



TRANSPORTATION POLICY PLAN

Chapter 1: The Existing Regional Transportation System

2040





TRANSPORTATION POLICY PLAN

Chapter 1: The Region's Existing Transportation System

●	The Highway System	1.3
	MnPASS System	1.8
	Bridges Across the Major Rivers	1.8
	How the Highway System has changed since the last plan	1.9
●	The Regional Transit System	1.11
	Types of Services	1.11
	Transit Service Areas	1.13
	Transit Capital and Infrastructure	1.14
●	Travel Demand Management	1.18
●	The Regional Bicycle and Pedestrian System	1.19
	System Description	1.19
	Bicycle and Pedestrian Improvements since the Last Plan	1.22
●	The Freight System	1.23
	Roads	1.23
	Waterways	1.27
	Railroads	1.27
	Air	1.29
●	The Aviation System	1.30
	Ground Access to the Aviation System	1.30
●	Passenger Travel beyond the Region	1.32

The Region's Existing Transportation System



While this section is organized by mode, regional transportation functions as a system. Highlighted are major aspects, statistics, and functions of each mode with changes that have occurred since the last plan was released.

The Highway System

The region's roadway system is well developed and classified into categories based on function, with some roads designed primarily for mobility, or carrying longer-distance trips at higher speeds, while some roads function mainly to provide access at low speeds to adjacent property. Principal arterials and A-minor arterials help people and freight move the longest distances in the region (see Figure 1-1 and Figure 1-2). This plan deals primarily with the principal arterials, also known as the metropolitan highway system, which are part of the National Highway System, and are owned and operated by the Minnesota Department of Transportation (MnDOT), the counties, and the city of Saint Paul. Principal arterials are generally limited-access highways and freeways with the highest posted speed limits, such as Interstates 35 and 94 and U.S. Highway 10, although some in the rural parts of the region, like Trunk Highways 7 or 316, are two lane roads with no access control.

A-minor arterials, which are critical to support principal arterials and provide access to jobs, education, and industry are also addressed by policies in this plan. Examples of A-minor arterials include state Trunk Highway 47 (MN 47)/University Avenue, MN 51/Snelling Avenue, MN 5, and Dakota County 60. The majority of A-minor arterials are



owned and operated by the counties, although Minnesota Department of Transportation (MnDOT), and about 12 cities also have jurisdiction over these roads.

The region has 17,500 miles of roads (Table 1-1). Principal and A-minor arterials, which constitute the region's federal aid highway system, make up only 2,600 of those miles (15%) but carry most of the region's motor vehicle traffic (75% of average daily vehicle miles traveled), and 53% of all bus miles traveled. A-minor arterials are also very important for trucks hauling freight, especially to provide access between the principal arterials and the freight terminals.





The remaining minor arterials, collectors, and local streets total 14,900 miles. They make up almost 85% of road mileage in the region and are the responsibility of local governments. The roadway classification system is discussed in more detail in [Appendix D](#). The greater Twin Cities region has the eighth largest number of centerline miles of road per person in the United States. This comparatively high amount of roadway miles is partly because our region has some of the least dense patterns of urban development, requiring more miles of roadway, especially local streets, to provide access to the land uses.

Figure 1-1: Principal Arterial System

Principal Arterials

-  Principal Arterial - Existing
-  Principal Arterial - Under Construction

Reference Items

-  Lakes and Rivers
-  City Boundary
-  County Boundary
-  MUSA 2040 MPO Area

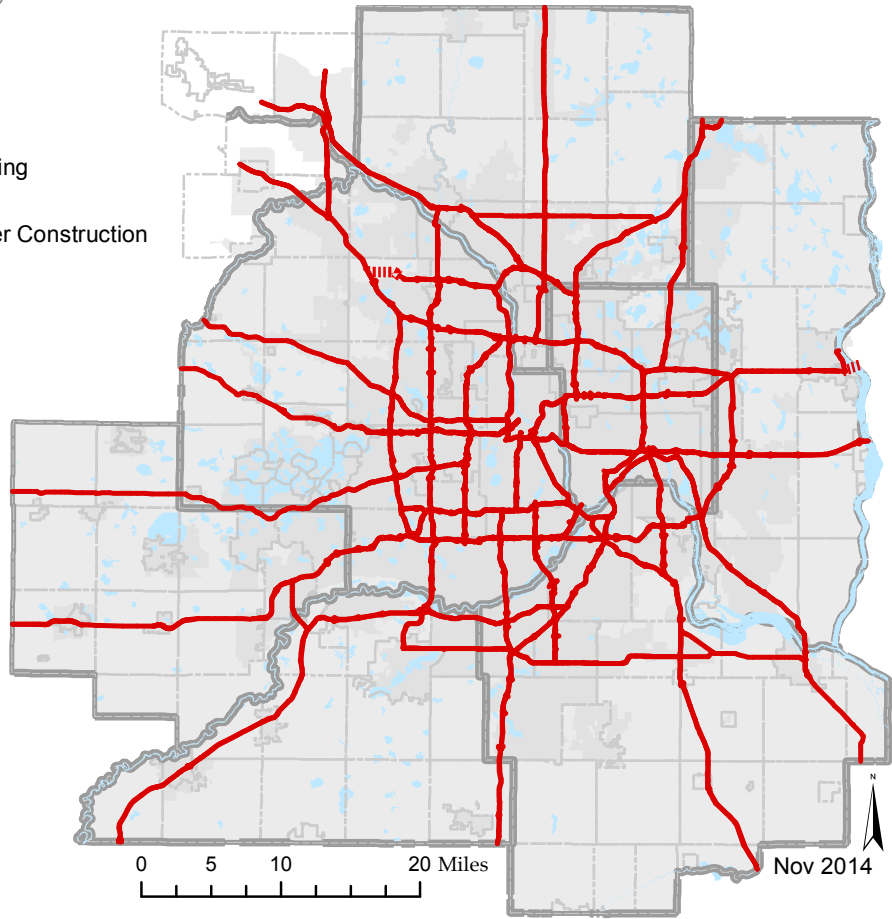
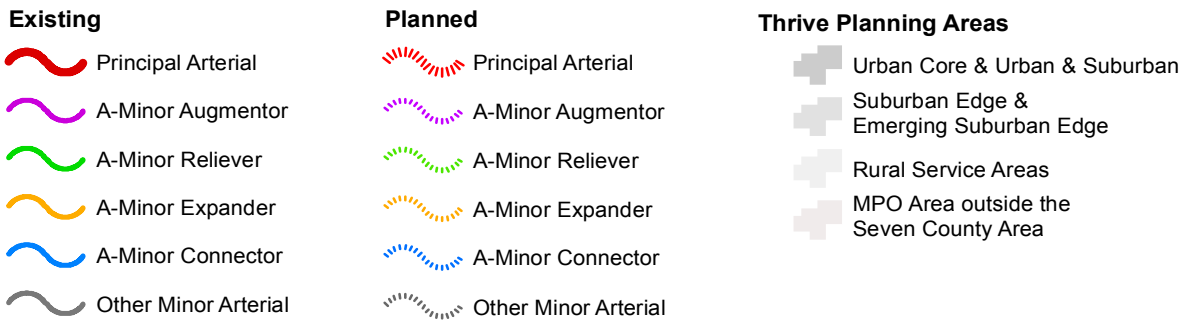
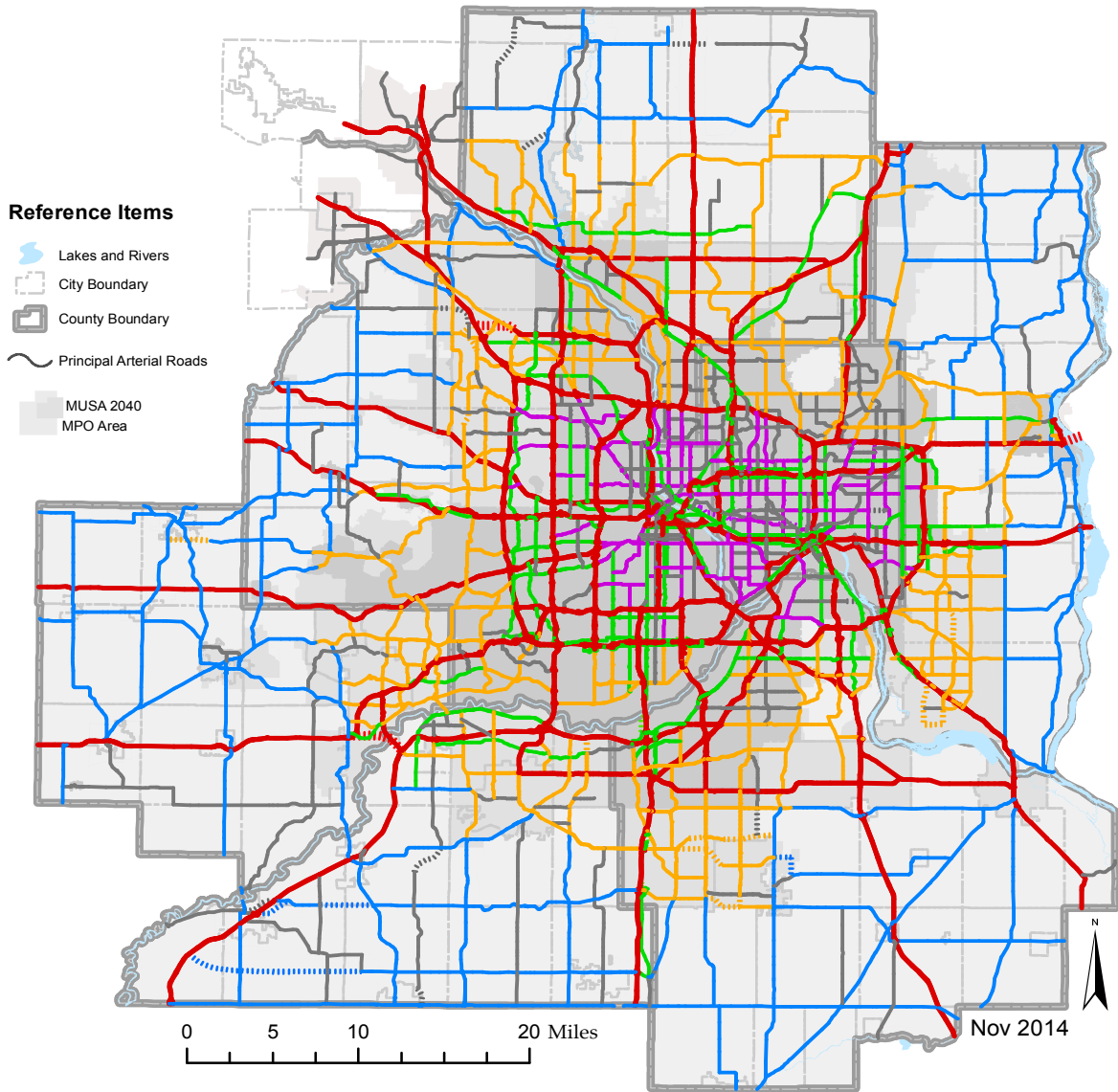


