2. THE PURPOSE AND NEED

Introduction

This chapter documents the changing demographics, travel behavior, and resulting transportation problems in the study area and the region. It also describes the proposed strategy for managing the region's transportation system.

Demographics

Over the past 10 years, the Twin Cities Metropolitan Area has experienced strong growth and is anticipated to continue growing into the future. According to the US Census, this region added 430,000 new residents and 290,000 new jobs between 1990 and 2000. This equates to a 17 percent increase in population and a 23 percent increase in jobs.

By 2030, the Metropolitan Council projects this region will add 635,000 people, 320,000 households, and 312,000 jobs. The study area cities (i.e., Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis) are projected to add 63,000 residents and 85,000 jobs by 2030. The study area cities will then account for 17 percent of all regional residents and 25 percent of all regional employment.

Study Area Population

While the study area cities increased in population from 1980 to 1990, it was Eden Prairie and Minnetonka that experienced the most substantial growth. Between 1980 and 1990, Eden Prairie more than doubled its population, adding over 23,000 residents, and Minnetonka increased its population by more than a quarter, adding over 9,000 residents.

Between 1990 and 2000, it was again Eden Prairie leading the study area cities in growth by increasing its' population by another 40 percent.

Table 2.1 Study Area Population Trends

	1980	1990	Percent Change (1980-1990)	2000	Percent Change (1990-2000)
Eden Prairie	16,263	39,311	104%	54,901	40%
Minnetonka	38,683	48,370	25%	51,301	6%
Hopkins	15,336	16,534	8%	17,145	4%
Minneapolis	370,951	368,383	-1%	382,618	4%
St. Louis Park	42,931	43,787	2%	44,126	1%
Total	**484,164**	**516,380**	**7%**	**550,091**	**7%**

Source: Minnesota Planning

Between 2000 and 2030, the Metropolitan Council projects the study area cities to increase by nearly 63,000 residents or 11 percent. While in terms of raw numbers, Minneapolis will add the most residents at approximately 43,000; the cities with the strongest percentage growth are expected to be St. Louis Park at 17 percent and Eden Prairie at 15 percent.

Table 2.2 Projected Study Area Population

	2000	2030 Projection	Percent Growth (2000-2030)
St. Louis Park	44,126	51,500	17%
Eden Prairie	54,901	63,000	15%
Hopkins	17,145	18,900	10%
Minneapolis	382,618	426,000	11%
Minnetonka	51,301	53,500	4%
Total	**550,091**	**612,900**	**11%**

Sources: Metropolitan Council and Minnesota Planning

Study Area Employment Trends

According to the U.S. Census between 1990 and 2000, the Twin Cities Metropolitan Area added 290,000 new jobs, which equates to an increase in job base of 23 percent. During this same period, the study area cities added over 43,000 new jobs, which increased their job base by 17 percent.

Nearly half of all jobs in the study area are located in downtown Minneapolis, which is currently the highest traffic generator in the region. Downtown Minneapolis is the highest traffic generator in the region because it is not only home to many corporate headquarters, including the Target Corporation, American Express, Excel Energy, and Wells Fargo, but is also the cultural and entertainment center of the region with the Guthrie Theatre, the Walker Art Center, Orchestra Hall, the HHH Metrodome, and the Target Center Arena.

The remaining study are employment is dispersed throughout the remaining study area cities in concentrations in the Park Commons and Wooddale area of St. Louis Park, downtown Hopkins, the Opus development in Minnetonka, and the Golden Triangle as well as the Eden Prairie Center Mall areas in Eden Prairie.

Table 2.3 Study Area Employment Trends

	1990	**2000**	**Percent Change (1990-2000)**
Eden Prairie	36,095	49,392	37%
Minnetonka	35,536	50,471	42%
Minneapolis-CBD	128,395	139,800	9%
St. Louis Park	36,791	40,714	11%
Hopkins	12,252	11,777	-4%
Total	248,895	292,154	17%

Sources: U.S. Census Bureau and Metropolitan Council

Study Area Employment Projections

The Metropolitan Council projects that the study area cities will continue to experience strong employment growth through 2030. According to those forecasts, the five cities will increase their collective employment base by 30percent to a total of over 370,000 jobs. In terms of raw numbers, again it is downtown Minneapolis that will add the highest number of jobs at 43,600. In terms of percentage growth, Hopkins is expected to lead the study area cities increasing its' job base by 38 percent, followed by St. Louis Park at 30 percent, Eden Prairie at 21 percent, and Minnetonka at 16 percent.

