



Recommended Corridor Plan

April 12, 2023

Metro Transit is planning improvements to the Route 10 corridor with the METRO F Line, an arterial bus rapid transit (BRT) service. The F Line will substantially replace Route 10 in Minneapolis, Columbia Heights, Hilltop, Fridley, Spring Lake Park, and Blaine, connecting Northtown Transit Center with downtown Minneapolis and running primarily on University Avenue, 53rd Avenue, Central Avenue, and Nicollet Mall. Arterial BRT is a package of transit enhancements that adds up to a faster trip and an improved experience. The F Line project is currently in the planning phase. The F Line is scheduled for construction beginning in 2025.

We are currently seeking feedback on proposed F Line station locations. We are seeking comments on this Recommended Corridor Plan through May 14, 2023.

There are several ways to comment on the plan:

- Review the plan and comment online at metrotransit.org/f-line-project
- Email comments to FLine@metrotransit.org
- Call Customer Relations at 612-373-3333

This is the second of three versions of the F Line Corridor Plan. Metro Transit released the F Line Draft Corridor Plan for public comment on October 24, 2022, followed by a six-week public comment period. Following the conclusion of the Recommended Corridor Plan public comment period, Metro Transit will review final comments received and begin the Metropolitan Council approval process. Council approval of the Final Corridor Plan is expected to be sought in summer 2023.

To stay in touch, sign up for the F Line project updates at the project website: metrotransit.org/f-line-project.

Executive Summary

Purpose of the Plan

The purpose of the METRO F Line Corridor Plan is to identify the locations of stations and platforms and provide policy direction to Metro Transit to begin detailed design for the F Line bus rapid transit (BRT) project.

The F Line Corridor Plan is the process and product Metro Transit uses to facilitate early and effective agency coordination and conduct meaningful public engagement on the locations of F Line stations and platforms prior to the engineering phase of the F Line project (anticipated to begin in summer 2023).

Corridor Overview

The METRO F Line is a planned BRT line that will upgrade and substantially replace Route 10, one of Metro Transit’s highest ridership routes. From north to south, the F Line is proposed to operate along a 13-mile corridor from the Northtown Transit Center in Blaine to downtown Minneapolis primarily via University Avenue, 53rd Avenue, Central Avenue, and Nicollet Mall (Figure i). The F Line corridor connects to many important community destinations and other major transit routes, including multiple existing and planned METRO light rail and BRT lines.

This plan has been developed with baseline data from years prior to 2020. Changes in transit service, ridership, or overall traffic patterns resulting from the COVID-19 pandemic are not used as a baseline for recommendations in this draft plan, though they are considered in the context of the plan.



A METRO C Line bus serving Penn & Dowling Station; the F Line project will build similar stations and use similar buses (Source: Metro Transit)

