

1 Introduction

The *Design Guidelines for Streets and Sidewalks* is one of four documents comprising *Access Minneapolis*. Other elements of the Ten-Year Transportation Action Plan include a Citywide Ten-Year Action Plan, a Downtown Ten-Year Action Plan and a Streetcar Feasibility Study. The *Design Guidelines for Streets and Sidewalks* provides specific recommendations about the size and composition of the design elements that make up public street rights-of-way in Minneapolis.

1.1 Purpose of Document

The design guidance presented in this document is drawn from a best practices approach for urban, walkable places and draws from a variety of sources that are listed in a bibliography in Appendix A. ***The intent of the design guidance is to foster the practice of providing complete streets that support and encourage walking, bicycling and transit use while promoting safe operations for all users.*** Components of a complete street include street and sidewalk lighting, pedestrian and bicycle safety improvements, public transit facilities, street trees and landscaping, street furniture, stormwater management, traffic management, on-street parking, traffic lanes and much more. Given the constrained widths of existing public street right-of-way, this will require a very challenging process of weighing trade-offs and making difficult decisions about the use, design and allocation of available space. The *Design Guidelines* document provides an important tool for helping staff and stakeholders through this decision-making process.

While this manual is intended to carry out the City's street design functions, it does not establish a legal standard for such functions nor is it intended that it should do so. All drawings included in this manual are for illustrative purposes only and should not be used as construction plans. Designers are still expected to evaluate each situation and exercise good engineering judgment.

This document will be used as a reference document by city staff charged with planning and designing street and sidewalk improvements. This document will be treated as a "living document" and will be added to and revised as new information is developed, new best practices emerge, and the design guidance is applied to real-world projects.

Other initiatives that are currently underway that will eventually become part of the city's design guidelines street rights-of-way include:

- Street lighting policies
- Street furniture program
- Tree planting and landscaping guidelines
- Pedestrian facility design guidance (part of Pedestrian Master Plan)
- Bicycle facility design guidance (part of Bicycle Master Plan)

The Design Guidelines are not meant to be policy direction for land use and development although they are consistent with the policies set forth in the City's comprehensive plan. Land use and development policies are established in the city's comprehensive plan, small area plans and the zoning code. The Design Guidelines are, however, a tool that will be used to address issues related to the interface of the public right-of-way and adjacent properties and the compatibility of proposed development and the public realm.

1.2 Why Do We Need Design Guidelines and What Will be Different?

Access Minneapolis recognizes that transportation is not an end in itself but rather a tool for creating the kind of community that the city's residents and businesses want to have in the future. The Action Plan is guided by the city's vision of a balanced, sustainable, multi-modal transportation system for its residents, workers and visitors that supports and enhances the city as a desirable place to live, work and play. ***This multi-modal vision for Minneapolis places greater emphasis on transit, walking and biking as primary modes of transportation than has previously been the case. The design guidelines will help to achieve this shift in modal priorities.***

- Minneapolis is a mature urban environment. The city is fully developed, in some cases for over a century, and the space available for transportation is limited. Most streets in the city have a right-of-way width of only 60, 66 or 80 feet – some are even narrower. Widening existing roadways or constructing new streets, in most cases, is not a feasible option due to the negative impacts on the urban character of the city and the exceedingly high costs for construction and relocation. Accommodating all desired uses within the existing right-of-way is a very challenging task, requiring difficult decisions on priorities for the use of available space. ***The design guidelines will help staff work with property owners, partner agencies and other stakeholders in making these decisions on a more consistent basis and within the context of the above stated multi-modal goals.***
- The City of Minneapolis has many tree-lined streets and is known for its extraordinary park and parkway system. Over 6 percent of the land area in the city is parkland and approximately 27 percent of the land area is public right-of-way. The environmental quality of this public right-of-way affects the health, vitality, quality of life and economic condition of the city. Yet, over time, many streets have been widened, sidewalks narrowed, and street trees lost in an effort to accommodate growth, minimize traffic congestion and improve traffic safety. New regulations on stormwater management and a better understanding of the environmental benefits of trees for air quality, cooling, reduction in impervious surface, and help in stormwater management have resulted in a recognition that trees and landscaping are an essential part of the public infrastructure. ***The street design guidelines are intended to help achieve these environmental objectives.***
- The *Minneapolis Plan*, which is currently being updated, guides a pattern of growth into corridors and nodes to provide density along transit lines, because of the ability of transit to serve the movement needs of people living and working along these corridors. ***The street and sidewalk design guidelines will help to give better priority to transit in the***

Primary Transit Network (PTN) corridors and achieve the city's land use and transportation goals.

