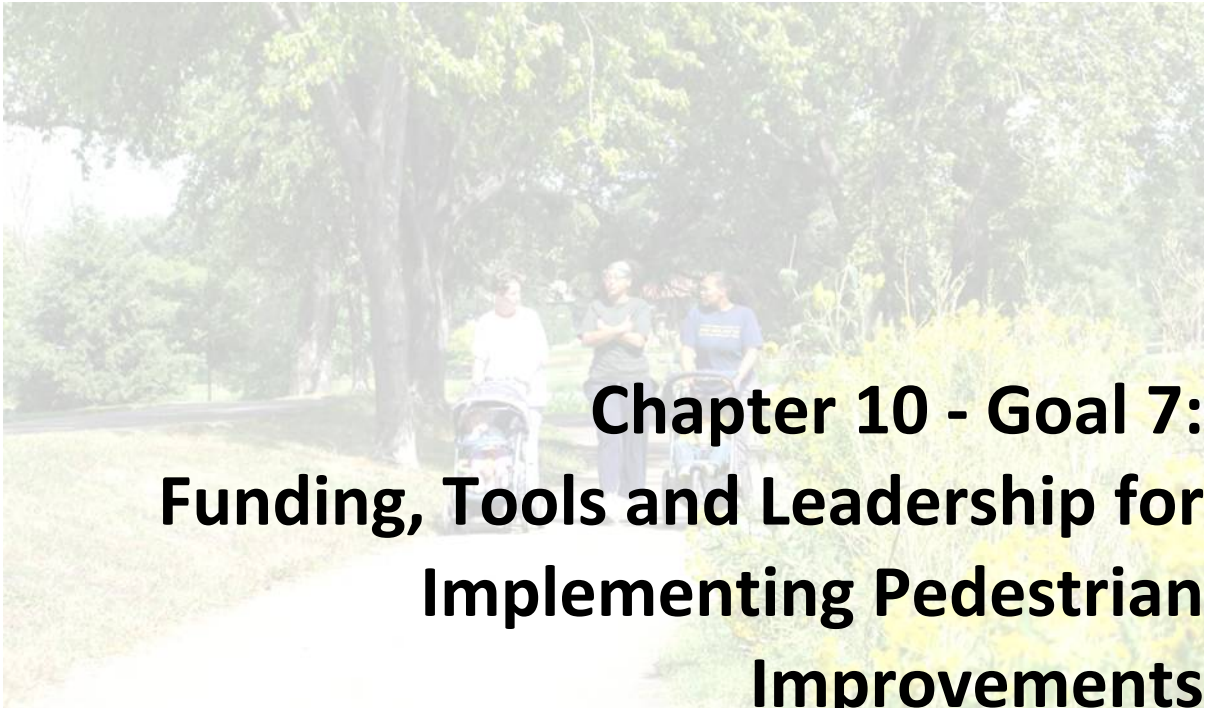
The City will foster positive public messaging about great places to walk, improvements to the pedestrian environment, and experiences of people who walk through the media and city communications tools.

See also:

Objective 1.4: Improve Pedestrian Wayfinding Information

Objective 4.5: Foster Vibrant Public Spaces for Street Life

³⁸ The City of Pasadena and the Playhouse District Association sponsored a Downtown Pasadena Walkabout. Over 120 people in 25 teams walked more than 30 miles of downtown streets in an effort to promote walking and gather information about the condition of walking in downtown. www.playhousedistrict.org



Chapter 10 - Goal 7: Funding, Tools and Leadership for Implementing Pedestrian Improvements

Although Minneapolis has a lot of great places to walk and good pedestrian facilities in many areas of the City, there are a lot of potential pedestrian facility improvements. To implement improvements, the City needs to proactively prioritize pedestrian needs alongside other transportation needs and seek out the most cost-effective means of implementing pedestrian improvements citywide.

