CHAPTER 7:

Transportation & Transit




Comprehensive Plan 2040

INTRODUCTION

The purpose of this Chapter is to define and describe the City's transportation system and how it supports residents and businesses within the community. The efficiency of the transportation system is an important consideration of any community because it moves people, goods and services into and out of a Brooklyn Center. This planning effort offers opportunities to evaluate the system for improvements and to continue to maintain the system in a way that will support its residents and businesses today and into the future.

The following sections of this Chapter describe existing and planned roadways, traffic projections, and potential right-of-way needs, as well as existing and planned improvements to the transit and bikeway systems. Finally, heavy freight, rail and air systems are all addressed with varying levels of detail based on the role of the system today and the anticipated role in the future.

This Chapter will examine ways to upgrade or maintain the existing transportation system, including transit, bicycling and walking, in order to accommodate changes in the City's Future Land Use Plan described and shown in Chapter 3. While much of the information contained within this Chapter is simply an update from the City's previous 2030 Plan, there are some changes in the City's redevelopment areas and surrounding region that have the potential to impact the community's transportation system. This Chapter is intended to provide an update, but also to identify opportunities to improve and support the City's transportation system through 2040.

This Chapter will function as a guide to:

- Identify the City's existing and proposed multi-modal transportation network;
- Identify major investments to meet transportation needs; and
- Support the City's land use goals and objectives as detailed within this Plan.

Transportation, Transit, Bikeways & Walkability Goals

» Provide a safe network of roadways, bikeways and pedestrian ways that connect residents in the City and to the larger region.

» Encourage residents to chose alternate transportation modes (other than automobile) by enhancing access to bikeways, transit, and pedestrian networks.

» Support the City's commitment to creating a Complete Street Network in existing and redevelopment areas.

** Supporting Strategies found in Chapter 2: Vision, Goals & Strategies*

STREET AND ROADWAY SYSTEM

The City's roadways play a significant role in the transportation system providing residents access within the community as well as the greater region. Brooklyn Center is a fully developed suburb with a well-established roadway network. No new major roads are planned as part of this Transportation Chapter, and the City plans to maintain its current functional classification of roadways. The City's existing system of streets and roadways is depicted in Map 7-1.Today, there are existing bus transit options available, but the majority of residents and business owners continue to heavily rely on personal vehicles and the roadway system to move goods, people and access services in the community. The following sections identify the existing roadway system and describe future growth and planned improvements to the roadways.

Functional Classification System

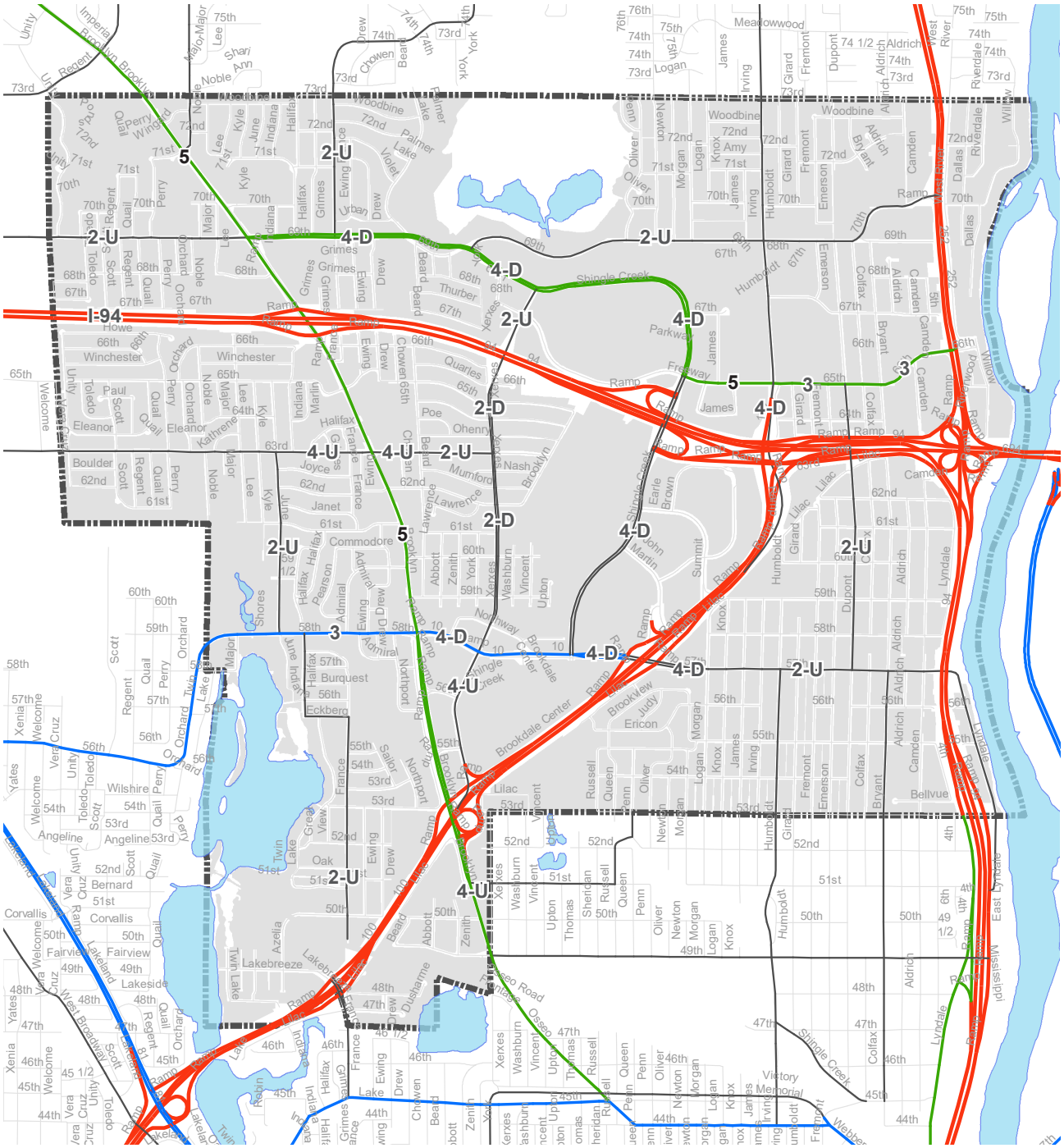
Functional classification is a tool used in transportation planning and traffic engineering to categorize streets by the type of transportation service they provide and the roadway's relationship to surrounding land uses. A functional classification system establishes a hierarchy of roads that collects and distributes traffic from neighborhoods to the metropolitan highway system as efficiently as possible given topography and other physical constraints of the area. Functional classification also describes the role each roadway should perform before determining street widths, speed limits, intersection control or other design features. Functional classification ensures that non-transportation factors such as land use, development, and redevelopment are taken into account in the planning and design of streets and highways.

Principal Arterial

Principal Arterials are the highest roadway classification and in Brooklyn Center are considered part of the metropolitan highway system. These roads are intended to connect metropolitan centers with one another and connect major business concentrations, important transportation terminals, and large institutional facilities.

Brooklyn Center is crossed by several of the region's Principal Arterials, including I-94, I-694, TH 100, and TH 252. Some Principal Arterials are classified as "freeways" and designed with high capacity, grade-separated interchanges. "Other Principal Arterials" may be designed with high capacity, controlled, at-grade intersections rather than interchanges, such as TH 252 between 73rd Avenue North and I-94 within Brooklyn Center. All Principal Arterials are under MnDOT's jurisdiction.

Map 7-1. Existing Street and Roadway System



Function Classification

- Principal Arterial
- A-Minor Augmentor
- A-Minor Reliever
- Major Collector
- Minor Collector

2-U	2 Lane Undivided
2-D	2 Lane Divided (median with left turn lane)
3	3 Lane (center turn lane)
4-U	4 Lane Undivided
4-D	4 Lane Divided
5	5 Lanes or More

Source: MNGEO, City of Brooklyn Center, SHC
DRAFT: 1/9/2019

0 0.25 0.5 1 1.5 2 Miles

A-Minor Arterial

A-Minor Arterials are intended to connect important locations within the city, have access to/from the metropolitan highway system (Principal Arterials), and between important locations outside the city. These arterials are also intended to carry short to medium trips that would otherwise use the regional system.

The Metropolitan Council, working cooperatively with MnDOT, Counties, and Cities, defined a network of A-Minor Arterials that are intended to either relieve traffic on the Principal Arterials or serve as substitutes for Principal Arterials.

In Brooklyn Center, there are two roads classified as A-Minor arterials:

- Brooklyn Boulevard (County Road 152)
- Bass Lake Road (County Road 10) west of TH 100

The A-Minor arterials are subdivided into relievers, expanders, connectors, and augmenters. The Metropolitan Council classifies Brooklyn Boulevard as a reliever and Bass Lake Road as an augmenter. Relievers provide direct relief and support for congested Principal Arterials. They provide relief for long trips and accommodate medium length trips. Augmenters, literally, augment the capacity of Principal Arterials by serving higher-density areas and long-range trips. Both of the A-Minor Arterials are under the jurisdiction of Hennepin County.

Urban Collectors

Collector roadways are designed to serve shorter trips that occur entirely within the city and collect/distribute traffic from neighborhoods and commercial/industrial areas to the arterial system. Brooklyn Center has identified an extensive network of collector roads that links neighborhoods with each other, with neighboring cities, with the City Center, and with the regional highway system.

Currently two of the collector roadways are under Hennepin County's jurisdiction:

- 69th Avenue North west of Brooklyn Boulevard
- Humboldt Avenue/57th Avenue North located just east of TH 100

The remaining collector roadways are under the City's jurisdiction. Map 7-1 shows it as part of the collector system.

Local Streets

Local streets connect blocks and land parcels and primarily function to provide access to adjacent properties. Local streets can also serve as important components of bicycle and pedestrian circulation systems. In most cases, local streets will connect to other local streets and collectors, although in some cases they may connect to minor arterials. All other streets within the City are classified as local streets.

Table 7-1 lists the Functional Classifications of the primary roadway network in Brooklyn Center and the number of lanes for each roadway.

Table 7-1. Street Classifications in Brooklyn Center

Functional Classification	Managing Jurisdiction	Sub-class	Lanes
PRINCIPAL ARTERIALS			
I-94	State	Freeway	6+
I-94/I-694	State	Freeway	6+
TH 252	State	Expressway	6
TH 100	State	Freeway	4
A-MINOR ARTERIALS			
Brooklyn Boulevard (CSAH 152)	County	Reliever	4/5
58th Avenue/CR 10	County	Augmenter	3/4
COLLECTORS			
69th Avenue N (CR 130)	County		2
69th Avenue N (east of B. Blvd.)	City		4/2
Humboldt Ave N/57th Ave N (CR 57)	County		4/2
Humboldt Ave N (north of I-94/694)	City		4/2
57th Ave N (east of Humboldt Ave N)	City		4
Noble Ave N City	City		2
France Ave N (2 segments)	City		2
June Ave N (58th Ave to 63rd Ave N)	City		2
Halifax Ave/Eckberg Dr/France Avenue/ 50thAve/Azelia Ave/Lakebreeze Avenue	City		2
55th Ave N/56th Ave N (Xerxes Ave to CSAH 152)	City		4
53rd Ave N/Brooklyn Blvd frontage (France Ave to 55th Ave N)	City		2
John Martin Drive City	City		4
Earle Brown Drive (John Martin Drive to Summit Drive)	City		4
Summit Drive	City		4
59th Ave N/Logan Ave N (Dupont Ave N to 53rd)	City		2
Lyndale Ave N	City		2
67th Ave N (Humboldt to Dupont Ave N)	City		2
63rd Ave N (west of Xerxes)	City		4/2
Shingle Creek Parkway	City		4
Xerxes Ave N	City		4/2
Freeway Boulevard (65th-66th Ave N)	City		2-5
Dupont Ave N	City		2
73rd Ave N (east of Humboldt)	City		2
53rd Ave N (east of Penn)	City		2
51st Ave N (east of Brooklyn Blvd.)	City		2

Traffic Counts and Patterns

The most recent (2017) traffic counts are provided by MnDOT and are shown in Map 7-2, and heavy commercial ADT is illustrated in Map 7-3. The forecasts are generally lower than the previous 2030 forecasts. This is a trend that has been observed across the metropolitan region. In general, it is a combination of lower growth expectations; the "dip" in travel that occurred during the recession, and the "new" travel behavior that indicates people do not travel by individual cars as much as they used to. Although changes in the current traffic pattern and volumes are expected, the anticipated land uses compared to the 2030 Plan are more residential than previously planned. As a result, the projections have been updated to reflect this planned land use change which is described in subsequent sections of this Chapter.

