

APPENDICES

Citywide Ten-Year Transportation Action Plan

Access Minneapolis

July 17, 2009



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APPENDIX A

TRANSPORTATION POLICES FROM “THE MINNEAPOLIS PLAN FOR SUSTAINABLE GROWTH”

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Appendix A

Transportation Policies from “*The Minneapolis Plan for Sustainable Growth*”, 2008

Building the City through Multi-modalism

- Encourage growth and reinvestment by sustaining the development of a multi-modal transportation system.
- Continue addressing the needs of all modes of transportation, emphasizing the development of a more effective transit network.
- Coordinate land use planning and economic development strategies with transportation planning.
- Ensure continued growth and investment through strategic transportation investments and partnerships.
- Preserve the existing transportation grid through right-of-way preservation and acquisition.

Modal Priorities and Neighborhood Context

- Support successful streets and communities by balancing the needs of all modes of transportation with land use policy.
- Identify modal priorities on each street to improve the overall effectiveness of each element of the transportation network.
- Establish and use guidelines for the design and use of streets based on both transportation function and adjoining land use.
- Promote street and sidewalk design that balances handling traffic flow with pedestrian orientation and principles of traditional urban form.
- Develop strategies to mitigate and/or reduce negative impacts of transportation systems on adjacent land uses.
- Engage transportation providers, transportation users, and other stakeholder groups in the transportation planning process.
- Encourage reconnection of the traditional street grid where possible, to increase connectivity for all travel modes and strengthen neighborhood character.
- Coordinate with the University of Minnesota institutions and other large-scale users, as well as regional transportation agencies to manage transportation needs and manage transportation and parking impacts on nearby residential areas.

Creating a Walkable City

- Encourage walking throughout the city by ensuring that routes are safe, comfortable, pleasant, and accessible.
- Ensure that there are safe and accessible pedestrian routes to major destinations, including transit corridors, from nearby residential areas.
- Identify and encourage the development of pedestrian routes within Activity Centers, Growth Centers, and other commercial areas that have superior pedestrian facilities.
- Develop and implement guidelines for streets and sidewalks to ensure safe, attractive, and accessible pedestrian facilities.
- Maintain the street grid, reconnecting it where possible, and discourage the creation of superblocks that isolate pedestrians and increase walking distances.
- Continue to enforce standards for building placement and design based primarily on the needs of pedestrians.
- Provide creative solutions to increasing and improving pedestrian connectivity across barriers such as freeways, creeks and the river, and commercial areas, such as shopping centers.
- Minimize and consolidate driveway curb cuts as opportunities arise, and discourage curb cuts where alleys are available.

Making Transit More Effective

- Make transit a more attractive option for both new and existing riders.
- Collaborate with regional partners to prioritize transit service and capital improvements along a network of corridors where standards for speed, frequency, reliability, and quality of passenger facilities are maintained.

- Concentrate transit resources in a manner that improves overall service and reliability, including service for seniors, people with disabilities, and disadvantaged populations.
- Encourage higher intensity and transit-oriented development to locate in areas well served by transit.

Creating a Bicycle-Friendly City

Ensure that bicycling through the city is safe, comfortable and pleasant.

- Complete a network of on- and off-street primary bicycle corridors.
- Strive to accommodate bicycles on all streets and, when other modes take priority in a corridor, provide accessible alternate routes.
- Continue to integrate bicycling and transit facilities where needed, including racks on transit vehicles and bicycle parking near transit stops.
- Implement and expand zoning regulations and incentives that promote bicycling, such as the provision of secured storage for bikes near building entrances, storage lockers, and changing and shower facilities.
- Provide public bicycle parking facilities in major destinations such as Downtown, Activity Centers, and Growth Centers.
- Identify and utilize sources of funding for long-term maintenance of facilities, education and outreach.
- Promote motorist awareness and bicycle safety education campaigns
- Incorporate bike parking into street furniture configurations.

Managing Vehicle Traffic

- Manage the role and impact of automobiles in a multi-modal transportation system.
- Encourage the implementation of Travel Demand Management (TDM) plans and programs that identify opportunities for reducing the generation of new vehicle trips from large developments
- Support the use of toll facilities that improve transportation options and generate revenue for transportation projects.
- Implement strategies, such as preferential and discounted parking for low-emitting fuel efficient vehicles, car- and vanpooling, low-emitting fuel efficient taxi services, and carsharing programs, that increase vehicle occupancy and reduce the number of single occupancy vehicles
- Increase the operational efficiency of the roadway network through the use of advanced technologies for traffic operations.
- Encourage the design and completion of needed improvements to the street network, including the freeway system, which promote the efficient, safe movement of traffic.
- Maintain street infrastructure in good condition to maximize the life of existing facilities.

Managing Freight Movement

- Ensure that freight movement and facilities throughout the city meet the needs of the local and regional economy while remaining sensitive to impacts to surrounding land uses.
- Support the Metropolitan Council's freight clustering strategy by continuing to encourage the consolidation of industrial land uses in Industrial Employment Districts.
- Support the continuation of existing freight rail infrastructure where consistent with land use policy.
- Invest in safety improvements along viable railroad corridors.
- Maintain a network of truck routes that ensures the safe and efficient delivery of goods to Minneapolis businesses and that directs truck traffic to a limited number of streets with appropriate weight limits.
- Consider plans to close the City-owned Upper Harbor Terminal, while still supporting shipping on the Mississippi River in other ways.
- Encourage joint use of rail lines by freight and passenger rail where feasible.

Managing Parking

- Balance the demand for parking with objectives for improving the environment for transit, walking and bicycling, while supporting the city's business community.
- Implement off-street parking regulations which provide a certain number of parking spaces for nearby uses, while still maintaining an environment that encourages bicycle, pedestrian, and transit travel.
- Design and implement incentives for shared parking and on-street car sharing programs, as well as carpooling and vanpooling.

- Maximize the efficient use of off-street parking by developing district parking strategies in high density mixed-use areas such as Activity Centers and Growth Centers.
- Consider eliminating minimum parking requirement for certain small-scale uses as well as parking requirements in areas served by off-street parking facilities that are available to the general public.
- Continue to prohibit new commercial surface parking lots and to restrict the size of accessory surface parking lots in downtown.
- Encourage management of on-street parking in commercial areas primarily for short-term use by adjoining land uses.
- Promote transit, walking, and biking as safe and comfort able transportation alternatives through reduced parking requirements, encouragement of employee transit incentive programs, and improved facilities.
- Encourage employers to offer economic incentives that support transit use, such as providing employee transportation allowances as alternatives to free parking.
- Ensure that parking facilities do not under-price their parking fees as compared to transit fares except to support carpooling and vanpooling as primary commuting modes.
- Continue to implement discounted packages for carpooling and vanpooling in City-owned or controlled parking facilities, and in leading by example, encourage private parking facilities to do likewise.

Funding and Pricing Strategies

- Promote reliable funding and pricing strategies to manage transportation demand and improve alternative modes.
- Advocate for dedicated sources of transit funding at the state legislature.
- Develop local sources of funding as well as the means to leverage private sources of funding for transit needs and capital improvements.
- Link transit improvements, such as streetcars, to economic development outcomes.
- Advocate for freeway toll facilities that improve transportation services and generate revenue for transit.
- Support programs that encourage regular transit use, such as the Metropass program, and lead by example..

Supporting a Vibrant Multi-modal Downtown

- Support the development of a multi-modal Downtown transportation system that encourages an increasingly dense and vibrant regional center.
- Concentrate transit facilities, services and amenities along a limited set of Downtown streets in order to improve efficiency, reliability and quality.
- Encourage transit use Downtown, including promoting incentives to make transit more convenient and affordable for Downtown users.
- Identify and develop primary pedestrian routes that encourage walking throughout Downtown and which are the focus of particular infrastructure improvements.
- Improve the pedestrian environment Downtown to ensure it is a safe, enjoyable, and accessible place to walk. Encourage strategies such as wider sidewalks for pedestrian movement, trees, landscaping, street furniture, improved transit facilities, additional bicycle facilities, and on-street parking and other curbside uses.
- Improve wayfinding and vertical circulation between the street and skyway system, particularly along primary transit and pedestrian routes.
- Encourage changes to freeway access that are consistent with Downtown growth plans, support other modes of travel, and improve system connectivity.
- Improve local transportation across freeways, including promoting adequate spacing and connectivity of streets and improved pedestrian, bicycle, and transit facilities on local streets crossing freeways.
- Manage the growth of the parking supply consistent with objectives for transit, walking and bicycling.
- Promote car sharing programs for both commercial and residential projects.
- Support the education and implementation activities of the Downtown Transportation Management Organization (TMO).
- Provide parking incentives in city-owned parking facilities for carpools and vanpools, and encourage private parking facility owners to do the same.

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APPENDIX B

DESCRIPTION OF PLACE TYPES

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Appendix B

Description of Place Types

Place type is important to the design of streets and the pedestrian zone because the buildings and spaces along the street tell us a great deal about the city's character; the volume of pedestrian, bicycle, transit and automobile activity; and the need for parking, street furniture, trees, landscaping and other facilities. Just as place types inform the street design process, street design informs the land use planning and development approval process. Place types are based on the designated land use features identified in *The Minneapolis Plan for Sustainable Development*. *The Minneapolis Plan for Sustainable Development* identifies the following place types:

Activity Centers

An activity center is described in *The Minneapolis Plan for Sustainable Development* as a place that supports a wide range of commercial, office and residential uses. An Activity Center typically has a busy street life with activity throughout the day and into the evening. It is heavily oriented toward pedestrians and maintains a traditional urban form and scale. Activity Centers are well-served by transit. An important consideration is the balance between the benefits Activity Centers bring to the city as a whole and the need to mitigate undesirable impacts that could range from overflow parking and traffic impacts on neighborhood streets to a need for increased city services such as trash removal or street cleaning. Uptown, the Warehouse District in Downtown, and the East Hennepin area are examples of *Activity Centers*.

Commercial Corridors

A commercial corridor is described in *The Minneapolis Plan for Sustainable Development* as a corridor that has traditionally served as a boundary connecting a number of neighborhoods and serves as a focal point for activity. Development and revitalization of these corridors helps to strengthen surrounding urban neighborhoods. Commercial Corridors can accommodate intensive commercial uses and high levels of traffic. These corridors support all types of commercial uses, with some light industrial and high density residential uses as well. While the character of these streets is mainly commercial, residential areas are nearby and impacts from commercial uses must be mitigated as appropriate. The city encourages new medium- to high-density residential development along Commercial Corridors, particularly as a part of mixed-use development. These corridors frequently carry large traffic volumes and must balance significant vehicular through-traffic capacity with automobile and pedestrian access to commercial property. In most cases, these corridors are part of the Primary Transit Network that provides frequent, high quality transit service citywide. Central Avenue and Lake Street are examples of *Commercial Corridors*.

Community Corridors

A Community Corridor is described in *The Minneapolis Plan for Sustainable Development* as a corridor that supports new residential development from low to high density in specified areas, as well as increased housing diversity in neighborhoods. Community corridors support limited commercial uses, frequently concentrated in Neighborhood Commercial Nodes. Proposed commercial uses are evaluated based on their impacts on residential character. Design and development along Community Corridors is oriented toward the pedestrian experience. These streets carry moderate volumes of traffic but must balance vehicular traffic against residential quality of life. These streets are important travel routes for both neighborhood residents and through traffic. In many cases, they are part of the Primary Transit Network that provides frequent, high quality transit service citywide. University Avenue NE and Nicollet Avenue S are examples of *Community Corridors*.

Neighborhood Commercial Nodes

A Neighborhood Commercial Node is described in *The Minneapolis Plan for Sustainable Development* as typically comprised of a handful of small and medium –sized businesses focused around one intersection. They primarily serve the needs of surrounding neighborhoods although they may contain specialty stores that serve a regional client base. The character of Neighborhood Commercial Nodes is defined by the limited scale of businesses operating in these locations. Related to the city's historical growth pattern, these nodes generally consist of traditional commercial storefront buildings. They maintain a building typology and pedestrian orientation that is appropriate for the surrounding residential neighborhoods. There are many Neighborhood Commercial Nodes in the city as shown in Figure B-1.

Land Use Features

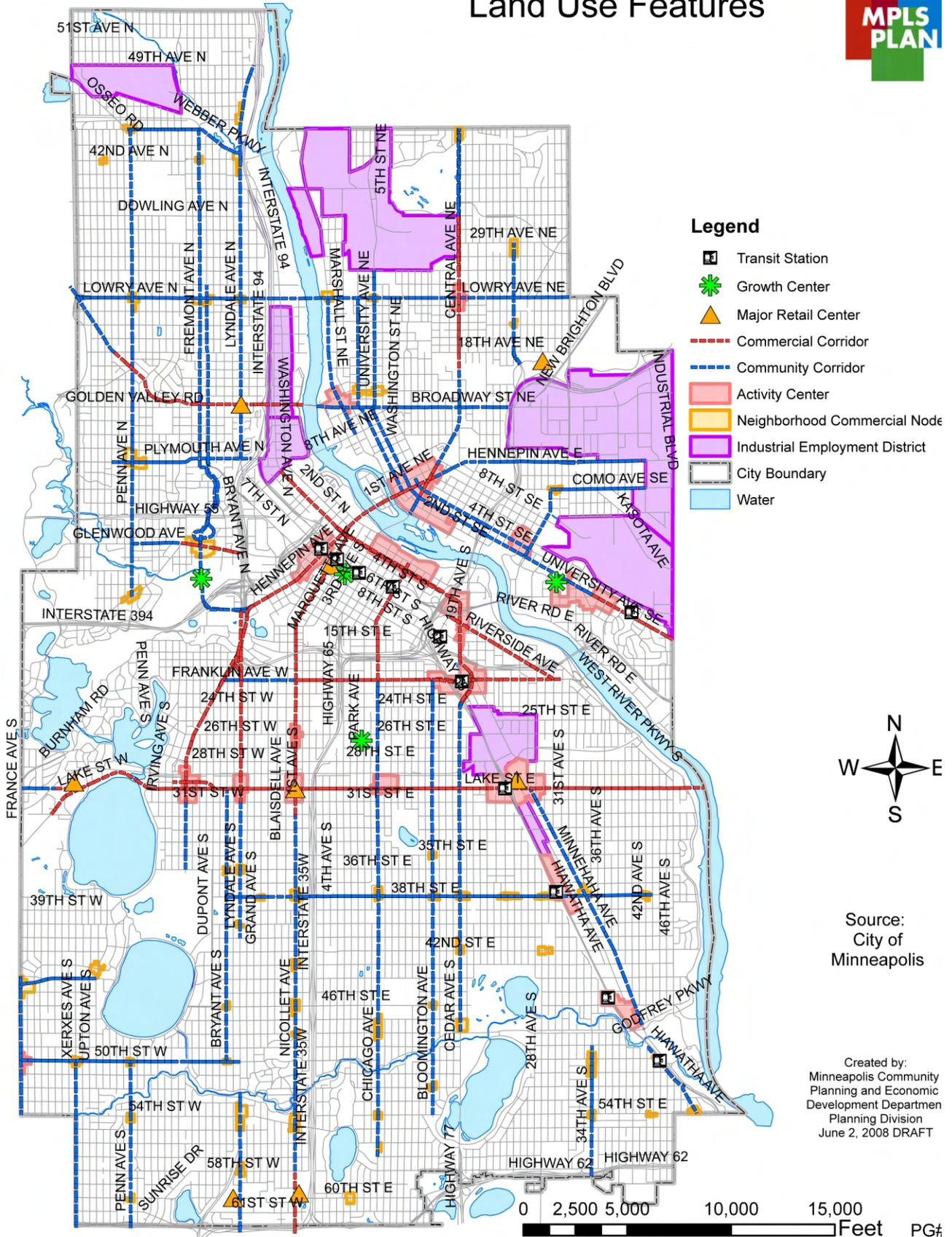


Figure B-1 Land Use Features

Transit Station Areas

The Minneapolis Plan for Sustainable Development describes Transit Station Areas as areas with unique opportunities and challenges within ½ mile of regional transit stations. Density, urban design and public infrastructure are especially critical in these areas. Transit Station Areas are designed with the pedestrian, bicyclist, and/or transit user in mind and are intended to serve individuals who are more likely to use transit. These areas include small-scale retail services that are neighborhood in scale and from which pedestrians, bicyclists and transit users are likely to benefit. The area around the 38th Street/Hiawatha LRT Station is an example of a *Transit Station Area*.

In addition to Transit Station Areas, there are several Transit Centers in the City. These serve as hubs on the Primary Transit Network. While the surrounding land use characteristics may be different, Transit Centers may have similar needs for improved facilities for pedestrians, bicyclists and transit users.

Growth Center

The Minneapolis Plan for Sustainable Development describes Growth Centers as areas where there is a concentration of employment activity accompanied by a wide range of complementary activities taking place throughout the day. These areas include residential, office, retail, entertainment and recreational uses. Growth areas are supported by very good transit service. The Plan identifies four growth centers in the city: (1) Downtown Minneapolis, (2) University of Minnesota, (3) Bassett Creek Valley, and (4) Wells Fargo/Hospitals area.

Major Retail Centers

The Minneapolis Plan for Sustainable Development describes major retail centers as unique locations that can accommodate large-scale retail uses with immediate and easy access to regional road networks. These sites may be more oriented to the automobile but need to be designed to accommodate pedestrians and other forms of transportation to retain their compatibility within the city. The Quarry Center is an example of a *Major Retail Center*.

Industrial Employment Districts

The Minneapolis Plan for Sustainable Development describes industrial employment districts as areas identified in the city's Industrial Land Use and Employment Policy Plan. These districts serve to protect prime industrial space, as well as providing an opportunity for the city to support targeted industries and redevelop underutilized sites. Many of these uses may need to accommodate the movement of large trucks. The Southeast Minneapolis Industrial (SEMI) area is an example

Place Type Characteristics

The following characteristics are used to differentiate the place types: Urban Form, Building Placement, Frontage Types, Enclosure, and Edge Treatments/Open Space. These characteristics are described below and in Table B-1.

Table B-1 - Place Type Characteristics (definitions and names are derived from *The Minneapolis Plan for Sustainable Development*)

Place Type	Identifying Characteristics	Form	Building Placement	Frontage Types	Typical Density	Edge Treatments and Open Space
Activity Centers, Growth Centers and Transit Station Areas	<ul style="list-style-type: none"> Diversity of uses with citywide and regional draw Medium and high density residential uses, though varies by location Accommodates retail and commercial services, entertainment uses, educational campuses, or other large-scale cultural or public facilities Significant pedestrian and transit orientation May have concentration of employment Mix of uses occurs within and among structures 	<ul style="list-style-type: none"> Traditional urban form regarding building siting and massing Unique urban character that distinguishes them from other commercial uses 	<ul style="list-style-type: none"> Small or no setbacks Buildings oriented to street 	<ul style="list-style-type: none"> Storefronts Landscaped buffer areas 	<ul style="list-style-type: none"> Medium to very high 	<ul style="list-style-type: none"> Plazas and squares Pocket parks Trees planted in pits/trenches Streetscaping but minimal planted boulevards
Commercial Corridors	<ul style="list-style-type: none"> Historically have been prominent destinations in city High traffic volumes Mix of uses, with commercial uses dominating Residential uses tend to be medium to high density Primary Transit Network corridors 	<ul style="list-style-type: none"> Buildings generally retain a traditional urban form in their siting, massing and relationship to the street 	<ul style="list-style-type: none"> Shallow to medium setback Buildings oriented to street 	<ul style="list-style-type: none"> Storefronts Landscaped buffer Fences 	<ul style="list-style-type: none"> Medium to high 	<ul style="list-style-type: none"> Limited Trees planted in pits/trenches Streetscaping Few planted boulevards
Community Corridors	<ul style="list-style-type: none"> Connect more than two neighborhoods Moderate traffic volumes and may be principal travel routes Primary Transit Network corridors with some exceptions Primarily residential with intermittent commercial uses clustered at intersections in nodes Small scale retail sales and services serving immediate neighborhood 	<ul style="list-style-type: none"> Traditional commercial and residential form and massing 	<ul style="list-style-type: none"> Residential front yard setbacks Small or no setbacks in Comm Nodes Buildings oriented to street 	<ul style="list-style-type: none"> Storefronts Landscaped buffer areas Porches Fences Residential front yards 	<ul style="list-style-type: none"> Low to medium 	<ul style="list-style-type: none"> Parks Planted boulevards except in commercial nodes Residential front yards
Neighborhood Commercial Nodes	<ul style="list-style-type: none"> Generally retail or services on at least three corners of intersection Oriented to pedestrian traffic, with few automobile-oriented uses Generally serve needs of surrounding neighborhood with limited number of businesses serving larger area Commercial uses are typically focused close to a single intersection of community corridors though may be more dispersed Mix of uses occur within and among structures 	<ul style="list-style-type: none"> Generally have a historic commercial function and form 	<ul style="list-style-type: none"> Small or no setbacks Buildings oriented to street 	<ul style="list-style-type: none"> Storefronts Landscaped buffer areas 	<ul style="list-style-type: none"> Medium to high 	<ul style="list-style-type: none"> Streetscaping Trees planted in pits/trenches
Major Retail Centers	<ul style="list-style-type: none"> Large concentration of retail floor space, and have at least one major chain of grocery or household goods retail Significant parking Convenient and direct access to a the regional road network 	<ul style="list-style-type: none"> Varies; generally large single story retail buildings with large surface parking lots Policy direction for reinforcing elements of traditional urban form 	<ul style="list-style-type: none"> Large setbacks Commercial frontage Surface parking in front 	<ul style="list-style-type: none"> Parking lots Storefronts Landscaped buffer areas Fences 	<ul style="list-style-type: none"> Varies 	<ul style="list-style-type: none"> Trees planted in pits/trenches Landscaped sidewalks Parking lots
Residential Neighborhood	<ul style="list-style-type: none"> Primarily residential but ay contain scattered non-residential uses including small scale commercial and public/institutional 	<ul style="list-style-type: none"> Varies 	<ul style="list-style-type: none"> Varies 	<ul style="list-style-type: none"> Varies 	<ul style="list-style-type: none"> Low to very high 	<ul style="list-style-type: none"> Parks Planted boulevards
Industrial/ Employment District	<ul style="list-style-type: none"> Protected areas intended for industrial growth and expansion without residential uses in their boundaries Designated in the Industrial Land Use and Employment Policy Plan 	<ul style="list-style-type: none"> Varies 	<ul style="list-style-type: none"> Varies 	<ul style="list-style-type: none"> Varies 	<ul style="list-style-type: none"> Varies 	<ul style="list-style-type: none"> Varies

