

METRO Orange Line Connecting Bus Study

Recommended Plan

MAY 2021

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EXECUTIVE SUMMARY: METRO ORANGE LINE CONNECTING BUS STUDY

The METRO Orange Line is scheduled to open in late 2021. It will substantially replace Route 535 with frequent (every 10-15 minutes), all-day service in the I-35W South corridor between downtown Minneapolis and Burnsville. There will be 12 stations in the 17-mile corridor serving Minneapolis, Richfield, Bloomington, and Burnsville as shown on a map in **APPENDIX A – Figure 1**.

This Recommended Plan builds on service recommendations that were based on an evaluation of current transit service in the study area conducted in 2019 and feedback from changes first proposed in early 2021. The Orange Line Connecting Bus Study Existing Conditions Report determined the market conditions, effectiveness, and efficiency of existing transit service and set the foundation for exploring potential new connecting service with the Orange Line, transit market opportunities, and facility needs. The Orange Line Connecting Bus Study Concept Plan proposed significant service changes on 11 routes, including new routes and the elimination of some existing routes. The Orange Line Connecting Bus Study Recommended Plan includes modifications to the Concept Plan based on feedback received from riders and other stakeholders.

All three reports use common transit planning terms such as “frequency” and “span.” Frequency is defined as the amount of time between trips in the same direction on a route; span is the amount of time per day a route operates, otherwise stated as the first departure on the first trip to last arrival on the last trip.

Study area

The study area, shown in **APPENDIX A – Figure 2**, is bounded by the Mississippi River on the east, I-394 on the north, Highway 169 on the west, and the Minnesota River on the south. The Study Area is urban in the northern half, including downtown Minneapolis, and covering many neighborhoods in south Minneapolis, and suburban in the southern half, covering Bloomington, Edina, and Richfield. Although the Orange Line extends to Burnsville, this study will not include areas south of the Minnesota River because this area is served by a separate transit provider, Minnesota Valley Transit Authority (MVTA).

Project goals

Goals of the Orange Line Connecting Bus Service Study include:

- Link significant concentrations of residents, jobs, and services with the METRO Orange Line
- Retain existing customers, grow ridership. Prioritize service for communities of color, people experiencing poverty and those who rely on transit the most
- Simplify the route network by emphasizing directness and avoiding branches
- Enhance the mobility and connectivity of the transit network
- Complement existing commuter and express service in the corridor

A note on COVID-19 and impacts on the planning process

While the long-term ridership impacts of the COVID-19 pandemic are not known, the short-term effects have been significant. These recommendations are based on a mix of current ridership patterns and those that existed before the crisis, which may change in the long-term as people adapt and new travel needs emerge. To the extent possible and given the information available, the Recommended Plan

has considered potential long-term impacts to ridership and travel behavior in response to the crisis. However, the plan may need to be adjusted and the timeline for implementing certain changes may need to be modified later in the planning process based on market conditions at the time the Orange Line opens.

Recommended Plan

There are 25 routes in the study area: Routes 4, 6, 7, 11, 18, 21, 27, 46, 53,* 146,* 156,* 515, 535, 537,* 538, 539, 540, 542,* 552,* 553, 554,* 558,* 578, 579,* and 597. Note that routes marked with an asterisk (*) have been suspended since March 2020 due to the COVID-19 pandemic, leaving 16 routes.

- 21 routes already serve a future Orange Line station south of downtown Minneapolis. (Routes 4, 11, 18, 21, 27, 46, 53,* 146,* 156,* 515, 538, 539, 540, 542,* 552,* 553, 554,* 558,* 578, 579,* and 597)
- No changes are recommended on 13 routes in the study area, so they are not described further in this report. (Routes 4, 6, 11, 18, 21, 46, 53,* 156,* 552,* 554,* 558,* 578, and 579*)
- Changes to route structure, frequency or span of service are proposed on 11 routes (Routes 7, 27, 515, 535, 537,* 538, 539, 540, 542,* 553 and 597)
- Five new routes are recommended for implementation (Routes 501, 534, 546, 547, 548)
- One new route proposed in the Concept Plan will not move forward (Route 536)

Recommended Plan: Changes to existing routes

Route 7: All remaining trips will be extended from 34th Ave. S. to Cedar Point Commons Shopping Center on 66th St. at Cedar Ave. in Richfield. During peak periods it will replace Route 515E between VA Medical Center and the 66th St. corridor. Selected weekday trips will serve VA Medical Center for a direct link with Route 515.

Route 27: All trips will be extended to directly serve I-35W & Lake St. Station, providing a connection with the Orange Line and other I-35W routes. This link will re-establish access to large employers such as Abbott Northwestern Hospital, Allina, Children's Hospital, and Wells Fargo Home Mortgage.

Route 515: Route will be simplified from three variations to one with no branches. Route 515B service on Longfellow Ave. will be eliminated, with partial replacement by new Route 501. The 515E branch to VA Medical Center will be replaced with a transfer between Route 515 and Route 7 at Cedar Point Commons or with the METRO Blue Line at Mall of America.

Route 535: The route will be largely replaced by the Orange Line. Areas currently served by four local branches will be replaced by new service:

- 535B, 535C, 535D via 76th St., Penn Ave., American Blvd., by Route 540 on 76th St.
- 535E via Lyndale Ave. in Bloomington by Route 534
- 535B, 535C, 535D via 94th St. and Lyndale Ave. by Route 534
- 535C via 94th St. and James Ave. by Route 546
- 535C, 535D via 98th St. and Normandale Community College by Route 539
- 535E via 102nd St. by Route 553

Route 537: This route is currently suspended due to the pandemic. Service will be restored along France Ave. between Southdale, Normandale College, and Valley West Shopping Center.

Route 538: No routing changes are proposed. Service will be improved from every 30/60 minutes to every 30 minutes in the midday.

Route 539: This route will connect Normandale College, 98th St., Old Shakopee Rd., and Mall of America with the Orange Line. Route 539 will be simplified so all trips follow the same path via 98th St. between 98th St. Station and Normandale Community College.

Route 540: The route will be simplified so all trips follow the same alignment. In Richfield, service will use the new 77th St. underpass to serve 24th Ave. S. and Mall of America. Service will be eliminated on American Blvd. when the underpass opens in late 2022; alternate service is via routes 5 and 542.

Route 542: This route is currently suspended due to the pandemic but will be restored. The route will remain south of I-494 to provide a connection with American Blvd. Station. Service will be extended west via American Blvd., E. Bush Lake Rd. and 78th St. to Braemar Arena in Edina, providing new access to employers located west of E. Bush Lake Rd. Service will be added midday, evening weekdays.

Route 553: This route will be re-oriented south of 98th St. to replace existing Route 535E via 98th St. Station, Lyndale Ave., 102nd St., and Portland Ave. There will be no service on 104th St. between Nicollet and Portland avenues.

Route 597: This route will be replaced by the Orange Line between 98th St. Station and downtown Minneapolis. New connecting routes 547 and 548 will replace local service west of I-35W in Bloomington.

New Routes

Route 501: New route will connect Mall of America Transit Station with air cargo companies such as FedEx and UPS located on Cargo Rd. near the airport for weeknight shifts, effectively replacing the Route 515B branch.

Route 534: This new route will connect with the Orange Line at both 98th St. Station and American Blvd. Station every day. It will serve Lyndale Ave., American Blvd., Penn Ave, 90th St., Poplar Bridge Rd., Colledgeview Rd., and Normandale Community College. Replaces part of current Route 539.

Route 536: This new route was included in the Concept Plan but is not recommended for implementation. It is replaced by routes 534 and 546.

Route 546: This new route will connect with the Orange Line at 98th St. Station every day. It will serve 98th St., Penn Ave., Old Shakopee Rd., Valley West Center, France Ave., Normandale Community College, and Normandale Village. Replaces part of current Route 539. Rush-hour trips will divert to serve employers on James Ave. and 94th St.

Route 547: This route will replace Route 597C and Route 597E. It will connect at 98th St. Station with the Orange Line to link southwest Bloomington employers on Old Shakopee Rd. and residents on Auto Club Rd., Normandale Blvd., 110th St., and 98th St.

Route 548: This route will replace current Route 597B and connect residents along Hyland Greens Dr., Normandale Blvd., W. 102nd St., and Old Shakopee Rd. with the Orange Line at 98th St. Station.

Service equity analysis

The results of the service equity analysis show no disparate impact on minority populations but do show disproportionate burden on low-income populations as a result of service changes under the Orange Line Connecting Bus Study Recommended Plan. However, staff firmly believe this quantitative finding is largely due to limitations of the service equity analysis methodology – notably its inability to account for destinations and improved accessibility – and the current disruption of service due to the COVID-19 pandemic, wherein previously-suspended routes critical to the broader Orange Line connecting bus service network are recommended to be reinstated. Further, it was found that low-income residents would experience a greater absolute increase in the number of weekly scheduled bus trips available near their home (+261) compared to non-low-income residents (+224), on average.

Having sought ways to avoid, minimize, or mitigate the impacts on low-income residents; the availability of service alternatives for those low-income residents with service decreases; and considering the analysis findings within the broader context of project goals and other measures of service benefits; Metro Transit has decided to continue with the Recommended Plan. Staff firmly believe that the Recommended Plan best meets the project goals and provides important service improvements for all service area residents, including BIPOC and low-income residents. The complete Title VI Service Equity Analysis report is available at metrotransit.org/OLCB.

Public outreach and next steps

The Concept Plan was brought to the public for review and comment in early 2021. The official public comment period extended from Jan. 25 to Feb. 22 to allow transit customers and other stakeholders the opportunity to provide feedback. Due to the pandemic, most engagement was virtual or electronic, with some in-person intercept surveys. The primary engagement tool was an online survey, promoted through a variety of channels to ensure we engaged a diverse cross-section of existing and potential riders. For a detailed description of the outreach methods, please see the Engagement Report available on the project website.

As part of the public outreach process, a public hearing and two community meetings were held virtually:

- Virtual community meetings Feb. 6 and 9
- Virtual public hearing on Feb. 10

Major Themes from Public Outreach

The respondents to the public outreach clearly supported the proposed route and service changes that are *most* essential for success of the METRO Orange Line. These are the routes making direct connections at an Orange Line Station that are required to access the Orange Line and to replace routes 535 and 597. **Major concerns that are largely addressed by the Recommended Plan include:**

- Maintain a direct link between 66th St. and VA Medical Center, at least on weekdays.
- Route 515 service should return to every 15minutes on weekdays and Saturdays.
- Route 515 needs to remain convenient for apartment residents near E. 77th St. and 12th Ave. S.
- Employees at air cargo companies near the airport need access by transit.
- W. 90th St residents need all-day service.
- W. Old Shakopee Rd – E. 98th St travelers desire direct service now provided by Route 539.

- East-west connections to Mall of America, Normandale Community College, and Valley West Center must work well and be made at a sheltered location.
- All-day service is needed on American Blvd. and on 76th/77th St.
- Travel time and transfers between southwest Bloomington and Minneapolis result by replacing Route 597.

Next Steps

The Metropolitan Council will be asked to approve the final recommended plan in June 2021. These service changes are planned for implementation with the opening of the Orange Line in late 2021.

Please visit metrotransit.org/OLCB for project updates.

CHAPTER 1: STUDY BACKGROUND AND CONTEXT

The purpose of the METRO Orange Line Connecting Bus Service Study is to review service in the study area in conjunction with the opening of the METRO Orange Line and recommend service changes to maximize access to the Orange Line. Transit is the backbone of the Metropolitan Council's 2040 Transportation Policy Plan (TPP) to accommodate population and employment growth forecast for the region.

Transit has operated on Nicollet Avenue and other main thoroughfares in south Minneapolis since the late 1800s. After World War II, with downtown Minneapolis still the major focus of employment in the metro, service on the primary north-south bus routes were extended further south to accommodate residential development in Richfield, Bloomington, and Edina. Express service to downtown Minneapolis on I-35W was added starting in the late 1970s.

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. 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 Penn-American development, which is located near I-494 and I-35W in Bloomington near the Orange Line's American Blvd. Station is a good example of this type of transit-oriented development.

Scope and purpose

The Orange Line Bus Rapid Transit project is scheduled to open in late 2021. It will substantially replace Route 535 with frequent (every 10-15 minutes), all-day service in the I-35W South corridor between downtown Minneapolis and Burnsville. There will be 12 stations in the 17-mile corridor as shown on a map of the Orange Line in **APPENDIX A – Figure 1**. A large share of Orange Line riders are expected to access stations using transit, so an effective network of connecting bus service will be critical for its success. In addition, although the Orange Line will replace most of Route 535, there are four local branches that will not be covered by the Orange Line that need to be included in the local route network.

The study area is bounded by the Mississippi River on the east, I-394 on the north, Highway 169 on the west, and the Minnesota River on the south. The Study Area is urban in the northern half, including downtown Minneapolis and many neighborhoods in south Minneapolis, and suburban in the southern half, covering parts of Bloomington, Edina, and Richfield. A map of the study area is in **APPENDIX A – Figure 2**. Although the Orange Line extends into Burnsville, service in this area is operated by Minnesota Valley Transit Authority (MVTA), which will conduct a separate planning process to review connections with the Orange Line.

There are 25 routes in the study area: Routes 4, 6, 7, 11, 18, 21, 27, 46, 53,* 146,* 156,* 515, 535, 537,* 538, 539, 540, 542,* 552,* 553, 554,* 558,* 578, 579,* and 597. The nine routes marked with an asterisk (*) have been suspended since March 2020 due to the COVID-19 pandemic, which has resulted in a substantial decline in ridership and disruption of transit needs and resources. Commuter routes 553, 578, and 597 continue at very limited levels – one or two trips per peak, for the same reason.

- 21 routes already serve a future Orange Line station south of downtown Minneapolis. (Routes 4, 11, 18, 21, 27, 46, 53,* 146,* 156,* 515, 538, 539, 540, 542,* 552,* 553, 554,* 558,* 578, 579,* and 597)

- Changes to route structure, frequency or span of service are proposed on 11 routes (Routes 7, 27, 515, 535, 537,* 538, 539, 540, 542,* 553, and 597)
- No changes are recommended on 13 routes in the study area, so they are not described further in this report. (Routes 4, 6, 11, 18, 21, 46, 53,* 156,* 552,* 554,* 558,* 578, and 579*)

For complete information regarding existing transit service and markets in the Orange Line Corridor Study Area, please refer to the Orange Line Connecting Bus Service Study Existing Conditions Report at metrotransit.org/Data/Sites/1/media/existingconditionsreport-ol-full-report-with-cover.pdf.

Goals/objectives

Goals of the Orange Line Connecting Bus Service Study include:

- Link significant concentrations of residents, jobs and services with the Orange Line
- Retain existing customers and grow ridership. Prioritize service for communities of color, people experiencing poverty, and those who rely on transit the most
- Simplify the route network by emphasizing directness and avoiding branches
- Enhance mobility and connectivity of the transit network
- Complement existing commuter and express service in the corridor

Planning considerations

These proposed service changes are designed to meet the goals outlined above. Productivity, social equity, and connectivity were considered when reviewing and prioritizing specific service changes and the investment of limited resources. These factors are supported by the direction laid out by the Metropolitan Council in Thrive MSP 2040 and the 2040 TPP.

- Improved route structure and network
 - More direct, simpler service with fewer variations
 - Schedule reliability and network efficiency
 - Faster off-peak travel time between downtown, south Minneapolis, and the south suburbs, particularly Bloomington
- Service performance
 - Meet regional standards for service productivity (passengers per in-service hour)
 - Grow ridership by attracting new and retaining existing riders, encourage transfer rides
- Equity and market considerations
 - Residential concentrations of, and destinations visited by, low-income persons, communities of color, and persons with disabilities
 - Geographies with lower auto availability rates as measured by the number of vehicles registered in an area compared to those old enough to drive
 - Population and employment density data, especially access to lower wage jobs paying less than \$40,000 a year

A note on COVID-19 and impacts on the planning process

While the long-term ridership impacts of the COVID-19 pandemic are not known, the short-term effects have been significant. These recommendations are based on a mix of current ridership patterns and those that existed before the crisis, which may change in the long-term as people adapt and new travel

needs emerge. To the extent possible and given the information available, the Recommended Plan has considered potential long-term impacts to ridership and travel behavior in response to the crisis. However, the plan may need to be adjusted and the timeline for implementing certain changes may need to be modified later in the planning process based on market conditions at the time the Orange Line opens.

Other than routes 537, 542, and 597, the Recommended Plan is silent on the future of routes that are currently suspended. The future of suspended routes throughout the region will be determined through a separate public process.

Relevant transit plans and projects in the study area

Changes proposed in this study are consistent with and have been influenced by Council policy and other projects in the study area. The Transportation Policy Plan sets priorities 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 four transitway projects underway or in planning in, or adjacent to, the study area: METRO Green Line light rail extension and METRO B, D, and E bus rapid transit lines. Changes proposed in this study will meet not only the near-term needs in the study area but will also be flexible enough to be compatible with 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 transportation 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.

TPP objectives that influenced the service changes proposed in this study:

- 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, 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, pedestrian network, and automobile availability. Market

Areas I, II and III are represented in the Orange Line Study area. For a map of the relevant market areas, please see **APPENDIX A – Figure 3**.

More information about the 2040 Transportation Policy Plan is available at metro council.org/Transportation/Planning-2/Key-Transportation-Planning-Documents/Transportation-Policy-Plan.aspx.

2015-2030 Service Improvement Plan/Network Next

Metro Transit’s SIP identified and prioritized local and express bus route improvements to be considered if additional operating dollars are available. The SIP identified opportunities to add new routes and improve the frequency and span of service on the existing route network. It includes a prioritized list of improvements, identifies the evaluation factors and measures used to prioritize these bus service investments, and the timing and resources needed to make them. More information about the SIP is available at metrotransit.org/sip.

Metro Transit is currently working on its Network Next project, which will replace the SIP. Network Next is a 20-year plan to guide the expansion and improvement of the bus network in 2040. It will build on the existing network strengths and identify improvements in local and express routes, arterial Bus Rapid Transit and integrated shared mobility. More information about Network Next is available at metrotransit.org/network-next.

Central-South (Sector 5) Sector Study Plan

The Central-South Sector 5 Transit Plan was implemented in 2004 with the opening of the region’s first light rail transit line, the Hiawatha Line (now the METRO Blue Line). This plan focused on making connections at new light rail stations, but also included substantial restructuring of bus service along I-35W in south Minneapolis and the southern suburbs. Most of this plan’s route structure still exists today in the Orange Line Connecting Bus Study area. Two facilities built as part of this plan – the South Bloomington Transit Center at 98th St. and the Knox Ave. Park & Ride – will be incorporated into Orange Line stations.

METRO Green Line Extension-Southwest Corridor Light Rail

The extension of the Green Line between downtown and Uptown Minneapolis, the southwest suburbs and Eden Prairie is currently under construction. There may be opportunities for improved bus connections between the study area and new light rail stations in south Minneapolis, St. Louis Park, Hopkins, Minnetonka, and Eden Prairie when the Green Line extension opens in late 2023.

A separate connecting bus study will be conducted prior to the opening of the extension. More information about the Green Line extension is available at metro council.org/Transportation/Projects/Light-Rail-Projects/Southwest-LRT.aspx.

METRO arterial Bus Rapid Transit lines

Three arterial bus rapid transit lines are proposed within the Study Area and each include a package of transit enhancements that add up to faster trips and an improved experience.

Construction on the METRO D Line, which will operate in today’s Route 5 corridor – is now under way. The D Line will operate between Mall of America, downtown Minneapolis, and Brooklyn Center on Chicago Avenue, Emerson/Fremont avenues, and 44th Ave. N. Construction started in spring 2021 with a targeted late 2022 opening. More information about the D Line is available at metrotransit.org/d-line-project.

The lines following next are the METRO B and E lines, on two more of Metro Transit's busiest bus routes. The B Line would operate in today's Route 21 corridor between West Lake St. Station, the METRO Green Line, Uptown, and downtown St. Paul direct via Lake St., Marshall Ave., Snelling, and Selby Ave. The B Line is fully funded and scheduled to open in 2024. More information about the B Line is available at metrotransit.org/b-line-project.