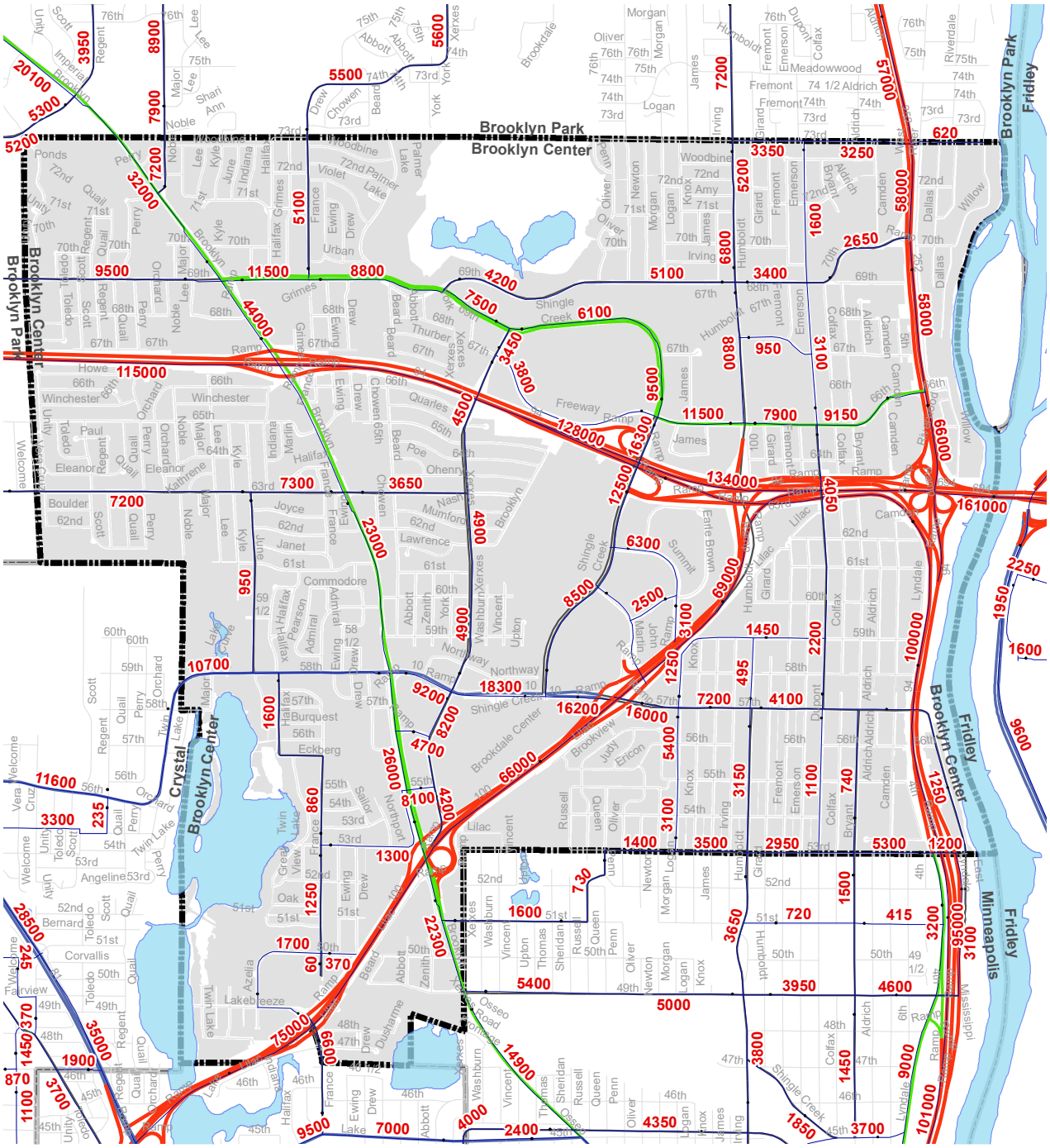
Existing Roadway Capacity and Deficiencies

The existing and forecast traffic volumes are compared to the size and capacity of each roadway in order to determine where capacity problems exist or are expected to occur in the future. Map 7-1 shows the number of lanes and general configuration of the City's major roadways in order to help identify potential capacity problems. Roadway capacity problems arise when the roadway cannot efficiently handle the traffic using it, particularly at intersections. Efficient traffic movement is described in terms of "level of service" (LOS) which – according to MnDOT –"is a qualitative measure of the effect of traffic flow factors, such as speed and travel time, interruption, freedom to maneuver, driver comfort and convenience, and indirectly, safety and operating costs". LOS is typically characterized using the letters "A" through "F", illustrated in Table 7-2. Level "A" indicates a condition of free traffic flow with little to no restriction in speed or maneuverability. Level "F" indicates forced-flow operation at low speed with many stoppages.

Table 7-2. Typical Daily Roadway Capacities by Facility Type

Facility Type	Daily Capacity (Vehicles per day) LOS E	Facility Type	Daily Capacity (Vehicles per day) LOS E
Two-lane collector/local	10,000	Six-lane divided (expressway)	54,000
Two-lane arterial	12,000	Four-lane unmetered freeway	74,000
Three-lane (two-way left-turn lane) collector/arterial	18,000	Four-lane metered freeway	85,000
Four-lane collector	20,000	Six-lane unmetered freeway	111,000
Four-lane undivided arterial	27,000	Six-lane metered freeway	127,000
Five-lane collector	28,000	Eight-lane unmetered freeway	150,000
Five-lane arterial	34,000	Eight-lane metered freeway	184,000

Map 7-2. 2017 Traffic Counts



Function Classification

- Principal Arterial
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- Major Collector
- Minor Collector

Source: MNGEO, MNDOT, City of Brooklyn Center, SHC
DRAFT: 1/9/2019

0 0.25 0.5 1 1.5 2 Miles

The method used to determine roadway capacity deficiency divides the existing average annual daily traffic (AADT) by the acceptable daily capacity for the specific roadway type, a measure known as the volume to capacity (V/C) ratio. The acceptable design capacity is estimated based on the number of lanes, roadway type, functional classification, and traffic peaking characteristics (Table 7-2).

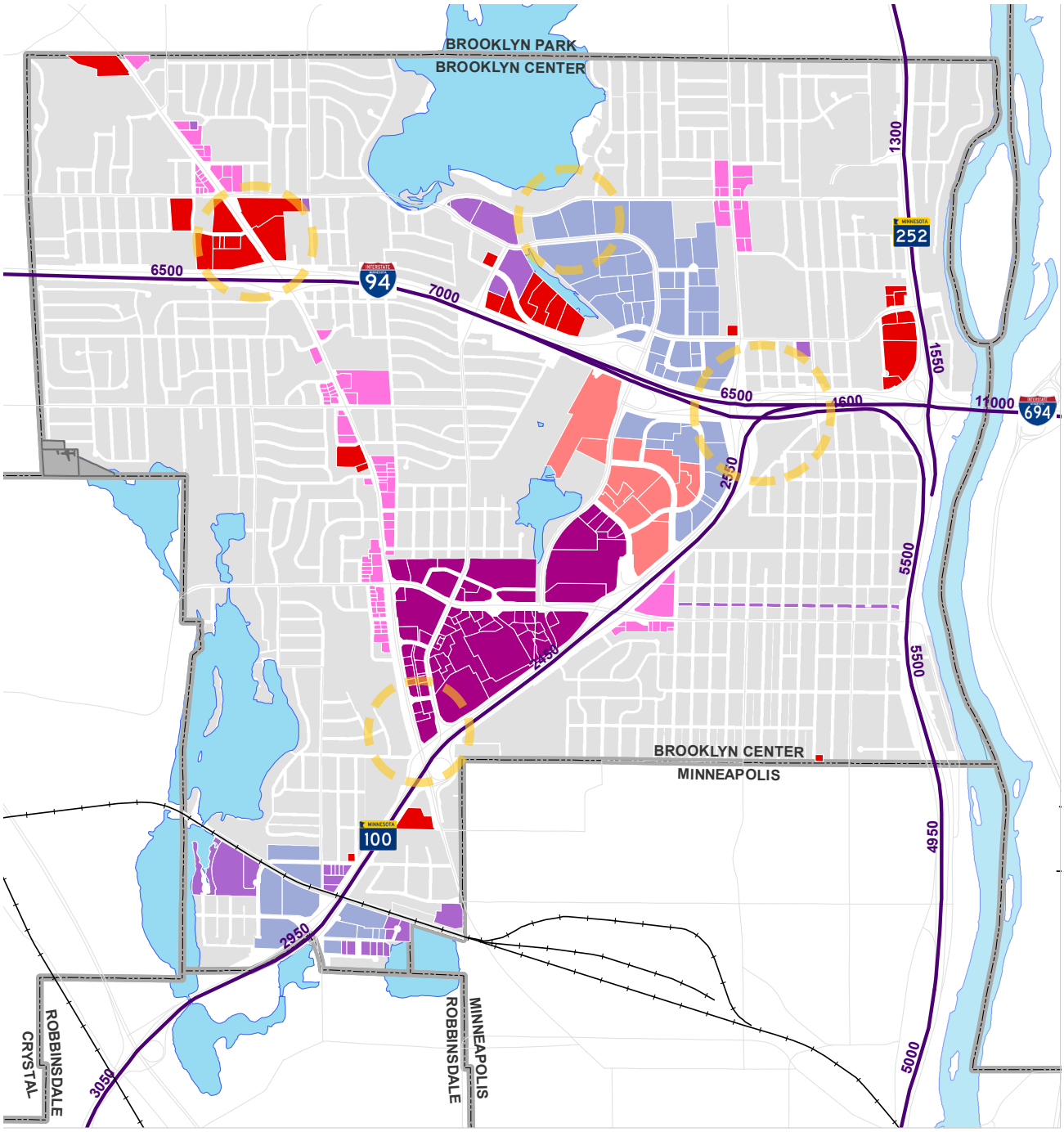
The deficiency analysis defines "capacity deficiency" roadway segments as those with a V/C ratio above 1.0, which signifies that a segment of road has observed volumes or forecasts which exceed its design capacity. Roadway segments with a V/C ratio between 0.85 and 1.0 are designated "near capacity" as listed in Table 7-3. A roadway with a V/C ratio of 0.85 means that on an average day, 85 percent of the road's design capacity is utilized.

There are no known barriers in Brooklyn Center to freight movement due to weight-restricted roads or bridges, clearance limitations or unprotected crossings. The City of Minneapolis has restricted weight to 3 tons on the south side of 53rd Avenue west of Humboldt Avenue.