Figure i. F Line corridor overview

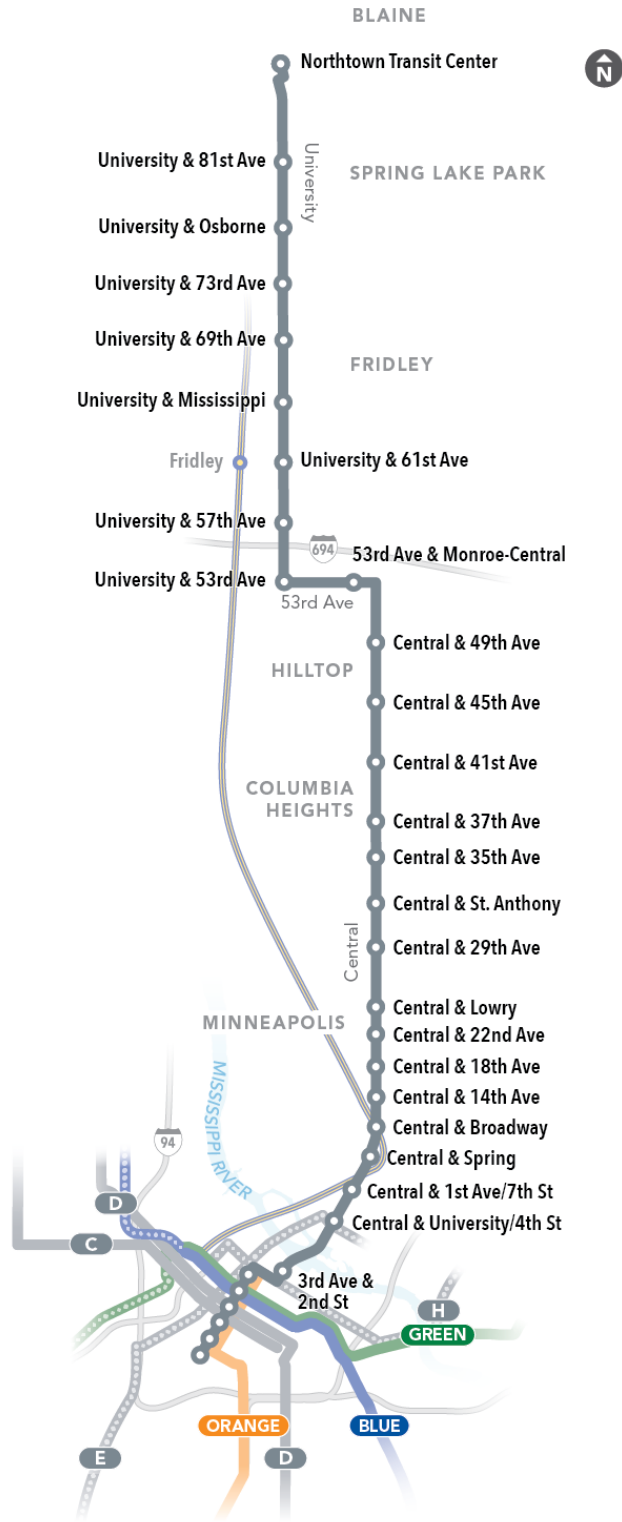


F Line

March 2023

	METRO F Line (Bus Rapid Transit)
Current METRO & commuter lines	
	C Line (Bus Rapid Transit)
	D Line (Bus Rapid Transit)
	Blue Line (Light Rail)
	Green Line (Light Rail)
	Orange Line (Bus Rapid Transit)
	Northstar Line (Commuter Rail)
Planned METRO lines	
	Bus Rapid Transit
	Light Rail

Downtown Minneapolis detail



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The Need for Improved Transit in the Corridor

Route 10 is the fifth highest-ridership bus route in the region, both before the pandemic and today. In September 2019, customers took about 6,500 rides on Route 10 each weekday. In addition to providing access to places and opportunities, Route 10 service is a critical means of moving people in the corridor and an important piece of the broader transportation network.

But Central Avenue is also one of the slowest transit corridors in the region. During peak periods, buses regularly slow to average speeds of 10 miles per hour or less. Frequent stops, lines of customers waiting to board, traffic congestion, and red lights mean that buses are moving less than half the time. Reducing the time it takes for customers to get on and off the bus and the time spent stuck in traffic will significantly improve travel speeds and reliability.

BRT helps address needs by bringing better amenities, faster service, and more comfort to the highest-traveled corridors where many customers rely on transit daily. Advancing equity and reducing regional disparities is a priority for Metro Transit and is used as a guiding principle when identifying future arterial BRT corridors. The F Line can help reduce disparities for people with low incomes and communities of color by improving speed and reliability to connect to jobs and opportunities. About 40 percent of Route 10 riders live in low-income households, and over half of Route 10 riders are people of color.

The purpose of the F Line is to provide faster, more reliable, and more attractive bus service along a north-south corridor between Minneapolis, Columbia Heights, Hilltop, Fridley, Spring Lake Park, and Blaine. The need for the project can be summarized by two key challenges: slow and unreliable transit service and passenger facilities inadequate for the high volume of people using them.

Stations

The F Line will stop at 32 locations (stations) across the 13-mile corridor, with stops placed about 0.4 miles apart (two to three stops per mile) on average to balance speed and access. Stopping less often is anticipated to help F Line service operate about 20 percent faster than the existing Route 10, when combined with other improvements. F Line stations will be designed to provide faster and more efficient service, along with amenities that foster an improved customer experience.

After this plan is approved by the Metropolitan Council – the final version is anticipated in summer 2023, following two rounds of public engagement – this document will guide the detailed design of stations by confirming **station intersections** and **platform locations** at those intersections. Other characteristics will be finalized through detailed engineering.

Service

The F Line is planned to operate as frequently as every 10 minutes, seven days a week during the day and most of the evening, substantially replacing Route 10 as the primary service in the corridor. The exact F Line schedule, including hours of service and transitions from high-frequency service during the core of the day into later evening service, will be developed closer to the opening of the F Line.

