West End and Route 9 Transit Study Recommended Plan

March 2017



METROPOLITAN COUNCIL

Metro Transit

Table of Contents

EXECUTIVE SUMMARY: WEST END AND ROUTE 9 TRANSIT STUDY **1**

- Study Area
- Project Goals
- Recommended Plan
- Public Outreach and Next Steps

CHAPTER 1: STUDY BACKGROUND AND CONTEXT **4**

- Scope and Purpose
- Goals/Objectives
- Evaluation Criteria
- Relevant Transit Plans and Projects in the Study Area

CHAPTER 2: EXISTING TRANSIT SERVICE **8**

- Transit Market Areas
- Demographics and Land Use
- Regional Transit Standards
- Existing Service Levels, Performance and Facilities

CHAPTER 3: RECOMMENDED PLAN **17**

- Proposed Service Changes
- Projected Budget, Resources and Route Performance

CHAPTER 4: TITLE VI AND ENVIRONMENTAL JUSTICE **22**

- FTA Definitions
- Evaluation

CHAPTER 5: PUBLIC ENGAGEMENT AND NEXT STEPS **25**

- Pre-Concept Plan Outreach
- Concept Plan Outreach
- Outreach Conclusions
- Next Steps

APPENDIX A

Figure 1: Study Area
Figure 2: Transit Market Areas
Figure 3: Population Density by Census Block
Figure 4: Employment Density by Census Block
Figure 5: Jobs Paying Less than $40,000 Annually
Figure 6: Low-Income Communities by Census Block Group
Figure 7: People of Color by Census Block
Figure 8: People with Disabilities by Census Tract
Figure 9: Number of Vehicles Compared to Population Over age 16 by Census Block Group
Figure 10: Study Area Average Weekday Boardings by Stop
Figure 11: Study Area Average Saturday Boardings by Stop
Figure 12: Study Area Average Sunday Boardings by Stop
Figure 13: Recommended Plan
Figure 14: Recommended Plan (with eliminated route segments)
Figure 15: Existing and Proposed Resources by Route
Figure 16: Distribution of Minority and Non-Minority Populations
Figure 17: Distribution of Low-Income and Non-Low Income Populations
Figure 18: Change in Existing Level of Service

APPENDIX B

Route Profile: Route 9
Route Profile: Route 25
Route Profile: Route 604
Route Profile: Route 645 (formerly 675)
Route Profile: Route 64

EXECUTIVE SUMMARY: WEST END AND ROUTE 9 TRANSIT STUDY

The West End and Route 9 Transit Study focuses on the changing travel patterns in parts of north Minneapolis, Golden Valley, St. Louis Park and Minnetonka and proposes modifications to the transit network to address this new demand. While downtown Minneapolis is still a major regional employment area, most of the region's jobs are in dispersed car-oriented suburban employment zones. However, recently more emphasis has been placed on creating suburban areas that integrate residential and employment development together in a pedestrian and transit friendly environment. The West End development near I-394 and Highway 100 in St. Louis Park and Golden Valley is a good example of this type of transit-oriented development.

Study Area

The project examines existing transit service and opportunities for improvements along Route 9 (west of downtown Minneapolis) and near the growing high-density job and residential opportunities in the West End development. Specifically, the study area is bordered in general by I-94 to the east, Glenwood Avenue on the north, County Road 73 (Hopkins Crossroad) to the west and Cedar Lake Road/26th Street to the south. Routes under review for this project include Route 9 west of downtown, Route 25 along France Avenue, Route 604 east of Louisiana Avenue Transit Center, and routes 649 and 675 east of the Louisiana Avenue Transit Center.

Project Goals

Goals of the study include simplifying the route structure, providing better connectivity between the West End and downtown Minneapolis, improving the performance and productivity of service in the study area, and ensuring that under-represented communities that rely on transit share in the benefits of service improvements:

- Route 9 currently has six branches. Simplifying the route structure to eliminate some of these variations will make the route easier for customers to understand.
- Creating efficient schedules that provide more reliable and cost-effective service
- Improving the performance of these routes by reducing or eliminating service on under-utilized or duplicative route segments
- Focusing on opportunities to grow ridership and increase transit market share by recognizing the demographic and development changes that are taking place. This includes providing a faster connection between downtown and the significant mixed use development at the West End as well as ensuring that under-represented communities that rely on transit share in benefits of proposed improvements.

Recommended Plan

The recommended plan proposes routing and frequency changes on Routes 9, 25, 604, 649 and 675. Route 9 will be simplified, with fewer route variations and elimination of service on some route segments. Route 25 will be rerouted to cover eliminated segments of routes 9 and 649. Route 604 will no longer operate between Louisiana Avenue Transit Center and Park Place Park & Ride. Route 649 is proposed for elimination and will instead be served by routes 9, 25 and new route 645. Route 675 will become a new limited-stop route (Route 645) serving the West End and providing a fast connection to downtown Minneapolis.

Route 9

Route 9 will be simplified from six variations to two branches. Service is proposed to be eliminated on Cedar Lake Road between Penn and Glenwood, on the 9B branch along Xenia and Glenwood Avenue west of Penn, and on the 9H branch along Ewing and France. One hundred eight one-way trips by 54 riders are affected by these changes; 42 of these riders are more than a quarter-mile from other service. Route 9D service along Wayzata Boulevard, Zarthan and 16th Street will be replaced by new Route 645 service, resulting in a 33 percent increase in service.

All trips will serve the intersection of Glenwood and Penn avenues in the Bryn Mawr neighborhood, providing a more consistent routing and improving the frequency of service to the area of highest ridership. All trips will also serve Laurel and Upton avenues and the West End via Wayzata Boulevard, Utica, 16th Street and Park Place.

Also, for the entire route, south of downtown as well as west of downtown, the weekday frequency will be adjusted on the fringe of the AM and PM rush hours from every 20 to 30 minutes, and in the peak hour from 15 to 20 minutes.

Service on Route 9N on Cedar Lake Road west of Louisiana Avenue to the Greenbrier area in Minnetonka will be improved in the off-peak and will be available hourly on weekdays to match the weekend schedule. During peak periods this area will continue to be served by express routes 643 and 663.

Route 25

At France Avenue and Cedar Lake Avenue the route will be revised to serve eliminated segments of routes 9H and 649. The four-block segment of Route 25 on France Avenue between Cedar Lake Avenue and Lake Street will be eliminated. Alternate service is available at Lake Street and France via Route 17.

Six reverse commute trips, four coming from downtown to southwest Minneapolis in the morning rush hour and two going to downtown in the afternoon rush hour, will be eliminated. The six trips have a combined ridership of fewer than six riders beyond a quarter-mile of an alternate bus stop.

Route 604

The portion of the route between Louisiana Avenue Transit Center and Park Place Boulevard and Wayzata Boulevard is proposed for elimination and will be replaced by new Route 645. Twenty-four one-way trips by 12 riders who currently ride east of Louisiana Avenue Transit Center will instead have to transfer between Route 604 and new Route 645. This route change will eliminate route duplication and allow for better timed connections.

Route 649

To avoid route duplication, Route 649 will be eliminated and replaced by routes 9, 25 and new Route 645. Customers currently boarding on Cedar Lake Road west of Park Place will instead be served by Route 9. The number of trips on this segment will more than double. Route 25 will serve Cedar Lake Road east of Highway 100 in the area of Cedar Trails Condos with four roundtrips as compared to the current five on Route 649. Travel time for existing Route 649 riders using routes 9 and 25 will increase by 16-20 minutes. Seventy one-way trips by 35 riders are affected by this change; all 35 are more than a quarter-mile from alternate express service.

Customers using the Park Place Park & Ride and those using Route 649 to commute to jobs in the West End will be served by new Route 645 have no increase in travel time and will see a 32 percent increase in trips between downtown and the West End. All Route 649 customers will continue to have a one-seat ride to downtown Minneapolis.

Route 675/new Route 645

A significant improvement proposed in this concept plan is all-day limited-stop service between downtown Minneapolis and the West End via I-394 all days of the week, providing a 32 percent increase in service to the West End and a trip that is 16 minutes faster than currently provided on Route 9. Existing Route 675 would be modified to create this connection east of the Louisiana Avenue Transit Center by traveling on Wayzata Boulevard, Zarthan Avenue, 16th Street, Park Place and I-394. The route is no longer an express route, so it will be renumbered to Route 645 and a less-expensive local fare will be charged.

This reroute adds two to four minutes of travel time for existing riders. Most customers board at park-and-ride lots with alternate express service, but there are 72 riders boarding east of Ridgedale Shopping Center during the morning rush hour who do not have an alternative and will be affected by the longer travel time.

Public Outreach and Next Steps

An official public comment period was held in September 2016 to allow riders and other stakeholders the opportunity to provide feedback on the Concept Plan. Information about the proposed service changes was available online and staff boarded buses to notify customers and reach out to other community-based organizations to help spread the word about the proposed service changes. In addition, the public was invited to submit comments via telephone, fax, email and the Metropolitan Council website.

Based on comments received, staff reviewed several options for retaining service on the 9B and 9H branches while staying within budget and achieving primary project goals. The recommended revisions address Route 9H customer concerns and achieves overall project goals while being sensitive to existing budget realities.

Metro Transit will continue community outreach through March 2017 to notify stakeholders of the updated Recommended Plan.

Outreach activities will include:

- Update stakeholders and all individuals who submitted public comment on the Concept Plan.
- Publish service changes in *Connect*, Metro Transit's onboard newsletter.
- Update the project website (metrotransit.org/west-end).
- Staff will make onboard announcements, post notices at selected bus stops, and issue Rider Alerts on affected routes.
- Hold a community meeting in March 2017 for attendees to view and comment on the Recommended Plan.
- Continue tracking customer feedback on the Recommended Plan.

The plan will be presented to the Metropolitan Council in April 2017 for final approval. Implementation is planned for August 2017.

CHAPTER 1: STUDY BACKGROUND AND CONTEXT

The public transit system is the backbone of the Metropolitan Council's 2040 Transportation Policy Plan (TPP) to accommodate the population and employment growth forecast for the region. The purpose of the West End and Route 9 Transit Study is to recommend service changes to better accommodate existing population and employment in the study area as well as forecasted growth.

There has been transit service along Glenwood Avenue and serving the Bryn Mawr neighborhood since the late 1800s. After World War II, with Minneapolis still the major focus of employment in the metro, service on the Glenwood and Bryn Mawr routes were extended further west to accommodate residential development in Golden Valley and St. Louis Park. Express service to downtown Minneapolis was added in the late 1980s and early 1990s.

Employment patterns have shifted dramatically. While downtown Minneapolis is still a major regional employment node, many of the region's jobs are located at dispersed car-oriented suburban employment nodes with free parking and poor pedestrian infrastructure. In 1960, about 60 percent of workers living in Golden Valley and St. Louis Park were employed in Minneapolis; today, it is less than 30 percent.

Within the past decade, more emphasis has been placed on creating suburban nodes that integrate residential and employment development together in a pedestrian and transit friendly environment. The West End in St. Louis Park, located in the southwest quadrant of I-394 and Highway 100, is a good example of this type of development which is often referred to as Transit Oriented Development (TOD).

Scope and Purpose

The West End and Route 9 Transit Study examines existing transit service and opportunities for improvements along Route 9 (Glenwood Avenue, Cedar Lake Road) and near the growing high-density job and residential opportunities in the West End development. The study includes parts of Minneapolis, St. Louis Park, Golden Valley and Minnetonka. Specifically, the study area is bordered by I-94 to the east, Glenwood Avenue on the north, County Road 73 (Hopkins Crossroad) to the west and Cedar Lake Road/26th Street to the south. A map of the study area is in **Figure 1**.

Routes 9, 25, 604, 615, 643, 649, 663 and 675 all operate some level of local service in the study area. Routes specifically under review for this project include Route 9 west of downtown, Route 25 along France Avenue, Route 604 east of the Louisiana Avenue Transit Center, Route 649 and Route 675 east of Louisiana Avenue Transit Center. Routes 615, 643, 663 and several express routes that operate non-stop on I-394 and Highway 100 through the study area are not included in the project.

Goals/Objectives

The transit study focuses on simplifying Route 9, providing better connectivity between the West End and downtown Minneapolis, improving the reliability and productivity of service in the study area, and ensuring that under-represented communities that rely on transit share in the benefits of service improvements. Goals and objectives include:

- Improving the performance of Route 9 by eliminating low ridership branches and streamlining the route making the route easier to understand.
- Creating routes and schedules that are more reliable and efficient, providing better on-time performance
- Improving transit access for those reliant upon transit to both services and jobs.
- Improving transit system connections – particularly between downtown Minneapolis and the job rich West End

- Supporting transit-oriented development
- Compatibility with future plans in the study area (e.g., Service Improvement Plan, METRO Blue and Green Line Extension connecting bus plans, C Line rapid bus line)

Evaluation Criteria

Recommended service changes are considered based on how well they meet the goals outlined above, which can be measured using criteria that evaluate productivity, social equity and connectivity. The criteria below are designed to help review and prioritize specific service changes and the investment of limited resources.

- Improved route structure and network
    - Route 9 structural improvements-more direct, easier to understand with fewer variations
    - Schedule reliability and network efficiency
    - Faster off-peak travel time between downtown and West End
- Service performance
    - Passengers per in-service hour
    - Grow ridership by attracting new riders, retaining existing riders
- Equity and market considerations
    - Low-income communities, people of color and people with disabilities
    - Auto availability
    - Population and employment density data, especially access to jobs paying less than $40,000 a year

These criteria are supported by the direction laid out by the Metropolitan Council in Thrive MSP 2040 and the 2040 TPP.

Relevant Transit Plans and Projects in the Study Area

Regional and local planning work influence transit service in the study area. Priorities for the regional transportation system are set in the 2040 TPP. The plan sets policies for the regional transportation system based on the goals and objectives in Thrive MSP 2040, the region's development guide. Metro Transit's Service Improvement Plan (SIP) builds on the TPP by identifying and prioritizing specific local and express bus improvements.

Metro Transit continually reviews and updates individual bus routes to reflect the changing nature of development and travel in the Twin Cities. In addition, Metro Transit occasionally performs transit sector studies, which review a group of routes at a sub-regional level to comprehensively evaluate transit service and needs, determine market opportunities and restructure service and facilities to better address those needs and opportunities.

There are currently three transitway projects also underway in the study area: two light-rail extensions and a new rapid bus line. Changes proposed in this study will meet not only the near-term needs in the study area, but will also be flexible enough to lay a foundation for these transitway projects.

2040 Transportation Policy Plan

The 2040 TPP is the region's long-range transportation policy and investment plan. In addition to transit, it addresses highway, aviation and other forms of surface transportation for at least a 20-year planning horizon. The region's first priority is to preserve, maintain and operate the existing transit network. It also establishes a framework from which to evaluate potential transit changes, improvements and investments.

Objectives and investment factors from the 2040 TPP that influenced the Route 9 and West End Transit Study include:

- Operate the regional transportation system to efficiently and cost-effectively connect people to destinations
- Increase the availability of multimodal travel options
- Increase transit travel time reliability and predictability
- Improve multimodal travel options to jobs and other opportunities
- Provide equitable access to opportunity for people of all ages, abilities, races and socio-economic groups

The TPP also identifies the region's transit market areas, which help guide decisions about the types and level of transit service most appropriate for a given area. They are determined by using an index of population density, employment density and automobile availability. Market Areas I, II and III are represented in the West End and Route 9 Transit Study area. More information about market areas is available in Chapter 2.

2015-2030 Service Improvement Plan

Metro Transit's SIP builds on the TPP by identifying and prioritizing specific local and express bus route improvements if additional operating dollars are available. The SIP identifies opportunities to add new routes and improve the frequency and span of service on the existing route network. It includes a specific and prioritized list of improvements, all requiring additional operating funds. The SIP identifies the evaluation factors and measures used to prioritize these bus service investments, as well as timing and resources needed to make them.

Projects included in the SIP for the West End and Route 9 Transit Study area include improvements on Routes 9, 604, 615, 643, 649, 675 and several new or restructured routes that would serve METRO Green and Blue line extension stations in Minneapolis, St. Louis Park and Minnetonka.

Three Cities Transit Restructuring Plan

In 2000, Metro Transit conducted a study of transit restructuring for Hopkins, St. Louis Park and Minnetonka, with a goal of redesigning service to better meet community needs and goals. The study highlighted issues with existing service structure and identified four key areas for improvement:

- Develop and strengthen community-to-community and intra-community transit connections
- Improve and expand employment-oriented reverse commute services, including serving earlier and later work shifts
- Improve efficiency and effectiveness of commute service to downtown Minneapolis
- Develop and improve transit facilities, such as Transit Centers

Other than streamlining the Louisiana Avenue crosstown service, existing routes in the West End study area were not significantly impacted by the plan. However, a new crosstown service was introduced, Route 607, which provided service from St. Louis Park's West End to the Park Commons area via 26th Street, France Avenue, Minnetonka Boulevard and Belt Line Boulevard. The service has since been discontinued due to low ridership.

West Suburban Service Changes

The West Suburban Service Changes project included the cities of St. Louis Park, Hopkins, Minnetonka, Deephaven, Greenwood, Excelsior, Shorewood and Tonka Bay. The two principal objectives of the 2013 project were to improve local circulation and access for transit-reliant communities and to improve overall performance of existing express service by eliminating segments of route duplication or low productivity and fringe of the peak period trips with low ridership. Other objectives included strengthening the regional network, enhancing off-peak service frequency, improving service to major destinations and in general providing levels of service appropriate for each specific area.

Service changes included increasing the hours of service on Route 615 and extending two Route 9 evening roundtrips to the "N" terminal in the County Road 73 and Greenbrier Road area of Minnetonka. The express route consolidation blended five routes into four routes. The West Suburban Plan did not change the structure of routes in the West End and Route 9 Transit Study area.

METRO Green Line Extension-Southwest Corridor Light Rail

The extension of the Green Line between downtown Minneapolis, the southwest suburbs and Eden Prairie includes two light-rail stations in the Bryn Mawr and Harrison neighborhoods, one at Van White Boulevard just north of I-394 and the other just south of the intersection of Penn Avenue and I-394. Connecting bus service to these stations will be considered as part of a public outreach process that will begin in earnest after the Green Line Extension is under construction. The Green Line Extension is expected to open in 2020, pending full project funding. For details on the Green Line Extension visit metrocouncil.org/Transportation/Projects/Current-Projects/Southwest-LRT.aspx

METRO Blue Line Extension-Bottineau Light Rail

The extension of the Blue Line between downtown Minneapolis, the northwest suburbs and Brooklyn Park includes two light-rail stations just north of the study area along Olson Highway, one at Van White Boulevard and the other at Penn Avenue. Connecting bus service to these stations will be considered as part of a public outreach process that will begin in earnest after the Blue Line Extension is under construction. The Blue Line Extension is expected to open in 2021, pending full project funding. For details on the Blue Line Extension visit metrocouncil.org/Transportation/Projects/Current-Projects/METRO-Blue-Line-Extension.aspx

C Line Rapid Bus Service

The C Line includes a package of transit enhancements that adds up to a faster trip and an improved experience on the existing Route 19, one Metro Transit's busiest bus routes. The C Line will operate between downtown Minneapolis and Brooklyn Center via the Penn Avenue corridor. The C Line is scheduled to open in 2019 with temporary stations on Olson Memorial Highway. Implementation of the METRO Blue Line Extension service on Olson Highway east of Penn Avenue prompted a review of shifting C Line service from Olson Highway to Glenwood Avenue between Penn Avenue and downtown Minneapolis. As a result of this review, the permanent alignment of the C Line will shift to Glenwood Avenue after the METRO Blue Line Extension opens for service on Olson Highway and C Line stations are completed on Glenwood Avenue. For details on this long-term realignment of the C Line to Glenwood, visit metrotransit.org/c-line-project.