Table 7-3. Existing Capacity Deficiencies

	Route	Segment	Volume	Roadway Design Capacity	V/C Ratio
Approaching capacity (Volumes Meet or Exceed 85% of Design Capacity	TH 100	France Avenue to Brooklyn Boulevard	75,000	85,000	0.88
	69th Avenue	Zane Avenue to Brooklyn Boulevard	9,500	10,000	0.95
Over Capacity (Volumes Meet or Exceed Design Capacity)	TH 252	I-694 to 65th Avenue	67,000	54,000	1.24
		65th Avenue to 70th Ave	60,000	54,000	1.11

Map 7-3. Freight ADT and System Map



Legend

- HCAADT Traffic Volumes
- Railroad

Land Use Designations

2040 Planned Land Use

- C
- TOD (31.01-130 DU/Ac.)
- N-MU (15.01-31 DU/Ac.)
- C-MU (10.01-25 DU/Ac.)
- B-MU
- Industrial/Utility
- Airport
- ROW
- RR ROW
- Generalized commercial/industrial nodes

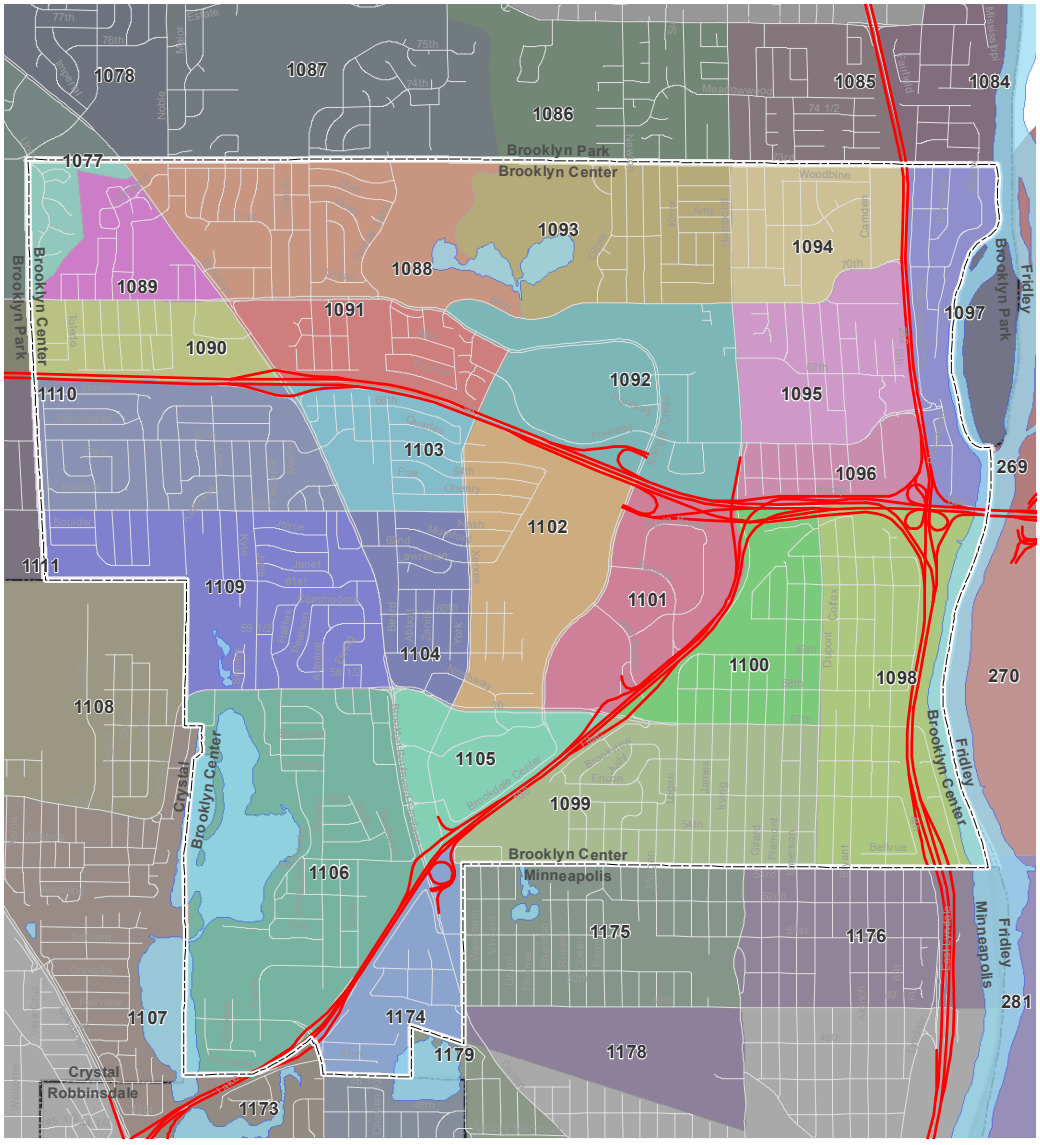
0 800 1,600 3,200 4,800 6,400 Feet

N

Transportation Analysis Zones (TAZ)

For purposes of regional transportation planning, the Metropolitan Council divides the region into Traffic Analysis Zones (TAZs). Map 7-5 shows the Metropolitan Council's TAZ boundaries and Hennepin County's further subdivision of these zones. Regional population, households, and employment forecasts are allocated to the TAZs as a means of forecasting traffic volumes. These forecasts are shown on Table 7-4. Because Brooklyn Center is a fully developed community, the trips generated within the TAZs are not expected to change significantly during this planning period, with the exception of the identified redevelopment areas shown and described in Chapter 3 of this Plan.

Map 7-5. Transportation Analysis Zones (TAZ)



Source: MNGEO, City of Brooklyn Center, SHC 1/9/2019

Table 7-4. Population, Households, & Employment Growth by TAZ

Brooklyn Center TAZ	Met Council TAZ	2014					2030					2040				
		POP	HH	RETAIL EMPLOY	NON-RETAIL EMPLOY	TOTAL EMPLOY	POP	HH	RETAIL EMPLOY	NON-RETAIL EMPLOY	TOTAL EMPLOY	POP	HH	RETAIL EMPLOY	NON-RETAIL EMPLOY	TOTAL EMPLOY
1	1077	3,517	1,637	226	304	530	0	0	0	0	0	3,517	1,637	226	304	530
2	1088	1,604	551	49	189	238	58	20	0	0	0	1,662	571	49	189	238
3	1089	905	325	8	120	128	0	0	0	0	0	905	325	8	120	128
4	1090	1,205	489	265	717	982	0	0	0	0	0	1,205	489	265	717	982
5	1091	947	351	0	19	19	0	0	0	0	0	947	351	0	19	19
6	1092	796	300	285	2,964	3,249	40	15	-7	256	249	836	315	278	3,220	3,498
7	1093	1,331	453	0	17	17	0	0	0	0	0	1,331	453	0	17	17
8	1094	263	110	0	104	104	0	0	0	0	0	263	110	0	104	104
9	1094	1,100	210	0	3	3	0	0	0	0	0	1,100	210	0	3	3
10	1095	690	300	3	6	9	35	16	0	0	0	725	316	3	6	9
11	1095	1,380	320	0	153	153	99	44	0	0	0	1,479	364	0	153	153
12	1096	600	113	30	60	90	0	0	0	0	0	600	113	30	60	90
13	1096	200	86	0	7	7	0	0	0	0	0	200	86	0	7	7
14	1097	794	305	30	67	97	0	0	0	0	0	794	305	30	67	97
16	1098	950	414	0	35	35	0	0	0	0	0	950	414	0	35	35
17	1098	115	50	0	0	0	69	31	0	0	0	184	81	0	0	0
18	1098	770	336	0	30	30	0	0	0	0	0	770	336	0	30	30
19	1099	820	315	23	75	98	65	25	0	0	0	885	340	23	75	98
20	1099	780	296	0	10	10	0	0	0	0	0	780	296	0	10	10
21	1099	960	375	0	10	10	0	0	0	0	0	960	375	0	10	10
22	1100	430	246	0	10	10	0	0	0	0	0	430	246	0	10	10
23	1100	790	290	0	81	81	59	26	0	0	0	849	316	0	81	81
24	1101	216	205	671	2,092	2,763	237	101	-16	181	165	453	306	655	2,273	2,928
25	1102	1,475	555	11	634	645	277	123	0	0	0	1,752	678	11	634	645
26	1103	1,116	364	145	246	391	141	63	0	0	0	1,257	427	145	246	391
27	1104	961	314	14	484	498	280	124	0	0	0	1,241	438	14	484	498
28	1105	0	0	962	340	1,302	463	173	-9	215	206	463	173	953	555	1,508
29	1106	2,521	1,037	133	811	944	0	0	205	202	407	2,521	1,037	338	1,013	1,351
30	1109	2,700	957	91	215	306	34	15	0	0	0	2,734	972	91	215	306
31	1110	2,456	774	1	68	69	0	0	0	0	0	2,456	774	1	68	69
32	1174	1,150	447	4	377	381	0	0	140	235	375	1,150	447	144	612	756
TOTAL		**33,542**	**12,525**	**2,951**	**10,248**	**13,199**	**1,858**	**776**	**313**	**1,089**	**1,402**	**35,400**	**13,301**	**3,264**	**11,337**	**14,601**

Future Land Use and Allocation of Growth

As described in Chapter 3: Land Use & Redevelopment, the City's vision for redevelopment and growth in this planning period focuses on a multi-modal, transit-oriented core with a mix of residential, business and retail use. The Future Land Use plan describes three new mixed-use land use designations, and includes a new Transit Oriented Development land use. The intent is to create a walkable, vibrant core that revitalizes this currently underdeveloped area of the community. With respect to the planned growth in the community, the Mixed-Use and TOD areas will accommodate nearly all of the City's planned growth in this planning period.

Table 7-5. Density Ranges of Planned Land Uses

Land Use Designation	Density
Transit Oriented Development (TOD)	31+ Dwelling Units per Acre
Neighborhood Mixed-Use (N-MU)	15-31 Dwelling Units per Acre
Commercial Mixed-Use (C-MU)	10- 25 Dwelling Units per Acre

This Plan will influence the access and operations of the local and regional roadways system. With growth and redevelopment anticipated, Brooklyn Center has the opportunity to capitalize on its location and establish a highly-accessible community with residential and business mixes supported by multi-modal transportation.