Local service could operate in a portion of the F Line corridor between Columbia Heights Transit Center (41st Avenue) and 53rd Avenue. The modified Route 10 could continue to operate on a path similar to the

existing Route 10N between Northtown Transit Center and Columbia Heights Transit Center, maintaining service through Spring Lake Park and Fridley along Central Avenue north of 53rd Avenue, and no longer serving downtown Minneapolis. The modified Route 10 could operate approximately every 30-60 minutes. Final service plans, including the frequency and termini for local bus service along the F Line corridor, will be developed later in project development as the F Line nears implementation and as recovery from the COVID-19 pandemic continues.

Bus Priority Treatments

Bus priority treatments are being evaluated along the F Line corridor to help meet project goals for faster transit service. These treatments include modifications to traffic signal timing and implementation of transit signal priority (TSP) and bus queue jumps so that people on buses spend less time stopped at signals or in traffic. Metro Transit intends to work with its partners to implement TSP as part of the F Line project. Signals along the corridor will be evaluated and considered for TSP implementation during the engineering phase of the project (anticipated to begin in summer 2023).

The Recommended Corridor Plan also outlines Metro Transit's priorities for implementation of bus-only lanes along the F Line corridor. Some of these improvements are being considered in coordination with other street projects, and others may potentially be implemented through Metro Transit's Speed & Reliability program, independent of planned F Line construction in 2025-2026.

Planning Process

The contents of this Recommended Corridor Plan were developed by Metro Transit staff throughout 2022 and into 2023 with inputs and feedback received from the Technical Advisory Committee consisting of staff from agency partners and through ongoing community outreach and engagement activities.

The Recommended Corridor Plan is the second of three planned versions of the Corridor Plan. It incorporates feedback collected on the Draft Corridor Plan in late 2022 during a six-week public comment period and community outreach and engagement activities. This Recommended Corridor Plan is being published and shared for a second round of public outreach and engagement, including a second public comment period between April 12 and May 14, 2023. Following this second public comment period, Metro Transit will review final comments received and begin the Metropolitan Council approval process. Council approval of the Final Corridor Plan will be sought summer 2023. Upon completion and approval, the plan will identify the final planned locations for F Line stations in advance of project engineering.

Public Engagement

Metro Transit released the Draft Corridor Plan on October 24, 2022, starting a public comment period that lasted until December 5, 2022. During this time, Metro Transit staff engaged riders and community members through a variety of means to gather feedback on the Plan and learn from their experiences.

[Individual station plans](#), the full Draft Corridor Plan, and [presentations and meeting materials](#) were available to view online, and a comment survey form, project email address (FLine@metrotransit.org), and phone number were also made available for the public to submit comments.

The Draft Corridor Plan release was communicated via print, digital, and in-person communications, including postcards, signs at bus stops, in-person conversations, a virtual open house, partnerships and meetings with community organizations and neighborhood groups, shared promotion by partner agencies, emails to project and Metro Transit subscription lists, and targeted social media posts. Project information was shared in English, Spanish, Somali, Hmong, Oromo, and Arabic.

Metro Transit received 332 individual comments on the Draft Corridor Plan through the survey, emails, and phone calls. A complete summary of comments received, including by key themes, is included in

Revisions in the Recommended Corridor Plan

Metro Transit staff read each of the 332 comments received during the Draft Corridor Plan public comment period (see *Appendix A: Corridor Plan Comment Summary*), as well as those submitted by agency partners (see *Appendix B: Agency Comments*). These comments were reviewed against all proposed station and platform locations in the Draft Corridor Plan. Staff confirmed that assumptions and project coordination information in the Draft Corridor Plan remained relevant and true.

As a result, no changes to station or platform locations are recommended at this time.

Responses to station-specific feedback and/or additional alternatives were analyzed at station locations with relatively large number of comments requesting changes to the plan or in opposition to the project, listed below. Upon additional analysis and review, no changes to these locations are recommended:

- Central & Lowry (additional discussion on page 99)
- Central & 22nd Avenue (see page 106)
- Central & Spring (see page 120)
- Central & 1st Avenue/7th Street (see page 124)

Detailed discussion of additional analysis and response to comments on specific station locations can be found at the page numbers listed above within the *Stations by Location* section of the plan.

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Introduction

Purpose of the Plan

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The F Line Corridor Plan is the process and product Metro Transit uses to facilitate early and effective agency coordination and conduct meaningful public engagement on the location of F Line stations and platforms prior to the engineering phase of the F Line project (anticipated to begin in summer 2023). Detailed design of stations, complete evaluation of bus priority treatments like bus-only lanes and changes to traffic signals, and refinement of other important project elements like local service in the corridor will be addressed further in the engineering phase of the project.