CHAPTER 2: EXISTING TRANSIT SERVICE

Transit Market Areas

Transit service demand varies across the region. The Transit Market Index measures the potential demand for transit service within a specific area and determines the types and level of transit service that are appropriate for each market area. There are five Transit Market Areas in the seven-county region. These are defined using a combination of measures, including population and employment density, urban form and automobile availability. The West End and Route 9 Transit Study area includes Market Areas I, II and III, shown in **Figure 2**.

Transit Market Area I contain the highest density of population and employment and has the fewest vehicles compared to people over the legal driving age of 16 years. This area typically has a grid pattern street network that promotes walking. Market Area I have the potential transit ridership necessary to support the most intensive fixed-route transit service, typically providing higher frequencies, longer hours and more transit options outside of peak periods. A small portion of the study area includes Transit Market Area I.

Most the study area is located within Transit Market Areas II and III. Transit Market Area II contains moderately high population and employment densities and typically has a traditional street grid. Most of Market Area II can support many of the same types of fixed-route transit service as Market Area I, although usually at wider route spacing, lower frequencies and shorter service spans. Transit Market Area III has moderate densities but tends to have a less traditional street grid that can limit the effectiveness of transit. Service in this area is primarily commuter express bus with some local service providing basic all-day coverage.

Demographics and Land Use

There are several factors that can influence a person's likelihood to use transit, including whether an auto is available for a trip, the cost and availability of parking, and the pedestrian connectivity of an area. People living and/or working in areas of the highest population and employment densities tend to ride transit more frequently than those in less-dense areas.

Population

The total population in the study area is approximately 31,000. As shown in **Figure 3**, the highest residential density within the study area is concentrated along Glenwood Avenue west of I-94 in north Minneapolis. Additional pockets of higher levels of residential density are found near:

- Harrison and Bryn Mawr neighborhoods in Minneapolis
- Near France Avenue and Lake Street in St. Louis Park/Minneapolis
- Near Cedar Lake Road at Nevada Avenue and at Ridge Drive in St. Louis Park
- Near Cedar Lake Road and County Road 73 (Greenbrier Road/Hedberg Drive area) in Minnetonka.

Analysis of trends in demographic data helps Metro Transit adjust service to match areas of growing or declining populations. The study area population is expected to increase by nearly 20 percent between 2010 and 2040. Specific areas of population growth:

- Harrison neighborhood along Glenwood Avenue in Minneapolis
- Bryn Mawr neighborhood east of Theodore Wirth Park in Minneapolis
- South of Lake Street adjacent to France Avenue in St. Louis Park/Minneapolis
- Cedar Lake Road west of Park Place Boulevard in St. Louis Park
- Greenbrier Road area south of Cedar Lake Road in Minnetonka

The expected increase in population is due in part to residential and mixed-use projects near Glenwood Avenue in Minneapolis and residential at France Avenue and Lake Street in St. Louis Park/Minneapolis that would be

developed in anticipation of the future METRO Green and Blue Line extensions and the build-out of the mixed-use development near Highway 100 and I-394 (West End).

Employment

There are approximately 28,000 jobs in the study area. As shown in **Figure 4** employment opportunities within the study area are concentrated adjacent to the I-394 corridor, most notably office, retail and service industry jobs along Wayzata Boulevard and at the entertainment/retail complex known as The Shops at West End. This retail center and adjacent development is a large trip generator that serves as a focal point for transit service.

Figure 5 indicates where lower-wage job concentrations are located. Specifically, the West End area contains approximately 10,000 jobs paying less than $40,000 a year. This number is equivalent to jobs found near other regional activity centers that pay less than $40,000 a year, such as Southdale Shopping Center, which has high-frequency service. This measure is important because the employees that have these jobs are more likely to use transit.

Transit-Reliant Groups

Analysis of transit ridership users show that low-income communities, people of color and people with disabilities are more likely to rely on transit for a larger percentage of their overall travel. It is important that these groups share equitably in the service improvements. The project's Title VI Service Equity Analysis indicates that the proposed changes outlined in the Recommended Plan will result in a larger percentage increase in service for people of color and low-income communities as compared to non-low income and non-minority populations. More information is available in Chapter 4.

Low-Income Communities

Figure 6 shows the largest percentage of low-income residents are found in the within the Harrison neighborhood along Glenwood Avenue and south of Cedar Lake Road west of Louisiana Avenue. Across the region, 11.3 percent of all residents are considered low-income, defined as households earning less than 185 percent of the poverty line.

There is one designated Area of Concentrated Poverty in the northeast portion of the study area, defined by the Met Council as an area where at least 50 percent of the population lives in poverty.

This group is important to note because the costs of owning an automobile are more challenging for persons with lower income.

People of Color

The Federal Transit Administration defines minority persons to include anyone who identifies themselves as American Indian and Alaskan Native, Asian, Black or African American, Hispanic or Latino, or Native Hawaiian or Other Pacific Islander. **Figure 7** shows the persons of color population in the study area using the 2010 Census. In the Twin Cities region, 27.7 percent of the population are people of color.

Areas within the study boundaries that are higher than the regional average:

- Harrison neighborhood along Glenwood Avenue in Minneapolis
- Near Glenwood and Highway 100 in Golden Valley
- South of I-394 between Louisiana and Zarthan
- South of Cedar Lake Trail between Highway 100 and Highway 169
- In the Greenbrier area along Cedar Lake Road between Highway 169 and County Road 73

People with Disabilities

Figure 8 shows people with disabilities, defined as someone who has vision, hearing, cognitive, ambulatory, self-care or independent living disabilities. People with disabilities are more likely to use transit, particularly if the disability limits or prohibits driving. Region-wide, 9.7 percent of the population has a disability. Areas within the project study area that exceed this threshold:

- Glenwood Avenue in the Harrison neighborhood
- The northwest quadrant of Highway 100 and I-394 in Golden Valley
- The southeast quadrant of France Avenue and Lake Street in St. Louis Park
- Cedar Lake Road west of Louisiana Avenue

It is important to note that some people with disabilities use Metro Mobility paratransit service instead of regular route service, and no reduction in Metro Mobility service levels in these communities will be needed based on the proposed changes outlined in Chapter 3.

Number of Vehicles Compared to Population over Age 16

People are more likely to use transit if an automobile is not always available, regardless if that is by choice or by circumstance. **Figure 9** shows areas where there are more people over the age of 16 years (legal driving age) than vehicles available. Zero-car households are one part of this measure, but anytime that vehicles are being shared it is more likely that transit is being used for some trips. For example, if a block group has 100 residents and 70 vehicles, then 30 people living in this area do not have a vehicle available for all their trips. In **Figure 9** this block group would be shown as 30 percent without regular access to a vehicle. Regionally, there are 22 percent more people 16 and older than total vehicles.

Areas within the project area where many residents do not have reliable access to a vehicle:

- Glenwood Avenue in the Harrison neighborhood
- Between Glenwood and I-394 west of Highway 100 in Golden Valley
- The southwest quadrant of Lake Street and France Avenue
- Along Wayzata Boulevard, Louisiana Avenue and Cedar Lake Road east of Virginia Avenue in St. Louis Park
- Greenbrier Road area south of Cedar Lake Road in Minnetonka

Regional Transit Standards

Design guidelines and service standards are outlined in the 2040 TPP. Route types, along with transit market areas, help determine the appropriate service levels and set minimum ridership and route performance thresholds.

Route Types

The study area is served by three route types: core local, suburban local and commuter/express. Except for Route 604, these routes operate in an east-west pattern near the I-394 corridor and are mostly oriented towards downtown Minneapolis. A map of the routes under review in this study area are shown in **Figure 1**.

Core Local

Routes 9 and 25 are the only core local routes within the study area.

While within the study area the very eastern section of the Route 9 touches on Market Area I, most of the route serves the less dense and more suburban Market Areas II and III. The study focuses on route changes west of downtown Minneapolis but the entire Route 9 schedule is under review, including the portion of the route south of downtown Minneapolis.

Route 9 provides service between downtown Minneapolis, the Harrison and Bryn Mawr neighborhoods in north Minneapolis, the West End in St. Louis Park and the Greenbrier/Hedberg multi-family housing in Minnetonka. Route 9 has several deviations from the main trunk of the route, which form complex route patterns that can be difficult for customers to understand.

While Route 9 operates within Transit Market Area I east of Penn Avenue, transit demand in this area is not as strong as a typical Market Area I route because this area is also influenced by the presence of Route 19 high-frequency service on Highway 55 (Olson Highway). Route 19 is only a quarter-mile north of Glenwood Avenue, so many customers living between Glenwood Avenue and Highway 55 choose the higher frequency service. Future plans for C Line rapid bus service, as well as the potential METRO Blue and Green Line extensions, will also affect future ridership within this area.

Route 25 between downtown and southwest Minneapolis provides weekday rush-hour service. The route also serves northeast Minneapolis and its adjacent suburbs. On the southwest portion of Route 25 there is no off-peak or weekend service. Neighborhoods served in southwest Minneapolis are Lowry Hill and Kenwood in Market Area I and Cedar-Isles-Dean in Market Area II. The focus of this study is on the very southwest segment of the route along France Avenue in the Cedar-Isles-Dean neighborhood.

Suburban Local

Route 604 is the only suburban local route within the study area and operates entirely within Market Area II. Route 604 operates as a circulator, providing rush hour and midday service between various destinations within St. Louis Park along Louisiana Avenue and Excelsior Boulevard.

Commuter/Express

Routes 649 and 675 are the commuter/express routes under review in this study. These routes serve commuters from Minnetonka, Golden Valley and St. Louis Park to downtown Minneapolis or another major employment center and operate non-stop on I-394 for portions of their routes. Route 649 operates peak-only bi-directional service between St. Louis Park and downtown Minneapolis. Route 675 operates express service in both directions all day between Mound, Lake Minnetonka communities, Ridgedale Shopping Center, Louisiana Avenue Transit Center and downtown Minneapolis. Only the routing east of Louisiana Avenue Transit Center is under review with this study.

Service Standards

Appendix G of the 2040 TPP describes transit service design guidelines and performance standards by route type and market area. Span of service shown in **Table 1** refers to how early in the morning and late at night service runs and frequency shown in **Table 2** describes how often trips operate.

Table 1. Span of Service

Route Type	Weekday				Weekend	
	Peak	Midday	Evening	Owl	Saturday	Sunday
Core Local Bus*	●	●	●	○	●	●
Suburban Local Bus	●	●	◑	○	○	○
Commuter Express Bus	●	○	○	○	○	○

Service Provided ●; Service Typically Provided ◑; Service As Demand Warrants ○

Peak: 6-9 a.m. and 3-6:30 p.m.
Midday: 9 a.m.-3 p.m.
Evening: 6:30 p.m.-1:30 a.m.
Owl: 1:30- 5 a.m.

*Local limited-stop routes will operate primarily in the peak period.

Table 2. Minimum Frequency

Route Type	Market Area				
	Area I	Area II	Area III	Area IV	Area V
Core Local Bus	15" Peak 30" Off-peak 30" Weekend	30" Peak 60" Off-peak 60" Weekend	30" Peak 60" Off-peak 60" Weekend	NA	NA
Suburban Local Bus	NA			NA	NA
Commuter Express Bus	30" Peak		3 Trips each peak		NA

Additional service may be added as demand warrants and guidelines apply primarily to the peak direction.

Existing Service Levels, Performance and Facilities

Route 9 is the primary service in the study area, providing most of the service and serving the most customers. Commuter/express routes 649 and 675 supplement local Route 9 service. Suburban local Route 604 is also part of the local service network. Route 25 serves the very southeast corner of the study area. The frequency and service span in the study area generally meets or exceeds guidelines for routes operating in Transit Market Areas I, II or III. Study area coverage is best during the peak periods and is reduced in the midday and evenings, as well as on weekends.

Service Descriptions

A description of specific route structures, key destinations served, and the span and frequency of these area routes are outlined below (service frequencies are averages and may apply to only the main portion of the route).

Route 9

Route 9 (west of downtown Minneapolis) provides local service to the Harrison and Bryn Mawr neighborhoods of north Minneapolis via Glenwood Avenue, Penn Avenue, Laurel Avenue and Upton Avenue. The frequency of various branches west of Glenwood Avenue/Cedar Lake Road, and especially west of Park Place Boulevard, varies by time of day and day of the week. These limited hours of operation and different terminals have led to much confusion for customers.

There are two routings between Glenwood Avenue/Cedar Lake Road and Penn Avenue/Cedar Lake Road. About 40 percent of the trips use Cedar Lake Road and the rest of the trips travel on Glenwood Avenue to Penn Avenue.

On weekdays, there are approximately 90 one-way trips, and service on the main part of the route is available between 5 a.m. and 1 a.m. Most trips use Wayzata Boulevard to travel between Bryn Mawr and the West End area (Park Place Boulevard), but there are two significant route deviations that impact the frequency of service during peak periods:

- 13 trips serve Golden Valley via Xenia Avenue and Glenwood Avenue (B branch). Four of the six eastbound trips operate during the AM peak, with one midday trip and one PM rush-hour trip designed to serve reverse-commute riders. In the westbound direction, there is one morning peak period reverse-commute trip, four afternoon peak trips and two evening trips.
- 11 trips serve St. Louis Park via Cedar Lake Parkway, Ewing/France Avenue, 26th Street, Barry Street and the East Highway 100 Frontage Road (H branch). Four of the five eastbound trips serve the morning peak period, with one midday trip. In the westbound direction, there is one midday trip and five afternoon peak period trips.

There are two routings serving the West End between Park Place and Louisiana Avenue Transit Center. Thirteen off-peak trips continue west of Louisiana Avenue to serve the Greenbrier/Hedberg area of Minnetonka via Cedar Lake Road between Louisiana Avenue and County Road 73 (N branch).

Coverage on weekends is similar to that on weekdays, except the B branch on Glenwood west of Penn Avenue does not operate and there is limited service on the H branch trips via Cedar Lake Parkway and 26th Street (two trips on Saturday and Sunday). Service on the main portion of the route operates between 5:45 a.m. and 1 a.m. on Saturdays and between 6 a.m. and 11:15 p.m. on Sundays. There are 66 one-way Saturday trips and 60 Sunday trips.

Route 25

Route 25 provides service between downtown Minneapolis and the Lowry Hill, Kenwood and Cedar-Isles-Dean neighborhoods of southwest Minneapolis. The route also serve northeast Minneapolis and its suburbs. The only portion of the route within the study area is the very southwest segment in the Cedar-Isles-Dean neighborhood which is in Market Area II. This southwest segment terminates at the intersection of France Avenue and Lake Street.

Serving the Lowry Hill, Kenwood and Cedar-Isles-Dean neighborhoods there are eight peak period one-way weekday trips between 6:30 and 8:30 a.m. and six peak period one-way trips between 4:30 and 6:30 p.m. Six of these 14 peak period trips are reverse-commute trips, four of the six are coming from downtown in the morning to southwest Minneapolis and two of the six are going to downtown in the afternoon/early evening. Ridership on these six reverse-commute trips is extremely low. In addition to above trips there are two trips which operate as school extras providing service for the Minneapolis school district. These two trips do not operate outside of the regular school year.

There is no off-peak or weekend service on Route 25 to the Lowry Hill, Kenwood and Cedar-Isles-Dean neighborhoods.

Route 604

Route 604 connects the I-394 corridor to Excelsior Boulevard in St. Louis Park via Louisiana Avenue. There are 20 one-way trips on weekdays only between 7 a.m. and 5 p.m. along Wayzata Boulevard, Louisiana Avenue and Excelsior Boulevard within St. Louis Park. Destinations along the route include the Excelsior & Grand mixed-use development, Methodist Hospital, Louisiana Avenue Transit Center and the West End area.

It is designed to improve suburb-to-suburb travel with connections to routes serving other suburban activity centers. At Louisiana Avenue Transit Center, Route 604 connects with Route 675 to offer service to Minnetonka, Wayzata and Mound, and with Route 705 for access to Golden Valley and New Hope. On the south end, Route 604 connects with routes 12 and 17 on Excelsior and Minnetonka boulevards.

Route 649

Route 649 provides limited-stop service during rush hours between Cedar Lake Road, the West End and downtown Minneapolis. There are nine reverse-commute trips and 10 peak direction trips, operating between 6:15 and 9 a.m. and between 3:30 and 7 p.m. Destinations along the route include the I-394 & Park Place Park & Ride, Sunset Ridge and Cedar Trails condominiums on Cedar Lake Road and Louisiana Avenue Transit Center.

Route 675

Route 675 provides all-day express service between Mound, communities surrounding Lake Minnetonka, Wayzata, Minnetonka, St. Louis Park, Golden Valley and downtown Minneapolis. However, only the service east of Louisiana Avenue Transit Center is under review with this study, where the route operates non-stop along I-394. More than 80 percent of customers ride the portion of the route between the Ridgedale Shopping Center area and downtown Minneapolis. Route 675 provides all-day service to several park-and-ride lots, most of which have faster express options available during peak periods. Route 675 is the only express route in the region that operates service seven days a week.

- Weekday: 65 trips operate between downtown Minneapolis and Louisiana Avenue Transit Center between 5:30 a.m. and 11 p.m.
- Saturday: 30 trips operate between downtown Minneapolis and Louisiana Avenue Transit Center between 6 a.m. and 10 p.m. Service does not operate west of Wayzata on Saturdays.
- Sunday: 21 trips operate between downtown Minneapolis and Louisiana Avenue Transit Center between 9 a.m. and 8 p.m. The route does not operate west of Wayzata on Sundays.

Service Frequencies

Service frequencies for study area routes meet regional standards and are summarized below in **Table 3**.

Table 3. Service Frequency

Route	Weekday					Saturday	Sunday	
	AM Peak	Midday	PM Peak	Evening	Owl	All Day	Midday	Evening
9 (west of downtown Minneapolis)	15-20	30	15-20	30	---	30	30	60
9 (west of Louisiana Avenue)	1 trip	4 trips	1 trip	60	---	60	60	60
25 (southwest of downtown Minneapolis	30	--	30	--	--	--	--	--
604	60	60	60	--	--	--	--	--
649	30	---	30	---	---	---	---	---
675 (east of Louisiana Avenue)	30	30	30	60	---	60	60	60

Existing Ridership and Service Performance

Ridership at the bus-stop level for each of these routes is shown in **Figures 10-12**. The highest number of boardings are found along Glenwood Avenue east of Penn Avenue, in Bryn Mawr and in the West End.

There are two ways to measure how much service is provided on a route. In-service hours are the hours as shown on the public timetable, when buses are in revenue service. Platform hours covers the entire time from when a bus leaves the garage to travel to the start of a route, all the trips, and when it returns to the garage from the end of the route. Platform hours are a more accurate representation of the cost of providing service, since labor is a significant factor in service costs.

Productivity is a measure of a route's ridership relative to the cost of providing the service. The higher the route productivity, the more effective the service. Service performance and route productivity are measured using Passengers per In-Service Hour (PPISH), which is calculated as the number of passengers divided by the number of hours of in-service service provided on the route.

Existing ridership and performance for routes within the study area are summarized in **Table 4.** The calculated PPISH is based on service levels and ridership during the fall of 2015 for the entire route, not for the route segment within the study area.