APPENDIX C

STREET NEEDS ASSESSMENT

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Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	
Xerxes Ave S	Hwy 62	54th St W	Commuter Street/Neighborhood Connector	2T	2	11250	14800	15500	16700	1.32	1.38	1.48		Hwy 62 to 60th St	Yes					
Xerxes Ave S	54th St W	50th St W	Commuter Street/Neighborhood Connector	2	2	11250	9100	9600	10200	0.81	0.85	0.91			Yes					
Xerxes Ave S	50th St W	44th St W	Neighborhood Connector	2	2	11250	7000	7400	7900	0.62	0.66	0.70			Yes					
Upton Ave S	50th St W	44th St W	Neighborhood Connector	2	2	11250	3600	3800	4100	0.32	0.34	0.36			Yes					
Upton Ave S	44th St W	39th St W	Neighborhood Connector	2	2	11250	3100	3300	3500	0.28	0.29	0.31			Yes					Truck Route
Richfield Rd	39th St W	William Berry	Neighborhood Connector	2	2	11250	7600	8000	8600	0.68	0.71	0.76			Yes	Recommended PTN		Off-Street		Truck Route
Calhoun Pkwy E	William Berry Pkwy	36th St W	Neighborhood Connector	2	2	11250	13100	13800	14700	1.16	1.23	1.31			Yes	Recommended PTN		Off-Street		Truck Route
Calhoun Pkwy E	36th St W	Lake St	Parkway	2	2	11250	9400	9900	10600	0.84	0.88	0.94						Off-Street		Truck Route
Calhoun Pkwy W	Richfield Rd	Xerxes Ave S	Parkway	2	2	11250	4800	5000	5400	0.43	0.44	0.48						Off-Street		
Calhoun Pkwy W	Xerxes Ave S	32nd St W	Parkway	2	2	11250	8300	8700	9300	0.74	0.77	0.83						Off-Street		
Calhoun Pkwy W	32nd St W	Lake St	Parkway	2	2	11250	8900	9300	10000	0.79	0.83	0.89						Off-Street		
Penn Ave S	Hwy 62	60th St W	Community Connector	2T	2	11250	14600	15300	16400	1.30	1.36	1.46			Yes					Truck Route
Penn Ave S	60th St W	54th St W	Community Connector	2	2	11250	8800	9200	9900	0.78	0.82	0.88			Yes					Truck Route
Penn Ave S	54th St W	50th St W	Community Connector	2	2	11250	7000	7400	7900	0.62	0.66	0.70		Cromwell Dr to 51st St	Yes					Truck Route
Penn Ave S	50th St W	Lake Harriet	Neighborhood Connector	2	2	11250	3400	3600	3800	0.30	0.32	0.34				Recommended PTN				
Lake Harriet Pkwy W	Penn Ave S	Lake Harriet	Parkway	2	2	11250	4100	4300	4600	0.36	0.38	0.41				Recommended PTN				
Lake Harriet Pkwy E	Penn Ave S	46th St W	Parkway	2	2	11250	4700	4900	5300	0.42	0.44	0.47				Recommended PTN				
Lake Harriet Pkwy E	46th St W	Lake Harriet	Parkway	2	2	11250	4500	4700	5100	0.40	0.42	0.45				Recommended PTN				
Lake Harriet Pkwy E	Lake Harriet Pkwy W	Richfield Rd	Parkway	2	2	11250	4900	5100	5500	0.44	0.45	0.49				Recommended PTN				
Hennepin Ave	36th St W	31st St W	Community Connector	2	2	11250	7800	8200	8800	0.69	0.73	0.78			Yes	Recommended PTN	Medium			
Hennepin Ave	31st St W	Lake St	Activity Center Street	2	2	11250	12100	12700	13600	1.08	1.13	1.21		Yes	Yes	Recommended PTN	Medium			
Hennepin Ave	Lake St	Lagoon Ave	Activity Center Street	4	4	20500	20300	21300	22900	0.99	1.04	1.11		Yes	Yes	Definite PTN	Medium			Truck Route
Hennepin Ave	Lagoon Ave	26th St W	Commerce Street	4	4	20500	26500	27800	29900	1.29	1.36	1.45			Yes	Definite PTN	Medium			Truck Route
Hennepin Ave	26th St W	24th St W	Commerce Street	4	4	20500	27400	28800	30900	1.34	1.40	1.50			Yes	Definite PTN	Medium			Truck Route
Hennepin Ave	24th St W	Franklin Ave	Commerce Street	4	4	20500	26900	28200	30300	1.31	1.38	1.48		Yes	Yes	Definite PTN	Medium			Truck Route
Bryant Ave	50th St W	46th St W	Neighborhood Connector	2	2	11250	2400	2500	2700	0.21	0.22	0.24			Yes	Recommended PTN	Low		On-Street	
Bryant Ave	46th St W	35th St W	Neighborhood Connector	2	2	11250	2300	2400	2600	0.20	0.21	0.23			Yes	Recommended PTN	Low		On-Street from 46th St to 40th St	
Bryant Ave	35th St W	31st St W	Neighborhood Connector	2	2	11250	3200	3400	3600	0.28	0.30	0.32			Yes	Recommended PTN	Low			
Hwy 121	Hwy 62	58th St W	Commuter Street/Community Connector	2T	4D	27500	10900	11400	12300	0.40	0.41	0.45								Truck Route
County Rd 22	58th St W	Lyndale Ave	Commuter Street/Community Connector	4	4	20500	10900	11400	12300	0.53	0.56	0.60			Yes					Truck Route
Lyndale Ave S	Hwy 62	61st St W	Commuter Street/Community Connector	4	4	20500	13200	13900	14900	0.64	0.68	0.73			Yes	Recommended PTN	Medium			Truck Route
Lyndale Ave S	61st St W	58th St W	Commuter Street/Community Connector	4	4	20500	11300	11900	12700	0.55	0.58	0.62			Yes	Recommended PTN	Medium			Truck Route
Lyndale Ave S	58th St W	County Rd 22	Commuter Street/Community Connector	4	4	20500	5400	5700	6100	0.26	0.28	0.30			Yes	Recommended PTN	Medium			Truck Route
Lyndale Ave S	County Rd 22	54th St W	Commuter Street/Community Connector	4	4	20500	16400	17200	18500	0.80	0.84	0.90			Yes	Recommended PTN	Medium			Truck Route
Lyndale Ave S	54th St W	50th St W	Commuter Street/Community Connector	3	4	20500	15600	16400	17600	0.76	0.80	0.86		Minnehaha Pkwy to 50th St	Yes	Recommended PTN				Truck Route

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	
38th St W	Dupont Ave S	Bryant Ave S	Community Connector	2	2	11250	2600	2700	2900	0.23	0.24	0.26					Medium			Truck Route
38th St W	Bryant Ave S	Lyndale Ave	Community Connector	2	2	11250	2600	2700	2900	0.23	0.24	0.26					Medium			Truck Route
38th St W	Lyndale Ave	I-35W	Community Connector	2	2	11250	5000	5300	5600	0.44	0.47	0.50			Yes	Recommended PTN	Medium			Truck Route
39th St W	France Ave	Xerxes Ave S	Commuter Street/Neighborhood Connector	2	2	11250	1600	1700	1800	0.14	0.15	0.16			Yes	Recommended PTN				
39th St W	Xerxes Ave S	Richfield Rd	Commuter Street/Neighborhood Connector	2	2	11250	4000	4200	4500	0.36	0.37	0.40			Yes	Recommended PTN				
42nd St W	Nicollet Ave	I-35W	Neighborhood Connector	2	2	11250	5500	5800	6200	0.49	0.52	0.55								
44th St W	France Ave	Upton Ave S	Community Connector	2	2	11250	8100	8500	9100	0.72	0.76	0.81		Yes	Yes					
44th St W	Upton Ave S	Lake Harriet Pkwy	Community Connector	2	2	11250		0	0	0.00	0.00	0.00			Yes					
46th St W	Lake Harriet Pkwy E	Dupont Ave S	Neighborhood Connector	2	2	11250	2900	3000	3300	0.26	0.27	0.29								
46th St W	Dupont Ave S	Bryant Ave S	Neighborhood Connector	2	2	11250	6200	6500	7000	0.55	0.58	0.62								
46th St W	Bryant Ave S	Lyndale Ave	Neighborhood Connector	2	2	11250	6200	6500	7000	0.55	0.58	0.62								
46th St W	Lyndale Ave	Nicollet Ave	Neighborhood Connector	2	2	11250	9400	9900	10600	0.84	0.88	0.94		Blaisdell to Nicollet Ave	Yes					Truck Route
46th St W	Nicollet Ave	I-35W	Community Connector	3	4	20500	15600	16400	17600	0.76	0.80	0.86		Yes	Yes	Recommended PTN	Medium			Truck Route
50th St W	France Ave	Penn Ave S	Community Connector	3	4	20500	12800	13400	14400	0.62	0.65	0.70		Yes	Yes	Recommended PTN	Medium			Truck Route
50th St W	Penn Ave S	Dupont Ave S	Community Connector	3	4	20500	13900	14600	15600	0.68	0.71	0.76		Yes	Yes	Recommended PTN	Medium			Truck Route
50th St W	Dupont Ave S	Lyndale Ave	Community Connector	3	4	20500	12500	13100	14100	0.61	0.64	0.69		Yes	Yes	Recommended PTN	Medium			Truck Route
50th St W	Lyndale Ave	Nicollet Ave	Neighborhood Connector	2	2	11250	8700	9100	9800	0.77	0.81	0.87			Yes	Recommended PTN				
50th St W	Nicollet Ave	I-35W	Neighborhood Connector	2	2	11250		0	0	0.00	0.00	0.00			Yes	Recommended PTN				
Minnehaha Pkwy W	Lake Harriet Pkwy E	50th St W	Parkway	2	2	11250		0	0	0.00	0.00	0.00			Yes					
Minnehaha Pkwy W	50th St W	Lyndale Ave	Parkway	2	2	11250		0	0	0.00	0.00	0.00			Yes					
Minnehaha Pkwy W	Lyndale Ave	I-35W	Parkway	2	2	11250		0	0	0.00	0.00	0.00			Yes					
54th St W	Penn Ave S	Lyndale Ave	Neighborhood Connector	2	2	11250	7100	7500	8000	0.63	0.67	0.71			Yes		Medium			
Diamond Lake Rd	Lyndale Ave	Nicollet Ave	Community Connector	2T	2T	17500	10200	10700	11500	0.58	0.61	0.66			Yes		Medium			
Diamond Lake Rd	Nicollet Ave	I-35W	Community Connector	2T	2T	17500	12600	13200	14200	0.72	0.75	0.81		Yes	Yes		Medium			
60th St W	Xerxes Ave S	Penn Ave S	Neighborhood Connector	2	2	11250	2500	2600	2800	0.22	0.23	0.25			Yes					
60th St W/Sunrise Dr/58th St	Penn Ave S	Hwy 121	Neighborhood Connector	2	2	11250	4100	4300	4600	0.36	0.38	0.41			Yes					
60th St W	Nicollet Ave	I-35W	Community Connector	2T	2	11250	9800	10300	11000	0.87	0.92	0.98			Yes					
Cedar Lake Pkwy	Cedar Lake Ave	Ewing Ave S	Parkway	2	2	11250	2700	2800	3000	0.24	0.25	0.27			Yes			Off-Street		
Cedar Lake Pkwy	Ewing Ave S	I-394	Parkway	2	2	11250	7900	8200	8800	0.69	0.73	0.78			Yes			Off-Street		
Sunset Blvd	France Ave	Cedar Lake Ave	Neighborhood Connector	2	2	11250	2600	2700	2900	0.23	0.24	0.26			Yes					
Burnham Rd	Sunset Blvd	Sheridan Ave S	Neighborhood Connector	2	2	11250	1000	1100	1100	0.09	0.10	0.10								
Sheridan Ave S	Burnham Rd	24th St W	Neighborhood Connector	2	2	11250		0	0	0.00	0.00	0.00			Yes					
24th St W	Sheridan Ave S	Penn Ave S	Neighborhood Connector	2	2	11250		0	0	0.00	0.00	0.00			Yes					
France Ave	54th St W	50th St W	Community Connector	2T	2	11250	11300	11900	12700	1.00	1.06	1.13			Yes	Recommended PTN			On-Street	Truck Route
France Ave	50th St W	44th St W	Community Connector	2T	2	11250	12500	13100	14100	1.11	1.16	1.25			Yes	Recommended PTN			On-Street	Truck Route
France Ave	44th St W	39th St W	Community Connector	2T	2	11250	10800	11300	12200	0.96	1.00	1.08			Yes	Recommended PTN			On-Street	Truck Route
France Ave	39th St W	Excelsior Blvd	Community Connector	2T	2	11250	10000	10500	11300	0.89	0.93	1.00			Yes				On-Street	Truck Route
France Ave	Lake St	Cedar Lake Ave	Neighborhood Connector	2	2	11250		0	0	0.00	0.00	0.00							On-Street	
Ewing Ave S	22nd St W	Cedar Lake Pkwy	Neighborhood Connector	2	2	11250	5800	6100	6500	0.52	0.54	0.58								
Excelsior Blvd	France Ave	32nd St W	Community Connector	4	4	22500	17400	18300	19600	0.77	0.81	0.87	No		Yes	Recommended PTN	High			Truck Route
Excelsior Blvd	32nd St W	Lake St	Community Connector	4	4	22500	17400	18300	19600	0.77	0.81	0.87	No		Yes	Recommended PTN	High			Truck Route
Dean Pkwy	Lake St	Sunset Blvd	Neighborhood Connector	2	2	11250	7500	7900	8400	0.67	0.70	0.75						Off-Street		

Appendix C - Street Needs Assessment

Existing Street Conditions by Segment and Mode w/ Existing Lanes - Southwest Sector

Draft
v10 - 11/27/06

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	Freight
Frontage Rd S of I-394	Cedar Lake Rd	Penn Ave N	Neighborhood Connector	2	2	11250		0	0	0.00	0.00	0.00			Yes		Medium			
Kenwood Pkwy	Franklin Ave	Vineland Place	Parkway	2	2	11250	2000	2100	2300	0.18	0.19	0.20								
Vineland Place	Kenwood Pkwy	Lyndale Ave	Parkway	2T	4	20500	2000	2100	2300	0.10	0.10	0.11					High			
Franklin Ave	Kenwood Pkwy	Penn Ave S	Neighborhood Connector	2	2	11250		0	0	0.00	0.00	0.00					Medium			
Franklin Ave	Penn Ave S	Logan Ave S	Neighborhood Connector	2	2	11250	2400	2500	2700	0.21	0.22	0.24								
Franklin Ave	Logan Ave S	Irving Ave S	Neighborhood Connector	2	2	11250	4400	4600	5000	0.39	0.41	0.44								
Franklin Ave	Irving Ave S	Hennepin Ave	Neighborhood Connector	2	2	11250	9600	10100	10800	0.85	0.90	0.96								
Franklin Ave	Hennepin Ave	Lyndale Ave	Community Connector	3	4	20500	6400	6700	7200	0.31	0.33	0.35	Yes	Yes	Yes	Definite PTN				Truck Route
Franklin Ave	Lyndale Ave	Nicollet Ave	Community Connector	3	4	20500	13500	14200	15200	0.66	0.69	0.74	Yes	Yes	Yes	Definite PTN				Truck Route
Franklin Ave	Nicollet Ave	I-35W	Community Connector	3	4	20500	16600	17400	18700	0.81	0.85	0.91	Yes	Yes	Yes	Definite PTN	High			Truck Route
26th St W	Hennepin Ave	Lyndale Ave	Neighborhood Connector	2	2(1-Way)	19000	4800	5000	5400	0.25	0.26	0.28			Yes	Definite PTN				
26th St W	Lyndale Ave	Nicollet Ave	Neighborhood Connector	2	3(1-Way)	29500	8500	8900	9600	0.29	0.30	0.33		Lyndale Ave to Blaisedel Ave		Definite PTN	Medium			
26th St W	Nicollet Ave	I-35W	Community Connector	3	3(1-Way)	29500	11800	12400	13300	0.40	0.42	0.45			Yes	Definite PTN	Medium			
28th St W	Hennepin Ave	Lyndale Ave	Neighborhood Connector	2	2(1-Way)	19000	5100	5400	5700	0.27	0.28	0.30				Definite PTN				
28th St W	Lyndale Ave	Nicollet Ave	Neighborhood Connector	2	2(1-Way)	19000	8500	8900	9600	0.45	0.47	0.51					Medium			
28th St W	Nicollet Ave	I-35W	Neighborhood Connector	2	3(1-Way)	29500	8500	8900	9600	0.29	0.30	0.33					Medium			
Lagoon Ave	Lake St	Hennepin Ave	Activity Center Street	3(1-Way)	3(1-Way)	29500	16200	17000	18200	0.55	0.58	0.62	Yes	Yes	Yes	Definite PTN	High			Truck Route
Lagoon Ave	Hennepin Ave	Lake St	Activity Center Street	3(1-Way)	2(1-Way)	19000	11600	12200	13100	0.61	0.64	0.69		Hennepin to Emerson Ave	Yes	Definite PTN	High			Truck Route
Lake St	France Ave	Market Place	Commerce Street	4D	4D	29500	29200	30700	32900	0.99	1.04	1.12	No		Yes	Recommended PTN				Truck Route
Lake St	Market Place	Excelsior Blvd	Commerce Street	4D	4D	29500	26200	27500	29500	0.89	0.93	1.00	No		Yes	Recommended PTN	High			Truck Route
Lake St	Excelsior Blvd	Lagoon Ave	Commerce Street	6D	6D	47000	34500	36200	38800	0.73	0.77	0.83	No		Yes	Definite PTN				Truck Route
Lake St	Lagoon Ave	Dupont Ave S	Activity Center Street	3(1-Way)	3(1-Way)	29500	20400	21400	23000	0.69	0.73	0.78			Yes	Definite PTN	High			Truck Route
Lake St	Dupont Ave S	Lyndale Ave	Commerce Street	4	4	20500	23400	24600	26300	1.14	1.20	1.28			Yes	Definite PTN				Truck Route
Lake St	Lyndale Ave	I-35W	Commerce Street	4	4	20500	23600	24800	26600	1.15	1.21	1.30			Yes	Definite PTN	High (Blaisedel to 35W)			Truck Route
31st St W	Calhoun Pkwy E	Irving Ave S	Neighborhood Connector	2T	2T	17500	4300	4500	4800	0.25	0.26	0.27								
31st St W	Irving Ave S	Dupont Ave S	Activity Center Street	2	2	11250	4300	4500	4800	0.38	0.40	0.43								
31st St W	Dupont Ave S	Lyndale Ave	Community Connector	2	2	11250	4300	4500	4800	0.38	0.40	0.43								
31st St W	Lyndale Ave	Nicollet Ave	Community Connector	2	2	11250	8200	8600	9200	0.73	0.76	0.82			Yes					
31st St W	Nicollet Ave	I-35W	Community Connector	4	4	20500	14600	15300	16400	0.71	0.75	0.80								Truck Route
35th St W	Nicollet Ave	I-35W	Community Connector	3	2(1-Way)	19000	13600	14300	15300	0.72	0.75	0.81			Yes		Low			Truck Route
36th St W	Calhoun Pkwy E	Hennepin Ave	Neighborhood Connector	3	3	17500	11400	12000	12800	0.65	0.69	0.73			Yes	Recommended PTN	Medium			Truck Route
36th St W	Hennepin Ave	Bryant Ave S	Neighborhood Connector	3	3	17500	12400	13000	14000	0.71	0.74	0.80			Yes	Recommended PTN	Medium			Truck Route
36th St W	Bryant Ave S	Lyndale Ave	Neighborhood Connector	2	2	11250	7100	7500	8000	0.63	0.67	0.71		Aldrich to Lyndale Ave	Yes	Recommended PTN				Truck Route
36th St W	Lyndale Ave	Nicollet Ave	Neighborhood Connector	2	2	11250	7100	7500	8000	0.63	0.67	0.71		Lyndale to Grand Ave	Yes					Truck Route
36th St W	Nicollet Ave	I-35W	Community Connector	3	2(1-Way)	19000	10200	10700	11500	0.54	0.56	0.61			Yes		Low			Truck Route

