Chapter 5: Regional Mobility

In an uncertain future, the region will need a flexible, resilient transportation system that offers transportation choices and includes a more efficient, and optimized highway network and an improved transit system.

During the last several decades of the 20th century, the region added hundreds of miles of highway to accommodate a growing population and economy. Most of the regional highway system was built during the 1960s, '70s and '80s, following the1956 passage of the federal Interstate Highway Act, which along with state sources, provided funding for road construction.

The addition of new roadways to the system satisfied increased demand for a time, but travel demand has outpaced the ability to expand the system. Today, congestion persists, despite the fact that the Twin Cities region has built more miles of highway per capita than most regions of similar size according to the Texas Transportation Institute's Urban Mobility Study. The highway system is also aging and a large portion of available funds will be needed to repair and replace these facilities in the future.

A number of factors have coalesced to guide the vision of the regional transportation system:

- Increasing congestion that makes vehicle travel more costly in dollars and time
- Aging roadway infrastructure
- Increasing costs of construction due to global demand, high commodity costs and a weak dollar
- Increasing cost of gasoline
- New policy pressures to address climate change.

Figure 5-1: Congested roads hurt the competitiveness of the region

The transportation system will experience new resource, policy, and local and global economic conditions that may differ from those of the past.

In previous long-range plans for the highway system, the emphasis was to meet forecasted demand based on past trends. However, the current situation suggests that the transportation system will experience new resource, policy, and local and global economic conditions that may differ from those of the past.

The region has a highly developed highway system that must be maintained and optimized to perform in this uncertain future. This policy plan recognizes that system-wide congestion will not be eliminated or significantly reduced within this context. As a result, it emphasizes better management and more efficient use of the existing transportation system capacity and right-of-way, along with strategic capacity expansion, and it envisions a region better served by alternatives to driving alone.

The transit system serves the urban core and other centers with bus and light rail. Recently, improved service and high gasoline prices have brought ridership on the transit system to the highest levels since the 1920s. The Twin Cities area also has a relatively high amount of bicycle commuting that has experienced rapid growth in the last several years. New transit and non-motorized travel investments are important to help accommodate the increased travel this region will see over the next few decades.

Although congestion on regional highways signals that the Twin Cities region has experienced healthy growth, it is frustrating for travelers and costly in terms of time and money.

Moreover, traffic and resulting congestion are growing faster than the ability of the region to increase road capacity. Travel demand forecasts indicate that this trend is expected to continue into the future, given assumed funding levels for road and transit improvements, making continued congestion a certainty.

Figure 5-2: Bike trails, such as this facility, can provide for mobility options and help reduce the growth of congestion.

The Principal Arterial Study conducted by the Council and Mn/DOT in 2007 indicated that it would cost $40 billion (in 2005 dollars) or more to successfully solve congestion in 2030 by simply expanding highway capacity to meet travel demand. This amount is 20 times the cost that the *2004 Transportation Policy Plan* assumed would be available for highway expansion.

No region in the country has successfully "solved" congestion, but its impact can be mitigated by increasing the people-moving capacity of the highway system while reducing future demand on the system.

No region in the country has successfully "solved" congestion, but its impact can be mitigated by increasing the people-moving capacity of the highway system while reducing future demand on the system. Strategies to reduce demand on the highway system include giving priority to high-occupancy vehicles (HOVs) and transit vehicles to reduce the growth in the number of vehicles that need to use the highway system while still carrying an increasing number of travelers. Express bus service on bus-only shoulders and HOV lanes also help to mitigate congestion by expanding the number of people served in a corridor. Expanding highway capacity is most effectively accomplished by adding lanes to existing freeways or by adding transit-only and HOV lanes in dedicated rights-of-way along highway corridors, and by managing the highway system better with tools such as ramp meters at freeway on-ramps, toll lanes, and access management on minor arterials.

Connecting land use decisions to transportation investments with the purpose of reducing per capita vehicle miles traveled will also help reduce the growth in congestion. Land use with sufficient activity and density, including walkable streets and a local transportation network, can best support transit options. A well-connected local and collector roadway network will also support regional highways by keeping

Figure 5-3: Transit stations, like this one near the Global Market, can impact densities for transit

local travel off of highways and making local travel more walkable and amenable to bicycling. This supportive road network, in addition to investments in alternatives to the automobile, will support more travel-efficient land development that allows people to live and work within a reasonable commute time and to avoid congestion.