Corridor Overview

The METRO F Line is a planned BRT line that will upgrade and substantially replace Route 10, one of Metro Transit’s highest ridership routes. From north to south, the F Line is proposed to operate along a 13-mile corridor from the Northtown Transit Center in Blaine to downtown Minneapolis primarily via University Avenue, 53rd Avenue, Central Avenue, and Nicollet Mall (Figure 1). The F Line corridor connects to many important community destinations and other major transit routes, including multiple existing and planned METRO light rail and BRT lines.



Passengers lined up waiting to board a Route 10 bus along Nicollet Mall at 5th Street in downtown Minneapolis (Sept. 2022) [Source: Metro Transit]

Figure 1. F Line corridor overview

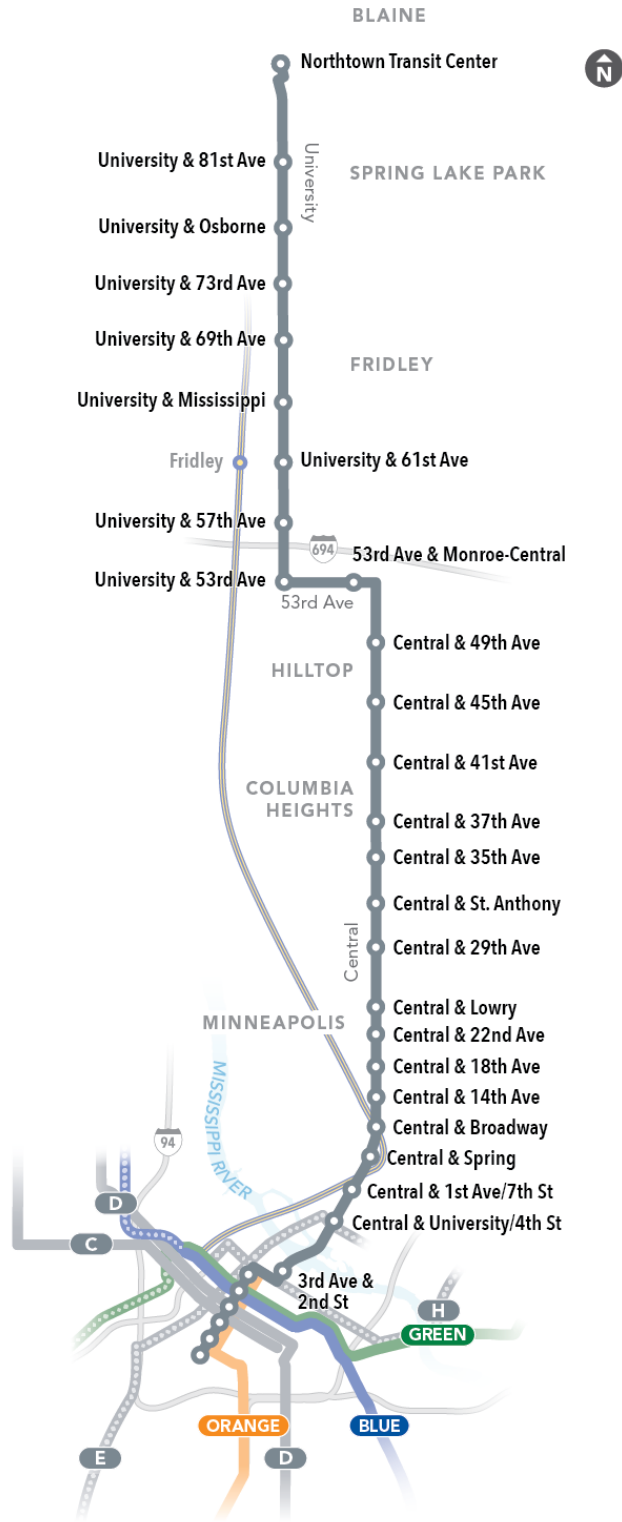


F Line

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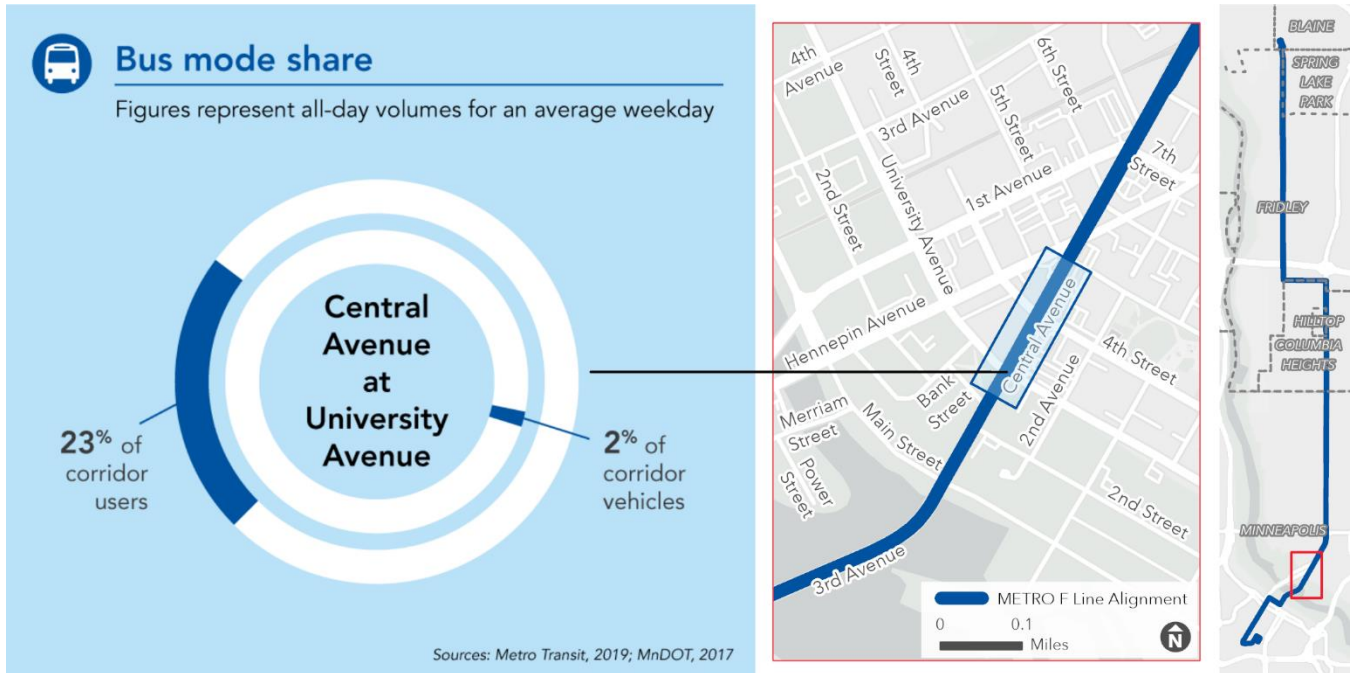
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The Need for Improved Transit in the Corridor

Route 10 is the fifth highest-ridership bus route in the region, both before the pandemic and today. In September 2019, customers took about 6,500 rides on Route 10 each weekday. In addition to providing access to places and opportunities, Route 10 service is a critical means of moving people in the corridor and an important piece of the broader transportation network. For example, on Central Avenue at the intersection with University Avenue, buses carry approximately 23 percent of people traveling by vehicle on Central Avenue but make up just 2 percent of vehicle traffic (Figure 2).