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	

XXXX - 2001 Average Annual Daily Traffic

ADT Percent Growth Per

Year = 0.6

MSA - Municipal State Aid Roadway

CSA - County State Aid Roadway

TH - Trunk Highway

90th Percentile 0.91 0.96 1.04
 95th Percentile 1.02 1.08 1.18

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	
Bloomington Ave	Lake St	24th St E	Neighborhood Connector	2	2	11250	8600	9100	9900	0.76	0.81	0.88			Yes	Candidate PTN	Medium			
Bloomington Ave	24th St E	Franklin Ave	Neighborhood Connector	2	2	11250	5300	5600	6100	0.47	0.50	0.54			Yes	Candidate PTN	Medium			
Cedar Ave	Nokomis Pkwy	Minnehaha Pkwy	Commuter Street/Community Connector	2	2	11250	18100	19200	20800	1.61	1.71	1.85							Truck Route	
Cedar Ave	Minnehaha Pkwy	42nd St E	Commuter Street/Community Connector	2	2	11250	15000	15900	17300	1.33	1.41	1.54			Yes				Truck Route	
Cedar Ave	42nd St E	38th St E	Commuter Street/Community Connector	2	2	11250	13200	14000	15200	1.17	1.24	1.35			Yes				Truck Route	
Cedar Ave	38th St E	35th St E	Commuter Street/Community Connector	3	4	20500	13200	14000	15200	0.64	0.68	0.74		Yes	Yes		Medium		Truck Route	
Cedar Ave	35th St E	Lake St	Commuter Street/Community Connector	4	4	20500	14200	15100	16300	0.69	0.74	0.80		Yes	Yes		Medium		Truck Route	
Cedar Ave	Lake St	26th St E	Commuter Street/Community Connector	4	4	20500	13600	14400	15600	0.66	0.70	0.76		Yes	Yes		Medium		Truck Route	
Cedar Ave	26th St E	Hiawatha Ave	Commuter Street/Community Connector	4	4	20500	16600	17600	19100	0.81	0.86	0.93		26th St to 25 St	Yes		Medium		Truck Route	
Cedar Ave	Hiawatha Ave	Franklin Ave	Commuter Street/Community Connector	4	4	20500	17500	18600	20100	0.85	0.91	0.98			Yes		Medium		Truck Route	
Cedar Ave	Franklin Ave	I-94	Commerce Street	4	4	20500	17400	18400	20000	0.85	0.90	0.98			Yes		Medium		Truck Route	
21st Ave S	Lake St	28th St E	Industrial Connector	2	2	11250	2500	2700	2900	0.22	0.24	0.26								
28th Ave S	58th St E	54th St E	Neighborhood Connector	2	2	11250	6200	6600	7100	0.55	0.59	0.63			Yes		Medium			
28th Ave S	54th St E	50th St E	Neighborhood Connector	2	2	11250	4700	5000	5400	0.42	0.44	0.48			Yes		Medium			
28th Ave S	50th St E	Minnehaha Pkwy	Neighborhood Connector	2	2	11250	6600	7000	7600	0.59	0.62	0.68			Yes					
28th Ave S	Minnehaha Pkwy	45th St E	Neighborhood Connector	2	2	11250	7000	7400	8100	0.62	0.66	0.72			Yes					
28th Ave S	45th St E	42nd St E	Neighborhood Connector	2	2	11250	6300	6700	7200	0.56	0.60	0.64			Yes					
28th Ave S	42nd St E	38th St E	Neighborhood Connector	2	2	11250	4400	4700	5100	0.39	0.42	0.45			Yes					
34th Ave S	58th St E	54th St E	Community Connector	2	2	11250	7900	8400	9100	0.70	0.75	0.81			Yes	Recommended PTN			Truck Route	
34th Ave S	54th St E	Minnehaha Pkwy	Community Connector	2	2	11250	6700	7100	7700	0.60	0.63	0.68			Yes	Recommended PTN			Truck Route	
34th Ave S	Minnehaha Pkwy	46th St E	Community Connector	2	2	11250	2300	2400	2600	0.20	0.21	0.23							Truck Route	
Hiawatha Ave	54th St E	50th St E	Commuter Street	4D	4D	29500	23900	25300	27500	0.81	0.86	0.93	No		Yes	Definite PTN		Off-street	Truck Route	
Hiawatha Ave	50th St E	Minnehaha Pkwy	Commuter Street	4D	4D	29500	27400	29000	31500	0.93	0.98	1.07	No		Yes	Definite PTN		Off-street	Truck Route	
Hiawatha Ave	Minnehaha Pkwy	42nd St E	Commuter Street	4D	4D	29500	24900	26400	28600	0.84	0.89	0.97	No		Yes	Definite PTN		Off-street	Truck Route	
Hiawatha Ave	42nd St E	35th St E	Commuter Street	4D	4D	29500	28900	30600	33200	0.98	1.04	1.13	No		Yes	Definite PTN		Off-street	Truck Route	
Hiawatha Ave	35th St E	Lake St	Commuter Street	4D	4D	29500	32800	34800	37700	1.11	1.18	1.28	No		Yes	Definite PTN		Off-street	Truck Route	
Hiawatha Ave	Lake St	28th St E	Commuter Street	4D	4D	29500	29100	30800	33500	0.99	1.04	1.14	No		Yes	Definite PTN			Truck Route	
Hiawatha Ave	28th St E	Cedar Ave	Commuter Street	6D	6D	47000	44300	47000	50900	0.94	1.00	1.08	No		Yes	Definite PTN		Off-street	Truck Route	
Hiawatha Ave	Cedar Ave	I-94	Commuter Street	6D	6D	47000	47600	50500	54700	1.01	1.07	1.16	No		Yes	Definite PTN		Off-street	Truck Route	
Minnehaha Ave	46th St E	42nd St E	Community Connector	2	2	11250	8700	9200	10000	0.77	0.82	0.89			Yes	Recommended PTN		On-street		
Minnehaha Ave	42nd St E	38th St E	Community Connector	2	2	11250	8900	9400	10200	0.79	0.84	0.91			Yes	Recommended PTN		On-street		
Minnehaha Ave	38th St E	32nd St E	Community Connector	2	2	11250	10800	11400	12400	0.96	1.01	1.10			Yes	Recommended PTN		On-street		
Minnehaha Ave	32nd St E	31st St E	Activity Center Street	2	2	11250	10800	11400	12400	0.96	1.01	1.10			Yes	Recommended PTN		On-street	On-street	
Minnehaha Ave	31st St E	Lake St	Activity Center Street	4	4	20500	10800	11400	12400	0.53	0.56	0.60			Yes	Recommended PTN		On-street	On-street	
Minnehaha Ave	28th St E	26th St E	Activity Center Street	4	4	20500	7300	7700	8400	0.36	0.38	0.41						On-street		
Minnehaha Ave	26th St E	25th St E	Community Connector	2	2	11250	7300	7700	8400	0.65	0.68	0.75						On-street	Truck Route	
Minnehaha Ave	25th St E	Franklin Ave	Community Connector	2	2	11250	5800	6100	6700	0.52	0.54	0.60			Yes			On-street	Truck Route	
26th Ave S	Lake St	28th St E	Activity Center Street	3	4	20500	6500	6900	7500	0.32	0.34	0.37				Recommended PTN		On-street	Truck Route	
26th Ave S	28th St E	26th St E	Community Connector	2	4	20500	6500	6900	7500	0.32	0.34	0.37				Recommended PTN			Truck Route	
26th Ave S	26th St E	25th St E	Community Connector	2	2	11250	6500	6900	7500	0.58	0.61	0.67				Recommended PTN			Truck Route	
26th Ave S	25th St E	Franklin Ave	Neighborhood Connector	4	2	11250	6500	6900	7500	0.58	0.61	0.67				Recommended PTN			Truck Route	
26th Ave S	Franklin Ave	Riverside Ave	Commuter Street	2	4	20500	9900	10500	11400	0.48	0.51	0.56								
36th Ave S	38th St E	34th St E	Neighborhood Connector	2	2	11250	3300	3500	3800	0.29	0.31	0.34			Yes				Truck Route	
36th Ave S	34th St E	Lake St	Neighborhood Connector	2	2	11250	3300	3500	3800	0.29	0.31	0.34			Yes				Truck Route	
36th Ave S	Lake St	25th St E	Neighborhood Connector	2	2	11250	2500	2700	2900	0.22	0.24	0.26			Yes				Truck Route	
42nd Ave S	46th St E	42nd St E	Neighborhood Connector	2	2	11250	2600	2800	3000	0.23	0.25	0.27								
42nd Ave S	42nd St E	34th St E	Neighborhood Connector	2	2	11250	4200	4500	4800	0.37	0.40	0.43			Yes					
42nd Ave S	34th St E	Lake St	Neighborhood Connector	2	2	11250	3400	3600	3900	0.30	0.32	0.35			Yes					
West River Pkwy	46th St E	38th St E	Parkway	2	2	11250	4900	5200	5600	0.44	0.46	0.50						Off-street		
West River Pkwy	38th St E	Lake St	Parkway	2	2	11250	6900	7300	7900	0.61	0.65	0.70						Off-street		
West River Pkwy	Lake St	25th St E	Parkway	2	2	11250	5500	5800	6300	0.49	0.52	0.56						Off-street		
West River Pkwy	25th St E	Franklin Ave	Parkway	2	2	11250	5900	6300	6800	0.52	0.56	0.60						Off-street		
West River Pkwy	Franklin Ave	I-94	Parkway	2	2	11250	5900	6300	6800	0.52	0.56	0.60						Off-street		

Notes
 Source - 2005 Average Annual Daily Traffic, City of Minneapolis
 XXXX - 2005 Average Annual Daily Traffic
 XXXX - 2004 Average Annual Daily Traffic

75th Percentile 0.74 0.78 0.85
 80th Percentile 0.77 0.82 0.89
 85th Percentile 0.82 0.87 0.94

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	
46th St E	Bloomington Ave	Cedar Ave	Community Connector	2	2	11250	4400	4700	5100	0.39	0.42	0.45			Yes		Medium			Truck Route
46th St E	34th Ave S	Hiawatha Ave	Community Connector	2	2	11250	5700	6000	6600	0.51	0.53	0.59				Recommended PTN				Truck Route
46th St E	Hiawatha Ave	Minnehaha Ave	Community Connector	4	4	20500	14800	15700	17000	0.72	0.77	0.83			Yes	Recommended PTN	High (at Hiawatha)			Truck Route
46th St E	Minnehaha Ave	Godfrey Pkwy	Community Connector	4	4	20500	13400	14200	15400	0.65	0.69	0.75			Yes	Recommended PTN	Medium			Truck Route
46th St E	Godfrey Pkwy	River	Community Connector	4	4	20500	16900	17900	19400	0.82	0.87	0.95			Yes	Recommended PTN	Medium			Truck Route
50th St E	I-25W	Minnehaha Pkwy	Neighborhood Connector	2	2	11250	6100	6500	7000	0.54	0.58	0.62								
50th St E	34th Ave S	42nd Ave S	Neighborhood Connector	2	2	11250	3300	3500	3800	0.29	0.31	0.34			Yes	Recommended PTN				
50th St E	42nd Ave S	Hiawatha Ave	Neighborhood Connector	2	2	11250	3000	3200	3500	0.27	0.28	0.31			Yes	Recommended PTN				
Minnehaha Pkwy E	I-25W	Portland Ave	Parkway	2	2	11250		0	0	0.00	0.00	0.00						Off-street		
Minnehaha Pkwy E	Portland Ave	Chicago Ave	Parkway	2	2	11250	7200	7600	8300	0.64	0.68	0.74						Off-street		
Minnehaha Pkwy E	Chicago Ave	Bloomington Ave	Parkway	2	2	11250	6900	7300	7900	0.61	0.65	0.70						Off-street		
Minnehaha Pkwy E	Bloomington Ave	Cedar Ave	Parkway	2	2	11250	7900	8400	9100	0.70	0.75	0.81						Off-street		
Minnehaha Pkwy E	Cedar Ave	Creek	Parkway	2	2	11250	8300	8800	9500	0.74	0.78	0.84						Off-street		
Minnehaha Pkwy E	Creek	28th Ave S	Parkway	2	2	11250	8600	9100	9900	0.76	0.81	0.88								
Minnehaha Pkwy E	28th Ave S	34th Ave S	Parkway	2	2	11250	8600	9100	9900	0.76	0.81	0.88								
Minnehaha Pkwy E	34th Ave S	Hiawatha Ave	Parkway	2	2	11250	9500	10100	10900	0.84	0.90	0.97								
Godfrey Pkwy	Hiawatha Ave	Minnehaha Ave	Parkway	2	2	11250	12300	13000	14100	1.09	1.16	1.25						Off-street		
Godfrey Pkwy	Minnehaha Ave	46th St E	Parkway	2	2	11250	7100	7500	8200	0.63	0.67	0.73						Off-street		
Diamond Lake Rd E	I-25 W	Portland Ave	Community Connector	2	2	11250	7300	7700	8400	0.65	0.68	0.75					Medium		Off-street	
54th St E	Portland Ave	Chicago Ave	Community Connector	2	2	11250	3200	3400	3700	0.28	0.30	0.33							Off-street	
54th St E	Chicago Ave	Nokomis Pkwy W	Community Connector	2	2	11250	3700	3900	4300	0.33	0.35	0.38							On-street	
Nokomis Pkwy	54th St E	Cedar Ave	Parkway	2	2	11250	1300	1400	1500	0.12	0.12	0.13			Yes			Off-street		
Nokomis Pkwy	Cedar Ave	50th St E	Parkway	2	2	11250	5600	5900	6400	0.50	0.52	0.57						Off-street		
Nokomis Pkwy	50th St E	Minnehaha Pkwy	Parkway	2	2	11250	1500	1600	1700	0.13	0.14	0.15						Off-street		
58th St E	28th Ave S	Bossen Terrace	Neighborhood Connector	2	2	11250	2200	2300	2500	0.20	0.20	0.22			Yes					
58th St E	Bossen Terrace	34th Ave S	Neighborhood Connector	2	2	11250	7900	8300	9000	0.69	0.74	0.80			Yes					
60th St E	I-25 W	Portland Ave	Community Connector	2	2	11250	6100	6500	7000	0.54	0.58	0.62				Definite PTN				
60th St E	Portland Ave	Chicago Ave	Neighborhood Connector	2	2	11250	6100	6500	7000	0.54	0.58	0.62			Yes	Definite PTN				
60th St E	Chicago Ave	Crosstown Rd	Neighborhood Connector	2	2	11250	2100	2200	2400	0.19	0.20	0.21			Yes	Definite PTN				
2nd Ave S	28th St E	Lake St	Activity Center Street	2	2(1-Way)	19000	4100	4300	4700	0.22	0.23	0.25								Truck Route
4th Ave S	46th St E	38th St E	Commuter Street/Neighborhood Connector	2	2	11250	2100	2200	2400	0.19	0.20	0.21			Yes					
4th Ave S	38th St E	31st St E	Commuter Street/Neighborhood Connector	2	2	11250	2600	2800	3000	0.23	0.25	0.27			Yes					
4th Ave S	31st St S	Lake St	Commuter Street/Neighborhood Connector	2	2	11250	3600	3800	4100	0.32	0.34	0.36			Yes					
Portland Ave	Hwy 62	60th St E	Community Connector	3	3	17500	16300	17300	18700	0.93	0.99	1.07		Hwy 62 to Park Ave S	Yes	Definite PTN			On-street	
Portland Ave	60th St E	Diamond Lake Rd E	Community Connector	2T	2T	17500	12300	13000	14100	0.70	0.74	0.81			Yes				On-street	
Portland Ave	Diamond Lake Rd E	50th St E	Community Connector	2T	4	20500	12300	13000	14100	0.60	0.63	0.69							On-street	
Portland Ave	50th St E	46th St E	Community Connector	2T	4	20500	10800	11400	12400	0.53	0.56	0.60								
Portland Ave	46th St E	36th St E	Commuter Street/Community Connector	2T	3(1-Way)	29500	8400	8900	9700	0.28	0.30	0.33					Low	On-street		
Portland Ave	36th St E	31st St E	Commuter Street/Community Connector	2T	3(1-Way)	29500	10800	11400	12400	0.37	0.39	0.42					Low	On-street		
Portland Ave	31st St E	Lake St	Commuter Street/Community Connector	3(1-Way)	3(1-Way)	29500	12600	13400	14500	0.43	0.45	0.49					Low	On-street		
Portland Ave	Lake St	26th St E	Activity Center Street	3(1-Way)	3(1-Way)	29500	12300	13000	14100	0.42	0.44	0.48			Yes		Low	On-street		
Portland Ave	26th St E	Franklin Ave	Activity Center Street	2T	3(1-Way)	29500	13000	13800	15000	0.44	0.47	0.51			Yes		Low	On-street		
Portland Ave	Franklin Ave	I-94	Activity Center Street	2T	3(1-Way)	29500	12900	13700	14800	0.44	0.46	0.50			Yes		Low	On-street		
Park Ave	Minnehaha Pkwy	46th St E	Community Connector	2T	3	17500	2900	3100	3300	0.17	0.18	0.19							On-street	
Park Ave	46th St E	36th St E	Commuter Street/Community Connector	2T	3(1-Way)	29500	5000	5300	5800	0.17	0.18	0.20					Low	On-street		
Park Ave	36th St E	31st St E	Commuter Street/Community Connector	2T	3(1-Way)	29500	7900	8400	9100	0.27	0.28	0.31					Low	On-street		
Park Ave	31st St E	Lake St	Commuter Street/Community Connector	3(1-Way)	3(1-Way)	29500	10400	11000	12000	0.35	0.37	0.41					Low	On-street		
Park Ave	Lake St	24th St E	Activity Center Street	3(1-Way)	3(1-Way)	29500	10900	11600	12500	0.37	0.39	0.42					Low	On-street		
Park Ave	24th St E	Franklin Ave	Activity Center Street	3(1-Way)	3(1-Way)	29500	12600	13400	14500	0.43	0.45	0.49					Low	On-street		
Park Ave	Franklin Ave	I-94	Activity Center Street	2T	3(1-Way)	29500	11700	12400	13500	0.40	0.42	0.46					Low	On-street		
Chicago Ave	60th St E	57th St E	Neighborhood Connector	2	2	11250	4800	5100	5500	0.43	0.45	0.49			Yes	Definite PTN				Truck Route
Chicago Ave	57th St E	54th St E	Community Connector	2	2	11250	4800	5100	5500	0.43	0.45	0.49			Yes	Definite PTN				Truck Route
Chicago Ave	54th St E	46th St E	Community Connector	2	2	11250	8100	8600	9300	0.72	0.76	0.83			Yes	Definite PTN				Truck Route
Chicago Ave	46th St E	38th St E	Community Connector	2	2	11250	8100	8600	9300	0.72	0.76	0.83			Yes	Definite PTN				Truck Route
Chicago Ave	38th St E	31st St E	Community Connector	2	2	11250	6400	6800	7400	0.57	0.60	0.66			Yes	Definite PTN	Low			Truck Route
Chicago Ave	31st St E	Lake St	Community Connector	2	2	11250	8000	8500	9200	0.71	0.76	0.82			Yes	Definite PTN				Truck Route
Chicago Ave	Lake St	Franklin Ave	Activity Center Street	2	2	11250	8400	8900	9700	0.75	0.79	0.86			Yes	Definite PTN				Truck Route
Chicago Ave	Franklin Ave	I-94	Activity Center Street	2	2	11250	9000	9500	10400	0.80	0.84	0.92			Yes	Definite PTN				Truck Route
Bloomington Ave	54th St E	Minnehaha Pkwy	Neighborhood Connector	2	2	11250	3200	3400	3700	0.28	0.30	0.33			Yes					
Bloomington Ave	Minnehaha Pkwy	42nd St E	Neighborhood Connector	2	2	11250	4400	4700	5100	0.39	0.42	0.45			Yes	Recommended PTN				
Bloomington Ave	42nd St E	38th St E	Neighborhood Connector	2	2	11250	5200	5500	6000	0.46	0.49	0.53			Yes	Candidate PTN				
Bloomington Ave	38th St E	31st St E	Neighborhood Connector	2	2	11250	5700	6000	6600	0.51	0.53	0.59			Yes	Candidate PTN				
Bloomington Ave	31st St E	Lake St	Neighborhood Connector	2	2	11250	8800	9300	10100	0.78	0.83	0.90			Yes	Candidate PTN				

Appendix C - Street Needs Assessment

Existing Street Conditions by Segment and Mode w/ Existing Lanes - South Sector

Draft
v10-11/27/06

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	
Franklin Ave E	I-35W	Chicago Ave	Commerce Street/Community Connector	3	4	20500	14200	15100	16300	0.69	0.74	0.80			Yes	Definite PTN	High		Truck Route	
Franklin Ave E	Chicago Ave	Hiawatha Ave	Commerce Street/Community Connector	3	3	17500	14200	15100	16300	0.81	0.86	0.93			Yes	Definite PTN	Low/High		Truck Route	
Franklin Ave E	Hiawatha Ave	Minnehaha Ave	Commerce Street/Community Connector	3	4	20500	14200	15100	16300	0.69	0.74	0.80			Yes	Definite PTN	High		Truck Route	
Franklin Ave E	Minnehaha Ave	26th Ave S	Commerce Street/Community Connector	3	2	11250	12800	13600	14700	1.14	1.21	1.31			Yes	Definite PTN	Low		Truck Route	
Franklin Ave E	26th Ave S	West River Pkwy	Commerce Street/Community Connector	3	4	20500	11800	12500	13600	0.58	0.61	0.66			Yes		Low		Truck Route	
24th St E	Portland Ave	Chicago Ave	Activity Center Street	2	2	11250	4400	4700	5100	0.39	0.42	0.45						On-street		
25th St E	Minnehaha Ave	26th Ave S	Community Connector	2	2	11250	1900	2000	2200	0.17	0.18	0.20			Yes				Truck Route	
25th St E	26th Ave S	36th Ave S	Neighborhood Connector	2	2	11250	1900	2000	2200	0.17	0.18	0.20			Yes					
26th St E	I-35W	Chicago Ave	Community Connector	3	3(1-Way)	29500	12700	13500	14600	0.43	0.46	0.49			Yes		Medium			
26th St E	Chicago Ave	Bloomington Ave	Community Connector	3	3(1-Way)	29500	12700	13500	14600	0.43	0.46	0.49			Yes		Medium			
26th St E	Bloomington Ave	Cedar Ave	Community Connector	3	3(1-Way)	29500	10600	11200	12200	0.36	0.38	0.41			Yes		Medium			
26th St E	Cedar Ave	Hiawatha Ave	Neighborhood Connector	2	3	17500	8300	8800	9500	0.47	0.50	0.54							Truck Route	
26th St E	Hiawatha Ave	Minnehaha Ave	Neighborhood Connector	2	4	20500	15100	16000	17400	0.74	0.78	0.85							Truck Route	
28th St E	2nd Ave S	Portland Ave	Activity Center Street	3	3(1-Way)	29500	10600	11200	12200	0.36	0.38	0.41		5th Ave to Portland Ave	Yes		Medium			
28th St E	Portland Ave	Chicago Ave	Activity Center Street	3	3(1-Way)	29500	12700	13500	14600	0.43	0.46	0.49		Yes	Yes		Medium			
28th St E	Chicago Ave	10th Ave S	Activity Center Street	3	3(1-Way)	29500	12700	13500	14600	0.43	0.46	0.49		Yes	Yes		Medium			
28th St E	10th Ave S	Bloomington Ave	Neighborhood Connector	3	3(1-Way)	29500	12700	13500	14600	0.43	0.46	0.49		Yes	Yes		Medium			
28th St E	Bloomington Ave	Cedar Ave	Neighborhood Connector	3	3(1-Way)	29500	8200	8700	9400	0.28	0.29	0.32		Yes	Yes		Medium			
28th St E	Cedar Ave	Hiawatha Ave	Industrial Connector	3	4	20500	6600	7000	7600	0.32	0.34	0.37							Truck Route	
Lake St E	I-35W	Chicago Ave	Commerce Street	4	4	20500	22100	23400	25400	1.08	1.14	1.24			Yes	Definite PTN	High (35W to 5th)		Truck Route	
Lake St E	Chicago Ave	Cedar Ave	Commerce Street	4	4	20500	21300	22600	24500	1.04	1.10	1.20			Yes	Definite PTN			Truck Route	
Lake St E	Cedar Ave	Hiawatha Ave	Commerce Street	4	4	22500	20000	21200	23000	0.89	0.94	1.02	No		Yes	Definite PTN			Truck Route	
Lake St E	Hiawatha Ave	Minnehaha Ave	Commerce Street	4	4	22500	23300	24700	26800	1.04	1.10	1.19	No		Yes	Definite PTN			Truck Route	
Lake St E	Minnehaha Ave	31st Ave S	Commerce Street	4	4	20500	14800	15700	17000	0.72	0.77	0.83			Yes	Definite PTN			Truck Route	
Lake St E	31st Ave S	36th Ave S	Commerce Street	4	4	20500	14800	15700	17000	0.72	0.77	0.83			Yes	Definite PTN			Truck Route	
Lake St E	36th Ave S	West River Pkwy	Commerce Street/Community Connector	4	4	20500	12900	13700	14800	0.63	0.67	0.72			Yes	Definite PTN			Truck Route	
Lake St E	West River Pkwy	River	Commerce Street/Community Connector	4	4	20500	13200	14000	15200	0.64	0.68	0.74			Yes	Definite PTN			Truck Route	
31st St E	I-35W	Portland Ave	Community Connector	3	4	20500	10400	11000	12000	0.51	0.54	0.59		Yes						
31st St E	Portland Ave	Bloomington Ave	Community Connector	2	2	11250	6800	7200	7800	0.60	0.64	0.69		Portland Ave to Park Ave						
31st St E	Bloomington Ave	Cedar Ave	Community Connector	2	2	11250	4900	5200	5600	0.44	0.46	0.50								
34th St E	36th Ave S	42nd Ave S	Neighborhood Connector	2	2	11250	1200	1300	1400	0.11	0.12	0.12								
35th St E	I-35W	Portland Ave	Community Connector	2T	2(1-Way)	19000	8500	9000	9800	0.45	0.47	0.52					Low		Truck Route	
35th St E	Portland Ave	Park Ave	Community Connector	2T	2(1-Way)	19000	5800	6100	6700	0.31	0.32	0.35					Low		Truck Route	
35th St E	Park Ave	Chicago Ave	Neighborhood Connector	2T	2(1-Way)	19000	5800	6100	6700	0.31	0.32	0.35					Low		Truck Route	
35th St E	Chicago Ave	Bloomington Ave	Neighborhood Connector	2	2	11250	5800	6100	6700	0.52	0.54	0.60							Truck Route	
35th St E	Bloomington Ave	Cedar Ave	Neighborhood Connector	2	2	11250	4200	4500	4800	0.37	0.40	0.43								
35th St E	Cedar Ave	Hiawatha Ave	Neighborhood Connector	2	2	11250	5000	5300	5800	0.44	0.47	0.52			Yes					
35th St E	Hiawatha Ave	Minnehaha Ave	Neighborhood Connector	2	2	11250	6200	6600	7100	0.55	0.59	0.63								
36th St E	I-35W	Portland Ave	Community Connector	2T	2(1-Way)	19000	8900	9400	10200	0.47	0.49	0.54					Low		Truck Route	
36th St E	Portland Ave	Chicago Ave	Community Connector	2T	2(1-Way)	19000	5400	5700	6200	0.28	0.30	0.33					Low		Truck Route	
38th St E	I-35W	Portland Ave	Community Connector	2	2	11250	9900	10500	11400	0.88	0.93	1.01			Yes	Recommended PTN	Medium		Truck Route	
38th St E	Portland Ave	Bloomington Ave	Community Connector	2	2	11250	9100	9600	10500	0.81	0.85	0.93			Yes	Recommended PTN	Medium		Truck Route	
38th St E	Bloomington Ave	Cedar Ave	Community Connector	2	2	11250	8000	8500	9200	0.71	0.76	0.82			Yes	Recommended PTN	Medium		Truck Route	
38th St E	Cedar Ave	28th Ave S	Community Connector	2	2	11250	7900	8400	9100	0.70	0.75	0.81			Yes	Recommended PTN	Medium		Truck Route	
38th St E	28th Ave S	Hiawatha Ave	Community Connector	2	2	11250	8700	9200	10000	0.77	0.82	0.89			Yes	Recommended PTN	Medium		Truck Route	
38th St E	Hiawatha Ave	Minnehaha Ave	Community Connector	2	2	11250	6200	6600	7100	0.55	0.59	0.63			Yes	Recommended PTN	High (at Hiawatha)		Truck Route	
38th St E	Minnehaha Ave	46th Ave S	Community Connector	2	2	11250	5500	5800	6300	0.49	0.52	0.56			Yes	Recommended PTN			Truck Route	
38th St E	46th Ave S	West River Pkwy	Community Connector	2	2	11250	1300	1400	1500	0.12	0.12	0.13			Yes				Truck Route	
42nd St E	I-35W	Bloomington Ave	Neighborhood Connector	2	2	11250	5600	5900	6400	0.50	0.52	0.57								
42nd St E	Bloomington Ave	Cedar Ave	Neighborhood Connector	2	2	11250	7200	7600	8300	0.64	0.68	0.74				Recommended PTN				
42nd St E	Cedar Ave	28th Ave S	Community Connector	2	2	11250	8500	9000	9800	0.76	0.80	0.87			Yes	Recommended PTN			Truck Route	
42nd St E	28th Ave S	Hiawatha Ave	Community Connector	2	2	11250	8500	9000	9800	0.76	0.80	0.87			Yes	Recommended PTN			Truck Route	
42nd St E	Hiawatha Ave	Minnehaha Ave	Neighborhood Connector	2	2	11250	6900	7300	7900	0.61	0.65	0.70								
46th St E	I-35W	Park Ave	Community Connector	4	4	20500	15600	16500	17900	0.76	0.80	0.87		Yes	Yes	Recommended PTN	Medium		Truck Route	
46th St E	Park Ave	Chicago Ave	Community Connector	2	2	11250	10200	10800	11700	0.91	0.96	1.04		Yes	Yes	Recommended PTN	Medium		Truck Route	
46th St E	Chicago Ave	Bloomington Ave	Community Connector	2	2	11250	10200	10800	11700	0.91	0.96	1.04			Yes	Recommended PTN	Medium		Truck Route	