The METRO E Line would operate in today's Route 6 corridor between Southdale, Uptown, downtown Minneapolis, and the University of Minnesota via France Ave., 44th St., Sheridan, Hennepin, and University Ave./4th St. SE. Construction could start as early as 2023, pending full project funding. More information about the E Line is available at metrotransit.org/e-line-project.

CHAPTER 2: PRE-CONCEPT PLAN OUTREACH AND ENGAGEMENT

A commitment to community engagement is one of Metro Transit’s guiding principles and public involvement is at the core of the Orange Line Connecting Bus Service Study. In addition to the outreach actions outlined below, a Public Engagement Plan (PEP) is available on the project webpage with more information regarding outreach and engagement opportunities related to the project.

Public outreach and engagement were done in Fall 2019 to inform the development of the Concept Plan and Winter 2021 to gather feedback on proposed service changes. The goals of the outreach work were to educate transit customers about the Orange Line and this study and to better understand the travel demand and transit needs of transit riders and stakeholders with the Orange Line when it opens in late 2021. The results of this engagement were also compared to the findings of Metro Transit’s Listening and Learning Through Crisis outreach in summer 2020, which determined that this project’s 2019 engagement work is still valid.

The complete Outreach, Communications and Feedback Summary report is available at metrotransit.org/metro-orange-line-connecting-bus-service.

2019 Pre-Concept Plan outreach process

At that start of the project, Metro Transit used several ways to communicate with transit riders and other stakeholders and get their input on desired connections with the Orange Line as well as other service improvements in the area. A project website, survey, and flyer were developed, electronic rider alerts were distributed, and staff spent time at key bus stops and riding many Route 535 trips talking with riders. The study was covered in Metro Transit’s newsletter, the Orange Line newsletter and using social media channels. In addition, three open houses were held in south Minneapolis, Richfield, and Bloomington. Stakeholders such as community groups, neighborhood associations, key employers, the I-494 Commuter Services organization, and city staff and officials were informed of the project launch and survey and were asked to share this information with others in their networks.

Survey results

More than 500 surveys were received and provided insights, information and data used to develop the Concept Plan:

- 65% have heard of the Orange Line
- 62% ride every day or most days
- 70% work trips, 70% peak period trips
- Most rode Route 535 and the Blue and Green Line. Other routes mentioned include routes 4, 18, 46, 539 and 597
- Most said Orange Line would “favorably affect” their travel, so long as quality connecting service is provided
- Key destinations that need to be connected to Orange Line stations include:
 - Normandale College
 - Lyndale and Penn Ave. in Bloomington and Richfield
 - 94th/James area employers

2021 Concept Plan outreach

The Concept Plan was brought to the public for review and comment in early 2021, and we received nearly 600 comments. The official public comment period extended from Jan. 25 to Feb. 22 to allow transit customers and other stakeholders the opportunity to provide feedback. Due to the COVID-19 pandemic, most engagement was done via virtual or electronic means with some in-person intercept surveys. The primary engagement tool was an online survey, promoted through a variety of channels to ensure we engaged a diverse cross-section of existing and potential riders. For a detailed description of the outreach methods, please see the METRO Orange Line Connecting Bus Study Concept Plan of January 2021.

Special efforts were made to ensure that communities of color, people experiencing poverty, those relying on transit the most and riders who had stopped using transit during the pandemic were included in the process. Tactics included hosting virtual community meetings, mailing a postcard along routes with proposed changes, doing in-person outreach at key stops (especially those used by communities of color), translating the survey into several languages, and targeting ethnic and social media.

Major themes from public outreach

Respondents to public outreach clearly supported the METRO Orange Line and proposed service changes that are most essential for the project's success. These are the routes making direct connections at an Orange Line Station that are required to access the Orange Line and to replace local service on routes 535 and 597. Stakeholders also liked the proposed restoration of routes 537 and 542, the simplification of routes 515 and 540, and frequency improvements on seven routes. About 30% of the responses asked for changes to the concept plan to address concerns about access by transit in terms of routing, frequency, or span.

The most common concerns were related to the proposed elimination of the B and E branches on Route 515, elimination of service at 90th/France in Bloomington, and longer travel times for existing route 539 and 597 by adding a transfer. Other requests included maintaining a direct link between 66th St and the main door at VA Medical Center, restoring Route 515 to the High Frequency Network, maintaining Route 515 service near apartments at E. 77th St. and 12th Ave S. All-day service is needed on American Blvd. and on 76th/77th St. Also, east-west transfer connections to Mall of America, Normandale Community College and Valley West Center must be well-timed and made at a stop with a shelter available.

Once public review was complete, feedback was used to make modifications to the service plan. Most of these concerns are addressed by the Recommended Plan.

CHAPTER 3: RECOMMENDED PLAN

Planned service changes

The Orange Line Connecting Bus Study recommends route and service changes on Routes 7, 27, 515, 535, 537, 538, 539, 540, 542, 553, and 597 to be implemented when the Orange Line opens in late 2021. New routes 501, 534, 546, 547, and 548 will be implemented at the same time. A map of the proposed structure of all the existing, restructured, and new routes in the study area is in **APPENDIX A – Figure 4**.

For detailed individual route maps and summary of service for the Orange Line (replaces Route 535); Routes 7, 27, 501, 515, 534, 537, 538, 539, 540, 542, 546, 547, 548, and 553, please see **APPENDIX B**. These are referred to as “key routes” in this plan and compared with resources available in Spring 2021.

Please note that there are additional routes that will serve an Orange Line station outside downtown where no changes are proposed. These routes are listed below with the Orange Line stations. The report uses common transit planning terms such as “frequency” and “span.” Frequency is defined as the amount of time between trips in the same direction on a route; span is the amount of time per day a route operates, otherwise stated as the first departure on the first trip to last arrival on the last trip.

Also, while the long-term ridership impacts of the COVID-19 pandemic are not known, the short-term impacts have been significant. The planned changes outlined here are based on a mix of current ridership patterns and those that existed before the crisis, which may change in the long-term as people adapt and new travel needs emerge. To the extent possible and given the information available, the Recommended Plan has considered potential long-term impacts to ridership and travel behavior in response to the crisis. However, this plan may need to be adjusted and the timeline for implementing certain changes may need to be modified later in the planning process based on market conditions at the time the Orange Line opens.

The plan now invests almost 20% more resources in transit service compared to Spring 2021. Much of the investment provides better *off-peak* service to support the Orange Line. Routes featuring an off-peak service improvement include 501, 515, 534, 538, 540 and 542.

Other than routes 537, 542, and 597, the Concept Plan is silent on the future of routes that are currently suspended. The future of suspended routes throughout the region will be determined through a separate public process. The Recommended Plan restores routes 537 and 542 on weekdays.

METRO Orange Line

The METRO Orange Line will provide daily, high frequency service from about 5 a.m. to midnight, replacing much of existing Route 535. All I-35W express routes and many local routes will provide connections at Orange Line stations outside downtown Minneapolis:

- **Lake Street:** 21, 27, 53,* 146,* 156,* 552,* 553, 554,* 558,* 578, 579*
- **46th Street:** 11, 18, 46, 146,* 578, 579*
- **66th Street:** 515, 558*
- **76th Street:** 540
- **American Blvd:** 4, 534, 538, 542*
- **98th Street:** 18, 534, 539, 546, 547, 548, 553

The nine routes marked with an asterisk(*) have been suspended since March 2020 due to the COVID-19 pandemic, which has resulted in a substantial decline in ridership and disruption of transit needs and resources. Commuter routes 553, 578, 597 continue at very limited levels – one or two trips per peak, for the same reason.

Frequencies for individual key routes are included in **APPENDIX A – Figures 5, 6 and 7**. The Orange Line will offer weekend service, which is not available on Route 535 today.

Orange Line estimated statistics - 2021

Service Day	Revenue Hours	Revenue Trips	Peak Buses	Off-Peak Buses	Peak Frequency	Midday Frequency	First Trip	Last Trip
Weekday	115.5	154	10	6	10 min.	15 min.	5:00 AM	12:00 AM
Saturday	96.9	134	6	6	15 min.	15 min.	5:00 AM	12:00 AM
Sunday	96.9	134	6	6	15 min.	15 min.	5:00 AM	12:00 AM

Key route change details

A table listing frequencies for each of the key routes is included in **APPENDIX A – Figures 5, 6, and 7**. A map and details for each key route is included in Appendix B. Frequencies are defined as the following time periods:

- Peak: 6 - 9 a.m. and 3 - 6:30 p.m.
- Midday: 9 a.m. - 3 p.m.
- Evening: 6:30 - 9 p.m.
- Saturday and Sunday: 9 a.m. - 6 p.m.

Route 7

All remaining trips will be extended from 34th Ave. S. to Cedar Point Commons Shopping Center on 66th St. at Cedar Ave. in Richfield seven days a week. Route 7 will partially replace Route 515E between VA Medical Center and the 66th St. corridor. Selected weekday trips, mostly northbound morning, and southbound afternoon in the peak periods, will serve VA Medical Center for a direct link with Route 515. Route 7 will continue to run every 30 minutes on weekdays and weekends.

Route 27

Route 27 will directly serve new the Lake St. Station, providing a direct connection with the Orange Line and the express routes operating on I-35W. This link will re-establish access to residents and large employers such as Abbott Northwestern Hospital, Allina, Children’s Hospital and Wells Fargo Home Mortgage. The route will run every 30 minutes on weekdays during the midday and rush hour.

Route 515

This route has a critical role serving the Orange Line at 66th St. Station. The route will be simplified from three variations to one with no branches. The routing will change in Richfield, modified to travel via 66th St., Richfield Pkwy., 68th St., Bloomington Ave., 76th St., 12th Ave. in 2021. Then, once the 77th St. underpass at Hwy. 77 opens in late 2022, the route will be via E. 77th St. and 24th Ave. S. to Mall of America. “High Frequency” service every 15 minutes Monday thru Saturday will be restored, while remaining every 20 minutes on Sunday.

Areas of Route 515 planned for elimination and alternatives

Service will be eliminated on Longfellow Ave. between 66th and 77th streets. This will affect about nine rides per day, with most commuters likely walking from Longfellow Ave. to the Fed Ex and UPS air cargo facilities at MSP Airport. Rides to Fed Ex and UPS are higher than rides returning, likely because bus commuters are carpooling with co-workers when leaving work due to variable actual work end times. New Route 501 Mall of America – Cargo Rd. will effectively replace the existing route with direct weeknight service timed for the air cargo facilities' work shifts.

Service on Route 515 will also be eliminated in the Nokomis neighborhood between 28th Ave./Hwy. 62 and VA Medical Center on 58th St., 34th Ave., and 54th St. About 80 weekday and 30 Saturday rides are affected. Alternate service is available two blocks away on Route 22, and Route 7, with the extension between this area and Cedar Point Commons will make connections with Route 515 for service along 66th St. Weekday service to and from VA Medical Center will be provided by a new branch of Route 7 at selected, mainly peak times, operating non-stop between VA Medical Center and Cedar Point Commons at 66th St. and Cedar Ave. for connections with Route 515.

Finally, Route 515 will not operate on 12th Ave. and American Blvd. south of 77th St. once the 77th St Underpass opens at Hwy. 77. Routes 5 and 542 will continue to serve this area on American Blvd.

New Route 501

This new route will connect Mall of America Transit Station with air cargo companies on Cargo Road at MSP International Airport for weeknight shifts, effectively replacing the Route 515B branch. The route will follow Cargo Rd. to better serve Fed Ex and UPS, saving riders a one-mile walk from Longfellow Ave.

New Route 534

This new route will connect with the Orange Line at both 98th St. Station and American Blvd. Station every day. It will serve Lyndale Ave., American Blvd., Penn Ave, 90th St., Poplar Bridge Rd., Collegeview Rd., and Normandale Community College. It will replace part of current Route 539. Service will run every 30 minutes peak periods, and in the midday. Weekend and evening service will run every 60 minutes.

Route 535

This route will be largely replaced by the METRO Orange Line at stations in Minneapolis, Richfield, and Bloomington. The local branches of Route 535 will be replaced by new service proposed as follows:

- B branch will be covered by Route 534 on American Blvd., Route 540 on 76th St., and Route 534 on Lyndale Ave.
- C branch will be covered by Route 534 on American Blvd., Route 540 on 76th St, Route 546 on James Ave., 94th St. and Penn Ave., and Route 539 on 98th St.
- D branch will be served by Route 534 on American Blvd., Route 540 on 76th St., Route 534 on Lyndale Ave., and Route 539 on 98th St.
- E branch on Lyndale Ave will be served by Route 534 and on 102nd St. by Route 553. There will be no service in the area south of 102nd St.

Route 537

This route will be restored effective Aug.21, 2021 with the beginning of the Normandale Community College fall semester. Service will be the same as it was before being suspended due to the COVID-19 pandemic.

Route 538

No changes are planned, but frequency will improve to every 30 minutes during the midday.

Route 539

Route 539 will connect Normandale Community College, 98th St. and E. Old Shakopee Rd. with the Orange Line at 98th St. Station. It will be simplified so that all trips follow the same routing via 98th St. between the Orange Line station and Normandale Community College. The route will replace most of existing Route 535 west of I-35W, providing a direct link for the benefit of about 200 one-way rides during the main school year. Service will operate every 20 minutes during the AM Peak, every 30 minutes in the midday, the PM Peak, on Saturdays, and every 60 minutes during the evenings and on Sundays.

Areas of Route 539 planned for elimination and replacement service

Route 4 will serve Penn Ave. north of American Blvd.

Route 534 will serve 90th St. between France and Penn avenues, Penn Ave to Southtown.

Route 540 will serve 76th St. between Penn Ave. and Knox Ave.

Route 546 will serve Penn Ave. south of 98th St., Old Shakopee Rd., Valley West Center, France Ave., and W. 98th St., Normandale Community College, Normandale Village. Routes 539 and 546 will connect at 98th St. Station.

Route 540

This route has a critical role serving Knox Ave. & 76th St. Station. The route will be simplified so all trips follow the same alignment. In Richfield, service will use the new 77th St. underpass to serve 24th Ave. S. and Mall of America. Service will be eliminated on American Blvd. when the underpass opens in late 2022; alternate service is via routes 5 or 542. Service will operate every 20 minutes in peak hours, every 30 minutes in the midday, Saturdays, and every 30 and 60 minutes in the evenings and on Sundays.

Areas of Route 540 planned for elimination and replacement service

Service is planned to be eliminated on American Blvd. Alternate service is available on routes 5 and 542. This change affects about 80 weekday, 50 Saturday, and 35 Sunday rides.

Route 540 is also planned to be eliminated on 78th St. and Picture Dr. between Edina Industrial Blvd. and E. Bush Lake Rd. This will affect fewer than 10 riders, who will have to walk about 2,000 feet through a parking lot to Edina Industrial Blvd. Limited service will remain in this area on Route 6.

Route 542

This route is currently suspended due to the pandemic but will be restored. The route will cover areas south of I-494 to provide a connection with American Blvd. Station via American Blvd., France, 84th St,

Stanley, and 82nd St. Service will be extended west via American Blvd., E. Bush Lake Rd., 78th St. to Braemar Arena in Edina, providing new access to employers located west of E. Bush Lake Rd. Service will now run every 30 minutes during the midday, every 30 and 60 minutes in the evening on weekdays only. SW Prime on-demand service will offer connections between Route 542, Golden Triangle and other places in Eden Prairie, Chaska, and Chanhassen upon request.

Areas of Route 542 planned for elimination

Route 542 will no longer serve the A branch on American Blvd. between France Ave. and 82nd St. There were about 2-3 riders in this segment, most within walking distance to either 82nd St. or France Ave.

New Route 546

This new route will connect with the Orange Line at 98th St. Station every day. It will serve 98th St., Penn Ave., Old Shakopee Rd., Valley West Center, France Ave., Normandale Community College, and Normandale Village. It will replace part of current Route 539. Creekside Community Center will be served via new bus stops on Penn Ave. Rush-hour trips will divert to serve employers on James Ave. and 94th St. Service will operate every 30 minutes during the peaks and midday, every 60 minutes during the evenings and weekends.

New Route 547

This route will provide a connection at 98th St. Station for access to southwest Bloomington employers on Old Shakopee Rd. It will also transport residents from Auto Club Rd., Normandale Blvd., and 110th St. to 98th St. Station for connections with the Orange Line as a replacement for express Route 597 .

New Route 547 will run every 30 minutes during the peak periods.

New Route 548

This local route will replace Route 597B branch, connecting residents along 102nd St. with 98th St. Station. The route will be streamlined via Hyland Greens Dr., Normandale Blvd., W. 102nd St. and Old Shakopee Rd. New Route 548 will run every 30 minutes during peak periods.

Route 553

The route will be extended south of 98th St. to replace existing Route 535E branch, connecting 98th St. Station with Lyndale Ave. and 102nd St. to Portland Ave. The service will consist of two trips during each peak period on weekdays.

Route 597

This commuter express route has been curtailed by the COVID-19 pandemic, and now will be replaced by routes 547, 548 and the Orange Line. Timed transfers will be scheduled at 98th St. Station. Route 539 will replace service on W. 98th St. There will be no alternate service on the half mile of Xerxes Ave. S. between 102nd and 98th streets.

Travel time between 98th St. Station and downtown Minneapolis will be about four minutes longer on the Orange Line as compared to Route 597. Timed transfers of about five minutes between routes 547, 548, and the Orange Line will ensure very reliable connections.

Projected budget and resources

The Recommended Plan, not including the Orange Line itself, proposes an annual revenue hours budget increased by about 20% as compared to the March 2021 service. Revenue hours include in-service time for all revenue trips plus recovery time at terminals. For route-by-route details, please refer to following **Tables 1, 2, 3, 4, and 5**.

Table 1. Comparison of estimated Weekday Revenue Hours on key routes:

Route #	Description	March 2021	Recommended
7	Plymouth Av - Minnehaha - 34th Av - VA Medical Ctr - Cedar Pt	81.9	91.1
27	Hiawatha/Lake - 26th/28th St -Allina - Wells Fargo - 35W/Lake St	15.1	15.1
501*	FedEx - UPS - MSP Airport - Cargo Rd - Mall of America	0	0.8
515	Southdale - 66th St - Cedar Pt - Bloomington Av - Mall of America	69.1	82.9
534	Normandale College - 90th - Penn - American - Lyndale - 98th St	0	32.5
535**	Minneapolis - Richfield - Bloomington - 98th St via I-35W	82.5	0
537	Southdale - France Av - Normandale College - Valley West	0	11.7
538	Southdale - York - Southtown -American - 86th - Mall of America	37.2	44.4
539	Mall of America - 98th St - Normandale College	50.0	33.8
540	Mall of America - 77th/76th St - Edina Industrial - Normandale Lake	44.4	56.2
542	Mall of America - American - 84th - Normandale Lake - Braemar Park	0	42.6
546*	98th St - Valley West - Normandale College - Normandale Village	0	26.7
547	98th St - Old Shakopee - Auto Club Rd - SW Bloomington Employers	0	12.5
548	98th St - Old Shakopee - 102nd St - Hyland Greens	0	2.9
553	98th St - Lyndale Av - 102nd - Portland Av - Minneapolis Express	1.9	3.7
597	Auto Club Rd - 102nd St - Old Shakopee - 98th - Minneapolis Express	3.4	0
Totals =		385.5	456.9
Net vs March 2021 =		n/a	71.6
Net Annual =		n/a	18,250

18.6% increase in Revenue Hours

*New Route with Recommended Plan not included in Concept Plan

**Route 535 is replaced by the METRO Orange Line.

Revenue Hours March 2021 are from Metro Transit System Statistics.

Revenue Hours are the sum of In-Service and Recovery Hours.