But Central Avenue is also one of the slowest transit corridors in the region. During peak periods, buses regularly slow to average speeds of 10 miles per hour or less. Frequent stops, lines of customers waiting to board, traffic congestion, and red lights mean that buses are moving less than half the time. Reducing the time it takes for customers to get on and off the bus and the time spent stuck in traffic will significantly improve travel speeds and reliability.

Figure 2. Transit users and buses as a percentage of total corridor users (in vehicles) and vehicles



This plan has been developed with baseline data from years prior to 2020. Changes in transit service, ridership, or overall traffic patterns resulting from the COVID-19 pandemic are not used as a baseline for recommendations in this plan, though they are considered in the context of the plan.

Route 10 has continued to provide important service throughout the pandemic, remaining one of the highest ridership bus routes in the region in 2020-2022. Across the Metro Transit system, and in a trend mirrored across the country, frequent, all-day service supporting a variety of trip purposes has retained relatively high levels of ridership during the pandemic. The characteristics that make the Route 10 corridor a good candidate for BRT investment have also made the corridor a continued strong performer across the COVID-19 pandemic.

Advancing equity and reducing regional disparities is a priority for Metro Transit and is used as a guiding principle when identifying future arterial BRT corridors. The F Line can help reduce disparities for people with low incomes and communities of color by improving speed and reliability to connect to jobs and opportunities. About 40 percent of Route 10 riders live in low-income households, and over half of Route 10 riders are people of color.