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight Truck Route
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	
36th Ave S	Lake St	25th St E	Neighborhood Connector	2	2	11250	2500	2700	2900	0.22	0.24	0.26			Yes					
46th Ave S	46th St E	42nd St E	Neighborhood Connector	2	2	11250	2600	2800	3000	0.23	0.25	0.27								
42nd Ave S	42nd St E	34th St E	Neighborhood Connector	2	2	11250	4200	4500	4800	0.37	0.40	0.43			Yes					
42nd Ave S	34th St E	Lake St	Neighborhood Connector	2	2	11250	3400	3600	3900	0.30	0.32	0.35			Yes					
West River Pkwy	46th St E	38th St E	Parkway	2	2	11250	4900	5200	5600	0.44	0.46	0.50						Off-street		
West River Pkwy	38th St E	Lake St	Parkway	2	2	11250	6900	7300	7900	0.61	0.65	0.70						Off-street		
West River Pkwy	Lake St	25th St E	Parkway	2	2	11250	5500	5800	6300	0.49	0.52	0.56						Off-street		
West River Pkwy	25th St E	Franklin Ave	Parkway	2	2	11250	5900	6300	6800	0.52	0.56	0.60						Off-street		
West River Pkwy	Franklin Ave	I-94	Parkway	2	2	11250	5900	6300	6800	0.52	0.56	0.60						Off-street		

Notes
 Source - 2005 Average Annual Daily Traffic, City of Minneapolis
 XXXX - 2005 Average Annual Daily Traffic
 XXXX - 2004 Average Annual Daily Traffic
 XXXX - 2001 Average Annual Daily Traffic
 ADT Percent Growth Per Year = 0.6
 MSA - Municipal State Aid Roadway
 CSA - County State Aid Roadway
 TH - Trunk Highway

2005 2015 2030
 75th Percentile 0.74 0.79 0.85
 80th Percentile 0.77 0.82 0.89
 85th Percentile 0.82 0.87 0.94
 90th Percentile 0.91 0.96 1.04
 95th Percentile 1.02 1.08 1.18

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	
University Ave NE	Lowry Ave NE	27th Ave NE	Commuter Street/Community Connector	4	4	20500	15500	16100	17100	0.76	0.79	0.83		Yes	Yes			Off-Street	Truck Route	
University Ave NE	27th Ave NE	Saint Anthony Pkwy	Industrial Connector	4	4	22500	15500	16100	17100	0.69	0.72	0.76	No		Yes			Off-Street	Truck Route	
University Ave NE	Saint Anthony Pkwy	37th Ave NE	Industrial Connector	4	4	22500	15400	16000	16900	0.68	0.71	0.75	No		Yes				Truck Route	
19th Ave S/10th Ave SE	West River Pkwy	University Ave SE	Neighborhood Connector	2T	4	20500	10100	10500	11100	0.49	0.51	0.54							Truck Route	
10th Ave SE	University Ave NE	8th St SE	Neighborhood Connector	2	4	20500	7700	8000	8500	0.38	0.39	0.41			Yes				Truck Route	
Washington St SE	Broadway St NE	Lowry Ave NE	Neighborhood Connector	2	2	11250	2100	2200	2300	0.19	0.20	0.20			Yes	Candidate PTN			Truck Route	
Monroe St NE	3rd Ave NE	Broadway St NE	Neighborhood Connector	2	2	11250	3100	3200	3400	0.28	0.28	0.30			Yes					
7th St NE	3rd Ave NE	Central Ave NE	Neighborhood Connector	2	2	11250	2300	2400	2500	0.20	0.21	0.22								
7th St NE	Central Ave NE	Hennepin Ave	Neighborhood Connector	3(1-Way)	3(1-Way)	29500	0	0	0	0.00	0.00	0.00							Truck Route	
Washington Ave SE	West River Pkwy	E River Rd	Commuter Street	4	4	22500	18800	19600	20700	0.84	0.87	0.92	No		Yes	Future LRT/BRT		Off-Street	Truck Route	
Washington Ave SE	E River Rd	Oak St SE	Activity Center Street	4	4	22500	17700	18400	19500	0.79	0.82	0.87	No	Harvard St to Oak St	Yes	Future LRT/BRT			Truck Route	
Washington Ave SE	Oak St SE	Huron Blvd SE	Activity Center Street	4	4	20500	14200	14800	15600	0.69	0.72	0.76			Yes	Definite PTN/Future LRT/BRT			Truck Route	
Washington Ave SE	Huron Blvd SE	University Ave SE	Activity Center Street	4	4	22500	14200	14800	15600	0.63	0.66	0.69	No						Truck Route	
4th St SE	Central Ave SE	3rd Ave SE	Activity Center Street	3	3(1-Way)	31500	10900	11300	12000	0.35	0.36	0.38	No		Yes			High		
4th St SE	3rd Ave SE	6th Ave SE	Commuter Street/Community Connector	3	3(1-Way)	31500	10900	11300	12000	0.35	0.36	0.38	No		Yes			High		
4th St SE	6th Ave SE	I-35W	Commuter Street/Community Connector	3	3(1-Way)	31500	14600	15200	16100	0.46	0.48	0.51	No		Yes			High		
4th St SE	I-35W	10th Ave SE	Commuter Street/Community Connector	3(1-Way)	3(1-Way)	31500	18800	19600	20700	0.60	0.62	0.66	No		Yes			High	Truck Route	
4th St SE	10th Ave SE	14th Ave SE	Commuter Street/Community Connector	3(1-Way)	3(1-Way)	31500	16200	16800	17800	0.51	0.53	0.57	No		Yes			High	On-Street	Truck Route
4th St SE	14th Ave SE	15th Ave SE	Activity Center Street	3(1-Way)	3(1-Way)	31500	16200	16800	17800	0.51	0.53	0.57	No		Yes			High	Truck Route	
4th St SE	15th Ave SE	Huron Blvd SE	Activity Center Street	3(1-Way)	3(1-Way)	31500	12400	12900	13600	0.39	0.41	0.43	No		Yes			High	On-Street	Truck Route
Huron Blvd SE	4th St SE	University Ave SE	Activity Center Street	3(1-Way)	3(1-Way)	29500	10600	11000	11700	0.36	0.37	0.40			Yes			On-Street	On-Street	
Huron Blvd SE	University Ave SE	Washington Ave SE	Activity Center Street	4	4	20500	10600	11000	11700	0.52	0.54	0.57			Yes			On-Street		
Huron Blvd SE	Washington Ave SE	Fulton St SE	Activity Center Street	4	4	20500	19800	20600	21800	0.97	1.00	1.06			Yes					
27th Ave SE	Franklin Ave SE	University Ave	Neighborhood Connector	2	4	20500	3600	3700	4000	0.18	0.18	0.20		Yes					Truck Route	
Franklin Ave E	West River Pkwy	E River Rd	Community Connector	3	4	20500	9500	9900	10500	0.46	0.48	0.51			Yes				Truck Route	
Franklin Ave SE	E River Rd	Malcolm Ave SE	Neighborhood Connector	2	4	20500	6000	6200	6600	0.29	0.30	0.32			Yes				Truck Route	
Franklin Ave SE	Malcolm Ave SE	Emerald St	Neighborhood Connector	2	2	11250	6000	6200	6600	0.53	0.55	0.59			Yes				Truck Route	
E River Rd	University Ave NE	Washington Ave SE	Parkway	2	2	11250	0	0	0	0.00	0.00	0.00						Off-Street		
E River Rd	Washington Ave SE	Oak St SE	Parkway	2	2	11250	3900	4100	4300	0.35	0.36	0.38						Off-Street		
E River Rd	Oak St SE	Franklin Ave SE	Parkway	2	2	11250	5600	5800	6200	0.50	0.52	0.55						Off-Street		
E River Rd	Franklin Ave SE	Emerald St	Parkway	2	2	11250	4500	4700	5000	0.40	0.42	0.44						Off-Street		
14th Ave SE	University Ave NE	5th St SE	Activity Center Street	3	3	17500	1800	1900	2000	0.10	0.11	0.11								
15th Ave SE	University Ave NE	8th St SE	Activity Center Street	2	2	13250	12000	12500	13200	0.91	0.94	1.00	No		Yes	Definite PTN		On-Street	Truck Route	
15th Ave SE	8th St SE	Rollins Ave SE	Activity Center Street	2	2	13250	12000	12500	13200	0.91	0.94	1.00	No		Yes	Definite PTN		On-Street	Truck Route	
15th Ave SE	Rollins Ave SE	Como Ave SE	Community Connector	2	2	11250	7900	7600	8000	0.65	0.68	0.71			Yes	Definite PTN			Truck Route	
Como Ave SE	15th Ave SE	18th Ave SE	Community Connector	2	2	11250	13500	14300	14900	1.16	1.20	1.27			Yes	Definite PTN			Truck Route	
Como Ave SE	18th Ave SE	33rd Ave SE	Neighborhood Connector	2	2	11250	8200	8500	9000	0.73	0.76	0.80		18th Ave to 27th Ave	Yes	Definite PTN	High	On-Street	Truck Route	
18th Ave SE	Como Ave SE	Hennepin Ave	Community Connector	2	2	11250	4700	4900	5200	0.42	0.44	0.46						Off-Street		
15th Ave SE	17th Ave SE	17th Ave SE	Industrial Connector	2	2	11250	5000	5200	5500	0.44	0.46	0.49			Yes			On-Street		
17th Ave SE	Rollins Ave SE	Elm St SE	Industrial Connector	2	2	11250	5000	5200	5500	0.44	0.46	0.49			Yes			On-Street		
Elm St SE	17th Ave SE	Kasota Ave	Industrial Connector	2	2	11250	5000	5200	5500	0.44	0.46	0.49			Yes			On-Street		
Kasota Ave	Elm St SE	33rd Ave SE	Industrial Connector	2	2	11250	6000	6200	6600	0.53	0.55	0.59			Yes					
8th St SE	Hennepin Ave	I-35W	Neighborhood Connector	2	2	11250	3400	3500	3700	0.30	0.31	0.33			Yes			Signed		
8th St SE	I-35W	10th Ave SE	Neighborhood Connector	2	2	11250	7700	8000	8500	0.68	0.71	0.76			Yes			Signed	Truck Route	
8th St SE	10th Ave SE	15th Ave SE	Neighborhood Connector	2	2	11250	3700	3800	4100	0.33	0.34	0.36						Signed		
Central Ave SE	West River Pkwy	Main St SE	Activity Center Street	4	4	20500	16200	16800	17800	0.79	0.82	0.87			Yes	Definite PTN			Truck Route	
Central Ave SE	Main St SE	Hennepin Ave	Activity Center Street	4	4	20500	12200	12700	13400	0.60	0.62	0.65		2nd St to 8th St	Yes	Definite PTN			Truck Route	
Central Ave NE	Hennepin Ave	1st Ave NE	Activity Center Street	4	4	20500	12100	12600	13300	0.59	0.61	0.65			Yes	Definite PTN	High		Truck Route	
Central Ave NE	1st Ave NE	Broadway St NE	Commerce Street	4	4	20500	12100	12600	13300	0.59	0.61	0.65			Yes	Definite PTN			Truck Route	
Central Ave NE	Broadway St NE	18th Ave NE	Commerce Street	4	4	20500	13500	14000	14900	0.66	0.68	0.73			Yes	Definite PTN	High		Truck Route	
Central Ave NE	18th Ave NE	Lowry Ave NE	Commerce Street	4	4	20500	13500	14000	14900	0.66	0.68	0.73			Yes	Definite PTN	Low		Truck Route	
Central Ave NE	Lowry Ave NE	29th Ave NE	Commerce Street	4	4	20500	14500	15100	16000	0.71	0.74	0.78			Yes	Definite PTN	Low		Truck Route	
Central Ave NE	29th Ave NE	Saint Anthony Pkwy	Commerce Street	4	4	20500	14500	15100	16000	0.71	0.74	0.78			Yes	Definite PTN	Low		Truck Route	
Central Ave NE	Saint Anthony Pkwy	37th Ave NE	Commuter Street/Community Connector	4	4	20500	12500	13000	13800	0.61	0.63	0.67			Yes	Definite PTN	Low		Truck Route	
Johnson St NE	Hennepin Ave	Broadway St NE	Commuter Street	4	4	22500	5800	6000	6400	0.26	0.27	0.28	No		Yes				Truck Route	
Johnson St NE	Broadway St NE	18th Ave NE	Commuter Street	3	4D	29500	5800	6000	6400	0.20	0.20	0.22	No		Yes				Truck Route	
Johnson St NE	18th Ave NE	Lowry Ave NE	Community Connector	3	2	11250	15100	15700	16600	1.34	1.40	1.48			Yes			Low	Truck Route	
Johnson St NE	Lowry Ave NE	29th Ave NE	Community Connector	3	2	11250	12500	13000	13800	1.11	1.16	1.23			Yes			Low		
Johnson St NE	29th Ave NE	Saint Anthony Pkwy	Community Connector	2	2	11250	9500	9900	10500	0.84	0.88	0.93			Yes			Low		
Johnson St NE	Saint Anthony Pkwy	37th Ave NE	Community Connector	2	2	11250	7000	7300	7700	0.62	0.65	0.68			Yes					
Stinson Blvd	Hennepin Ave	Broadway St NE	Industrial Connector	3	4D	27500	9000	9400	9900	0.33	0.34	0.36			Yes				Truck Route	
Stinson Blvd	Broadway St NE	I-35W	Commuter Street	3	4D	27500	14200	14800	15600	0.52	0.54	0.57			Yes				Truck Route	
Stinson Blvd	I-35W	New Brighton Blvd	Commuter Street	3	4D	29500	11200	11600	12300	0.38	0.39	0.42	No		Yes				Truck Route	
Stinson Pkwy	New Brighton Blvd	19th Ave NE	Community Connector	2	3	19500	7800	8100	8600	0.40	0.42	0.44	No		Yes				Off-Street	
Stinson Pkwy	19th Ave NE	Lowry Ave NE	Commuter Street/Community Connector	3	3	19500	7800	8100	8600	0.40	0.42	0.44	No		Yes				Off-Street	

Appendix C - Street Needs Assessment

Draft

Existing Street Conditions by Segment and Mode w/ Existing Lanes - Northeast and Southeast Sector

v10 - 11/27/06

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need	Bike Lanes		Freight
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	
37th Ave NE	University Ave NE	5th St NE	Neighborhood Connector	2	2	11250	4600	4800	5100	0.41	0.43	0.45						On-Street	Truck Route	
37th Ave NE	5th Ave NE	Central Ave NE	Neighborhood Connector	2	2	11250	4800	5000	5300	0.43	0.44	0.47						On-Street	Truck Route	
37th Ave NE	Central Ave NE	Johnson St NE	Neighborhood Connector	2	2	11250	8100	8400	8900	0.72	0.75	0.79						On-Street	Truck Route	
37th Ave NE	Johnson St NE	Stinson Blvd	Neighborhood Connector	2T	3	17500	9400	9800	10300	0.54	0.56	0.59			Yes			On-Street	Truck Route	
Saint Anthony Pkwy	37th Ave NE	Marshall St NE	Parkway	2	2	11250	3100	3200	3400	0.28	0.28	0.30						Off-Street		
Saint Anthony Pkwy	Marshall St NE	University Ave NE	Parkway	2	2	11250	4200	4400	4600	0.37	0.39	0.41			Yes			Off-Street	Truck Route	
Saint Anthony Pkwy	University Ave NE	Central Ave NE	Parkway	2	2	11250	3800	4000	4200	0.34	0.36	0.37						Off-Street		
Saint Anthony Pkwy	Central Ave NE	Johnson St NE	Parkway	2	2	11250	3500	3600	3900	0.31	0.32	0.35						Off-Street		
Saint Anthony Pkwy	Johnson St NE	Stinson Pkwy	Parkway	2	2	11250	3200	3300	3500	0.28	0.29	0.31								
29th Ave NE	Central Ave NE	Johnson St NE	Neighborhood Connector	2	2	11250	1700	1800	1900	0.15	0.16	0.17					Low			
29th Ave NE	Johnson St NE	Stinson Pkwy	Neighborhood Connector	2	2	11250	2800	2900	3100	0.25	0.26	0.28			Yes		Low			
Lowry Ave NE	Marshall St NE	University Ave NE	Community Connector	3	4	22500	12900	13400	14200	0.57	0.60	0.63	No	Yes	Yes	Recommended PTN	Medium	On-Street	Truck Route	
Lowry Ave NE	University Ave NE	Central Ave NE	Community Connector	3	4	22500	14000	14600	15400	0.62	0.65	0.68	No	Yes	Yes	Recommended PTN	Medium	On-Street	Truck Route	
Lowry Ave NE	Central Ave NE	Johnson St NE	Neighborhood Connector	2T	2	11250	10800	11200	11900	0.96	1.00	1.06			Yes	Recommended PTN	Medium	On-Street	Truck Route	
Lowry Ave NE	Johnson St NE	Stinson Pkwy	Neighborhood Connector	2	2	11250	7700	8000	8500	0.68	0.71	0.76			Yes	Recommended PTN	Medium	On-Street	Truck Route	
18th Ave NE	Central Ave NE	Johnson St NE	Neighborhood Connector	2	2	11250	8700	9000	9600	0.77	0.80	0.85								
18th Ave NE	Johnson St NE	Stinson Pkwy	Neighborhood Connector	2	2	11250	7600	7900	8400	0.68	0.70	0.75						Off-Street		
Broadway St NE	Marshall St NE	University Ave NE	Community Connector	3	4	22500	16700	17400	18400	0.74	0.77	0.82	No	Yes			Medium		Truck Route	
Broadway St NE	University Ave NE	Washington St NE	Community Connector	3	4	22500	15500	16100	17100	0.69	0.72	0.76	No	Yes			Medium		Truck Route	
Broadway St NE	Washington St NE	Central Ave NE	Community Connector	3	4	22500	14900	15500	16400	0.66	0.69	0.73	No	Yes	Yes		Medium		Truck Route	
Broadway St NE	Central Ave NE	Johnson St NE	Community Connector	3	4	22500	15300	15900	16800	0.68	0.71	0.75	No	Central Ave to Buchanan St			Medium		Truck Route	
Broadway St NE	Johnson St NE	New Brighton Blvd	Industrial Connector	3	4	22500	16200	16800	17800	0.72	0.75	0.79	No		Yes		Medium		Truck Route	
Broadway St NE	New Brighton Blvd	Stinson Pkwy	Industrial Connector	3	4	22500	10400	10800	11400	0.46	0.48	0.51	No				Medium		Truck Route	
Broadway St NE	Stinson Pkwy	Hoover St NE	Industrial Connector	3	4	22500	10900	11300	12000	0.48	0.50	0.53	No						Truck Route	
Broadway St NE	Hoover St NE	Industrial Blvd	Industrial Connector	3	4	22500	10600	11000	11700	0.47	0.49	0.52	No						Truck Route	
Broadway St NE	Industrial Blvd	NE City Limits	Industrial Connector	3	4	22500	14300	14900	15700	0.64	0.66	0.70	No						Truck Route	
Hennepin Ave	West River Pkwy	Main St SE	Activity Center Street	6D	6D	45000	23400	24300	25700	0.52	0.54	0.57			Yes	Definite/Candidate PTN			Truck Route	
Hennepin Ave	Main St SE	Central Ave NE	Activity Center Street	3(1-Way)	3(1-Way)	29500	11700	12200	12900	0.40	0.41	0.44			Yes	Definite/Candidate PTN			Truck Route	
Hennepin Ave	Central Ave NE	7th St SE	Commerce Street	2(1-Way)	2(1-Way)	19000	11900	12400	13100	0.63	0.65	0.69			Yes				Truck Route	
Hennepin Ave	7th St SE	11th Ave SE	Commerce Street	4	4	20500	13800	14400	15200	0.67	0.70	0.74			Yes			On-Street	Truck Route	
Hennepin Ave	11th Ave SE	18th Ave SE	Commerce Street	4	4	20500	18500	19200	20400	0.90	0.94	1.00			Yes			On-Street	Truck Route	
Hennepin Ave	18th Ave SE	Industrial Blvd	Commerce Street	4	4	20500	20100	20900	22100	0.98	1.02	1.08			Yes				Truck Route	
Hennepin Ave	Industrial Blvd	33rd Ave SE	Commerce Street	4	4	20500	19800	20600	21800	0.97	1.00	1.06			Yes				Truck Route	
1st Ave NE	Main St SE	7th St SE	Activity Center Street	3(1-Way)	3(1-Way)	29500	9500	9900	10500	0.32	0.34	0.36			Yes				Truck Route	
Main St SE	3rd Ave SE	Central Ave SE	Activity Center Street	4	4	20500	2600	2700	2900	0.13	0.13	0.14						Off-Street		
Main St SE	Central Ave SE	Hennepin Ave	Activity Center Street	4	4	20500	2400	2500	2600	0.12	0.12	0.13						Off-Street		
Main St SE	Hennepin Ave	1st Ave NE	Activity Center Street	4	4T	27500	6500	6800	7200	0.24	0.25	0.26							Truck Route	
Main St SE	1st Ave NE	5th Ave NE	Neighborhood Connector	2	2	11250	6500	6800	7200	0.58	0.60	0.64		1st Ave to 3rd Ave				On-Street	Truck Route	
Marshall St NE	5th Ave NE	8th Ave NE	Neighborhood Connector	2	2	11250	6500	6800	7200	0.58	0.60	0.64						On-Street	Truck Route	
Marshall St NE	8th Ave NE	Broadway St NE	Community Connector	2T	4	20500	8500	8800	9400	0.41	0.43	0.46			Yes		Medium		Truck Route	
Marshall St NE	Broadway St NE	16th Ave NE	Community Connector	2T	4	20500	8500	8800	9400	0.41	0.43	0.46			Yes		Medium		Truck Route	
Marshall St NE	16th Ave NE	Lowry Ave NE	Neighborhood Connector	2T	4	20500	9900	10300	10900	0.48	0.50	0.53			Yes		Medium		Truck Route	
Marshall St NE	Lowry Ave NE	Saint Anthony Pkwy	Neighborhood Connector	2T	4	20500	9900	10300	10900	0.48	0.50	0.53			Yes		Medium		Truck Route	
Marshall St NE	Saint Anthony Pkwy	37th Ave NE	Industrial Connector	2T	4	20500	8600	8900	9500	0.42	0.43	0.46						On-Street	Truck Route	
2nd St NE	3rd Ave SE	Central Ave	Activity Center Street	2	2	11250	1900	2000	2100	0.17	0.18	0.19							Truck Route	
2nd St NE	1st Ave NE	3rd Ave NE	Neighborhood Connector	2	2	11250	3200	3300	3500	0.28	0.29	0.31			Yes	Candidate PTN				
2nd St NE	3rd Ave NE	8th Ave NE	Neighborhood Connector	2	2	11250	3200	3300	3500	0.28	0.29	0.31			Yes	Candidate PTN				
2nd St NE	8th Ave NE	Broadway St NE	Neighborhood Connector	2	2	11250	3200	3300	3500	0.28	0.29	0.31			Yes	Candidate PTN				
2nd St NE	Broadway St NE	22nd Ave NE	Neighborhood Connector	2	2	11250	3900	4100	4300	0.35	0.36	0.38			Yes	Candidate PTN				
2nd St NE	22nd Ave NE	Lowry Ave NE	Neighborhood Connector	2	2	11250	2600	2700	2900	0.23	0.24	0.26			Yes	Candidate PTN				
University Ave SE	Emerald St	Huron Blvd SE	Commerce Street	4	4	20500	21200	22000	23300	1.03	1.07	1.14			Yes	Future LRT/BRT	High			
University Ave SE	Huron Blvd SE	Oak St SE	Activity Center Street	3(1-Way)	3(1-Way)	31500	11600	12100	12800	0.37	0.38	0.41	No		Yes	Definite PTN	High		Truck Route	
University Ave SE	Oak St SE	15th Ave SE	Activity Center Street	3(1-Way)	3(1-Way)	31500	16200	16800	17800	0.51	0.53	0.57	No		Yes	Definite PTN	High	On-Street	Truck Route	
University Ave SE	15th Ave SE	14th Ave SE	Activity Center Street	3(1-Way)	3(1-Way)	31500	12400	12900	13600	0.39	0.41	0.43	No		Yes	Definite PTN	High	On-Street	Truck Route	
University Ave SE	14th Ave SE	I-35W NB ramp	Commuter Street/Community Connector	3(1-Way)	3(1-Way)	31500	12400	12900	13600	0.39	0.41	0.43	No		Yes	Definite PTN	High	On-Street	Truck Route	
University Ave SE	I-35W NB ramp	3rd Ave SE	Commuter Street/Community Connector	3	3(1-Way)	31500	18400	19100	20200	0.58	0.61	0.64	No	Yes	Yes	Definite PTN	High	On-Street	Truck Route	
University Ave SE	3rd Ave SE	Central Ave SE	Activity Center Street	3	3(1-Way)	31500	11700	12200	12900	0.37	0.39	0.41	No	Yes	Yes	Definite PTN	High	On-Street	Truck Route	
University Ave SE	Central Ave SE	Hennepin Ave	Activity Center Street	4	4	20500	11700	12200	12900	0.57	0.60	0.63		Yes	Yes	Definite PTN	High		Truck Route	
University Ave NE	Hennepin Ave	1st Ave NE	Activity Center Street	4	4	20500	13600	14100	15000	0.66	0.69	0.73			Yes		Low		Truck Route	
University Ave NE	1st Ave NE	8th Ave NE	Commuter Street/Community Connector	4	4	22500	12900	13400	14200	0.57	0.60	0.63	No	3rd Ave to 8th Ave	Yes		Low		Truck Route	
University Ave NE	8th Ave NE	Broadway St NE	Commuter Street/Community Connector	4	4	20500	13700	14200	15100	0.67	0.69	0.74		Yes	Yes		Low		Truck Route	
University Ave NE	Broadway St NE	Lowry Ave NE	Commuter Street/Community Connector	4	4	20500	13800	14400	15200	0.67	0.70	0.74		Yes	Yes		Low	Off-Street	Truck Route	

