

Tech Memo 1: Candidate Corridor Identification

2025 Arterial Bus Rapid Transit Plan Update

05/21/2025

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Section 1: Introduction

What is the 2025 Arterial BRT Plan Update?

Metro Transit is undertaking the 2025 Arterial BRT Plan Update to identify the next programmed arterial BRT lines to be designated as the J, K, and L lines and implemented between 2030 and 2035. These lines will join the growing <u>METRO network</u> of fast, frequent, all-day service between comfortable stations with enhanced amenities.

Metro Transit's current plans for arterial BRT expansion were last completed in 2021 with adoption of the Network Next plan, which identified the F, G, and H lines. Those lines are all in development for implementation by 2030. Now, a plan update is needed to set the course for additional lines to implement between 2030 and 2035.

What is arterial bus rapid transit?

Arterial Bus Rapid Transit (BRT) is a package of transit improvements that add up to a faster, more reliable trip and an improved customer experience on Metro Transit's busiest bus routes.

By the end of 2025, Metro Transit will operate five arterial BRT lines: the METRO A Line, B Line, C Line, D Line, and E Line. The F Line, G Line, and H Line are planned to open by 2030. This plan will identify the J, K, and L lines, planned to open between 2030 and 2035.

These lines are part of Metro Transit's expanding <u>METRO network</u> of fast, frequent, all-day buses and trains.

Arterial BRT features

Arterial BRT lines serve stations with enhanced amenities, like heating, additional lighting, NexTrip realtime information, pay-at-the-station boarding, and improved security features. Frequent, all-day service every day of the week means customers do not need to rely on a schedule to plan their trip.

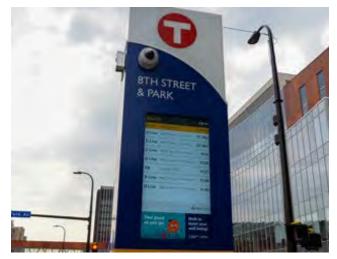


Pay-at-the-station boarding: Like other METRO services, customers pay fares before boarding the bus. Customers may board through any door on the bus. Ticket vending machines and fare card validators are placed at each station.

Comfortable buses: Arterial BRT buses are designed for a comfortable ride. Wider aisles make it easy to move around the bus. Wide doors and lower floors make it easier to get on and off the bus. Customers using mobility devices are still able to board using an accessible ramp. Buses have bicycle racks on the front of the vehicle. **Shelters:** Every station has a shelter with standard features including lighting, on-demand heat, seating and protection from the elements.

Transit information: Every station has NexTrip real-time information along with schedules, route maps, and connecting routes. Transit information is also provided through pushbutton audio annunciators.

Comfortable stations: Stations are designed for customers to wait for the bus comfortably. Platforms have plenty of space for customers to get on and off the bus safely. Stations are welllit and have security cameras and emergency telephones.





Frequent Service: Arterial BRT provides highfrequency service throughout the day and most of the evening every day of the week. BRT buses arrive at stations often, so customers don't need to rely on a schedule to plan their trip.

The role of Arterial BRT within the transit network

This plan update focuses on one kind of service, arterial BRT. Arterial BRT is one of several types of transit service operated by Metro Transit. Each of these services play important roles within the broader regional transit network. These services are planned based on the demand and need for transit service, which varies across the region. Metro Transit plans for all of its service types in coordination.

The Metropolitan Council's <u>2050 Transportation Policy Plan</u> (TPP) includes the <u>Regional Transit Design</u> and <u>Performance Guidelines</u>, which identifies these types of transit services, their characteristics, and guides how they are best applied within the transit network.

Transit services typically fall along a spectrum of coverage-oriented services, which are intended to provide a basic level of transit access across a wider geographic area to ridership-oriented services, which are intended to serve as many people and encourage as much transit ridership as possible. See Figure 1 below.

Figure 1: Arterial BRT within the transit network



The 2050 TPP defines arterial BRT as best applied to the highest transit demand urban arterial corridors, with the goal of encouraging as much transit ridership as possible within the corridor. Arterial BRT lines typically upgrade and replace existing high ridership, high frequency local bus routes.

The 2050 TPP identifies regional transit performance guidelines for transit services based on their role within the transit network, including expected number of passengers per in-service hour for each type of service. Services that do not meet these guidelines should be reviewed for potential changes or elimination. Based on its purpose as a ridership-oriented service, Arterial BRT is expected to generate 25 passengers per in-service hour, more than any other style of service other than light rail.