Table 1-1: Regional Highways and Roads

	Total miles	% of total road miles	% of vehicle miles traveled (all)	% of vehicle miles traveled (buses)
Principal Arterial Highways	700	4%	50%	20%
A-Minor Arterial Highways	1,900	11%	25%	33%
Other highways and roads	14,900	85%	25%	47%
Total roads	17,500	100%	100%	100%

Figure 1-2: Principal and A-Minor Arterial System

Functional Class Roads



A Well-managed system

To help the region's highway system effectively carry this heavy travel load, the federal government, state, and region have invested in freeway management approaches and technology, transit advantages on highways, and the Regional Traffic Management Center. The region's freeway system is recognized as one of the nation's most efficiently managed. See the "[Highway Investment Direction and Plan](#)" Chapter 5, the "[Transit Investment Direction and Plan](#)" Chapter 6, and the "[Congestion Management Process](#)" in Chapter 12 for more detail and discussion of freeway management, transit advantages, and highway congestion management.

About 90% of the urban area's freeways, which are limited-access highways like Interstates 35 and 94, are monitored and managed electronically from MnDOT's state-of-the-art Regional Traffic Management Center (RTMC). The RTMC uses traffic management techniques and technology such as ramp meters and changeable message signs to:

- Reduce congestion and crashes
- Increase freeway capacity and speeds during rush hours
- Provide quick response to crashes and incidents
- Provide travelers accurate, real-time information via changeable message signs and local traffic radio and TV stations

Features of the freeway management system are summarized in Table 1-2.



Table 1-2: Freeway Management System Features

Count (#)	Feature*
680	Miles of fiber optic cable
585	Cameras
169	Dynamic message signs
294	Intelligent lane controls (there are also 19 older model lane controls in operation)
5,500	Loop detectors
450	Ramp meters
101	Ramp meter bypasses for transit and HOV use
300	Miles of bus-only shoulders
220	Miles of FIRST (Freeway Incident Response Safety Team) coverage
10	Miles of I-394 MnPASS lanes (17,800 transponders sold as of 12/2013)
18	Miles of I-35W MnPass lanes (12,200 transponders sold as of 12/2013)
3	511 Traveler Information Sources – Call number, website, and smartphone app

**Generally the investments featured here are made on Metropolitan Highway System freeways*

MnPASS System

The RTMC also manages the operation of the MnPASS system of priced managed lanes. The MnPASS system first opened in May 2005 on Interstate 394, where it replaced high-occupancy vehicle-only (HOV) lanes. The MnPASS system expanded to the I-35W corridor south of downtown Minneapolis in September 2009, replacing the region's remaining HOV lanes. Another MnPASS lane is under construction on Interstate 35E north of downtown Saint Paul. That project is scheduled for completion in 2015. MnPASS lanes provide a reliable,

congestion-free travel option during rush hour times for people who ride transit or in carpools, motorcyclists, and single-occupant vehicles and small delivery trucks willing to pay. Single-occupant vehicles and small trucks can buy their way into the managed lanes during rush hour times as long as the target travel conditions are maintained in the MnPASS lane. Any vehicle can use a MnPASS lane for free during non-rush hour times. MnDOT's RTMC maintains speeds in the 28 miles of MnPASS lanes by charging a fee for single-occupant vehicles and small trucks. The fee varies in real time according to the number of vehicles and their speeds in the MnPASS lane as measured using pavement-scanning cameras and loop detectors. The price rises between a minimum of \$0.25 to a maximum of \$8.00 as more vehicles use the lane. See the [MnPASS website](#) for more information.



Bridges Across the Major Rivers

Another important component of the roadway system are the bridges across the three major rivers in the region. Because the Mississippi, Minnesota and Saint Croix rivers are so large, with high bluffs and broad valleys in many places, bridges across them are expensive to build, but are vital to maintain connections between the region's counties and into Wisconsin. In the densely populated urban core the Mississippi river bridges are more closely spaced, and many of them are minor arterials. In the suburban and rural parts of the region bridges are more likely to be principal arterials and spaced 10 or more miles apart, but the Highway 25 bridge at Belle Plaine and the Highway 101 bridge at Shakopee are minor arterials. Since the first Major River Crossing study was conducted in 1978 by the Council and its Transportation Advisory Board, many of these bridges have been rebuilt, most recently utilizing the Chapter 152 bridge improvement program as discussed below.



How the Highway System has changed since the last plan

Below are lists of projects included in the *2030 Transportation Policy Plan*, adopted in November 2010, which have since started construction or opened to traffic. The Minnesota Law 2008 Chapter 152 bridge improvement, the federal American Recovery and Reinvestment Act and TIGER programs, and 2013 Corridors of Commerce programs advanced several of the projects. However, these intermittent programs are not dedicated sources of funding long term.

- Highway projects opened or construction started since 2010:
 - Trunk Highway 36 (MN 36), Saint Croix Bridge – new four-lane bridge and approaches
 - Interstate 494 (I-494)/US 61 interchange and US 61 local access – replace and widen second I-494 Mississippi River bridge, reconstruct interchanges, reconstruct US 61
 - US 169/I-494 Interchange – replace signalized intersections with new interchange
 - MN 610 between US 169 and Hennepin County 81, also Hennepin County 81 to I-94 – construct four-lane freeway
 - US 169 north between Hennepin County 81 and Hennepin County 109 – convert expressway to freeway
 - US 52 Lafayette Bridge over Mississippi River – Chapter 152, Tier I Bridge Replacement
 - US 61 Hastings Bridge over the Mississippi River – Chapter 152, Tier I bridge replacement
 - I-35E from I-94 to Little Canada Road (including Cayuga Bridge) – Chapter 152, Tier I bridge replacement and construct MnPASS lane
 - I-694 and MN 51 and US 10 interchange reconstruction and bridge replacement - Chapter 152, Tier I bridge replacement combined with adding one through-lane
 - MN 36 and Rice Street – reconstruct interchange
 - I-94 from MN 101 in Rogers to MN 241 in Saint Michael – add one lane in each direction
 - MN 100 from 36th St to I-394 – replace bridges (Chapter 152 bridges), reconstruct pavement
 - MN 101 river crossing – raise road out of floodplain and replace bridge, improve connection to Carver County 61



- Interchanges opened or construction started since 2010
 - MN 101/Hennepin County 144 (Rogers)
 - MN 7/Louisiana Avenue (Saint Louis Park)
 - MN 36/English Street (Maplewood)
 - US 169/Scott County 69 (Shakopee)
 - MN 13/MN 101 (Shakopee)
 - MN 13/Dakota County 5 (Burnsville)
 - US 212/Shady Oak Road (Eden Prairie)
 - I-494/34th Avenue (Bloomington)
 - I-394/Ridgedale Drive (Minnetonka)
 - I-35W/4th Street northbound access ramp
- Spot mobility improvements identified through the Congestion Management and Safety Plan (CMSP) process opened or advancing since 2010
 - I-35W from 106th to MN 13 – add southbound auxiliary lane (completed with Urban Partnership Agreement)
 - I-494 at MN 55 – lengthen northbound exit ramp turn lanes and triple left turn lanes; add third lane eastbound to Fernbrook or Plymouth Blvd (to be done with I-494 general purpose lane project in Plymouth)
 - I-494 from I-35W to France Avenue – add westbound auxiliary lane between northbound I-35W loop ramp and exit to France Avenue, option to extend lane through France Avenue
 - I-94 at MN 101 – add half-mile westbound auxiliary lane and two-lane exit with ramp becoming three-lane mainline northbound over South Diamond Lake through from Rogers at north ramp intersection; complete signal revisions & realignment (American Recovery and Reinvestment Act project)
 - I-94 from US 61 to White Bear Avenue – add eastbound auxiliary lane
 - I-94 at I-394 – restripe westbound I-94 exit to I-394 from tunnel
 - MN 13 from Yankee Doodle Road to Prior Lake – corridor tuning for 24 signals in four zones
 - I-394 – restripe eastbound exits to MN 100 and Xenia Avenue, Auxiliary Lane
 - I-494 at US 212 – interchange modification; extended westbound I-494 to westbound US 212 deceleration lane
 - MN 100 from MN 7 to I-394 – lane capacity and collector-distributor road
 - I-494 from I-35W to MN 100 – westbound auxiliary lane
 - I-494 from Lake Drive to I-694 – connect two auxiliary lanes
 - I-694 bridge over 35W – acceleration lane where it was a yield
 - I-35W from northbound I-694 to Ramsey County 96 – auxiliary lane
 - I-35 at Dakota County 50 – extend parallel acceleration lane
 - I-35W from I-694 to Ramsey County E2 – auxiliary lane

The Regional Transit System

The regional transit system consists of different types of services, programs, and related infrastructure that serve a variety of roles.