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Number of Lanes	Capacity	ADT			W/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight		
	From	To					2005	2015	2030	2005	2015	2030	On-Street	Peak Hour Restrictions	Existing	PTN		Existing	Gap			
Theodore Wirth Pkwy	Golden Valley Rd	West Broadway Ave	Parkway	2	2	11250	5700	6000	6400	0.51	0.53	0.57										
Victory Memorial Dr	West Broadway Ave	Dowling Ave N	Parkway	2	2	11250	4100	4300	4600	0.36	0.38	0.41								Off-Street		
Victory Memorial Dr	Dowling Ave N	45th Ave N	Parkway	2	2	11250	3700	3900	4200	0.33	0.35	0.37								Off-Street		
Penn Ave N	I-394	Cedar Lake Rd	Neighborhood Connector	2	2	11250	10300	10800	11600	0.92	0.96	1.03					Medium					
Penn Ave N	Cedar Lake Rd	Glenwood Ave	Neighborhood Connector	2	2	11250	5400	5700	6100	0.48	0.51	0.54			Yes		Medium					
Penn Ave N	Glenwood Ave	Olson Memorial Hwy (Hwy 55)	Community Connector	2T	2	11250	6100	6400	6900	0.54	0.57	0.61					Medium			Truck Route		
Penn Ave N	Olson Memorial Hwy (Hwy 55)	Plymouth Ave N	Community Connector	2T	2	11250	9600	10100	10800	0.85	0.90	0.96			Yes	Recommended PTN	Medium				Truck Route	
Penn Ave N	Plymouth Ave N	Golden Valley Rd	Community Connector	2T	2	11250	10200	10700	11500	0.91	0.95	1.02		18th Ave to Golden Valley Rd	Yes	Recommended PTN	Medium				Truck Route	
Penn Ave N	Golden Valley Rd	West Broadway Ave	Community Connector	2T	2	11250	9000	9500	10100	0.80	0.84	0.90		23rd Ave to 25th Ave		Recommended PTN	Medium				Truck Route	
Penn Ave N	West Broadway Ave	Lowry Ave N	Community Connector	2T	2	11250	10000	10500	11300	0.89	0.93	1.00			Yes	Recommended PTN	Medium				Truck Route	
Penn Ave N	Lowry Ave N	Dowling Ave N	Community Connector	2T	2	11250	8500	8900	9600	0.76	0.79	0.85			Yes	Recommended PTN	Medium				Truck Route	
Penn Ave N	Dowling Ave N	44th Ave N	Community Connector	2T	2	11250	6700	7000	7500	0.60	0.62	0.67			Yes	Recommended PTN	Medium				Truck Route	
Humboldt Ave N	44th Ave N	49th Ave N	Neighborhood Connector	2	2	11250	2800	2900	3200	0.25	0.26	0.28			Yes						Truck Route	
Humboldt Ave N	49th Ave N	53rd Ave N	Neighborhood Connector	2	2	11250	3200	3400	3600	0.28	0.30	0.32			Yes						Truck Route	
Freemont Ave N	W Broadway Ave	33rd Ave N	Neighborhood Connector	2	2(1-Way)	19000	4200	4400	4700	0.22	0.23	0.25			Yes	Definite PTN	Medium				On-Street	
Freemont Ave N	33rd Ave N	Dowling Ave N	Neighborhood Connector	2	2	11250	4300	4500	4800	0.38	0.40	0.43			Yes	Definite PTN	Medium				On-Street	
Freemont Ave N	Dowling Ave N	42nd Ave N	Neighborhood Connector	2	2	11250	4300	4500	4800	0.38	0.40	0.43			Yes	Definite PTN	Medium				On-Street	
Freemont Ave N	42nd Ave N	45th Ave N	Neighborhood Connector	2	2	11250	4000	4200	4500	0.36	0.37	0.40			Yes	Definite PTN	Medium				On-Street	
Emerson Ave N	Plymouth Ave N	W Broadway Ave	Neighborhood Connector	2	2(1-Way)	19000	5000	5300	5600	0.26	0.28	0.29			Yes		Medium					
W Lyndale Ave N/Hennepin Ave	Groveland Terrace	Dunwoody Ave	Commuter Street	3(1-Way)	3(1-Way)	29500	25700	27000	28900	0.67	0.72	0.76			Yes						Truck Route	
W Lyndale Ave N	Dunwoody Ave	I-394	Commuter Street	3(1-Way)	3(1-Way)	29500	19200	20200	21600	0.65	0.68	0.73									Truck Route	
W Lyndale Ave N	I-394	Glenwood Ave	Commuter Street	3(1-Way)	3(1-Way)	29500	6900	7200	7800	0.23	0.24	0.26									Truck Route	
W Lyndale Ave N	Glenwood Ave	Olson Memorial Hwy (Hwy 55)	Commuter Street	2(1-Way)	2(1-Way)	19000	5700	6000	6400	0.30	0.32	0.34			Yes						Truck Route	
W Lyndale Ave N	Olson Memorial Hwy (Hwy 55)	7th St N	Commuter Street	3(1-Way)	3(1-Way)	29500	7500	7900	8400	0.25	0.27	0.28									Truck Route	
W Lyndale Ave N	7th St N	Plymouth Ave N	Commuter Street	2(1-Way)	2(1-Way)	19000	9900	10400	11100	0.52	0.55	0.58			Yes							Truck Route
E Lyndale Ave N	Dunwoody Ave	Glenwood Ave	Commuter Street	3(1-Way)	3(1-Way)	29500	8100	8500	9100	0.27	0.29	0.31									Truck Route	
E Lyndale Ave N	Glenwood Ave	Olson Memorial Hwy (Hwy 55)	Commuter Street	3(1-Way)	3(1-Way)	29500	10550	11100	11900	0.36	0.38	0.40										Truck Route
E Lyndale Ave N	Olson Memorial Hwy (Hwy 55)	7th St N	Commuter Street	3(1-Way)	3(1-Way)	29500	9400	9900	10600	0.32	0.34	0.36										Truck Route
E Lyndale Ave N	7th St N	Plymouth Ave N	Commuter Street	2(1-Way)	2(1-Way)	19000	9600	10100	10800	0.51	0.53	0.57										Truck Route
Lyndale Ave N	Plymouth Ave N	West Broadway Ave	Commuter Street	4	4	20500	7200	7600	8100	0.35	0.37	0.40		Yes	Yes	Candidate PTN					Truck Route	
Lyndale Ave N	West Broadway Ave	Lowry Ave N	Neighborhood Connector	2	2	11250	8800	9200	9900	0.78	0.82	0.88			Yes	Candidate PTN					Truck Route	
Lyndale Ave N	Lowry Ave N	Dowling Ave N	Neighborhood Connector	2	2	11250	7100	7500	8000	0.63	0.67	0.71			Yes	Candidate PTN					Truck Route	
Lyndale Ave N	Dowling Ave N	41st Ave N	Neighborhood Connector	2	2	11250	8000	8400	9000	0.71	0.75	0.80			Yes	Candidate PTN					Truck Route	
Lyndale Ave N	41st Ave N	Webber Pkwy	Community Connector	3	4	20500	10500	11000	11800	0.51	0.54	0.58			Yes	Candidate PTN					Truck Route	
Lyndale Ave N	Webber Pkwy	49th Ave N	Community Connector	3	3	17500	5600	5900	6300	0.32	0.34	0.36			Yes						Truck Route	
Lyndale Ave N	49th Ave N	53rd Ave N	Commuter Street	2	2	11250	4400	4600	5000	0.39	0.41	0.44			Yes						Truck Route	
Washington Ave N	10th Ave N	Plymouth Ave N	Industrial Connector	3	4	20500	12300	12900	13800	0.60	0.63	0.67			Yes	Definite PTN					Truck Route	
Washington Ave N	Plymouth Ave N	West Broadway Ave	Industrial Connector	3	4	20500	13100	13800	14700	0.64	0.67	0.72			Yes	Definite PTN					Truck Route	
Washington Ave N	West Broadway Ave	Lowry Ave N	Industrial Connector	2T	4	20500	6800	7100	7700	0.33	0.35	0.38			Yes						Truck Route	
Washington Ave N	Lowry Ave N	Dowling Ave N	Industrial Connector	2T	2	11250	2600	2700	2900	0.23	0.24	0.26			Yes						Truck Route	
Washington Ave N	Dowling Ave N	41st Ave N	Industrial Connector	2T	2	11250	3800	4000	4300	0.34	0.36	0.38									Truck Route	

Notes
 Source - 2005 Average Annual Daily Traffic, City of Minneapolis
 XXXX - 2005 Average Annual Daily Traffic
 XXXX - 2003 Average Annual Daily Traffic
 ADT Percent Growth Per Year = 0.5
 MSA - Municipal State Aid Roadway
 CSA - County State Aid Roadway
 TH - Trunk Highway

	2005	2015	2030
75th Percentile	0.58	0.61	0.65
80th Percentile	0.63	0.67	0.71
85th Percentile	0.74	0.78	0.83
90th Percentile	0.81	0.86	0.92
95th Percentile	0.90	0.95	1.02

Appendix C - Street Needs Assessment

Existing Street Conditions by Segment and Mode w/ Existing Lanes - North Sector

Draft

v10 - 11/27/06

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Number of Lanes	Capacity	ADT				V/C		Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight
	From	To					2005	2015	2030	2005	2015	2030	On-Street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	
53rd Ave N	Logan Ave N	Humboldt Ave N	Neighborhood Connector	2	2	11250	3200	3400	3600	0.28	0.30	0.32			Yes					
53rd Ave N	Humboldt Ave N	Bryant Ave N	Neighborhood Connector	2	2	11250	4100	4300	4600	0.36	0.38	0.41								
53rd Ave N	Bryant Ave N	Lyndale Ave N	Neighborhood Connector	2	2	11250	6500	6800	7300	0.58	0.60	0.65								
49th Ave N	Osseo Rd	Humboldt Ave N	Neighborhood Connector	2	2	11250	4450	4700	5000	0.40	0.42	0.44			Yes					
49th Ave N	Humboldt Ave N	Bryant Ave N	Neighborhood Connector	2	2	11250	4400	4600	5000	0.39	0.41	0.44			Yes			Off-Street	Off-Street	Truck Route
49th Ave N	Bryant Ave N	Lyndale Ave N	Neighborhood Connector	2	2	11250	5300	5600	6000	0.47	0.50	0.53			Yes			Off-Street		
Memorial Pkwy	Victory Memorial Dr	Osseo Rd	Parkway	2	2	11250	3600	3800	4100	0.32	0.34	0.36						Off-Street		
Memorial Pkwy	Osseo Rd	Humboldt Ave N	Parkway	2	2	11250	3600	3800	4100	0.32	0.34	0.36						Off-Street		
Memorial Pkwy	Humboldt Ave N	45th Ave N	Parkway	2	2	11250	3900	4100	4400	0.35	0.36	0.39								
Osseo Rd	49th Ave N	44th Ave N	Commuter Street/Community Connector	2	4	20500	3901	4100	4400	0.19	0.20	0.21	Queen Ave to 44th Ave	Yes	Definite PTN	High		Off-Street	Truck Route	
45th Ave N	Xerxes Ave N	Osseo Rd	Neighborhood Connector	2	2	11250	2300	2400	2600	0.20	0.21	0.23								
45th Ave N	Freemont Ave N	Shingle Creek Dr	Community Connector	2T	2	11250	2600	2700	2900	0.23	0.24	0.26						Off-Street		
45th Ave N	Shingle Creek Dr	Lyndale Ave N	Community Connector	2T	2	11250	3400	3600	3800	0.30	0.32	0.34			Yes				Truck Route	
44th Ave N	Osseo Rd	Humboldt Ave N	Community Connector	2T	2	11250	5300	5600	6000	0.47	0.50	0.53			Yes	Definite PTN	Medium			Truck Route
44th Ave N	Humboldt Ave N	Freemont Ave N	Community Connector	2T	2	11250	4900	5100	5500	0.44	0.45	0.49			Yes	Definite PTN	Medium			Truck Route
Webber Pkwy	45th Ave N	Lyndale Ave N	Neighborhood Connector	2	2	11250	5200	5500	5900	0.46	0.49	0.52			Yes					
42nd Ave N	Xerxes Ave N	Penn Ave N	Community Connector	2T	2	11250	2000	2100	2300	0.18	0.19	0.20			Yes					
41st Ave N	Lyndale Ave N	Washington Ave N	Industrial Connector	2T	4	20500	3800	4000	4300	0.19	0.20	0.21								
37th Ave N	Lyndale Ave N	Saint Anthony Pkwy	Neighborhood Connector	2	2	11250	8100	8500	9100	0.72	0.76	0.81								Truck Route
37th Ave N	Saint Anthony Pkwy	E River Rd	Neighborhood Connector	2	2	11250	5000	5300	5600	0.44	0.47	0.50						Off-Street		Truck Route
Dowling Ave N	Victory Memorial Dr	Penn Ave N	Community Connector	2	2	11250	3300	3500	3700	0.29	0.31	0.33			Yes					
Dowling Ave N	Penn Ave N	Freemont Ave N	Community Connector	2	2	11250	9200	9700	10400	0.82	0.86	0.92								
Dowling Ave N	Freemont Ave N	Lyndale Ave N	Community Connector	2	2	11250	14300	15000	16100	1.27	1.33	1.43			Yes					
Dowling Ave N	Lyndale Ave N	I-94	Commuter Street/Community Connector	2	2	11250	20900	21900	23500	1.86	1.95	2.09			Yes					
Dowling Ave N	I-94	Washington Ave N	Commuter Street/Community Connector	2	2	13250	11100	11700	12500	0.84	0.88	0.94	No	Yes						
Lowry Ave N	Victory Memorial Dr	Penn Ave N	Community Connector	3	4	20500	9600	10100	10800	0.47	0.49	0.53		Yes	Yes	Recommended PTN				Truck Route
Lowry Ave N	Penn Ave N	Freemont Ave N	Community Connector	3	4	20500	14200	14900	16000	0.69	0.73	0.78		Yes	Yes	Recommended PTN				Truck Route
Lowry Ave N	Freemont Ave N	Lyndale Ave N	Community Connector	3	4	20500	15500	16300	17400	0.76	0.80	0.85		Yes	Yes	Recommended PTN				Truck Route
Lowry Ave N	Lyndale Ave N	Washington Ave N	Community Connector	3	4	20500	10700	11200	12000	0.52	0.55	0.59		Yes	Yes	Recommended PTN			On-Street	
Lowry Ave N	Washington Ave N	Marshall St NE	Community Connector	3	4	20500	12900	13500	14500	0.63	0.66	0.71		Yes	Yes	Recommended PTN	High (bridge)		On-Street	
West Broadway Ave	Lowry Ave N	29th Ave N	Commuter Street	4	4	22500	10500	11000	11800	0.47	0.49	0.52	No	Yes	Yes	Definite PTN	Low			Truck Route
West Broadway Ave	29th Ave N	26th Ave N	Commerce Street	4	4	20500	10500	11000	11800	0.51	0.54	0.58		Yes	Yes	Definite PTN	Low			Truck Route
West Broadway Ave	26th Ave N	Penn Ave N	Commerce Street	4	4	20500	10500	11000	11800	0.51	0.54	0.58		Yes	Yes	Definite PTN	Low (High at Penn)			Truck Route
West Broadway Ave	Penn Ave N	Girard Ave N	Commerce Street	4	4	22500	12300	12900	13800	0.55	0.57	0.61	No	Yes	Yes	Definite PTN	Low			Truck Route
West Broadway Ave	Girard Ave N	Washington Ave N	Commerce Street	4	4	20500	20800	21800	23400	1.01	1.06	1.14			Yes	Definite PTN	High			Truck Route
West Broadway Ave	Washington Ave N	West River Rd	Commerce Street	4	4T	27500	21300	22400	24000	0.77	0.81	0.87					High			Truck Route
West Broadway Ave	West River Rd	Marshall St NE	Commerce Street	4	4	20500	21300	22400	24000	1.04	1.09	1.17					Medium			Truck Route
Golden Valley Rd	Xerxes Ave N	Penn Ave N	Commuter Street/ Neighborhood Connector	2	2	11250	5600	5900	6300	0.50	0.52	0.56			Yes					Truck Route
Golden Valley Rd	Penn Ave N	West Broadway Ave	Commuter Street/ Neighborhood Connector	2	2	11250	5100	5400	5700	0.45	0.48	0.51								Truck Route
Plymouth Ave N	Xerxes Ave N	Penn Ave N	Neighborhood Connector	3	2	11250	6000	6300	6800	0.53	0.56	0.60			Yes					
Plymouth Ave N	Penn Ave N	Freemont Ave N	Community Connector	2T	2T	19500	11200	11800	12600	0.57	0.61	0.65	No		Yes		Low			Truck Route
Plymouth Ave N	Freemont Ave N	Emerson Ave N	Community Connector	3	4	22500	13500	14200	15200	0.60	0.63	0.68	No		Yes	Definite PTN	Low			Truck Route
Plymouth Ave N	Emerson Ave N	Lyndale Ave N	Community Connector	3	4	22500	6800	7100	7700	0.30	0.32	0.34	No		Yes		Low			Truck Route
Plymouth Ave N	Lyndale Ave N	I-94	Community Connector	3	4	22500	6800	7100	7700	0.30	0.32	0.34	No		Yes		Low			Truck Route
Plymouth Ave N	I-94	Washington Ave N	Industrial Connector	3	4	22500	6800	7100	7700	0.30	0.32	0.34	No		Yes		Low			Truck Route
Plymouth Ave N	Washington Ave N	2nd St N	Industrial Connector	3	4	22500	8300	8700	9300	0.37	0.39	0.41	No		Yes		Low			Truck Route
Plymouth Ave N	2nd St N	West River Pkwy	Industrial Connector	3	4	22500	7000	7400	7900	0.31	0.33	0.35	No				Low (Medium at bridge)			Truck Route
Plymouth Ave N	West River Pkwy	Marshall St NE	Neighborhood Connector	2	4	22500	10200	10700	11500	0.45	0.48	0.51	No							Truck Route
Olson Memorial Hwy (Hwy 55)	Xerxes Ave N	Penn Ave N	Commuter Street	6D	6D	47000	20700	21700	23300	0.44	0.46	0.50	No		Yes					Truck Route
Olson Memorial Hwy (Hwy 55)	Penn Ave N	Lyndale Ave N	Commuter Street	6D	6D	47000	22500	23600	25300	0.48	0.50	0.54	No		Yes	Recommended PTN				Truck Route
Olson Memorial Hwy (Hwy 55)	Lyndale Ave N	7th St N	Commuter Street	6D	6D	47000	12300	12900	13800	0.26	0.27	0.29	No		Yes	Recommended PTN	High			Truck Route
Olson Memorial Hwy (Hwy 55)	7th St N	6th Ave N	Commuter Street	4	4	22500	8800	9200	9900	0.39	0.41	0.44	No			Recommended PTN				
7th St N	Plymouth Ave N	Lyndale Ave N	Commuter Street	4D	4D	29500	9400	9900	10600	0.32	0.34	0.36	No		Yes	Definite PTN				Truck Route
7th St N	Lyndale Ave N	Olson Memorial Hwy (Hwy 55)	Commuter Street	4D	4D	29500	9100	9600	10200	0.31	0.33	0.35	No		Yes	Definite PTN				Truck Route
Glenwood Ave	Theodore Wirth Pkwy	Penn Ave N	Neighborhood Connector	2	2	11250	4400	4600	5000	0.39	0.41	0.44			Yes		Low		On-Street	Truck Route
Glenwood Ave	Penn Ave N	Cedar Lake Rd	Community Connector	2T	2	11250	5400	5700	6100	0.48	0.51	0.54			Yes		Low		On-Street	Truck Route
Glenwood Ave	Cedar Lake Rd	Lyndale Ave N	Community Connector	2T	4	22500	7100	7500	8000	0.32	0.33	0.36	No		Yes		Low		On-Street	Truck Route
Glenwood Ave	Lyndale Ave N	12th St S	Industrial Connector	2T	4	20500	6500	6800	7300	0.32	0.33	0.36			Yes		Low		On-Street	Truck Route
Glenwood Ave	12th St S	10th St S	Industrial Connector	2T	4	22500	2800	2900	3200	0.12	0.13	0.14	No		Yes		Low			Truck Route
Cedar Lake Rd	Penn Ave N	Glenwood Ave	Neighborhood Connector	2	2	11250	1900	2000	2100	0.17	0.18	0.19			Yes				On-Street	
Dunwoody Ave	I-394	Lyndale Ave N	Commuter Street	4T	4T	27500	14100	14800	15900	0.51	0.54	0.58							Off-Street	Truck Route
Theodore Wirth Pkwy	Glenwood Ave	Olson Memorial Hwy (Hwy 55)	Parkway	2	2	11250	3600	3800	4100	0.32	0.34	0.36							Off-Street	
Theodore Wirth Pkwy	Olson Memorial Hwy (Hwy 55)	Golden Valley Rd	Parkway	2	2	11250	4400	4600	5000	0.39	0.41	0.44							Off-Street	