The purpose of the F Line is to provide faster, more reliable, and more attractive bus service along a north-south corridor between Minneapolis, Columbia Heights, Hilltop, Fridley, Spring Lake Park, and Blaine. The need for the project can be summarized by two key challenges: slow and unreliable transit service and passenger facilities inadequate for the high volume of people using them.

What is Arterial BRT?

Arterial BRT is a package of transit enhancements that produces a faster trip and an improved experience for customers in the Twin Cities' busiest transit corridors. It runs on existing roadways, usually in mixed traffic.

The F Line will be the sixth operational line within the Twin Cities region's arterial BRT system.

- The A Line on Snelling Avenue and Ford Parkway began service in June of 2016
- The C Line on Penn Avenue began service in June of 2019
- The D Line on Chicago and Fremont avenues began service in December 2022
- The B Line on Lake Street and Marshall and Selby avenues is planned for construction to start in 2023
- The E Line on University Avenue/4th Street and Hennepin and France avenues is planned for construction to start in 2024

Station design and amenities are consistent for each arterial BRT line while adapting to integrate within the unique street designs and surrounding land uses across different corridors.

High-Quality Stations Every Half Mile

Arterial BRT provides faster, more reliable service, and amenities at stations and on the bus that offer an improved customer experience. See Figure 3 for the general design and features of arterial BRT stations in the Twin Cities. While stations share basic characteristics and branding as shown in Figure 3, each station is designed to fit into the surrounding context and meet ridership demand.

Figure 3. Arterial BRT station features



What will stations look like?



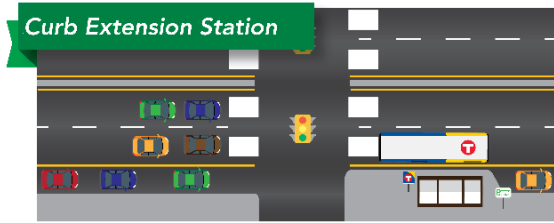
- A** Pylon markers help riders identify stations from a distance.
- B** Real-time NexTrip signs provide bus information, and on-demand annunciators speak this information for people with low vision.
- C** Shelters provide weather protection and feature push-button, on-demand heaters and shelter lighting. Shelter sizes will vary based on customer demand (small shown here).

- D** Ticket machines and fare card readers collect all payment before customers board the bus.
- E** Emergency telephones provide a direct connection to Metro Transit police. Stations also feature security cameras.
- F** Stations feature trash and recycling containers.
- G** Platform edges are marked with a cast-iron textured warning strip to keep passengers safely away from the curb while the bus approaches. Many stations also feature raised curbs for easier boarding.

- H** Platform areas are distinguished by a dark gray concrete pattern.
- I** Benches at stations provide a place to sit.
- J** Most stations have bike parking.

At some stations, railings separate the platform from the sidewalk.

Some stations have pedestrian-scale light fixtures to provide a safe, well-lit environment.



Curb bumpouts provide space for station amenities and pedestrians.

Curb extensions / bump outs

Where arterial BRT runs in general traffic, stations are typically built with curb extensions (also called bump outs or bus bulbs) where feasible. Today, many existing local bus stops are located out of a thru-lane of traffic in right-turn lanes or in a curbside parking lane, causing delay for buses merging back into traffic. Curb bump outs at station platforms eliminate the need to merge back into traffic, which causes delay. They also provide space for station amenities and pedestrians on existing sidewalks.



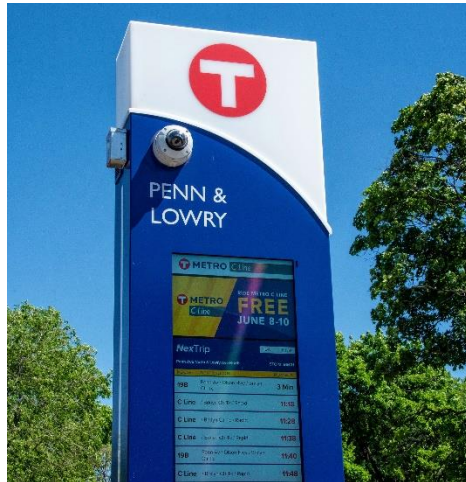
Off-board fare payment

Like on other METRO lines, customers will pay fares prior to boarding the bus and may board through any bus door. Ticket vending machines and fare card validators will be located at each station. Off-board fare payment speeds up the boarding process and helps keep the bus moving. Fare payment will be enforced through random on-board inspections by Metro Transit police.