Table 2.4 Study Area Employment Projections

	2000	2030	Percent Change (2000-2030)
Minneapolis -CBD	139,800	183,400	31%
St. Louis Park	40,714	52,500	30%
Minnetonka	50,471	58,600	16%
Eden Prairie	49,392	59,500	21%
Hopkins	11,777	16,300	38%
Total	**285,700**	**370,300**	**30%**

Sources: U.S. Census Bureau and Metropolitan Council

Impact on the Transportation System

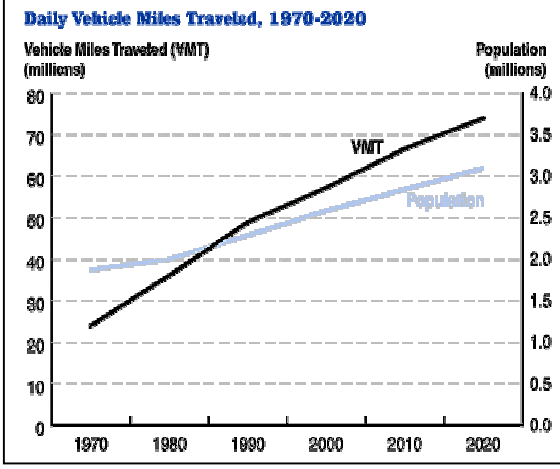
According to the Minnesota Department of Transportation, over the past 30 years changing demographic and development patterns in the region have resulted in increased travel. The excess roadway capacity created in the 1970s to accommodate projected population growth has been quickly depleted as people travel more than had been forecasted. The result has been increased congestion, increased delays, more pollution, and an increase in the economic costs of operating a business in this region. Due to the lack of transportation funding as well as the social and environmental consequences of roadway expansion, congestion is anticipated to continue to grow.

There are a number of factors that explain the increase in travel demand within this region. These include increases in the average number of vehicles per household, increases in the number of multiple-worker households, and increased dispersion of jobs as well as housing throughout the region.

As shown in Figure 2.2, since the mid-1980s vehicle miles of travel has outpaced population growth in this region. The Metropolitan Council projects this trend to continue through 2020 with vehicle miles of travel increasing by 38percent while population increases by 28percent.

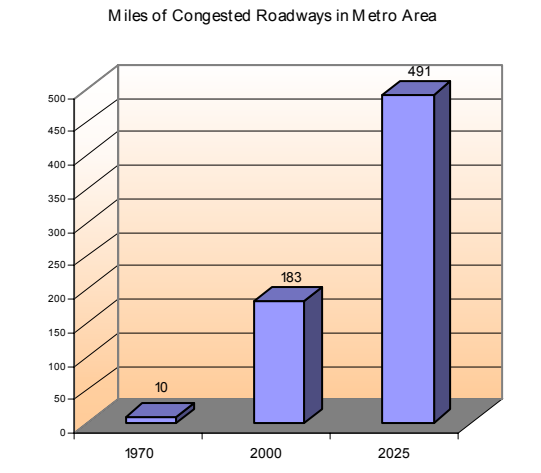
According to data from Mn/DOT the demand for travel in the southwestern metro area has increased substantially since the 1980s and is expected to continue to increase significantly. Specifically, between 1990 and 2000, traffic growth on the major interstates and highways in the southwestern metropolitan area increased by approximately 23percent.

Figure 2.2 Daily Vehicle Miles Traveled, 1970-2020



As daily travel for work, education, shopping, and other purposes continues to outpace the capacity of the transportation system, congestion and delays will result. As shown in Figure 2.3, the number of congested lane miles increased from 10 in 1970 to 183 in 2000. According to Mn/DOT the average person going to work in the Twin Cities wasted 54 hours in congestion in 2000. This contributed to a per commuter loss of $1,000 in time and fuel, which equates to $1.2 billion for the region.

Figure 2.3 Miles of Congested Roadways



Future Conditions

As the region continues to grow and residents continue to make more and longer trips on a relatively fixed roadway system, congestion and delays will increase substantially. According to Mn/DOT the number of congested lane miles will increase from 183 in 2000 to 491 in 2025. According to the Metropolitan Council, even if funds were unlimited, the social and environmental constraints are too great to continue with large highway expansion programs to eliminate congestion.

Figure 2.4 illustrates the regional roadways that are considered congested in 2000 and those projected to be congested in 2025. According to Figure 2.4, congestion is identified as occurring today on the study area roadways of I-394, I-494, I-35W, TH 7, TH 62, TH 100, and TH 169. The majority of these roadways are expected to continue to be congested in the future even with Mn/DOT's planned improvements of adding a lane to I-494, removing the signalized intersections on TH 169, and rebuilding TH100.

As congestion in the region increases the geographic area that can easily be accessed for jobs, education, shopping, and recreation decreases. Figure 2.5 through 2.7 attempt to graphically depict the decline in accessibility between 2000 and 2025 for three of the study area cities, Minneapolis, St. Louis Park, and Eden Prairie. The maps depict the area that can be accessed during the afternoon rush hour within 30 minutes and within 30 to 60 minutes. It is clear from these maps that travel times will greatly increase and accessibility will greatly decline in the southwestern metro area between 2000 and 2025.