Table 4. Existing Riders and Route Performance

Weekday

Route	In-Service Hours	Platform Hours	Ridership	PPISH
9	89	119	3099	34.8
25	45	65	1055	23.4
604	8	11	84	10.5
649	9	12	257	28.6
675	64	87	1746	27.3

Saturday

Route	In-Service Hours	Platform Hours	Ridership	PPISH
9	70	90	1954	27.9
675	25	30	482	19.3

Sunday

Route	In-Service Hours	Platform Hours	Ridership	PPISH
9	63	85	1520	24.1
675	17	21	284	16.7

Facilities

Regional facilities include transit centers, park-and-rides and bus turnarounds/layovers.

Louisiana Avenue Transit Center

This facility is in St. Louis Park in the southwest corner of the Louisiana Avenue and I-394 interchange, north of Wayzata Boulevard. This is the only transit center within the study area and includes a 330-space park-and-ride lot, which is currently at capacity. The Park & Ride primarily serves as a hub for express bus service to downtown Minneapolis but is also a stop for local service to/from St. Louis Park, Minnetonka, Golden Valley, New Hope, Crystal and Brooklyn Park. Routes 9, 604, 649, 652, 663, 672, 675, 705 and 756 serve this facility. Routes 663 and 675 have the most riders, serving nearly 400 of the 660 total boardings at the transit center.

I-394 & Park Place Boulevard Park & Ride

This 55-space facility is in St. Louis Park in the southeast corner of the Park Place Boulevard and I-394 interchange, north of Wayzata Boulevard; and is within walking distance to The Shops at West End. Approximately 35 vehicles use this park-and-ride lot. Routes 9, 604 and 649 serve this facility; most customers use Route 649.

Westwood Lutheran Church Park & Ride

This 40-space facility is in St. Louis Park on Cedar Lake Road at Stanlen Road. Approximately nine vehicles use this park-and-ride lot. Routes 9 and 663 serve this facility.

France Avenue and Lake Street Turnaround/Layover

This facility is in Minneapolis in the southeast quadrant of France and Lake. In addition to providing a turnaround location and layover facilities for Route 25, it is also used by Route 17B trips.

CHAPTER 3: RECOMMENDED PLAN

Evaluation of existing conditions in the study area and consideration of the project's goals and objectives have led to the development of the recommended plan outlined below. Initially several service and routing scenarios were reviewed and analyzed to determine which concept best meet these project goals:

- simplifies the route structure
- improves access to jobs in the West End
- improves the reliability and productivity of routes in the study area
- ensures that under-represented populations share in the benefits of these service improvements.

Recommended Service Changes

The West End and Route 9 Transit Study proposes the following route and service changes on Routes 9, 25, 604, 649 and 675 to be implemented in August 2017. A map showing the proposed structure of the new routes is in **Figure 13**.

Route 9 Changes

West of downtown Minneapolis, the proposed changes simplify the route structure from six branches to two, provide a more consistent routing throughout the day seven days of the week, and redirect resources from low ridership segments to areas with a greater potential to grow ridership.

No changes are proposed to the span of service, however weekday peak period frequency would be reduced slightly and the total number of one-way trips on the main portion of the route between 46th Street Station and the West End would be reduced from 92 to 81. Peak-period frequency will be adjusted on the fringe of the AM and PM peak periods from every 20 to 30 minutes, and in the peak hour from 15 to 20 minutes.

The service changes recommended below mean all trips will use the same routing to travel between downtown and the West End. The number of trips between the West End and Cedar Lake Road/Louisiana will increase significantly, resulting in more consistent service in this area. Finally, time will be added to the schedule to better reflect actual traffic and travel conditions and improve schedule adherence.

Areas of Route 9 Recommended for Elimination

There are three route segments recommended for elimination due to low ridership and will not be covered by other routes. The segments proposed for elimination are shown in **Figure 14**:

9B branch between Glenwood Avenue/Penn Avenue and Park Place/Wayzata Boulevard via Glenwood and Xenia Boulevard

This segment averages 3.8 passengers per trip over 13 trips. There are there 25 riders, of which 22 will be more than a quarter-mile from alternate service.

9H branch between Cedar Lake Parkway/Wayzata Boulevard and France Avenue/26th Street, via Cedar Lake Parkway/Road and Ewing/France avenues

On weekdays this segment averages approximately 1.0 passenger per trip over 11 trips. There are 6 riders, of which 5 will be more than a quarter-mile from alternate service. Weekend service averages less than one passenger per trip.

Cedar Lake Road between Glenwood Avenue and Penn Avenue

On weekdays this segment averages 1.6 passengers per trip over 36 trips. There are 32 riders, of which approximately eight board at a bus stop more than a quarter-mile from an alternate bus stop. On Saturday and Sunday, this segment averages less than one passenger per trip. Most customers already walk to Penn or

Glenwood, since there is a better level of service on those streets. This segment is narrow and there is not enough room for buses to pass when snow is present.

Areas of Route 9 Covered by New Routes

There are three areas of Route 9 that will instead be served by the new Route 645, with an improved level of service:

- 9D branch between Louisiana Avenue Transit Center and Zarthan/16th Street
- 9B and 9P service on 16th Street between Park Place and Zarthan
- Park Place between 16th Street and Wayzata Boulevard; Wayzata Boulevard between Park and Utica

The 26th Street segment of Route 9H will be covered by Route 25 with four weekday AM peak period trips to downtown and four PM peak period trips from downtown. There will be no weekend service. There are approximately 10 weekday riders along this segment and fewer than one average riders on the weekend service.

Morning trips will be scheduled to arrive downtown between 7:20-8:50 a.m. and afternoon trips will leave downtown between 4:15-6:15 p.m. Travel time between 26th Street and downtown will be approximately 30 minutes.

Areas of Route 9 with Changes in Frequency or Routing

In addition to the eliminated segments and areas of the route that will be served by alternate service, the Recommended Plan also includes the following reroutes and adjustments in level of service.

Reroute service via 16th Street and Utica Avenue

Service on Park Place between 16th Street and Wayzata Boulevard and on Wayzata Boulevard between Park Place and Utica will be rerouted via 16th Street and Utica Avenue. The new routing will better serve the core of the growing West End development.

Reduced peak period frequency

To better reflect ridership, frequency south of downtown as well as west of downtown will be adjusted on the fringe of the AM and PM peak periods from every 20 to 30 minutes and in the peak hour from 15 to 20 minutes.

Increased service on Cedar Lake Road west of Zarthan Avenue

Weekday service on Cedar Lake Road between Zarthan and Louisiana avenues will see a threefold increase going from 27 to approximately 81 trips. Weekend service on this segment will also see a considerable increase.

Service to the low-income multi-family housing in the Greenbrier area of Minnetonka will improve to hourly throughout the midday and evening.

Route 25 Changes

The southwestern most segment of Route 25 on France Avenue between Cedar Lake Avenue and Lake Street will be eliminated. Route 25 will be rerouted to serve 26th Street and the Cedar Trails Condos on Cedar Lake Road. Route 9H currently serving 26th Street will be eliminated as would express Route 649 serving the Cedar Trails Condos.

Of the 28 passengers boarding Route 25 on the eliminated segment, 85 percent board at Lake Street which is also served by Route 17 service to downtown Minneapolis.

Six reverse-commute trips on Route 25, four coming from downtown to southwest Minneapolis in the morning peak period and two going to downtown in the PM peak period, would be eliminated. These six trips have a combined ridership of fewer than six riders beyond a quarter-mile of an alternate bus stop.

Route 604 Changes

Route 604 is a suburban local route operating weekdays only in St. Louis Park. The current schedule does not allow sufficient time to provide reliable transfer connections with Routes 12, 17, 675 and 705. To improve transfer connections, Route 604 will be shortened by eliminating the segment between Louisiana Avenue Transit Center and Park Place Park & Ride via Wayzata Boulevard, 16th Street and Park Place. The eliminated segment will be covered by new Route 645. Twelve Route 604 passengers will need to transfer to get to the West End.

Also, service will start earlier in the morning and end later in the afternoon. A southbound trip will be added to serve the 7 a.m. work start and a northbound trip will be added to serve a 5 p.m. work end at Methodist Hospital. There will be no change in frequency as Route 604 will continue to run every hour.

Route 649 Changes

Route 649 is proposed for elimination and will be replaced by routes 9, 25 and 645.

Under the proposed plan, riders using the I-394 & Park Place Park & Ride, as well as reverse-commuters traveling to jobs in the West End and along Wayzata Boulevard will have a faster trip or no change in service. This represents 96 customers, which is about 75 percent of existing riders. Service to these customers will be replaced by new Route 645, which will have a similar travel time between the West End and downtown and provide service during the off-peak.

Existing Route 649 riders along Cedar Lake Road between Louisiana Avenue and Park Place Boulevard will instead be served by Route 9. The remaining riders along Cedar Lake Road east of Highway 100 in the Cedar Trails Condos area will be served by Route 25. There are 35 passengers that will be affected by this change, which is about 25 percent of Route 649's ridership. Unfortunately, this is not enough to support separate limited-stop service. These riders will still have a one-seat ride to downtown but travel time to downtown will increase by approximately 16 minutes for those west of Highway 100 and by 20 minutes for those east of Highway 100. Of the 35 riders noted above, 23 board on Cedar Lake Road between Louisiana and Park Place, which will have a significant increase in the number of trips throughout the day.

The 12 riders currently boarding on Cedar Lake Road east of Highway 100 now served by Route 649 will be served by four Route 25 trips in each direction, which is a reduction from the current five trips in each direction provided by Route 649.

Route 645 Changes (Revised Route 675)

Route 675 will become Route 645. The recommended changes will provide faster service seven days a week between the retail and service jobs in the West End and downtown Minneapolis and improve transfer connections to the rest of the region. There are nearly 12,000 jobs in the West End area, many of which pay less than $40,000 annually.

Route 675 currently operates non-stop between Louisiana Avenue and downtown Minneapolis via I-394. It will be rerouted to travel on local streets between Louisiana Avenue Transit Center and Park Place & I-394 via Wayzata Boulevard, Zarthan and 16th Street. Travel time between downtown and the West End will be reduced from 24 minutes today to just eight minutes.

Since the route will no longer travel at least four miles non-stop on the highway (the threshold for a route to charge an express fare), it will become a limited-stop route charging a less-expensive local fare. This new routing will also now provide a one-seat ride between the West End and the wide array of activity centers along I-394, such as the Ridgedale Shopping Center area.

The reroute will add two to four minutes of travel time for existing riders, most whom board east of Ridgedale Shopping Center and at park-and-ride lots that have other express routes available. Fewer than 30 percent of passengers riding during the morning peak (72 customers) will not have a faster express option available.

Service Frequencies, Projected Budget, Resources and Route Performance

Service frequencies for the routes in the Recommended Plan are provided in **Table 5**. To better reflect ridership, Route 9 frequency south of downtown as well as west of downtown will be adjusted on the fringe of the AM and PM peak periods from every 20 to 30 minutes and in the peak hour from 15 to 20 minutes. Also on Route 9, the number of trips west of Louisiana increases. These are the only frequency changes on the routes in the Recommended Plan.

The West End and Route 9 Recommended Plan proposes an overall slight change in resources in the study area of about 1 percent fewer hours on weekdays and a 5 percent increase of hours on Saturdays. Ridership is expected to remain stable in the near-term; riders lost due to segments eliminated on Route 9 are expected to be offset by ridership increases with improved service focused on Route 9 and on Route 645's improved, faster connection. The West End is expected to add more than 4,000 additional jobs by 2020 and thus, Metro Transit expects an overall ridership increase in the study area. Also, on-time performance of routes 9 and 604 is expected to improve with the additional running time in the revised schedules.

Table 6 shows resource changes for the proposed changes. The changes for individual routes by day of the week are included in **Figure 15** in the report appendix.

Table 5: Frequency of Service

Route	Weekday					Saturday	Sunday	
	AM Peak	Midday	PM Peak	Evening	Owl	All Day	Midday	Evening
9	20-30	30	20-30	30	---	30	30	60
9 (west of Louisiana Avenue)	1 trip	60	1 trip	60	---	60	60	60
25 (southwest of downtown Minneapolis	30	--	30	--	--	--	--	--
604	60	60	60	--	--	--	--	--
675 (east of Louisiana Avenue)	30	30	30	60	---	60	60	60

Table 6: Comparison of Platform Hours and Peak Buses

	Weekday	Saturday	Sunday
Existing Platform Hours	294	120	106
Proposed Platform Hours	290	126	106
Change	**-4**	**6**	**0**
Existing Peak Buses	26	7	8
Proposed Peak Buses	25	8	8
Change	**-1**	**1**	**0**

CHAPTER 4: TITLE VI AND ENVIRONMENTAL JUSTICE

The Federal Transit Administration (FTA) requires recipients of federal funding, including Metro Transit, to conduct a Title VI Service Equity Analysis for any proposed service change that meets the agency's major service change threshold. The purpose of the analysis is to "to evaluate system-wide service changes and proposed improvements at the planning and programming stages to determine whether those changes have a discriminatory impact." The changes included in the West End and Route 9 Transit Study Recommended Plan meet the threshold for a "major service change" as defined in Metro Transit's Title VI Policy, and this analysis fulfills this requirement.

To provide direction to recipients of federal funding, the FTA issued Circular 4702.1B, *Title VI Requirements and Guidelines for Federal Transit Administration Recipients*, in 2012, which replaced Circular 4702.1A issued in 2007. This document outlines Title VI evaluation procedures for recipients of FTA-administered transit program funds and includes guidance for a variety of equity evaluations.

Note that the service change area excludes portions of the route with non-stop service. Also, this analysis includes all of routes 9, 25, 604, 649 and 675, even though portions of these routes are excluded from the study.

FTA Definitions

Minority

The FTA defines a minority person as one who self-identifies as American Indian/Alaska Native, Asian, Black or African American, Hispanic or Latino and/or Native Hawaiian/Pacific Islander. For the purposes of this evaluation, non-minority persons were defined as those who self-identify as non-Hispanic white. All other persons, including those identifying as two or more races and/or ethnicities, were defined as minority persons. The distribution of minority populations within one-quarter mile of the existing and proposed route alignments is shown in **Figure 16**. Note that the service area change excludes portions of the route with non-stop service.

In this document, minorities are often referred to as persons of color.

Low-Income

While low-income populations are not an explicitly protected class under Title VI, the FTA recognizes the inherent overlap between Title VI and Environmental Justice principles and requires transit providers to evaluate the impact of service and fare changes to low-income populations and to identify any disproportionate burden placed on those populations by the proposed changes. The FTA defines a low-income person as one whose household income is at or below the poverty guidelines set by the Department of Health and Human Services (DHHS). The distribution of low-income and non-low-income populations within the service change area is shown in **Figure 17.**

Disparate Impact, Disproportionate Burden, and the Four-Fifths Threshold

The Federal Transit Administration defines "disparate impacts" as facially neutral policies or practices that disproportionately affect members of a group identified by race, color or national origin, and the recipient's policy or practice lacks a substantial legitimate justification. If the results of the analysis indicate a potential for disparate impacts, further investigation is required. Metro Transit has defined its disparate impact threshold using the "four-fifths rule." If the quantitative results indicate that the service changes in the West End and Route 9 Transit Study Recommended Plan show evidence of adverse effects to minority populations, this could be evidence of a disparate impact and would require additional analysis.

Metro Transit uses a similar approach when comparing the distribution of benefits and adverse impacts for low-income and non-low-income populations. However, when the distributions for low-income populations fall outside of the four-fifths threshold, this is referred to as a disproportionate burden rather than a disparate impact.

Evaluation

Methodology

Impacts of the proposed service changes on residents of the study area are determined based on the change in access to transit. Access to transit is measured as the number of bus trips that serve a given population. Since Census data is used for this analysis, service change impacts are determined by Census division. For minority populations, the Census "block group" divisions are used. In the analysis, the number of transit trips serving each Census division is calculated for both the existing service and the Recommended Plan. The change in service level is calculated for each census division by subtracting current total trips from future total trips, as shown:

Future trips available within census division (*modified/planned bus routes*) **-** **Current trips available within census division (*existing bus routes*)** **=** **Change in service by census division**

Under the population method, the average percent change in service is calculated by assigning weights to each division's individual percent change according to its population makeup. This is achieved by multiplying each division's population by the percent change in that division, summing the results for all analyzed areas, and dividing the sum by the total population of the analyzed Census divisions, as shown:

$$Avg\ \%\Delta = \frac{\sum Population_i \times Percent\ Change_i}{\sum Population_i}$$

Evaluation of Impacts

In total, 137,325 people live in census blocks within the area that is experiencing a change in service, which is different from the study area population because all of routes 9, 25 and 675 are included. This population includes 37,640 minority persons, 99,685 non-minority persons, 22,780 low-income persons and 110,422 non-low-income persons. It should be noted that the American Community Survey Census data cannot determine low-income status for persons residing in group quarters. These include, but are not limited to, populations living in dormitories, group homes, nursing facilities and correctional facilities. For this reason, the combined total of low-income and non-low-income populations is 133,202 – slightly lower than that estimated population as a whole. The average percent change in service levels for each target population group is summarized in **Table 7** and illustrated in **Figure 18**.

Table 7: Average Service Level Change by Population Group

Population Group	Population of Service Change Area	Average Percent Service Change	Four-Fifths Threshold (Minimum)
Minority	37,640	-0.7%	-2.9%
Non-Minority	99,685	-3.6%	-
Low-Income	22,780	-1.5%	-2.2%
Non-Low-Income	110,422	-2.8%	-
Total	**137,325**	**-2.8%**	**-**

The proposed service changes result in an overall slight decrease in transit service availability for all population groups. The average individual in the service change area experiences a 2.8 percent decrease in transit service.

The average minority individual in the service change area experiences a 0.7 percent decrease in transit service. This value is higher than the average decrease of 3.6 percent for non-minority individuals. Therefore, this analysis identifies no potential for disparate impact to minority populations due to the proposed service changes.

The average low-income individual in the service change area experiences a 1.5 percent decrease in transit service. This value is higher than the average decrease of 2.8 percent for non-low-income individuals. Therefore, this analysis identifies no potential for disproportionate burdens to low-income populations due to the proposed service changes.

CHAPTER 5: PUBLIC ENGAGEMENT AND NEXT STEPS

A commitment to community engagement is a guiding principle of Metro Transit. Public involvement is at the core of the West End and Route 9 Transit Study. In addition to outreach actions outlined below, a Public Engagement Plan (PEP) is available on the project website with more information on project outreach and engagement opportunities.

Pre-Concept Plan Outreach

Prior to drafting the Concept Plan, staff reviewed the feedback and service requests gathered by Metro Transit Customer Relations. In addition, a survey of Route 9 customers riding west of Louisiana Avenue on Route 9N was completed in March 2016. Staff boarded all weekday, Saturday and Sunday trips to learn more about travel patterns in this area. Staff used the feedback received during pre-Concept Plan outreach and reviewed the performance and productivity of existing service in the area to develop a concept service plan, which was the topic of a formal review period in Fall 2016.

Stakeholder Outreach Outline

Identifying stakeholders helped shape the activities planned for outreach and engagement. Stakeholders were key to good communication throughout plan development. The following were identified as project stakeholders:

- City of St. Louis Park staff and elected officials
- City of Minneapolis staff and Councilmembers Yang, Goodman and Palmisano
- City of Golden Valley staff
- City of Minnetonka staff
- Metropolitan Councilmembers Munt, Cunningham, Letofsky, Dorfman and Schreiber
- Businesses in the West End
- Current transit riders in impacted routes in study area
- Potential transit riders in study area
- Residents of the West End
- Harrison Neighborhood Association
- Bryn Mawr Neighborhood Association
- Heritage Park Neighborhood Association
- Heritage Commons

Stakeholders were contacted and provided an opportunity to comment on the Concept Plan.