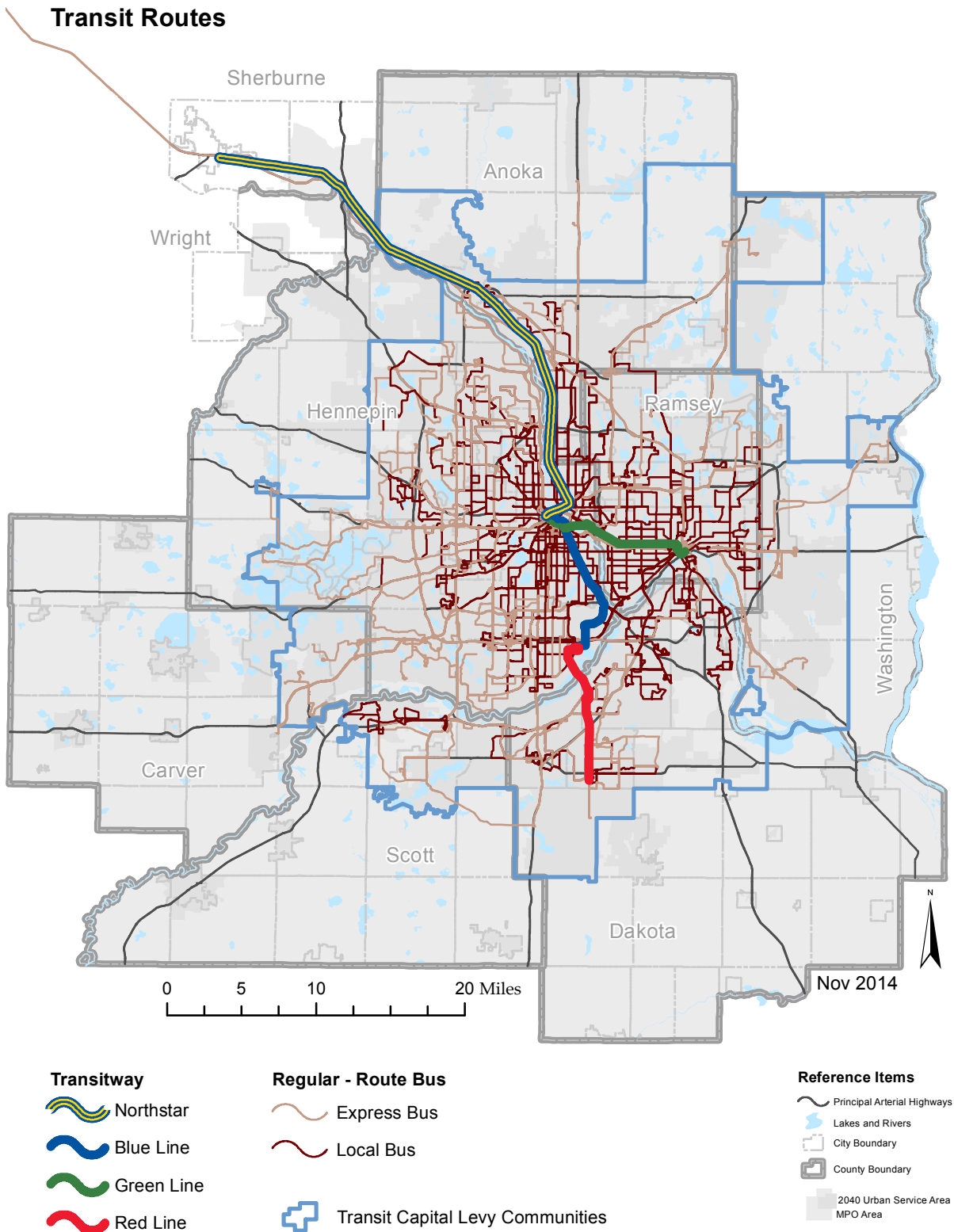
Types of Services

Six types of public transit service currently operate in the Twin Cities area:

- **Regular-route bus service** is provided on a fixed, published schedule along specific routes, with riders getting on and off at designated bus stops. Regular-route service is provided using a variety of bus types that operate local service and express service. The 11 bus routes in the high-frequency network carried about 30% of the region's average weekday riders in 2013.
- **Light rail transit (LRT)** service is provided by electrically powered trains operating at high frequencies in primarily an exclusive right-of-way. LRT uses specially designed transit stations and amenities.
- **Bus rapid transit (BRT)** service is provided at high frequencies with unique buses and specially designed facilities and amenities similar to LRT.
- **Commuter rail** lines operate on traditional railroad track powered by diesel trains with limited stops. Commuter rail typically serves morning and evening commuters.
- **Dial-a-ride** is a shared-ride service that that allows customers to schedule pickup times. There are two types of dial-a-ride service in the region: general public dial-a-ride and Metro Mobility service mandated by state and federal law.
- **Public vanpools** are made up of five to 15 people, including a volunteer driver, commuting to and from work destinations throughout the region on a regular basis in a subsidized van. Vanpools typically serve origins and destinations not served by regular-route bus service.

Currently about 212 regular bus routes operate in the region: 110 local and 102 express. Also in service are two light rail lines (Blue Line and Green Line), one BRT line (Red Line), and one commuter rail line (Northstar). These services are shown in Figure 1-3.

Figure 1-3: Existing Transit System by Service Type



Transit Service Providers

A number of providers operate transit service in the region. The size, geographic service area, and service types of these providers vary, but the Council works with each provider to ensure the transit system is integrated and cohesive in addressing the region's needs. Providers include:

- Metropolitan Council
 - Metro Transit is the largest transit provider in the region and operates most of the region's regular-route bus service, and all light rail and commuter rail lines.
 - Metropolitan Transportation Services manages a variety of contracted services including regular-route bus, Metro Mobility ADA service, Transit Link general public dial-a-ride, and the Metro Vanpool service.
- Suburban transit providers operate regular route and dial-a-ride service for 12 suburban communities. These providers are: Minnesota Valley Transit Authority, SouthWest Transit, and the cities of Maple Grove and Plymouth.
- University of Minnesota provides regular-route bus service around and between the Minneapolis and Saint Paul campuses.
- There are transit services in the Twin Cities urbanized portions of Wright and Sherburne counties. Tri-CAP currently provides weekday dial-a-ride and deviated rural-route service within the City of Elk River and Trailblazer provide similar services within Saint Michael and Albertville. More information on these services can be found in MnDOT's annual [Transit Report](#).
- Small transit services or individual routes are occasionally operated by other local communities as unique or demonstration services.

Transit Service Areas

Regular-route service is primarily provided by the Metropolitan Council and the suburban transit providers within the Transit Capital Levy Communities, the communities within the seven-county region where a property tax is levied to pay for transit capital needs. The Transit Capital Levy Communities are established in state law but have changed in response to the growing region, most recently with the additions of Lakeville, Forest Lake, Columbus, and Maple Plain.

The federal Americans with Disabilities Act (ADA) requires complementary service for certified riders who want to travel where regular-route transit service is available but are unable to use the regular-route system due to a disability. The state has established additional service areas beyond that through law.

Dial-a-ride service is provided for the general public in areas of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties where demand cannot be served on regular-route transit. Dial-a-ride service is also available in the contiguous urbanized portions of Sherburne and Wright counties.

Transit Capital and Infrastructure

The Union Depot in downtown Saint Paul serves as a multimodal hub that connects local bus service, light rail transit, intercity bus services, Amtrak passenger rail, and potential future transitways. In 2014, a second regional multimodal hub opened in downtown Minneapolis at Target Field Station, where two light rail lines serve and additional lines will come together in the future to meet the downtown Northstar Commuter rail station and other services.

The regional transit system requires an average of about 1,300 regular-route buses, 74 light rail vehicles, 18 commuter rail vehicles, six commuter rail locomotives, and 425 dial-a-ride buses to operate.

In 2013, the region had 110 park-and-rides with nearly 30,000 spaces served by bus and rail transit. Additional spaces and facilities are planned to open in 2014. The region also has 28 transit centers with facilities that improve waiting conditions and the transfer experience between buses and trains. With the opening on the METRO Green Line in 2014, the region has 47 transit stations serving existing LRT, BRT and commuter rail lines.