According to both the Metropolitan Council and Mn/DOT, the funding for transportation, both roadways and transit, is insufficient. According to Mn/DOT Metro Division an additional $9 billion is required to maintain current mobility on the regional highway system. According to the Metropolitan Council, transit spending in this region is low compared to our peer cities. This low level of funding limits the amount of transit service available, which exacerbates congestion by not providing an attractive alternative to driving alone.

There are serious consequences to failing to provide a higher level of investment in the regional transportation system. These consequences include a significant increase in congestion and delay (measures a an increase in travel times, an increase in traffic on local and neighborhood streets, a higher number of accidents, and a lack of continuity in design of the transportation system. Many of these impacts will increase the costs of goods and services for the public and will reduce the overall quality of life in the metro area.

Figure 2.4 Congested Highways, 2000 and 2020

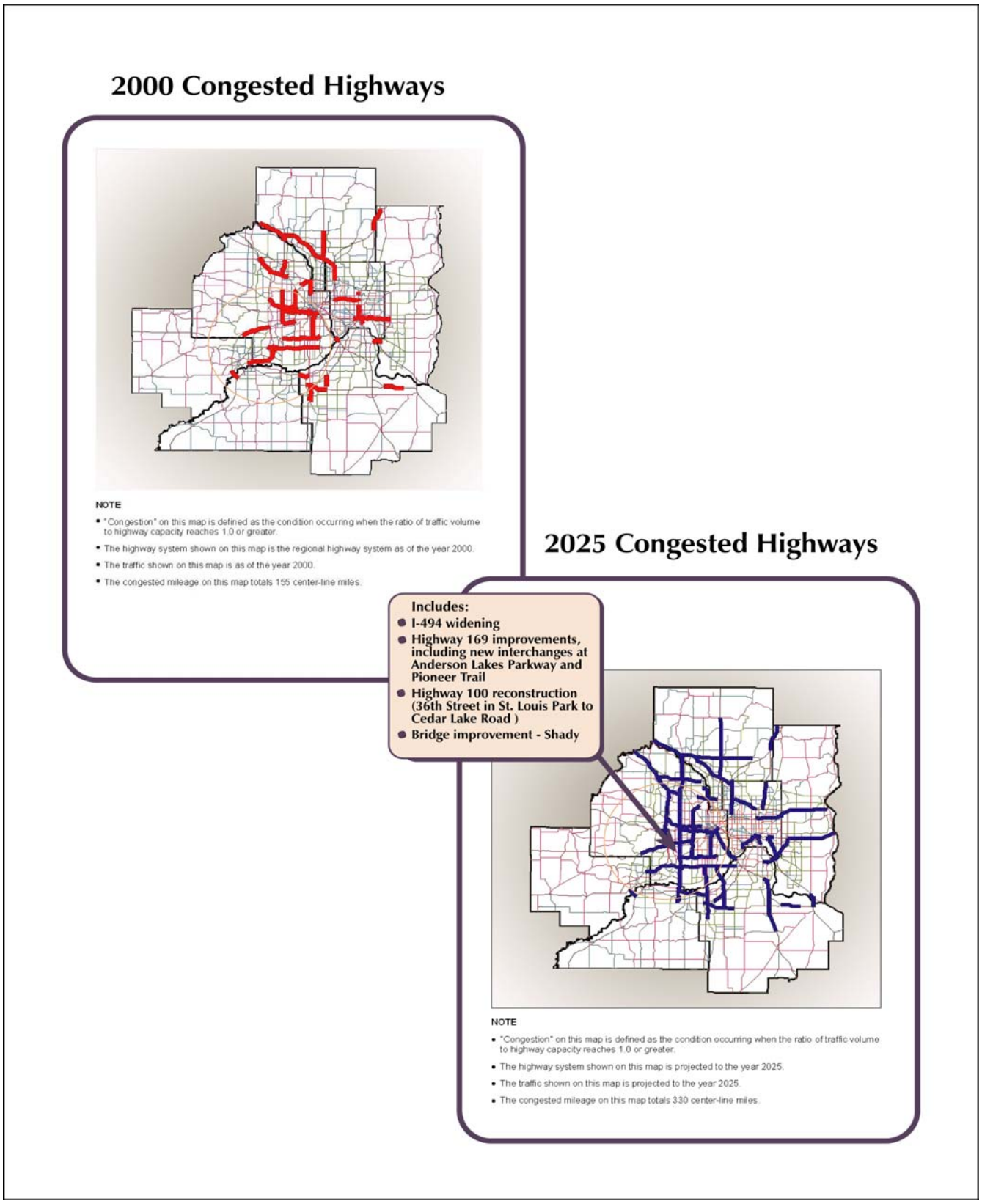


Figure 2.5 Peak Hour Travel Times (2000 vs. 2020) Minneapolis

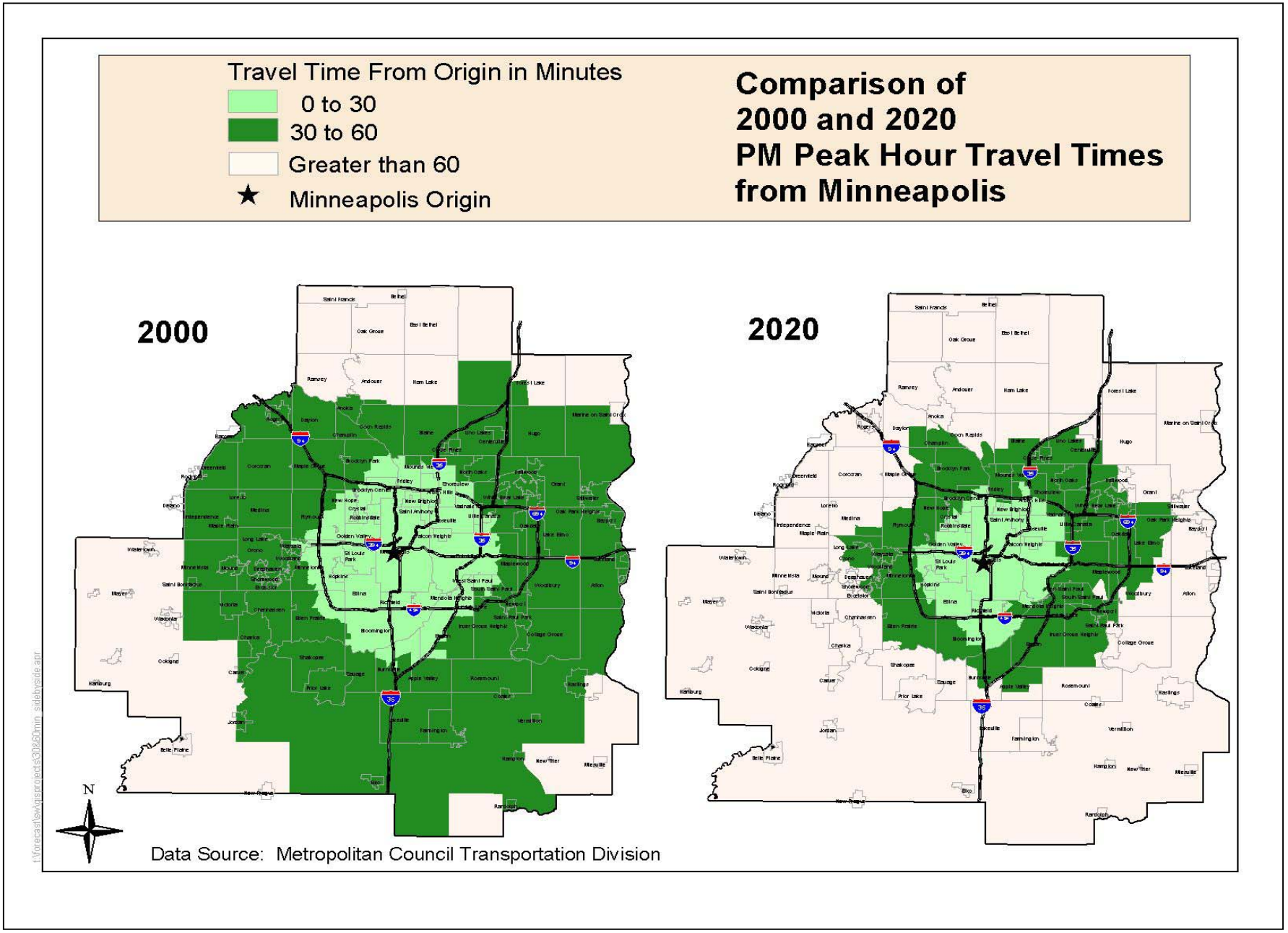


Figure 2.6 Peak Hour Travel Times (2000 vs. 2020) St. Louis Park

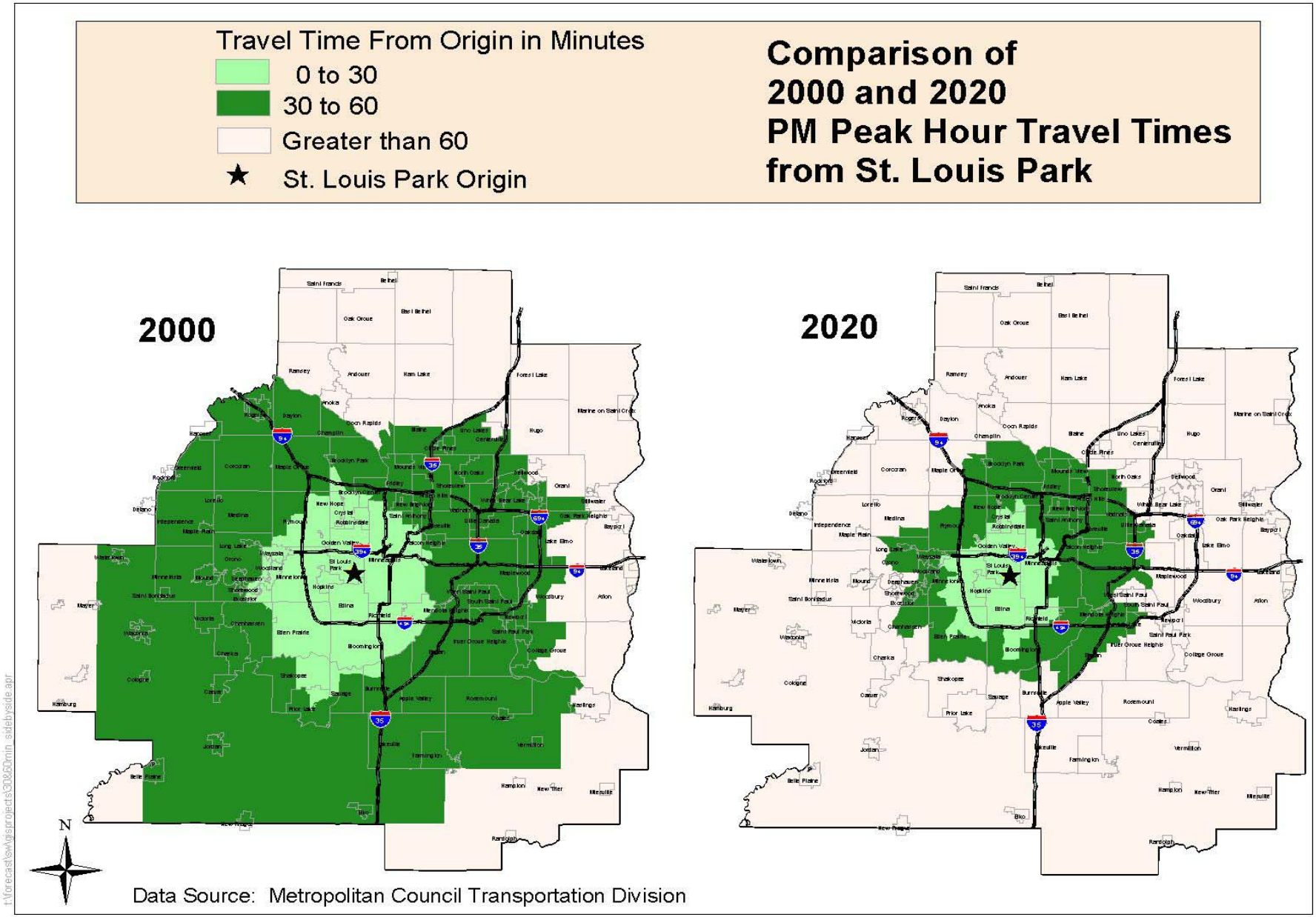
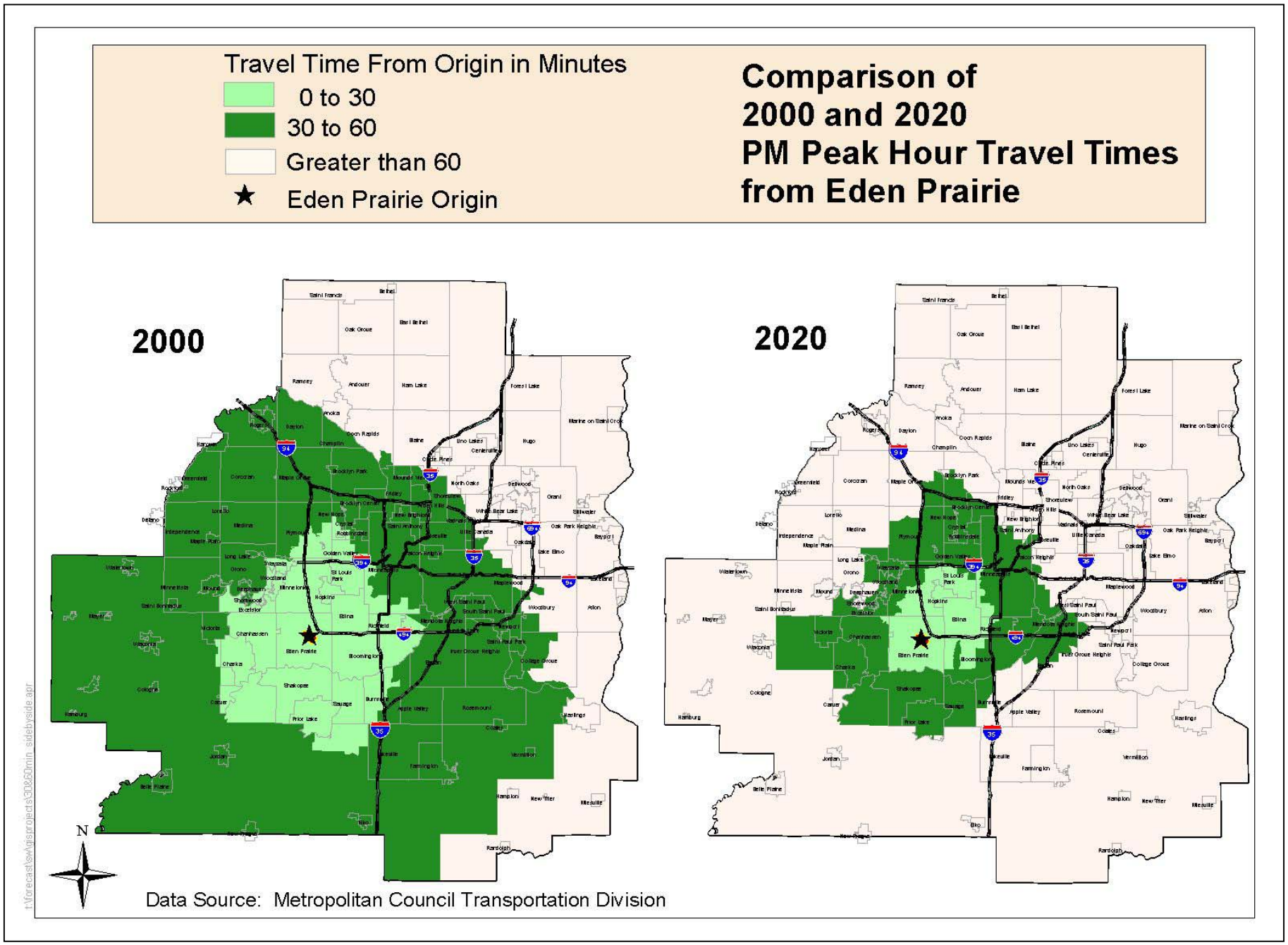