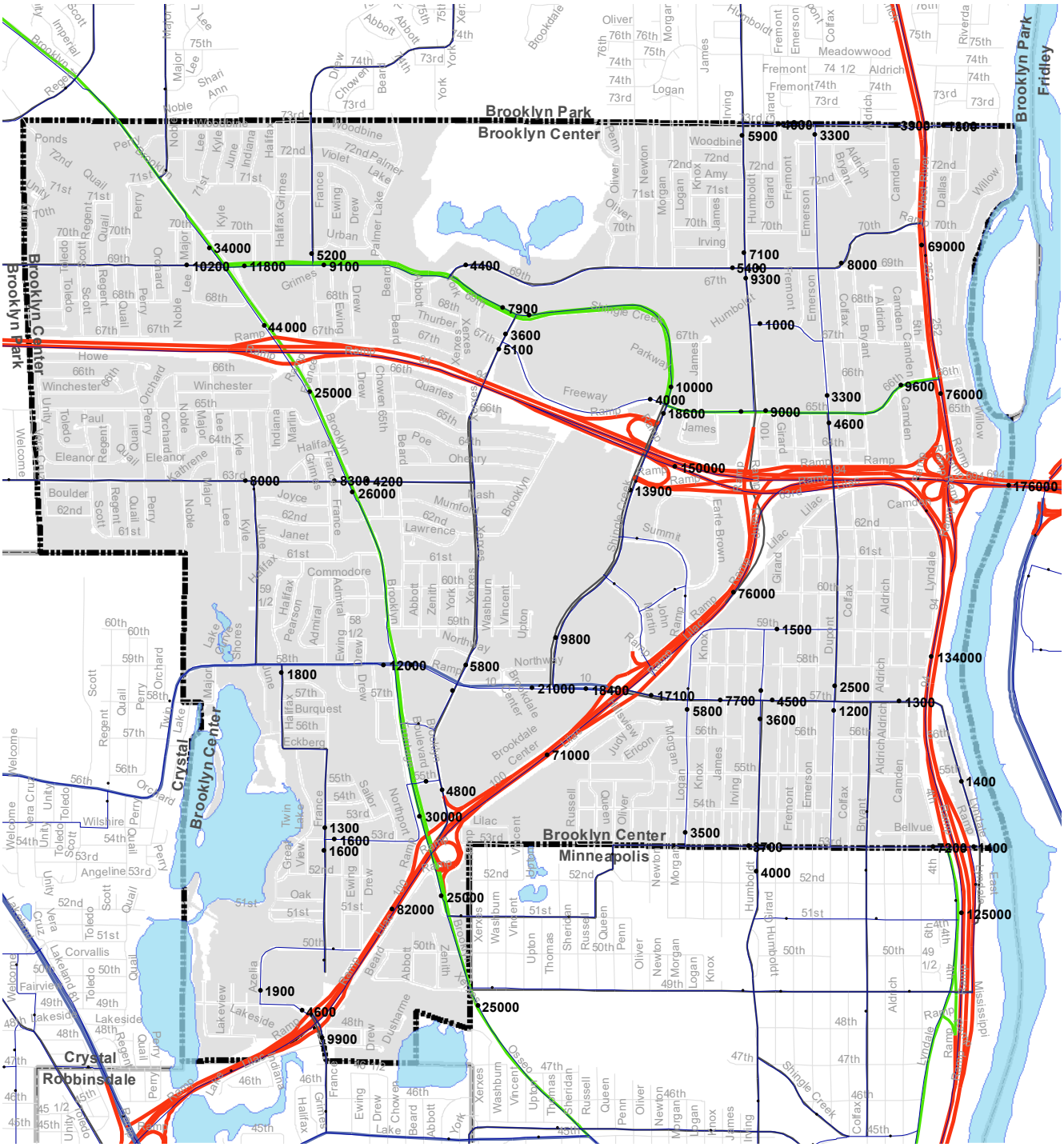
2040 Traffic Volumes

The City of Brooklyn Center engaged SRF Consulting Group to prepare a 2040 Traffic Model consistent with the projected growth identified in Chapter 3 of this Plan. As demonstrated by the 2040 projections some traffic volume increases are anticipated particularly on the road network surrounding the redevelopment areas, or the 'central spine' of the community where there is the most potential for increased intensity of users including mixed-uses, residential and businesses.

Capacity and Safety Issues

In Brooklyn Center's 2030 Plan, congestion and capacity issues were primarily experienced on the principal and minor arterial roadways, with peak hours causing most concern for backups on and off the regional highway system. The traffic forecasts indicated that the demand on these regional facilities continues to increase and worsening congestion continues. However, some recent and planned improvements to both Brooklyn Boulevard and TH 252 are expected to alleviate some of this congestion and provide safer and better access to the City's redevelopment areas.

Map 7-6. 2040 Traffic Volume Projections



To determine the roadway system capacity deficiencies based on the 2040 AADT forecasts the same methodology was used as in the existing conditions. The forecast model and volume-to-capacity analysis was conducted to determine volumes and assess congestion. The analysis based on the 2040 traffic model is reflected in Table 7-6 below.

Table 7-6 Year 2040 Capacity Deficiencies

	Route	Segment	Volume	Roadway Design Capacity	V/C Ratio
Approaching capacity (Volumes Meet or Exceed 85% of Design Capacity	I-694	TH 252 to East River Road	176,000	184,000	0.96
	TH 100	France Avenue to Brooklyn Blvd	82,000	85,000	0.96
		Summit Drive to I-694	76,000	85,000	0.89
	France Avenue	47th Avenue to TH 100	9,900	10,000	0.99
Over Capacity (Volumes Meet or Exceed Design Capacity)	TH 252	I-694 to 65th Avenue	76,000	54,000	1.41
		65th Avenue to 70th Ave	68,000	54,000	1.26
	69th Avenue	Zane Avenue to Brooklyn Blvd	10,200	10,000	1.02

Brooklyn Boulevard

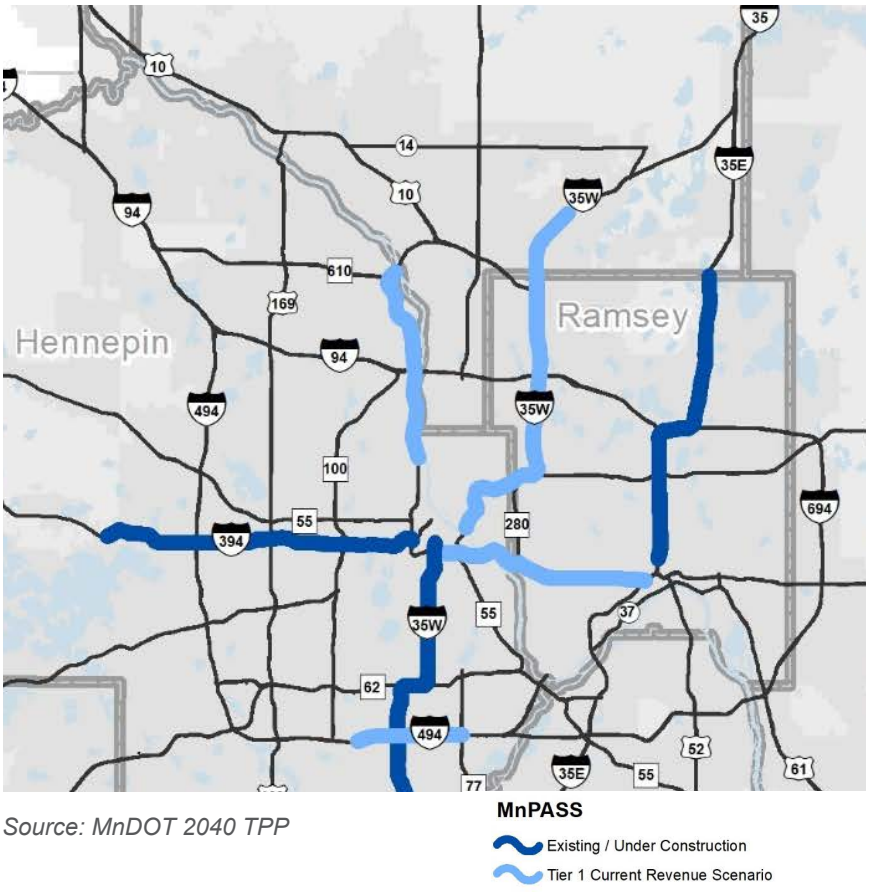
Brooklyn Boulevard was highlighted as a major concern with respect to capacity and safety within the 2030 Plan. In response the City, in coordination with Hennepin County, in 2013 the City commissioned the Brooklyn Boulevard Corridor Study which defined a vision and future roadway concept for the corridor which would improve transportation for all modes; established a cohesive streetscape design to encourage pedestrians, bicyclists, and transit users; and attract and retain businesses. Brooklyn Center and Hennepin County are currently working on an approximately 1.4-mile full reconstruction and streetscape improvement of the roadway that extends from 49th Avenue and Bass Lake Road. The improvements are anticipated to improve auto, transit, bike and pedestrian movements within this corridor. A similar project is programmed for Brooklyn Boulevard from Bass Lake Road to I-694 in 2021. These projects are critical to positioning the corridor and adjacent land uses for redevelopment as designated within the Brooklyn Boulevard Overlay shown on the Future Land Use Plan.

MN 252 / I-94

Along the City's eastern border, I-94 and TH 252 continue to be studied by the Minnesota Department of Transportation (MnDOT) for potential improvements and lane conversions. In 2016 Brooklyn Center commissioned the TH 252 Corridor Study to establish a long term vision for TH 252 to address safety, congestion and neighborhood connectivity issues on TH 252. The goal of the study was to identify the short and long term improvements on TH 252 that should be implemented within Brooklyn Center to accomplish the long term vision.

MnDOT and Hennepin County continue to work with the cities of Brooklyn Center, Brooklyn Park, and Minneapolis on appropriate improvements including entrance and exit ramp locations and lane conversions. Planned improvements for this corridor are identified in the Metropolitan Council's 2040 Transportation Policy Plan (2040 TPP). As part of the Regional Mobility project on MN 252 and I-94, the 2040 TPP identifies freeway conversion of MN 252 and the addition of MnPASS from 610 to Dowling along I-94 (see Map 7-7) in the 2022-2027 Timeframe. These improvements are shown in both Tier I as part of the Current Revenue Scenario and Tier II as part of the Increased Revenue Scenario for Regional Mobility investment.

Map 7-7. MnPASS System under Current Revenue Scenario near Brooklyn Center



Source: MnDOT 2040 TPP

IMPROVEMENT STRATEGIES AND ACCESS MANAGEMENT

Travel Demand Management

Travel Demand Management (TDM) is a set of techniques to reduce peak period vehicle trips by 1) shifting travelers from driving alone into shared ride arrangements, such as ridesharing or transit, or 2) by encouraging alternative work arrangements, such as flextime and telecommuting that remove trips from the peak travel times.

In this metropolitan area and throughout the nation our ability to build our way out of growing congestion and environmental problems is severely limited by the cost of roads and the environmental and social impacts of new and expanded roads. Brooklyn Center's road system allows for very little expansion if any, due to constrained rights-of-way and established land uses. Therefore, the City supports travel demand management as a way to alleviate increasing traffic congestion.

TDM techniques are best implemented through a partnership of cities, regional and state agencies, and employers to encourage travelers to change their behavior through incentives, enhanced services and high occupancy facilities. For example, employers can provide subsidized transit passes, allow staggered work hours to allow travel outside of peak hours, and encourage telecommuting. The state and region provide transit service and facilities such as high occupancy vehicle (HOV) lanes, metered ramps and meter bypasses to allow faster travel times for ride-sharers and transit users. These types of improvements are important for supporting drivers who choose alternatives to driving alone.

As a developed City, Brooklyn Center has limited options for adding lanes and facilities to existing arterials and roadways. Increasing implementation of TDM techniques will fall to partnerships with transit services and employer-based incentives for rideshare, flextime, and telecommuting. In redevelopment areas, future transit facilities and their integration with the broader transportation system within the City will be likely offer prime opportunities for enhancing multi-modal travel and TDM.

Planned Improvements to the Regional Highway System

There are no Principal Arterials or interchanges within Brooklyn Center identified for improvements in the 2040 TPP. The most recent MnDOT highway project within the City was paving a portion of I-94, which was scheduled for completion in 2018. While a project is not identified in the 2040 TPP, a project to covert TH 252 to a freeway, add capacity and add MnPASS lanes on TH 252 and I-94 was funded by the state legislature in 2023 through the Corridors of Commerce funding program.

Although not shown in the 2040 TPP, as previously noted, the TH 252 corridor continues to be studied and MnDOT is working collaboratively with the City of Brooklyn Center and the City of Brooklyn Park on potential future improvements in this corridor. Currently, MnDOT is exploring the potential conversion to a 6-lane grade-separated freeway with exit and entrance ramps from I-694 to TH 610 and is seeking input on locations and configurations of entrance and exit ramps from key stakeholders.

Planned Improvements to the Local and County Roadway System

To manage and plan for regular street maintenance and management the City has adopted the Neighborhood Street and Utility Improvement Plan which is implemented through the Capital Improvement Plan (CIP). The Neighborhood Street and Utility Improvement Plan identifies and plans for the systematic management and maintenance of the City's roadways, and utility infrastructure and basis the improvements on the lifecycle of the infrastructure within a particular area or neighborhood. This Plan will continue to be updated and incorporated as part of the CIP efforts each year.