Table 2. Comparison of estimated Saturday Revenue Hours on key routes:

Route #	Description	March 2021	Recommended
7	Plymouth Av - Minnehaha - 34th Av - VA Medical Ctr - Cedar Pt	77.9	82.0
515	Southdale - 66th St - Cedar Pt - Bloomington Av - Mall of America	58.0	69.1
534	Normandale College - 90th - Penn - American - Lyndale - 98th St	0	15.8
538	Southdale - York - Southtown -American - 86th - Mall of America	26.0	26.0
539	Mall of America - 98th St - Normandale College	31.6	28.0
540	Mall of America - 77th/76th St - Edina Industrial - Normandale Lake	15.3	41.7
546*	98th St - Valley West - Normandale College - Normandale Village	0	14.0
Totals =		208.8	276.6
Net vs March 2021 =		n/a	67.9
Net Annual =		n/a	3,532

32.8% increase in Revenue Hours

*New Route with Recommended Plan not included in Concept Plan.
Assume 52 Saturdays per Year.

Table 3. Comparison of estimated Sunday Revenue Hours on key routes:

Route #	Description	March 2021	Recommended
7	Plymouth Av - Minnehaha - 34th Av - VA Medical Ctr - Cedar Pt	70.3	75.6
515	Southdale - 66th St - Cedar Pt - Bloomington Av - Mall of America	46.4	50.5
534	Normandale College - 90th - Penn - American - Lyndale - 98th St	0	11.9
538	Southdale - York - Southtown -American - 86th - Mall of America	20.8	20.8
539	Mall of America - 98th St - Normandale College	23.7	12.7
540	Mall of America - 77th/76th St - Edina Industrial - Normandale Lake	14.0	23.2
546*	98th St - Valley West - Normandale College - Normandale Village	0	10.0
Totals =		175.2	204.7
Net vs March 2021 =		n/a	29.6
Net Annual =		n/a	1,717

16.6 % increase in Revenue Hours

*New Route with Recommended Plan not included in Concept Plan.
Assume 58 Sundays / Holidays per Year.
Revenue Hours March 2021 are from Metro Transit System Statistics.
Revenue Hours are the sum of In-Service and Recovery Hours.

Table 4. Net annual Revenue Hours on key routes

Recommended Plan Compared with March 2021	
Weekday Annual Hours:	18,250
Saturday Annual Hours:	3,532
Sunday/Holiday Annual Hours:	1,717
Total Annual Hours:	23,499

Table 5. Comparison of estimated Weekday Peak Buses on key routes

Route #	Peak Buses March 2021	Recommended Peak Buses
7	5	6
27	1	1
515	4	5
534	0	3
535**	10	0
537	0	1
538	3	3
539	4	3
540	4	5
542	0	3
546	n/a	2
547*	0	2
548*	0	1
553*	1	2
597*	1	0
Totals =	33	37
Net vs 2019=	n/a	4

*Figures shaded in gray indicate routes that operate in peak periods only.

**Route 535 is replaced by the METRO Orange Line.

CHAPTER 4: ACCESSIBILITY IMPROVEMENTS

The Recommended Plan meets the project goals and objectives identified in Chapter 1 of this report. The changes planned will build on the new Orange Line and enhance accessibility and mobility in the study area by providing a high-quality connecting bus network. With the Recommended Plan, 17 routes will link neighborhoods and employers with Orange Line stations south of downtown Minneapolis in the study area. The overall route network will be updated to reflect existing travel demand and patterns.

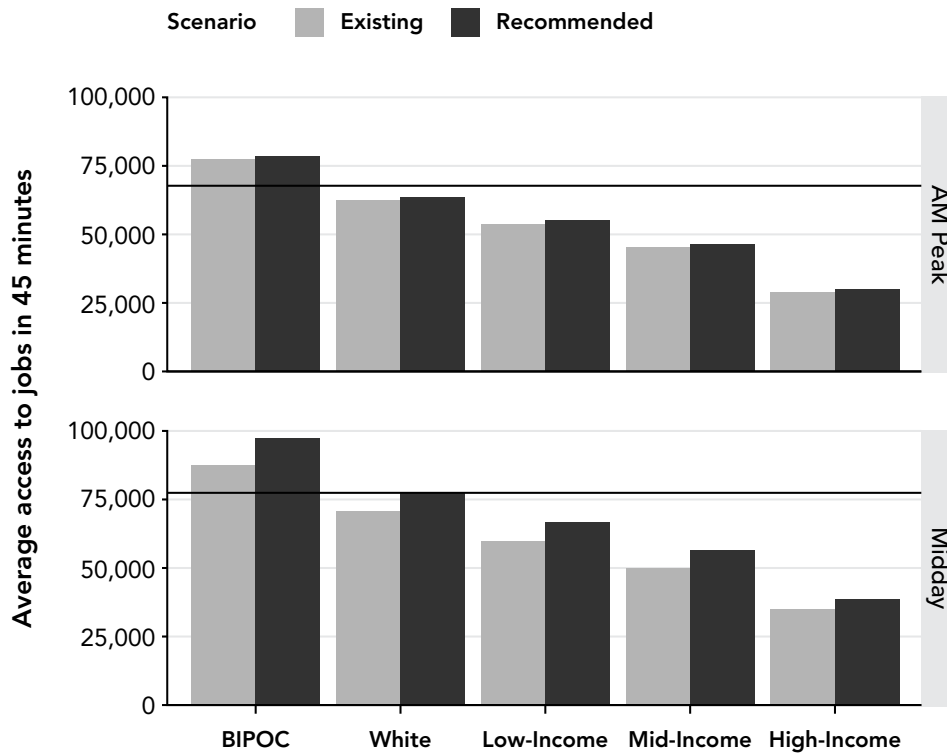
Four existing routes will be simplified with one consistent routing: 515, 539, 540, and 542. Eight routes – 18, 534, 537, 538, 539, 540, 542 and 546 – will form a grid-like network in Bloomington and provide local service on Lyndale, Nicollet, Penn, 98th St., and along the I-494 frontage roads (American Blvd. and 76th/77th/78th St.) Fewer variations or turn movements make routes easier to understand and use.

The Orange Line will be easily accessible with one transfer from many parts of south Minneapolis, Bloomington, Richfield, and Edina. These improvements will enhance mobility and connectivity, and link residents, jobs, and services. The Recommended Plan will include five new routes – 501, 534, 546, 547, and 548 – making connections at an Orange Line station. Overall, including the Orange Line, there will be an increase in the number of weekly trips by about 80% compared to Spring 2021.

Access to jobs in the Orange Line Study Area improves during both peak and off-peak hours. It is most notable for low-wage jobs that tend to be more often part-time, with start or end times in the midday, as evidenced in Table 6. On average, a resident in the study area can access about the same number of low-wage jobs during the AM peak, but Black, Indigenous, People of Color (BIPOC) residents gain access to more jobs than white residents. All demographic groups see an increase of access to jobs in the midday with the largest improvement experienced by BIPOC communities. Jobs are important but not the only things that become easier to reach. Supermarkets, pharmacies, schools, and places of worship all become more accessible especially during the off-peak hours.

The Recommended Plan distributes transit access better to suburban jobs in Burnsville, near Mall of America, along I-494, western Edina and in southwest Bloomington. The midday access to these areas is improved the most, as is evident on the maps shown in **APPENDIX A – Figure 8**.

Table 6. Change in access to jobs in 45 minutes



Better span or frequency of service on seven routes will make these areas even easier to access and improve connections between routes. Metro Transit’s High Frequency Network will be expanded to include the entire Route 515 between Southdale and Mall of America. Routes 539 and 540 will have additional rush-hour service. Also, routes 538 and 542 will provide more trips in the midday. Evening service will be improved on routes 540 and 542, and there will be new weekend service on Route 534 on Lyndale Ave. and additional weekend trips on routes 539 and 540.

The planned changes improve connections with jobs and resources in the study area. All I-35W express routes will once again serve the new I-35W & Lake St. Station, providing suburban residents access to jobs in the Lake St./Midtown corridor and south Minneapolis residents with express options to suburban jobs. The American Blvd. and 98th St. stations will also be important transfer hubs served by 12 different routes plus the Orange Line. All Route 540 trips will serve Normandale Lake Office Park employers and routes 542 and 547 will be tailored to serve specific work shifts in the I-494 corridor and southwest Bloomington, respectively. The streamlining of Route 539 will provide a faster, direct connection between the Orange Line and Normandale Community College, and new Route 534 will offer more service to Volunteers Enlisted to Assist People (VEAP) community services on Lyndale Ave. The Recommended Plan does not preclude the restoration of any commuter express service on I-35W. All local segments of Route 535 are covered. Route 597 is replaced between downtown and 98th St. Station by the Orange Line, the C and E branches by Route 547 and the B branch by Route 548.

CHAPTER 5: 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, which the addition of the Orange Line does. The purpose of the analysis is to evaluate service changes at the planning stage to determine whether those changes might have a discriminatory impact based on race, color, national origin, or income status. The following is a summary of the analysis conducted, which fulfills this requirement as it relates to the service changes and additions included in the proposed Orange Line Connecting Bus Study Recommended Plan.

Legislation and Federal Guidance

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs receiving federal financial assistance. Title VI states, "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Moreover, FTA guidance recognizes the inherent overlap between Title VI and environmental justice principles, which extend protections to low-income populations. In 1994, President Clinton issued Executive Order 12898, which states that each federal agency "shall make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Through this Executive Order, Title VI was identified as one of several Federal laws that should be applied "to prevent minority communities and low-income communities from being subject to disproportionately high and adverse environmental effects."

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. This document outlines Title VI evaluation procedures for recipients of FTA-administered transit program funds and includes guidance for a variety of equity evaluations. In accordance with this guidance, this service equity analysis for the Orange Line Connecting Bus Study Concept Plan tests for disparate impact to minority populations and for disproportionate burden to low-income populations.

FTA Definitions

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. However, as part of efforts to use respectful and inclusive language, Metro Transit and the Metropolitan Council prefer to use the term Black, Indigenous, and People of Color (BIPOC) rather than "minority" when referring to people who identify as one or more of the above racial or ethnic groups. As such, references to BIPOC residents in this report should be interpreted to mean the same thing as "minority" residents.

For the purposes of this evaluation, "non-minority" persons are 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 BIPOC. The distribution of BIPOC residents within the Title VI service area is shown in APPENDIX A – Figure 9.

While low-income populations are not an explicitly protected class under Title VI, 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 on low-income populations and to identify any disproportionate burden placed on those populations by the proposed changes. 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). However, FTA Circular 4702.1B also allows for

low-income populations to be defined using other established measures that are at least as inclusive as those developed by DHHS. Correspondingly, this Title VI service equity analysis uses 2018 U.S. Census Bureau poverty thresholds (100% of threshold), a more sophisticated and inclusive measure of poverty than the poverty guidelines set by DHHS. The distribution of low-income and non-low-income populations within the Title VI service area is shown in APPENDIX A – Figure 10.

Disparate impact, disproportionate burden, and the four-fifths threshold

FTA defines “disparate impact” as facially neutral policies or practices that disproportionately affect members of a group identified by race, color, or national origin, and where the recipient’s policy or practice lacks a substantial legitimate justification. Similarly, FTA defines “disproportionate burden” as a neutral policy or practice that disproportionately affects low-income populations more than non-low-income populations.

FTA directs transit agencies to set thresholds to be used as evidence of impacts severe enough to meet the definition of disparate impact or disproportionate burden. Established through a public engagement process, Metro Transit defined its disparate impact and disproportionate burden thresholds in 2013 using the “four-fifths rule,” which states that there may be evidence of disparate impact/disproportionate burden if:

- Benefits are being provided to *minority (or low-income)* populations at a rate less than 80% (four-fifths) of the benefits being provided to *non-minority (or non-low-income)* populations, or
- Adverse effects are being borne by *non-minority (or non-low-income)* populations at a rate less than 80% (four-fifths) of the adverse effects being borne by *minority (or low-income)* populations.

The four-fifths rule originates from employment law but is applied in this setting to compare the distribution of benefits and/or adverse impacts among various population groups.

If the quantitative results of the service equity analysis indicate that the service changes in the Orange Line Connecting Bus Study Concept Plan would create disparate impact and/or disproportionate burden, Metro Transit must conduct additional analysis to evaluate alternatives and mitigate burdens.

Evaluation

Methodology

Impacts of the proposed service changes on residents of the study area are determined based on the change in access to transit as a result of the Orange Line Connecting Bus Study Recommended Plan. The “current” service levels are representative of Fall 2020, while proposed service levels are those outlined in the Orange Line Connecting Bus Study Recommended Plan.

Access to transit is measured as the number of weekly scheduled bus trips available to a given population. This transit service data is then combined with population data from the U.S. Census Bureau to determine and compare the distribution of impacts and benefits – that is, average percent change in transit service – to BIPOC, non-Hispanic white, low-income, and non-low-income populations based on where they live. Population data used in this analysis came from the U.S. Census Bureau’s 2014-2018 American Community Survey (ACS) 5-year estimates and 2010 Decennial Census, presented at the census block level through a process of areal interpolation.

This Title VI analysis measured transit service at the stop/station level within the study area boundaries from study area routes. Measuring transit service at the stop/station level assigns service only to areas near where a bus may pick up and drop off passengers, disregarding non-stop route segments. The number of weekly scheduled bus trips at each stop or station was assigned to Census divisions (census blocks) as a means of quantifying the amount of transit service available in a given area. A census block was considered served by a bus stop if the center of the census block was within ¼ mile of the stop, and it was considered served by a transit station if it was within ½ of the station.

Since Census data are used for this analysis, service change impacts are determined by Census division level – in this case, census blocks – then summarized. In the analysis, the number of weekly scheduled bus trips serving each census block (i.e., the service level) is calculated for both the “current” service (Fall 2020) and the proposed Recommended Plan. The average percent change in service level for each target population – total population, BIPOC, white, low-income, and non-low-income – is then calculated and weighting by the target population served in that census block. For example, the average percent change in service level for BIPOC residents is calculated by multiplying each census block’s number of BIPOC residents by the percent change in service level for that same census block, summing the results for all blocks in the service change area, and dividing that sum by the total BIPOC population for all blocks in the Title VI service area. The formulas used for these analyses is shown below.

$$\text{Percent Change in Service}_i = \frac{(\text{Proposed Trips}_i - \text{Current Trips}_i)}{\text{Current Trips}_i}$$

$$\text{Avg \% } \Delta = \frac{\sum(\text{Population}_i \times \text{Percent Change in Service}_i)}{\sum \text{Population}_i}$$

Where:

Percent Change in Service_i = Percent change in total weekly scheduled bus trips for census block *i*

Proposed Trips_i = Total proposed weekly scheduled bus trips (modified/planned bus routes) serving census block *i*

Current Trips_i = Total current weekly scheduled bus trips (existing bus routes) serving census block *i*

Avg % Δ = Population-weighted average percent change in weekly scheduled bus trips for target population

Population_i = Target population of census block *i*.

Using this method, the effects of the service changes on different population groups are proportionate to both the demographics of the census blocks and the degree of service level change.

Evaluation of impacts

The average percent change in service levels for each target population group under the Recommended Plan are summarized in Table 7. The percent change in service levels by census block under the Recommended Plan is illustrated APPENDIX A – Figure 11.

Table 7. Average Percent Change in Service by Population Group

Population Group	Population of Service Area	Percent of Service Area Population	Population-Weighted Average Percent Change in Service	Comparison Index*	Disparate Impact/ Disproportionate Burden (Index <0.80)
BIPOC	113,693	38.4%	+24.5%	0.81	No
Non-Hispanic White	180,653	61.6%	+30.1%	-	-
Low-Income	43,283	15.0%	+22.1%	0.76	Yes
Non-Low-Income	243,652	85.0%	+29.1%	-	-
Total	294,346	100%	+27.9%	-	-

*Example: $24.5\%/30.1\% = 0.81$

Under the Recommended Plan, the proposed service changes result in a 27.9% increase in transit service availability (number of weekly scheduled bus trips available), regardless of race/ethnicity or income (Table 7). The average BIPOC resident in the service area would experience a 24.5% increase in transit service, while the average non-Hispanic white residents would receive a greater increase of 30.1% (Table 7). However, the corresponding comparison index of 0.81 ($24.5\%/30.1\% = 0.81$) is above the minimum threshold for disparate impact (0.80, four-fifths). **Therefore, this analysis identifies no disparate impact on BIPOC residents as a result of the proposed service changes.**

Results are similar based on income status, though the conclusions differ. The average low-income resident in the service area would experience a 22.1% increase in transit service under the Recommended Plan, while non-low-income residents would receive a slightly greater increase of 29.1%, on average (Table 7). The corresponding comparison index of 0.76 is below the minimum threshold for disproportionate burden (0.80, four-fifths). **Therefore, this analysis identifies disproportionate burden on low-income populations as a result of the proposed service changes under the Recommended Plan.**

Moreover, upon further investigation, the differences between the positive outcomes for BIPOC and non-Hispanic white residents and between low-income and non-low-income residents appear to be inflated in part due to limitations of the service equity analysis methodology, particularly its inability to account for improved access to jobs and services, a primary goal of the project. Further, the disruption of service from the COVID-19 pandemic distorts the “current” scenario (Fall 2020). These dynamics are described further in the following section.

Interpretation

The results of the service equity analysis show no disparate impact on BIPOC populations but do show disproportionate burden on low-income populations. According to FTA Circular 4702.1B:

At the conclusion of the analysis, if the transit provider finds that low-income populations will bear a disproportionate burden of the proposed major service change, the transit provider should take steps to avoid, minimize, or mitigate impacts where practicable. The provider should also describe alternatives available to low-income passengers affected by the service changes (page IV-18).

Metro Transit has explored opportunities to avoid, minimize, or mitigate the impacts that resulted in the finding of disproportionate burden on low-income residents. Staff have re-reviewed the Recommended Plan seeking opportunities to increase the percent change in service of the average low-income resident such that the resulting comparison index rises about the 0.80 minimum threshold. However, no

such changes have been identified that also advance the substantial and legitimate goals of the project, which include:

- Link significant concentrations of residents, jobs and services with the Orange Line
- Retain existing customers and grow ridership. Prioritize service for communities of color, people experiencing poverty, and those who rely on transit the most
- Simplify the route network by emphasizing directness and avoiding branches
- Enhance mobility and connectivity of the transit network
- Complement existing commuter and express service in the corridor

As described in the preceding chapters, the Recommended Plan is the result of multiple rounds of extensive public engagement with transit riders and other stakeholders using various in-person and virtual engagement strategies. The Recommended Plan is a collection of the latest iterations of service concepts that were developed to meet project goals and were then reviewed and vetted by staff, the public, transit riders, and other stakeholders.

The majority of low-income residents in the service area would experience an increase in transit service. Among the low-income residents that would experience a decrease in transit service, none would be left without a service alternative. There are three subareas within the service area that would experience a decrease in service:

- In the Nokomis neighborhood between 28th Ave./ Hwy. 62 and VA Medical Center on 58th St., 34th Ave. and 54th St, where Route 515 is proposed to be eliminated. Alternate service is available two blocks away on Route 22, and Route 7 with the extension between this area and Cedar Point Commons will make connections with Route 515 for service along 66th St.
- On 12th Ave. and American Blvd. south of 76th St, where Route 515 would no longer operate. Routes 5 (part of the High Frequency Network) and 542 will continue to serve this area
- On 102nd St and 104th St, where the Route 535 E branch would be replaced by Route 553, would decrease. Service along 104th St would not be replaced, though Route 553 would be just two blocks north.

In each of these subareas, low-income residents make up less than 14% of residents, less than the service area average of 15% (Table 7).

Despite this finding of disproportionate burden on low-income residents according to existing Metro Transit Title VI service equity analysis methods, staff firmly believe that the Recommended Plan does not diminish benefits to low-income residents at the expense of increasing the benefits to non-low-income residents. Rather, the technical results based on existing Metro Transit Title VI methods do not account for several factors, including access to destinations and the impact of COVID-19 on service levels.