Figure 2.7 Peak Hour Travel Times (2000 vs. 2020) Eden Prairie



The Challenge

The key challenge for the Twin Cities Metropolitan Area will be to accommodate the projected growth while maintaining the region's economic competitiveness and enhancing the region's quality of life. The Metropolitan Council, the Minnesota Department of Transportation, and the metropolitan area counties and cities work cooperatively to develop long-range plans for managing growth and the transportation system in this region.

Regional Plans

Regional Blueprint

The Metropolitan Council's Regional Blueprint provides the policy guidelines, goals, and strategies for how the Metropolitan Council and its regional partners will guide growth in the Twin Cities Metropolitan Area. Though land use and economic development are the main themes of this plan, transportation and transit play a key role in the vitality of these themes.

Transportation Policy Plan (TPP)

The Metropolitan Council's Transportation Policy Plan (TPP), documents the future of transportation in the seven county metropolitan area of the Twin Cities. This plan documents the growing concern of present and future traffic congestion and provides an incentive for transit to provide better access to jobs, promote higher density development, and revitalize the core of the central cities. Increasing and improving the existing transit service to the metropolitan area is one of the trop priorities in this policy plan.

Transportation System Plan (TSP)

The Mn/DOT Metro Division's Transportation System Plan (TSP) is the long-range plan of the Metro Division for maintaining and improving the trunk highway system through 2025. The TSP is a comprehensive planning foundation upon which system and strategy decisions are made. The TSP is intended to bridge the gap between the policy direction contained in the Metropolitan Council's TPP and specific roadway projects. Mn/DOT anticipates that expansion and improvement projects on the metro area highway system to total more than $2.4 billion between 2001 and 2025. Mn/DOT has also documented that the metropolitan area's unmet transportation needs total $9 billion between 2001 and 2025.

Transit 2025

The Metropolitan Council's Transit 2025 Plan is the region's long-range plan for transit investments. The overall goal of this plan is to double transit ridership by the year 2025 through doubling the region's bus service and implementing a system of transitways (i.e., light rail transit, commuter rail, and exclusive busways).