Section 2: Plan update process

The Plan Update will take a four-step process to identify the J, K, and L lines. Beginning from a wide set of 17 candidate corridors, the Plan Update will take a series of steps to narrow these corridors down to three to be designated as the J Line, K Line, and L Line. These steps are detailed below.

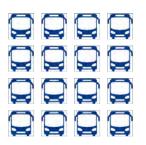
Figure 2 Four-step plan update process

1. IDENTIFY

Identify large set of candidate corridors for consideration for arterial BRT

2. SCREEN Conduct simple screening to narrow consideration to most

promising corridors



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3. EVALUATE Perform detailed technical evaluation of corridors and rank by technical score



4. PRIORITIZE Apply technical evaluation and readiness criteria to prioritize next three lines



Step 1: Identify

The first step is to identify a large set of candidate corridors to consider for arterial BRT. Metro Transit has identified 17 candidate corridors for consideration. These were based on several key inputs aligning with project goals and policy direction, including existing candidate corridors, existing and planned high-frequency local bus service, and partner and policy maker priorities. The identified candidate corridors and key inputs are included in more detail in Section 4: Candidate corridors.

Step 2: Screen

The next step is to conduct a simple screening of the candidate corridors identified in Step 1 to advance the most promising corridors for further development and evaluation. Screening criteria will align with plan update goals. This step will narrow the corridors under consideration from the initial 17 candidates to approximately 8 to 10 advanced corridors.

Step 3: Evaluate

The third step will be to perform a more detailed technical evaluation of each of the advanced corridors and rank them by their technical score. The arterial BRT concept will be more fully developed within each of the 8 to 10 advanced corridors considered in this step. This will include development of concept station locations, potential refinement of the corridor alignment, and any associated changes to the local bus network. Detailed evaluation criteria will be applied to the advanced corridors aligning with plan update goals.

Step 4: Prioritize

The final step will be to apply the technical evaluation results along with readiness and roadway project coordination considerations to identify the next three lines – the J, K, and L Line. In addition to each corridor's technical evaluation ranking, prioritization considerations are anticipated to include relationship to other regional transit planning efforts, overall fit within the transit network, and alignment with planned or programmed roadway projects.

Section 3: Plan update goals

Goals

The Plan Update has four goals. These goals guide the identification of the candidate corridors under consideration for arterial BRT and the criteria used to screen, evaluate, and prioritize the candidate corridors to identify the J, K, and L lines.

Build on success to grow ridership by investing in arterial BRT where people use transit the most

Ensuring that as many people as possible benefit from the service and customer facility improvements that come along with arterial BRT investment is an important goal of the arterial BRT program. Existing high ridership on local service and existing transit ridership potential defined by transit market areas are the best guides to understanding where the most people will benefit from arterial BRT.

Advance equity and reduce regional disparities in access to opportunities by transit

The Twin Cities region faces significant disparities in outcomes between white residents and people of color. Transit plays a critical role in reducing these disparities. The Metropolitan Council prioritizes transit investments, including arterial BRT, that improve connections between historically disadvantaged populations. These can include low-income communities and people of color—and jobs, education, healthcare, and other essential opportunities throughout the region.

Balance expanded arterial BRT investment with available resources

Focusing arterial BRT development in corridors that have the demonstrated ability to support frequent bus service helps ensure these investments can maintain fast, frequent, and reliable service long-term. Meeting ridership, productivity, and cost effectiveness guidelines are an important regional goal that ensure investments can continue to be relied on in the future. Additionally, transit-supportive land use policies and complementary transportation infrastructure will enhance the success and sustainability of arterial BRT investments.

Grow a network that connects transit-supportive land uses and supports all-day, allpurpose travel

Connecting areas with higher existing and planned residential and employment densities, walkable infrastructure, and important destinations that support regular transit use and meets a wider set of transportation needs for riders is an important goal of the arterial BRT program. The growing arterial BRT network will provide convenient access to transit that accommodates changing plans, appointments, errands, and social connections throughout the day.

How were these goals developed?

These goals are developed based on three primary inputs: regional policy guidance, transit network performance and planned improvements, and engagement and customer feedback.

Regional policy guidance

The <u>Metropolitan Council 2050 Transportation Policy Plan</u> provides regional transit policy guidance. It identifies regional goals, objectives, and policies, transit market areas, and transit service design guidelines to provide investment and planning direction to regional transit providers, including Metro Transit.