A better-managed transportation system will include a greater share of travel accommodated by modes other than the single-occupant automobile. Expanding the transit system and facilitating more non-motorized travel will give area travelers more mobility options. This *Transportation Policy Plan* includes an aggressive expansion of the transit system, including an expanded local and arterial bus network. It also provides for a system of transitways served by light rail, commuter rail, bus rapid transit and express buses in corridors with transit advantages. Providing this transit network, along with investments in bicycle and pedestrian infrastructure, will help enable the region to lessen its dependence on automobile travel.

Figure 5-4: The region's first commuter rail will open in 2009

Policy/Strategies

Policy 3: Investments in Regional Mobility

The Council recognizes that congestion will not be eliminated or significantly reduced in the Metropolitan Area. Therefore, to maximize regional mobility, congestion and demand must be managed to the extent possible and alternatives to congestion provided where feasible.

Figure 5-5: Providing transit investments helps enable the region to lessen its dependence on automobile travel.
Government Center LRT Station in Downtown Minneapolis

Strategy 3a. Congestion Management Process: The Council, working with Mn/DOT in 2009, will develop a Congestion Management Process (CMP) that meets federal requirements. The CMP will incorporate and coordinate the various activities of Mn/DOT, transit providers, counties, cities and Transportation Management Organizations (TMOs) in increasing the efficiency of the multimodal transportation system, reducing vehicle use and providing low-cost safety and mobility projects where feasible.

The CMP will be guided by the policy direction provided in two plans to be prepared in 2009, the Congestion and Safety Management Plan (CSMP) and the Travel Demand Management Strategic Plan (TDMSP). These plans will define a set of measurable strategies that the region will use in implementing a CMP, recommending changes in highway operations that can increase the people-moving capacity, safety and efficiency of the existing highway system and provide travelers alternatives to congestion. The CSMP will set up a process and criteria to define and prioritize low-cost/high-benefit highway construction projects that provide localized mobility, safety, and efficiency benefits. The TDMSP will set up a process and criteria to define strategies to reduce the demand for vehicle trips. These plans will include a method to monitor and evaluate the performance of these strategies on an ongoing basis.

The goal for the regional highway system is to maximize the use of existing highway capacity, shoulders and right-of-way.

Prioritizing express bus service can not only provide alternatives to congestion but can expand the use of the existing highway right-of-way and pavement.

Strategy 3b. Person Throughput as Measure: The region's highway system will be operated, managed and improved to maximize usage of the existing facility capacity, pavement and right-of-way as measured by person throughput.

The goal for the regional highway system is to maximize the use of existing highway capacity, shoulders and right-of-way. Performance of the system in this regard will be measured by person throughput instead of other measures such as Level of Service (LOS). Person throughput is a relatively simple concept. This measurement tracks the number of people that are accommodated by a highway or highway lane instead of measuring the number of vehicles. Person throughput is preferable because it takes into account the use of transit and HOVs on the system and the role they play in expanding capacity (Figure 5-6). The role of "A" minor arterials to supplement and to relieve principal arterials will also be included in determining the performance of transportation service in a corridor. There has not been much data collected on this measure as a performance measure and more research will be required as it is put into use.

Strategy 3c. Alternatives to Congestion: The region has and will continue to implement bus-only shoulders, high-occupancy vehicle (HOV) and high-occupancy toll (HOT) lanes and priced dynamic shoulders to provide alternatives to traveling in congested highway conditions.

The use of bus-only shoulders in combination with express bus service has enabled the region to expand the person throughput capacity of much of the highway system (See Figure 5-6). In certain corridors, prioritizing express bus service can not only provide alternatives to congestion but can expand the use of the existing highway right-of-way and pavement. The region will continue to identify highway corridors where transit can increase person throughput capacity and mitigate congestion.