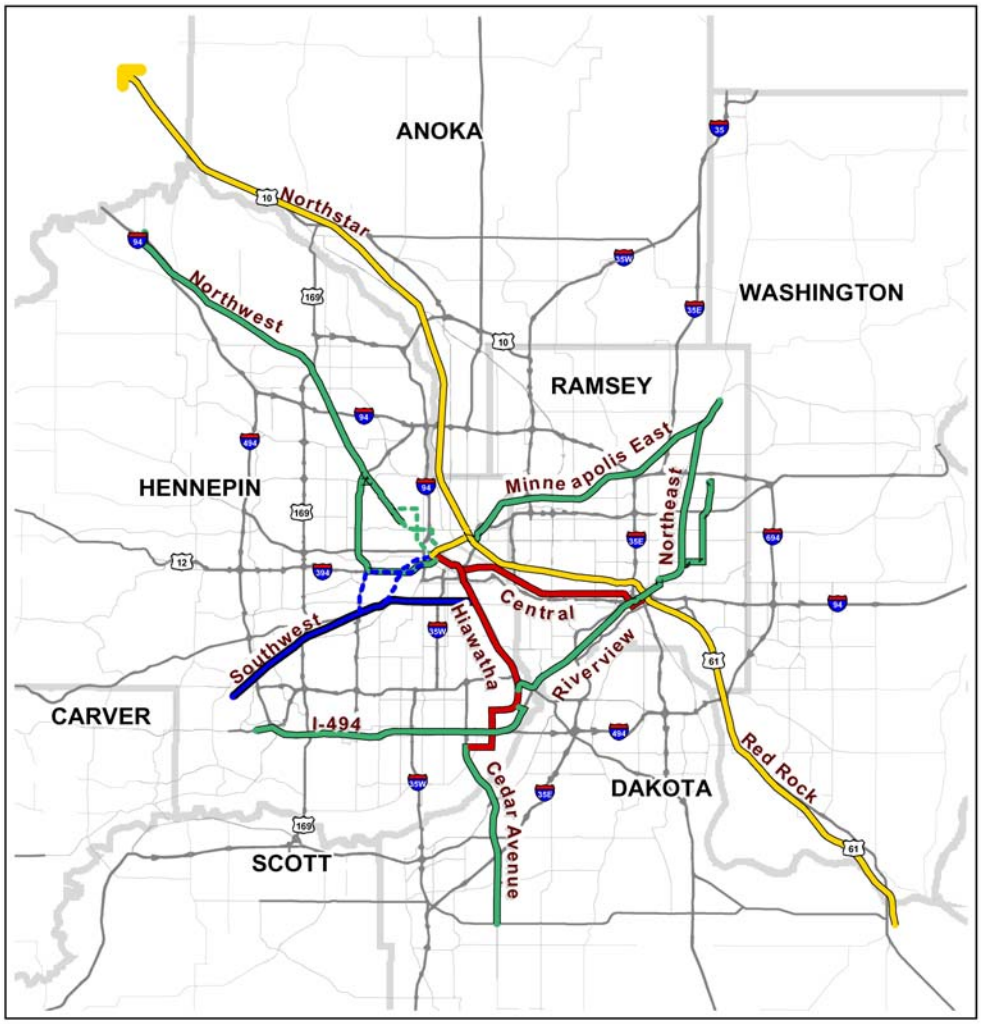
A system of transitways is a key component of this plan because transitways provide a travel-time advantage over single-occupant automobiles, improve transit service reliability, and boost the potential for transit-oriented development. In addition, the implementation of the transitway system is expected to save approximately $2 billion in local roads and utilities, save $2 billion through reducing time lost in congestion, reduce automobile trips by 245,000 annually in the region, reduce vehicle miles traveled by 550 million annually, save 27 million gallons of fuel, and reduce carbon monoxide emissions by 6, 600 tons annually. A Southwest transitway was identified in the Transit 2025 Plan for implementation post-2010 and with an unspecified technology.

Figure 2.8 Transit 2025 Map

Updates to the 2025 Transitways Map

As a result of state legislation and completion of transportation studies, on January 23, 2002, the Metropolitan Council updated its 2025 Transitways map as follows:

- Southwest/Midtown Greenway/Kenilworth Corridor : Shown as a transitway with "technology unspecified."
  Busway prohibited by state law west of TH 169 or in Kenilworth and Midtown corridors.
- Cedar Avenue : changed to busway
- Dan Patch Commuter Rail : removed from 2025 Transitways map
- Riverview Corridor Busway : extended along Phalen Corridor and Maryland Ave. to White Bear Ave. and then north to Maplewood Mall
- I-494 Corridor : added as a busway from the airport to the Eden Prairie Transit Center



Local Comprehensive Plans

The following are excerpts from the comprehensive plans from the study area cities and Hennepin County regarding the proposed Southwest Rail Transitway.