Access Management

Access to the regional highway system in the City of Brooklyn Center is primarily expected to remain the same through this planning period. Interstates I-94 and I-694 have access only at existing interchanges. These interchange locations are set, and the City does not expect these locations to change. Access to TH 100 was altered with improvements about a decade ago, however, certain movements between I-94 and TH 100 are left with challenges. Eastbound I-94 to southbound TH 100, and northbound 100 to west bound I-94 still require use of local streets to make these movements. The local streets impacted include Brooklyn Boulevard, Shingle Creek Parkway and 65th Avenue. Access to TH 252 continues to be studied by MnDOT in coordination with Brooklyn Center. While a project is not identified in the 2040 TPP, a project to covert TH 252 to a freeway, add capacity and add MnPASS lanes on TH 252 and I-94 was funded by the state legislature in 2023 through the Corridors of Commerce funding program.

Recent Corridor Studies

Access to the minor arterial system, including Brooklyn Boulevard and Bass Lake Road, requires ongoing management to maintain the capacity and safety of these roadways. The Brooklyn Boulevard Corridor Study and the proposed Brooklyn Boulevard corridor overlay land use designation will impact the number of access improvements along this roadway and will be further evaluated and explored as part of the City's zoning ordinance update process to implement this Plan. Hennepin County has guidelines for desirable access spacing on minor arterials and although it may not be possible to achieve the desired spacing with the current land use and development patterns on Bass Lake Road, the City will strive to consolidate access and match Hennepin County guidelines with future development opportunities where possible.

TRANSIT

The City of Brooklyn Center is currently well-served by local transit routes operating mostly on minor arterial and collector roadways. Several express routes also provide ridership to downtown via I-94 and TH 252. Map 7-8 illustrates the existing transit routes in Brooklyn Center. To service these routes, the City has several locations of park and ride lots: 1) at Brooklyn Boulevard, south of I-694, 2) on the west side of TH 252 at 73rd Avenue, and 3) at 65th Avenue and TH 252. Additionally, the Brooklyn Center Transit Station is a transit hub at Bass Lake Road (County Road 10) and Northway Drive providing local connections and opportunities to transfer between intersecting routes.

The express routes in Brooklyn Center benefit from utilizing existing bus-only shoulders along I-94 and TH 252, bringing transit riders primarily in and out of Minneapolis. There are currently no new dedicated bus-only shoulder lanes proposed within the City in the 2040 TPP. There are also no corridors identified for the addition of MnPASS lanes in Brooklyn Center that would encourage ridesharing on these principal arterials.

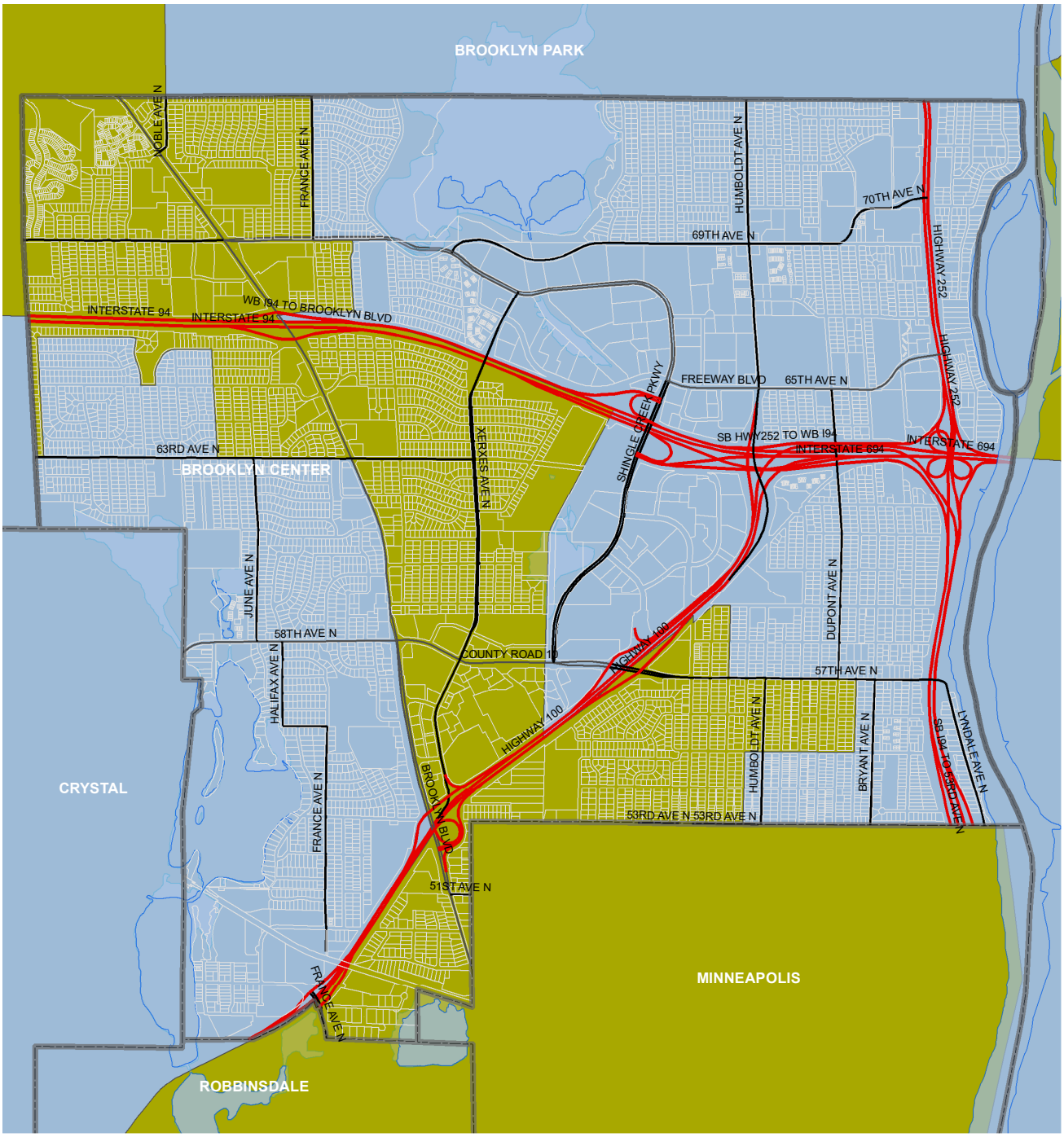
Currently there are no dedicated busways in Brooklyn Center, but the addition of this type of transit facility is underway with the construction of the C-Line Bus Rapid Transit (BRT) operated by Metro Transit. The C-Line will offer frequent bus service on dedicated bus lanes beginning in 2019. BRT service will run between the Brooklyn Center Transit Station and downtown Minneapolis via Brooklyn Boulevard and Xerxes Avenue within Brooklyn Center, and south via Penn Avenue and Olson Memorial Parkway. The C-Line will also offer connections to the Blue Line and Green Line of Light Rail Transit (LRT) service in Minneapolis. Map 7-10 illustrates the future C-Line BRT. The D-Line BRT is also in early design stages of planning and will also provide increased connectivity to residents if constructed.

Transit Market Area

Research by the Metropolitan Council shows that three key factors greatly influence transit use in the metropolitan area: 1) density (population and employment); 2) interconnectedness of the local street system; and 3) the number of cars owned by residents. Based on these key factors, the Metropolitan Council defines five “Transit Market Areas” that indicate the likely cost effectiveness of various types of transit service investments. For example, high density in Market Area I contributes to high ridership which makes it more cost effective for transit investment.

The Metropolitan Council’s 2040 TPP identifies the five transit markets in the metropolitan area and describes the related service characteristics and performance guidelines appropriate in each market. A portion of Brooklyn Center – largely along the Brooklyn Boulevard corridor –

Map 7-8. Transit Market Areas



Market Area

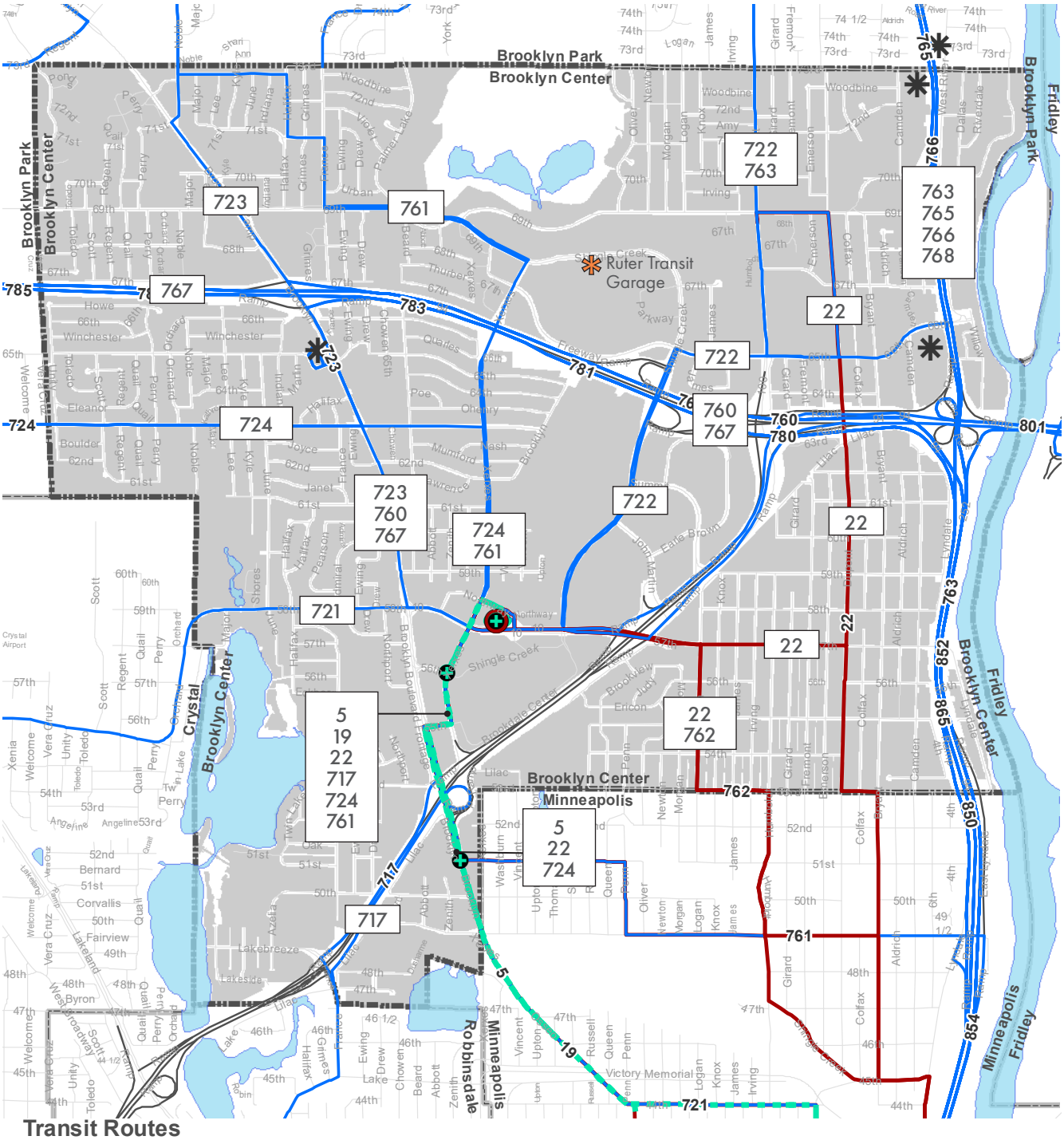
- Transit Market Area II
- Transit Market Area III

0 800 1,600 3,200 4,800 6,400 Feet

Source: MNGEO, Metropolitan Council, City of Brooklyn Center, SHC
DRAFT: 1/9/2019

Map 7-9. Existing Transit Routes

Map 7-10. Planned Transit Routes / Improvements



TRANSPORTATION & TRANSIT
City of Brooklyn Center Comprehensive Plan 2040

is within Transit Market Area II, defined as an area with "high to moderately high population and employment densities and typically has a traditional street grid comparable to Market Area I. Much of Market Area II is also categorized as an Urban Center and it can support many of the same types of fixed-route transit as Market Area I, although usually at lower frequencies or shorter service spans". In Brooklyn Center this Market Area has transit service including regular-route local, all-day express, small vehicle circulators, special needs paratransit (ADA, seniors), and ridesharing. Metro Mobility serves the paratransit needs of the City, and Transit Link operates dial-a-ride services.