Currently, many pedestrian improvements are implemented in conjunction with other needs, such as street reconstruction projects, bridge replacement projects, redevelopment projects, LRT/BRT transit projects, multi-use trail projects, or major development-oriented infrastructure projects. Standalone pedestrian projects are less common, but may include streetscape projects independent of street reconstruction, traffic calming projects, and the school pedestrian safety program projects. Table 11 outlines the advantages and disadvantages of each of these types of implementation approaches for pedestrian improvements. Among the challenges with current means of implementing pedestrian improvements are:

- *There are limited street and bridge reconstruction opportunities.* While street and bridge reconstruction projects are a great opportunity to implement pedestrian improvements, there are few opportunities. Streets and bridges are typically replaced every 40-60 years and are usually initiated by pavement and bridge condition needs, not by pedestrian facility needs.

***Objective 7.1:
Implement Best
Practices for Pedestrian
Facility Design***

***Objective 7.2: Integrate
Pedestrian
Improvements into
Capital Improvement
Programs***

***Objective 7.3: Improve
Tools to Identify, Plan,
Design, and Evaluate
Pedestrian
Improvements***

***Objective 7.4: Foster
Effective Pedestrian
Advocacy***

***Objective 7.5: Pursue
New Funding Tools for
Pedestrian Facilities***

- *Retrofitting pedestrian improvements with other infrastructure improvements is uncommon.* As funding has become more constrained, fewer dollars are being spent on major reconstruction projects, which typically offer the biggest opportunity for integrating pedestrian improvements. Retrofitting pedestrian improvements into existing streets and bridges is less common than integrating them into reconstruction projects. There are many other infrastructure improvement opportunities to integrate pedestrian improvements, such as traffic signal replacement, traffic signal retiming, combined sewer overflow improvement projects, street renovation projects, and street resurfacing projects. But there is currently no clear funding and implementation mechanism to foster this type of coordination.
- *Redevelopment areas often have significant pedestrian improvement needs.* Areas that are undergoing major redevelopment in Minneapolis typically have significant needs for pedestrian improvements as most redevelopment in Minneapolis brings more pedestrian-oriented land uses. Pedestrian improvements in these areas often occur in a piecemeal manner as individual developments make pedestrian improvements to a specific block or, more likely, a portion of a block. Often these areas require significant infrastructure and development coordination.
- *The City relies almost exclusively upon petition-driven private property owner assessments for several types of pedestrian improvements,* including standalone streetscape projects, enhanced streetscape on reconstruction projects, traffic calming, and filling sidewalk gaps. In many cases, there is a significant disconnect between those responsible for funding improvements (adjacent property owners) and those who benefit from improvements (larger community, city as a whole). While these improvements may enhance adjacent property values, they serve a larger community need, particularly in transit corridors, activity centers, and neighborhood commercial nodes.
- *Pedestrian advocacy is generally weak.* Unlike other advocacy groups, pedestrians generally are not well-represented and aren't in a position to advocate strongly for their needs. As a result, pedestrian needs may not be as well integrated into the design, funding, and programming of improvements as is needed to achieve the City's goals for improving walking.
- *The City does not have jurisdiction over all streets with pedestrian facilities.* Many pedestrian facility improvement needs in Minneapolis are on streets or bridges which are owned by Hennepin County or the State of Minnesota. Improving these facilities requires coordinated priorities among agencies.