- The state's Municipal State-Aid (MSA) standards have historically provided the primary guidance for the design of streets within the city. However, many of these standards cannot be easily applied to, or are not appropriate for, a built urban environment. The city must seek many variances from MSA standards to fit streets within existing street rights-of way. ***The design guidelines are intended to provide a more consistent basis for requested variances and general guidance for common conditions under which variances may be appropriate.***
- Finally, staff does not have a single source for design guidance direction. This document is the first step toward bringing the city's design guidance into a common format. As noted above, there are several other elements being developed that will be incorporated into the guidelines. Other guidance, as appropriate will be linked by reference. ***This will result in greater consistency of design, greater sharing of knowledge among staff, and a more efficient use of staff time during the project development process.***

1.3 Applicability of Guidelines

While these guidelines are intended to apply to all city streets, whether undergoing reconstruction, major maintenance, mill and overlay, or restriping, it is recognized that existing curb lines will remain in most cases except reconstruction and options will be more limited for widening sidewalks and/or providing additional tree planting, landscaping or streetscaping. Even in these circumstances, there may be opportunities for restriping to provide bike lanes, using street greening techniques to add plantings without significant alteration of drainage systems, replacing or adding lighting, changing or installing transit shelters, providing curb extensions at intersections, and making many other changes.

1.3.1 Roadway Jurisdiction

There are 1,093 miles of public roads (not including freeways), 455 miles of alley and 330 vehicle bridges in the city of Minneapolis (see Figure 1-1). Approximately 82 miles (7 percent) of these roads are owned, operated and maintained by Hennepin County and another 39 miles (4 percent) are owned, operated and maintained by Mn/DOT (this mileage does not include the freeway system). While the city shares some responsibility for operation and maintenance on many of these roadways, any reconstruction or major maintenance is paid for by these agencies and all decisions regarding the design, construction, operation and maintenance of these roadways are made by the owner agency.

These guidelines do not apply directly to county or state roadways although both Mn/DOT and Hennepin County were involved in the development and review of this document. However, city staff will continue to work closely with these agencies on proposed county and state projects and the information in this document will provide guidance to staff on appropriate city input to these projects.

1.3.2 Types of Projects

While these guidelines are intended to apply to all city streets and to all types of city street projects, the degree to which all steps of the design process are appropriate and the extent to which specific changes can be made based on these guidelines will vary depending on the type of project.

1.3.2.1 MSA New Construction and Reconstruction Projects

Approximately 208 miles (19 percent) of the roadways within the city are paid for in part with Municipal State Aid (MSA) funds. These are gasoline tax revenues received by the city from the state of Minnesota based on a formula that takes into account both population and “need”. Need is determined through a complex methodology that considers lane miles, condition, traffic volumes and other factors. The design of MSA streets and bridges is governed by design standards that are established in state law (Minnesota Rules 8820). Any design features that do not meet MSA standards must be approved through a variance process before the construction plans will be approved by Mn/DOT. MSA funds cannot be used unless the design has been approved by Mn/DOT. While the guidelines presented in this document should be used on MSA streets as well as on local streets, the designer should be aware that additional variances may be required in some cases.

While Mn/DOT state-aid representatives were a part of the interagency Project Management Team that worked with city staff to prepare this document, there have been no changes in state-aid standards as a result of this work. City staff will continue to work with state-aid and other metropolitan cities to develop standards that are appropriate for built urban environments and will utilize the variance process as necessary during the project development process.

1.3.2.2 Non-MSA New Construction and Reconstruction Projects

New construction and reconstruction projects on streets or bridges that are not on MSA streets will be the easiest projects for which to apply the city’s design guidelines.

1.3.2.3 Street Renovation Projects

While street renovation projects do not involve a complete reconstruction of the street, they do provide some additional opportunities for improvements that would typically not be possible as part of a repaving project. Depending on the project, a modified design process may be needed. Staff assigned to these projects should consider the guidelines and should identify appropriate opportunities for restriping, safety improvements, bike lanes, tree planting/landscaping, lighting, or other improvements to the pedestrian zone that might be provided as part of, or concurrently with, the street renovation project.