Facilities have been built to give transit advantages over general traffic including:

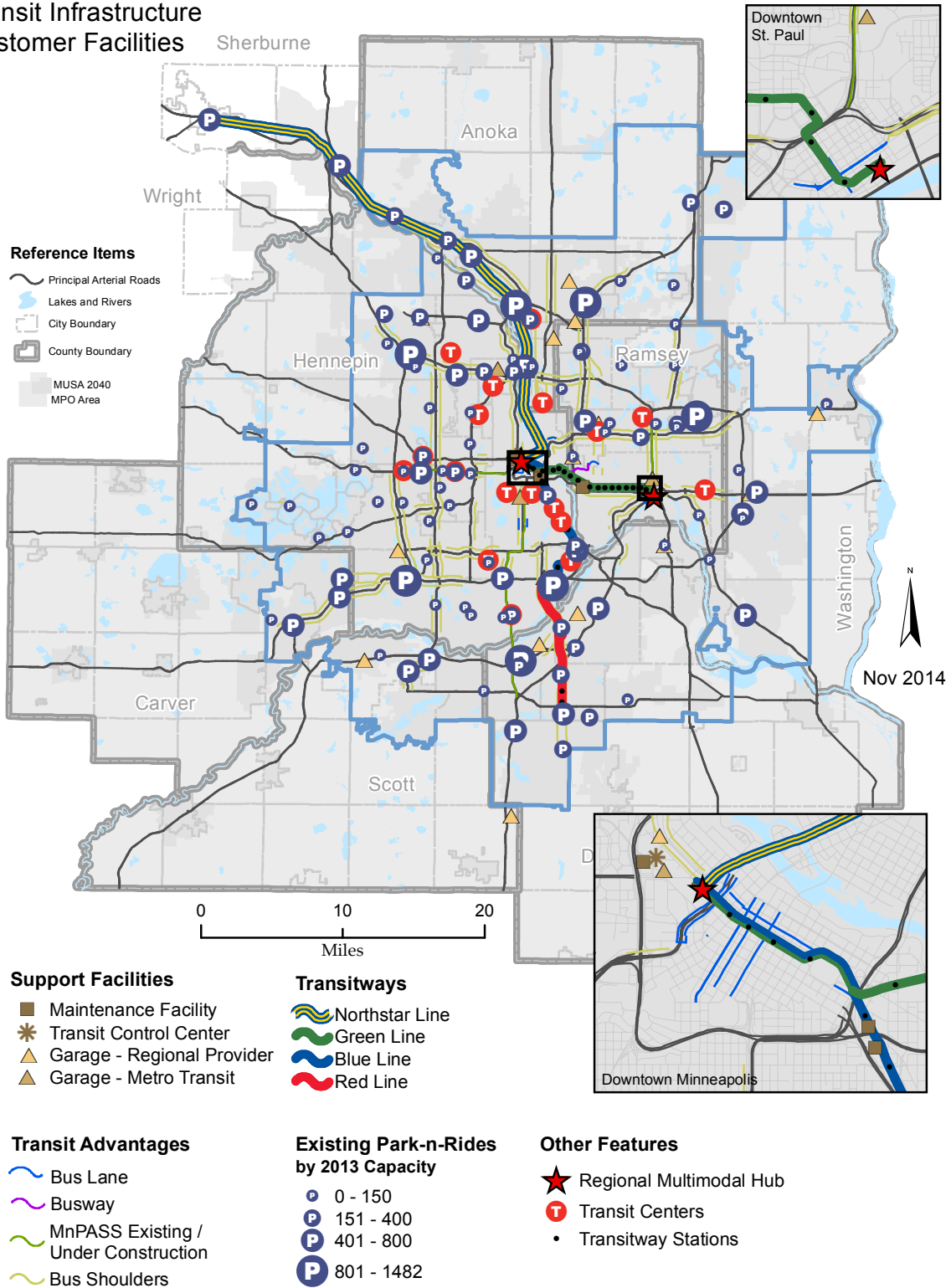
- About 300 miles of bus-only shoulders
- 33 miles of bus-only lanes on city streets
- 94 highway ramp meter bypasses
- 53 miles of managed lanes
- 7 miles of exclusive busways

The region is also supported by a substantial system of transit support facilities, both public and private, that includes bus garages, maintenance buildings, rail support facilities, and operations centers.



Figure 1-4: Existing Transit Infrastructure

Transit Infrastructure
Customer Facilities



Transit System Improvements since the Last Plan

Previous versions of the Transportation Policy Plan set a goal of doubling transit ridership by 2030 by expanding the bus system and building a network of transitways. The region has made significant progress in building capacity for future growth in the region. The bus system has expanded to new markets, particularly the reach of express service and park-and-rides, and continues to grow service in the strongest markets:

- Park-and-ride capacity has been nearly doubled since 2003, from 15,000 to 30,000, with many facilities newly built or expanded resulting in added capacity for future growth.
- The Urban Partnership Agreement built needed express bus capacity and amenities in downtown Minneapolis on Marquette and Second avenues.
- Urban and suburban local service has been redesigned to better serve new transitways as they open, particularly along light rail lines.
- A number of changes to the transit system have contributed to better performance including improved branding, smartcard fare collection technology (Go To system), low-floor and hybrid vehicles, and improved customer information.
- Transit Link was implemented in 2009 to better coordinate general public dial-a-ride service in the region.



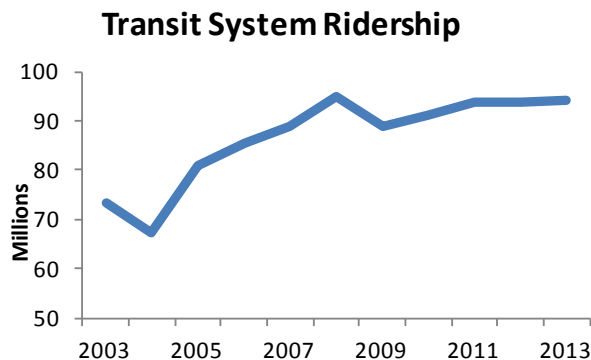
The transitway system is also expanding:

- The all-day frequent service on light rail and highway bus rapid transit lines underwent a rebranding process that was implemented with the opening of the second line (Red Line). The system was branded as “METRO” with color designations for each line.
- METRO Blue Line (Hiawatha) opened as the first light rail line in 2004 and improvements since then have added and expanded stations to meet demand.
- Northstar opened as the first commuter rail line in 2009.
- METRO Red Line (Cedar Ave) opened as the first bus rapid transit line in 2013.
- METRO Green Line (Central Corridor) opened as the second light rail line in 2014.

The result of these improvements has been increased use and demand for transit services. In the last decade, but prior to the opening of the METRO Green Line:

- Transit ridership has increased by about 25%.
- Productivity, measured in riders per hour, has increased by about 17%.
- Park-and-ride usage is up about 80%.

Figure 1-5: Transit System Ridership



Travel Demand Management

The Metropolitan Council partners with cities and Transportation Management Organizations (TMOs) to work on travel demand management (TDM) that reduces travel demand during peak periods and in congested areas. The region’s existing TMOs include:

- Commuter Connection primarily serves downtown Minneapolis by promoting travel options for commuters working downtown.
- Commuter Services serves the I-494 corridor by promoting travel options to the destinations along the corridor.
- Saint Paul Smart Trips serv the City of Saint Paul by promoting travel options to workers, residents, and policymakers in the city.
- Commute Solutions serves Anoka County by promoting travel options for residents in the county and commuters working in the county.

The Council works with transit providers and TMOs to promote alternatives to driving alone, support flexible work schedules and telecommuting, and works with local communities to link TDM strategies and supportive land use policies. TMOs are public or private partnerships in highly congested locations comprising employers, building owners, businesses, and local government interests. TDM programs are often dynamic and adapt to promote new programs or services as they become available. Some examples include marketing new transit services like the Northstar Line and encouraging biking by promoting the new Nice Ride shared bike program in Minneapolis and Saint Paul.



The Regional Bicycle and Pedestrian System

System Description

Walking and bicycling are essential modes within the regional transportation system and have numerous benefits at local, regional, and global levels. These modes allow people to make purposeful trips without adding to roadway congestion and vehicle-related air pollution, including carbon and greenhouse gas emissions that are affecting our climate. They make it possible to connect with bus and rail transit while making active lifestyle choices by allowing travelers to incorporate exercise into their daily routines. On a personal level, they reduce the cost of transportation; on national and global levels, they reduce our dependence on nonrenewable energy sources.

Walking and bicycling trips tend to be relatively short in the region, averaging about one-quarter to one-half mile for walking, and between one and three miles for bicycling; however, more than half of the region's trips by bicycle (approximately 55% according to the 2010 regional Travel Behavior Inventory) are greater than three miles in length. The Council and its transportation partners will plan for these longer bicycle trips in order to maximize the potential impact of choosing bicycling over driving alone for transportation.



With the exception of state trails in the metro area, the regional bicycle and pedestrian system is made up of regional trails (as designated in the Council's *2040 Regional Parks Policy Plan*) and local networks of off-road trails, on-street bikeways, and sidewalks for which local agencies have primary responsibility for planning, development, and maintenance. Due to typically short distances of walking trips in particular, development of pedestrian facilities is most effectively addressed at the local rather than regional level. It should also be noted that the Metropolitan Council does not operate or maintain bikeways and walkways but only facilitates in planning their development and funding. The Council's role is to:

- Plan for a regional system that strives to ensure continuity and connectivity between jurisdictions.
- Assist in coordinated planning to determine solutions for regional barriers to biking and walking.