Table 11: Current Means of Implementing Pedestrian Improvements

| Implementation Means | Advantages | Disadvantages |
|--|--|--|
| Street and Bridge Replacement Projects | <ul style="list-style-type: none"> Substantial reconstruction of right-of-way, which often allows for sidewalk widening, curb extensions, tree planting (and beginning in 2009 street lighting) Enhanced streetscape (landscaping, decorative fencing, decorative sidewalk treatments, and street furniture) is sometimes integrated into the street project through a special service district, in which property owners pay for the enhanced streetscape capital and operating costs. | <ul style="list-style-type: none"> Few projects of this type Typically driven by pavement condition or other vehicular needs Less successful commercial areas may not have the resources to pay for operating costs for enhanced streetscape, although grant funding may be available to offset capital costs |
| New development/ Redevelopment Projects | <ul style="list-style-type: none"> Often substantial opportunity to improve site design for pedestrians Construction often requires removal and replacement of sidewalks, curb ramps and boulevards Many redevelopments in downtown and activity centers seek to implement pedestrian-oriented improvements, such as trees, wider sidewalks, and pedestrian-level lighting Some larger redevelopments of an entire blockface offer more opportunities to comprehensively address pedestrian needs in an area | <ul style="list-style-type: none"> Pedestrian improvement needs may extend beyond the sidewalks and boulevards immediately adjacent to a particular development property, often resulting in piecemeal implementation of pedestrian improvements Areas undergoing major redevelopment often require substantial infrastructure and development coordination Tools for evaluating the transportation impacts of new development are more refined for vehicular needs than pedestrian needs |
| LRT/BRT Transit Projects | <ul style="list-style-type: none"> Pedestrian access is typically a high priority for these projects | <ul style="list-style-type: none"> Pedestrian needs may extend beyond transit facility improvements, while funding may not |
| Multi-Use Trail Projects | <ul style="list-style-type: none"> May improve pedestrian network connectivity Often competitive for federal funding | <ul style="list-style-type: none"> Often more oriented to longer trips by bicycle than walking |
| Development-Oriented Major Infrastructure Projects | <ul style="list-style-type: none"> Often oriented to infrastructure needed for creating walkable places, such as new street connections or pedestrian plazas | <ul style="list-style-type: none"> Few projects of this type |
| Standalone Streetscape Projects | <ul style="list-style-type: none"> May be implemented without a street reconstruction project | <ul style="list-style-type: none"> Require property owner assessments; special grant funding may offset capital costs, but operating costs typically require special service districts Less successful commercial areas may not have the resources to pay for operating costs for enhanced streetscape, although grant funding may be available to offset capital costs |
| Traffic Calming Projects | <ul style="list-style-type: none"> Address common residential neighborhood pedestrian needs | <ul style="list-style-type: none"> Must be initiated by property owners who pay 100% of the cost of the traffic calming improvement; grant funding may offset |
| School Pedestrian Safety Program Improvements | <ul style="list-style-type: none"> Proactive approach for evaluating and improving walking at all 87 K-8 schools in Minneapolis | <ul style="list-style-type: none"> Typically limited to signage, striping, and parking restriction type of improvements Limited federal Safe Routes to Schools funding for higher cost improvements, such as overhead flashing signals or curb extensions |

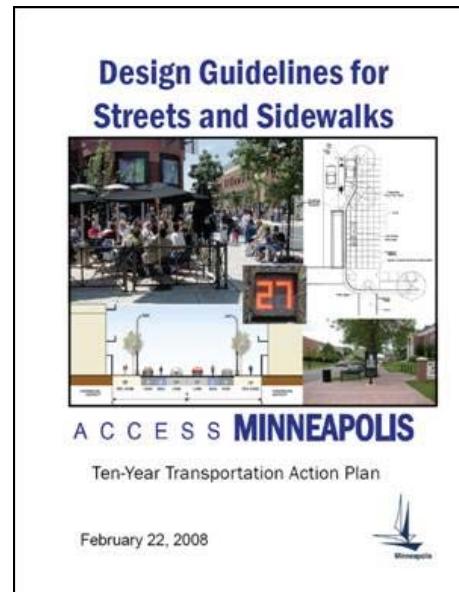
OBJECTIVE 7.1: IMPLEMENT BEST PRACTICES FOR PEDESTRIAN FACILITY DESIGN

Changes to pedestrian facilities occur almost daily in Minneapolis through redevelopment projects, street and bridge reconstruction or renovation projects, and maintenance activities. All of these activities are opportunities to improve the pedestrian system if best practices for design are understood and aligned with funding and implementation practices.