Shelters

Arterial BRT shelters provide weather protection while customers wait for the bus. Standard arterial BRT shelters feature on-demand heaters, seating, and integrated lighting. Shelters have concrete foundations which increase the level of protection from the elements and make the shelters feel more permanent.



Information

Each BRT station has a pylon marker displaying real-time NexTrip bus departures. Stations also have a printed panel with timetable, maps, and connection information. Detailed transit information is provided in a variety of formats (including audio for low-vision riders) to offer clear direction and increase customer confidence in trip status.



Near-level boarding

To make it easy to board BRT buses, curb heights at stations are raised to nine inches, compared to the standard of six inches. Near level boarding makes it easier for customers to enter and exit the bus. Customers using mobility devices will still be able to board using an accessible ramp.



Safety amenities, furnishings, and other improvements

Several station components will enhance customer safety and comfort, including security cameras and emergency telephones and adequate space for fast boarding and alighting. Benches, bins for trash and recycling, and bicycle parking will be available for customer use.

Fast, Frequent, All-Day Service

Arterial BRT provides frequent, all-day service that will be more reliable and about 20 percent faster than the existing local service in the corridor.



Limited stops

Arterial BRT stations are spaced about every half mile, focusing on places where the greatest numbers of customers board buses today. With fewer stations, buses can travel much faster while still providing convenient access for customers to walk, bike, or roll to stations.

High-frequency service

Arterial BRT provides high-frequency service in the corridor throughout the day and most of the evening. Frequent service is also provided on nights and weekends.



BRT vehicles

Arterial BRT vehicles are 60-foot articulated buses designed for a comfortable ride. Three wide doors and low floors make it easy and fast to enter and exit arterial BRT buses. Customers using mobility devices are still able to board using an accessibility ramp.



Bus priority treatments

Bus priority treatments are used to help keep buses moving in traffic to provide faster and more reliable service. Transit signal priority (TSP) reduces the time buses spend stopped at red lights by linking buses to traffic signals. Bus-only lanes reduce the time that buses spend stopped in traffic. (Photo source: City of Minneapolis)

F Line Project Schedule and Implementation

Anticipated Project Schedule



Subject to change

Planning phase (2022-2023)

The Metropolitan Council adopted the [Central Avenue corridor](#) (developed as part of [Network Next](#)) as the F Line in March 2021. The planning phase will conclude with the adoption and approval of the final F Line Corridor Plan by the Metropolitan Council, expected in summer 2023. The approved F Line Corridor Plan will finalize station locations and key station components to inform the engineering phase.

Engineering phase (2023-2024)

Following Metropolitan Council approval of the final F Line Corridor Plan, station engineering will begin in 2023 and continue into fall 2024. Specific details such as the precise placement of shelters and other amenities within station platforms will be determined in this phase of the project.

Construction phase (2025-2026)

The F Line is targeted to begin construction in 2025. Twenty-five new stations are anticipated to be built as part of the F Line project. The F Line will use existing facilities at Northtown Transit Center and along Nicollet Mall.

Coordinated Implementation

Several F Line stations will be developed in coordination with planned projects throughout the corridor, as summarized below. Details for these projects, including timelines, are subject to change. Additional coordinated projects may be included as planning and engineering for the F Line continue.

Highway 47 and Highway 65 Planning and Environmental Linkages (PEL) Study

The Minnesota Department of Transportation (MnDOT) is leading the Highway 47 and Highway 65 Planning and Environmental Linkages (PEL) Study. The F Line alignment is within the PEL study area on Central Avenue (Highway 65) between University and 53rd avenues and on University Avenue (Highway 47) between 53rd and 85th avenues. All proposed F Line stations are within the study area except the Northtown Transit Center, the three proposed platforms on 53rd Avenue, the 3rd Avenue & 2nd Street Station, and the six stations along Nicollet Mall.

The purpose of the PEL Study is to evaluate existing and future conditions along Highway 47 (University Avenue) and Highway 65 (Central Avenue) to identify needs and potential transportation improvements for inclusion in future projects that improve safety and mobility for all users, including vehicular traffic, pedestrians, bike and transit users, and freight operators. The study will identify a set of desired roadway design alternatives for these corridors, which may include changes to the width of the roadway, number

of travel lanes, and implementation of other safety improvements. Identified alternatives will be implemented through separate projects following the completion of the study.