The rest of Brooklyn Center falls within the Transit Market Area III. The Metropolitan Council defines this as having "moderate density but tends to have a less traditional street grid that can limit the effectiveness of transit. It is typically Urban with large portions of Suburban and Suburban Edge communities. Transit service in this area is primarily commuter express bus service with some fixed-route local service providing basic coverage. General public dial-a-ride services are available where fixed-route service is not viable". This description seems somewhat inconsistent with the City's development pattern in the areas designated as Transit Market Area III. This is particularly true in the eastern half of the City where residential neighborhoods were developed primarily in an urban grid and densities are relatively consistent with the Minneapolis neighborhoods adjacent to the City's southern border. This discrepancy is important to the City because the designated Transit Market Area is correlated to the types of transit investment and frequency of lines planned and maintained within the area. Some of the City's lowest median household incomes are in neighborhoods designated as Transit Market Area III, and their current transit options are limited to express routes that may not meet their needs. The City would like to work with the Metropolitan Council to explore how transit services might better match the community's needs in the future and look for ways to improve connections and access for all of the City's residents.

Transit Oriented Development

The growth areas identified in Brooklyn Center offer a significant opportunity for implementing transit-oriented development (TOD) in the community. This type of development relies on close proximity to a transit station with regular and frequent service to bring people to and from its destinations. TOD typically includes vibrant public spaces and is pedestrian scale with an active mix of residential and commercial uses. TOD provides Brooklyn Center the opportunity to revitalize its underutilized properties with increased housing and economic development. The redevelopment close to the existing Brooklyn Center Transit Station is best suited for TOD implementation, especially with the addition of the C-Line BRT, and possible future D-Line BRT. Connections with other transit modes and trails can also bolster TOD along the Brooklyn Boulevard corridor.

Transit Plan

The most significant plan for transit in Brooklyn Center is the implementation of the C-Line BRT. With its connections to existing and future LRT and regular direct service to downtown Minneapolis, the BRT will provide the anticipated increase in transit demand for future residents in the City. With service terminating at the Brooklyn Center Transit Station, BRT will provide service in close proximity to Brooklyn Center's primary redevelopment areas where increased higher-density residential and increased employment is expected to be located. (See Map 7-10 for Planned C-Line). It is also possible within this planning period that the D-Line BRT will be constructed, offering additional regional connections with the Transit Center.

BICYCLE AND PEDESTRIAN SYSTEM

Although Brooklyn Center primarily developed in the suburban boom of auto-centric development, changes in the regional economy, City's demographics, and personal attitudes of residents' influence demand for comfortable, safe, and accessible bicycle and pedestrian system within the City. The desire for bicycle-friendly and walkable neighborhoods is on the rise and has been expressed by Brooklyn Center's residents. To address these needs, the City took initiative to develop and adopt a policy for Complete Streets in 2013 to return focus on pedestrian-oriented streets and bicycle accommodation.

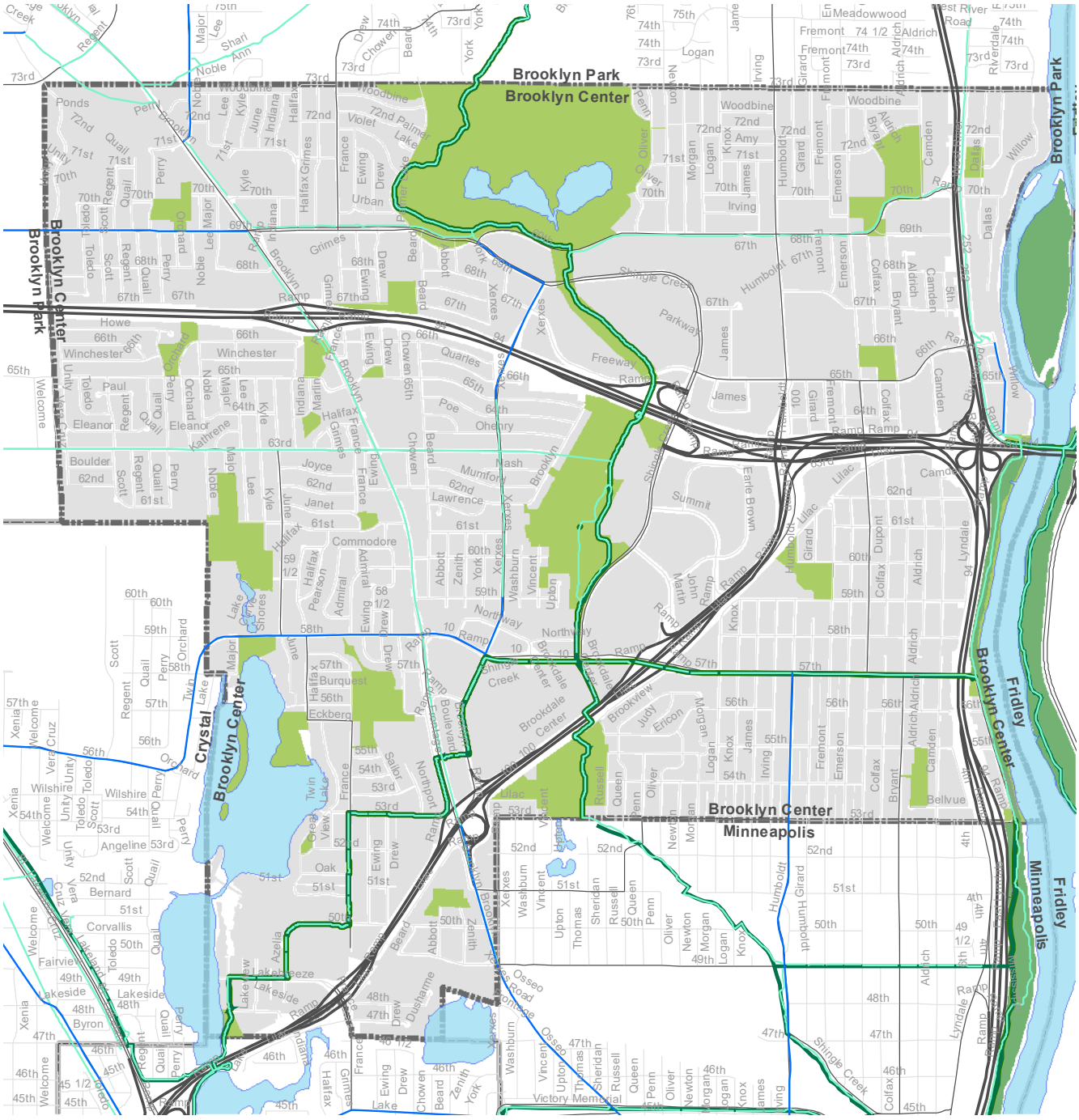
Another step in these efforts was completed in 2014 with the adoption of the City of Brooklyn Center Pedestrian & Bicycle Plan that addresses maintenance and development of an integrated city-wide bicycle and pedestrian system. This plan recognizes that several jurisdictions and organizations manage and implement the bicycle and pedestrian facilities within the City but focuses on the importance of managing these facilities as an integrated and cohesive system. The system includes sidewalks, trails, and on-road facilities—managed by the City, Three-Rivers Park District, and Hennepin County—effectively linking its parks, schools, commercial areas, civic buildings, and transit services. As shown on Map 7-11, sidewalks provide pedestrian access along most minor arterial and collector streets and along an interconnected system of local streets. Map 7-12 illustrates the existing bicycle and pedestrian system – along with proposed connections – as it was mapped in 2014.

Existing Conditions / Barriers / Gaps / Challenges

As described and discussed in the Brooklyn Center Bicycle and Pedestrian Plan (2014), the City utilizes a system of various facilities to accommodate bicycle and pedestrian traffic and connections to key destinations in the community. These facilities currently include a combination of sidewalks, trails, on-road bicycle lanes, regional trails, and county bikeways. Management of these facilities is shared between the City, Hennepin County, and Three Rivers Parks District.

The 2014 Plan attempts to look at the various facilities under multiple jurisdictions as a complete system by identifying barriers, gaps, and challenges hat impeded the cohesive function of the broader system. In the 2014 plan, system challenges were identified through a number of efforts including staff review, community surveys, and through planning studies from the various jurisdictions.

Map 7-11. Existing Sidewalks



County and State Trails & Bikeways

- Off Street Trails
- Regional Trails
- State Trails

Hennepin County Bikeway System

- Bikeway Off-Street
- Bikeway On-Street

Source: MNGEO, Metropolitan Council, City of Brooklyn Center, SHC
DRAFT: 1/9/2019

0 0.25 0.5 1 1.5 2 Miles

Map 7-12. Existing Bicycle and Pedestrian System (2014)