The City's *Design Guidelines for Streets and Sidewalks*³⁹ contain extensive guidance on best practices for planning and designing complete streets that support and encourage walking, bicycling and transit use while promoting safe operations for all users. The Guidelines were developed originally as part of the *Access Minneapolis Transportation Action Plan* process and expanded through the *Pedestrian Master Plan* process to address pedestrian facility design in greater detail. The Guidelines address how to balance the competing interests of various street users in the street planning and design process.

The expanded pedestrian design guidelines are published as Chapter 10 of the *Design Guidelines for Streets and Sidewalks*. The guidelines parallel many of the issues addressed through the *Pedestrian Master Plan*; however, they differ in that they have more detailed design guidance and are oriented to design best practices, rather than implementation or policy issues. Other additions to the *Design Guidelines for Streets and Sidewalks* currently underway include Bicycle Design Guidelines and Tree and Landscaping Guidelines. Chapter 10 of the *Design Guidelines for Streets and Sidewalks* addresses the following design issues:

- *Pedestrian network connectivity*, including filling sidewalk gaps, sidewalk connectivity
- *Pedestrian zone design*, including pedestrian zone organization and widths, solutions for constrained conditions, sidewalk surface design, placement of street furniture and utilities in the pedestrian zone, driveway/alley/railroad crossings of sidewalks, design of sidewalks on bridges and underpasses,
- *Street corners*, including corner space and walking path alignment, visibility at corners, corner radii, curb ramps, locating pedestrian signal call buttons, curb extensions
- *Street crossings*, including crosswalk markings, signs, signals, pedestrian refuge islands, lighting
- *Transit stops*, including organization of clear zones within bus stops and placement of bus shelters, benches, bus stop signs, and other street furniture
- *Limited guidance on other issues*, including skyway system and off-street trail design, wayfinding, site planning, safety and accessibility in work zones



The City's *Design Guidelines for Streets and Sidewalks* provides details on good pedestrian facility design, so that pedestrian facilities are not simply replaced, but improved, as opportunities arise.

³⁹ <http://www.ci.minneapolis.mn.us/public-works/trans-plan/DesignGuidelines.asp>

Implementation Strategies**7.1.1 Utilize and improve the City's Design Guidelines for Streets and Sidewalks.**

The City will continue to use the *Design Guidelines for Streets and Sidewalks* and Chapter 10 Pedestrian Design Guidelines for planning and designing infrastructure improvements and train staff and consultants in appropriate use of the Guidelines. The City will improve the Guidelines as needed.

See also:

Objective 2.2: Improve and Institutionalize Best Design Practices for Accessibility

Objective 4.1: Design Streets with Sufficient Space for Pedestrian Needs

Objective 4.2: Design Bridges and Underpasses for Pedestrian Needs

Objective 4.6: Foster Healthy Trees and Greening along Sidewalks

OBJECTIVE 7.2: INTEGRATE PEDESTRIAN IMPROVEMENTS INTO CAPITAL IMPROVEMENT PROGRAMS

The City needs to take advantage of opportunities to both integrate pedestrian improvements into other infrastructure projects, as well as to prioritize and advance high priority pedestrian improvements independently of other improvement projects. To support this objective, the *Pedestrian Master Plan* contains a prioritized list of over 150 potential pedestrian improvement projects, as documented in Appendix C. The projects were identified based upon existing plans, an inquiry to neighborhood organizations, planned multi-use trails, and a review of locations with high numbers of pedestrian crashes or narrow pedestrian zone widths. They were evaluated and grouped into high, medium and low pedestrian need levels based upon a combination of infrastructure condition and pedestrian demand criteria. These projects are detailed in Appendix C.

The prioritized list is by no means a complete inventory of all pedestrian improvement needs in Minneapolis, but it provides a good starting point for developing an ongoing pedestrian improvement program and integrating pedestrian needs into capital improvement programs and other projects. The evaluation also considered the project readiness so that projects that have had further study or that might be coordinated with another programmed infrastructure improvement may be implemented as those opportunities arise.