The 2050 TPP defines arterial BRT as best applied to the highest transit demand urban arterial corridors, with the goal of encouraging as much transit ridership as possible within the corridor. Arterial BRT lines typically upgrade and replace existing high ridership, high frequency local bus routes.

The 2050 TPP identifies regional transit performance guidelines for transit services based on their role within the transit network, including expected number of passengers per in-service hour for each type of service. Services that do not meet these guidelines should be reviewed for potential changes or elimination. Based on its purpose as a ridership-oriented service, arterial BRT is expected to generate 25 passengers per in-service hour.

The TPP also defines Transit Market Areas based on land use and demographic characteristics that predict transit ridership. These area can identify the potential demand for transit in an area independently of the level of transit service provided. Transit Market Areas 1 and 2 have the highest density of population, employment, and lowest personal vehicle availability. These are the areas of highest transit ridership potential in the region. The TPP identifies arterial BRT as most appropriate for these areas.

Transit network performance and planned improvements

Metro Transit recently completed the <u>Network Now Framework</u>, which identifies Metro Transit's vision for transit service that best meets the needs of our region over the next several years. Since the COVID-19 pandemic, transit ridership has further concentrated on core local routes running along denser urban roadways, connecting major destinations, and serving a variety of trip types. These types of services, including arterial BRT, retained more ridership and have recovered more quickly than other types of transit services.

The Network Now Framework identifies strategic changes to the bus network over the next several years that focuses on providing overage where it is most needed and frequency of service where it is most effective. The framework includes more high frequency routes ensuring more of the region will have improved service, shorter waits, and faster travel times. These planned changes to the bus network form a basis for the planning and identification of the next arterial bus rapid transit lines.

Engagement and customer feedback

Several key customer feedback and engagement themes have been consistent through recent Metro Transit-led transit planning efforts, including through the Network Next and Network Now planning work, and ongoing feedback from Metro Transit customers. These themes include:

- making investments to improve the speed and reliability of transit services
- improving the frequency of core services on weekdays and weekends
- prioritizing faster, more frequent service to improve travel times, even when potentially requiring a transfer
- improving cross-town and suburb-to-suburb connections
- providing high quality transit services in areas that benefit historically disadvantaged communities

<u>Metro Transit Forward</u>, which describes Metro Transit's vision and mission, strategic priorities, and the ways we'll measure our success moving forward, builds on these themes shared by riders and our community. It was developed with input from employees, riders, and community members. In fall/winter 2023, we asked people to describe their ideal transit experience, and in spring 2024, we asked for feedback on the draft vision, mission, and strategic priorities that emerged from the 2023 input.

Section 4: Candidate corridors

Candidate corridors

Metro Transit has identified 17 candidate corridors for consideration for arterial BRT, shown in Figure 3 and listed in alphabetical order in Table 1 below. An interactive map of the corridors is available online at: <u>metrotransit.org/arterial-brt-plan</u>. These candidate corridors are the starting point for the Plan Update and will be considered in Step 2: Screening outlined in Section 2: Plan update process to narrow down to the most promising corridors for further consideration.