Concept Plan Outreach

Metro Transit used different outreach strategies to ensure broad public engagement. Information about the project and the service changes proposed in the Concept Plan was provided in several ways:

- Notification of public hearings was provided in the *Star Tribune* and in *Connect*, Metro Transit's onboard customer newsletter.
- Project website at metrotransit.org/west-end included the public meeting presentation for those unable to attend.
- Customer notices and on-board announcements by staff took place on affected routes.

- Metro Transit worked with community-based organizations to share the plan with their members and clients.
- Targeted posts were published on Metro Transit social media accounts.
- Local newspapers and community newsletters included notices about the plan.

There were several ways for individuals to ask questions and to provide feedback. Two public meetings provided opportunities for attendees to learn about the proposed changes and the rationale for making them. Metro Transit staff presented the Concept Plan, and attendees were invited to comment. Comment cards were also available.

The public meetings as part of Concept Plan outreach included:

Date	Location	Attendees	Type
Sept. 8, 2016	Harrison Education Center, Minneapolis	35	Public Hearing
Sept. 10, 2016	Showplace ICON Theatres, St. Louis Park	39	Public Meeting

Metro Transit staff also presented the Concept Plan at neighborhood associations and community organizations meetings to receive feedback from stakeholders.

Presentations completed as part of Concept Plan outreach included:

- Bryn Mawr Neighborhood Association: Aug. 10, Sept. 14
- Cedar-Isles-Dean Neighborhood Association: Aug. 10
- Harrison Neighborhood Association: Aug. 8, Sept. 19
- Heritage Commons: Aug. 31
- Heritage Park Neighborhood Association: July 11, Sept. 12
- Redeemer Lutheran: July 20, Aug. 17

Summary of Public Comments

In addition to the meetings, residents could use several methods to provide feedback on the Concept Plan. These included a dedicated e-mail account operated by Service Development staff, calls to Customer Relations, letters, faxes, petitions, Twitter, Facebook, comment cards, and the Council's public comment line. The most popular methods for the public to comment were e-mail (45 percent of comments), speaking at public hearings (28 percent of comments), and comment cards distributed at the public hearings (12 percent of comments). A fewer number of comments were received through Customer Relations, on Facebook, by voicemail and by letter.

Metro Transit received 153 comments from 128 individuals. Comments received after 5 p.m. on Sept. 19, 2016, were considered late but still included for consideration.

The following chart provides the distribution of public comments received as divided by topic. If an individual's comment referred to more than one aspect of the plan, each separate topic was counted as a separate comment. A detailed summary of all comments received is available on the project's website.

Public Comment Breakdown

	Email	Comment Card	Letter/ Resolution ^	Customer Feedback	Public Hearing	Voicemail	Facebook	**Total**
Route 9B	9	6	1	5	7	1		29
Route 9H	23	5	2	1	7			38
Route 9N	2	1	2	1	3			9
Cedar Lk. Rd	3	2			3			8
Route 9-other	5	1			3			9
Route 604	2			1	3			6
Route 649	1			2	1			3
Route 675/645	13	2		1	2		1	19
Facilities					2			2
Park & Rides	1				1			2
Overall Plan	9	1	1	1	7			19
Other*	1	1			4		2	8
Total	69	19	6	12	43	1	3	153

*Other comments included topics such as connections to south Minneapolis, Westwood Nature Center, automated vans, access to Knollwood, Southwest LRT, the Cedar Lake Trail and general route restructuring.

^Letters are from the Mayor of St. Louis Park, a State Representative and a resolution passed by the Bryn Mawr Neighborhood Association.

Outreach Conclusions

Feedback from stakeholders and public comments identified areas of concern in the original plan, and highlighted areas which warranted modification. Metro Transit received the most comments on Route 9H, 9B, 675/645 and the overall plan. Most comments received were opposing the proposed changes, specifically removal of the B and H branches and the conversion of the 675 into a new limited-stop 645 route.

Elimination of Route 9H branch

Many riders were concerned about a potential loss of service along 26th Street in St. Louis Park. Many of the commenters said they would now drive or walk to alternate service, but hoped the 9H branch would remain in at least a limited capacity. Out of the 38 comments regarding 9H, 27 of them called to ask that Metro Transit not eliminate the branch.

Elimination of Route 9B branch

Many riders were also opposed to the proposed elimination of the 9B branch on Glenwood Avenue west of

Penn. They suggested keeping service in some capacity along Glenwood Avenue. Out of the 29 comments regarding Route 9B, 23 of them opposed eliminating the branch.

Rerouting off Cedar Lake Road

A smaller number of riders (six) opposed the rerouting of service off Cedar Lake Road between Penn and Glenwood Avenues. Comments about this section said that schoolchildren board on Cedar Lake Road, and they would have a longer trip to school as a result.

Introduction of Route 645

Seven of the Route 675 riders were concerned about changing the route from an express route to a limited-stop service. Many of them said the added stops would increase their travel time, and the bus could not support additional riders as it was already very crowded.

Comments on the overall plan

Nineteen of the comments referred to the overall Concept Plan. Most of these comments were in opposition to the plan, saying that existing transit service should not be cut back. They understood the goal to improve service to the West End, but felt that service cuts and route simplification were not the best ways to achieve that goal.

Other components of the plan

Other portions of the plan, such as the elimination of Route 649 and the shortening of Route 604, did not receive many comments during the public comment period. The few comments on these routes (six on the 604 and four on the 649) dealt with existing reliability and running time issues.

The Concept Plan was altered to address some of the concerns expressed by stakeholders. Service on 26th Street will remain and be served by an extended Route 25. Service frequency on the Route 9 has been adjusted to better match ridership demand.

Route 25 changes were not included in the Concept Plan. As part of the March 2017 public outreach, staff will be taking comments on Route 25 changes proposed in the Recommended Plan. Attention will be paid to Route 25 comments received since this is the first time riders have heard of the proposed changes.

Next Steps

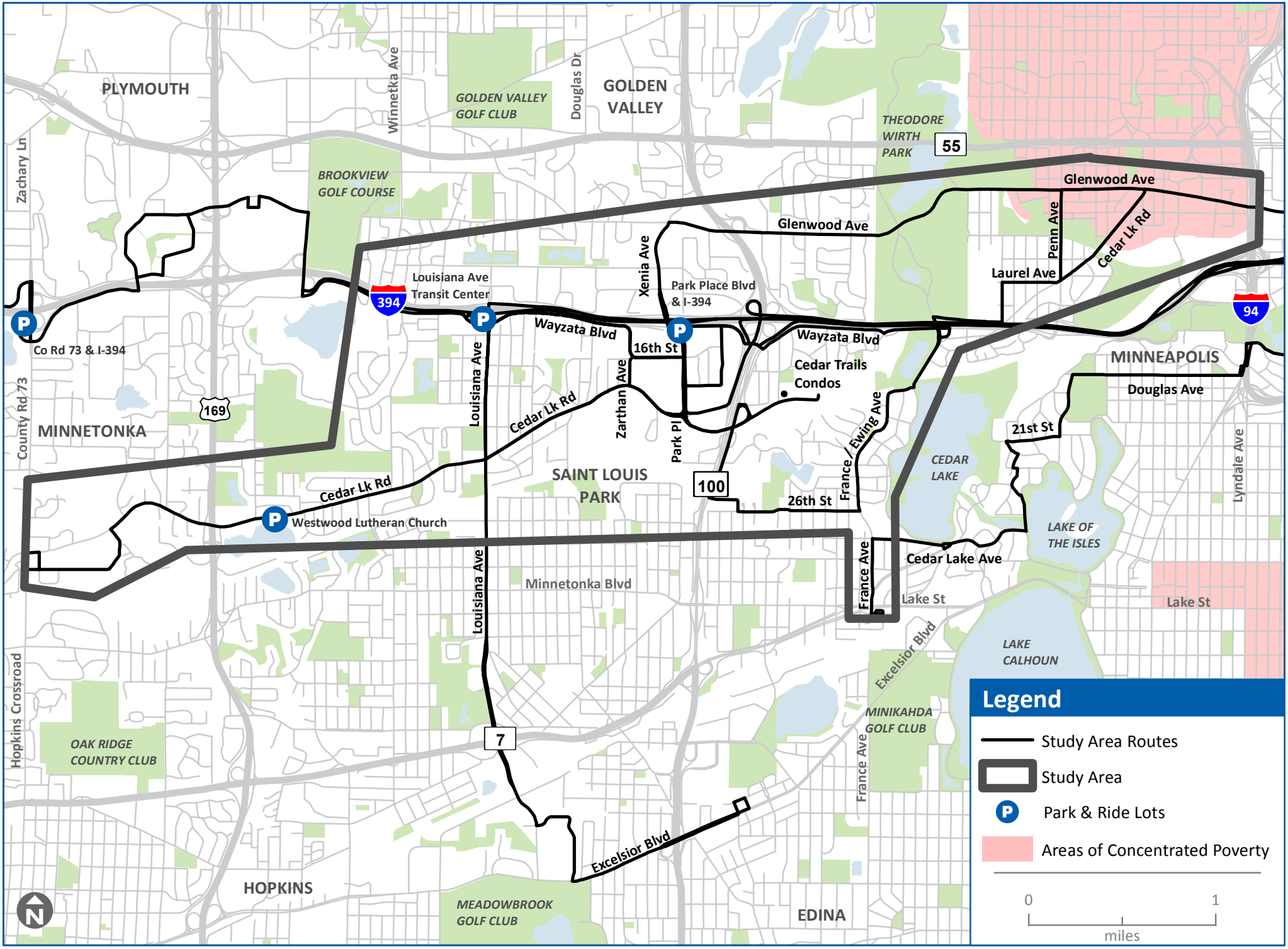
Metro Transit will continue community outreach through March 2017 to notify stakeholders of the updated Recommended Plan.

Outreach activities will include:

- Update stakeholders and all individuals that submitted public comment on the Concept Plan.
- Publish service changes in *Connect*, Metro Transit's onboard newsletter.
- Update the project website (metrotransit.org/west-end).
- Staff will make onboard announcements, post at bus stops, and issue Rider Alerts on affected routes.
- Hold a community meeting in March 2017 for attendees to view and comment on the Recommended Plan.
- Continue tracking customer feedback on the Recommended Plan.

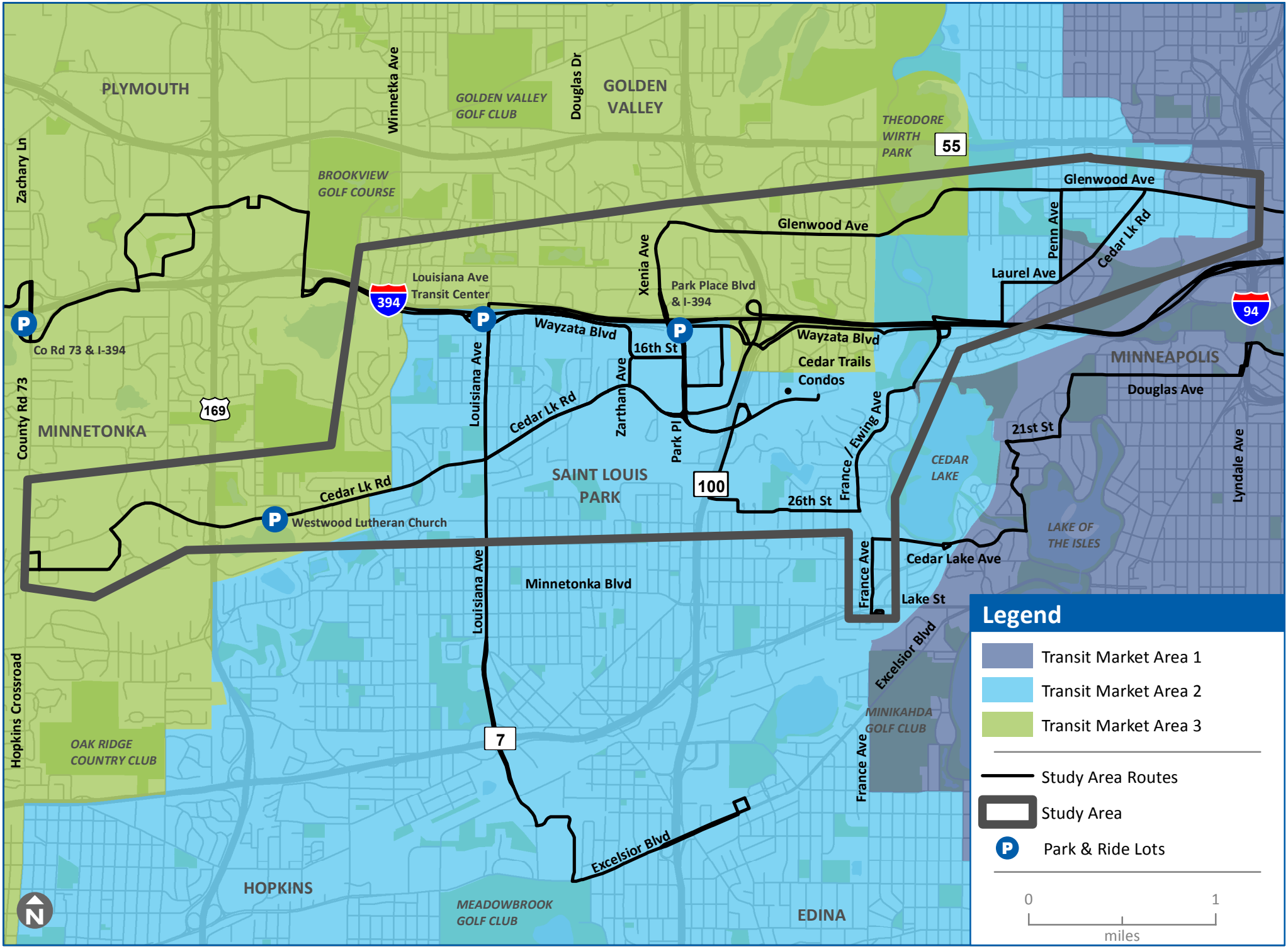
The plan will be presented to the Metropolitan Council in April 2017 for final approval. Implementation is planned for August 2017.