Access to Jobs

Given data limitations, the service equity methodology only accounts for the demographics of the population living near stops and stations served by study area routes, as opposed to the actual riders of those routes. Further, unlike the preceding accessibility analysis (CHAPTER 4: ACCESSIBILITY IMPROVEMENTS), this service equity analysis fails to capture the change in access to destinations like jobs and service and the subsequent benefits to those living elsewhere in or outside of the study area. For example, the purpose of proposed Route 547 is to provide a connection to the Orange Line that enables reverse commute trips to the many jobs and services based in southwest Bloomington. There

are relatively greater proportions of non-Hispanic white and non-low-income residents living near Route 547 compared to other parts of the study area (APPENDIX A – Figure 9). Despite the legitimate justification of providing access to jobs and destinations, the service change would appear to benefit non-Hispanic white and non-low-income residents disproportionately. This exemplifies the limitations of the service equity analysis methodology and using Census data based on place of residence. Instead, the service equity analysis results should be understood in context of other measures of impacts presented in this report, notably accessibility improvements, which show BIPOC and low-income residents would receive larger improvements in access to jobs in the AM peak and midday periods compared to non-Hispanic white and non-low-income residents, respectively, as shown in Table 6.

Impact of COVID-19

The impacts of the COVID-19 pandemic on Metro Transit service levels must also be put in context. This analysis compares service levels from the Recommended Plan to those from Fall 2020, and the results are reported as percent change in weekly schedule bus trips available to residents. However, multiple existing study area routes (e.g., 537, 542, 578, 597, etc.) were either suspended or operating at limited levels in Fall 2020 in response to COVID-19. The populations living near these routes are more likely to be non-Hispanic white and non-low-income when compared to the study area as a whole. More broadly, the service reductions in response to COVID-19 were distributed such that the voluntary service equity analysis conducted by Metro Transit found no disparate impact on BIPOC residents nor disproportionate burden on low-income residents. In fact, the average BIPOC resident and average low-income resident were notably less negatively affected than non-Hispanic white and non-low-income residents, respectively.

When adding back service to these largely non-Hispanic white and non-low-income areas as part of the Recommended Plan to meet project goals, the percent change in service shows as a greater increase than it would be under more typical, pre-COVID-19, service conditions. Under the service equity analysis methodology, adding service (as part of the Recommended Plan) where there is none currently (due to COVID-19) results in a greater than 100% increase in service. As such, comparing proposed service levels from Recommended Plan to non-existent or significantly reduced service from Fall 2020 artificially inflates the average percent increase in service for non-Hispanic white and non-low-income residents. In turn, this reduces the comparison index closer to 0.80 than would otherwise occur had the representation of “current” service been more typical.

Absolute Change in Access to Transit

Lastly, it is important to note that, in absolute terms, BIPOC and low-income residents would receive a larger increase in the number of weekly scheduled bus trips available compared to non-Hispanic white and non-low-income residents, respectively, on average. Metro Transit’s established service equity analysis methodology compares the relative (percent) change in weekly scheduled transit trips for the average resident of different target population groups. When applied to the Recommended Plan, this methodology produces results supporting the determination of disproportionate burden on low-income residents. However, the results are notably different when considering the absolute change in weekly scheduled transit trips instead of the percent change, as shown in Table 8 and APPENDIX A – Figure 12.

Table 8. Absolute Change in Service by Population Group

Population Group	Population of Service Area	Percent of Service Area Population	Population-Weighted Average Absolute Change in Service	Comparison Index*
BIPOC	113,693	38.4%	+258	1.21
Non-Hispanic White	180,653	61.6%	+213	-
Low-Income	43,283	15.0%	+261	1.16
Non-Low-Income	243,652	85.0%	+224	-
Total	294,346	100%	+230	-

*Example: $261/224 = 1.16$

Under the Recommended Plan, the proposed service changes result in an absolute increase of 261 weekly scheduled bus trips available to the average low-income resident, compared to 224 for the average non-low-income resident (Table 8. Absolute Change in Service by Population Group). The corresponding comparison index of 1.16 ($261/224 = 1.16$) is well above the minimum threshold for disparate impact (0.80, four-fifths). The results and findings are similar for the average BIPOC resident compared to the average non-Hispanic white resident. Considering the absolute change in access to transit, BIPOC and low-income residents benefit 21% and 16% more than non-Hispanic white and non-low-income residents, respectively, on average (Table 8).

Conclusions

The results of the service equity analysis show no disparate impact on BIPOC populations but do show disproportionate burden on low-income populations (Table 7) based on Metro Transit’s established service equity analysis methodology. Staff have explored opportunities to avoid, minimize, or mitigate the impacts that resulted in the finding of disproportionate burden on low-income residents, though none have been found that also advance the substantial and legitimate goals of the project. While a small proportion of low-income residents would see a decrease in service, all would have alternative services available. Further, though the percent increase in access to transit service is greater for non-low-income residents (29.1%) compared to low-income residents (22.1%), on average, low-income residents would experience a greater absolute increase in access to transit service (261 weekly trips) compared to non-low-income residents (224 weekly trips) [Table 7, Table 8].

Having sought ways to avoid, minimize, or mitigate the impacts on low-income residents; the availability of service alternatives for those low-income residents that would experience service decreases; and considering the analysis findings within the broader context of project goals and the factors described in the *Interpretation* section above; Metro Transit has decided to continue with the Recommended Plan. Staff firmly believe that the Recommended Plan best meets the project goals and provides important service improvements for all service area residents, including and especially BIPOC and low-income residents. The complete Title VI Service Equity Analysis report is available at metrotransit.org/OLCB.

CHAPTER 6: NEXT STEPS

There will be one more round of communications in late May and early June. The primary goal is to inform riders, key stakeholders, and the public of the Recommended Plan.

Key outreach tools will include the project website, which will feature a video and the Recommended Plan report. Metro Transit will rely on social, ethnic, and local media, as well as rider alerts and postings at key locations. Staff will also follow up with cities, community organizations, Normandale Community College and the I-494 TMO.

The Metropolitan Council will be asked to approve the final recommended plan in June 2021. These service changes are planned for implementation with the opening of the Orange Line in late 2021. There will be another round of widespread outreach again closer to implementation.

For the most current information and project updates please visit metrotransit.org/OLCB.

APPENDIX A

Figure 1 – Map of Orange Line



i METRO Orange Line will replace Route 535 limited stop in late 2021.

Downtown Minneapolis detail

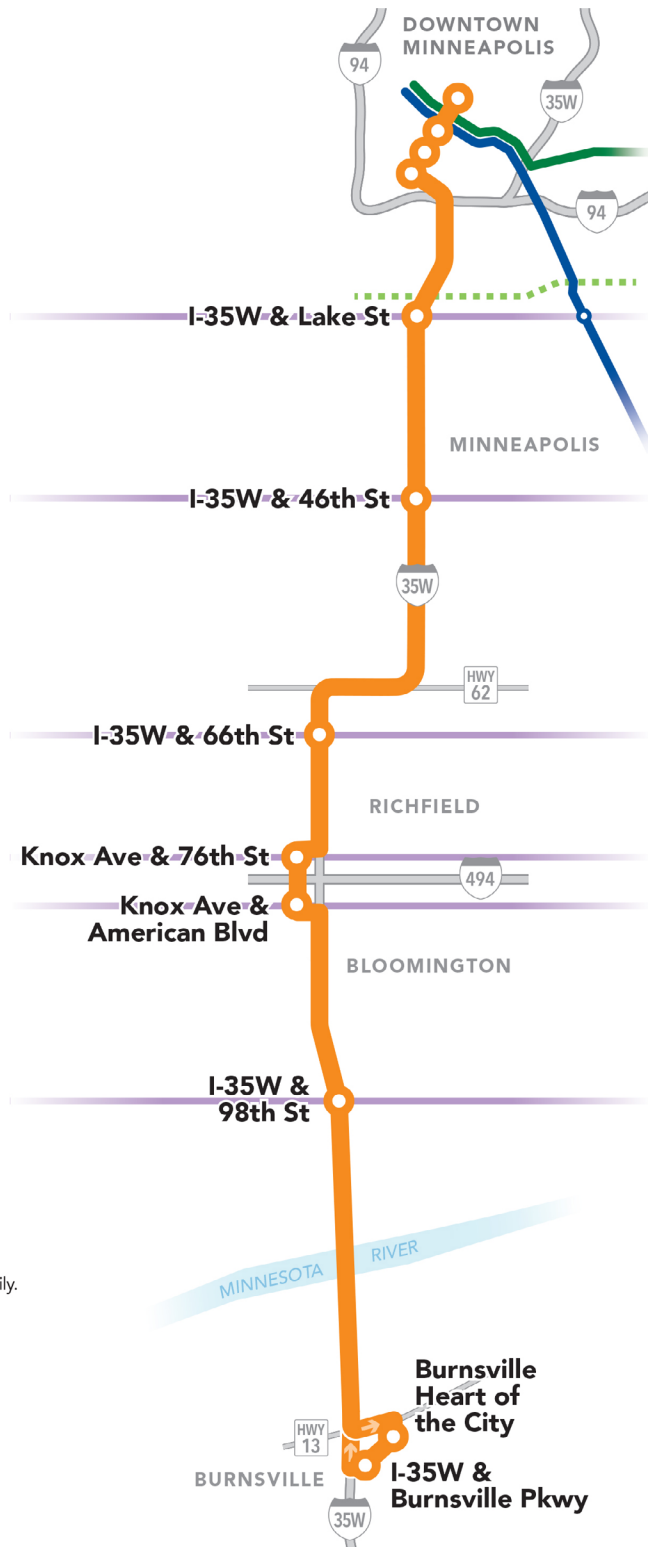
- METRO Orange Line (Bus Rapid Transit)
- METRO Blue Line (Light Rail)
- METRO Green Line (Light Rail)
- Midtown Greenway bike trail
- Cross-town Transit Corridors

METRO Orange Line Features

- Unique, recognizable buses with wider aisles and additional doors so more people can get on and off easily.
- Buses stop ONLY at stations shown.
- You'll pay your fare before you get on for faster boarding and wait at enhanced stations.

Frequent Daily Service

The Orange Line is expected to run every 10 minutes during rush hour and every 15 minutes during midday, evenings and weekends, with less frequent service in the early morning and late at night. During rush hour, express buses will supplement Orange Line service.



metrotransit.org/metro-orange-line

Figure 2 – Key Routes in the Study Area

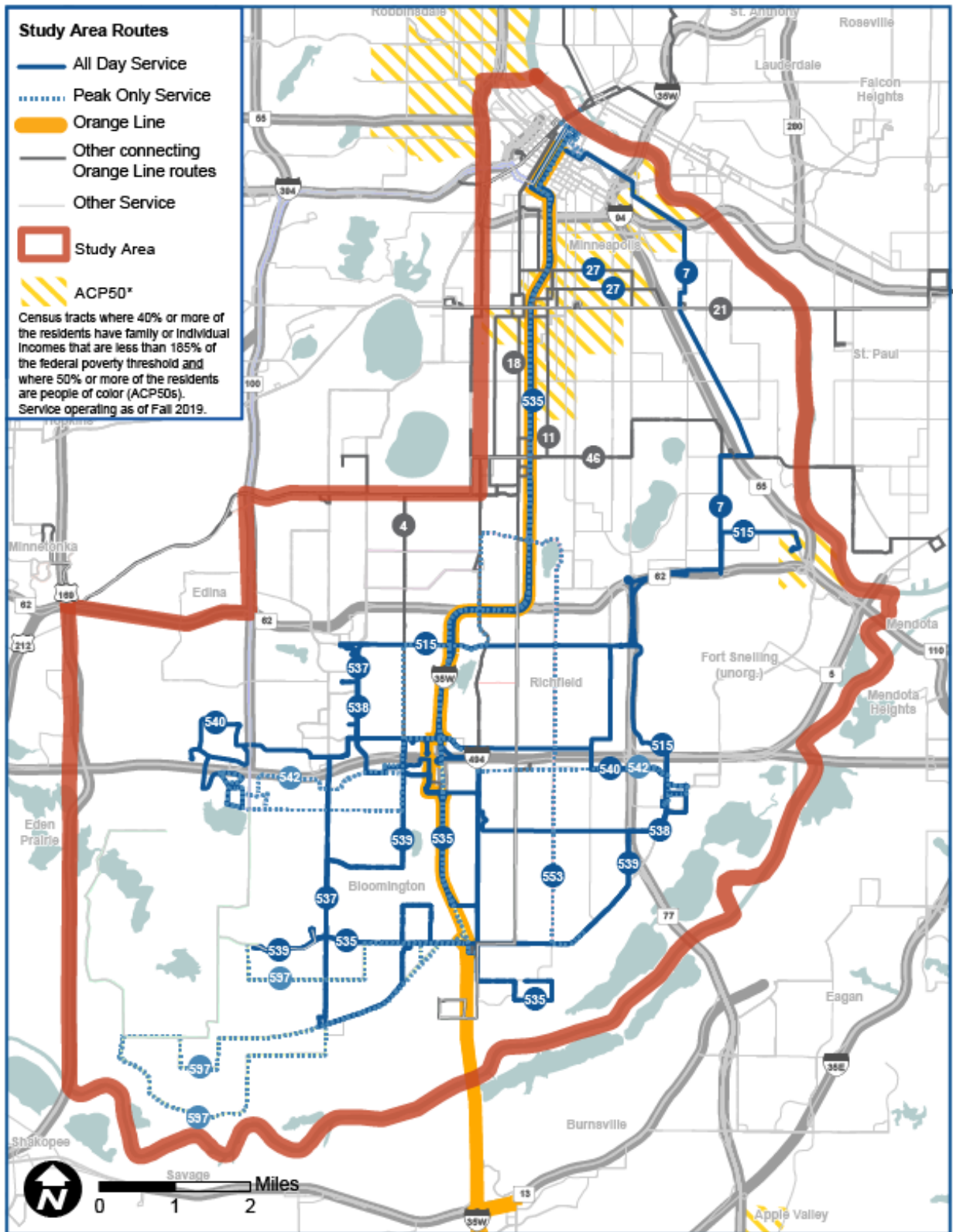


Figure 3 – Map of Transit Market Areas

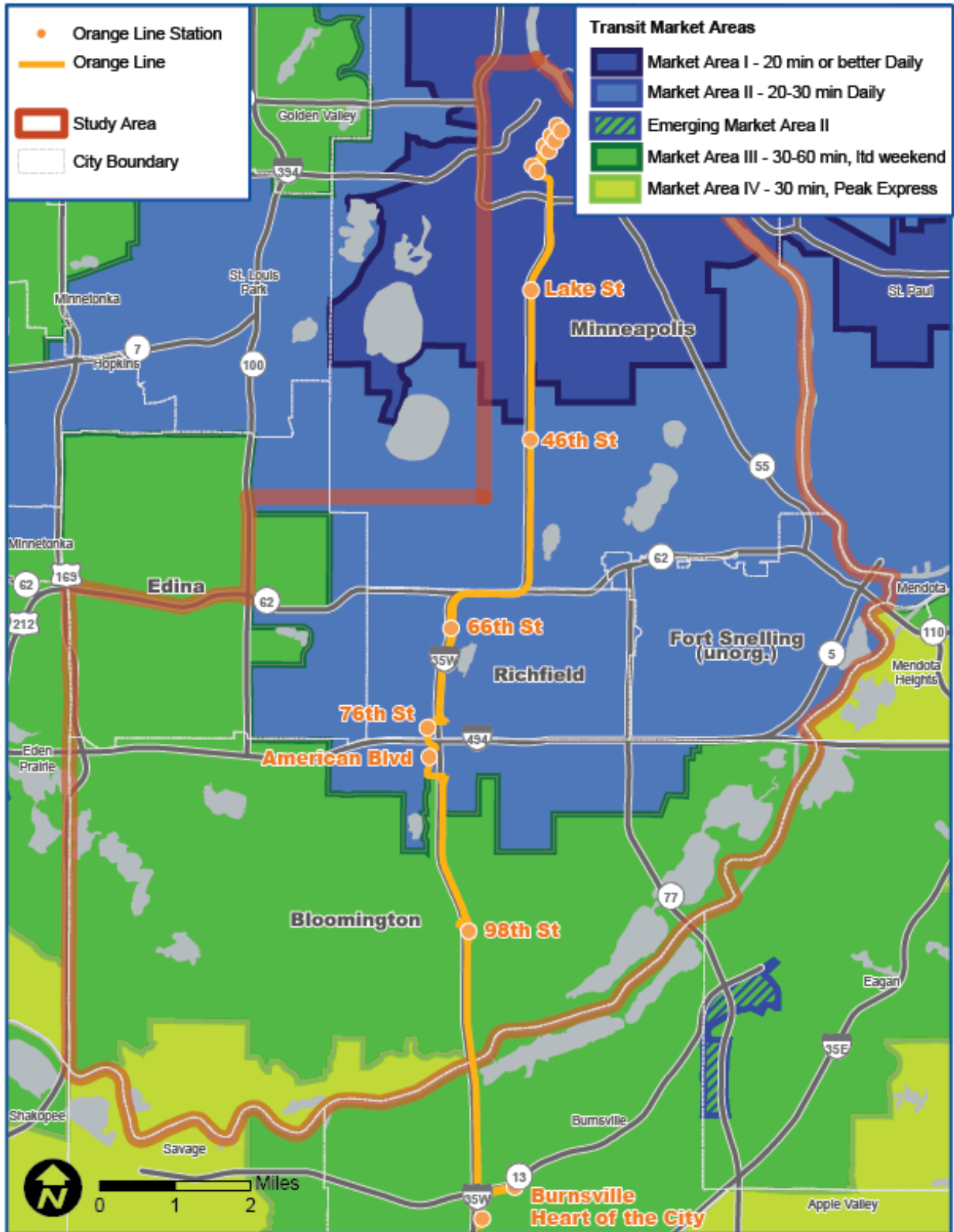


Figure 4 – Recommended Plan System Map

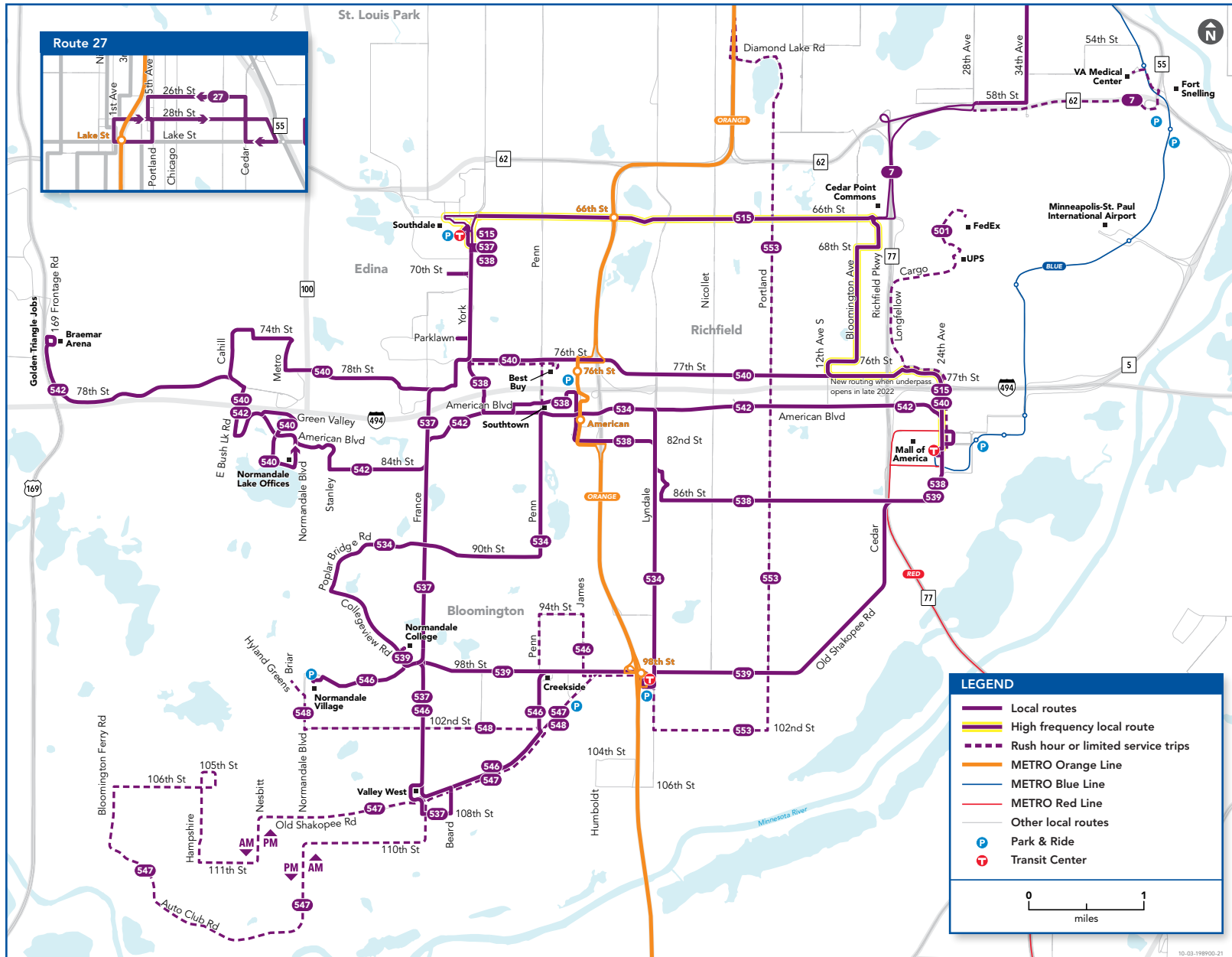


Figure 5 – Weekday frequency on key routes

Route #	Recommended Peak Frequency	Recommended Midday Frequency	Recommended Night Frequency
7	30	30	30
27	30	30	n/a
501	n/a	n/a	limited
515	15	15	20
534	30	30	60
537	60	60	n/a
538	30	30	30 / 60
539	20	30	60
540	20	30	30 / 60
542	30	30	30 / 60
546*	30	30	60
547	30	limited	limited
548	30	n/a	n/a
553	30	n/a	n/a
Orange Line	10	15	15

*New Route with Recommended Plan not included in Concept Plan

30 / 60 indicates alternating frequency every 30 and 60 minutes.