The region's pedestrian infrastructure consists of:

- City sidewalks
- Street intersection treatments, including traffic signal technologies that assist disabled people
- Local off-road trail systems and connections
- Neighborhood alleyways
- Urban plazas

Additionally, downtown Minneapolis and Saint Paul have skyway networks that provide essential, all-weather connections between developed blocks in these high-density employment centers.

Many pedestrian facilities are planned and developed at the site design level and constructed by private developers. Because of this smaller scale, local jurisdictions are in the best position to oversee pedestrian infrastructure projects. They have decision-making authority over community land use, the construction and maintenance of local streets, and are most familiar with local conditions and needs.

The Council's interest in pedestrian infrastructure is primarily to ensure good pedestrian connections to transit stops and stations, including adequate waiting areas for customers. In addition, the Council's role is to encourage transit-oriented design in all transitway corridors or near bus transit centers (including transit stations and park-and-ride facilities). This includes the appropriate spacing and orientation of buildings and structures that encourage and allow for efficient pedestrian movement. Overall pedestrian safety and connectivity (particularly as they relate to moving across major physical barriers) are also vital components of regional multimodal transportation system planning.

Usable pathways are particularly important to people with disabilities, and the Americans with Disabilities Act (ADA) requires local governments to construct accessible rights-of-way to meet their needs. Since passage of the ADA, communities have had differing levels of success in working toward the goal of universal accessibility. The federal government has recently put greater emphasis on providing accessible routes, and federal law requires that all agencies with over 50 employees develop an ADA Transition Plan that details the steps to making the community accessible for all.

With regard to bicycling, the Twin Cities region is fortunate to have a well-developed system of on-street bicycle facilities in the core cities, as well as a widespread network of off-road trails through many parts of the region. Twin Cities residents have more successfully advocated for bicycle-friendly infrastructure than most North American regions of similar size. The state and region have made investments that mirror this strong level of advocacy.

The Council is exploring several opportunities to develop and implement an on-line regional bicycle system inventory and planning tool. When fully implemented, this resource will aid the Council, cities, and counties in continuing to plan for the regional bikeways system by facilitating an integrated and efficient logging system of bicycle infrastructure improvements.

Examining the bikeway system today reveals a clear pattern of fairly well-connected bicycle trails in the newer, outer-ring suburbs that have developed since the 1980s. But the first-ring suburbs (those developed between 1950 and 1980) have tended to be the least bicycle-friendly areas because trails were not built when they were developed and the street systems were designed with little consideration for bicycling or walking. However, in recent years and thanks in part to the federal Non-Motorized Transportation Pilot Project administered through the Transit for Livable Communities Bike/Walk Twin Cities program, the network of on-street facilities has expanded greatly, especially in Minneapolis and Saint Paul. Several neighboring suburbs of Minneapolis also received funds to plan and/or construct on-street bikeways, including the cities of Richfield, Edina, Saint Louis Park, Golden Valley, Brooklyn Center, Fridley, and Roseville.

Existing bikeways take on several characteristics in the region. On-road bicycle facilities have been developed in various forms. There are collector and arterial streets with bike lanes, roads with advisory bike lanes, roads with shared road markings (i.e., “sharrows”), and bicycle boulevards, as well as many designated bike routes that have either striped shoulders or are low-volume roads but without pavement markings. Typical bicycle transportation routes may include all of these types of bikeways. In addition, several “cycletracks” or “protected bike lanes” have been installed or are planned within Minneapolis. These are bicycle facilities within street corridors that have a vertical separation from traffic lanes and are intended to provide a more comfortable user experience, similar to a trail.

The other notable aspect of the bikeway system is the extensive network of off-road trails, including the regional trail system, that has been developed over more than a century to provide multi-use connections between regional parks and other major activity nodes. Many of these trails parallel the region’s rivers and creeks or make use of abandoned railroad rights-of-way.

While the primary purpose of the regional trail system is to serve recreational needs, a subset of the trail segments also serve as high-use transportation corridors due to their straight and direct alignments, inherited from original alignments of railroad corridors. One of the benefits of a recently completed Regional Bicycle System Study was the determination of regional trail corridor segments that were deemed essential to the bicycle transportation network (see [Chapter 7](#)). Trails such as the Midtown Greenway, Cedar Lake, Sam Morgan, and Bruce Vento regional trails can be characterized as high demand bicycle transportation corridors.

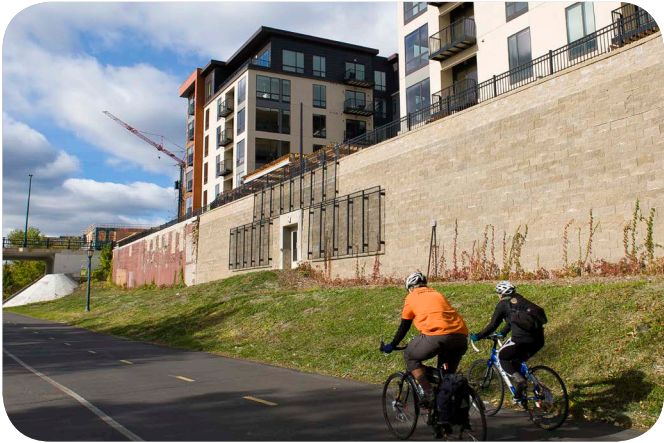
Bicycle and Pedestrian Improvements since the Last Plan

Development of the bicycle system is progressing both physically and institutionally. Of the 182 local city and county comprehensive plans in the region, 41 have addressed neighborhood trail access, 19 have individual trail master plans, and 24 have addressed bicycle and pedestrian safety on roadways through traffic calming techniques and/or transportation policies.

Data collection efforts for walking and biking have continued and are expanding. The Bike/Walk Twin Cities effort from 2008 through 2013 monitored participation in biking and walking at 43 benchmark locations in and around Minneapolis. In addition, the University of Minnesota conducted a comprehensive data collection research study. This study recommends new standards for bike and walk trip data collection, and develops a methodology for estimating annual bike trips along a facility based on a sampling of counts.

Cyclopath, an on-line wiki-based bicycle routing tool, has been designed and implemented by the University of Minnesota to assist the public in identifying suitable bicycle routes based on individual biking preferences—for example, on-street convenience/speed versus off-road protection—and desired trip origin and destination points. It has resulted in a robust set of bicycling origin and destination data, which have been directly applied to planning for a regional network of bicycle corridors.

The Council has been using the San Francisco County Transportation Authority’s Cycletracks smartphone application since 2012. It allows cyclists to voluntarily provide individual bicycle trip data. In 2012 and 2013, about 900 cyclists provided data on nearly 6,600 trips. This represents a tremendous wealth of origin/destination and route-preference data that will be used in developing more accurate bicycle forecasting models and could help in prioritizing projects.



Nice Ride Minnesota was formed through the Twin Cities Bike Share Project, an initiative started in 2008. This public bike-sharing system, designed to complement the transit system and to provide short connections between activity centers, became operational in 2010. Between 2010 and 2013 riders have taken nearly 900,000 rides on the 1,550 bicycles at 170 stations located mainly in Minneapolis and Saint Paul. Annual rentals have grown from 101,000 to about 305,000 in that time period, an increase of more than 200%.

The Freight System

A safe, efficient, high-capacity freight transportation system is essential to the economic well-being of the region and the state. Producers and consumers alike rely on an effective and efficient freight system to prosper. Although regional transportation planning primarily focuses on travel within the region, the region's freight system is inseparable from goods movement nationally and internationally.

Like passengers, freight may move by many modes. Private entities own and operate many of these modes and freight terminal facilities. Public freight-related improvements are limited to those components of the transportation system operated and maintained by the public sector, such as highways and connecting roadways, navigable rivers, river port terminals, and airports. The existing freight system in this region includes several modes of freight travel and intermodal facilities.

A map of freight infrastructure in the region is shown in Figure 1-6. Maps depicting traffic volumes are depicted in the subsequent figures.

Roads

Since the majority of freight in the region moves by truck, highways are a critical element of the freight transportation system and the region's economic sustainability. Interstates, freeways and other roadways, including state and county highways and city arterials, support the movement of goods through the metropolitan region. Principal arterial highway routes also provide important interregional connectors, providing access to the other major economic centers of the state such as Duluth, Rochester, and Saint Cloud.

Interstate 94 provides a particularly important freight link, connecting the Twin Cities region to other parts of the Upper Midwest. Figure 1-7 shows the relationship of Minnesota to the rest of the country via a heat map of truck flows. The heaviest Minnesota-connected truck activity is via the I-94/I-90 corridor between Chicago, the Twin Cities, and Saint Cloud. The next highest volume truck corridors are west to Fargo, North Dakota, via I-94 and along I-35 between Des Moines, Iowa, and Duluth, Minnesota. The I-94/I-90 corridor to Chicago is of particular significance as volumes of freight trucked via I-94/I-90 to and from that city's rail and air freight hubs continues to grow.

Figure 1-8 depicts highway commercial traffic, illustrating the significant dependence of freight traffic on the highway system.