Implementation Strategies

7.2.1 *Develop a pedestrian improvement program.*

The City will use the pedestrian improvement priorities in Appendix C to initiate development of an ongoing pedestrian improvement program, prioritizing those projects with the highest pedestrian need and nearest term project readiness. The pedestrian improvement program will be integrated into the City's capital improvement program process and used to compete for competitive funding grants.

7.2.2 *Evaluate all infrastructure projects for potential pedestrian improvement opportunities.*

The City will evaluate all infrastructure improvements for potential integration of pedestrian improvements and seek to fund and implement pedestrian retrofit improvements where feasible. This should include not only reconstruction projects, but also smaller preservation projects and not only City projects, but also jurisdictional partner projects, such as Mn/DOT and Hennepin County.

7.2.3 *Coordinate the pedestrian improvement program with other improvement opportunities.*

The City will coordinate its pedestrian improvement program with redevelopment projects, partner agency capital improvement programs, and other improvement opportunities.

See also:

Objective 1.1: Complete the Sidewalk Network

Objective 2.1: Identify and Remove Accessibility Barriers on Pedestrian Facilities

Objective 3.1: Reduce Pedestrian-Related Crashes

Objective 3.4: Improve Traffic Signals for Pedestrians

OBJECTIVE 7.3: IMPROVE TOOLS TO IDENTIFY, PLAN, DESIGN, AND EVALUATE PEDESTRIAN IMPROVEMENTS

The tools for identifying improvement needs are typically more defined for vehicular needs than for pedestrian needs. As a result, pedestrian needs can be difficult to quantify and document.

Implementation Strategies

7.3.1 *Improve how Travel Demand Management Plans address pedestrian needs.*

The City will enhance the existing Travel Demand Management Plan (TDMP) process (currently required for all developments projects of 10,000 square feet or larger and for projects in Pedestrian Oriented Overlay Districts) by developing a checklist of specific pedestrian issues to be identified and potentially mitigated through TDMPs, such as accessibility improvements, street crossing safety improvements, pedestrian environment improvements, and access to transit improvements. The City will encourage developers to implement such improvements to the TDMPs.

7.3.2 *Evaluate methods to quantify pedestrian needs.*

As methods for quantifying pedestrian needs become more readily available, the City will test these methodologies and use them as appropriate. One existing methodology to test is the Multi-modal Level of Service methodology recommended for the 2010 version of the Highway Capacity Manual.

7.3.3 *Measure pedestrian demand.*

The City will continue to develop measurements of pedestrian demand, including conducting pedestrian counts and estimating pedestrian demand.

7.3.4 *Evaluate the effectiveness of pedestrian improvements.*

The City will seek to evaluate the effectiveness of pedestrian improvements, in order to improve upon future improvements and build support for future improvements.

See also:

Objective 3.1: Reduce Pedestrian-Related Crashes

OBJECTIVE 7.4: FOSTER EFFECTIVE PEDESTRIAN ADVOCACY AND STEWARDSHIP

Having a public which understands pedestrian needs, advocates for those needs, and contributes to addressing those needs can help the City to implement needed improvements.

Implementation Strategies**7.4.1 Continue and Improve the Pedestrian Advisory Committee.**

The City will continue to operate the Pedestrian Advisory Committee (PAC), improve the structure and operation of the PAC as needed, and support the PAC's role in improving walking conditions in Minneapolis.

7.4.2 Encourage public reporting of pedestrian issues to 311.

The City will actively promote use of 311 for the public to report pedestrian issues and track and respond to those issues.

7.4.3 Support neighborhood advocacy for pedestrian improvements.

The City will support neighborhood-level advocacy for pedestrian needs. One means of doing so is to offer training in walkability audits.

See also:

Objective 3.2: Promote Safe Behavior for Drivers, Bicyclists and Pedestrians

Objective 5.1: Ensure Effective Snow and Ice Clearance for Pedestrians.