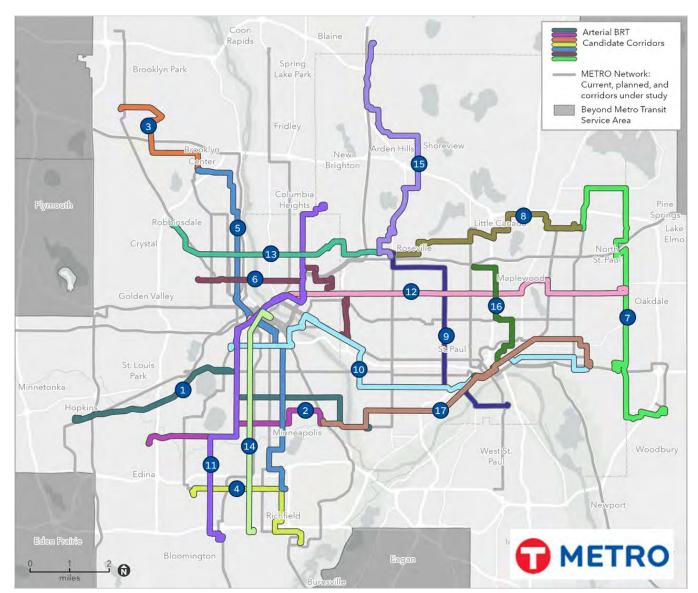


Figure 3 Arterial BRT candidate corridors, map

Table 1 Candidate corridors, table

No.	Candidate corridor	Approximate terminals	Base local route(s)
1	38th Street / Excelsior	Downtown Hopkins to Cleveland Ave and Ford Pkwy.	Route 23 (future Route 38)
2	46th Street	Eden Ave and Vernon Ave to 46th Street Station.	Route 46
3	63rd Avenue / Zane	Starlite Transit Center to Brooklyn Center Transit Center.	Route 724
4	66th Street	Southdale Transit Center to Mall of America Transit Center.	Route 515
5	Bloomington / Lyndale N	Brooklyn Center Transit Center to Bloomington Ave and 66th Street.	Routes 22, 14
6	Broadway	Golden Valley Rd and Xerxes Ave to University Ave and Berry Rd.	Route 30
7	Century	Maplewood Mall Transit Center to Woodlane Station.	Routes 219, 323
8	County Road C	Rosedale Transit Center to Maplewood Mall Transit Center.	Route 223
9	Dale / George	Rosedale Transit Center to Cesar Chavez St and State St.	Route 65
10	Franklin / Grand / 3rd Street	Franklin Ave and Hennepin Ave to SunRay Transit Center.	Routes 2, 63
11	Johnson / Lyndale S	Silver Lake Village to Southtown Center.	Route 4
12	Hennepin / Larpenteur	Downtown Minneapolis to Larpenteur Ave and Century Ave.	Route 61
13	Lowry	Robbinsdale Transit Center to Rosedale Transit Center.	Route 32
14	Nicollet	Downtown Minneapolis to American Blvd.	Route 18
15	North Snelling / Lexington	Rice Creek Commons to Rosedale Transit Center.	Route 225
16	Payne / Westminster	Highway 36 & Rice Street Park & Ride to downtown Saint Paul.	Route 64
17	Randolph / East 7th Street	46th Street Station to SunRay Transit Center.	Route 74

How were these candidate corridors identified?

These candidate corridors were identified based on several key inputs, aligned with the overall project goals and policy direction. These include existing arterial BRT candidate corridors for consideration identified in the 2040 Transportation Policy Plan, existing or planned high frequency, high ridership local bus routes, and input from policymakers and city and county partners.

Candidate corridors identified in 2040 Transportation Policy Plan

In 2020-2021, Metro Transit completed the <u>Network Next</u> planning process to identify the F, G, and H lines currently in project development and planned to prior to 2030. That process also identified seven additional arterial BRT corridors that would be good candidates for additional consideration and potential implementation prior to 2040. These corridors are highlighted in yellow in the 2021 map shown in Figure 4 below. These corridors were included in the 2040 Transportation Policy Plan and form the basis for the candidate corridors considered in this Plan Update.



Figure 4 Candidates for arterial BRT before 2040, Network Next (2021)

Existing or planned high frequency, high ridership corridors

As defined in the <u>Metropolitan Council 2050 Transportation Policy Plan</u>, Arterial BRT is focused on providing fast, frequent and more reliable service with an improved customer experience on corridors with strong demand for existing local bus service, typically in highly developed arterial streets within the region.

In spring 2025, the Metropolitan Council endorsed the <u>Network Now Framework</u>, which identifies Metro Transit's vision for transit service that best meets the needs of our region over the next several years. A core part of Metro Transit's vision for improved service is a core network of high frequency service on local bus routes. These are routes or sections of routes with service every 15 minutes or better on weekdays and Saturdays. A map of this planned service is shown in Figure 5 below. These existing and planned high frequency routes are a key input to the identification of candidate arterial BRT corridors.

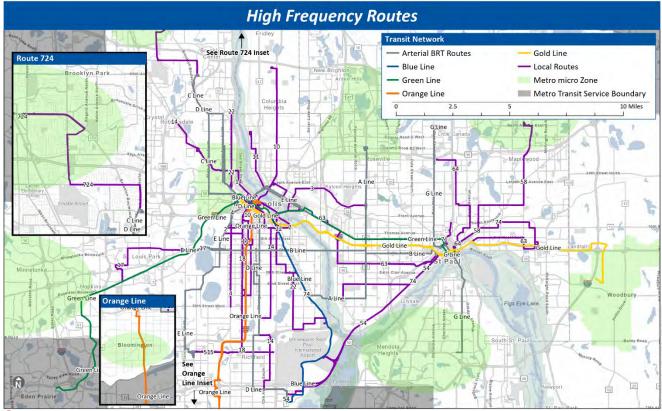


Figure 5 Planned high frequency service, Network Now (2025)

Tetro Transit

Date: 1/22/2025

City and County partner corridor priorities

Coordination with Metro Transit's City and County roadway partners is a key element of the successful development of the arterial BRT network. City and County priorities for consideration as candidate corridors are given strong consideration in the identification of candidate arterial BRT corridors. Metro Transit requested corridor priorities for consideration from the City of Minneapolis, City of Saint Paul, Hennepin County, and Ramsey County. These priorities are included as Appendix A.