Figure 1-6: Metropolitan Freight System

Metropolitan Freight System

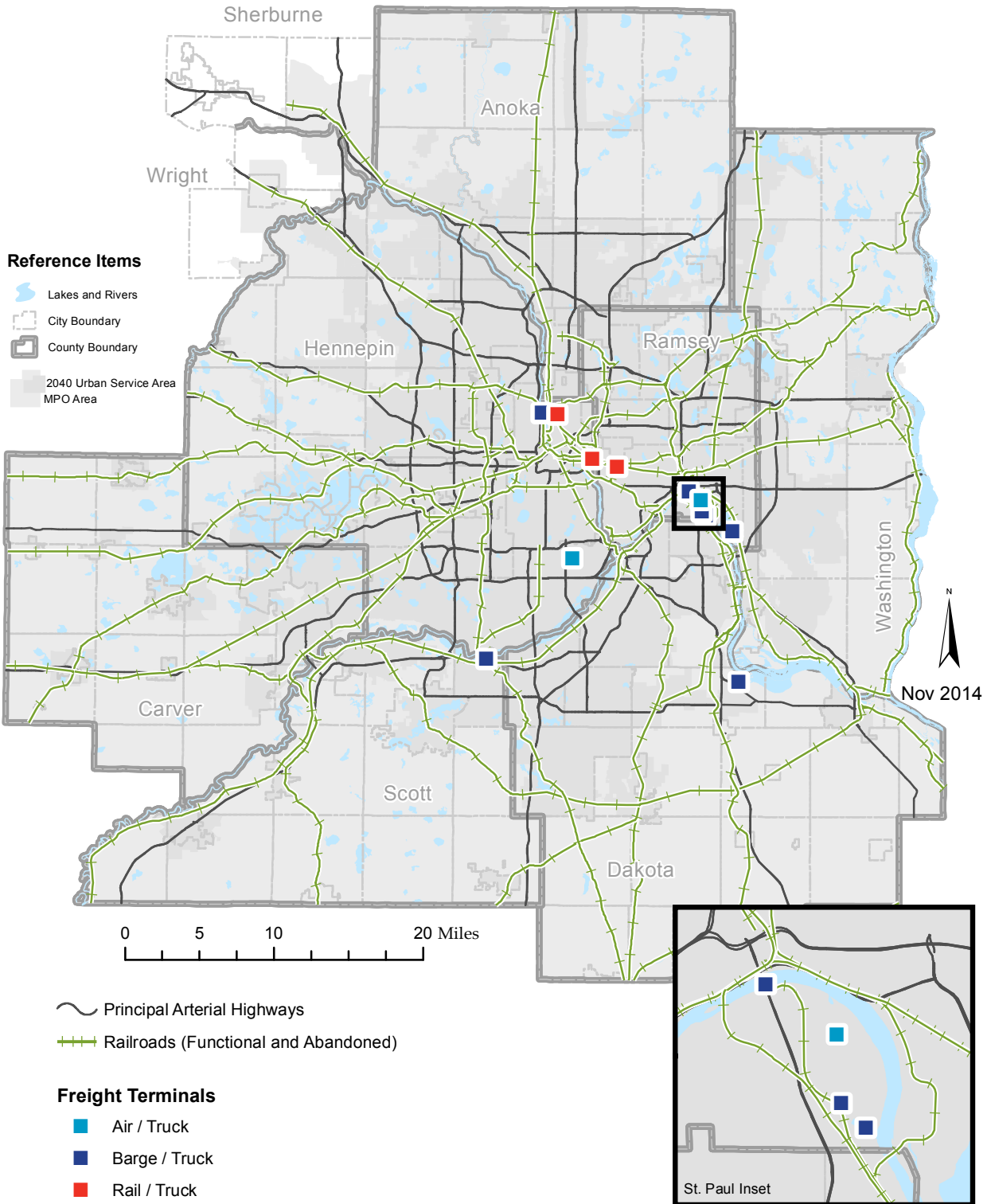


Figure 1-7: Truck Traffic - Minnesota and United States

Truck Traffic, Minnesota and United States

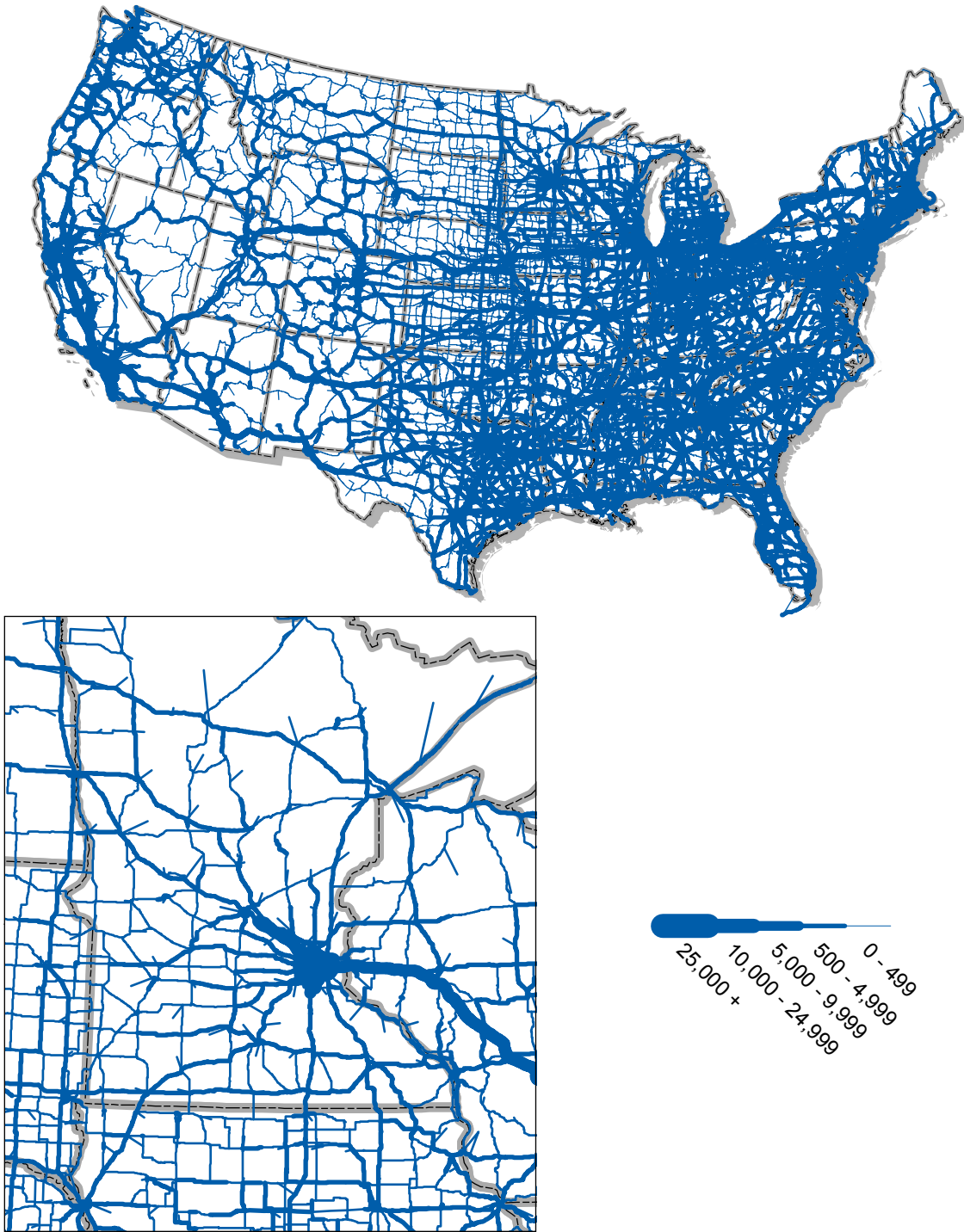
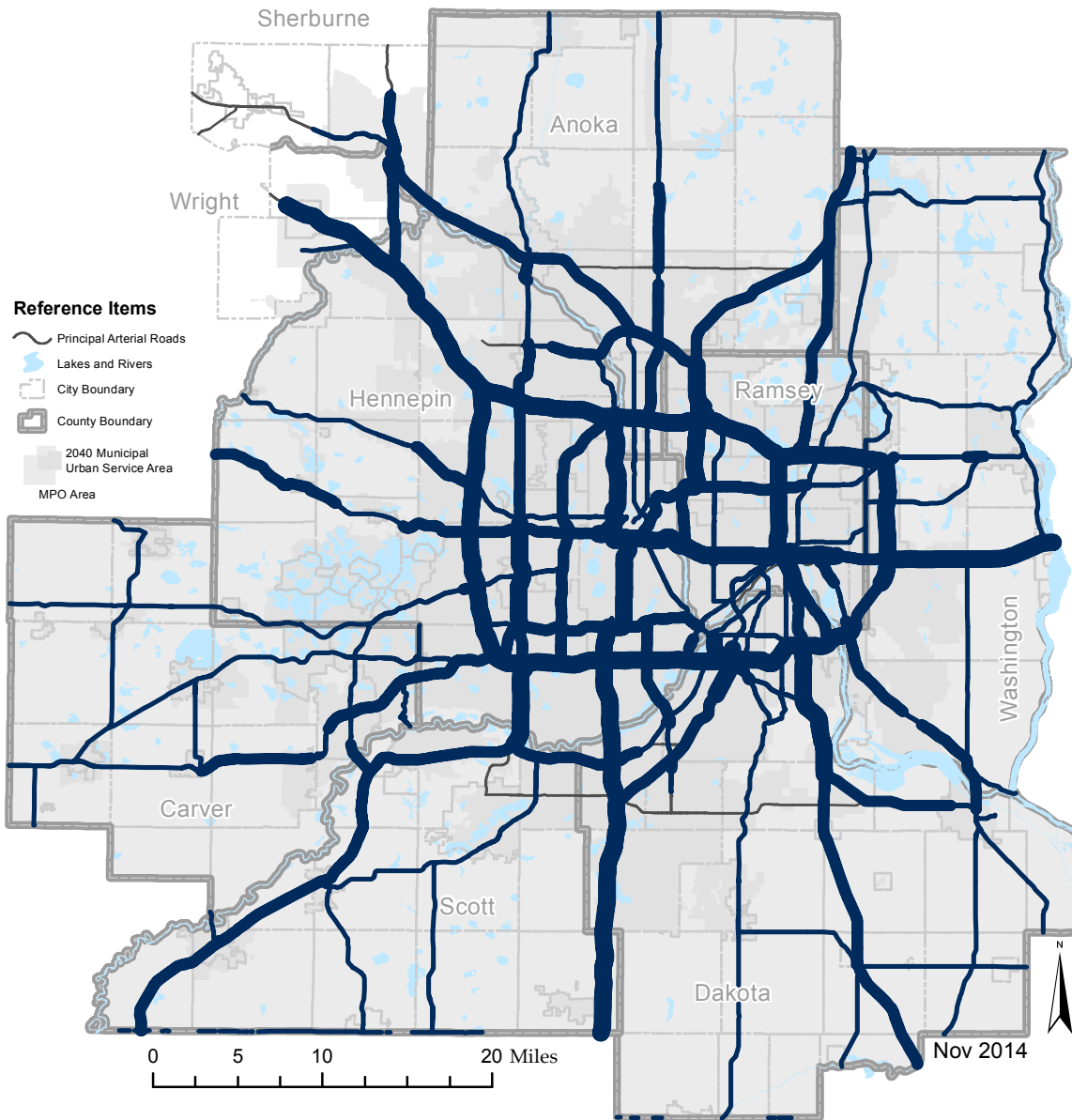
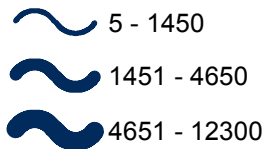