Objective 5.3: Manage Encroachments on Sidewalks

OBJECTIVE 7.5: PURSUE NEW FUNDING TOOLS FOR PEDESTRIAN FACILITIES

In order to improve pedestrian facilities citywide, new types of funding tools and partnerships will be needed.

Implementation Strategies**7.5.1 Investigate increased use of public-private partnerships.**

The City will continue to explore increased use of public-private partnerships such as the greening partnerships between the City and private property owners to maintain plantings in the medians on 3rd Avenue S and Washington Avenue S in downtown.

7.5.2 Investigate cost-sharing programs.

The City will explore potential cost-sharing programs, such as the bike rack cost share program, to fund different types of pedestrian improvements.

7.5.3 Investigate creation of broader improvement districts.

The City will explore potential changes to allow improvement districts that are broader in geography than special service districts and that include both residential and commercial property owners.

See also:

Objective 6.3: Showcase and Celebrate Great Walking Experiences



Chapter 11 - Implementing the Plan

This plan contains over 70 implementation strategies, described in the previous chapters, that provide specific guidance on making Minneapolis a great walking city where people choose to walk for transportation, recreation, and health. These strategies are summarized in Table 12.

Implementing the plan will require participation by several city departments, partner agencies, and the public at large, and it may take several years to initiate all of the plan implementation strategies. The City's Pedestrian Advisory Committee should take an active role in prioritizing and guiding work on the plan's implementation strategies.

Table 12: Minneapolis Pedestrian Master Plan Goals, Objectives and Strategies

(continued on next page)

| |
|--|
| Goal 1: A Well-Connected Walkway System |
| Objective 1.1: Complete the Sidewalk Network <i>(see also 5.2, 7.2)</i> |
| 1.1.1 Establish sidewalks as standard infrastructure. |
| 1.1.2 Investigate funding sources and legal mechanisms to fill sidewalk gaps. |
| 1.1.3 Investigate and prioritize options to fill sidewalk gaps at parks, schools, cemeteries and railroad crossings. |
| 1.1.4 Track sidewalk gaps. |
| Objective 1.2: Maintain and Improve Pedestrian Network Connectivity |
| 1.2.1 Add new pedestrian connections where possible. |
| 1.2.2 Maintain existing pedestrian connections. |
| Objective 1.3: Improve Skyway-Sidewalk Connectivity |
| 1.3.1 Improve skyways consistent with the recommendations in the Access Minneapolis Downtown Transportation Action Plan. |
| 1.3.2 Evaluate existing skyway-sidewalk connectivity. |
| Objective 1.4: Improve Pedestrian Wayfinding Information <i>(see also 6.3)</i> |
| 1.4.1 Implement pedestrian wayfinding improvements where needed and where maintenance responsibilities are established. |
| 1.4.2 Develop citywide wayfinding signage guidelines. |

Table 10: Minneapolis Pedestrian Master Plan Goals, Objectives and Strategies (continued)