Strategy 3d. Travel Demand Management Initiatives: The region will promote a wide range of Transportation Demand Management (TDM) initiatives that help to avoid and lessen congestion. The initiatives will be responsive to changing attitudes and the economy to help reduce automobile use especially during the most congested times of the day.

The Congestion Management Process will follow the development of a TDM Strategic Plan (TDMSP). This TDMSP will include guidance for all TDM activities in the region.

Travel Demand Management seeks to provide incentives for people to more effectively use the existing transportation resources and infrastructure and to promote mobility and reduce congestion by reducing vehicle trips. TDM will use the most effective strategies to facilitate the movement of people by transportation modes such as carpooling, vanpooling, transit, bicycling, and walking. TDM also supports flexible employment arrangements that do not require peak-period travel. Reducing single-occupant-vehicle travel and vehicle miles traveled, particularly in the morning and afternoon peak travel periods, should also produce health and environmental benefits (lower levels of air pollution and reduced energy use). Linking TDM with land use

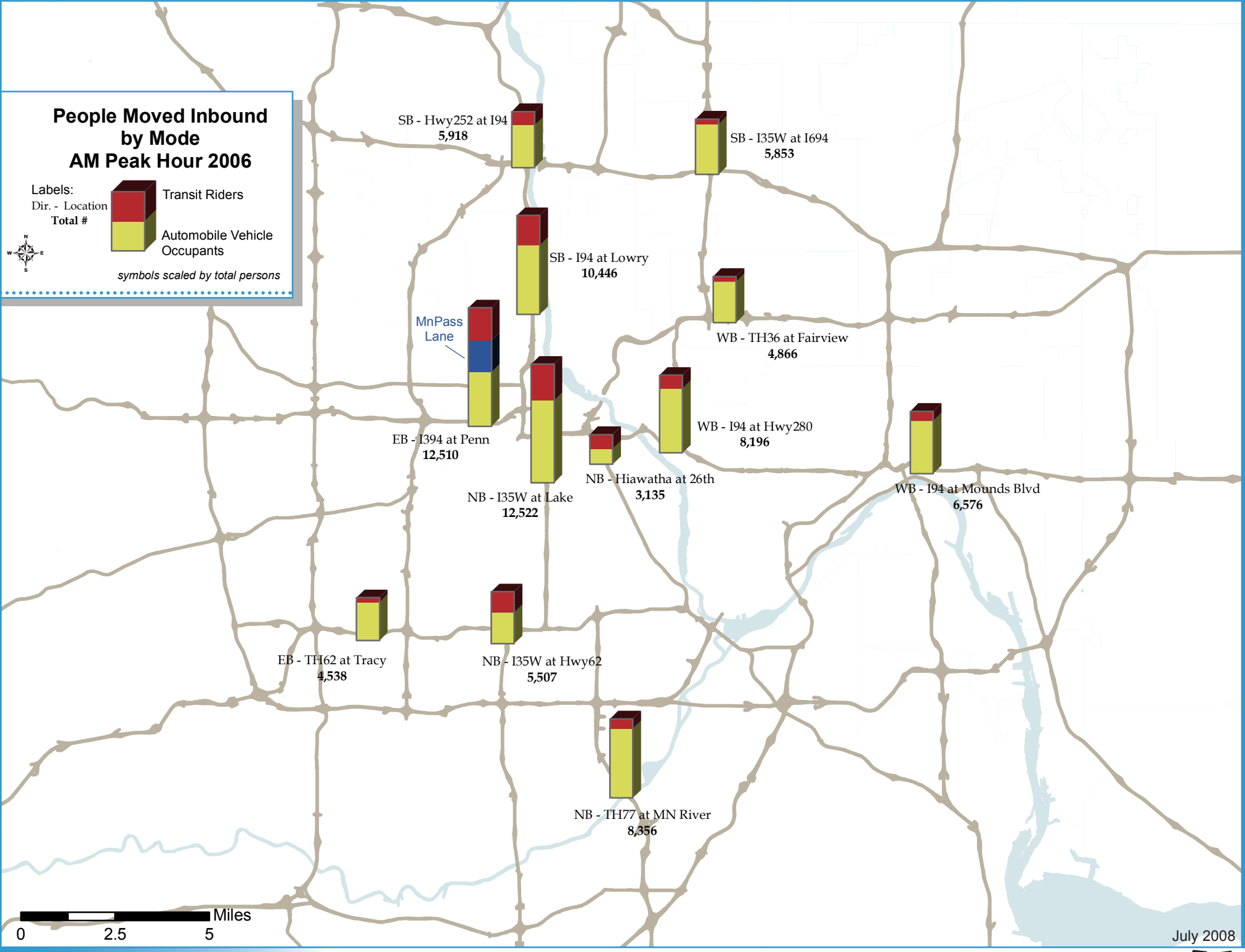

FIGURE 5-6: FREEWAY TRANSIT PASSENGERS AND HIGHWAY THROUGHPUT

TDM strategies are aimed at changing individual choices, but the cumulative impacts of an integrated, comprehensive set of strategies can have significant community and regional benefits

patterns and development decisions also provides increased system efficiencies and economic benefits to businesses, individuals, and the region. TDM strategies are aimed at changing individual choices, but the cumulative impacts of an integrated, comprehensive set of strategies can have significant community and regional benefits.

The region's objectives for Travel Demand Management are:

- Increase the use of alternative transportation modes such as walking, bicycling, public transit, carpooling, vanpooling and flexible work arrangements, such as telecommuting, to reduce vehicle miles traveled.
- Mitigate congestion during the peak periods, special events and construction.
- Reduce air pollution and energy consumption related to transportation.
- Make more efficient use of transportation infrastructure and services.
- Reduce the necessity of car ownership when other travel choices exist.
- Promote transportation-efficient land development.
- Provide "reverse commuting" assistance for urban commuters to employment locations not served by transit.

The Council will work to implement these TDM objectives where appropriate through a combination of efforts with its TDM partners. These partners are agencies such as Mn/DOT, local units of government and transportation management organizations (TMOs). TMOs are public or private partnerships in highly-congested locations comprising employers, building owners, businesses and local government interests that are established to mitigate peak traffic congestion and promote travel by modes other than single occupant vehicles.