Street Name	Segment (a)		Street Type	Recommended Number of Lanes Per Street Type	Existing Lanes	Capacity	ADT			V/C			Parking		Transit		Pedestrian Plan Need Level	Bike Lanes		Freight
	From	To					2005	2015	2030	2005	2015	2030	On-street	Peak Hour Restrictions	Existing	PTN		Existing	Gap	
Lyndale Ave S	50th St W	36th St W	Commuter Street/Community Connector	3	2	11250	12100	12700	13600	1.08	1.13	1.21		50th St to 38th St						Truck Route
Lyndale Ave S	36th St W	31st St W	Commuter Street/Community Connector	3	2	11250	12900	13500	14500	1.15	1.20	1.29								Truck Route
Lyndale Ave S	31st St W	Lake St	Commuter Street/Community Connector	4	4	20500	14600	15300	16400	0.71	0.75	0.80			Recommended PTN from 31st St to Lake St	Medium				Truck Route
Lyndale Ave S	Lake St	28th St W	Commerce Street	4	4	20500	20400	21400	23000	1.00	1.04	1.12			Yes	Recommended PTN	Medium			Truck Route
Lyndale Ave S	28th St W	Franklin Ave	Commerce Street	4	4	20500	24500	25700	27600	1.20	1.25	1.35			Yes	Recommended PTN	Medium			Truck Route
Blaisdell Ave	31st St W	Lake St	Activity Center Street	2(1-Way)	2(1-Way)	18000	7200	7600	8100	0.38	0.40	0.43					Low	On-Street		
Blaisdell Ave	Lake St	28th St W	Activity Center Street	2(1-Way)	2(1-Way)	18000	9900	10400	11100	0.52	0.55	0.58					Low	On-Street		Truck Route
Blaisdell Ave	28th St W	28th St W	Neighborhood Connector	2	2(1-Way)	18000	8400	8800	9500	0.44	0.46	0.50					Low	On-Street		
Blaisdell Ave	28th St W	Franklin Ave	Neighborhood Connector	2	2(1-Way)	18000	7100	7500	8000	0.37	0.39	0.42					Low	On-Street		
Nicollet Ave	Hwy 62	61st St W	Community Connector	3	3	17500	13100	13800	14700	0.75	0.79	0.84			Yes	Definite PTN				Truck Route
Nicollet Ave	61st St W	60th St W	Community Connector	3	3	17500	13100	13800	14700	0.75	0.79	0.84			Yes	Definite PTN				Truck Route
Nicollet Ave	60th St W	38th St W	Community Connector	2	2	11250	8800	9200	9900	0.78	0.82	0.88			Yes	Definite PTN				Truck Route
Nicollet Ave	38th St W	35th St W	Community Connector	2	2	11250	6900	7200	7800	0.61	0.64	0.69			Yes	Definite PTN	Medium			Truck Route
Nicollet Ave	35th St W	31st St W	Community Connector	2	2	11250	8700	9100	9800	0.77	0.81	0.87			Yes	Definite PTN	Medium			Truck Route
Nicollet Ave	31st St W	Lake St	Activity Center Street	3	3	17500	7500	7900	8400	0.43	0.45	0.48			Yes	Definite PTN	Medium			Truck Route
Nicollet Ave	Lake St	28th St W	Activity Center Street	3	3	17500	0	0	0	0.00	0.00	0.00			Yes	Definite PTN	Medium			
Nicollet Ave	28th St W	Franklin Ave	Commerce Street	3	2	11250	11200	11800	12600	1.00	1.05	1.12			Yes	Definite PTN	Medium			Truck Route
1st Ave S	31st St W	Lake St	Activity Center Street	2(1-Way)	2(1-Way)	18000	5000	5300	5600	0.26	0.28	0.29					Low			Truck Route
1st Ave S	Lake St	28th St W	Activity Center Street	2(1-Way)	2(1-Way)	18000	8200	8600	9200	0.43	0.45	0.48					Low			Truck Route
1st Ave S	28th St W	Franklin Ave	Neighborhood Connector	2	2	11250	4900	5100	5500	0.44	0.45	0.49					Low			

Notes

Source - 2005 Average Annual Daily Traffic, City of Minneapolis

XXXX - 2005 Average Annual Daily Traffic

XXXX - 2004 Average Annual Daily Traffic

XXXX - 2002 Average Annual Daily Traffic

ADT Percent Growth Per

Year = 0.5

MSA - Municipal State Aid Roadway

CSA - County State Aid Roadway

TH - Trunk Highway

	2005	2015	2030
75th Percentile	0.77	0.81	0.87
80th Percentile	0.81	0.85	0.91
85th Percentile	0.89	0.93	1.00
90th Percentile	1.00	1.06	1.13
95th Percentile	1.16	1.22	1.30

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APPENDIX D

DESCRIPTION OF STREET DESIGN TYPES

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Appendix D

Street Design Type Characteristics

In the design guidance, the criteria that describe a street design type are used to differentiate design decisions in relation to place type characteristics. The design elements are drawn from a set of functional criteria, which are summarized in Table 2. These criteria are described below.

Equivalent Functional Class

There is no direct correlation between functional classification and street design type. However, it is important that a link be maintained between the city's street design types and the region's functional roadway classifications because regional, state and federal agencies use these functional classes as one of the criteria for allocating funds, and this funding process is expected to continue in the future. In the long term, a closer correlation should emerge between street design type and functional class.

The regional planning process¹ identifies four functional classes of roadways (principal arterials, minor arterials, collectors and local streets) based on speed and distance (see Figure D-1). Both principal and minor arterial roadways in the regional system are intended to be higher speed roadways that serve a higher proportion of regional or sub-regional trips with longer travel distances. These roadways typically de-emphasize property access, giving priority to through movements. Most principal arterials are freeways although both Hiawatha Avenue (TH 55) and Olson Memorial Highway (TH 55), which are identified as "commuter street" design types, carry a Principal Arterial functional classification.

Minor arterials include "A" minor arterials and "B" minor arterials. Most "A" minor arterials in the City are county roads and include streets such as Park and Portland Avenues and West Broadway. These streets typically have design types of "commerce street" or "community connector".

"B" minor arterials in the City include both county roads and city streets. Examples are Lowry Avenue, which is a county road, and Nicollet Avenue, which is a city street. While minor arterial streets in built urban environments such as Minneapolis tend to serve higher volumes of traffic and have more moving lanes than other streets, they operate in low speed conditions providing property access and serving a mix of short and long trips. While commerce and community connectors may be classified as minor arterials in the regional system, they should be designed to reflect the speeds, property access, trip types, and use of alternative modes encountered in built urban environments.

The functional classification of "collector" streets typically provides both mobility for citywide trips and property access, while local streets focus primarily on providing property access. Community connector design types, as well as industrial connectors, typically carry the functional classification of collector streets in the regional system, although some community and neighborhood connectors may be functionally classified as minor arterials and some may be functionally classified as local streets.

Through Lanes

A *maximum* desirable number of lanes is established for each street design type. Streets in the City of Minneapolis typically have right-of-way widths of 60, 66 or 80 feet and some are even narrower. A very small number of streets have 100 feet right-of-way. These widths must accommodate through lanes, turn lanes and parking lanes, bike lanes, sidewalks, space for trees and landscaping, transit shelters, and many other desired special features. Exceeding the maximum desirable number of lanes will have a negative impact on the walkability of the corridor and the ability to provide features such as bike lanes, transit facilities, on-street parking and adequate sidewalks, trees, landscaping and streetscaping. Thus, the design guidance establishes a *maximum* number of through lanes for each street design type. It should be noted that there are some circumstances where the existing number of lanes may exceed the desirable maximum (see Figure D-2). In these cases, a reduction in the number of lanes may make the scale of the roadway more compatible with adjacent land uses. However, this change may result in longer periods of congestion and/or traffic diversion to nearby streets. A careful evaluation of these trade-offs must be made during the design process.²

¹ 2030 Transportation Policy Plan, Appendix F, Functional Classification Criteria, Figures F-1 through F-6, Metropolitan Council, St. Paul, MN, adopted December 15, 2004.

² See *Street and Sidewalk Design Guidelines*, Chapter 3, City of Minneapolis, April 2008, for a detailed description of the design process.

Target Speed

A maximum target speed is established for each street design type. Target speed is the desired actual operating speed of the street with regard to walkability and compatibility with fronting land use and urban form. The target speed provides guidance regarding what design elements are needed to make a particular corridor walkable and bikable. Speed does not, by itself, determine if a particular street is or is not walkable and bikable.

It should be noted that, while the target operating speed for residential streets is noted as 30 mph (see Table 2); this will be reduced to 25 mph if current efforts to change state law are successful. The actual typical operating speed on most local residential streets in Minneapolis is 25 mph or less. However, state law currently allows a legal speed limit of 25 mph only if it is specifically signed. It does not appear necessary or financially feasible to sign all local streets for 25 mph to achieve that operating speed.

Transit Facilities, Bicycle Facilities, Pedestrian Facilities, Freight

The network needs for other modal networks affect the design of particular streets. These needs will not be the same for all streets within a particular street design type but should be given priority consideration when they are present.

- Transit Facilities indicate a street where passenger facilities (e.g., additional sidewalk space for waiting passengers, room for transit shelters, information displays) may be needed and certain design or traffic management strategies (e.g., curb extensions, far-side stops, signal priority, queue jump lanes) may be required to maintain fast and reliable transit service. Streets that are on the Primary Transit Network (PTN) are the streets most likely to require expanded facilities for transit. These streets are typically commerce streets and community connector streets. It is expected that any planned transit facilities will be incorporated into designs for streets that are on the Primary Transit Network.
- Bicycle Facilities indicate the types of treatments (striped, signed, separated paths, etc.) that could be found if a street is included in the City's bicycle network.³ It should be noted that, while bicycle facilities may be identified as appropriate for certain street design types, this should not be interpreted as a requirement for a bicycle facility on all streets carrying that street design type. Rather, the locations where bicycle facilities are needed are identified in the *Bicycle Master Plan*. Bicycle facilities should be incorporated, on the street in question or on a parallel street, only if a bicycle facility has been recommended in the *Bicycle Master Plan*.
- Pedestrian Facilities indicate the types of treatment appropriate for sidewalks and other pedestrian facilities. Pedestrian facility needs and more detailed design guidelines for pedestrian facilities are provided in the *Pedestrian Master Plan*.⁴
- Freight is used to define the level of regional or local goods movement that could be expected on each street design type. These needs should be accommodated to the extent feasible for each street. Freight needs will be a priority in designing industrial connector streets and roadways designated as commuter streets. Large trucks must be accommodated on county roads. The need to accommodate large trucks on other streets will be tied more closely to property needs adjacent to the roadway in question.

Connection to the Freeway System

Connection to the Freeway System is used to address which street design types are appropriate to link to freeway access ramps. This designation is also linked to equivalent functional class for regional funding purposes. There may be some circumstances where existing freeway access is provided to/from a street that does not carry a design type suitable for this function. If so, a change may need to be considered at some point in the future if a more suitable alternative is available. There may be some circumstances where freeway access has to be retained because other alternatives are not available.

Medians and/or Turn Lanes

Medians and/or Turn Lanes are used to identify where separation of opposing directions of traffic or provision of exclusive turn lanes may be appropriate. In some locations, planted medians may be provided for landscaping, tree planting and/or stormwater management or to simply to narrow the roadway. The need for turn lanes will vary considerably depending on the traffic volumes and travel patterns on specific corridors and corridor segments. In general, dedicated left and/or right turn lanes should be provided only where absolutely necessary to minimize negative impacts on pedestrian environment and alternative modes of transportation. There may be some circumstances, particularly on streets with high traffic volumes and a wide right-of-way (100 feet or more), where the provision of turn

³ See *Bicycle Master Plan*, City of Minneapolis (2009) for details on existing and proposed bicycle network.

⁴ See *Pedestrian Master Plan*, City of Minneapolis (2009) for details on pedestrian facility needs.

lanes coupled with a planted median would be a desirable solution that has benefits both for traffic and for pedestrians.

Curb Parking, Curb Extensions

Curb Parking in an urban environment has an importance beyond the immediate parking value to adjacent land uses. The absence or presence of curb parking affects intersection design, the speed and efficiency of operation of the moving lanes of traffic on the street, and transit operations. Curb parking also interacts with the design of the pedestrian zone and affects the perception of pedestrian safety. Curb parking is a flexible design element on the street that buffers pedestrians from moving traffic, can be traded for bus stops, bike lanes or turn lanes and can be sheltered with curb extensions to form parking bays between intersections.

Curb Extensions are an additional design element that benefits pedestrians and transit and delineates areas for on-street parking. ***The design guidelines are based on the assumption that curb extensions will be provided unless specific conditions exist at a particular intersection or transit stop that preclude their provision.***

Driveway Access

Driveway Access is linked to target speed. It is desirable for safety reasons to limit the number of driveways on streets with higher target operating speeds and/or with high pedestrian volumes.

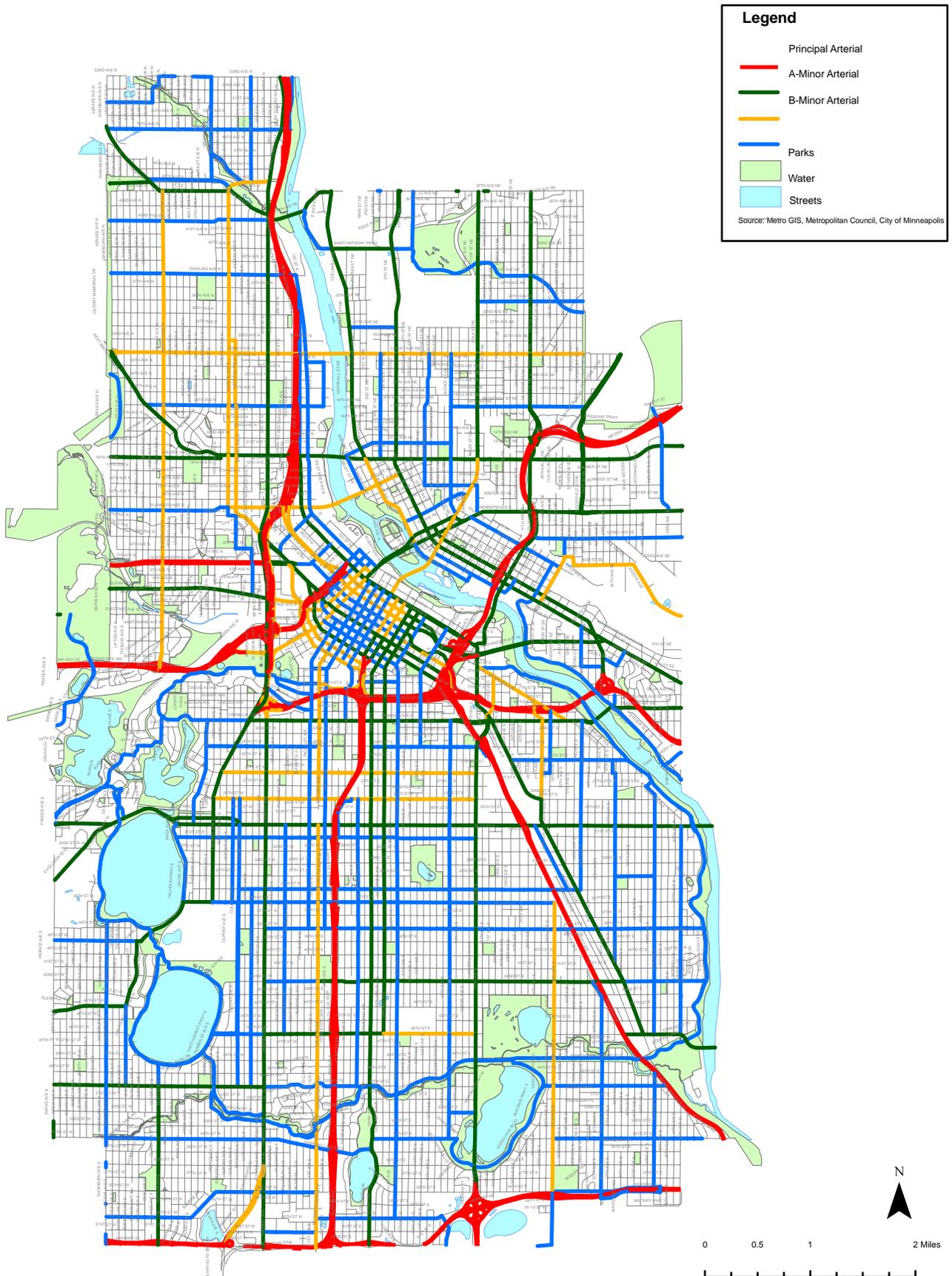


Figure D-1 Existing Functional Classification of Streets

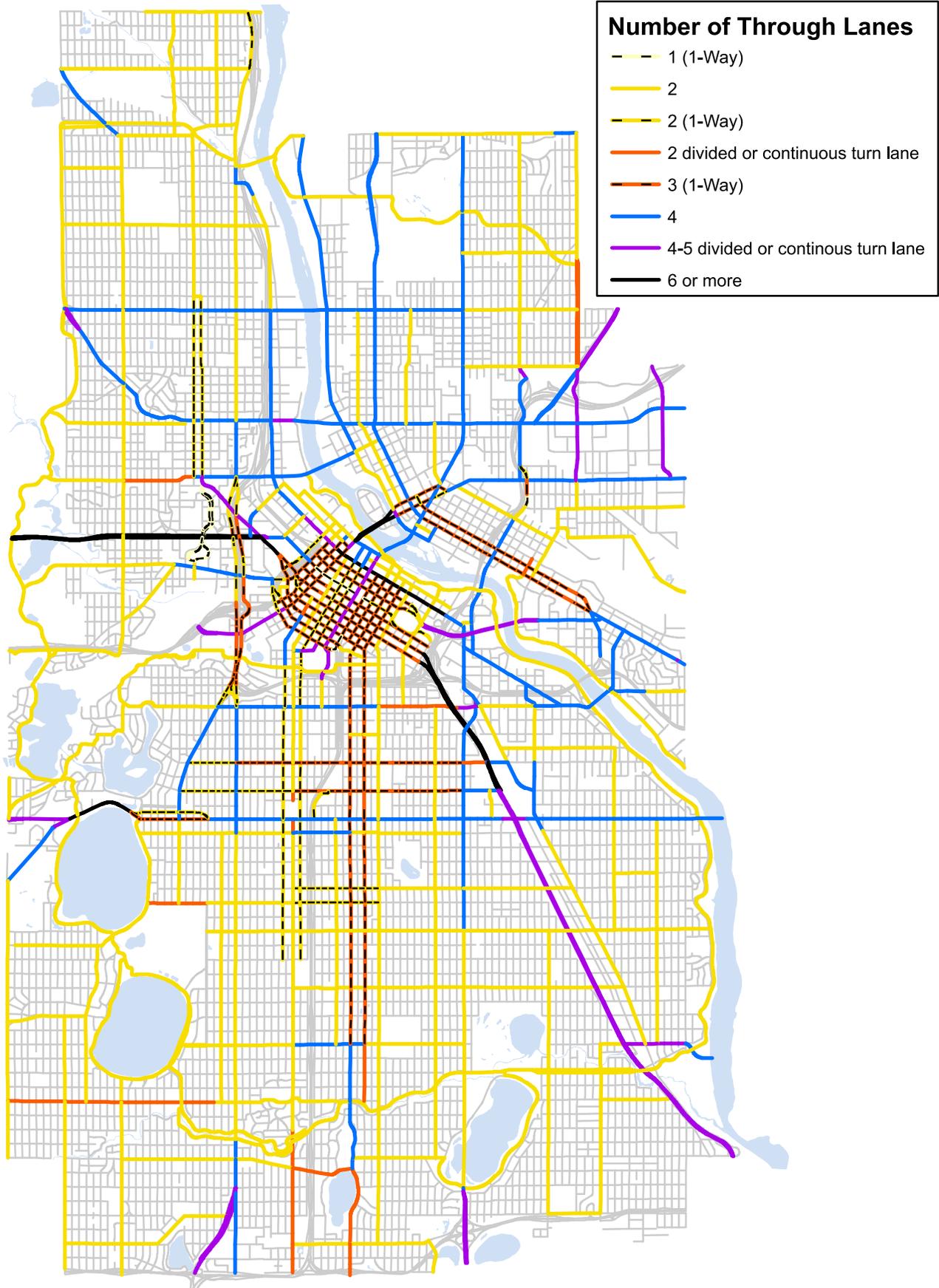


FIGURE D-2 NUMBER OF THROUGH LANES

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APPENDIX E

REGIONAL TRANSIT STANDARDS

The following materials are reproduced from Appendix G, Regional Transit Standards, of the 2030 Regional Transportation Policy Plan (Metropolitan Council), 2008.