Minneapolis

"Light Rail Transit is considered a high priority investment for express transit corridors in both regional and city transit plans…Minneapolis will continue to aggressively pursue transit improvements in corridors which serve major transit origins and destinations, with the eventual goal of a region-wide rail system, including light rail (LRT) and commercial rail."[1]

St. Louis Park

"A new location was recently identified as part of the Southwest Regional Trail connecting the Hopkins trailhead to the future Midtown Greenway in Minneapolis. The regional trail has been named 'LRT'…this railroad corridor is designated as a future light rail transit route and may be developed as a dedicated busway in the interim."[2]

Hopkins

"The City will encourage the HCRRA to construct the Minneapolis Southwest Corridor light rail transit line as soon as feasible, including the planned station in Hopkins…The City supports the proposed locations for the light rail transit station in Hopkins and will work with HCRRA on station planning and design…The City will publicize the expected location of the LRT station in the community in order to promote the use of this new travel mode and also to make the general public aware of the easy access Hopkins enjoys to the central city {and from the central city outward}."[3]

Minnetonka

"The City will work with existing and new employers located in the city to ensure that employers support transit use and carpooling by their employees."[4]

Eden Prairie

"Transit rail options for the City are anticipated, as Hennepin County acquired the old Chicago Northwestern Railroad right-of-way through Eden Prairie in 1990 for a future Light Rail Transit (LRT) System…Possible completion of the system would occur around 2015. Until LRT is developed, the right-of-way will be available for public use as a recreational trail. It is the stated goal of this Comprehensive Plan that the City will support regional transit initiatives such as Light Rail Transit and Commuter Rail."[5]

Hennepin County

"Hennepin County and its departments are committed to supporting a multitude of travel modes…The Hennepin County Regional Rail Authority will continue to lend strong support for the development and implementation of LRT and provide for interim bus, pedestrian and bicycle uses along their future LRT corridors."[6]

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[1] The Minneapolis Plan, adopted 3/24/00, pg. 1.8.6.64.

[2] City of St. Louis Park Comprehensive Plan 2000-2020, adopted 5/17/99, pg. I-37.

[3] City of Hopkins Comprehensive Plan, completed 12/21/99, pg. 35.

[4] City of Minnetonka Comprehensive Plan, Draft for Metropolitan Council Review, 10/26/98, pg. 5-10.

[5] City of Eden Prairie Comprehensive Plan Update, adopted 3/19/02 pg. 5-12.

[6] Hennepin County Transportation Systems Plan, adopted by the Hennepin County Board of Commissioners, 7/19/00, pg. 4-24.

Southwest Rail Transitway Goals

The purpose of this study is to determine if a Southwest rail transitway should be part of an overall transportation strategy for the Southwest Metro Area that also includes investments in roads and buses. For overall study guidance, the following goals, which respond to the transportation needs of the Southwest Study Area, were developed:

Improve Mobility

Roadway improvements in the study area have not kept pace with travel demand. The result has been increased congestion, delay, pollution, and business costs. Between 1990 and 2000, major highways in the study area experienced a 23 percent increase in traffic volume. By 2020, volumes on study area roadways are expected to increase an additional 40 percent. This is expected to occur even with the roadway improvement planned for the southwestern metro area, namely the widening of I-494, new interchanges along Highway 169, the reconstruction of Highway 100, and the bridge improvements along Shady Oak Road over the HCRRA Corridor.

A Southwest Rail Transitway needs to improve mobility within the Southwestern Metro Area through providing an alternative to the single-occupant vehicle and through providing additional capacity to the transportation system.

Efficiently and Effectively Move People

Transportation investments are intended to result in the efficient and effective movement of people and goods throughout the region. Increased congestion is severely impacting the roadway system's ability to move people throughout the region.

A Southwest Rail Transitway needs to be efficient and effective in moving people throughout the region.

Provide a Reliable/Competitive Travel Choice

Traffic congestion, vehicular crashes and weather dramatically affect travel time reliability in this region. The time lost due to congestion and delay is estimated to exceed $1.2 billion annually.

A Southwest Rail Transitway needs to provide commuters with predictable travel times that are competitive to driving alone.

Serve Population and Employment Concentrations

The Metropolitan Council projects that by 2030, the study area cities will account for 25percent of all regional employment and 17percent of all regional households.

A Southwest Rail Transitway needs to serve the population and employment concentrations within the study area. This includes both providing transit service for those destined to downtown Minneapolis as well as those destined to suburban job centers in Eden Prairie, Minnetonka, Hopkins and St. Louis Park.

The Capital and Operating Costs Should be Reasonable

Transportation investments must be reasonable in terms of both their one time capital costs as well as their ongoing operating costs.

A Southwest Rail Transitway needs to be reasonable in terms of the initial capital costs required for construction as well as the ongoing costs to operate the system.

Protect the Environment and Enhance the Quality of Life in the Region

Air quality and protection of the natural environment are key to maintaining the high quality of life enjoyed in this region. The current and projected congestion levels will have a negative effect on the air quality, mobility, and the quality of life in this region.

A Southwest Rail Transitway needs to enhance air quality, the natural environment, and the quality of life in the study area as well as the region.