Appendix A:
Figures 1-18



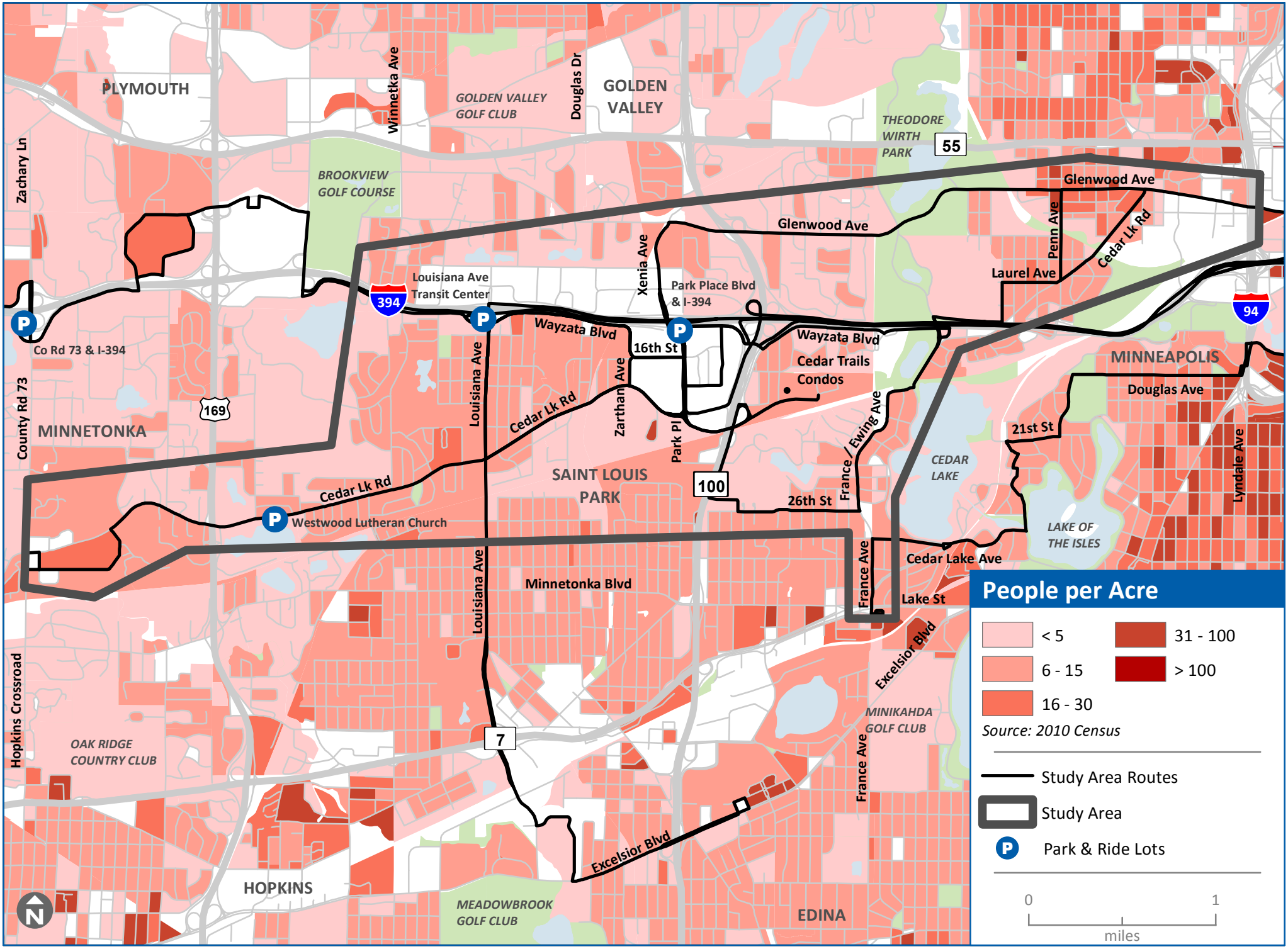
Metro Transit

Figure 1: Study Area



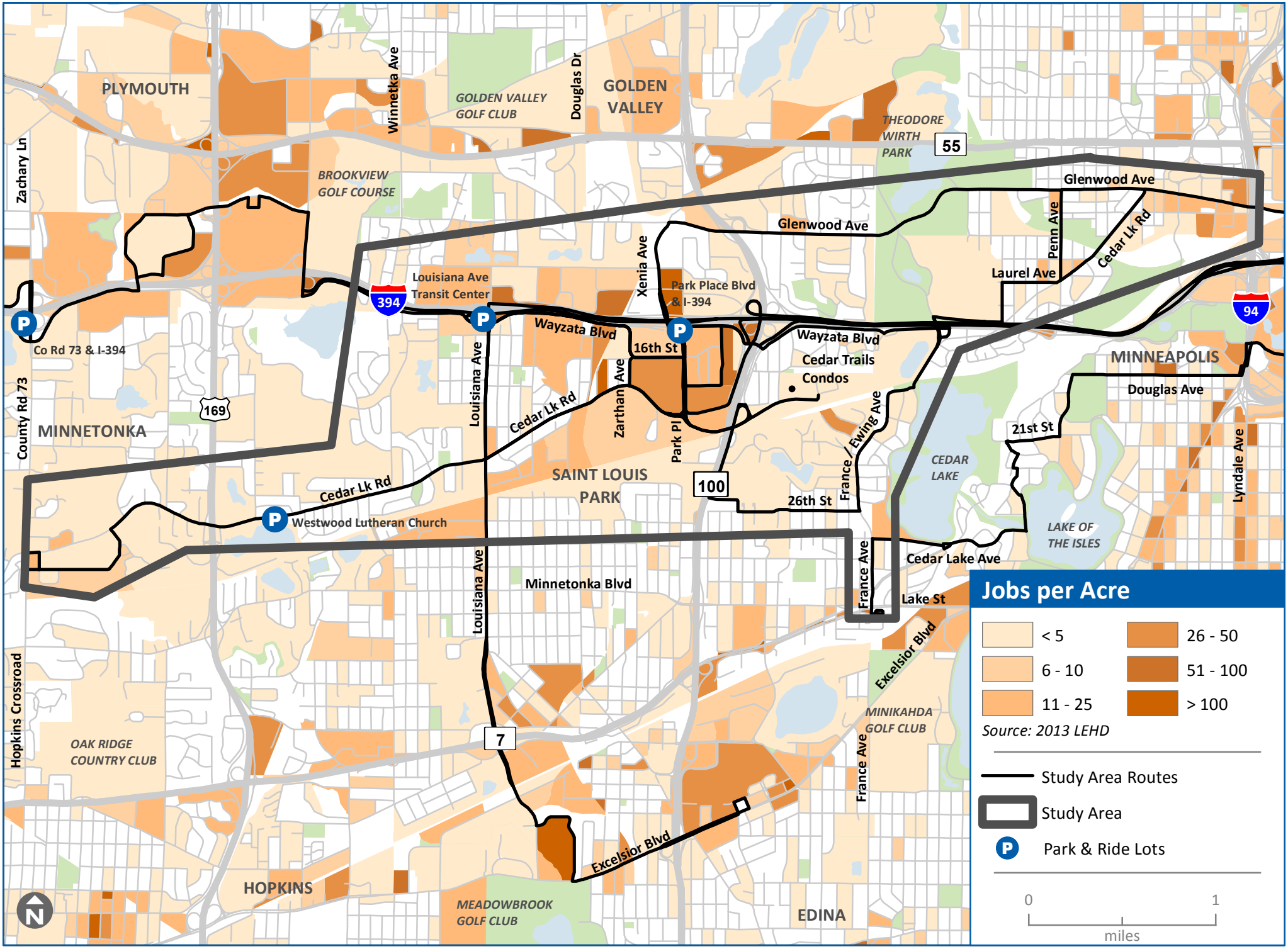
Metro Transit

Figure 2: Transit Market Areas



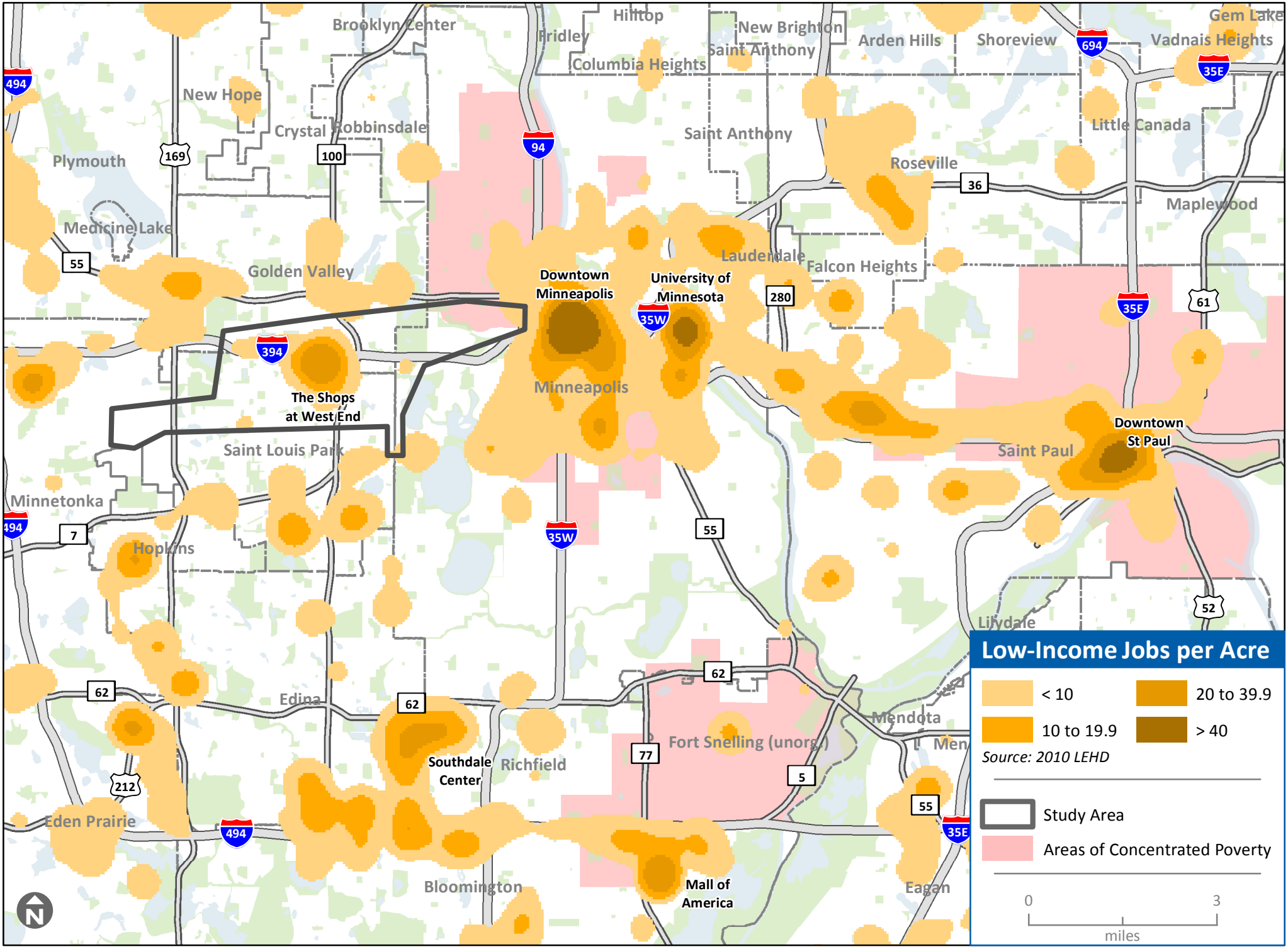
Metro Transit

Figure 3: Population Density by Census Block



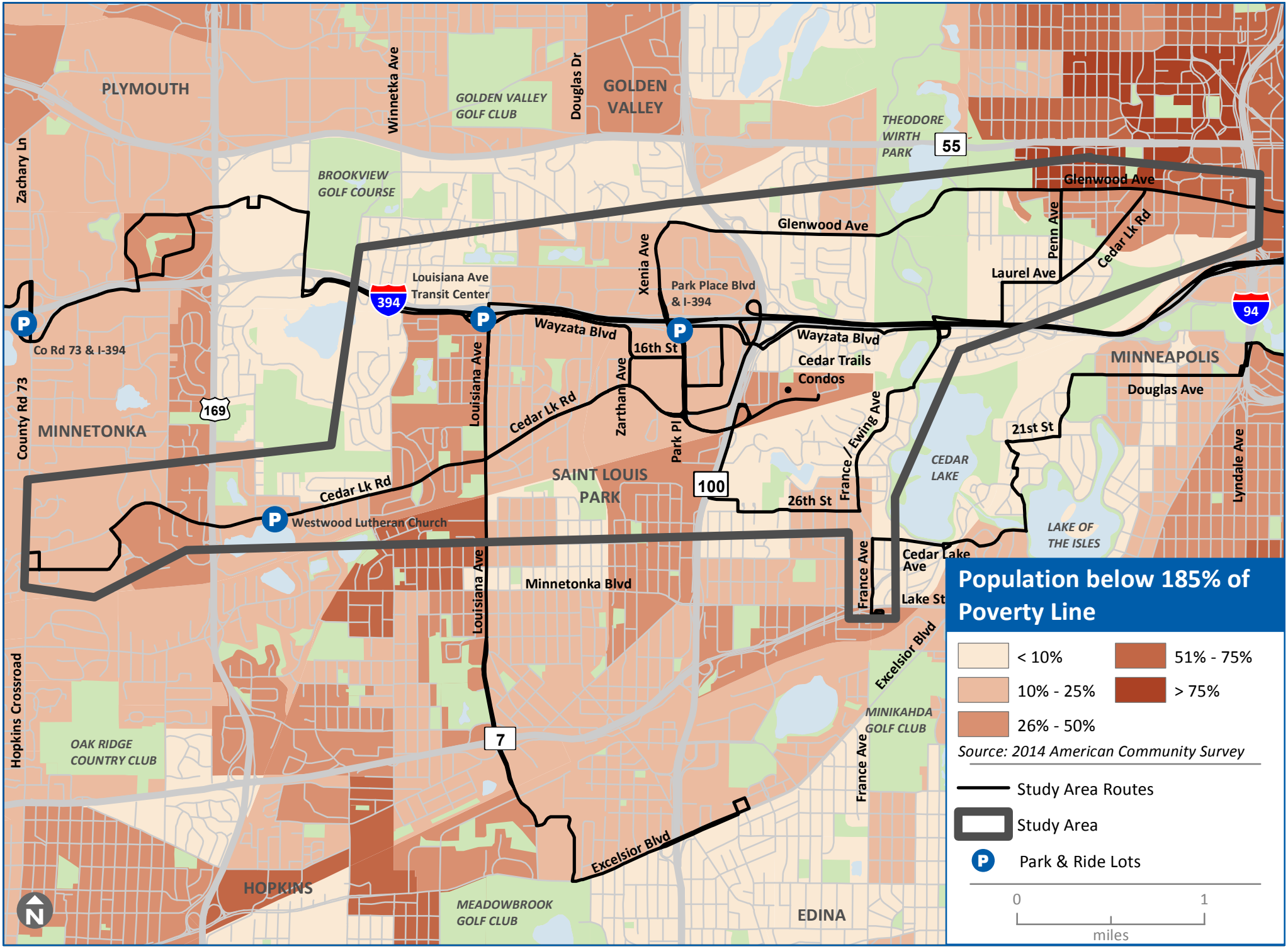
Metro Transit

Figure 4: Employment Density by Census Block



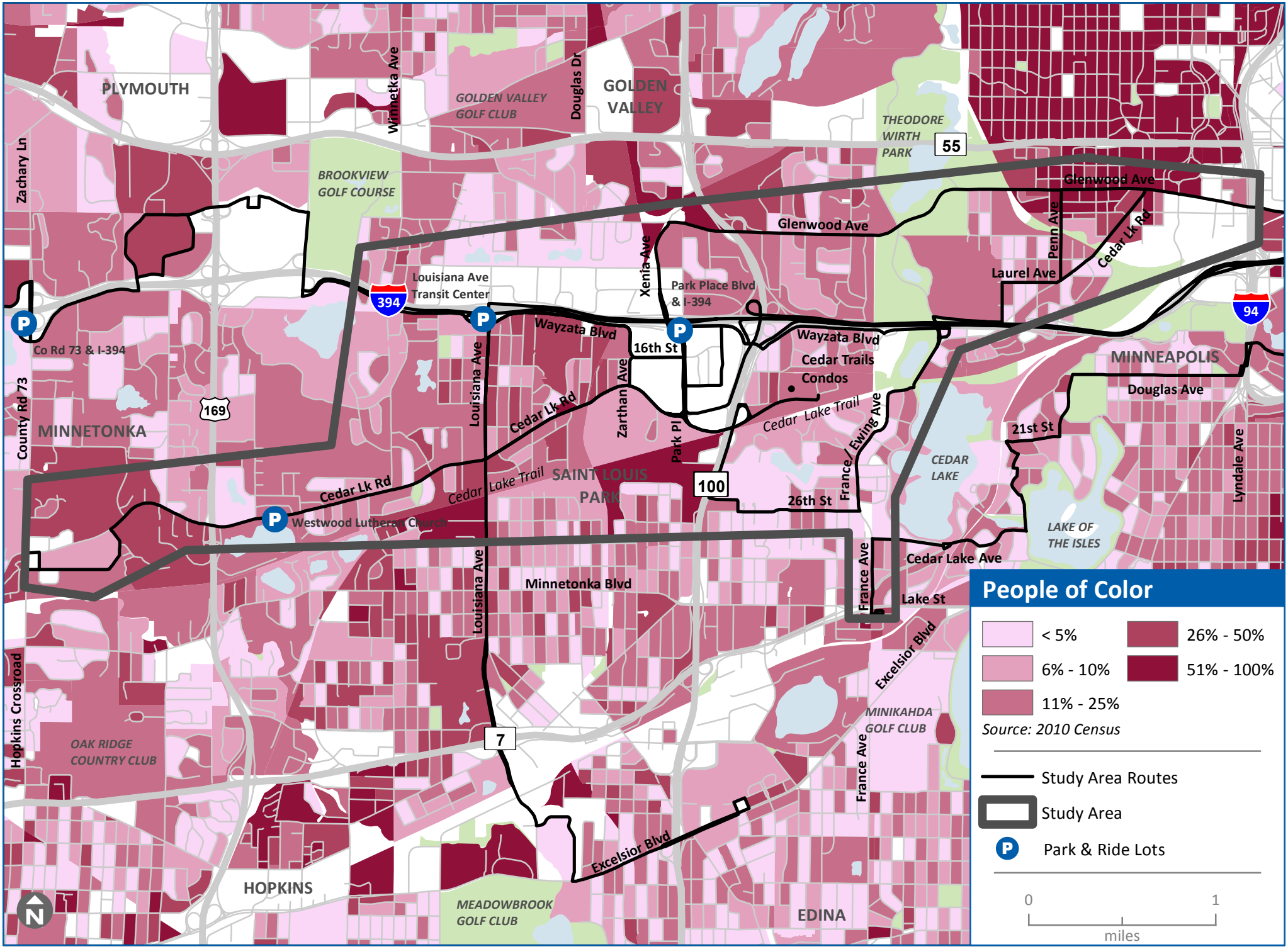
Metro Transit

Figure 5: Jobs Paying Less than $40,000 Annually



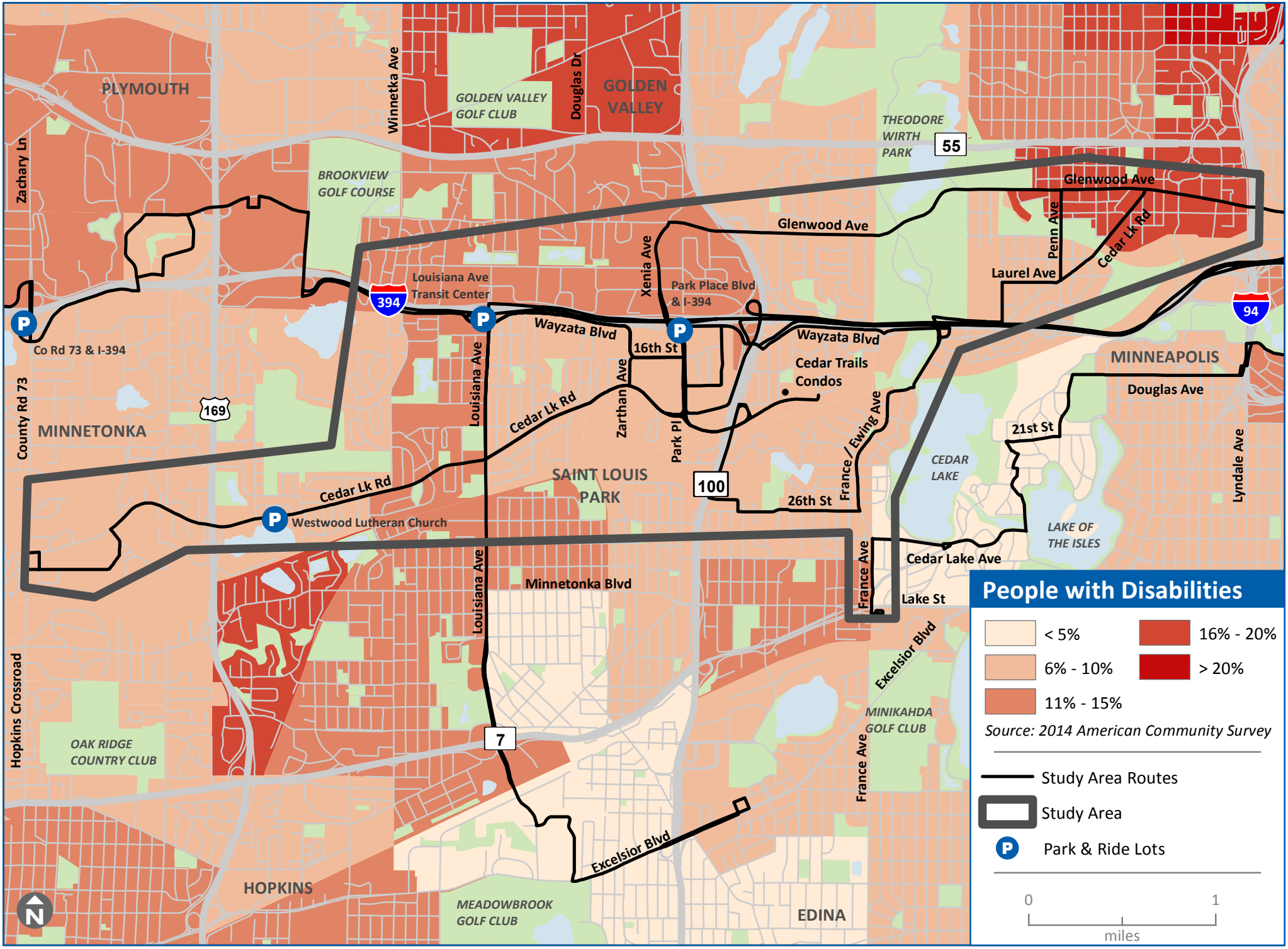
Metro Transit

Figure 6: Low-Income Communities by Census Block Group



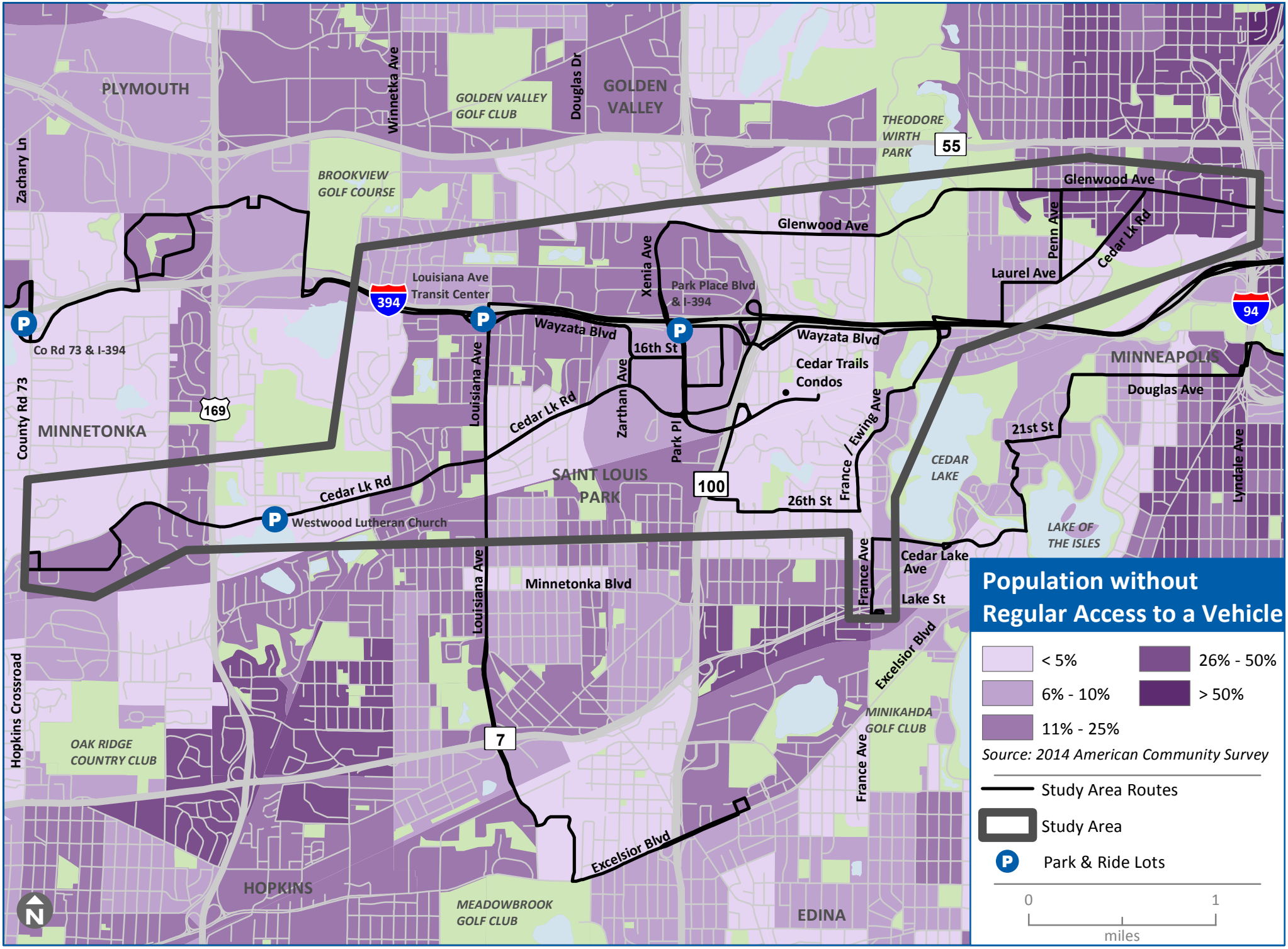
Metro Transit

Figure 7: People of Color by Cenus Block



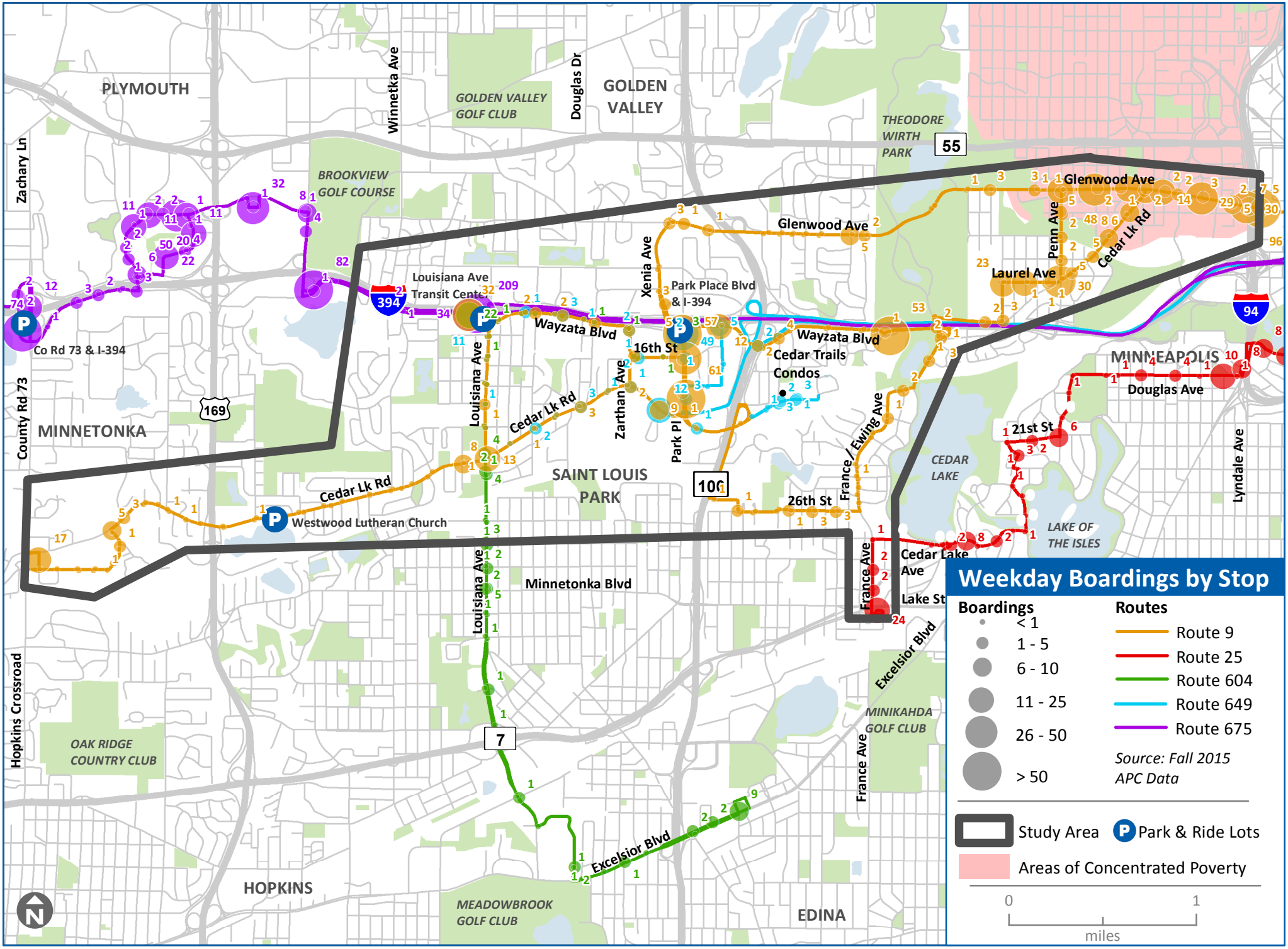
Metro Transit

Figure 8: People with Disabilities by Census Tract



Metro Transit