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Appendix G: Regional Transit Standards



Transit Market Areas

While several factors influence the propensity to use transit, the primary predictors of transit productivity are density of development at the origin and destination of trips. Transit markets in the seven county region are identified using the Transit Market Index, which is calculated using three primary factors: 1) population density, 2) employment density, and 3) transit dependent population. This Transit Market Index measures the potential market for transit services in a given area. Different types and levels of transit services are appropriate for each transit market area.

The Transit Market Index for an area is expressed in relative units of expected transit demand per acre and is calculated as follows:

$$\text{Transit Market Index} = \frac{(\text{Total Population}) + (\text{Total Employment} / 3) + (\text{Population Over 16} - \text{Available Automobiles})}{\text{Acreage of populated land uses (including industrial, institutional, commercial, and residential uses)}}$$

For the purposes of this plan, Transit Market Index is calculated at the Census block group level.

The region has five distinct Transit Market Areas that are determined based on the Transit Market Index for a given location. The Transit Market Area for a location is determined not only based on the Transit Market Index for that location, but also on the Transit Market Index of surrounding areas.

Transit Market Area	Transit Market Index
Area I	Transit Market Index above 20.0
Area II	Transit Market Index between 10.0 and 20.0
Area III	Transit Market Index between 5.0 and 10.0
Area IV	Transit Market Index between 1.0 and 5.0
Area V	Transit Market Index below 1.0

Transit Market Area I has the highest density of population, employment, and people who depend on transit. Because of this, Market Area I is able to support intensive transit service.

Transit Market Area II has high to moderately high population and employment densities yielding a market area that is conducive to fixed route transit operations, but not as intensive as in Market Area I.

Transit Market Area III has moderate density and can support a variety of transit services, but at lower intensity than areas I and II. In some cases, general public dial-a-ride services may be appropriate in Market Area III.

Transit Market Area IV has lower concentrations of population and employment. This market can support peak-period express bus services, if a sufficient concentration of commuters likely to use transit

service is located along a corridor. Some areas may have sufficient density for Market Area IV, but may not have sufficient aggregate commuter demand to justify extension or improvement of express service. General public dial-a-ride services are appropriate in Market Area IV.

The low population and employment densities of Transit Market Area V increase the complexity and challenge of matching transit service to transit need. General public dial-a-ride service may be appropriate in Market Area V, but due to very low-intensity land uses, these areas cannot support regular route transit.

In the longer term to meet transit needs in suburban and rural settings, intensification of land use with a minimum ‘critical mass’ of increased intensity is necessary to provide and sustain increased transit service.

Transit Markets/Service Options

The table below identifies transit strategies that appear to be most appropriate for the different transit market areas. The service types presented are general descriptions for each market area; specific implementation of transit services will depend on available resources, specific analysis of transit demand,

complementary and competing services, and other factors. Detailed analysis of specific communities within the metropolitan area may generate additional transit service delivery strategies.

Transit Market Area	Suggested Service Type
Area I	Primary emphasis on regular route service. Downtown area circulators possible.
Area II	Primary emphasis on regular route service. Crosstown routes and limited stop services are appropriate to link major destinations.
Area III	A mix of regular route and community circulator service complemented by dial-a-ride service in specific cases. Community circulators should tie into regular route regional service at a transfer point.
Area IV	Peak period express service, if potential demand for service is sufficient to support at least three peak-period trips. General public dial-a-ride services are appropriate.
Area V	Primary emphasis on general public dial-a-ride services
ADA Paratransit Services	Paratransit service as determined by state and federal regulation. See ADA section of this appendix for additional details.
Transitways	Transitway service is unique to each transitway corridor, and is determined through detailed planning and study unique to individual transitway corridors.

Transitways

Transitways are unique transportation corridors with specific, detailed planning processes that result in appropriate levels of service for specific corridors. The detailed planning work on transitway corridors leads to unique applications of transit service design standards and specific types of service unique to each corridor.

ADA Paratransit Services

ADA paratransit service is public transportation for certified riders who are unable to use the regular fixed-route bus due to a disability or health condition. In the Twin Cities region, the Metropolitan Council oversees all ADA Paratransit Services. Metro Mobility contracts with ADA Paratransit service providers, who provide customers with “first-door-through-first-door” transportation.

Eligibility is determined using federal guidelines established by the Americans with Disabilities Act (ADA). A person may be eligible for ADA Paratransit Service if any of the following conditions apply:

- He/she is unable to independently navigate the fixed-route transit system because of a health condition or disability (OR)
- He/she is unable to independently board or exit fixed-route vehicles due to a health condition or disability (OR)
- He/she is unable to propel to or from a bus stop within the fixed-route service area due to a health condition or disability.

ADA Service Span and Coverage

The ADA Paratransit Service coverage area and hours of service is determined by several factors including Federal and State requirements. Per the Federal requirements, ADA paratransit service must operate at a minimum within $\frac{3}{4}$ of a mile of the local fixed route network during the same hours of the day as the fixed route transit service operates.

Metro Mobility achieves this by analyzing the fixed routes hours of service delivery for weekday, Saturday and Sunday/Holiday service in each community where service is provided and then matches that service level.

Beyond the federal requirements, the State requires Metro Mobility to provide service to all communities within the transit taxing district. Metro Mobility is available to these eligible residents living outside of the federally mandated service area by currently providing 12 hours of service on weekdays, and on an as space is available basis on Saturday's and Sundays/Holidays.

Transit Service Design Standards

A consistent set of transit service design standards ensures regional coordination and consistency. Regional design standards are custom-tailored for each transit market area. These standards represent typical design guidelines for transit service, though exceptions often exist based on specific circumstances and conditions.

This table outlines what type(s) of service are appropriate for each Transit Market Area.

Services Considered:	Area I	Area II	Area III	Area IV	Area V
Express	Yes	Yes	Yes	Yes	No
Urban Radial	Yes	Yes	Yes	No	No
Urban Crosstown	Yes	Yes	No	No	No
Suburban Local/ Circulator	Yes*	Yes	Yes	No	No
General Public Dial-a-Ride	No	No	Specific	Yes	Yes

*Area I circulators applicable for downtown or other employment areas over 30,000

Service Span

Service Span is the number of hours during the day between the start and end of service on a transit route

Days and Times of Service:	Area I	Area II	Area III	Area IV	Area V
Express	PMENW	PMENW	PME	P	n/a
Urban Radial	PMENOW	PMENOW	PMENW	n/a	n/a
Urban Crosstown	PMENW	PMENW	n/a	n/a	n/a
Suburban Local/ Circulator	PMENW	PMENW	PMENW	n/a	n/a
General Public Dial-a-Ride	n/a	n/a	Up to 18 hours	Up to 14 hours	Up to 14 hours

A trip's service period is determined by the time the route crosses its maximum load point. This standard represents the upper limit of service. For example, owl service is allowable but not required in Area I for an urban local route.

Peak: 6:00am-9:00am and 3:00pm-6:30pm; **Midday:** 9:00am-3:00pm; **Evening:** 6:30pm-9:00pm; **Night/Early AM:** 9:00pm-1:30am and 5:00am-6:00am and **Owl:** 1:30am-5:00am. **Weekend** is Saturday, Sunday/Holiday. Times do not necessarily correspond with fare structure times.

Table G-5: Minimum Frequency

	Area I	Area II	Area III	Area IV	Area V
Express	30" Peak	30" Peak	3 Peak Trips	3 Peak Trips	N/A
Urban Radial	15" Peak/ 30" Offpeak	30" Peak/ 60" Offpeak	60" Peak/ 60" Offpeak	N/A	N/A
Urban Crosstown	30" Peak/ 30" Offpeak	30" Peak/ 60" Offpeak	N/A	N/A	N/A
Suburban Local/ Circulator	N/A	30" Peak/ 60" Offpeak	60" Peak/ 90" Offpeak	N/A	N/A

Additional service may be added as demand warrants. Applies primarily to peak travel direction

Minimum Frequency

Service frequency is expressed as the average number of minutes between transit vehicles on a given route or line, moving in the same direction. This table shows the recommended minimum service frequency for each service type in a given market area.

Route Spacing

Maximum desired distance between bus routes, in miles.

Table G-6: Maximum Route Spacing

	Area I	Area II	Area III	Area IV	Area V
Express	Subject to availability and demand of a highway corridor				n/a
Urban Radial	0.5	1	Specific	n/a	n/a
Urban Crosstown	1	2	n/a	n/a	n/a
Suburban Local/Circulator	n/a	2	Specific	n/a	n/a

"Specific" means the route structure will be adapted to demographics, geography and land use that impact route spacing.

Route Deviations

Route deviations are departures from a route's primary street to serve a specific transit generator. The route then returns and continues on the primary street.

- The number of riders served on the deviation must be greater than thru riders (deviation rides > thru rides).

Other factors, such as bus stop siting, access, and operational feasibility, are also involved in determining whether a route deviates.

Some transit routes serve multiple destinations at the end of a route using route “branches”. In addition, some routes are extended to serve additional destinations. To ensure that any route branches or extensions carry enough riders to justify the added cost of operation, the following productivity standards apply. Productivity is measured by passengers per in-service hour, as defined by the number of passengers getting on or off on a specific route segment, divided by the additional time required to operate the segment.

	Area I	Area II	Area III	Area IV	Area V
Express	25	25	15	9	n/a
Urban Radial	25	20	15	n/a	n/a
Urban Crosstown	25	20	n/a	n/a	n/a
Suburban Local/Circulator	n/a	15	9	n/a	n/a

* As measured by passengers per in-service hour for boardings/alightings

Travel Time Competitiveness Guidelines

To be successful in attracting riders who have access to automobiles, transit service must provide travel times that are competitive with comparable auto travel times.

- Local bus travel time should generally not exceed 2.0 times average auto time.
- Express bus travel time should generally not exceed 1.35 times average auto time.

Network Transfer Connectivity

Transit network connectivity is the ability to travel anywhere the transit network reaches with minimal waiting time for transfers between the trips. Ideally, all transfers are designed to occur within 5-15 minutes at the transfer point. In specific situations where connections are less than 5 minutes, timed transfers should be arranged with specific transit operator instructions to “meet” the other bus.

Transit Stop Service Area

Standard walking distance to access transit services is ¼ mile for local bus service and ½ mile for limited stop bus or transitway stations.

Recommended Bus Stop Spacing

Bus stops that are close together reduce walking distance and access to transit, but tend to increase bus travel time. This recommended spacing seeks to achieve a balance.

- 6-8 stops per mile for local service

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- 1-2 stops per mile for limited stop service

An allowable exception to standards may be central business districts and major traffic generators. These guidelines are goals, not a minimum nor a maximum.

Bus Stop Siting

- Near side stops are preferred in most areas.
- Far-side/mid-block stops are preferred in high density commercial areas, where traffic movements impede bus operations, or in applications of transit signal priority.
- Individual stop sites must be evaluated for:
 - Traffic conditions in area (i.e., right turns, merging, etc.)
 - Curb availability (see stop dimensions table below)
 - General suitability for bus stop (i.e., curb cuts, ADA considerations, obstructions, etc.).

Bus Stop Dimensions

The length of the bus stop, in feet, needed in order for a bus to safely pull into and out of a bus stop.

Passenger Waiting Shelters

A standard shelter location may be appropriate if the following ridership target is met at a proposed stop.

- Minneapolis and St. Paul: ≥40 boardings per day
- All other areas: ≥25 boardings per day

Heaters are occasionally installed in shelters with a warrant of 80 or more passenger boardings per day.

Custom Shelters

Custom shelters will meet a warrant of 100 boarding passengers per day, if one of the following criteria is met:

- Part of a larger project such as a bus corridor
- Transit Centers
- Park-and-Ride lots owned and maintained by regional transit providers
- Downtown bus stops

Bus Stop Dimensions*	Standard Bus Stop	Small Bus Only Stop
Near-side Stop	100 ft.	75 ft.
Far-side Stop	120 ft.	90 ft.
Mid-Block Stop	150 ft.	110 ft.

*Bus stops which have multiple buses stopping at the same time require more space.

Regional transit providers offer a range of amenities at bus stops, transit centers and other facilities for the comfort, convenience and safety of our customers. The following table identifies the standard amenities that are included with various facility types. Some amenities are always provided and others are occasionally provided, depending on the specific size, location or use of the facility.

Facility Type	Lights	Heaters	Trash Receptacles	Stand Alone Benches	Cameras	Electronic Customer Information Displays
Transit Centers	Y	Y	Y	Y	O	O
Park & Ride Lots	Y	O	O	O	O	O
Rail Stations	Y	Y	Y	Y	Y	Y
Standard Shelters	O	O	N	N	N	O
Custom Shelters	O	O	N	O	O	O

Y = Yes, always provided; N = No, not provided; O = Occasionally provided

Note that this guideline applies only to public transit agency-owned facilities. Providers also lease park & ride lots, and some shelters are owned and maintained by other entities. In those cases, providers do not normally offer customer amenities, although some may be included in certain situations.

Transit Vehicle Load Guidelines

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The number of riders on board the vehicle as a percentage of the number of seats. This value is used to determine when is the bus is overloaded and additional service is needed. If the result is greater than 100%, then some standees are acceptable.

Table G-10: Peak Periods					
	Area I	Area II	Area III	Area IV	Area V
Express*	70-100%	70-100%	70-100%	70-100%	n/a
Urban Radial	85-125%	85-125%	85-125%	n/a	n/a
Urban Crosstown	50-125%	50-125%	n/a	n/a	n/a
Suburban Local/ Circulator	n/a	50-125%	50-125%	n/a	n/a
Light Rail Transit	200%	200%	200%	n/a	n/a
*Limited stop routes traveling less than 4 miles on freeways have a maximum load standard of 115%. Limited stop routes that do not travel on freeways have the same guidelines as urban radial or urban crosstown routes.					
Guidelines are based on the number of seats on the vehicle, measured at the maximum load point of route. These standards are flexible on the fringe of peak period.					
Maximum customer load average over a 15 minute period on a consistent basis					

Table G-11: Off Peak Periods					
	Area I	Area II	Area III	Area IV	Area V
Express	65-100%	60-100%	50-100%	n/a	n/a
Urban Radial	60-100%	60-100%	n/a	n/a	n/a
Urban Crosstown	50-100%	30-100%	n/a	n/a	n/a
Suburban Local/ Circulator	n/a	30-100%	30-100%	n/a	n/a
Light Rail Transit	200%	200%	200%	n/a	n/a
Limited stop routes that do not travel on freeways have the same guidelines as urban radial or urban crosstown routes.					
Guidelines are based on maximum load point of route.					
Maximum customer load average over a 30 minute period on a consistent basis.					

The primary performance standards to measure service performance are Subsidy per Passenger and Passengers per In-Service Hour. Performance standards are used to evaluate the relative productivity and efficiency of the services provided. To be responsible and dynamic, a transit system must consistently measure and adjust service in unproductive routes and address insufficient service in productive areas. The use of two regional performance standards provides better insight into the operational and financial performance of individual routes and services.

Revision of Transit Performance Standards

The Metropolitan Council will complete a review of these transit performance standards. Working with regional transit providers, the Council will review and potentially modify the standards listed below. Following this review and potential revision, all providers will review their transit service annually based on the regional transit performance standards. Providers will annually submit their performance reviews to the council for inclusion in a regional service performance review.

Table G-12: Passenger Subsidy

Threshold No.	Level of Subsidy per Passenger Performance	Monitoring Goal	Possible Action
1	20 to 35% over peer average	For Quick Review	Minor Modifications
2	36 to 60% over peer average	For Intense Review	Major Changes
3	More than 60% over peer average	For Significant Change	Restructure/ Eliminate

Subsidy per Passenger

Subsidy or net cost is the difference between the total cost of providing service minus revenue from passenger fares. Subsidy per passenger represents the net cost divided by the number of passengers using the service. This standard identifies services that are not operating within regional efficiency ranges and focuses corrective actions for those services. Subsidy thresholds are determined by calculating the non-weighted subsidy per passenger average within each service classification plus fixed percentage deviations from that average.

Table G-13: Passengers per In-Service Hour

Type of Service	Average Passengers per In-Service Hour	Minimum Passengers per In-Service Hour
Light Rail Transit	≥70	≥50
Big Bus Fixed Route – All Day	≥20	≥15
Big Bus Fixed Route – Peak Only	≥20	N/A
Small Bus Fixed Route	≥9	≥5
Small Bus Non-Fixed Route	≥3	≥2
Other/Rideshare/Shared Ride Taxi	≤2	N/A

Passengers per In-Service Hour

The passenger per in-service hour standard establishes a minimum threshold of performance for light rail transit, big bus fixed route service, small bus fixed route service and paratransit operations. Passengers per in-service hour represents the total passengers carried divided by the in-service time. This measure is most often calculated at the route level, but can also be used less formally at a route segment or trip level.

APPENDIX F

CHECKLIST FOR BUS STOPS

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PTN BUS STOP CHECK LIST

Name(s) of Assessor _____

Date of Assessment _____ Time: _____

Weather Conditions _____

PART A: BUS STOP AMENITIES

1. Location

1.1. Bus Stop ID _____

1.2. Street Name _____

1.3. Nearest Cross Street _____
(*Street Name or Landmark if mid-block*)

1.4. Bus Route Direction:

North Bound South Bound East Bound West Bound

1.5. Where is the bus stop positioned in relation to the nearest intersection?

Nearside (Before the bus crosses the intersection)

Mid-block or not near an intersection

Far Side (After the bus crosses the intersection)

Freeway bus pad or off street transit center/station

1.6. Adjacent Property Address or name of business (*Only if readily visible*)

1.7. What is the approximate distance to the next bus stop in the same direction of travel?

One standard "long" block ____ feet or miles

Two standard "long" blocks ____ feet or miles

One standard "short" block ____ feet or miles

Two standard "short" blocks ____ feet or miles

One standard downtown blocks ____ feet or miles

Two standard downtown blocks ____ feet or miles

2. Landing Area / Platform

2.1. What is the approximate width and depth of the landing area?

_____ (ft) width _____ (ft) depth (*square feet* _____)

2.2. Where is the landing area positioned in relation to the curb/street?

Sidewalk Shoulder Bus Bulb

Off-Road/No sidewalk Other _____

2.3. What is the material of the landing area?

- Concrete Gravel Dirt Brick Pavers
 Asphalt Grass Other _____

2.4. What is the elevation level of the landing area?

- At Street Level On Curb (above street level) _____ (inches)

2.5. Are there problems with the landing area surface?

- Yes No

2.6. Are there any obstacles that limit access to or from the bus?

- Yes No

- Trash Receptacle
 Newspaper Boxes
 Landscaping
 Utility/Light Pole
 Other _____

2.7. Additional landing area comments:

3. Shelter

3.1. Is there a bus shelter? Yes; number: _____ No

3.1a. If yes, what are the dimensions?

Width _____ Depth _____ Height _____

3.2. If there is not a standard shelter, is there an exterior **alternative shelter** nearby (i.e. - awning, overhangs, underpass)?

- Yes No

Describe: _____

What are the approx. dimensions (width, height and depth in feet) of the interior standing area?

Width _____ Depth _____ Height _____

(Do not answer questions 3.3 though 3.5 if there is not a standard shelter).

3.3. What is the orientation of the shelter entrance(s) to the street?

- Shelter entrance(s) face the street (there is direct access to bus)
 Shelter entrance(s) face away from street (passenger must go around shelter before boarding the bus)
 Other - please describe _____

3.4. Rank the condition of the shelter (1=poor, 5=excellent).

1 2 3 4 5

- 1=hazardous – broken glass, unstable
- 2=in poor shape though not hazardous
- 3=fair – needs repainting, glass panels need thorough cleaning, protruding but not hazardous bolts
- 4=good – not perfect but no immediate repair need
- 5=cosmetically excellent; new

3.5. Additional Shelter Comments:

4. Seating

4.1. Is there a bench or other seating? Yes No

4.2. What is the type of seating available?

- Bench inside Shelter – **skip to question 4.4 in this section.**
- Freestanding Bench Other _____

4.3. If not inside shelter, what is the distance of the seating from the curb in feet?

- 0 - 2' 2' - 4' 4' - 6'
- 6' - 8' 8' - 10' >10'

4.4. Rank the condition of the seating (1=poor, 5=excellent).

1 2 3 4 5

- 1=hazardous – broken, someone could get hurt from normal use
- 2=in poor shape though not hazardous
- 3=fair – needs repainting, needs cosmetic attention, protruding but not hazardous bolts
- 4=good – not perfect but no immediate repair need
- 5=cosmetically excellent; new

4.5. Additional Seating Comments:

5. Information

5.1. Is there a bus stop sign identifying the bus stop?

Yes No

If YES please answer questions 5.2 through
If NO please move to question 6.

5.2. Is the bus stop sign in good condition and easy to understand?

Yes No, explain _____

5.3. Is the bus stop somehow identified as part of the Primary Transit Network?

Yes No

5.4. How is the sign installed?

- On its own Pole
- On a Utility Pole
- Other _____
- On a Building
- On a Shelter

5.5. Are bus routes indicated on the bus stop sign? Yes No
 If yes, what routes? _____

5.6. What information is posted?

- Route Description/Number
- Schedule
- No Information
- Map
- Other _____

5.7. If yes, where is the route/schedule/map information posted?

- On Pole under bus stop sign
- On its own Pole
- On a Building
- On a Utility Pole
- On a Shelter
- In a shelter
- Other _____

5.8. Are there any objects blocking access to the bus stop information?

- Newspaper boxes
- Landscaping
- Bench
- Trash Receptacle
- Other _____

5.9. Is there real-time information at stop? Yes No

Does the unit appear to be functional?
 No
 Yes: _____

5.10. Additional signage & information comments:

6. Lighting

6.1. Is there lighting at the bus stop?

- Yes, indicate type below
- No
- Street Light
- Shelter Lighting
- Outside Light on Adjacent Building
- Other _____

6.2. Additional Comments:

7. Accessibility Issues

7.1. Are there issues with the **landing area surface** that affect accessibility?

	Not Accessible	Minimally Accessible	Accessible
<input type="checkbox"/> Uneven	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Slopes Up from the Street	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Slopes Down from the Street	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Requires stepping over drain inlet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7.2. Are there any physical obstacles that would limit the mobility of a wheelchair on the landing area? Yes, indicate type below No

- Trash Receptacle
- Newspaper Boxes
- Landscaping
- Other _____

7.3. If there is a **shelter**, could a person in a wheelchair maneuver into the shelter?

Yes No, describe why _____

1.1. Could a person in a wheelchair fit completely under the shelter?

Yes No

What are the dimensions of the wheelchair space in the shelter? _____

7.5. What is the distance of the front of the shelter to the curb in feet?

- 0 - 2' 2' - 4' 4' - 6'
- 6' - 8' 8' - 10' >10'

7.6. If the stop has **route/schedule/map information**, is that information at eye level of a wheelchair user? Yes No

7.7. Do any of the **bus stop amenities** block wheelchair access to the following?

- bus shelter wheelchair seating area
- bus ingress or egress bus stop information
- Other
- No

7.8. Additional issues that affect accessibility:

8. Other Physical Amenities

8.1. What other amenities are at the bus stop not already listed above?

- Trash Receptacle
- Newspaper boxes
- Telephone
- Other _____
- No other amenities

PART B. GETTING TO THE BUS STOP

9. Traffic Issues

9.1. Where is the bus stop area located?

- In the Travel Lane
- Bus Lane/Pull Off Area
- A Paved Shoulder
- In right turn only lane
- Unpaved Shoulder
- Off Street
- "no parking" portion of street parking lane
- Other _____

9.2. Is the bus stop zone designated as a no parking zone?

- Yes, indicated by:
 - One no parking sign
 - 2 or more no parking signs
 - Painted curb
 - Painted street
- No

9.3. Are cars parked between the landing area and the bus stopping area? Yes No

9.4. What are the traffic controls at the nearest intersection for this street?

- Traffic Signals
- Flashing Lights
- None
- Stop/Yield Sign
- Other _____

9.5. How many travel lanes go across the entire road of the route?

- 1 2 3 4 Other _____

9.6. Are there potential traffic hazards?

check all that apply:

- The bus stop is just over the crest of a hill
- The bus stop is just after a curve in the road
- The bus stop is near an at-grade railroad crossing
- Waiting passengers are hidden from view of approaching bus
- A stopped bus straddles the crosswalk
- Bus stop just before crosswalk
- Other _____
- No potential hazards

9.7. Additional traffic safety comments:

10. Pedestrian Access

10.1. How wide is the sidewalk adjacent to the bus stop?

- No sidewalk
- Less than 3' feet
- 3'-5'
- 5' or greater

10.2. Rate the condition of the sidewalk:

1 2 3 4 5

1=hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult, painful

2=in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks

3=fair – minor root uplifting, minor cracks or breaks

4=good – not perfect but no immediate repair need

5=cosmetically excellent; new

10.3. Are there physical barriers that constrict the width of the sidewalk within the block on which the bus stop is located? IF so, which ones?