| |
|---|
| Goal 2: Accessibility for All Pedestrians |
| Objective 2.1: Identify & Remove Accessibility Barriers on Pedestrian Facilities (see also 3.4, 5.1 – 5.4, 7.2) |
| 2.1.1 Prepare and maintain an updated Americans with Disabilities Act (ADA) Transition Plan. |
| 2.1.2 Inventory and prioritize corrections to accessibility barriers at curbs. |
| 2.1.3 Inventory and prioritize corrections to accessibility barriers on sidewalk corridors. |
| 2.1.4 Inventory and prioritize corrections to accessibility barriers on pedestrian bridges. |
| Objective 2.2: Improve and Institutionalize Best Design Practices for Accessibility (see also 5.4, 7.1) |
| 2.2.1 Improve the curb ramp standard template. |
| 2.2.2 Review and update the standard specifications for best practices in accessible design. |
| 2.2.3 Establish regular staff training programs and materials on accessible design. |
| 2.2.4 Update design standards and guidance as accessibility standards are improved. |
| Goal 3: Safe Streets and Crossings |
| Objective 3.1: Reduce Pedestrian-Related Crashes (see also 7.2, 7.3) |
| 3.1.1 Investigate the cause of pedestrian-related crashes at high crash intersections and corridors. |
| 3.1.2 Review pedestrian-related traffic crashes regularly. |
| 3.1.3 Investigate improvements to pedestrian-related crash reporting. |
| Objective 3.2: Promote Safe Behavior for Drivers, Bicyclists and Pedestrians (see also 6.2, 7.4) |
| 3.2.1 Educate pedestrians, bicyclists and motorists about rights and responsibilities. |
| 3.2.2 Enforce traffic laws. |
| Objective 3.3: Improve Pedestrian Safety for the Most Vulnerable Users (see also 6.1) |
| 3.3.1 Continue to implement the School Pedestrian Safety Program. |
| 3.3.2 Investigate creation of new focused pedestrian safety improvement programs for other vulnerable users. |
| Objective 3.4: Improve Traffic Signals for Pedestrians (see also 2.1) |
| 3.4.1 Inventory and prioritize corrections to accessibility barriers at traffic signals. |
| 3.4.2 Develop a plan for installing pedestrian countdown signals citywide. |
| 3.4.3 Evaluate signal timing for pedestrians in all signal retiming efforts. |
| 3.4.4 Inventory and prioritize corrections to accessibility barriers at signal push buttons. |
| 3.4.5 Explore new technologies for pedestrian signal actuation and push buttons. |
| Objective 3.5: Improve Crosswalk Markings |
| 3.5.1 Improve the visibility of crosswalk pavement markings. |
| 3.5.2 Investigate potential improvements to the current crosswalk marking practice. |

Table 10: Minneapolis Pedestrian Master Plan Goals, Objectives and Strategies (continued)

| |
|---|
| Goal 4: A Pedestrian Environment that Fosters Walking |
| Objective 4.1: Design Streets with Sufficient Space for Pedestrian Needs (see also 7.1) |
| 4.1.1 Design streets with sufficient sidewalk and boulevard width for all required uses of the Pedestrian Zone. |
| Objective 4.2: Design Bridges and Underpasses for Pedestrian Needs (see also 4.3, 7.1) |
| 4.2.1 Design bridges and underpasses for pedestrians. |
| Objective 4.3: Provide Appropriate Street Lighting for Pedestrian Needs (see also 4.2, 7.4) |
| 4.3.1 Implement the street lighting policy. |
| 4.3.2 Encourage private property owner participation in night-time lighting efforts. |
| Objective 4.4: Provide Street Furniture Appropriate for Pedestrian Needs (see also 5.3) |
| 4.4.1 Implement a coordinated street furniture program. |
| 4.4.2 Continue to provide trash receptacles for pedestrian use. |
| 4.4.3 Continue to implement the Art in Public Places program. |
| Objective 4.5: Foster Vibrant Public Spaces for Street Life (see also 6.3, 7.5) |
| 4.5.1 Investigate innovative and practical ways to create vibrant public spaces for pedestrians. |
| Objective 4.6: Foster Healthy Trees and Greening along Sidewalks (see also 7.1) |
| 4.6.1 Develop tree and landscaping design guidelines. |
| Goal 5: A Well-Maintained Pedestrian System |
| Objective 5.1: Ensure Effective Snow and Ice Clearance for Pedestrians (see also 2.1, 7.4) |
| 5.1.1 Create a social norm of snow clearance through communications and education. |
| 5.1.2 Establish priorities for sidewalk snow clearance, including high pedestrian traffic areas. |
| 5.1.3 Improve enforcement and monitoring of private property owner responsibilities for snow clearance. |
| 5.1.4 Support property owners with snow and ice clearance assistance options. |
| 5.1.5 Explore reducing city snow clearance responsibilities on pedestrian facilities. |
| Objective 5.2: Maintain Sidewalks in Good Repair (see also 1.1, 2.1) |
| 5.2.1 Inspect and repair sidewalks in an effective time frame. |
| 5.2.2 Prioritize and implement improvements to sidewalks at railroad crossings. |
| 5.2.3 Continue to coordinate the annual sidewalk repair program with repair of sidewalks adjacent to public property. |
| Objective 5.3: Manage Encroachments on Sidewalks (see also 2.1, 4.4, 7.4) |
| 5.3.1 Enforce sidewalk café standards. |
| 5.3.2 Review and consider updates to the City's existing sidewalk café standards. |
| 5.3.3 Implement and enforce the newsrack ordinance. |
| 5.3.4 Educate the public on requirements and best practices for maintaining the public right-of-way and reporting problems. |
| Objective 5.4: Maintain Pedestrian Safety and Accessibility in Construction Zones (see also 2.1, 2.2) |
| 5.4.1 Develop guidelines for safety and accessibility in work zones. |
| 5.4.2 Establish regular staff training programs and materials on the City's practices for safety and accessibility in work zones. |
| 5.4.3 Re-examine the City's existing policy and rate structure for sidewalk closures. |