Figures shaded in grey indicate routes that operate in peak periods only.

Figures shaded in green indicate a frequency improvement.

Route 534 improvements are for the Lyndale Av: 94th St - American route segment which currently has weekday peak-only service.

Figure 6 – Frequency by key routes on Saturday

Route #	Recommended Peak Frequency	Recommended Midday Frequency	Recommended Night Frequency
7	30	30	30
515	15	15	20
534	60	60	n/a
538	30 / 60	30 / 60	n/a
539	60	30	60
540	30	30	30 / 60
546	60	60	60
Orange Line	15	15	15

New Route with Recommended Plan not included in Concept Plan

30 / 60 indicates alternating frequency every 30 and 60 minutes.

Figures shaded in green indicate a frequency improvement.

Figure 7 – Frequency by key routes on Sunday

Route #	Recommended Peak Frequency	Recommended Midday Frequency	Recommended Night Frequency
7	30	30	30
515	20	20	30
534	60	60	n/a
538	n/a	30 / 60	n/a
539	60	60	60
540	90	30 / 60	90
546	60	60	60
Orange Line	15	15	15

New Route with Recommended Plan not included in Concept Plan
 30 / 60 indicates alternating frequency every 30 and 60 minutes.
 Figures shaded in green indicate a frequency improvement.

Figure 8 – Change in Access to Jobs

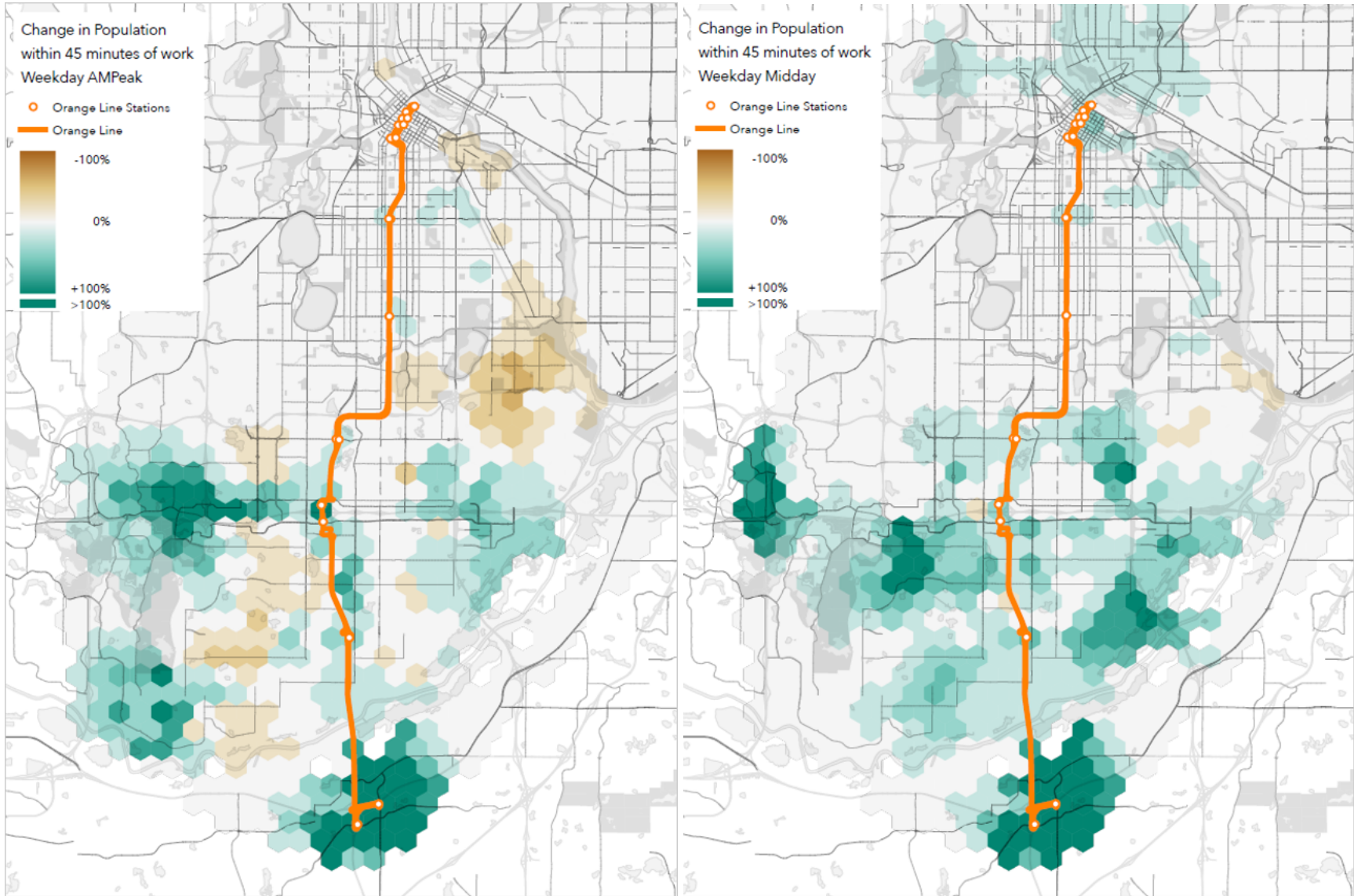


Figure 9 – Distribution of communities of color within ¼ mile of route alignments

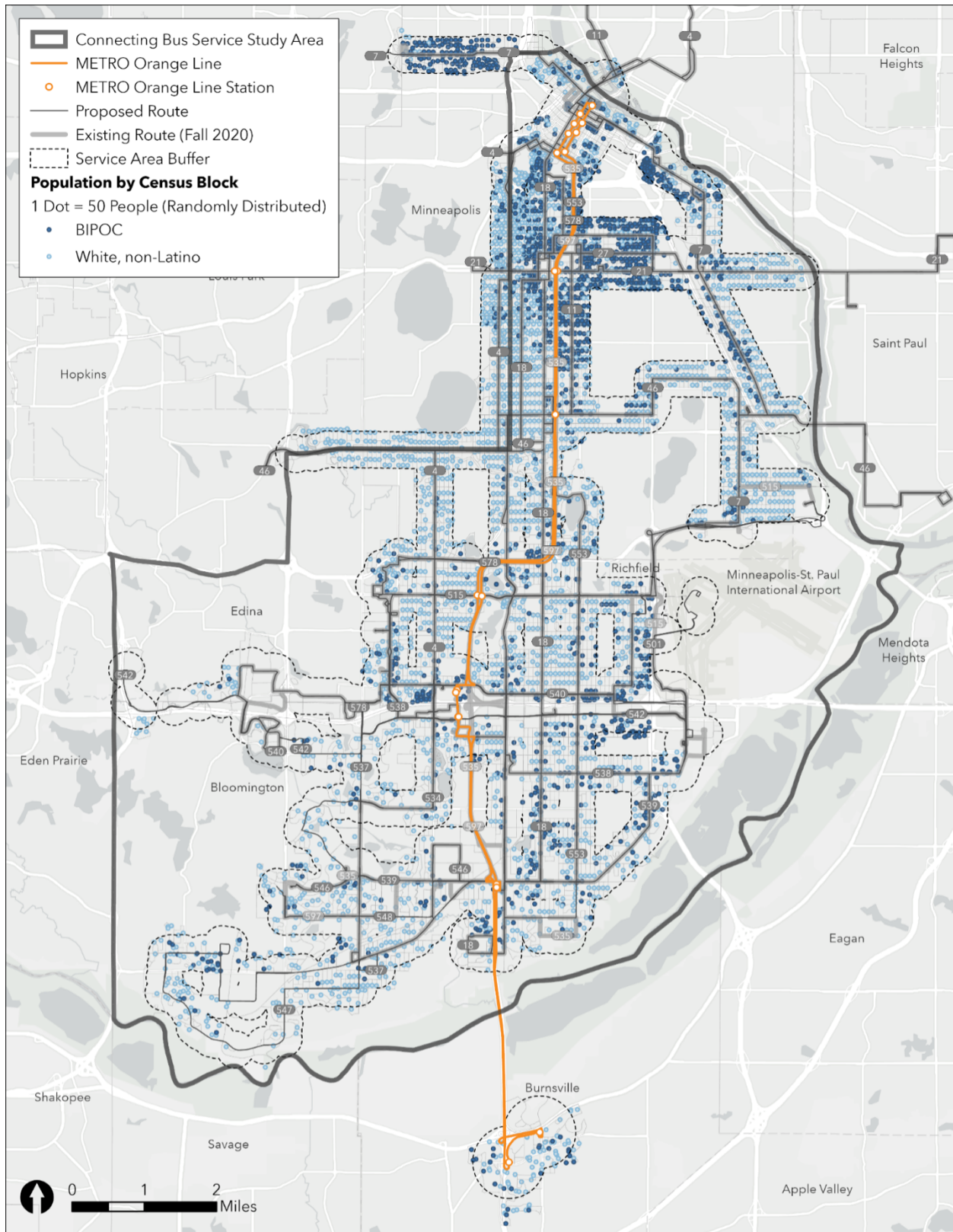


Figure 10 – Distribution of low-income populations within ¼ mile of route alignments