Figure 1-8: Commercial Vehicle Traffic

Heavy Commercial Vehicle Traffic



Heavy Commercial Vehicle Average Daily Traffic Volume (2011)



Waterways

Portions of the Mississippi and Minnesota rivers in the region are navigable by barge via channels and locks maintained by the U.S. Army Corps of Engineers. Barges carry bulk commodities such as grain, minerals, fertilizer, and aggregate to domestic and international markets. Today, there are three river ports in the Twin Cities metro region, including the Ports of Minneapolis and Saint Paul on the Mississippi River, and the Port of Savage on the Minnesota River. Freight is hauled by barge more than 1,800 miles downriver from the Twin Cities to the Port of New Orleans where it is loaded onto ocean-going ships for export to global markets. Most recently, sand for fracture mining of natural gas has begun to be transported by barge down the Mississippi and up the Ohio River to Pennsylvania. The region's three river ports contain 32 active freight terminals, which collectively handle an average of about 8.4 million tons of freight annually. It should be noted that the Saint Anthony upper locks and the Minneapolis Upper Harbor terminal are scheduled to close in 2015, leaving Saint Paul and Savage as the remaining river ports in the region.

Railroads

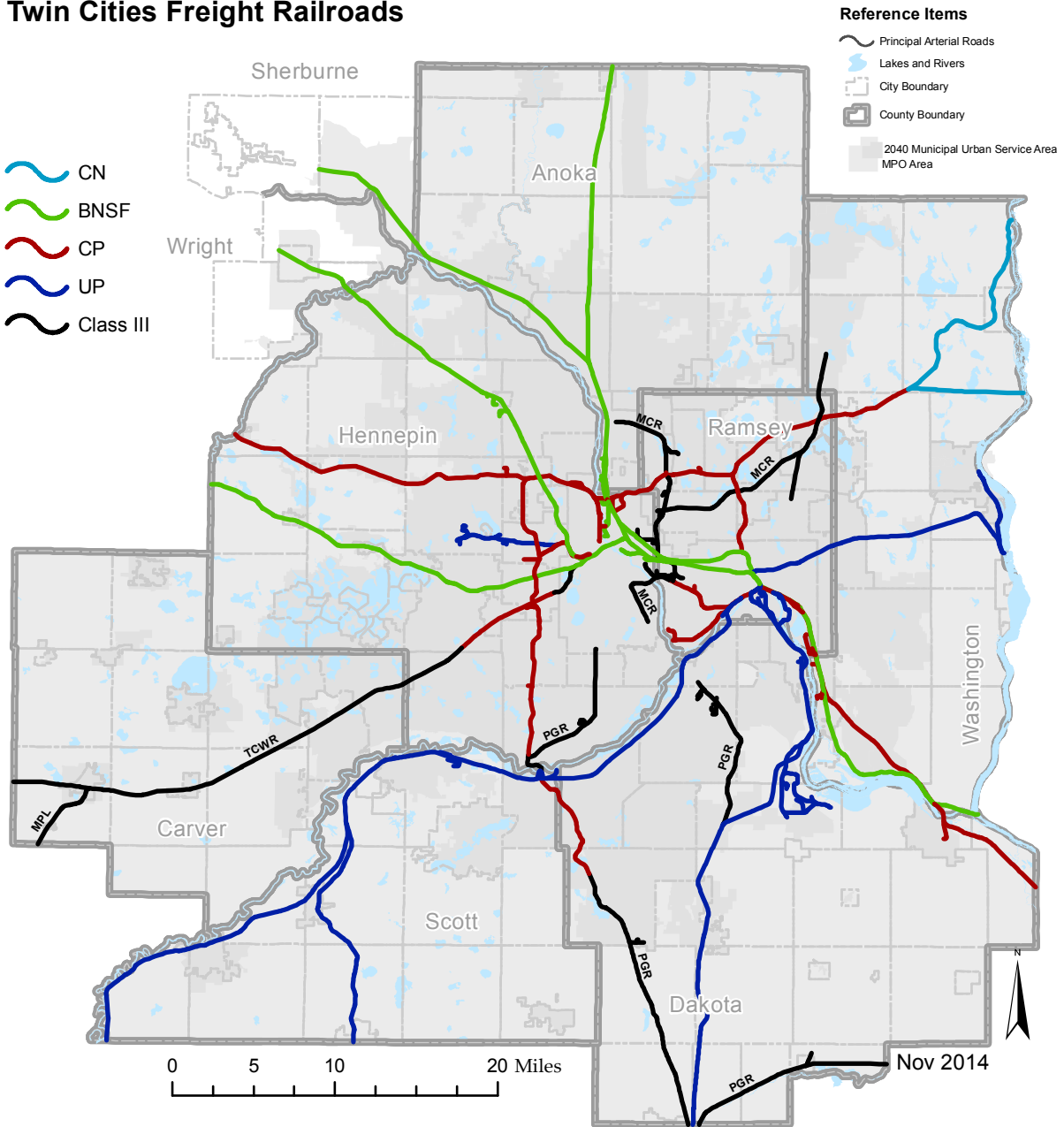
Four Class I railroads operate more than 500 miles of track in the metro region: Burlington Northern Santa Fe Railway, Canadian National, Canadian Pacific Railway, and the Union Pacific Railroad Company. Class I railroads link the region with major national markets and also carry a large amount of cross-country freight.

Four Class III (short line) railroads—Minnesota Prairie Line, Progressive Rail, Twin Cities & Western, and Minnesota Commercial Railroad—operate about 160 miles of track in the region. Class III lines predominantly operate local service, generally within 100 miles of the region.



Figure 1-9: Twin Cities Freight Railroads

Twin Cities Freight Railroads



Container-based shipping has substantially increased the efficiency of goods movement over the last 30 years, allowing an easy transition between modes.

- There are two major intermodal container terminals in the region, serving all of Minnesota and parts of western Wisconsin, which are owned and operated by the BNSF (Saint Paul Midway) and Canadian Pacific (Northeast Minneapolis Shoreham).
- There is also a bi-modal rail terminal near Highway 280 owned by Union Pacific Railroad and operated by Triple Crown with their unique system of “Road-Railer” containers that operate with drop-down steel wheels running directly on the rails.
- About 20 independently operated truck-rail transload/warehouse centers also support the intermodal distribution of freight in the metro area.

The railroad industry has continuously grown since the 1980s, and rail lines continue as an increasingly important component of the region’s freight system, especially for bulk commodities and containers. Over the last few years an increasing number of trains traversing the region are shipping sand west to the Bakken oil fields in North Dakota, and oil east from North Dakota to Chicago and the East Coast. The oil trains are primarily using the BNSF and Canadian Pacific mainlines, while sand also utilizes other routes.

Congestion occurs on portions of the regional rail system, creating seven major rail bottlenecks in the region as identified in the Minnesota State Rail plan. Hoffman Junction east of Union Depot is the most congested bottleneck in the metro area. The mainline tracks of three major Class I railroads intersect at Union Depot where it handles as much as 5% of the nation’s freight rail operations (10,000 rail cars per day). Growth of freight rail usage is also impacting the region’s only existing passenger train service, the Northstar Commuter rail to Big Lake and the Amtrak service between Seattle, Saint Paul, and Chicago, as these trains share tracks with heavily traveled freight routes to Chicago and North Dakota.

Air

High-value and/or time-sensitive goods are shipped via the air freight system, especially when moving over long distances. High-tech and biomedical companies in the region rely heavily on air freight service.