Figure 9: Number of Vehicles Compared to Population Over Age 16 by Census Block Group



Weekday Boardings by Stop

Boardings

- < 1
- 1 - 5
- 6 - 10
- 11 - 25
- 26 - 50
- > 50

Routes

- Route 9
- Route 25
- Route 604
- Route 649
- Route 675

Source: Fall 2015 APC Data

Study Area

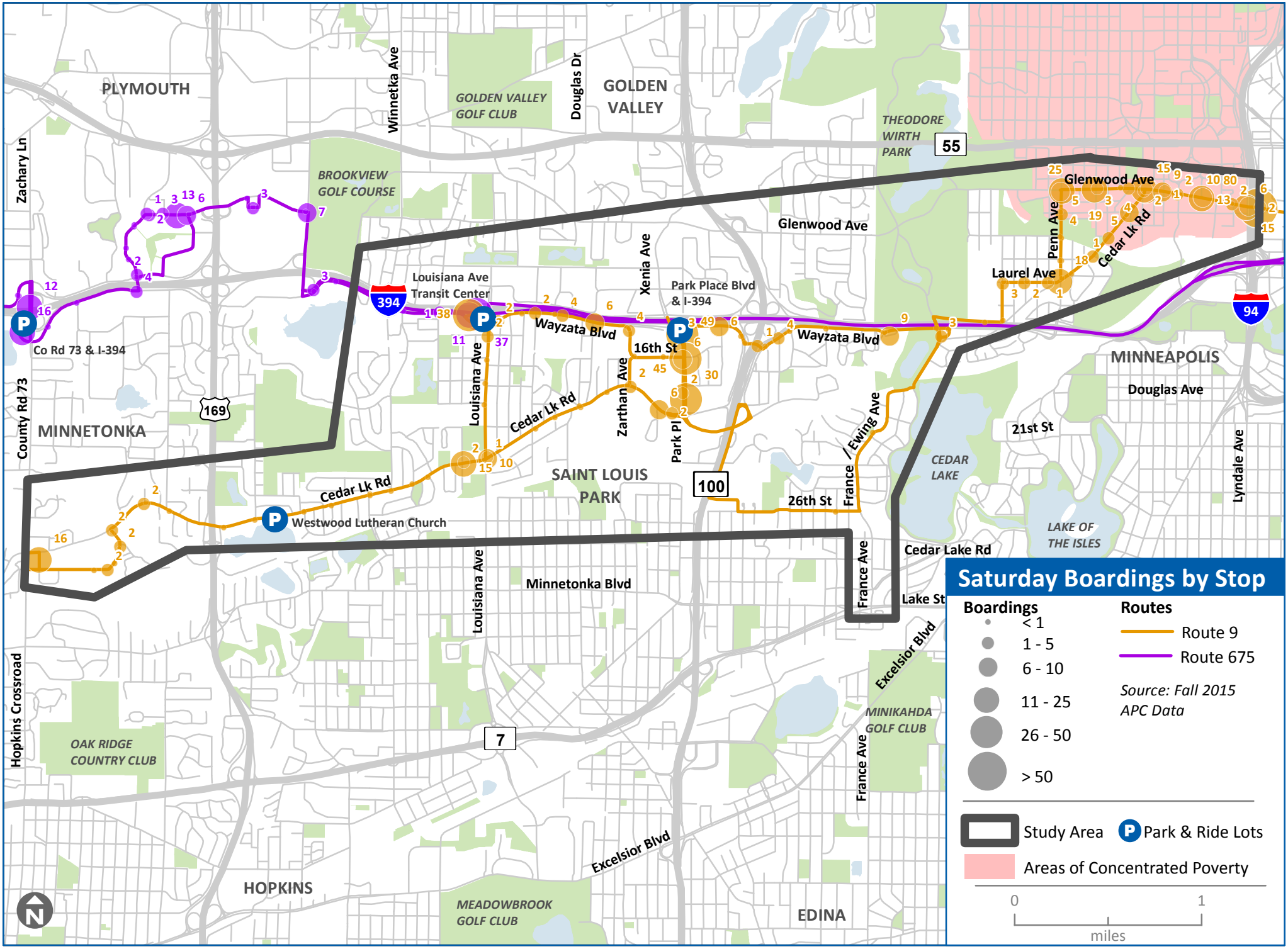
Park & Ride Lots

Areas of Concentrated Poverty

0 1 miles

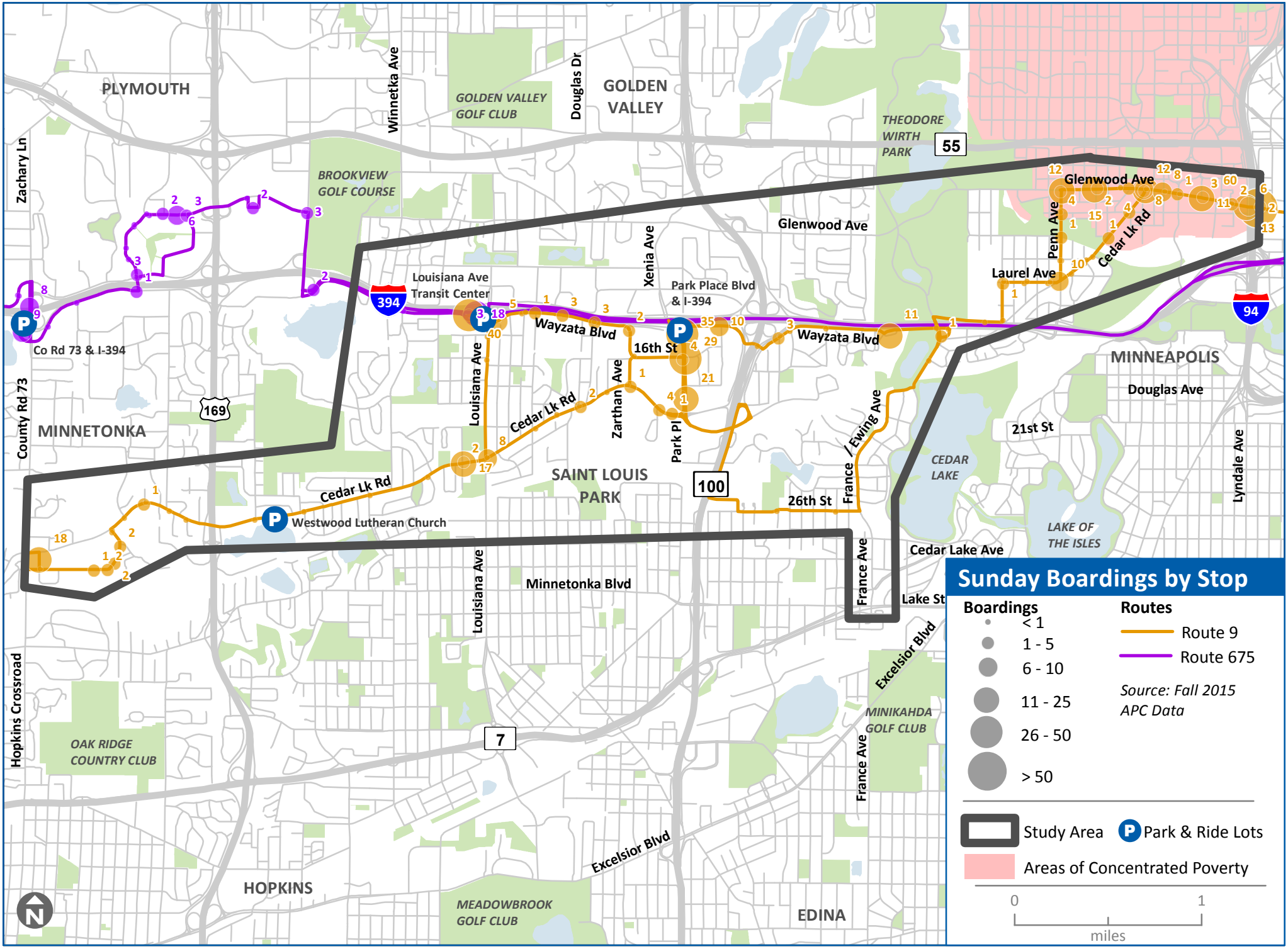
Metro Transit

Figure 10: Study Area Average Weekday Boardings by Stop



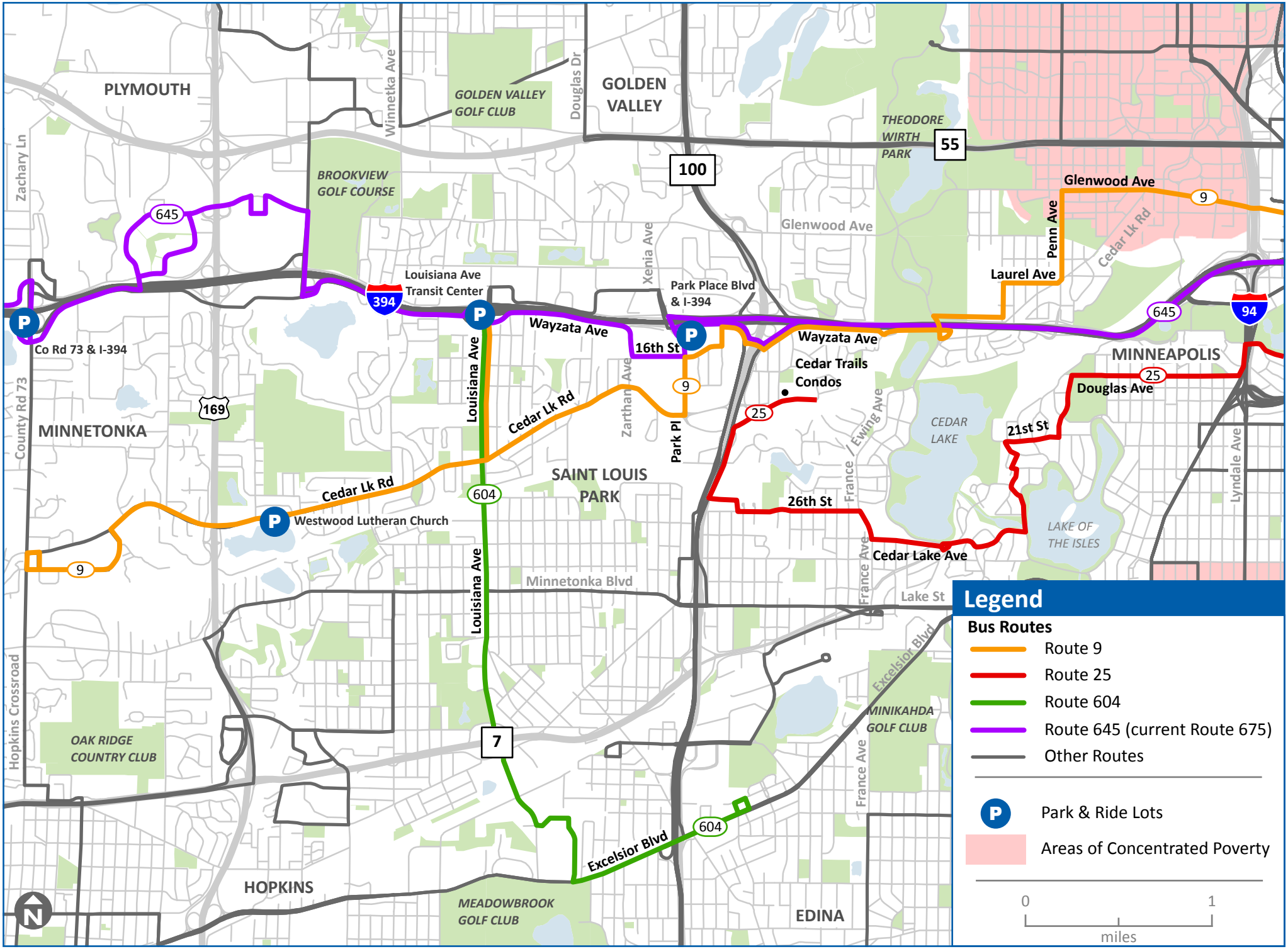
Metro Transit

Figure 11: Study Area Average Saturday Boardings by Stop



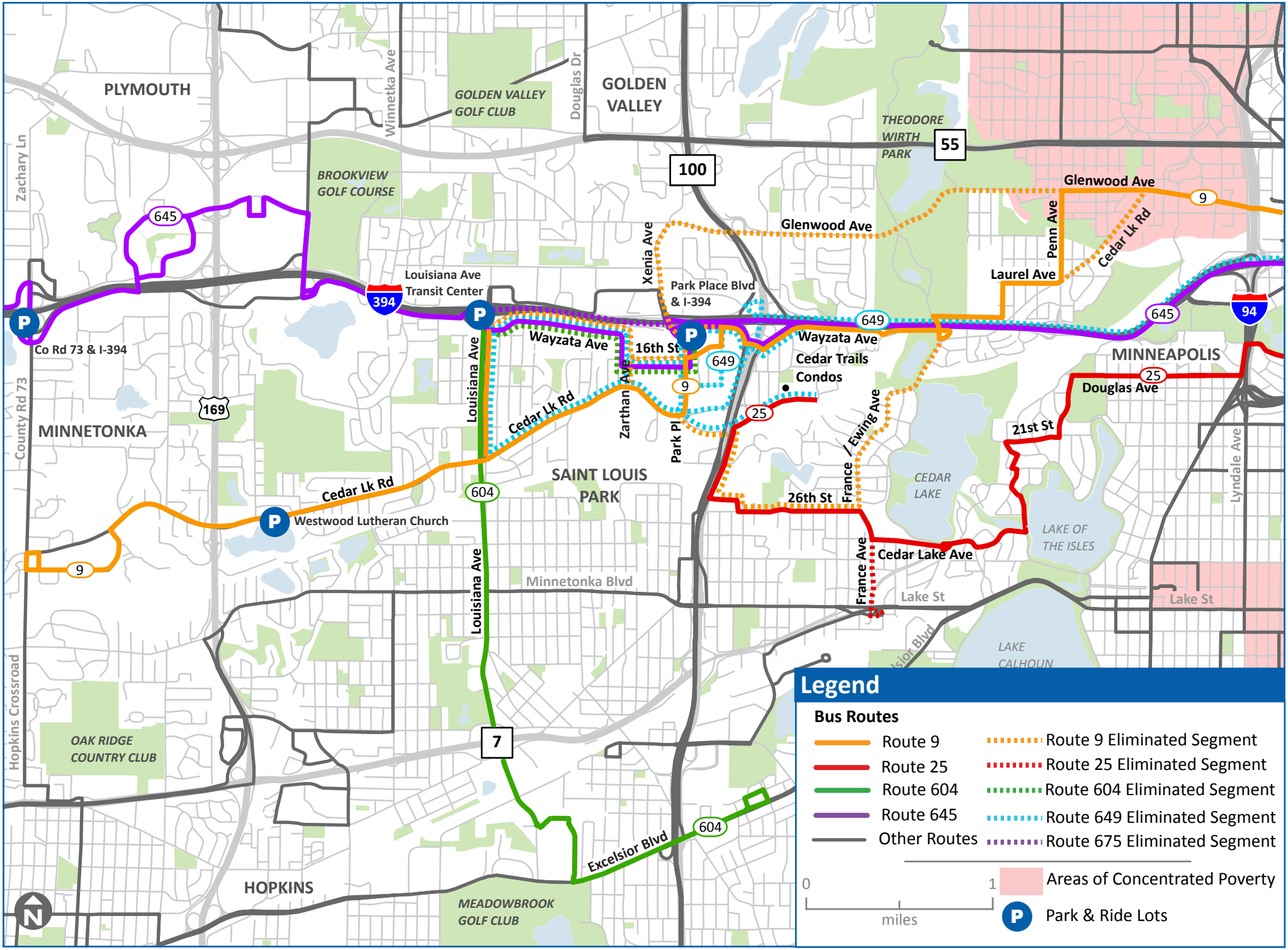
Metro Transit

Figure 12: Study Area Average Sunday Boardings by Stop



Metro Transit

Figure 13: Recommended Plan



Metro Transit

Figure 14: Recommended Plan (with eliminated route segments)