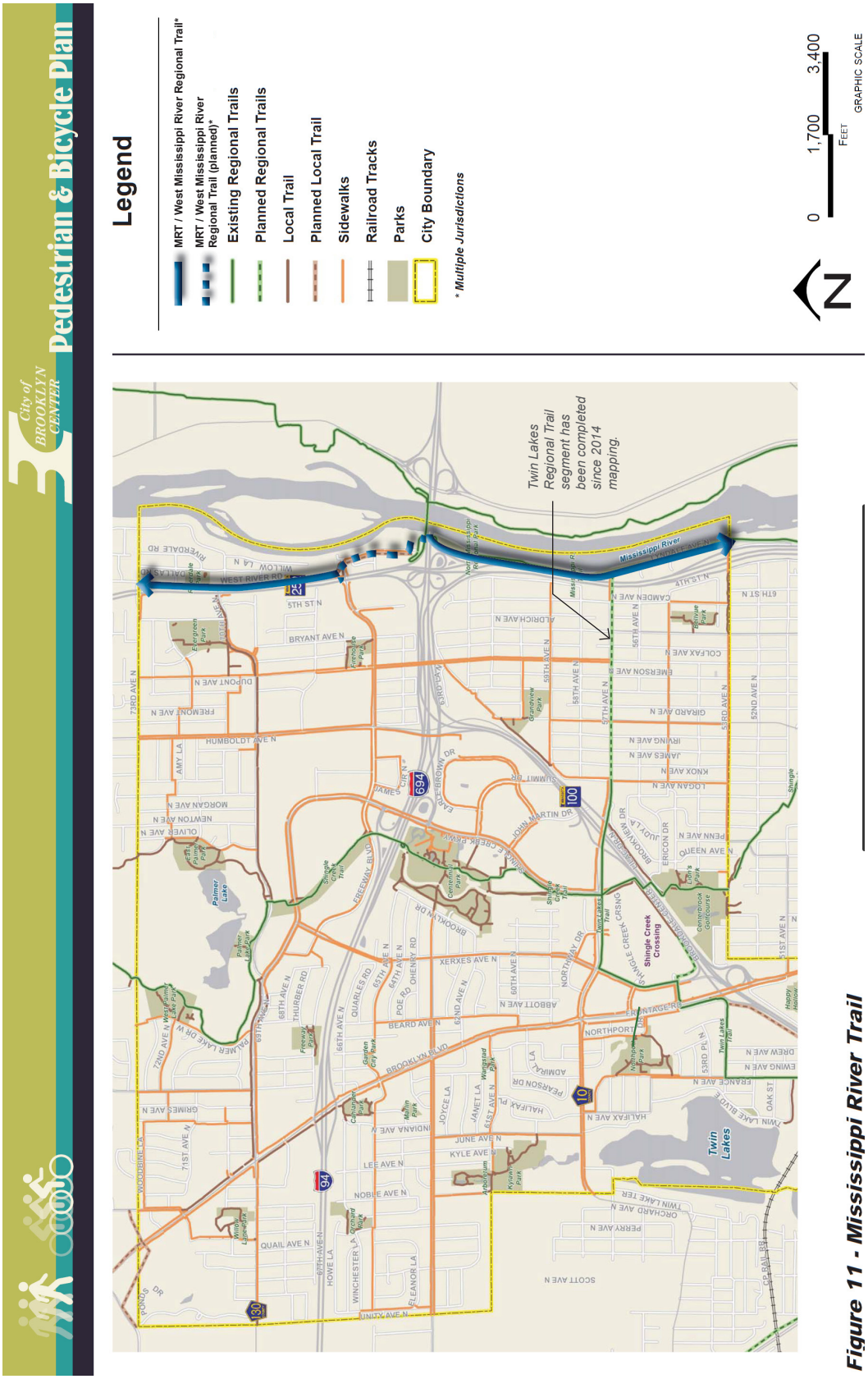


Figure 11 - Mississippi River Trail

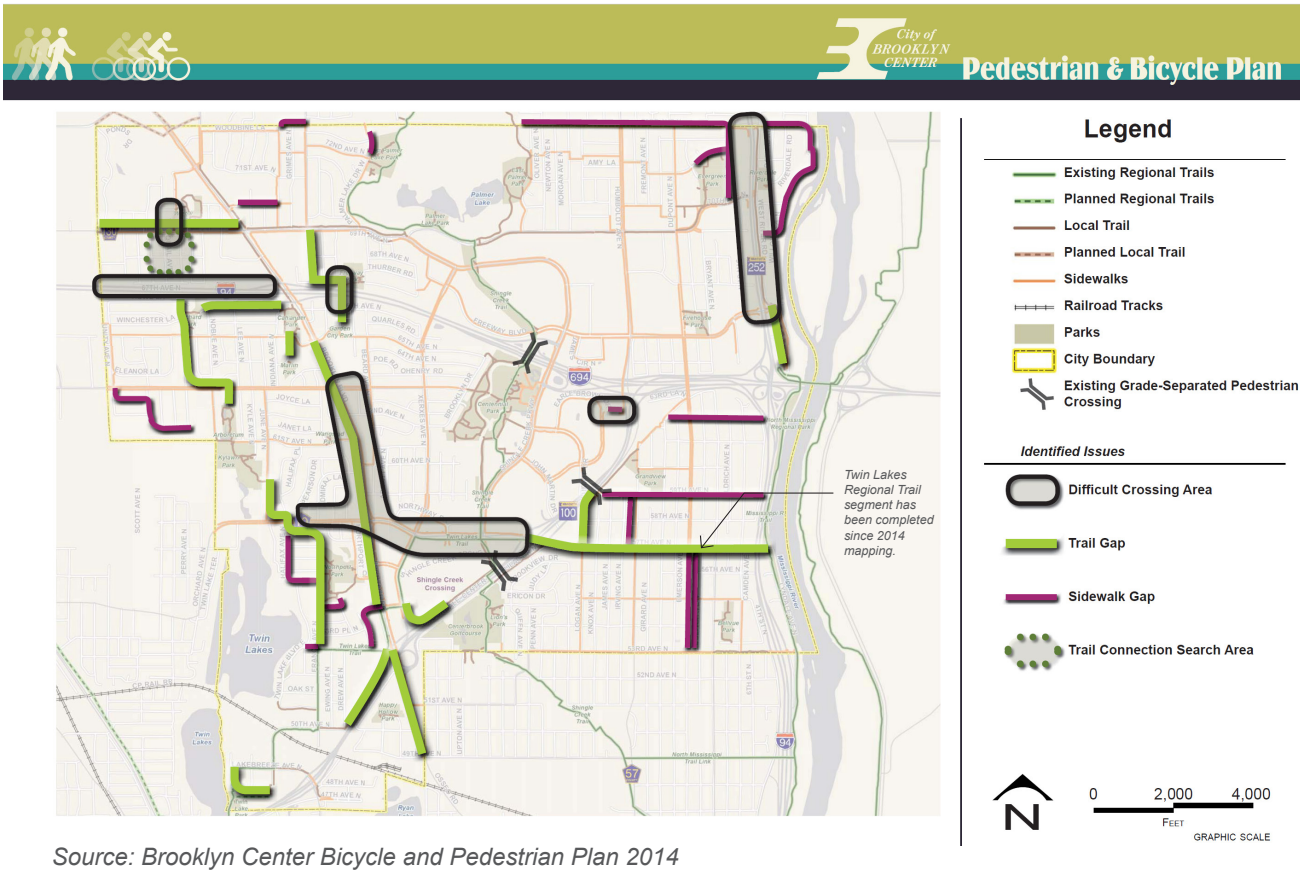
Source: Brooklyn Center Bicycle and Pedestrian Plan 2014

Studies also included information from completed "safe routes to school" planning completed jointly by the City and school districts. Information collected about system challenges was sorted into eight categories:

1. System Gaps
2. Crossings
3. Wayfinding
4. Infrastructure Condition and Maintenance
5. Security
6. Education/Enforcement
7. Equipment
8. Other

Detailed information about challenged related to each of the eight categories can be found in the 2014 Bicycle and Pedestrian Plan. Map 7-13 illustrates the challenges currently identified in the system.

Map 7-13. Gaps and Challenges in the System



Source: Brooklyn Center Bicycle and Pedestrian Plan 2014

Plan for Bicycle and Pedestrian System

The City of Brooklyn Center continues to work with other jurisdictions to manage and develop the system of facilities and corridors that contribute to the City's Bicycle and Pedestrian System. From the system challenges analysis, recommendations to improve the system are identified in the 2014 Plan and outline an overall vision for pedestrian and bicycle facilities within the community, providing broad recommendations for activities and practices that will encourage the long-term use of the system and a healthy lifestyle.

The future of trail and sidewalk network in the City should follow direction in the 2014 Plan that reflects the input of residents and study participants to encourage connection along with opportunities for recreation and commuting/transport. The proposed vision for the trail and sidewalk network:

- Creates linkages to existing and planned recreational facilities
- Creates linkages to schools from residential areas
- Creates linkages to community destinations (city hall, community center, mall, etc.)
- Creates linkages along transit lines and to transit facilities (bus stops, park and rides, etc.)
- Eliminates gaps in the existing network
- Provides parallel/separated facilities on higher-volume and/or higher-speed roadways

Map 7-14 illustrates the proposed sidewalk and trail system as envisioned in the 2040 Plan.

On-Road Bicycle Facilities will broaden the multi-modal connections in the City. The 2040 Plan did not identify recommendations for specific implementation of on-road bicycle lanes or shoulders, but recommended study of specific corridors for appropriateness of future implementation. Opportunities as part of reconstruction or redevelopment projects was also recommended for exploration of on-road bicycle accommodation.

Corridors for potential study/consideration include:

- County Road 10 (58th Ave/Bass Lake Road): between western city limits and Xerxes Ave N
- County Road 57 (Humboldt Avenue): from 57th Avenue to the southern city limits
- County Road 130 (69th Ave): between western city limits and County Road 152 (Brooklyn Blvd)
- 69th Avenue: between County Road 152 (Brooklyn Blvd) and West River Road
- Shingle Creek Parkway: from 69th Avenue to Xerxes Ave N
- West River Road: from northern city limits to I-694 crossing
- Xerxes Ave North: from Shingle Creek Parkway to County Road 10 (Bass Lake Road)

Map 7-14. Existing and Proposed Sidewalk and Trail System

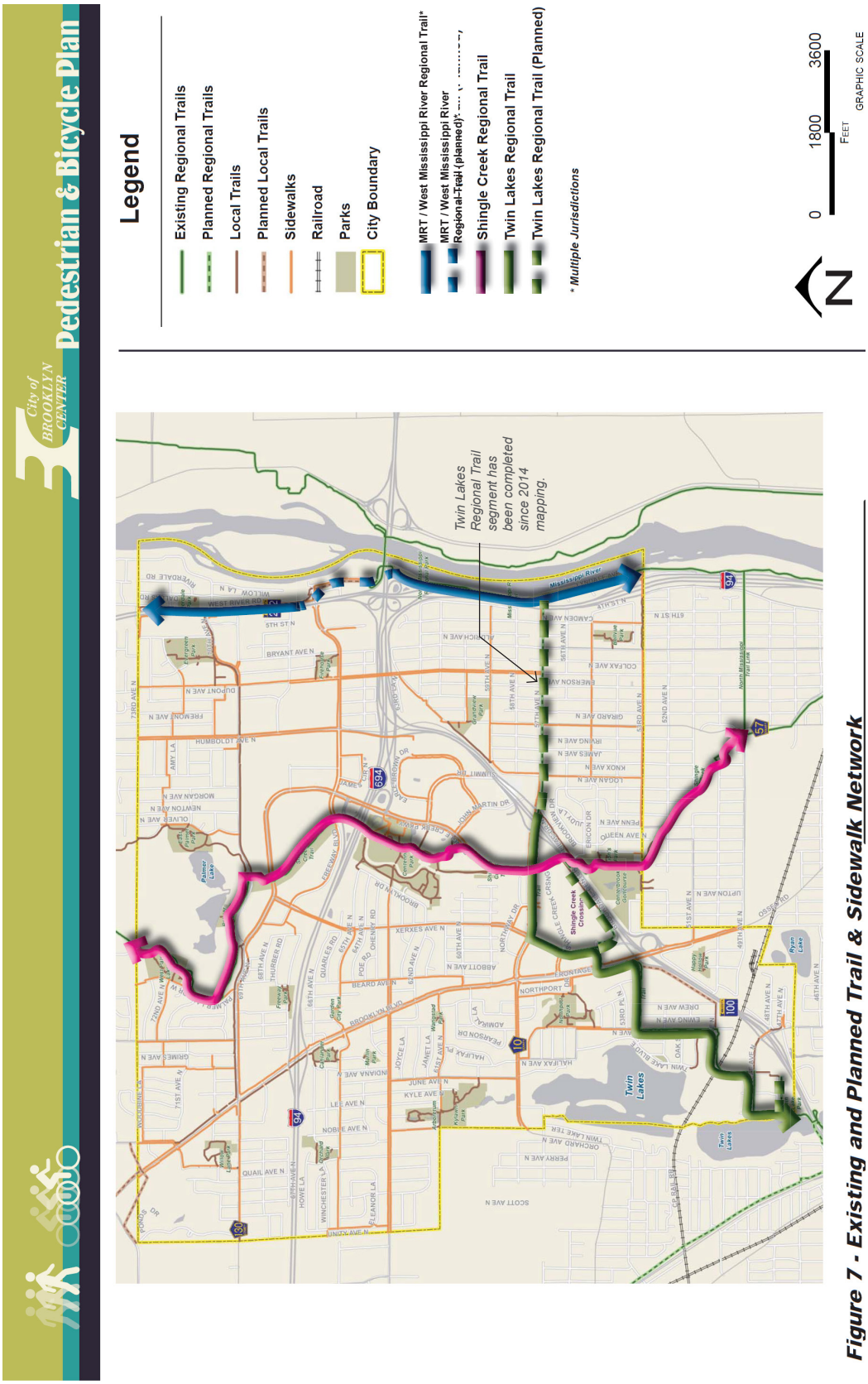


Figure 7 - Existing and Planned Trail & Sidewalk Network

Source: Brooklyn Center Bicycle and Pedestrian Plan 2014

The 2014 Plan also recommends improvements at street crossings and signalized intersection, locations for improved wayfinding, improved maintenance, and specific policies, partnerships, and practices that will enhance the overall system.

Map 7-15 illustrates the proposed recommendations system-wide. More descriptive information can be found in the 2014 Plan.

Safe Routes to School

MnDOT's Safe Routes to School program funds grants each year for improving safe options for student to walk and bike to school. This program can directly influence bicycle and pedestrian facilities in the City that benefit both students and all City residents with planning and infrastructure implementation. The City should continue to access the Safe Routes to School program and work with MnDOT to utilize available benefits.