- | | |
|--|--|
| <ul style="list-style-type: none"> • Utility Poles or cables • Parking meters • Fire Hydrant • Mail boxes • Trash receptacle • Other _____ • None | <ul style="list-style-type: none"> • Parking or other signage poles • Signal Boxes or other utility boxes • Landscaping • Newspaper boxes • Bench |
|--|--|

10.4. If YES, what is the narrowest useable width: less than 3' feet 3' or greater

10.5. If the landing pad is not on the sidewalk, does it connect to the sidewalk?

- Yes No

If YES, what does the sidewalk connect to:

- The nearest intersection
- A crosswalk
- Other _____

11. Neighborhood Access to Stop

11.1. Where is the nearest street crossing opportunity?

- The nearest intersection
- Mid-block crosswalk

11.2. What pedestrian amenities are at the nearest intersection (or other crossing opportunity)?

- Curb Cuts All Corners/both sides
- Visible crosswalk
- Curb Cuts at Some Corners/one side
- Traffic Light
- Pedestrian crossing signal
- Other: _____

11.3. Is there a companion bus stop across the street? Yes No

11.4. Are there physical barriers within $\frac{1}{4}$ mile of the stop that makes pedestrian access to the bus stop difficult?

Yes No

If YES, what type of barrier?

- Midblock stop with no crosswalk
- Busy and/or wide street
- Freeway, bridge

11.5. Additional comments about getting to the bus stop:

PART C. PHYSICAL DOCUMENTATION OF BUS STOP

Sketch the bus stop amenities below, indicating the location of the landing area, shelter, seating, lighting, and other amenities.

Take photographs of the bus stop.

APPENDIX G

METHODOLOGY FOR EVALUATING ONE-WAY VERSUS TWO-WAY STREETS

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Appendix G

Methodology for Evaluating One-Way vs. Two-Way Streets

Objective

There are a number of locations outside downtown where residents would like to see one-way streets changed to two-way. One-way versus two-way operation evaluation are very difficult because they rely heavily on traffic and crash data, which are often interpreted and valued differently depending on the perspectives of various participants. There are valid differences of opinion regarding the benefits and impacts of one-way vs. two-way streets. Therefore, it is important for the city to establish a consistent and fair process for making these evaluations and to identify the most appropriate technical criteria on which to make these evaluations. Outlined here is a proposed methodology for considering one-way versus two-way street changes on “system” streets outside of downtown. As described earlier, “system” streets are streets that are functionally classified as arterial and collector streets (design street types of activity center, community connector and neighborhood connector) and do not include local residential streets. This methodology may not be appropriate for residential streets where the issues may be significantly different. Finally, it should be noted that several of the one-way streets in the City are county roads and, as such, decisions related to these roads rest with Hennepin County. Hennepin County may choose to use a different methodology for evaluating one-way versus two-way operation on streets under their jurisdiction.

Historic Reasons for One-Way Streets

Most of the major one-way streets in the City of Minneapolis were converted to one-way operation in the 1940s and 1950s (see Table H-1).

Table H-1
Dates of Initial Conversion to One-Way Operation

Corridor	Dates of Conversion
Park and Portland Avenues South	
- 10 th to 38 th	10/11/46
- 14 th to 46 th	11/14/47
- 3 rd to 14 th	3/9/51
- Washington to 3 rd	8/29/74
Blaisdell and 1 st Avenues South	8/3/53
26 th and 28 th Streets South	9/25/55
Emerson and Fremont Avenues North	5/14/56
35 th and 36 th Streets South	1/5/67
University and 4 th Street SE	7/14/68
Hennepin and 1 st Avenue NE (River to 7 th St SE)	11/12/74
Lake and Lagoon	6/17/90

The historic reasons for the introduction of one-way streets into the city’s grid network were to:

- Reduce travel delay caused by turning vehicles and increase capacity and travel speed for through vehicles.
- Improve safety by reducing conflicts between through and left-turning vehicles.

Sophisticated traffic management tools (signal systems and Intelligent Transportation Systems) were not available in the 1940s through the 1970s when many streets were converted to one-way operations and this contributed to the prevalence of one-way operations as the preferred solution to congestion problems. Today’s tools and techniques give us more tools and greater flexibility to manage traffic in a variety of operational configurations. These tools allow greater control of turning movements, provide the ability to give signal preference to one-direction of travel to manage heavily directional traffic flows, and offer many creative ways to manage traffic speed, capacity and safety. Thus, the need for one-way streets in many situations may not as great as it was in the past.

Multi-Modal Priorities

As the city and region continues to grow, non-automobile modes of transportation (transit, biking and walking) are becoming increasingly important for mobility, access, energy consumption, environmental protection and personal health. These modes need to be evaluated with one-way vs. two-way operations. While two-way streets may have some advantages for walking and biking related to decreased traffic speed, one-way operation may provide increased space for wider sidewalks, increased space for bike lanes and/or transit lanes, and faster travel times for transit. However, these benefits may be offset by the propensity for one-way streets to lead to faster traffic speeds. If traffic speeds cannot be kept in check, the widening speed differential between traffic and bicycles and pedestrians will negate the gains made through the increased room for these slower modes of travel.

Livability Issues

Livability issues generally underlie a neighborhood's desire to see a one-way street become two-way. In general, this is based on the perception that traffic moves more slowly on two-way streets and that slower traffic results in a more neighborly environment and one that is more conducive to walking and biking. Traffic speeds on one-way streets (other than local residential streets) often are higher, particularly during non-peak periods, because traffic volumes are lower, there are fewer traffic conflicts, lanes are relatively wide, and traffic signals are timed for the efficient through flow of traffic. Even if measured speeds are not significantly higher, these characteristics create a perception of faster moving traffic. Issues of livability are also related to traffic diversion to other residential streets, traffic noise and air pollution. The notion that one-way streets are inherently less "livable" needs some rethinking as one-way streets can have some livability benefits including less air pollution due to less congestion (may be offset by higher traffic volumes) and less non-local traffic on nearby residential streets. Livability also may be affected more by the design of the edges of the roadway (for example, width and design of pedestrian zone, presence of trees and landscaping, streetscaping features, on-street parking, etc.) than the direction of traffic flow.

Relationship to Trip Purpose and Trip Length

The value of one-way vs. two-way streets to the user will be different, depending on the trip purpose, trip length, time of day, and availability of parallel routes or alternative modes. A two-way grid provides the highest level of accessibility at the local level while a one-way system provides less local accessibility but greater time savings for longer trips. These relative values are influenced by individual expectations. A city resident using a street to get to the store will have different values and expectations than a commuter (whether city or non-city resident) on a trip from home to work on that same street.

In general, two-way street systems provide better accessibility and, therefore, are more suitable for short trips with multiple destinations. One-way street systems provide better mobility and, therefore, are more suitable for longer single-purpose trips, particularly commuter trips or neighborhood to neighborhood trips. At what level are the travel time savings for "through" traffic justified over the impact to accessibility and/or livability? What other options exist for the movement of longer distance trips?

Impacts on Traffic Diversion

There are several factors to consider when evaluating traffic diversion related to one-way and two-way street operation including at least the following:

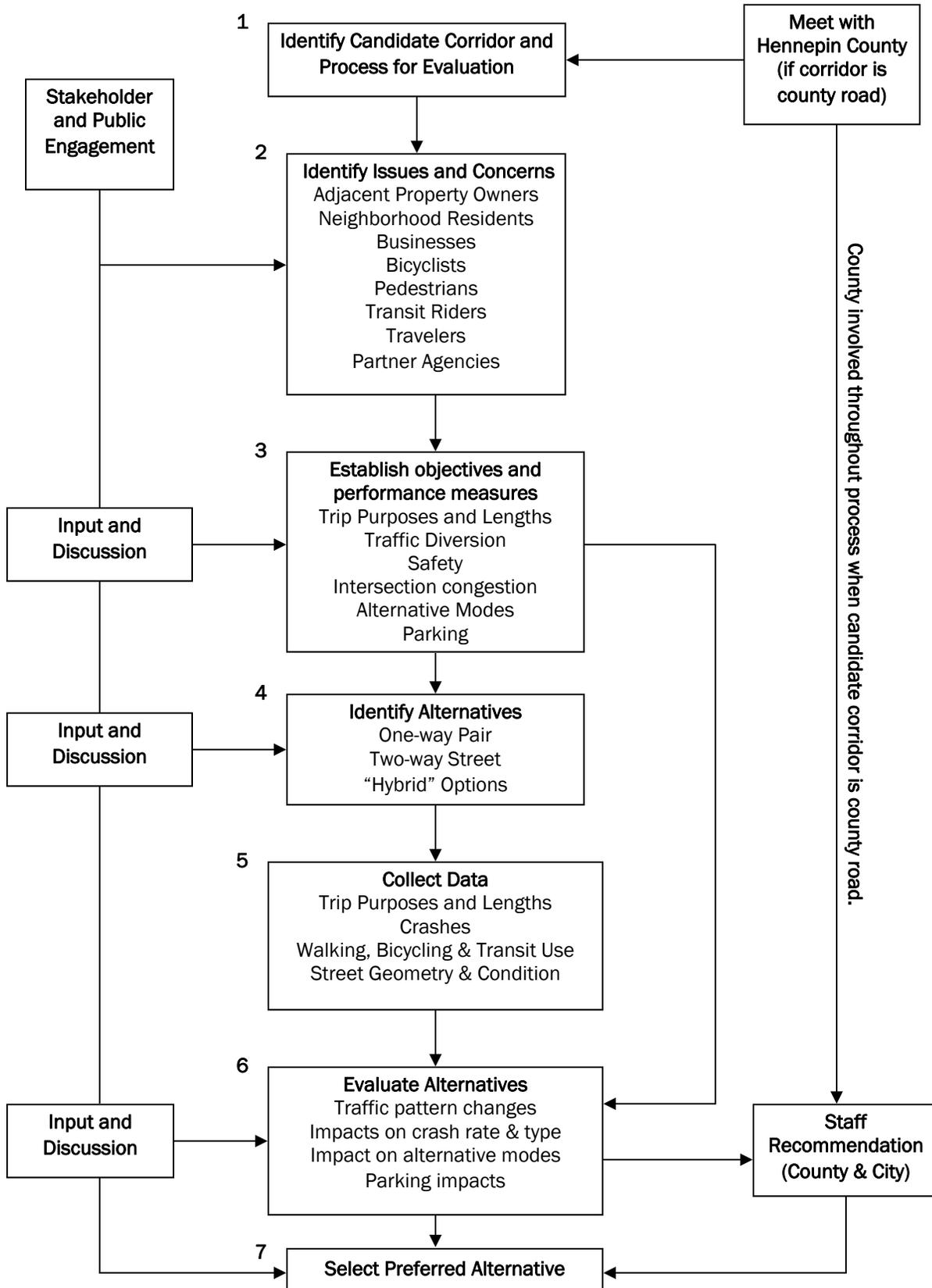
- One-way street systems require traffic to circulate to get to certain destinations. Thus, some trips may occur on nearby streets that would not occur if the street were two-way.
- One-way streets may attract trips from nearby streets due to the improved travel time. This is also a type of traffic diversion and is important when the land uses along the one-way street are primarily residential or when the objective is to draw traffic away from nearby neighborhoods.
- Non-local trips on congested two-way arterials may divert to nearby streets to avoid traffic congestion.
- There may be circumstances (most likely short segments of local streets) where one-way operation is provided to prevent the diversion of activity center or system street traffic to a local residential area or street.

Proposed Process

Figure H-1 illustrates a proposed public and technical process for the comparative evaluation of one-way versus two-way operation of “system” streets. This process includes early and continuous stakeholder and public input and discussion. As the technical reasons for choosing one-way or two-way streets are enumerated, it usually becomes quite clear that, in a mature urban environment like Minneapolis, the discussion is made up of many “on the one hand versus on the other hand” types of conditions. Changes that benefit one mode of travel have a degrading effect on other modes of travel and these effects vary from place to place. Where the technical arguments cannot clearly support a course of action, a policy decision may need to be made. The major steps in the proposed process are as follow:

1. *Identify Candidate Corridor and Process for Evaluation* – This is a particularly important step when multiple jurisdictions (typically Hennepin County, Metro Transit and/or Mn/DOT) are involved. Prior to meeting with property owners, neighborhood residents and businesses, it will be important to have a common understanding among affected agencies on the process that will be used for conducting the evaluation and the appropriate process for decision-making. Mn/DOT State-Aid will also need to be involved if the street in question is a county or municipal state-aid street. This will be the case for most system streets and for some residential local streets.
2. *Identify Issues and Concerns* – In this initial step, staff would meet with adjacent property owners, neighborhood residents and businesses, advocacy groups, partner agencies, the general public and other key stakeholders to fully assess the issues and concerns of the various stakeholders. This is a good time to foster a good discussion of the advantages and disadvantages of one-way and two-way operations and to encourage interactive discussion among the various stakeholders so that a broader understanding of competing interests is developed.
3. *Establish Objectives and Performance Measures* – The issues identified in Step 1 should be used to establish the objectives for the evaluation. While the criteria established below provide good guidance for this process, it is recognized that other issues may arise that are important in one circumstance but not in another. The objectives, evaluation criteria and performance measures should reflect these local issues as well as the city’s proposed evaluation criteria. Typically these objectives should focus around the type of trips to be served, the modes to be served, and safety issues. Objectives might also be developed related to traffic diversion, traffic congestion, parking, environmental issues, etc.
4. *Identify Alternatives* – There are actually many alternatives that may need to be considered when evaluating operational changes to a particularly roadway. These alternatives may reflect variations in number of lanes, presence or absence of turn lanes, directional flow, accommodation of transit, biking and/or walking, type and extent of intersection controls, etc. It is important to have an agreement with key stakeholders and partner agencies on the alternatives that should be evaluated.
5. *Collect Data* – Data will need to be collected based on the objectives, evaluation criteria and performance measures agreed to in Step 2. The types of data that might be needed for the proposed evaluation criteria are identified in Table H-2. Some data may be readily available through the city’s regular data collection efforts, other data may require special field surveys, and some information may be obtained through the use of computerized modeling tools.
6. *Evaluate Alternatives* – In this step, the data collected is used to evaluate the identified alternatives. The evaluation will provide information on the benefits and impacts of each alternative and the ability of each alternative to achieve the desired objectives.
7. *Select Preferred Alternative* – Based on the technical evaluation and input from key stakeholders and the general public, staff will develop a recommendation for action. This recommendation will be presented to City Council for action, along with a summary of public input received during the evaluation process. As noted above, some of the one-way streets in the City are county roads. Decisions regarding these streets are the responsibility of Hennepin County and the process and criteria used by Hennepin County for the evaluation of one-way or two-way operation may differ from the process and evaluation criteria described here.

Figure H-1 Proposed Process for Evaluating One-Way vs. Two-Way Streets



Proposed Evaluation Criteria

In general, it is proposed that one-way operation be considered a viable option for a “system” street if one or more of the following conditions exists:

- The street(s) has a high volume (or a high percentage) of longer distance trips.
- The street connects to freeway access ramps (typically applicable to only short distances from the ramp in question)
- The street had a pattern of crashes that was remedied by one-way operation or the conversion of the street to two-way would create hazardous conditions that could not be remedied except with one-way operation.
- The conversion of the street to two-way operation would create intersection gridlock over a long period of time and this condition could not be remedied except with one-way operation.
- The redistribution of traffic under two-way conditions would adversely affect adjacent neighborhoods.
- Sufficient width for on-street parking, bicycle lanes and/or sidewalks can only be achieved with one-way operation.

Each of these conditions requires threshold criteria to be effective. Meeting the criteria is not sufficient alone to warrant one-way operation. Rather, it is indicative that one-way operation can be useful and should be considered among the possible options for improving a corridor. The process for considering a corridor for conversion from one-way to two-way, or the reverse, needs to include evaluation of the criteria in Table H-2 in a comprehensive fashion that is balanced among objectives for livability, modal options and traffic operations. Detailed data collection and traffic modeling will be required in most cases to satisfy the threshold criteria. The potential sources of data for measurement are described in Table H-2 below.

Table H-2 Criteria for One-Way vs. Two-way Streets

Condition*	Criteria	Measures	Rationale
<p>One-Way: A street with a high volume (or high percentage) of long trips</p> <p>Two-Way: A street with a high volume (or high percentage) of short trips</p>	<p>Over 50% of trips are 4 miles or more in length</p> <p>Over 50% of trips are 2 miles or less in length</p>	<ul style="list-style-type: none"> • Origin-destination survey • Trip purpose survey • License plate survey • Screenline counts • Selected link modeling 	<p>This condition responds to the mix of commuter and non-commuter travel on a street. The commuter role of a street increases as the length of trips increases, arguing for expediting traffic flow. The criteria for this condition are two fold – the number or percentage of longer trips <i>and</i> the length of a “long” trip. When more than half of the trips on a street are long trips, the benefits of making a traffic-expedited street begin to outweigh the impacts. Many, perhaps most, of these longer trips may both start and end within the city. Trips to/from freeway access ramps should be counted as long trips.</p> <p>The regional criteria⁵ for A Minor Arterials (functional class) are that they carry trips of two to six miles in length (or longer trips destined for Principal Arterials). A Minor Relievers (functional class) are expected to carry trips of less than eight miles in length. A trip length of 4 miles would be half the maximum trip length for A Minor Arterials and the average trip length for A Minor Relievers.</p> <p>Streets designated as “local” street design types should not function as traffic-expedited streets.</p>
<p>One-Way: A street segment that connects to freeway access ramps</p> <p>Two-Way: Condition does not exist.</p>	<p>Queues extending 75% (or more) of the block(s) adjacent to the ramp are present for 30 minutes or more on a daily basis</p> <p>Queues are present on the off-ramp that extend to within one vehicle length of the gore point on a daily basis</p>	<ul style="list-style-type: none"> • Traffic counts • Traffic modeling 	<p>This condition responds to the unique conditions that occur where the access to the freeway system connects to the city street grid. The concentration of traffic at these locations can cause extensive queuing in the blocks adjacent to a ramp which increases the potential for gridlock in the general area around an access ramp. Using a metric that indicates when queuing will likely spill back into more than one block would reduce the gridlock potential.</p> <p>The time that queuing is present needs to take into account the variability of traffic flow and should look toward extended and consistent occurrences rather than spot occurrences</p>
<p>One-way: A history of crash types that was resolved by one-way operation.</p> <p>Two-way: A history of crash types that can be remedied by two-way operation.</p>	<p>Case by case – requires analysis of specific crash causes and rates.</p> <p>Crash rate or severity would be greater than average for this type of street.</p>	<ul style="list-style-type: none"> • Review of crash data and detailed accident reports 	<p>This condition recognizes that specific crash types can be increased or decreased by the directional flow of traffic. It is important to understand the crash types as well as the crash rates for individual streets to determine if a directional change in flow would address the demonstrated safety problem. This evaluation should specifically address pedestrian and bicycle crashes as well as vehicle crashes. Turning conflicts and speed are the most likely contributing elements related to safety and directional flow of traffic. Conflicts with pedestrian crossings are also an important consideration in the assessment of safety impacts.</p>
<p>One-way: A street where the volume of turning movements consistently creates gridlock for a lengthy period of time and would best be remedied by one-way operation</p> <p>Two-Way: Condition does not exist or similar condition exists and change to two-way would remedy the situation.</p>	<p>Queues extending through the adjacent intersection are present for 30 minutes or more on a daily basis</p>	<ul style="list-style-type: none"> • Traffic counts including turning movements • Traffic modeling 	<p>This condition responds to conditions that occur where the volume of turning traffic, primarily in Activity Centers, is causing queuing that consistently blocks the adjacent intersection. Other changes compatible with two-way operation would need to be exhausted before considering one-way operation.</p>

⁵ 2030 Transportation Policy Plan, Appendix F, Tables F-3 and F-7, Metropolitan Council, Saint Paul, MN, December 2004.

Condition*	Criteria	Measures	Rationale
<p>One-way: A street where sufficient width for on-street parking, bicycle lanes and/or sidewalks can only be achieved with one-way travel</p> <p>Two-way: A street where there is sufficient width for on-street parking, bicycle lanes and/or sidewalks and traffic speed differentials are high.</p>	<p>Case-by-case - Loss of on-street parking; loss of bike lanes; loss of transit lane or sidewalk and boulevard width reduced to less than 12 feet</p>	<ul style="list-style-type: none"> • Parking occupancy counts • Parking turn-over studies • Bicycle and pedestrian counts • Transit boarding counts • Transit travel time studies 	<p>This condition responds to the impacts that can occur on alternative modes of transportation when the directional flow of traffic is changed. The need for on-street parking, bike lanes and/or transit lanes will vary depending on conditions along individual streets and in adjoining neighborhoods.</p>
<p>One-way: A change to two-way would result in unacceptable traffic diversion.</p> <p>Two-way: One-way operation results in unacceptable traffic diversion or a change to two-way does not cause significant traffic diversion.</p>	<p>Traffic volumes on adjoining residential local streets should not exceed 2,000 ADT</p>	<ul style="list-style-type: none"> • Traffic counts • Traffic modeling 	<p>This condition responds to the diversion of traffic that may occur when the directional flow of a street is changed. Volume criteria is dependent on density of residential land uses.</p>

*There are some neighborhood streets are part of an adopted CPTED or Neighborhood Traffic Management Program. These are neighborhoods where conditions existed that required one-way *local streets* to address/manage security, parking and/or traffic problems effectively. The decision to use one-way streets in these areas is made as part of an area wide study rather than on a corridor basis. ***These streets are typically local residential streets and, therefore, the methodology described here would not be applicable.***