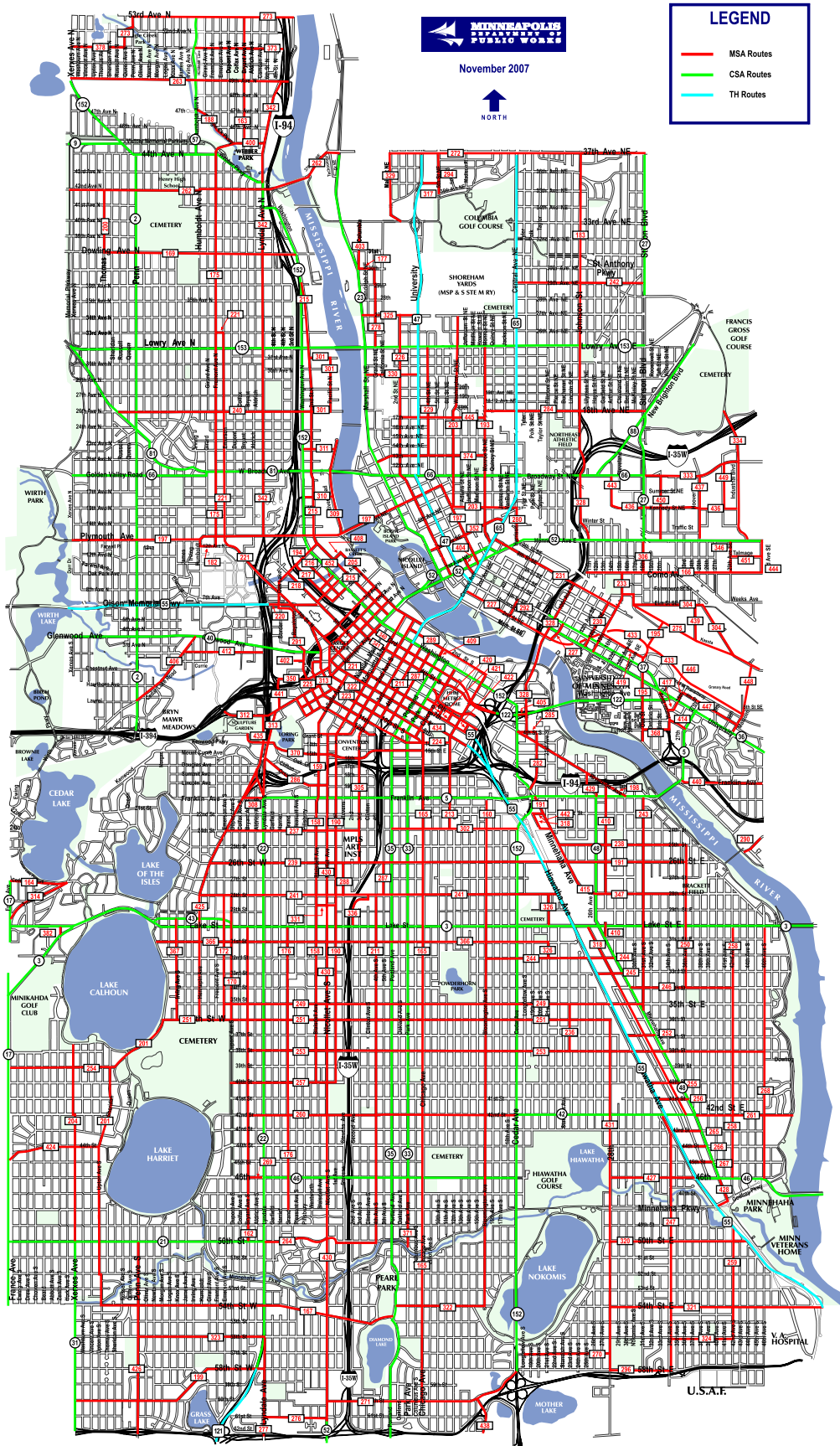


Figure 1-1 Roadway Jurisdiction

This page left blank intentionally.

1.3.2.4 Neighborhood Street Repaving Projects

Neighborhood street repaving projects typically involve only a mill and overlay of the existing pavement. These projects typically do not involve changes to the curb or other improvements to the pedestrian zone but they may need to address filling sidewalk gaps, upgrading curb ramps, restriping for bike lanes, etc. These projects would not require the design process outlined in the design guidelines document. However, it is always prudent to address restriping opportunities and safety improvements as a part of these repaving projects.

1.3.2.5 Bicycle Improvement Projects

Most on-street bicycle facility projects involve primarily restriping and signing to incorporate bicycle lanes. The design guidelines provide some direction on lane width adjustments to accommodate bicycle lanes. Additional guidance will be provided by the Bicycle Master Plan, which is currently being developed.

1.3.2.6 Pedestrian Improvement Projects

The design guidelines provide some limited guidance for separate pedestrian improvement projects, whether construction/reconstruction of a sidewalk, safety improvements at an intersection, or design of transit stops. More detailed guidance will be provided by the Pedestrian Master Plan, which is currently being developed.