No.	Candidate corridor	2040 Candidate Corridor (Network Next)	Existing Frequent Service Corridor	Planned Frequent Service Corridor	Partner Agency Priority Corridor
1	38th Street / Excelsior	х		Х	х
2	46th Street				х
3	63rd Avenue / Zane	х		х	x
4	66th Street		х	х	х
5	Bloomington / Lyndale N		х	х	
6	Broadway				х
7	Century				х
8	County Road C				х
9	Dale / George				х
10	Franklin / Grand / 3rd Street	х	х	х	х
11	Johnson / Lyndale S	х	х	х	х
12	Hennepin / Larpenteur				х
13	Lowry	x			х
14	Nicollet	х	х	х	x
15	North Snelling / Lexington				х
16	Payne / Westminster		х	х	х
17	Randolph / East 7th Street			х	x

Other corridors considered but not included as a candidate corridor

Several other corridors have been considered but not included as a candidate corridor based on currently active or future planned transit study in the corridor. These corridors are not included to avoid multiple planning processes occurring within the same corridor. These corridors are listed below:

- American Boulevard: The City of Bloomington is currently leading the American Boulevard Transit Study to evaluate the feasibility of BRT on American Boulevard. Learn more about the American Boulevard Transit Study here: <u>letstalk.bloomingtonmn.gov/am_blvd_transit</u>
- East 7th Street / White Bear Avenue: A transit connection on the East 7th Street / White Bear Avenue corridor from downtown Saint Paul to Maplewood is currently under consideration as the METRO Purple Line BRT. Learn more about the Purple Line at: <u>metrotransit.org/purple-line-project</u>.
- West 7th Street: The West 7th Street corridor from downtown Saint Paul to the Mall of America is under consideration by the City of Saint Paul, Metro Transit, MnDOT, and other project partners for a transportation improvement that includes BRT while enhancing other travel modes in the area. Learn more about the New West 7th Concept at: stpaul.gov/West7.
- West Broadway / Cedar: The northern segment of the West Broadway / Cedar corridor from Robbinsdale Transit Center to 38th Street Station is replaced by the revised Blue Line Extension alignment along Washington Avenue, 21st Avenue N, and West Broadway Avenue. Learn more about the Blue Line extension at: metrocouncil.org/Transportation/Projects/Light-Rail-Projects/METRO-Blue-Line-Extension/About.aspx. The southern segment of the corridor on Cedar Avenue may be considered as a potential C Line extension at a future date.

Section 5: Draft screening and evaluation criteria

As outlined in Section 2: Plan update process, identified candidate corridors will be narrowed down and evaluated through a screening and evaluation process.

Step 2: Screen will conduct a simple screening of the candidate corridors identified to advance the most promising corridors for further development and evaluation.

Step 3: Evaluate will perform a more detailed technical evaluation of each of the advanced corridors and rank them by their technical score. Corridors advanced to Step 3 will be further developed to support the detailed evaluation. This will include identification of concept station locations, refinement of the corridor alignment as needed, and identification of potential changes to the underlying local bus network.

Each step will use criteria used to assess the corridors based on how each corresponds to the project goals of the Plan Update. The draft criteria anticipated to be used in each step are shown in Table 2 below. Screening and evaluation criteria will be revised based on feedback from project partners, additional review, and input from riders and community members.