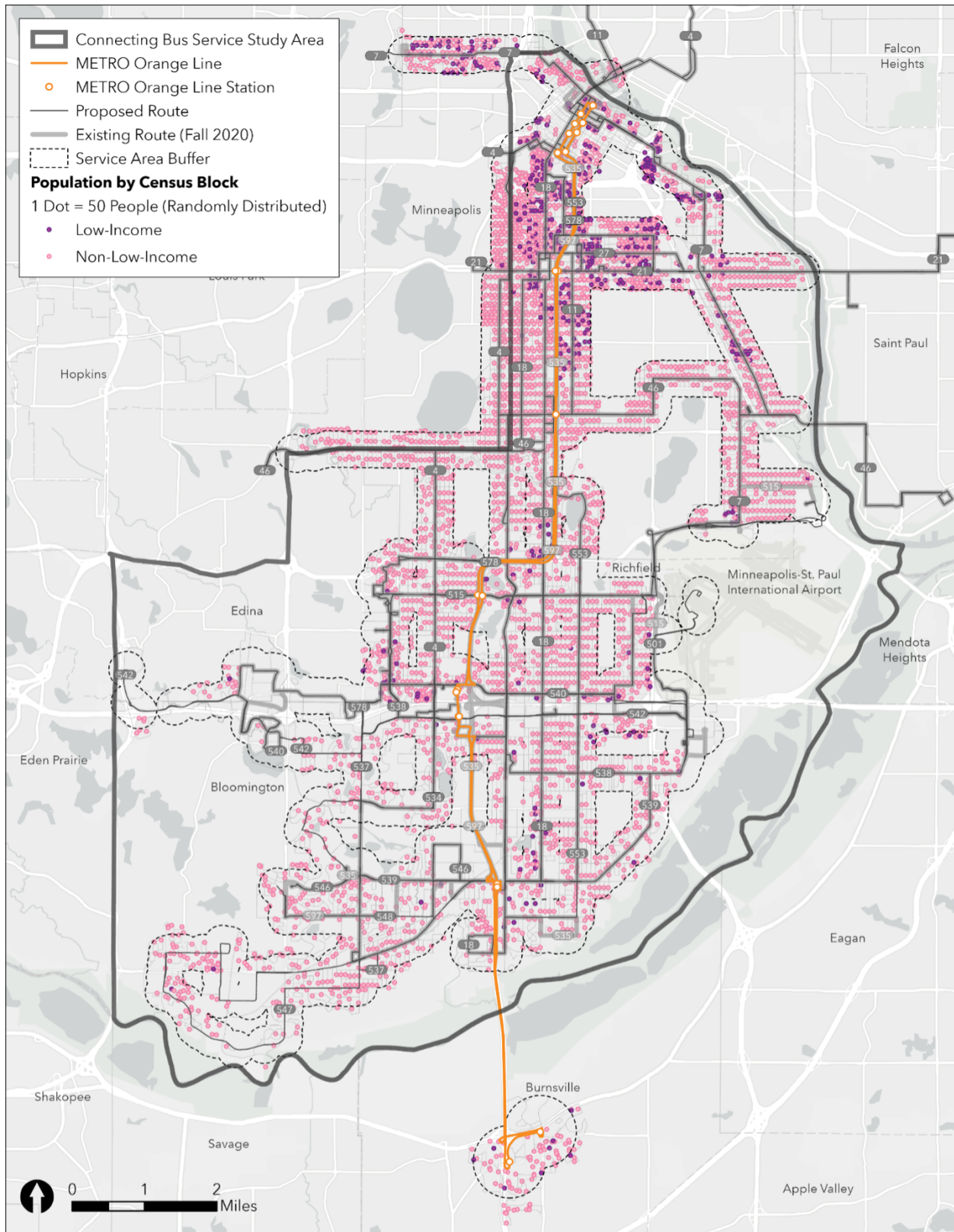


Figure 11 – Percent change in service levels – Recommended Plan

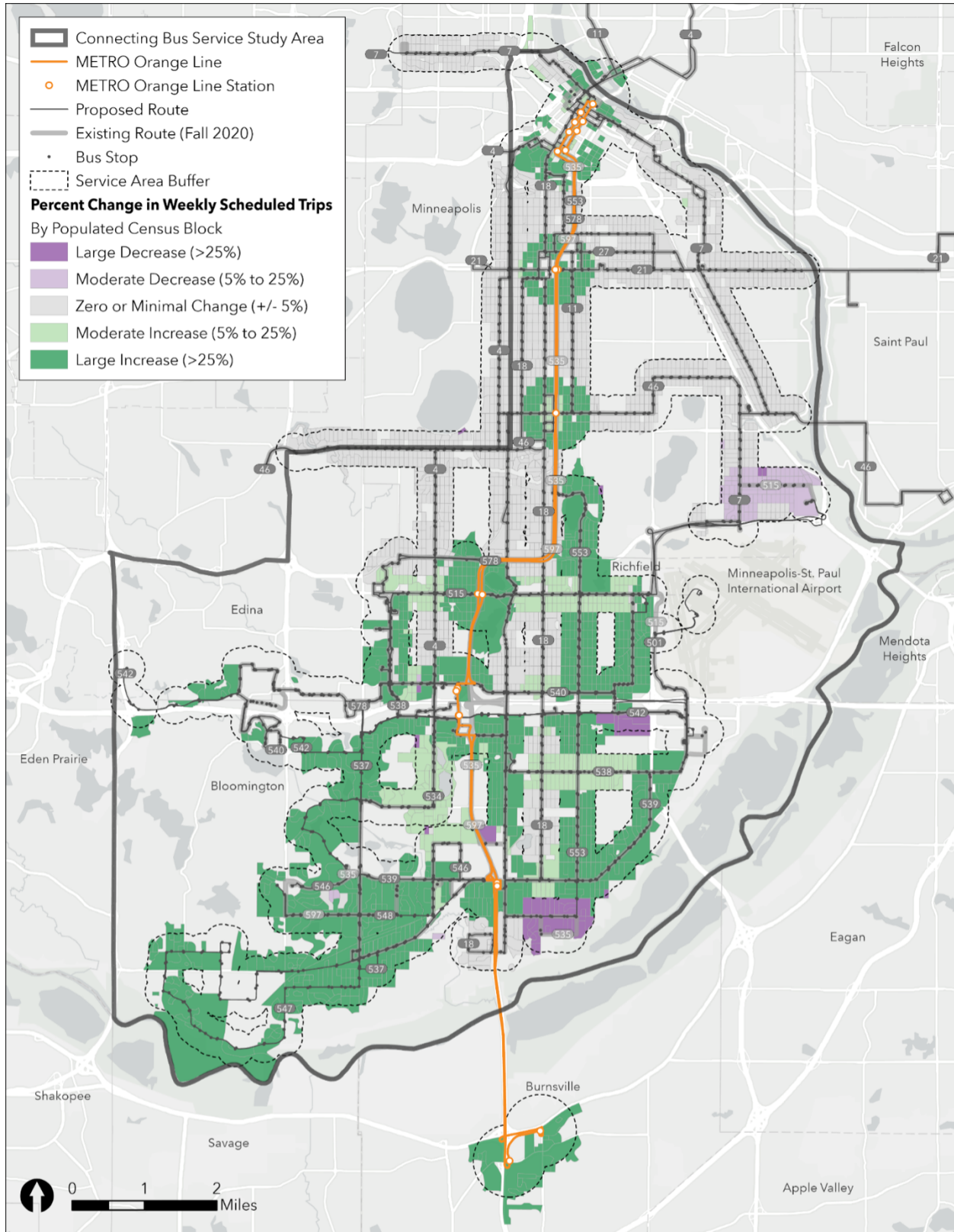
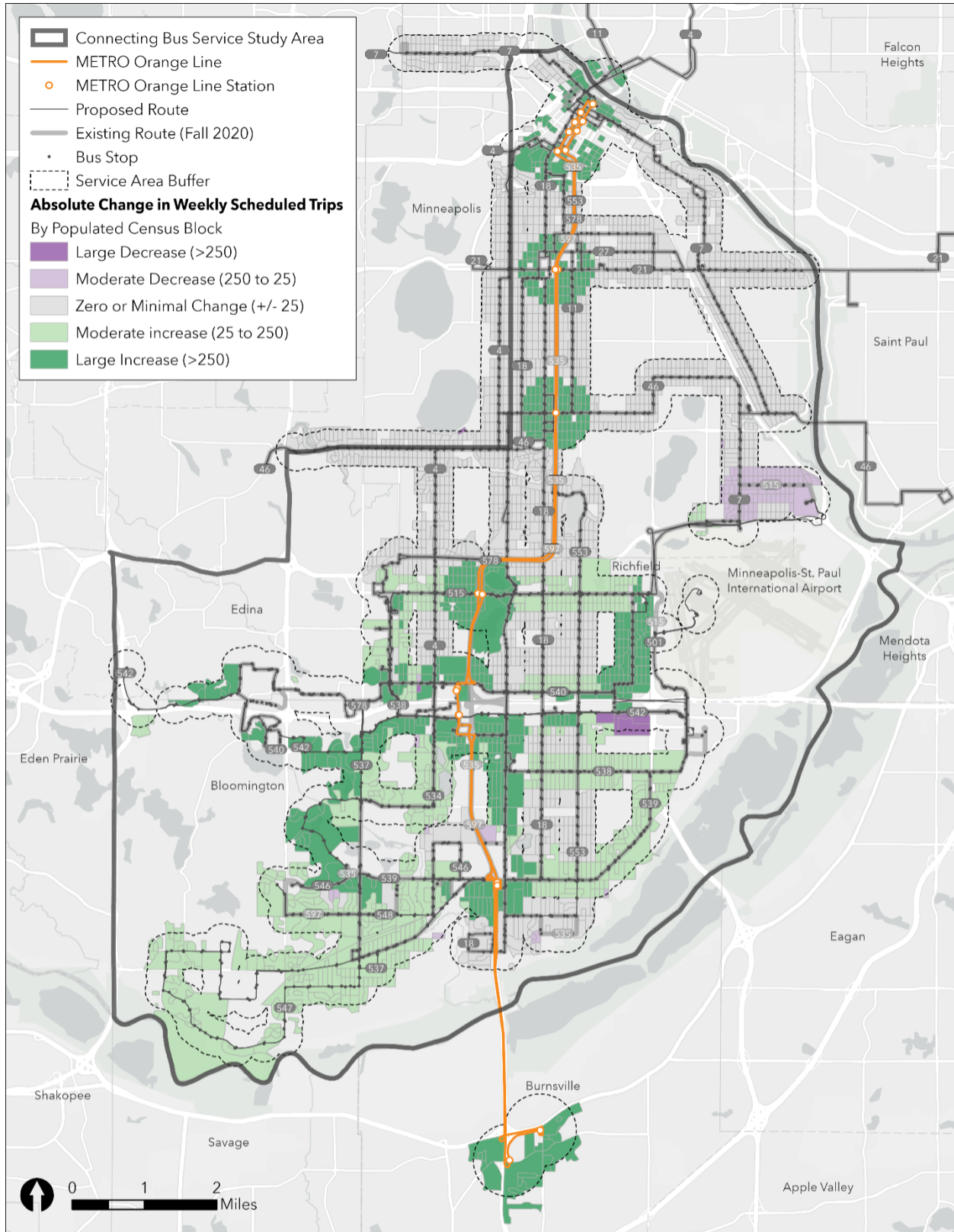
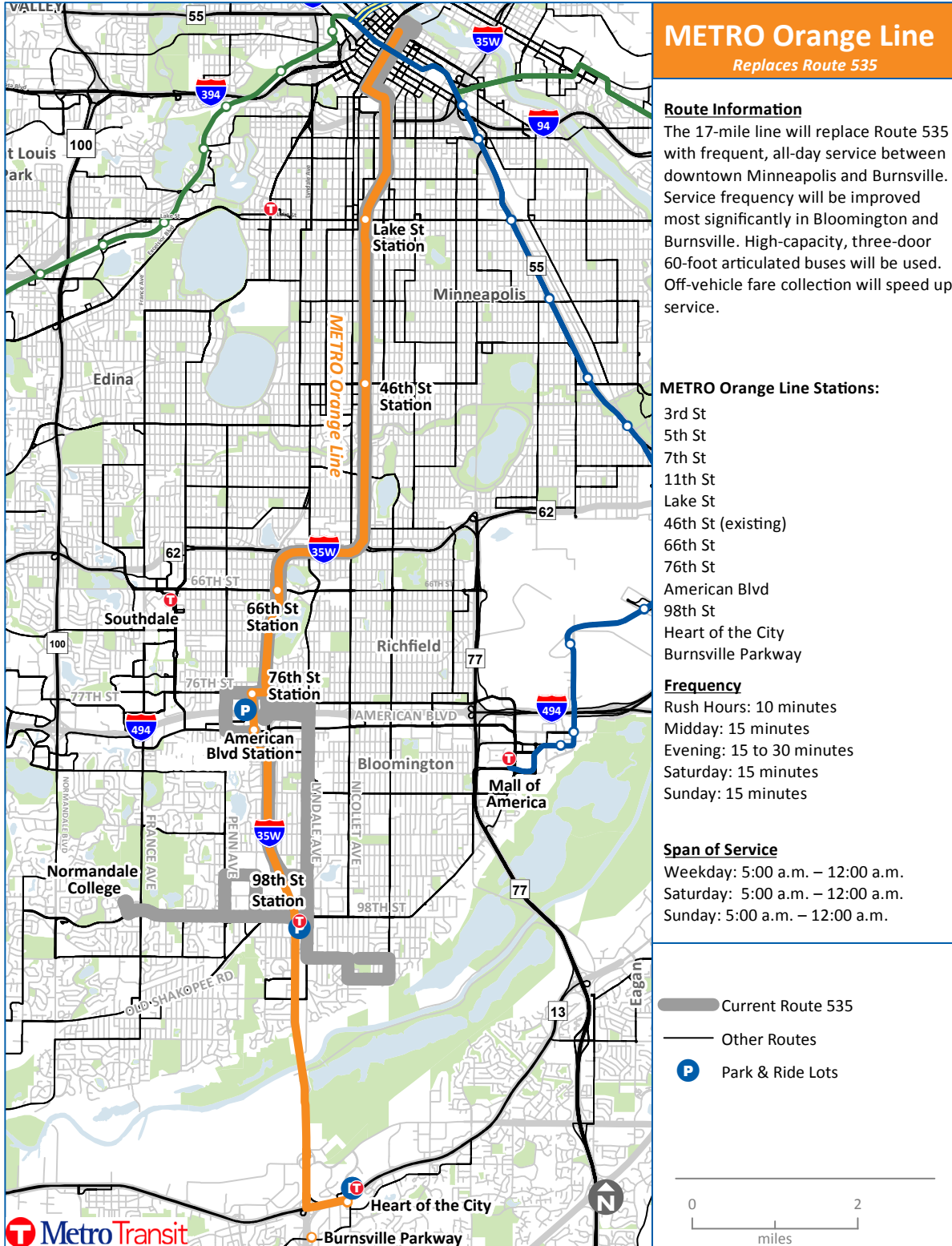


Figure 12 – Absolute Change in Service Levels Resulting from the Recommended Plan



APPENDIX B

Map 1. METRO Orange Line and Route 535



METRO Orange Line

Replaces Route 535

Route Information
 The 17-mile line will replace Route 535 with frequent, all-day service between downtown Minneapolis and Burnsville. Service frequency will be improved most significantly in Bloomington and Burnsville. High-capacity, three-door 60-foot articulated buses will be used. Off-vehicle fare collection will speed up service.

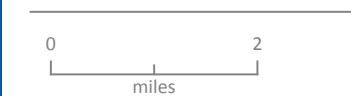
METRO Orange Line Stations:

- 3rd St
- 5th St
- 7th St
- 11th St
- Lake St
- 46th St (existing)
- 66th St
- 76th St
- American Blvd
- 98th St
- Heart of the City
- Burnsville Parkway

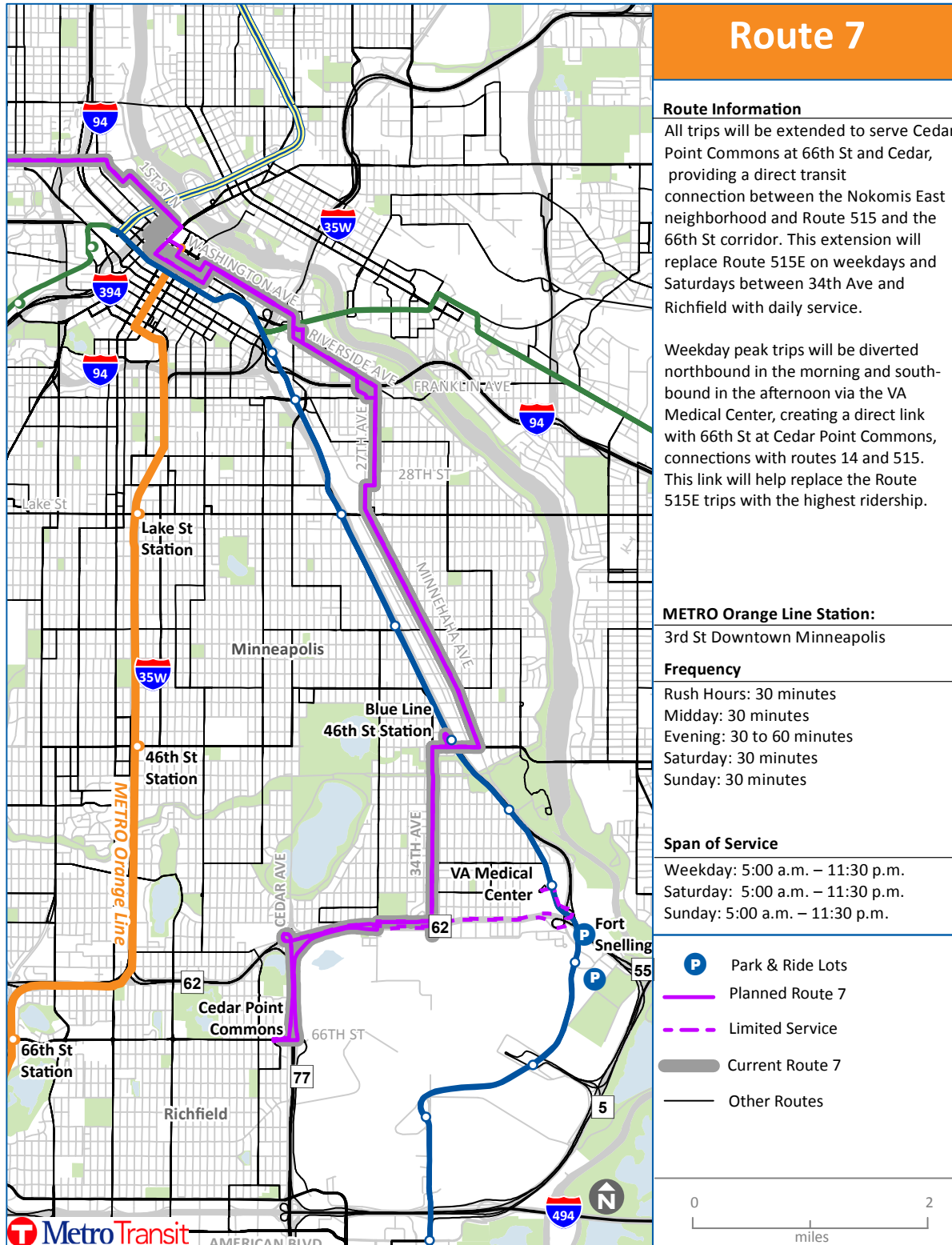
Frequency
 Rush Hours: 10 minutes
 Midday: 15 minutes
 Evening: 15 to 30 minutes
 Saturday: 15 minutes
 Sunday: 15 minutes

Span of Service
 Weekday: 5:00 a.m. – 12:00 a.m.
 Saturday: 5:00 a.m. – 12:00 a.m.
 Sunday: 5:00 a.m. – 12:00 a.m.

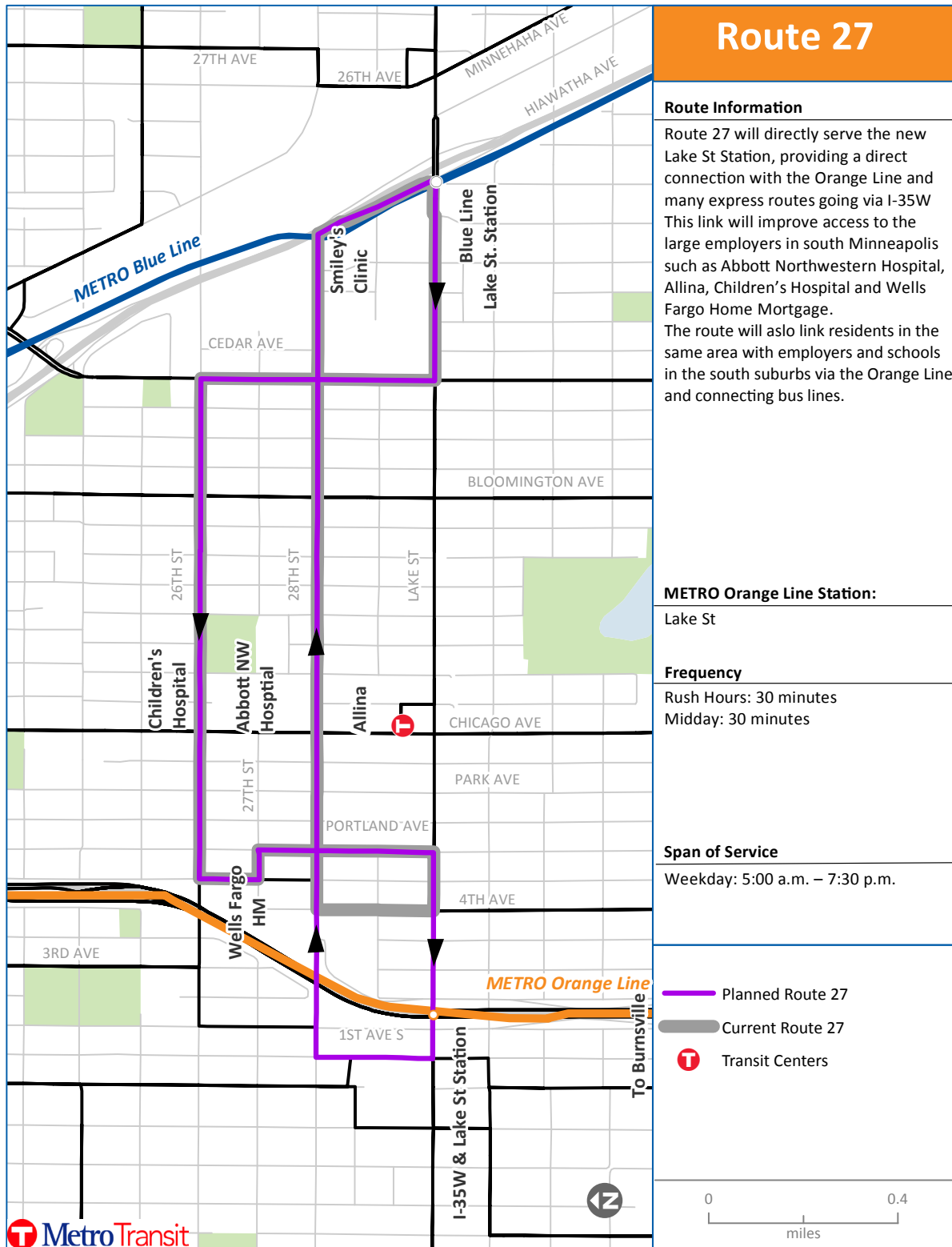
- Current Route 535
- Other Routes
- Park & Ride Lots



Map 2. Route 7 – 34th Ave S – 66th St – VA Medical Center - Cedar Point Commons



Map 3. Route 27 – Phillips Neighborhood - South Minneapolis Employers



Route 27

Route Information

Route 27 will directly serve the new Lake St Station, providing a direct connection with the Orange Line and many express routes going via I-35W. This link will improve access to the large employers in south Minneapolis such as Abbott Northwestern Hospital, Allina, Children's Hospital and Wells Fargo Home Mortgage. The route will also link residents in the same area with employers and schools in the south suburbs via the Orange Line and connecting bus lines.

METRO Orange Line Station:

Lake St

Frequency

Rush Hours: 30 minutes
Midday: 30 minutes

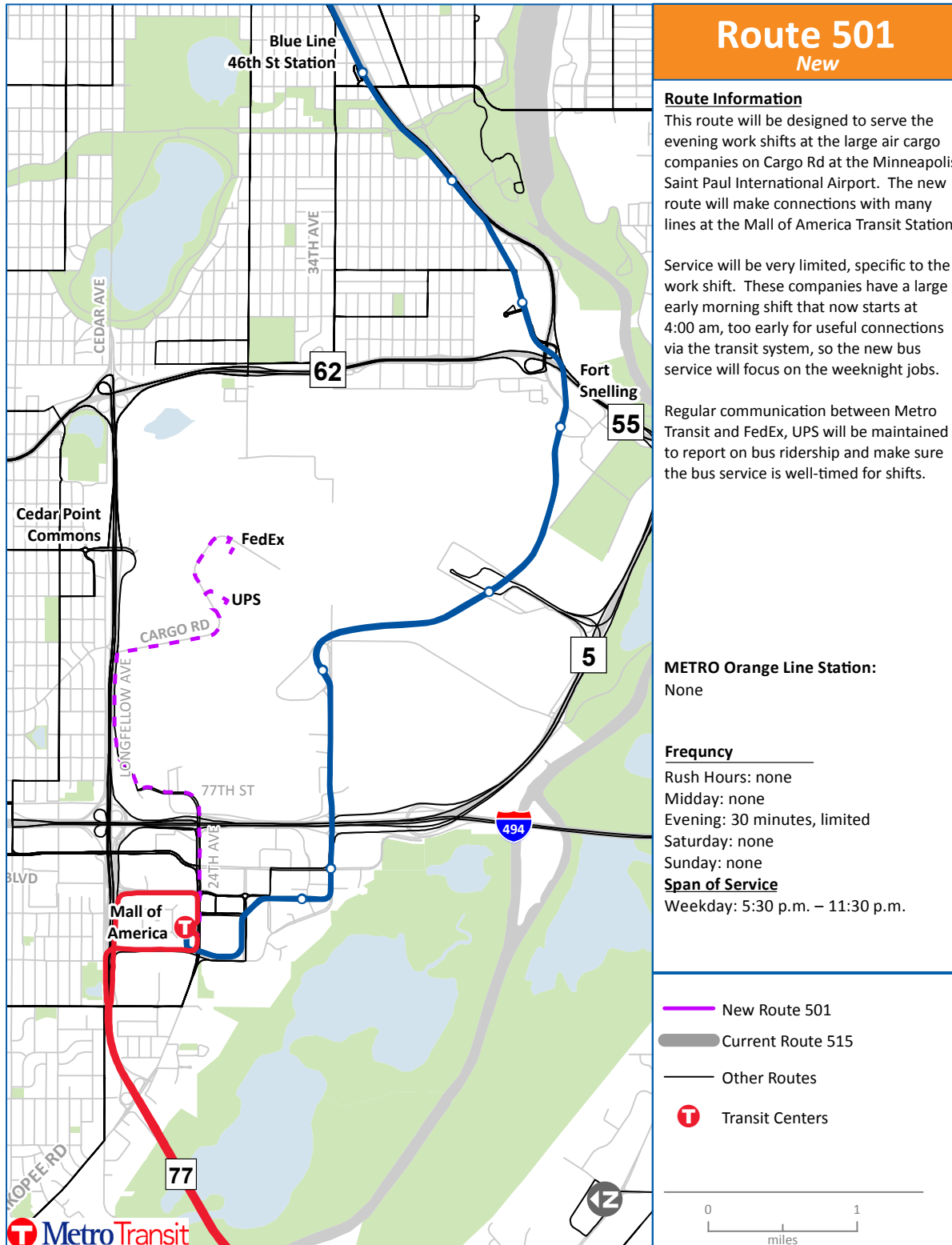
Span of Service

Weekday: 5:00 a.m. – 7:30 p.m.

- Planned Route 27
- Current Route 27
- T Transit Centers



Map 4. Route 501 – Mall of America – Air Cargo Employers



Route 501 New

Route Information

This route will be designed to serve the evening work shifts at the large air cargo companies on Cargo Rd at the Minneapolis Saint Paul International Airport. The new route will make connections with many lines at the Mall of America Transit Station.