Weekday		
Existing Conditions	Platform Hours	Peak Buses
Route 9	119	9
Route 25	65	6
Route 604	11	1
Route 649	12	2
Route 675	86	8
Existing Total	294	26

Concept Plan	Platform Hours	Peak Buses
Route 9	119	9
Route 25	66	6
Route 604	12	1
Route 645	93	9
Concept Plan Total	290	25
Change over Existing	*-4*	*-1*

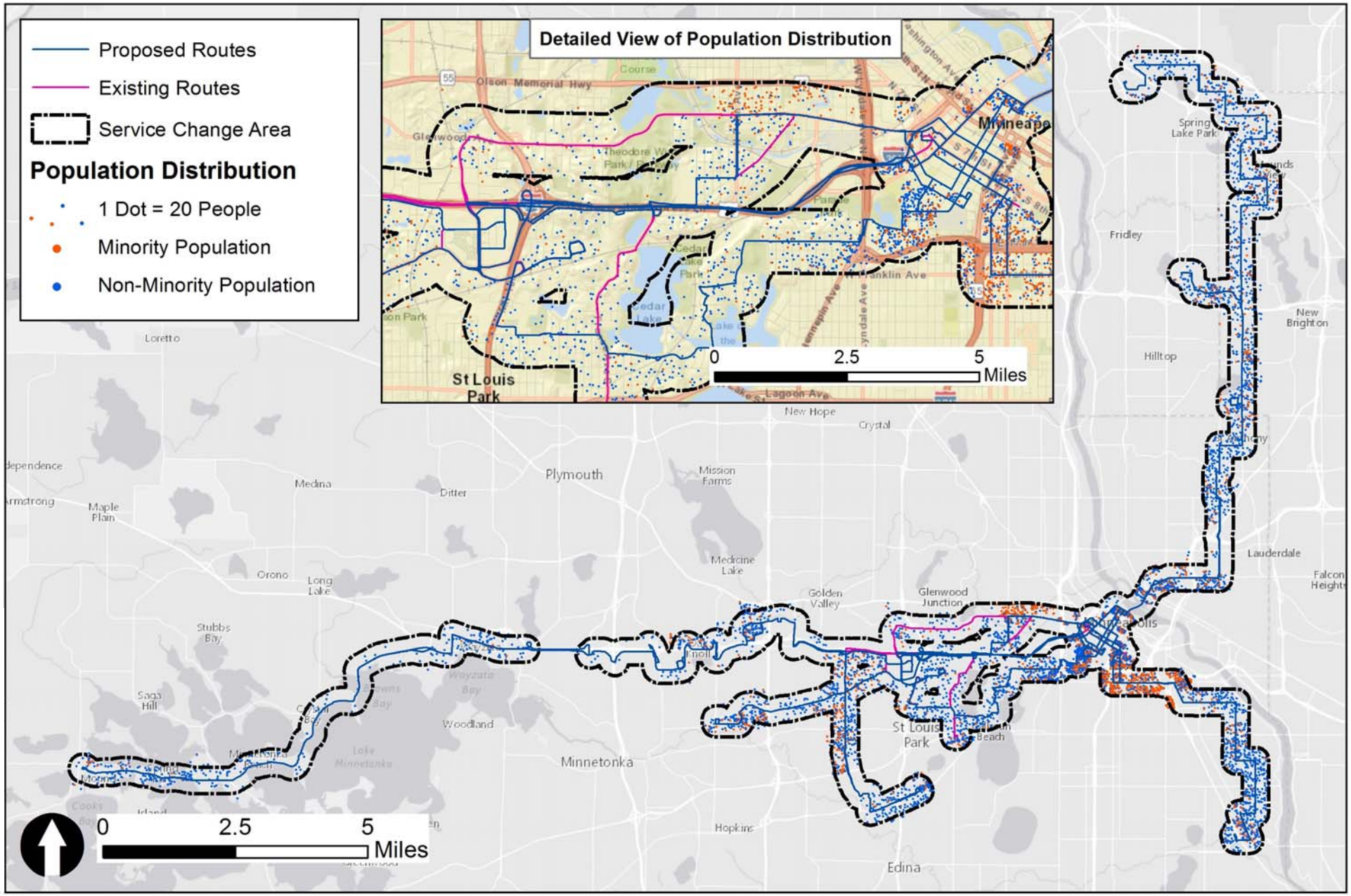
Saturday		
Existing Conditions	Platform Hours	Peak Buses
Route 9	90	5
Route 675	30	2
Existing Total	120	7

Concept Plan	Platform Hours	Peak Buses
Route 9	96	6
Route 645	30	2
Concept Plan Total	126	8
Change over Existing	*+6*	*1*

Sunday		
Existing Conditions	Platform Hours	Peak Buses
Route 9	85	6
Route 675	22	2
Existing Total	107	8

Concept Plan	Platform Hours	Peak Buses
Route 9	85	6
Route 645	22	2
Concept Plan Total	107	8
Change over Existing	*0*	*0*

Figure 15: Existing and Proposed Resources by Route



Metro Transit

Figure 16: Distribution of Minority and Non-Minority Populations

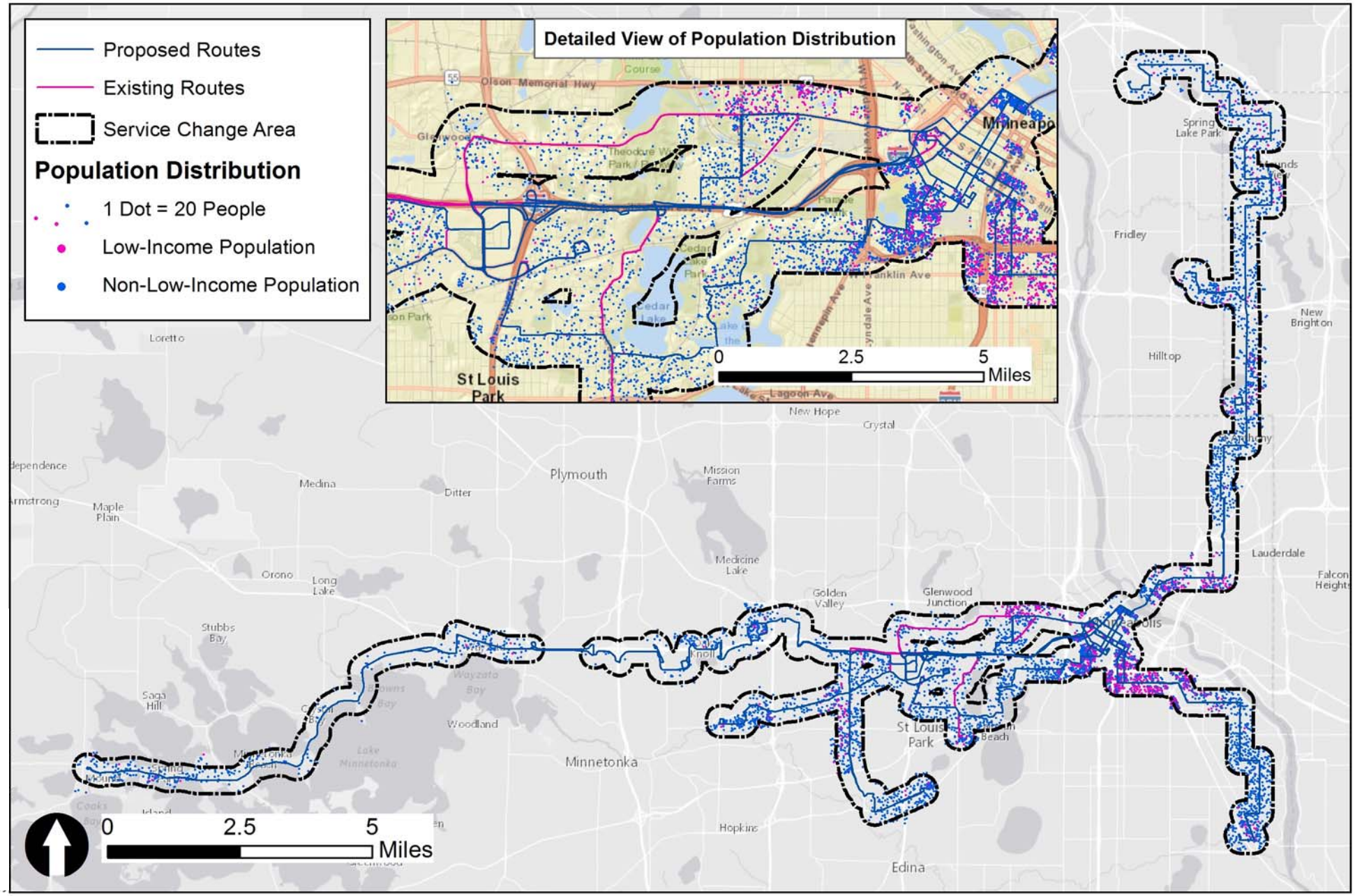


Figure 17: Distribution of Low-Income and Non-Low-Income Populations

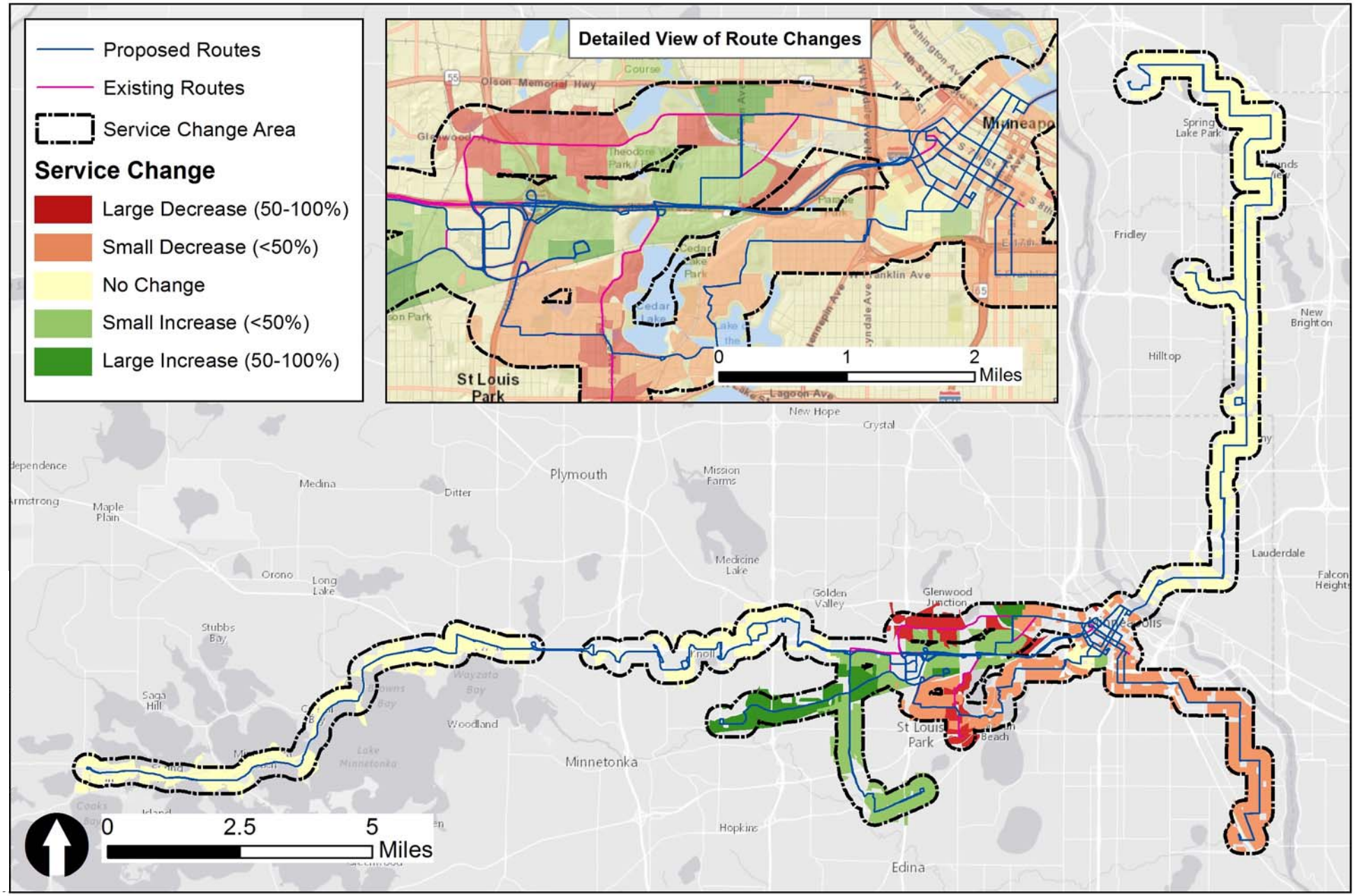
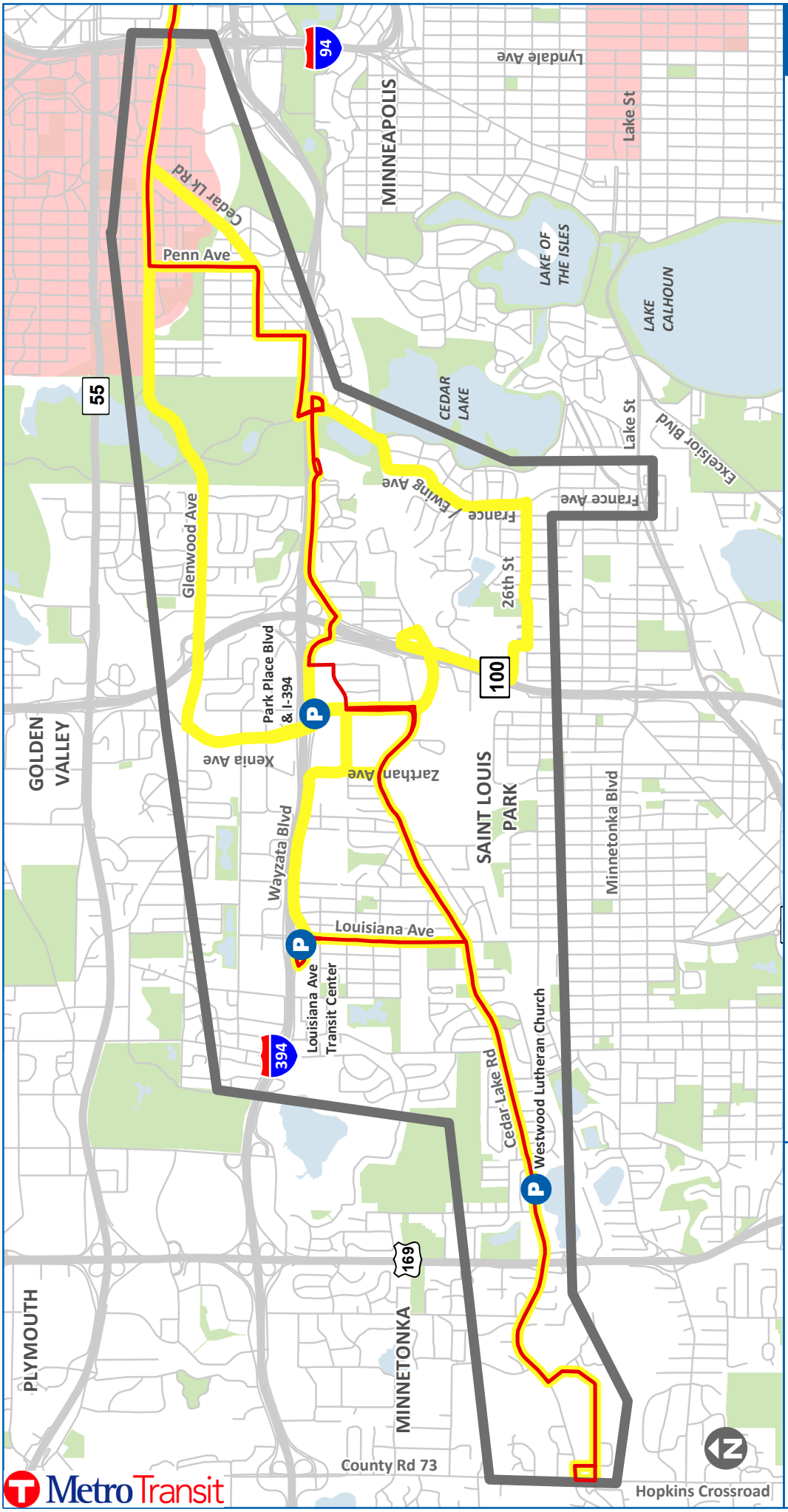


Figure 18: Change in Existing Level of Service

Appendix B:
Route Profiles



Route 9

Route Information

Route 9 west of downtown will be simplified. The six branches will be reduced to two. Due to low ridership, service will be discontinued on:

- Cedar Lake Road between Glenwood and Penn Avenues
- Glenwood Avenue west of Penn Avenue, and on Xenia Ave (Route 9B)
- Cedar Lake Parkway, Ewing Avenue, and France Avenue (Route 9H)
- Zarthan Avenue between Cedar Lake Road and 16th Street

Riders on the Route 9D between Louisiana Avenue Transit Center and Park Place & Wayzata will be served by the new Route 645.