Minneapolis-Saint Paul International Airport (MSP) handles air freight, not only for the Twin Cities metro area, but for most of Minnesota and adjacent parts of Wisconsin and the Dakotas. Major air freight carriers include Fed Ex and UPS, as well as commercial airlines. As the headquarters for the former Northwest Airlines, MSP became a major regional hub in the 1960s, and today remains a significant passenger hub for Delta Airlines, which merged with Northwest Airlines in 2009, offering direct flights to many worldwide destinations. This has made it possible for the region to continue taking advantage of “belly freight” opportunities for shipping freight in the baggage compartments of passenger aircraft.

Goods shipped as “belly freight” represents less than 20% on average of the overall air freight volume shipped via MSP; more than 80% is shipped via air freight carriers.

The Aviation System

Air transportation provides a national and global reach for the fast movement of people and time-sensitive freight, offering significant advantages for long-distance travel and transport. It differs from other metro systems since its users are primarily going to, or coming from, destinations outside the metropolitan area, rather than traveling within the region.

The Twin Cities region is served by one commercial airport and seven reliever airports for general aviation business and recreational users, as well as two seaplane bases and a turf runway airport. The airports are classified according to their system role as a major, intermediate, minor, or special purpose facility. Most of the system airports are part of the National Plan of Integrated Airports, making them eligible for federal and state funding.

In 2012, MSP International Airport — as a hub serving the Upper Midwest — handled over 33 million passengers, 425,000 aircraft operations, and 198,000 metric tons of cargo.

Because of airports’ unique role in interstate commerce, the federal government has significant influence on aviation. Airports are locally owned and sponsored but must meet federal development and operational certification. Air traffic control is a federally operated service provided in federally controlled airspace.

The federal budget impacts the local air-traffic-control tower system. The regional aviation system has both FAA-operated and contracted towers. The federal Air Traffic Control Towers (ATCT) are operated by the FAA and staffed with federal employees, and there are non-federal towers staffed by contract employees working for a management company approved by the FAA. STP, FCM, MIC and MSP are federal towers. Only ANE has a contract tower. The contract tower program is fully funded through federal fiscal year 2015. There will likely be another budget debate in the coming year about the FAA reauthorization cycle for 2016 and beyond, but bilateral support for the contract tower program was strong and we anticipate that it will again be fully funded.

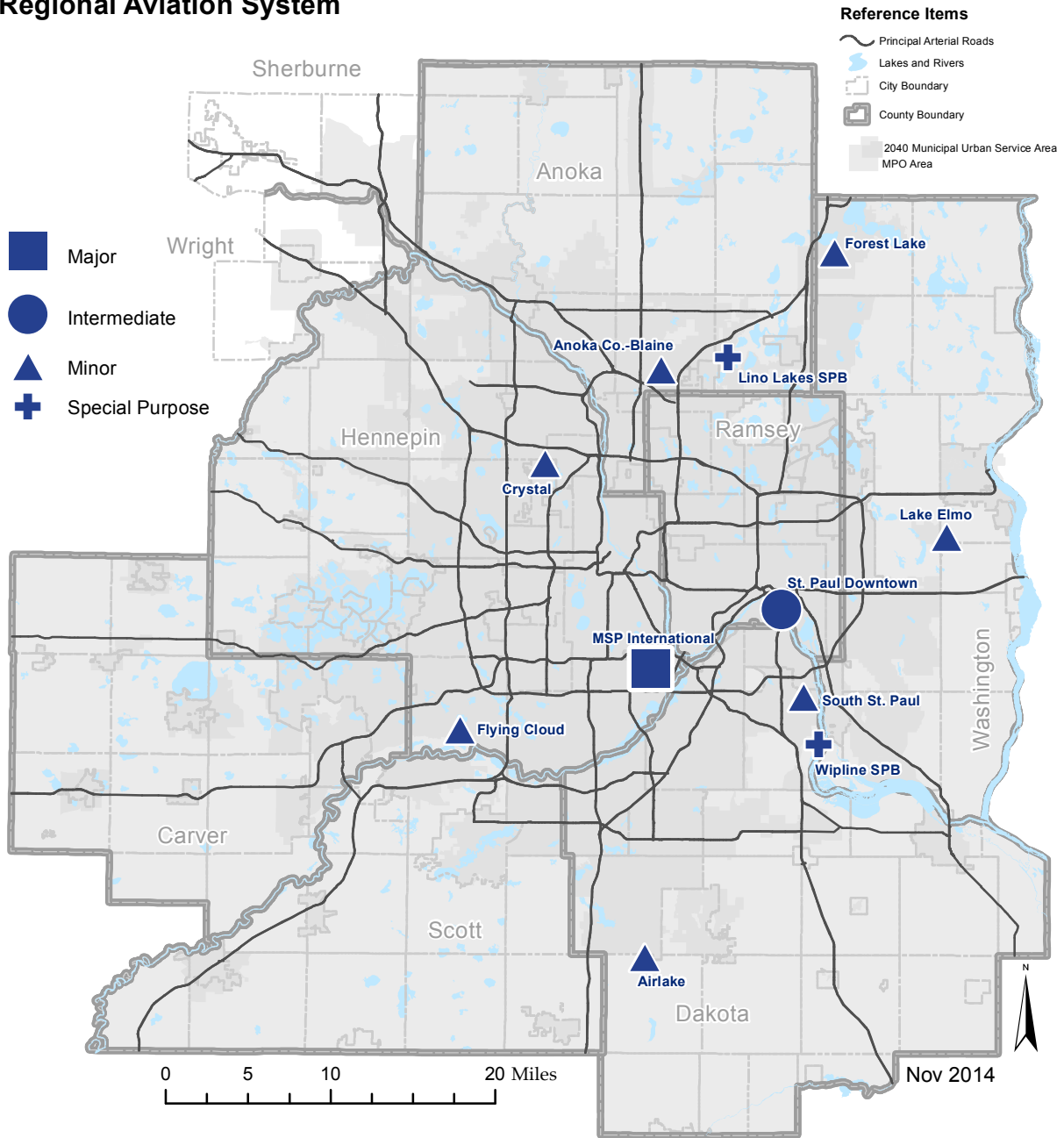
Ground Access to the Aviation System

Accessibility, both by air and ground, is important for air transportation efficiency. Ground access to MSP is provided from Highways 5, 77 and I-494, and via two stations on the Blue Line LRT. The interchange at I-494 and 34th Avenue was rebuilt in 2013 to improve roadway access to Terminal 2. Pedestrian and bicycle access is provided via 34th Avenue to Terminal 2, where bikers and pedestrians can also board free LRT service to access Terminal 1. Overall growth, at both the national and regional level, is expected to continue fueling future travel demand and increase current levels of both commercial airport and urban roadway congestion.

The regional system of reliever airports is geographically spaced throughout the area to conveniently serve urban development, population, and employment patterns and maximize economic benefits. Ground access to the reliever airports in the system is adequate at this time.

Figure 1-10: Regional Aviation System

Regional Aviation System



Passenger Travel beyond the Region

Each mode of transportation best serves a specific trip distance, providing its own unique characteristics and values for interstate and international mobility.

The vast majority of intercity passenger movements occur by automobile, especially on the National Highway System roads maintained by MnDOT and other states. The Twin Cities region is also served by Amtrak passenger rail service and a number of intercity bus companies and airlines.

Amtrak provides connections to Portland, Seattle, and Chicago. Trains arrive and depart once a day in each direction. Starting in the early 1970s, Amtrak served the region from a single station in the Midway area of Saint Paul. In mid-2014, Amtrak relocated its platform and services to the newly renovated Union Depot in downtown Saint Paul. Target Field Station along the BNSF tracks in downtown Minneapolis currently serves the Northstar Commuter rail, but could also be utilized by intercity passenger trains in the future. Both Target Field Station and the Union Depot renovation have been constructed as multi-modal stations since the last Transportation Policy Plan was adopted in 2010.

MnDOT has primary responsibility for planning intercity passenger rail in Minnesota; the Council participates on advisory committees to assure that any new or upgraded rail service is consistent with other regional plans. MnDOT is currently studying several potential new high-speed rail services to link the Twin Cities with Chicago, Duluth, and Rochester. For information on these studies see the [MnDOT passenger rail webpage](#). Other recent proposals would increase the number of conventional-speed train trips to serve increasing demand for passenger travel to eastern Wisconsin and Chicago, as well as to and from the Bakken oil fields in western North Dakota and Montana.

Intercity bus service continues to remain a presence in the region, with recent upgrades to attract passengers. These include WiFi on buses and express services that provide bus travel times that are more competitive with the private automobile. Intercity buses are all privately operated. Providers include Megabus, Greyhound, and Jefferson Lines. Megabus serves Madison and Milwaukee, Wisconsin, and Chicago, Illinois, from the Union Depot in Saint Paul, in addition to an informal stop in downtown Minneapolis. Megabus is known for curbside stops without stations so their stop locations can easily change. Greyhound provides service from the downtown Minneapolis intercity bus terminal adjacent to the I-394/7th Street parking garage and from the Saint Paul Union Depot. Jefferson Lines serves over 500 cities and towns in the Midwest, operating out of Union Depot and the downtown Minneapolis intercity bus terminal, as well as MSP airport and numerous college and suburban stops throughout the region. Although the Council has no role in planning or providing these intercity bus services, MnDOT does work with these operators and provides some subsidies to support bus service in Greater Minnesota.

See the previous page for air travel beyond the region.