The Council will provide TDM technical assistance and financial incentives to transportation management organizations and to employers and building owners/managers, especially those located in areas with the highest levels of congestion. The Council and its TDM partners will also provide assistance to local units of government to implement TDM strategies.

Strategy 3e. Parking Pricing and Availability: The Council will continue to work with its TDM partners to help define the relationship of parking supply, demand, location and cost relative to the use of the single-occupant automobile versus transit and other modes.

Where appropriate, the Council will work with local governments to explore how modifying parking policies could encourage park-and-ride usage, vanpooling and carpooling. The Council will also support its partners in local government to encourage parking spaces to be unbundled from building leases in order to make the cost of providing space for parking more transparent in congested areas.

Future funding will be geared toward strategies that most effectively result in more efficient use of the transportation system

Strategy 3f. Promoting Alternatives: The Council and its regional partners will promote and market transportation choices that allow travelers to avoid and help lessen congestion including riding transit, priced lanes, bicycling, walking, vanpooling or carpooling.

The Metropolitan Council will promote the use of alternative transportation modes to improve air quality, reduce contributors to congestion, as well as reduce personal expenditures on transportation. The Council, through the Transportation Advisory Board will distribute federal transportation funding to Transportation Management Organizations and Metro Transit Rideshare to promote preferred transportation modes. The Metropolitan Council manages the regional VanGo program, which matches commuters with vanpools.

Strategy 3g. Alleviate Highway Construction Impacts: The Council, regional transit providers and TMOs will work with Mn/DOT and local units of government to determine where and when transit service improvements and TDM actions may be appropriate to alleviate traffic delays and impacts related to highway construction.

Strategy 3h. Monitor Congestion Mitigation: Mn/DOT working with the Council, and other partners, where appropriate, will monitor and evaluate the spectrum of congestion mitigation and avoidance actions put in place in the region and modify future investments accordingly.

The Congestion Management Plan will include a methodology for monitoring and evaluating the specific strategies and projects including the TDM Strategy. Future funding will be geared toward strategies that most effectively result in more efficient use of the transportation system and/or create a shift from single-occupant vehicles to alternative transportation modes.