Service will be very limited, specific to the work shift. These companies have a large early morning shift that now starts at 4:00 am, too early for useful connections via the transit system, so the new bus service will focus on the weeknight jobs.

Regular communication between Metro Transit and FedEx, UPS will be maintained to report on bus ridership and make sure the bus service is well-timed for shifts.

METRO Orange Line Station:
None

Frequency

Rush Hours: none
Midday: none
Evening: 30 minutes, limited
Saturday: none
Sunday: none

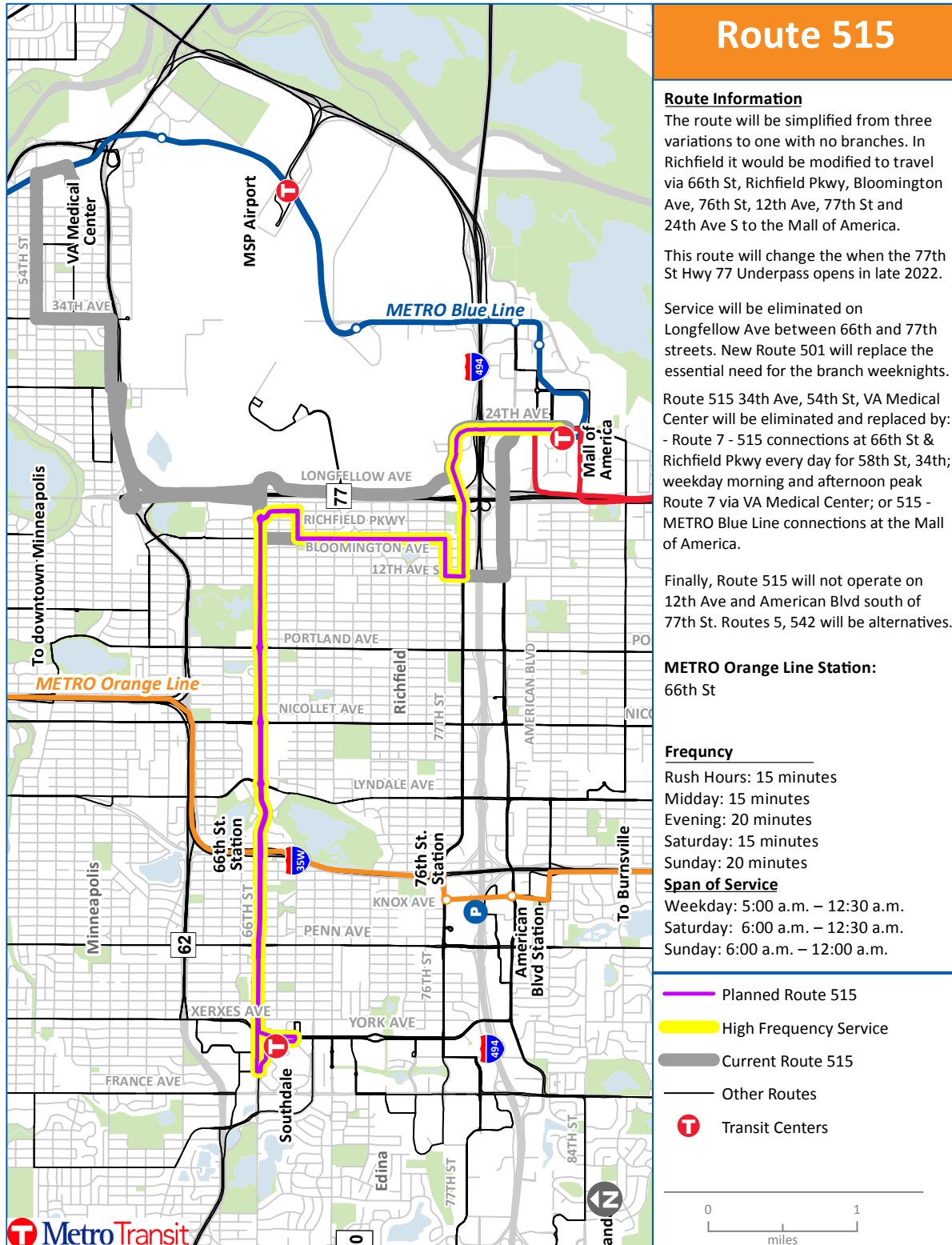
Span of Service

Weekday: 5:30 p.m. – 11:30 p.m.

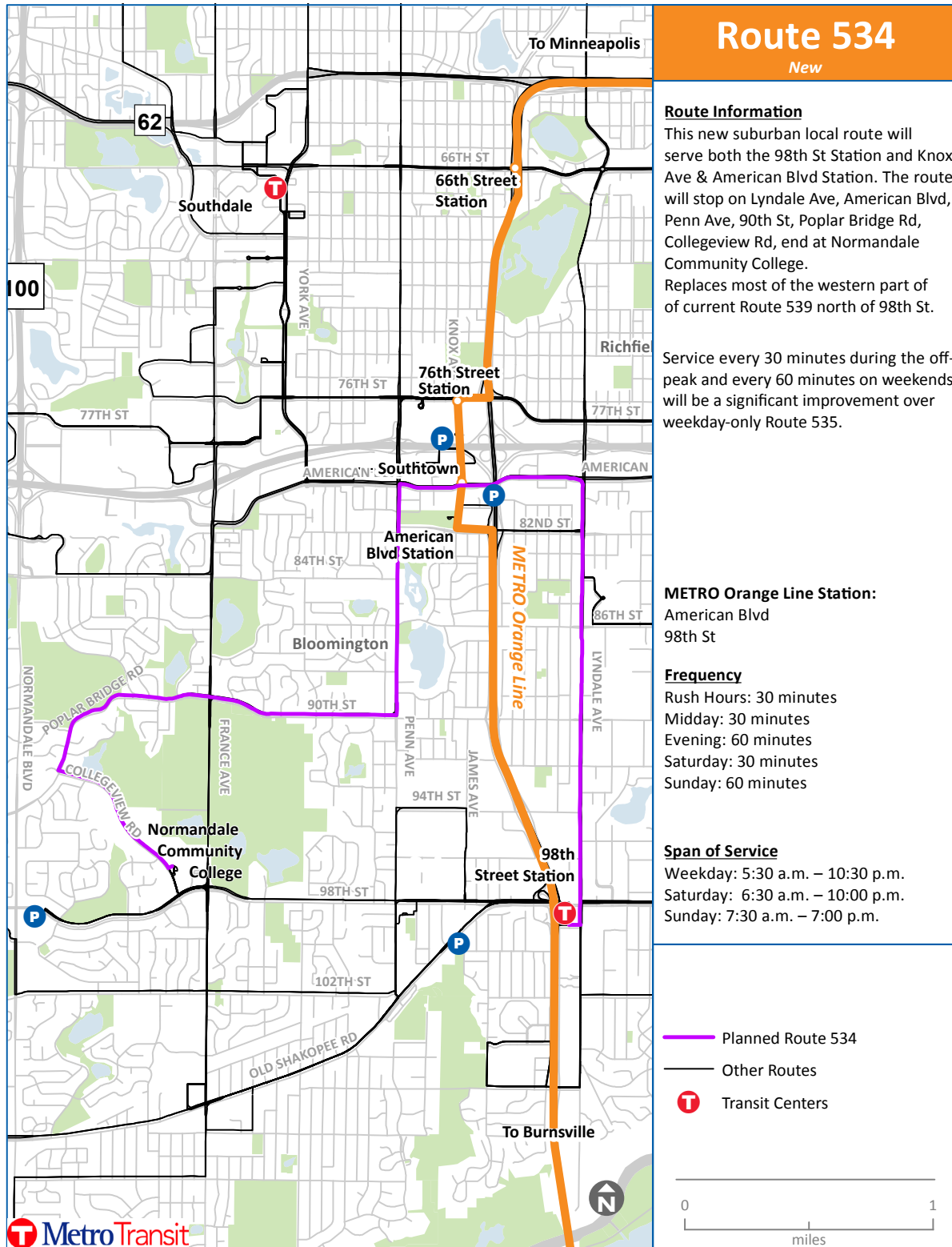
- New Route 501
- Current Route 515
- Other Routes
- T Transit Centers



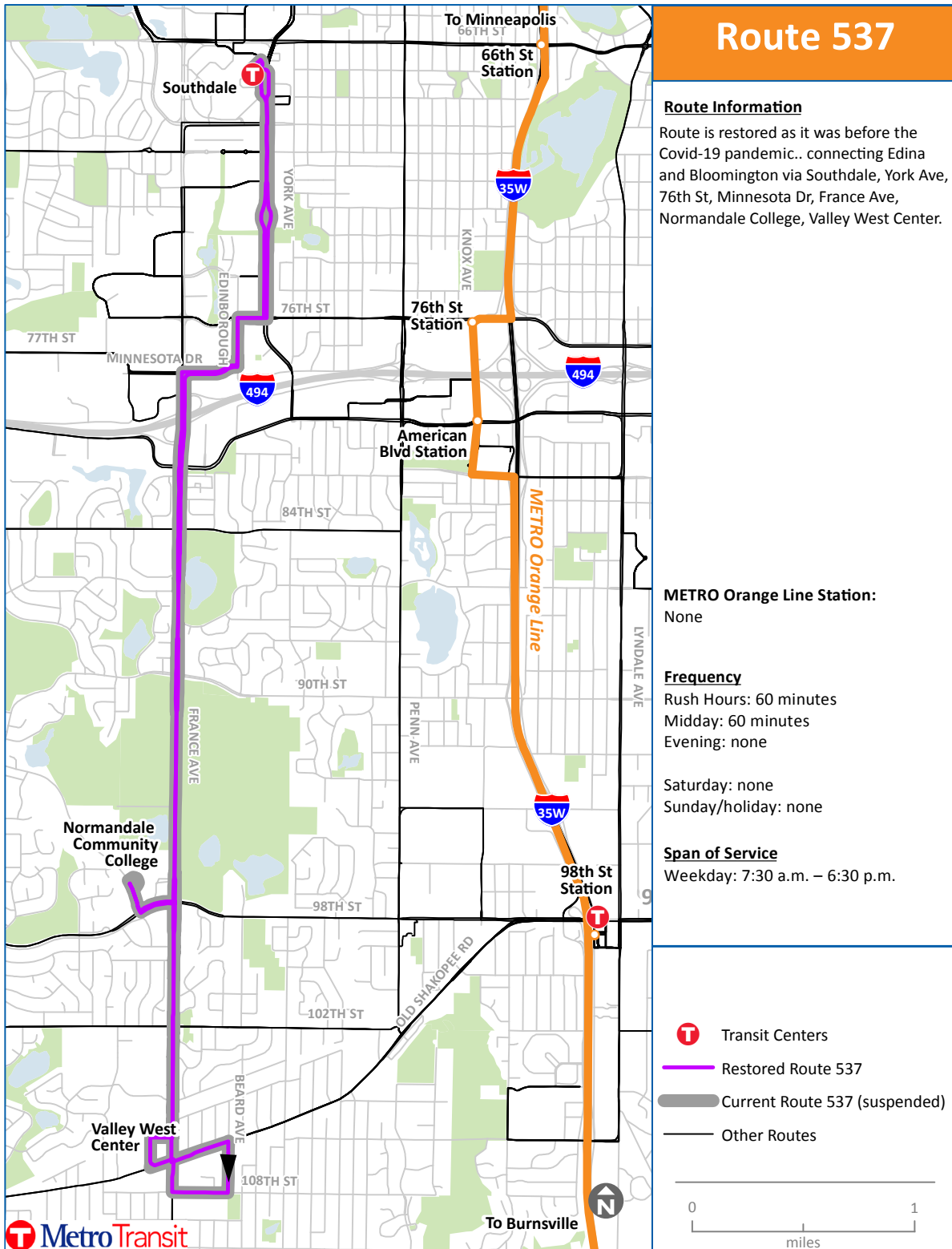
Map 5. Route 515 – Southdale - 66th St – Cedar Point - Mall of America



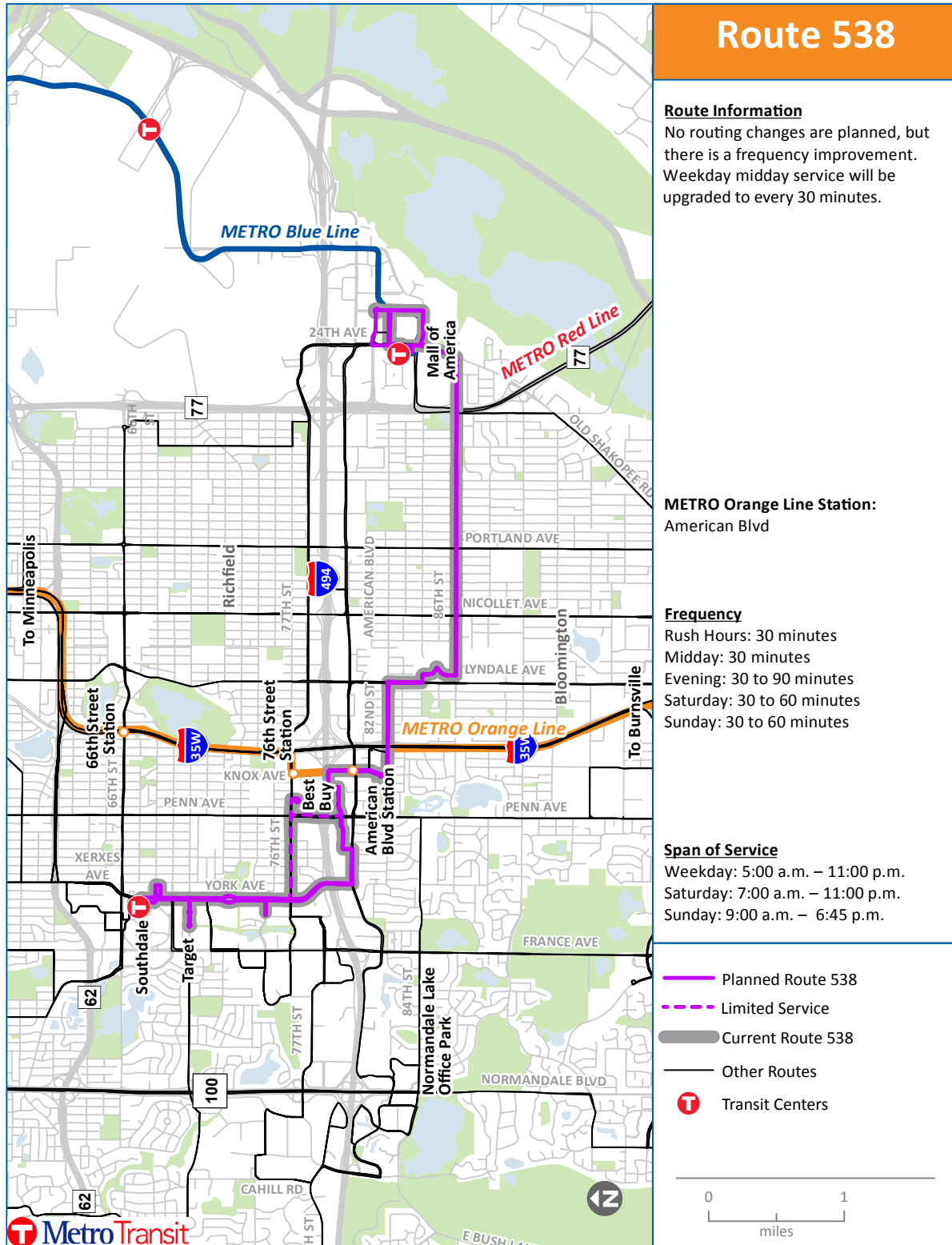
Map 6. Route 534 – Normandale College – 90th St – Penn Ave S - Southtown - Lyndale Ave S – 98th St



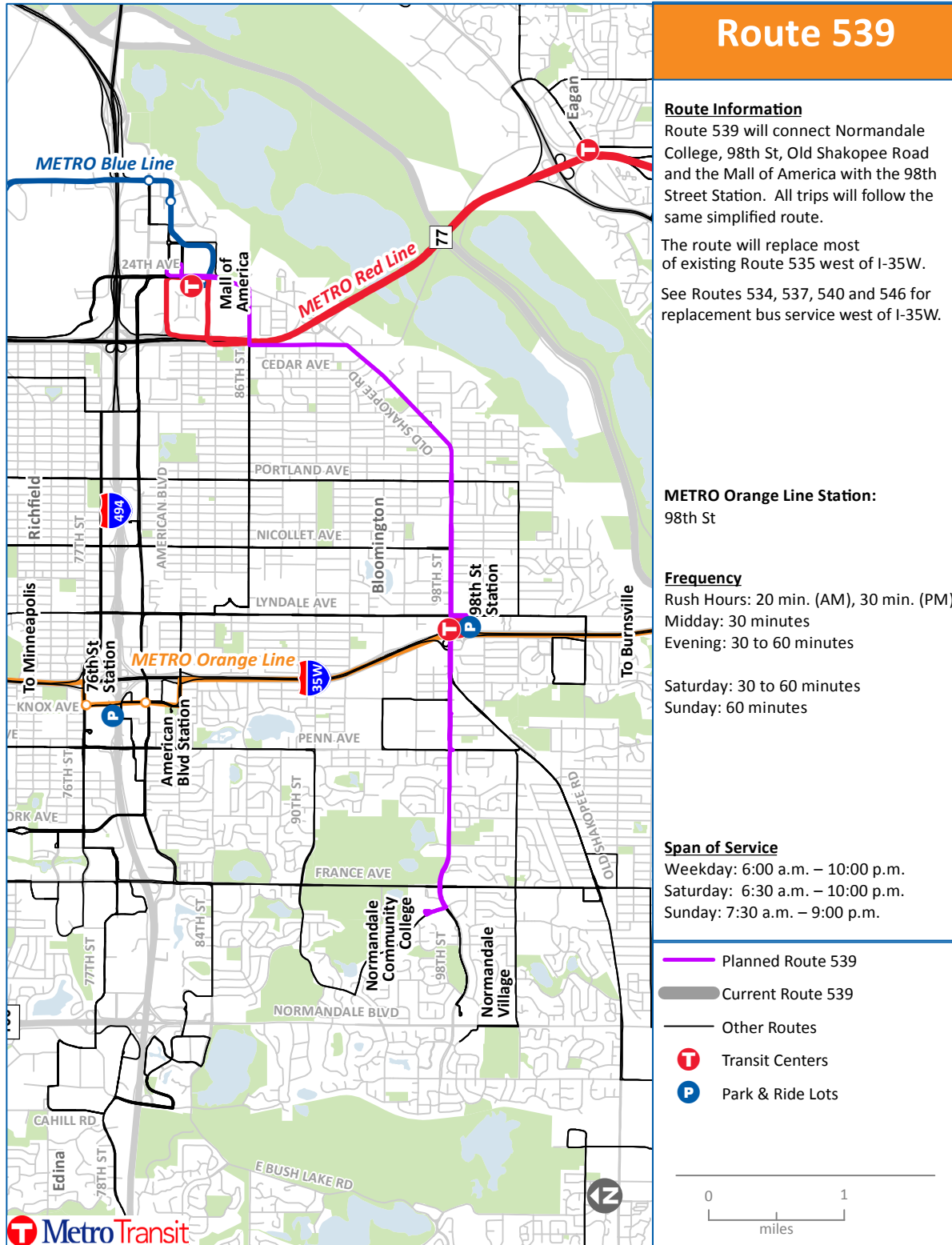
Map 7. Route 537 – Southdale – York Ave – France Ave S – Normandale College – Valley West