Riders on the Route 9H on Berry Street and 26th Street will be served by an extension of the Route 25.

Route 9 will be rerouted via 16th Street and Utica Ave to better serve the West End.

Frequency

Rush Hours: 20 minutes
Midday: 30 minutes
Evening: 30 minutes
Owl: No service
Saturday and Sunday: 30 minutes

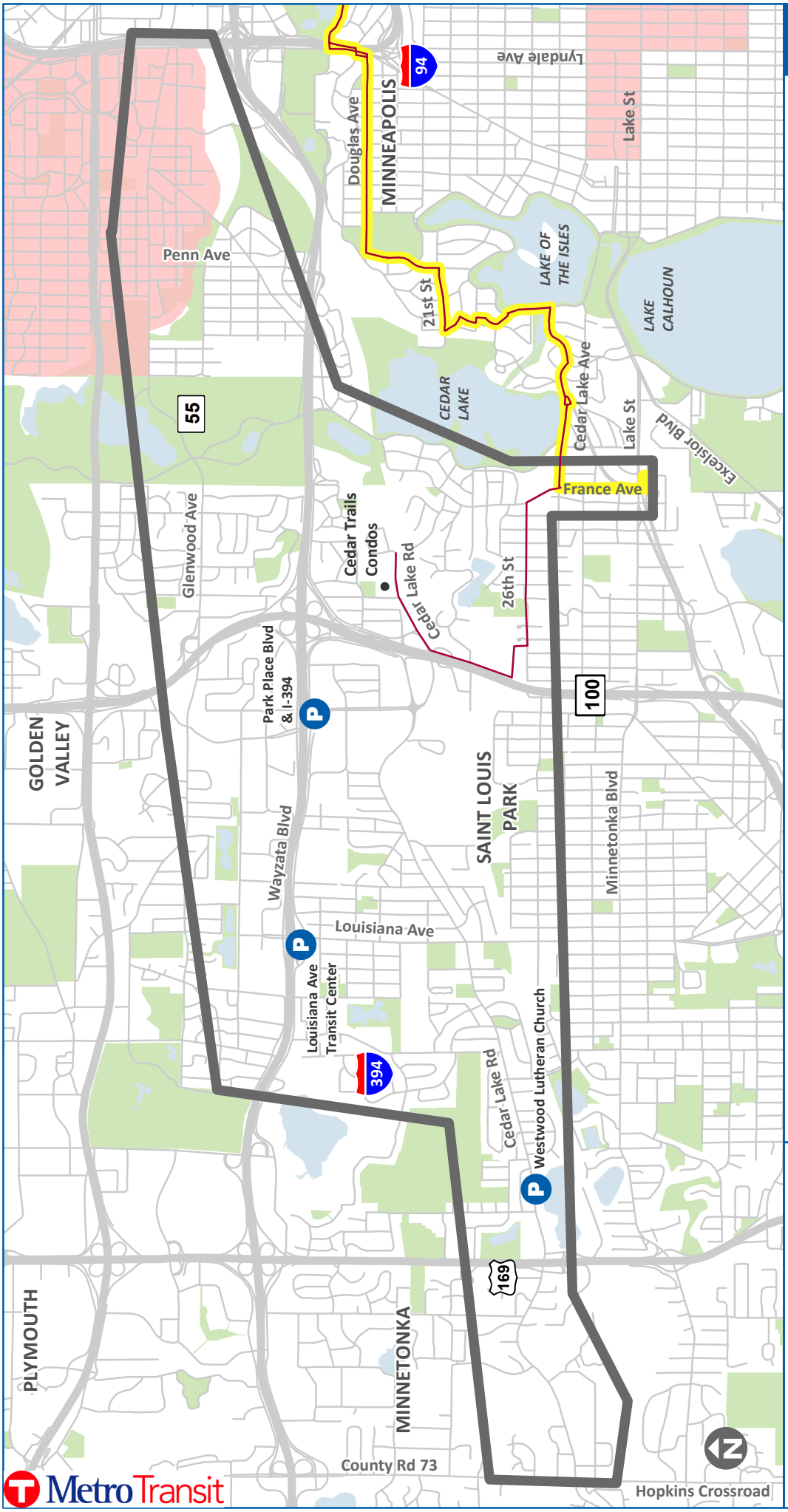
Span of Service

Weekday: 5 a.m. to 1 a.m.
Saturday: 5:30 a.m. to 1 a.m.
Sunday: 6 a.m. to 11 p.m.

Legend

- Proposed Route 9
- Current Route 9
- Study Area
- Park & Ride Lots
- Areas of Concentrated Poverty

0 1
miles



Route 25

Route Information

Route 25 will be extended to serve 26th Street and Cedar Trails Condos. This will provide service to riders impacted by the elimination of Route 649 and the Route 9H.

Four Route 25 trips in each peak period will serve the study area. Six low ridership reverse commute trips will be eliminated.

Route 25 will no longer serve France Avenue between Lake Street and Cedar Lake Avenue. Alternative service is available at Lake Street via Route 17.

Frequency

Rush Hours: 30 minutes
Midday: no service
Evening: no service
Owl: no service
Saturday: no service
Sunday: no service

Span of Service

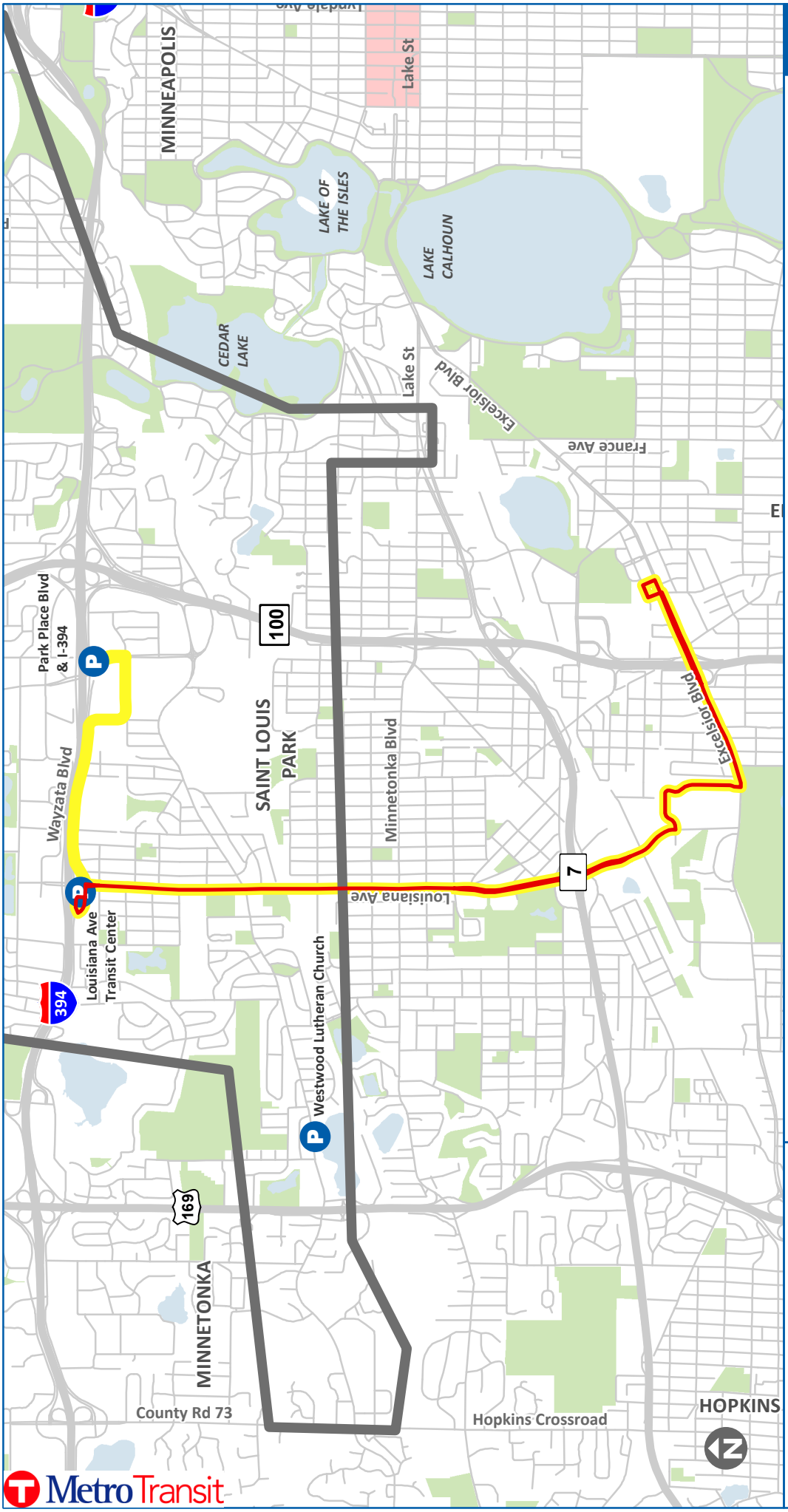
Weekday: 6:45 a.m. to 8:15 a.m. and 4:15 p.m. to 6:15 p.m.
Saturday: no service
Sunday: no service

Legend

- Proposed Route 25
- Current Route 25
- Study Area
- Park & Ride Lots
- Areas of Concentrated Poverty

0 1
miles

Route 604



Route Information

To improve schedule reliability and transfer connections, the route will be shortened and not operate between Louisiana Transit Center and Park Place Boulevard. This section of route along Wayzata Boulevard, Zarthan Avenue, 16th Street and Park Place Boulevard east of Louisiana Transit Center will be covered instead by the new Route 645.

To better serve Methodist Hospital, an earlier southbound trip serving a 7:00 a.m. work start and a later northbound trip serving a 5:00 p.m. work break will be added to the schedule.

Frequency

Rush hours: 10 trips
Midday: 60 minutes
Evening: no service
Owl: no service
Saturday: no service
Sunday: no service

Span of Service

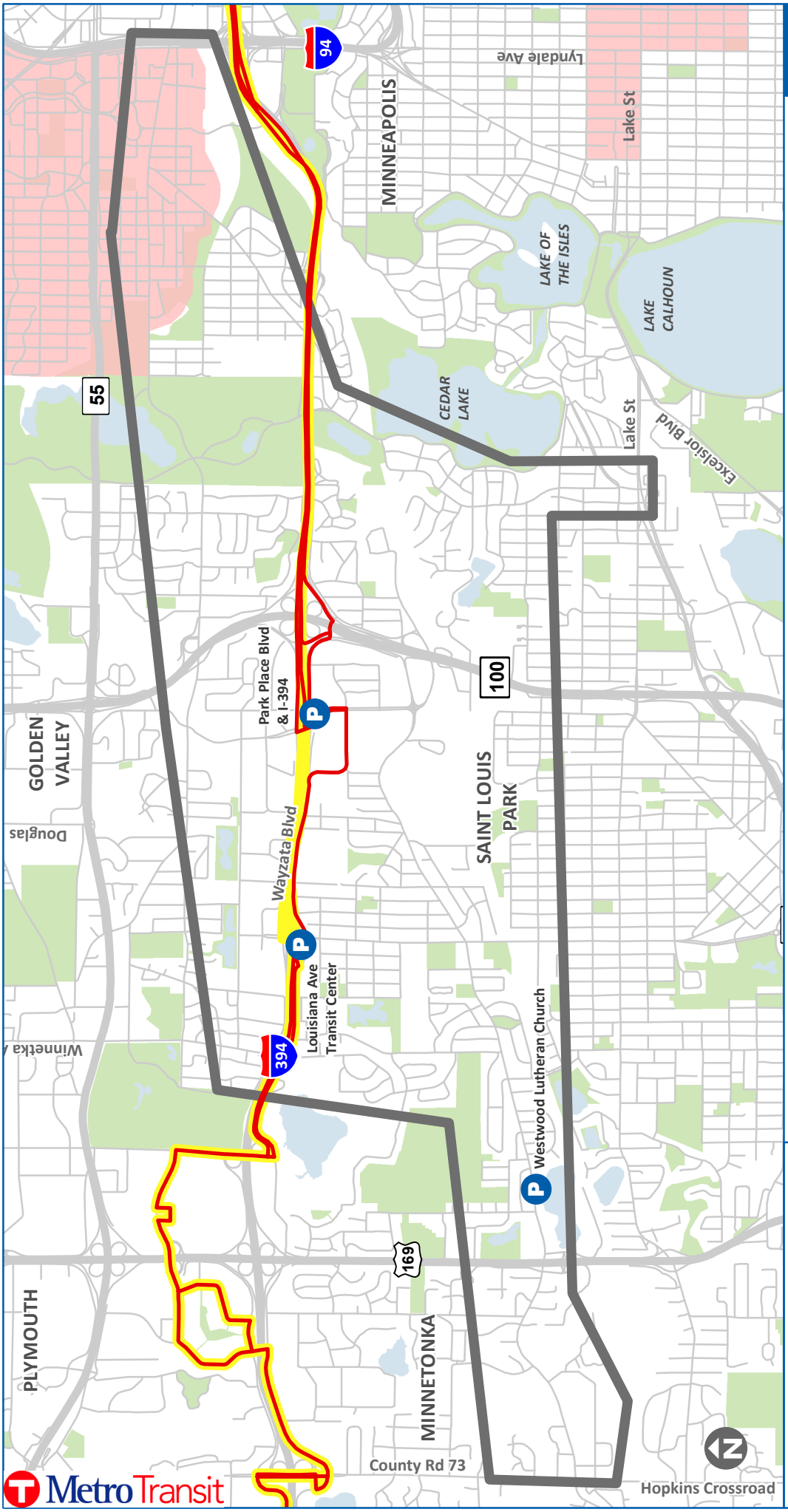
Weekday: 6:30 a.m. to 5:30 p.m.
Saturday: no service
Sunday: no service

Legend

- Proposed Route 604
- Current Route 604
- Study Area
- Park & Ride Lots
- Areas of Concentrated Poverty

0 1
miles

Metro Transit



Route 645

Formerly Route 675

Route Information

To provide faster service between the West End and downtown, Route 675 will become Route 645 and rerouted to travel on local streets between Louisiana Transit Center and Park Place Boulevard. Travel time for existing riders will increase by 2-4 minutes.

Since the route will travel less than four miles on the highway, it will become a limited-stop route charging a less expensive fare.

Frequency

Rush hours: 30 minutes
Midday: 30 minutes
Evening: 60 minutes
Owl: no service
Saturday: 60 minutes
Sunday: 60 minutes

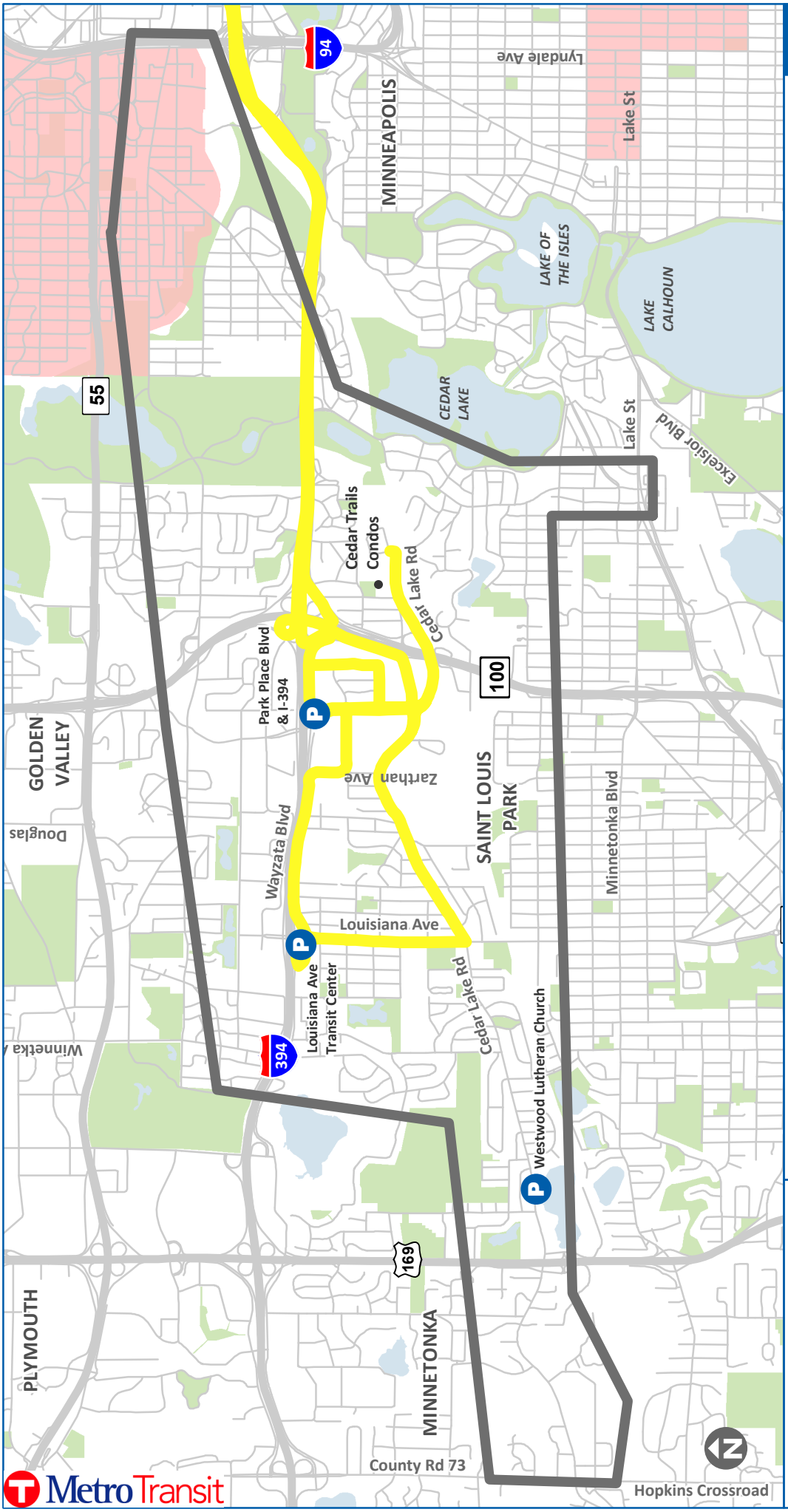
Span of Service

Weekday: 5:30 a.m. to 11 p.m.
Saturday: 6 a.m. to 10 p.m.
Sunday: 9 a.m. to 8 p.m.

Legend

- Proposed Route 645
- Current Route 645
- Study Area
- Park & Ride Lots
- Areas of Concentrated Poverty

0 1
miles



Route 649

Route Information
Route 649 will be replaced by service on the Routes 9, 25, and the new Route 645.

Riders using the I-394 and Park Place Park & Ride, as well as reverse-commuters traveling to the West End and along Wayzata Boulevard, will have a similar travel time between the West End and downtown and will have peak, off-peak and evening service seven days a week.

Route 649 riders along Cedar Lake Road will be served by Routes 9 and 25. These riders will still have a one-seat ride to downtown but their travel time will increase 16-20 minutes. The number of transit trips serving Cedar Lake Road between Louisiana Avenue and Zarthan will triple while the number of trips east of Highway 100 serving Cedar Trails Condominiums will decrease slightly.

Frequency
Rush hours: no service
Midday: no service
Evening: no service
Owl: no service
Saturday: no service
Sunday: no service

Span of Service
Weekday: no service
Saturday: no service
Sunday: no service

Legend

- Current Route 649
- Study Area
- Park & Ride Lots
- Areas of Concentrated Poverty

0 1
miles