Regional Bicycle Transportation Network (RBTN)

As demonstrated in the previous sections, the City has been planning proactively to develop an interconnected bicycle and pedestrian network that serves not only the City's residents, but the larger region. Fortunately, many of the City's planning efforts support and are consistent with the Metropolitan Council's Regional Bicycle Transportation Network (RBTN) objectives that are focused on connecting regional and sub-regional job centers with bikeways offer people commuter mode choice. As shown on Map 7-16, some opportunities remain particularly along the Brooklyn Boulevard and the Mississippi River corridors to improve connections.

SPECIAL TRAFFIC SITUATIONS

Brooklyn Center is not located in one of the four special traffic situation areas: downtown Minneapolis, downtown Saint Paul, University of Minnesota, and Airport South / Mall of America in Bloomington.

Map 7-15. Long-Term Bicycle and Pedestrian Plan

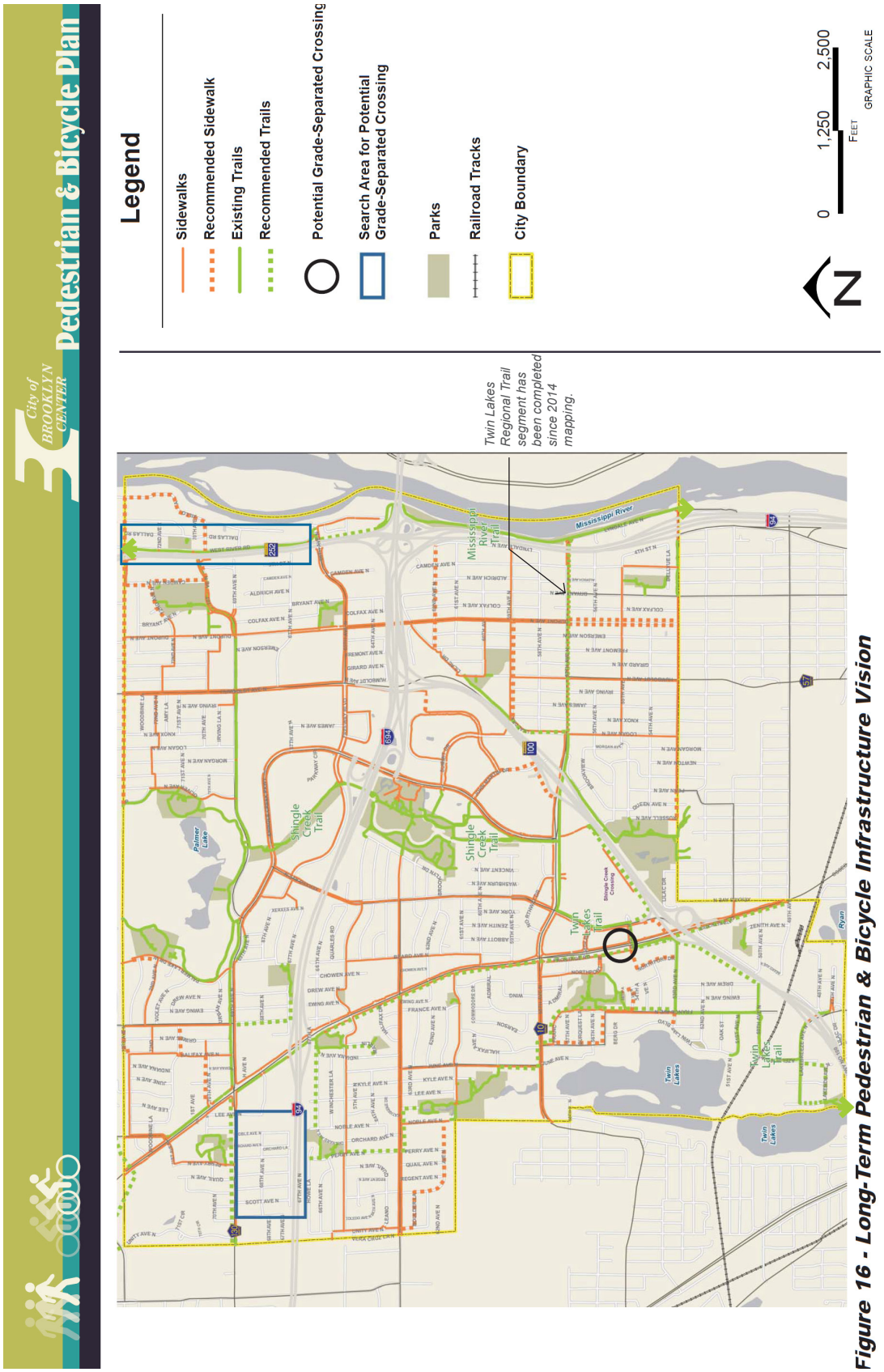
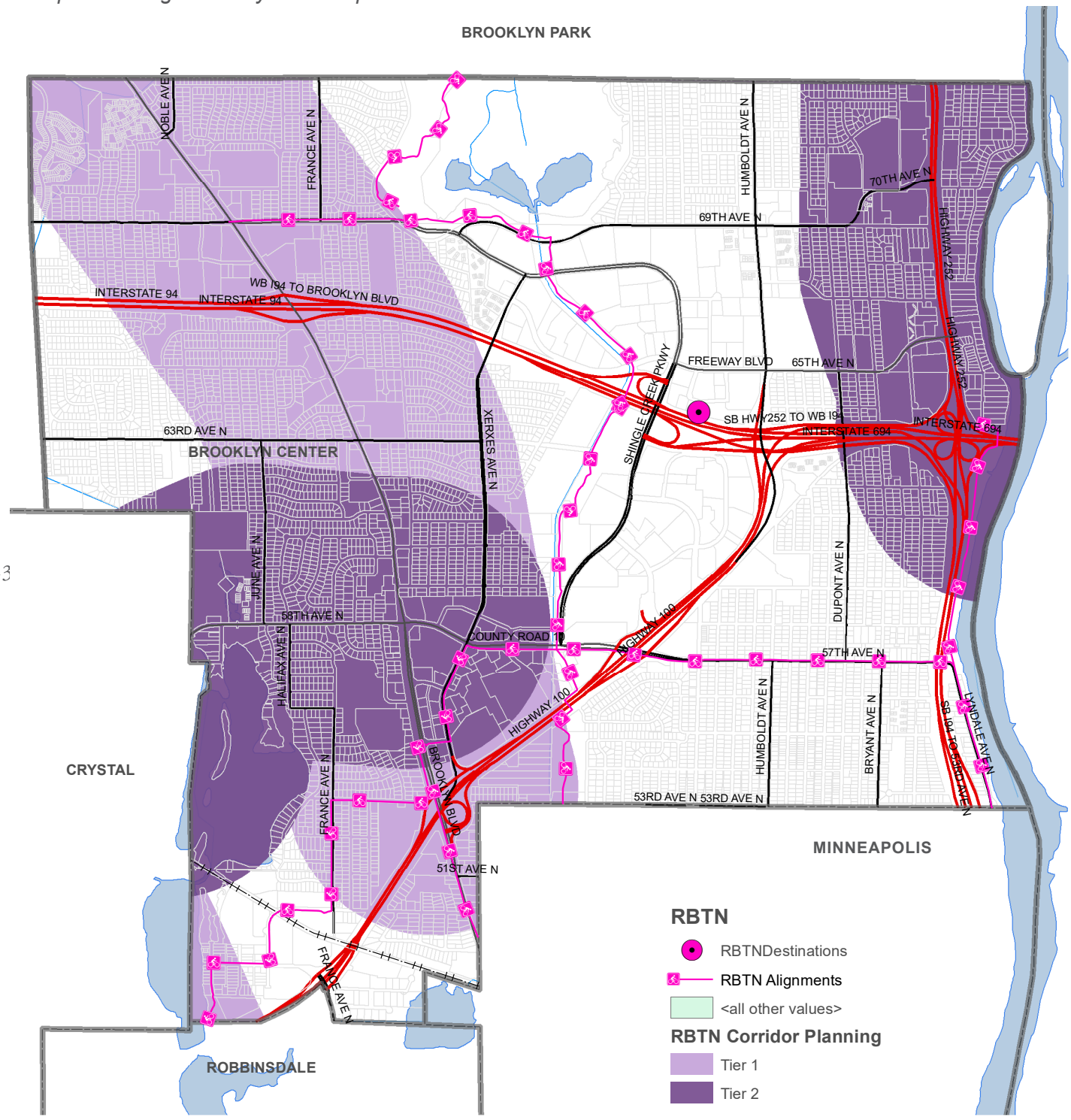


Figure 16 - Long-Term Pedestrian & Bicycle Infrastructure Vision

Source: Brooklyn Center Bicycle and Pedestrian Plan 2014

Map 7-16. Regional Bicycle Transportation Network



Source: MNGEO, Metropolitan Council, City of Brooklyn Center, SHC
DRAFT: 1/9/2019

AVIATION PLAN

While the City does not directly host an airport, Crystal Airport is located adjacent to the Brooklyn Center's west border south of 63rd Avenue and is therefore within the influence area of this airport. Crystal Airport is a designated reliever airport for the Minneapolis-St. Paul (MSP) Airport. Airspace over Brooklyn Center is also used by aircraft operating from Metropolitan Area airports and other airports. A small portion of the Crystal Airport is located within Brooklyn Center, largely within the Shingle Creek floodway; the land is controlled by the City's floodplain zoning and not suitable for development.

Brooklyn Center is a member (with Crystal and Brooklyn Park) of the joint Airport Zoning Board, which functions under a joint power agreement to regulate land use around the airport. In the early 1980s, the Zoning Board adopted airport zoning regulations which apply to each of the member cities. The airport zones are shown on the Brooklyn Center zoning map, but the text of the regulations has not been incorporated into the City's zoning ordinance.

Airspace zones are imaginary surfaces around the airport into which no structure or tree is permitted. The imaginary surfaces include approach surfaces, primary surfaces, horizontal surfaces and conical surfaces. Land use safety zones are established to control land uses near public airports for the safety of airport users and persons in the vicinity of airports. There are three safety zones: A, B and C.

Safety zone A extends outward from the end of the runway for a distance equal to two-thirds of the length of the existing or planned runway. No buildings, transmission lines, or uses that would cause an assembly of persons are permitted. In Brooklyn Center, this area is partially airport-owned open space and partially in single-family residential use. Safety zone B extends outward from safety zone A, a distance equal to one-third the existing or planned runway length. It covers an additional single-family residential area. Safety zone C contains all land within an arc drawn with a 6,000-foot radius from the ends of all runways, excluding the areas in zones A and B. Uses are only subject to general restrictions regarding interference with electronic communications, airport lighting and the impairment of visibility in the vicinity of the airport. In Brooklyn Center, this zone extends as far as Brooklyn Boulevard, encompassing a wide range of land uses.

Structures which are 150 feet or higher above ground level and within approximately two miles of the airport may be considered hazards to air navigation. Brooklyn Center has no existing structures of this height, does not permit such structures under its zoning ordinance, and has no plans to permit such structures in the future. Any applicant who proposes to construct such a structure shall notify the city, the Minnesota Department of Transportation and the Federal Aviation Administration at least 30 days in advance as required by law (MCAR 8800.1200

Subpart 3 and FAA form 7460-8). The FAA recommends that proposed structures be reviewed if they are located within two miles of the airfield and within five miles of a runway approach corridor. The Metropolitan Airports Commission recommends that any proposed structure within these parameters which may exceed 50-feet should be reviewed by the FAA, Mn/DOT Aeronautics and the Metropolitan Airports Commission.

Map 7-17 illustrates the location of the Crystal Airport, its runways, and safety zones for the area.

Map 7-17. Crystal Airport Location and Air Safety Zones