Table 10: Minneapolis Pedestrian Master Plan Goals, Objectives and Strategies (continued)

| |
|---|
| Goal 6: A Culture of Walking |
| Objective 6.1: Promote Walking for Youth <i>(see also 3.3)</i> |
| 6.1.1 Implement the Minneapolis Safe Routes to Schools Plan. |
| 6.1.2 Promote walking to youth events. |
| Objective 6.2: Promote Walking for Adults <i>(see also 3.2)</i> |
| 6.2.1 Promote walking for health purposes. |
| 6.2.2 Promote walking to work. |
| Objective 6.3: Showcase and Celebrate Great Walking Experiences <i>(see also 1.4, 4.5)</i> |
| 6.3.1 Develop walking maps. |
| 6.3.2 Develop walking tours |
| 6.3.3 Promote/develop public walking celebrations. |
| 6.3.4 Foster positive public messaging about walking. |
| Goal 7: Funding, Tools and Leadership for Implementing Pedestrian Improvements |
| Objective 7.1: Implement Best Practices for Pedestrian Facility Design <i>(see also 2.2, 4.1, 4.2, 4.6)</i> |
| 7.1.1 Utilize and improve the City's Design Guidelines for Streets and Sidewalks. |
| Objective 7.2: Integrate Pedestrian Improvements into Capital Improvement Programs <i>(see also 1.1, 2.1, 3.1)</i> |
| 7.2.1 Develop a pedestrian improvement program. |
| 7.2.2 Evaluate all infrastructure projects for potential pedestrian improvement opportunities. |
| 7.2.3 Coordinate the pedestrian improvement program with other improvement opportunities. |
| Objective 7.3: Improve Tools to Identify, Plan, Design, & Evaluate Pedestrian Improvements <i>(see also 3.1)</i> |
| 7.3.1 Improve how Travel Demand Management Plans address pedestrian needs. |
| 7.3.2 Evaluate methods to quantify pedestrian needs. |
| 7.3.3 Measure pedestrian demand. |
| 7.3.4 Evaluate the effectiveness of pedestrian improvements. |
| Objective 7.4: Foster Effective Pedestrian Advocacy and Stewardship <i>(see also 3.2, 5.1, 5.3)</i> |
| 7.4.1 Continue and Improve the Pedestrian Advisory Committee. |
| 7.4.2 Encourage public reporting of pedestrian issues to 311. |
| 7.4.3 Support neighborhood advocacy for pedestrian improvements. |
| Objective 7.5: Pursue New Funding Tools for Pedestrian Facilities <i>(see also 6.3)</i> |
| 7.5.1 Investigate increased use of public-private partnerships. |
| 7.5.2 Investigate cost-sharing programs. |
| 7.5.3 Investigate creation of broader improvement districts. |