Table 2 Draft Screening and Evaluation Criteria

Goal	Screening Criteria (Step 2)	Draft Evaluation Criteria (Step 3)		
Build on success to grow ridership by investing in arterial BRT where people use transit the most	 Current ridership on base local route(s) Current productivity (passengers per in-service hour) on base local route(s) Potential transit demand in candidate corridor (based on transit market areas) 	 Estimated future ridership Estimated future productivity (passengers per in-service hour) 		
Advance equity and reduce regional disparities in access to opportunities by transit	 Riders from historically disadvantaged groups using base local route(s) Historically disadvantaged groups living near candidate corridor Key destinations near candidate corridor 	 Riders from historically disadvantaged groups using base local route(s) Historically disadvantaged groups living near concept stations Limited mobility boardings at concept stations 		
Balance expanded arterial BRT investment with available resources	 Planned midday service levels (time between buses) on base local route(s) Bus vehicle delays on base local routes(s) in candidate corridor 	 Estimated capital and operating costs Estimated additional service hours Estimated additional operators and other support staff 		
Grow a network that connects transit- supportive land uses and supports all-day, all-purpose travel	 Planned transit supportive land uses near candidate corridor Planned housing density near candidate corridor Diversity of rider trip purpose on base local route(s) within the corridor Connections to existing and planned METRO network 	 Additional population and jobs within service area of METRO network (availability) Additional opportunities and jobs available within 30 minutes by transit (usefulness) 		

Appendix A: Corridors Requested for Consideration by Partner Agencies

Hennepin County

- Lowry Avenue N/NE (Hennepin CSAH 153) From Downtown Robbinsdale to Roseville Transit Center
- 63rd Avenue/Zane Avenue (Hennepin CSAH 14): from Starlight Transit Center to Brooklyn Center Transit Center
- 66th Street (Hennepin CSAH 53): Southdale Transit Center to Mall of America (MOA)
- Hennepin Avenue (Hennepin CSAH 52)/Larpenteur Avenue: Downtown Minneapolis to White Bear Avenue
- Franklin Avenue/University Avenue (Hennepin CSAH 5/36/37): Hennepin Avenue W to Hennepin Ave. E through the University of Minnesota
- Johnson Street NE/Lyndale Avenue S (Hennepin CSAH 22): Penn Avenue S, Lyndale Avenue S to Downtown Minneapolis, Johnson Street NE to Silver Lake Road NE
- Nicollet Avenue S (Hennepin CSAH 52): Downtown Minneapolis to American Boulevard
- 38th Street E (Hennepin CSAH 3): Ford Parkway to Downtown Hopkins along Excelsior Boulevard (Following the planned Network Now route 38)
- Minnetonka Boulevard/Blake Road (Hennepin CSAH 5): Blake Road Station (Green Line Extension) to Downtown Minneapolis via Minnetonka Boulevard, Hennepin Avenue and Nicollet Avenue (Current Route 17)
- Broadway Avenue NE/Golden Valley Road (Hennepin CSAH 66): Douglas Drive N to 280 via Golden Valley Road and Broadway Avenue NE (Current Route 30)
- 85th Avenue N (Hennepin CSAH 109): Elm Creek Boulevard/ Interstate 94 to State Highway 252/W River Road

Ramsey County

- Larpenteur Avenue
- Extension of A-Line into Rice Creek Commons
- Lowry Avenue/County Road B2
- County Road C to Little Canada
- White Bear Avenue and West 7th Street

Washington County

• Century Avenue

City of Minneapolis

- Johnson-Lyndale S Corridor
- Nicollet Corridor
- West Broadway-Cedar Corridor
- Lowry Corridor
- Nicollet Ave extend from downtown to southern city boundary
- Lowry Ave western city boundary to eastern city boundary
- Marshall St NE between Broadway St NE and Lowry Ave NE
- Lyndale Ave N between West Broadway and northern city boundary

- Broadway extend from Lyndale Ave N to the eastern city boundary
- 38th St Bryant Ave S to 42nd Ave S
- Xerxes Ave to 46th Street Station travelling along 50th Street W, Bryant Ave S, 46th St E, Cedar Ave, 42nd St E, 28th Ave S, 46th St E
- Lyndale Ave S Hennepin/Lyndale merge near Loring Park to southern city boundary
- Washington Ave West Broadway to Cedar Ave continuing to 46th St
- 2nd St N Hennepin Ave to Dowling Ave N
- Johnson St NE Hennepin Ave to 37th Ave NE
- Xerxes Ave 44th St W to 54th St W
- 28th Ave S 38th St E to 58th St E
- Glenwood Ave/Penn Ave N 10th St to Olson Memorial Highway

City of Saint Paul

- Randolph/E7th
- Grand
- Hennepin/Larpenteur
- White Bear including evaluation of connections to the Heights development, commercial area south of 194, and along McKnight between Burns and Lower Afton
- Payne (or Arcade)
- Dale
- Cretin (or Cleveland) including evaluating connections to Highland Bridge, W. 7th, and U of M
- Smith/George evaluate with Dale and/or Grand corridors