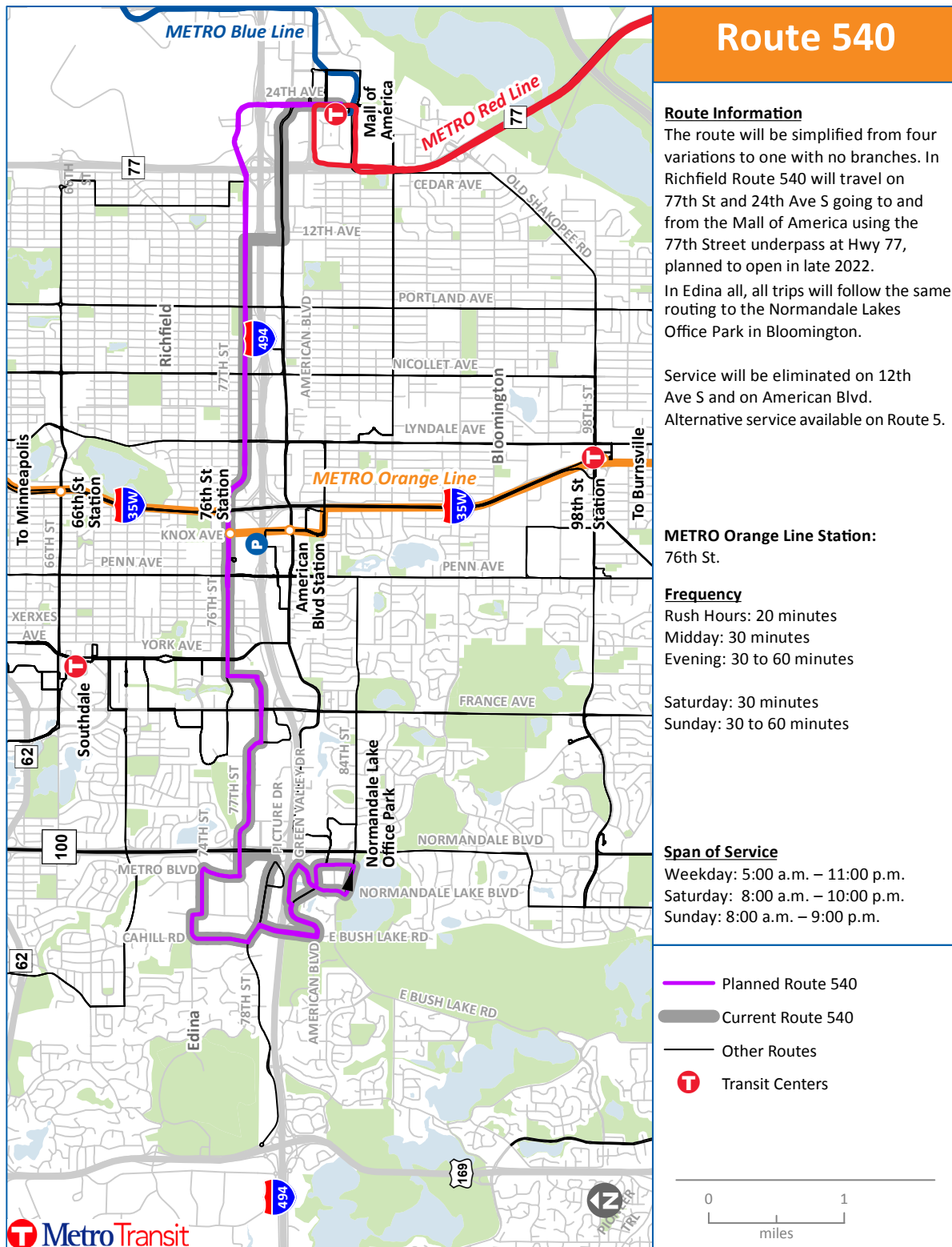
Map 8. Route 538 – Southdale – York Ave – Southtown – 86th St – Mall of America



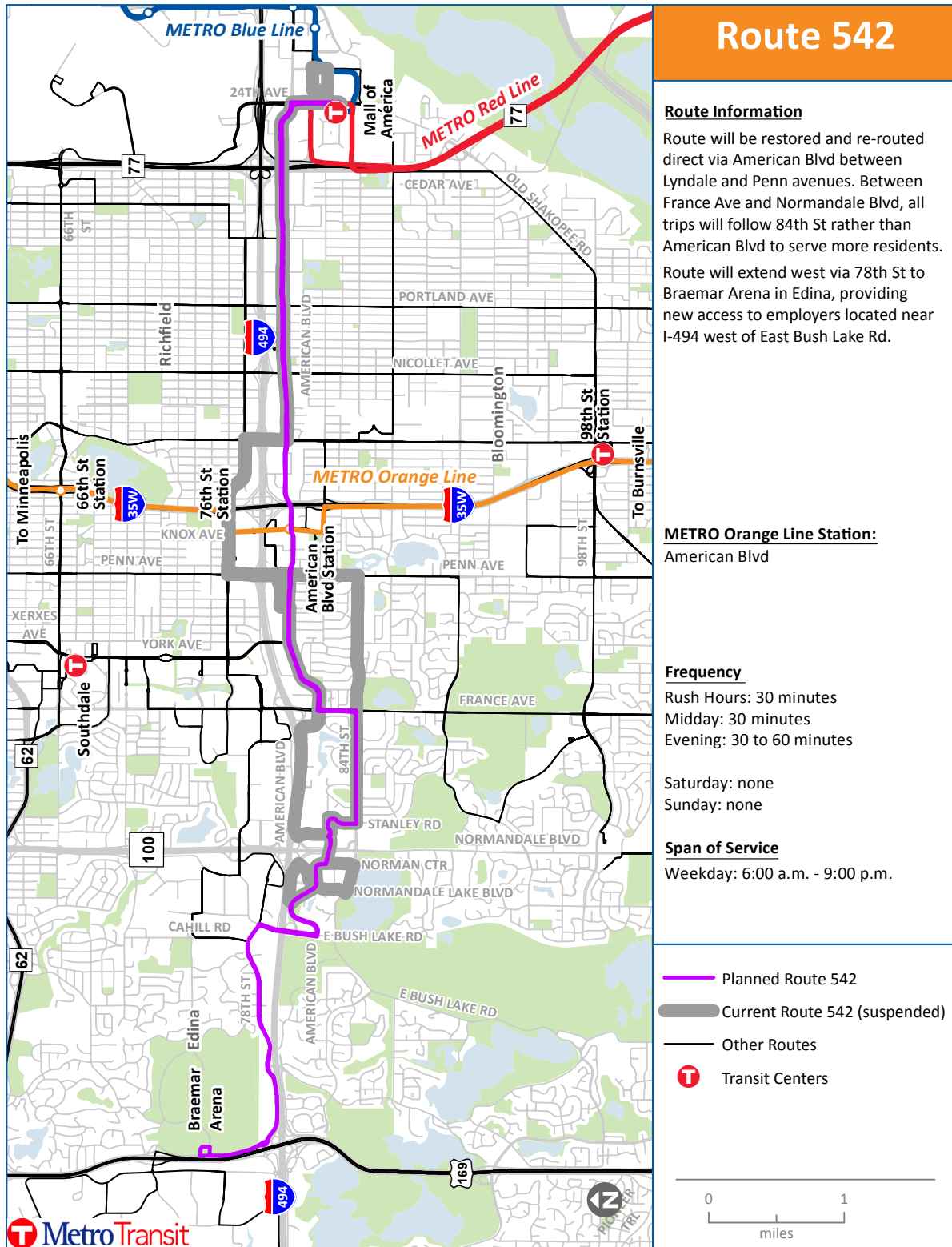
Map 9. Route 539 – Mall of America – 98th St – Normandale College



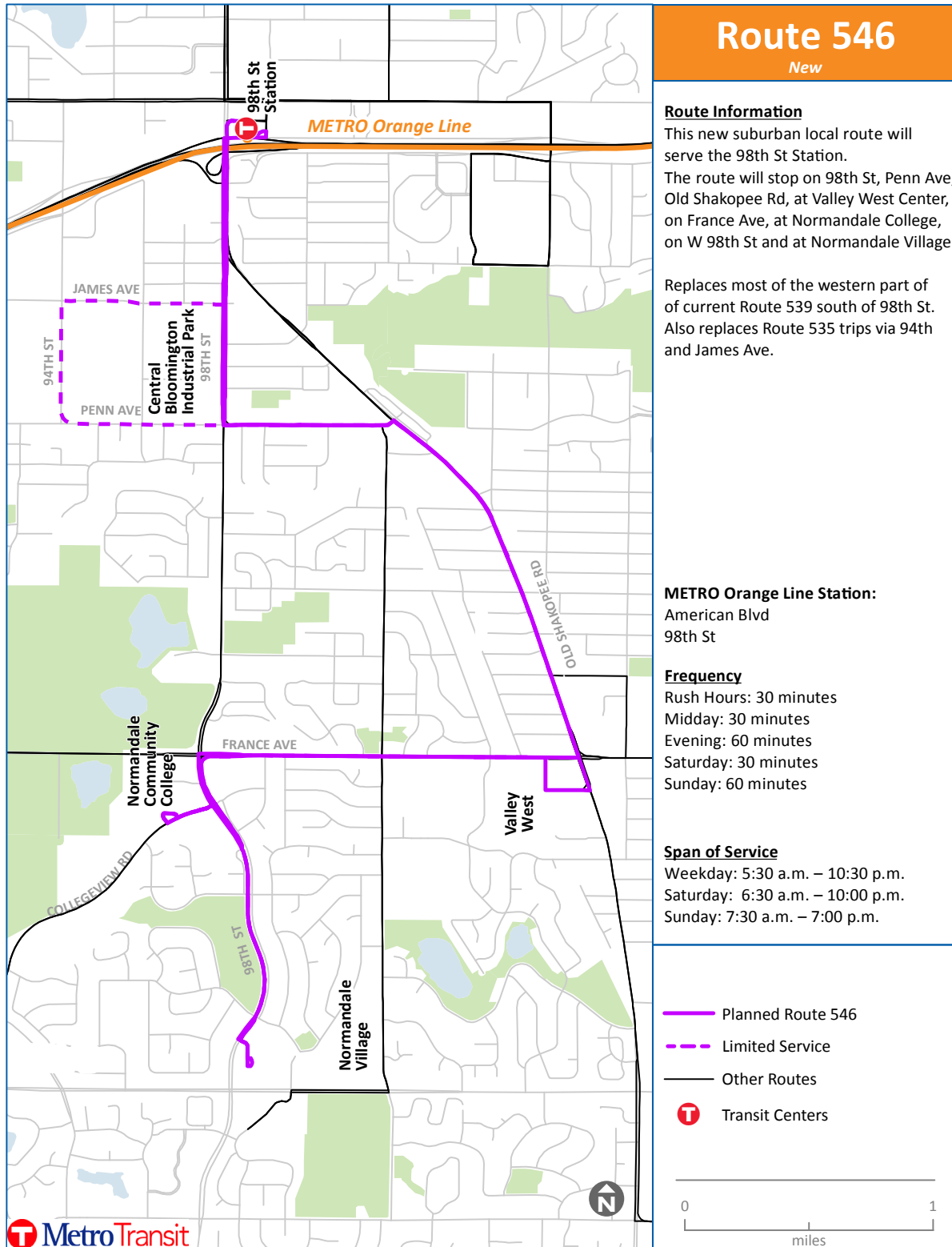
Map 10. Route 540 – Mall of America – E 77th St – W 76th St – Edina Industrial Area – Normandale Lakes



Map 11. Route 542 – Mall of America – American Blvd – Normandale Lakes – W 78th St – Braemar Arena



Map 12. Route 546 – 98th St – Penn Ave - Old Shakopee Rd – Valley West – France – Normandale College, Village



Route 546

New

Route Information

This new suburban local route will serve the 98th St Station.

The route will stop on 98th St, Penn Ave, Old Shakopee Rd, at Valley West Center, on France Ave, at Normandale College, on W 98th St and at Normandale Village.

Replaces most of the western part of current Route 539 south of 98th St. Also replaces Route 535 trips via 94th and James Ave.

METRO Orange Line Station:

American Blvd
98th St

Frequency

Rush Hours: 30 minutes
Midday: 30 minutes
Evening: 60 minutes
Saturday: 30 minutes
Sunday: 60 minutes

Span of Service

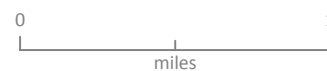
Weekday: 5:30 a.m. – 10:30 p.m.
Saturday: 6:30 a.m. – 10:00 p.m.
Sunday: 7:30 a.m. – 7:00 p.m.

— Planned Route 546

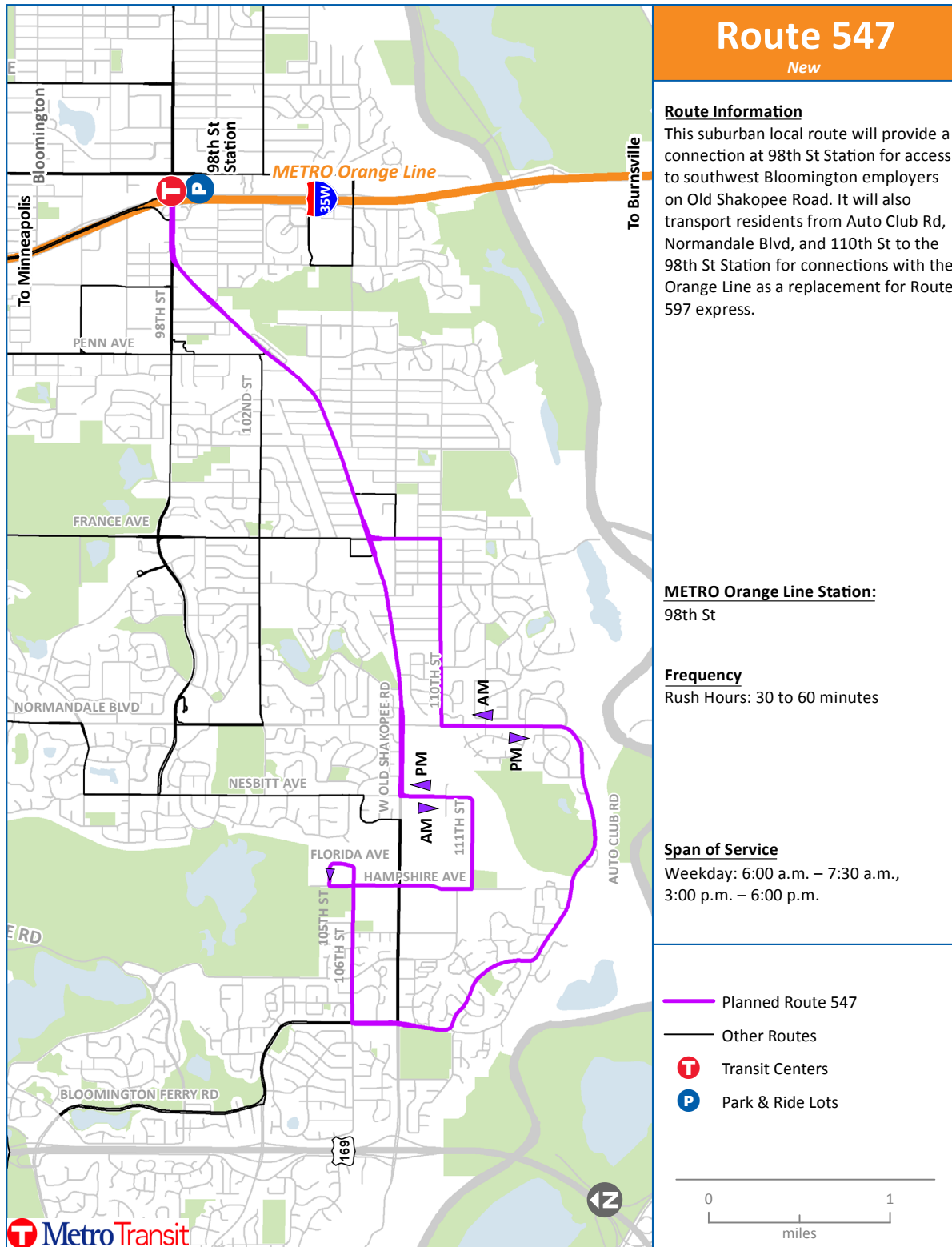
- - - Limited Service

— Other Routes

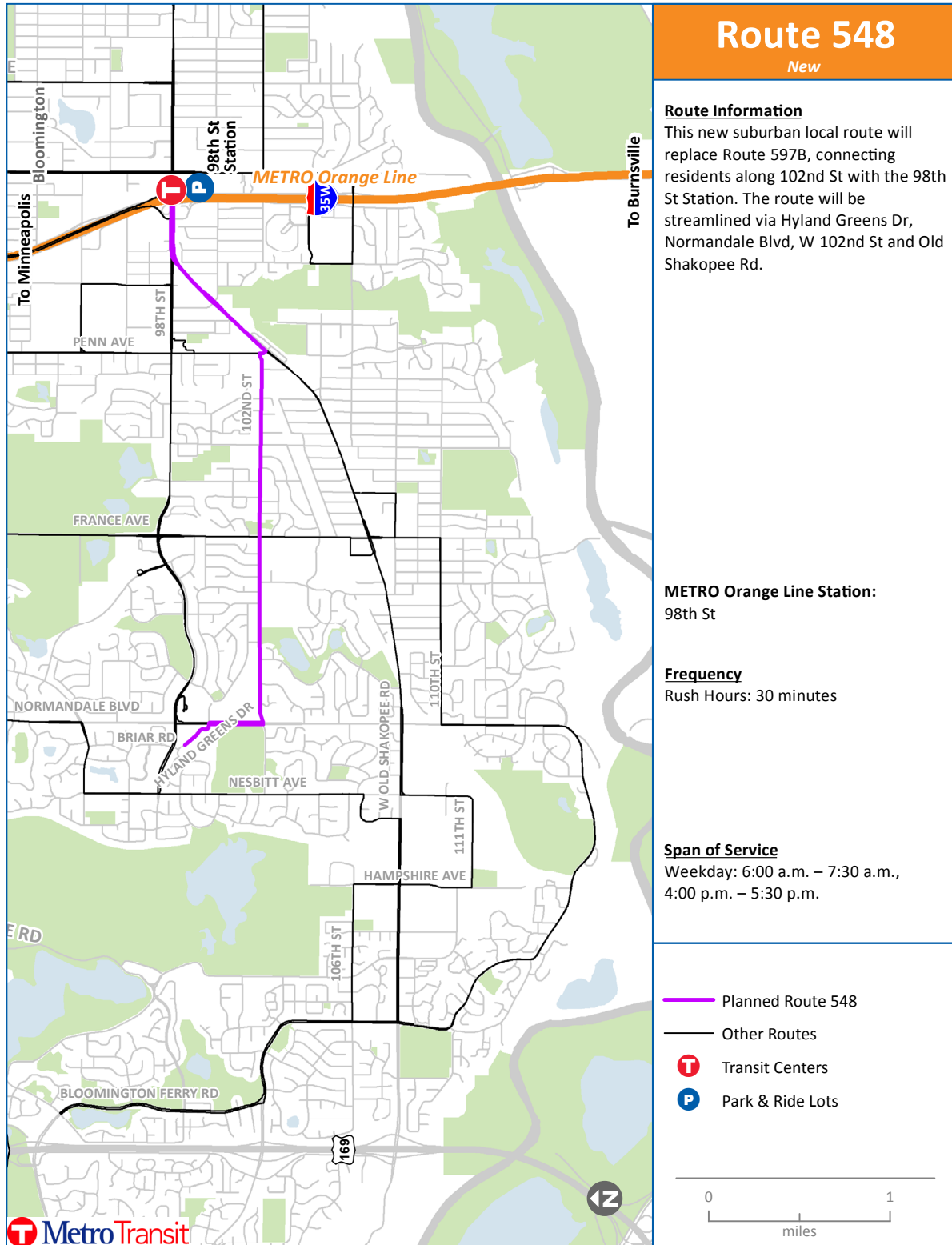
T Transit Centers



Map 13. Route 547 – 98th St – Old Shakopee Rd – Auto Club Rd – 110th St – SW Bloomington Employers



Map 14. Route 548 – W 102nd St – Old Shakopee Rd – 98th St



Map 15. Route 553 – Express – Bloomington – Portland Ave – Minneapolis