1.3.2.7 Stormwater Management and Utility Projects

While guidance is not provided in this document specific to stormwater management or utilities, it is important for staff charged with these projects to understand the basic principles set forth in this document regarding street and pedestrian zone design. Additional guidance, particularly related to tree planting, landscaping and design of the pedestrian zone is currently being prepared.

1.3.2.8 Outside Agency Projects

As noted in the section above on jurisdiction, these guidelines can only be applied directly to those projects that are under the city's jurisdiction. However, staff should use these guidelines as a tool for working with other agencies on their projects. For example, there are many cross-streets, parallel local streets used as frontage roads, and bridges that are affected by a freeway project and these guidelines can be used to help work with Mn/DOT on the design of these facilities. Many county roads in the city have characteristics similar to city arterial streets and the guidelines should be used to work with Hennepin County to achieve design consistency on arterial streets within the city.

1.3.3 Development Process

Since the design guidelines are focused on use and design of the public right-of-way, they do not directly address site design, land use or land development. Site development and land use are directed by zoning ordinances and other city codes as well as the city's

comprehensive plan – *Minneapolis Plan for Sustainable Growth*.¹ However, there is a strong two-way interface between site design, site access and the public right-of-way. The design guidelines are a tool that can be used by both Public Works and CPED staff in their work with developers and property owners.

Public Works and CPED staffs need to have additional discussions on how to more closely link land use planning, development review and design of the public realm to achieve the city's short and long-term objectives. This section will be revised as more specific guidance on this interface is developed.

1.3.4 MSA Variance Requests and Tort Liability Issues

When working on a Municipal State-Aid (MSA) roadway, variances must be obtained for any design elements that do not meet minimum state-aid standards. The process for seeking a variance is outlined in Minnesota Rules 8820.3300 (for specific requirements, go to www.revisor.leg.state.mn.us/arule/8820/3300). The reasons for the requested variance must be documented as do the economic, social, safety and environmental impacts that may result from the requested variance. The process requires a Council resolution that the city accepts all liability for any claims resulting from the granting of the variance. If a variance is required, good documentation is critical to both achieving the desired variance and minimizing any associated liability issues.

An awareness of tort liability issues is important, but Minnesota has a very good tort law under which agency employees are indemnified; tort claims act with caps and exclusions; there is a 10 year statute of limitations for design; and case law establishes discretionary and official immunity for decisions. To the extent possible, design decisions should be brought under the umbrella of immunity. This can be done by thoroughly documenting the process used to arrive at the decision. Documentation should include the development of alternatives, the evaluation criteria (social, economic, environmental and engineering) and the decision. There is no immunity if there is no decision so a clear decision must be documented.

Start by documenting the applicable standards or design values. Identify the project's goals and objectives. Document the consequences of implementing the applicable values or standards. Identify design alternatives, advantages/disadvantages and any safety consequences. If there are safety consequences, it is important to document that potential mitigation strategies were evaluated and why they were or were not included in the project. The entire evaluation process should be documented. Finally, the decision and the reasons for the decision must be documented. Environmental, social and community benefits are appropriate and acceptable reasons for a decision.

When needing a variance for a project design element, it is often very helpful to discuss the issue in advance with experienced Public Works staff and/or state-aid staff. Sometimes the same objective can be accomplished with more than one type of variance and some are

¹ *Minneapolis Plan for Sustainable Growth*, City of Minneapolis, DRAFT, December 2007. Go to CPED website to view most current version of the city's comprehensive plan.

easier to obtain than others. These individuals can help with these decisions and can help prepare documentation in a manner that will have the most positive outcomes in terms of the variance request process and tort liability issues.

1.3.5 Organization of Report

This document is organized into the following sections:

- 1) Section 1 provides an introduction to the document.
- 2) Section 2 provides a framework for urban streets designed around “place types” and “street design types”. This form-based concept was introduced in the *Citywide Ten-Year Action Plan* and reflects the major organizing element for streets in Minneapolis – the Place Type and Street Design Type framework elements.
- 3) Section 3 addresses the project development process and provides a systematic process for corridor design in Minneapolis. Each step in the design process is described and metrics for establishing design requirements are recommended.
- 4) Section 4 describes the underlying design principles or design controls that govern many detailed design decisions.
- 5) Section 5 provides specific design guidance for each of the street design types. Typical applications are illustrated for each street design type. Typical details are provided for intersections and transit stops.
- 6) Sections 7 through 11 are not yet completed and will be added (or linked by reference or website link) as they become available. These sections will provide more detailed guidance related to the pedestrian zone, bicycle facilities, street furniture, street lighting, street trees and landscaping, stormwater management, and streetcar design.

This page left blank intentionally.