Metro Transit is coordinating closely with MnDOT to assess the feasibility of implementing additional transit advantages in the corridor, such as bus-only lanes. Development of F Line stations within the projects' shared segments will be coordinated with the PEL Study as it continues to advance. Additional project details are available at: talk.dot.state.mn.us/hwy-47-hwy-65-study.

Highway 47 and Highway 65 intersection safety improvements

Independent from the PEL Study, MnDOT is planning improvements at intersections along Highway 47 (University Avenue) and Highway 65 (Central Avenue) to address safety. These improvements are planned to be constructed in 2025. The following proposed F Line stations are within the project areas: all stations along University Avenue, as well as Central & 49th Avenue, Central & 45th Avenue, Central & 41st Avenue, and Central & 37th Avenue.

Mississippi Street (County Road 6) Roadway Modification Study

Anoka County will be reconstructing Mississippi Street on either side of University Avenue in 2025, affecting the F Line's Central & Mississippi station area. The project includes construction of 8' sidewalk on the north side of the street and 8' shared-use trail on the south side, as well as the closure of University Service Road where it meets Mississippi Street near the southeast corner of the intersection. Additional project details are available at: anokacountymn.gov/3752/Mississippi-St-CSAH-6-Mod-Study.

53rd Avenue Trail and Walk Improvements and 53rd Avenue Turnabout projects

The cities of Columbia Heights and Fridley are constructing multimodal improvements along 53rd Avenue between Main Street and Central Avenue in 2023-2024. In coordination, the cities will be completing the 53rd Avenue Trail and Walk Improvements project between Main Street and Monroe Street, and the 53rd Avenue Turnabout project between Monroe Street and Central Avenue. The University & 53rd Avenue and 53rd Avenue & Monroe-Central F Line stations are within the project areas. Additional project details are available at: fridleymn.gov/1635/53rd-Avenue-Trail-and-Walk-Improvements- and columbiaheightsmn.gov/departments/public_works/construction_projects.php.

Central Avenue safety improvements phase II: 43rd to 47th avenues

Led by MnDOT and the City of Columbia Heights, this project would continue the safety improvements installed in 2016 from 47th to 51st avenues. Work would include new LED street and pedestrian lighting, new sidewalks, new signage, and minor right-of-way acquisition. Staff are pursuing funding to help support the estimated \$1.7 million dollar project cost. There is currently no timeline for construction.

37th Avenue reconstruction

The cities of Minneapolis and Columbia Heights plan to reconstruct 37th Avenue from Central Avenue to Stinson Boulevard in 2023. The new design calls for additional boulevard and green space, and the introduction of a shared-use trail on the north side of 37th Avenue to connect to the existing shared-used trail west of Central Avenue (extending west to University Avenue). The Central & 37th Avenue Station is

within the project area. Additional project details are available at: minneapolismn.gov/government/projects/37th-ave-ne-reconstruction.

Lowry Avenue corridor improvement

Hennepin County is currently leading a project to update the roadway design and reconstruct Lowry Avenue between Marshall and Johnson streets in Northeast Minneapolis, including at the intersection with Central Avenue. Construction is expected to occur 2024-2025. Current plans call for a two-way shared-use path along the north side of Lowry Avenue and a new three-lane configuration (with one lane in each direction plus a center turn lane) at the intersection with Central Avenue. The Central & Lowry Avenue Station is within the project area. Additional project details are available at: hennepin.us/lowry-avenue.

Hennepin and First roadway improvements

Hennepin County is developing a design plan for multimodal improvements on Hennepin and 1st avenues (County Road 52) between Main and 8th streets in Northeast Minneapolis. This project is considering design options for improving bike and pedestrian facilities and access to transit. The proposed Central & 1st Avenue/7th Street F Line station is adjacent the project. Metro Transit is coordinating with the County as design plans are refined and will continue to as the project approaches construction and completion in 2024. Additional project details are available at: hennepin.us/hennepin-and-first.

3rd Avenue bikeway

MnDOT, in partnership with the City of Minneapolis, is exploring opportunities to upgrade existing bicycle and pedestrian facilities on 3rd Avenue (Highway 65) between 1st Street and Washington Avenue, given recent serious injury crashes. Continued development of this proposed station plan will be coordinated with MnDOT and the City as both projects advance into design and engineering. The 3rd Avenue & 2nd Street F Line station is within the project area.



Left: Small businesses along Central Avenue near 41st Avenue; right: person walking down the sidewalk lined with small businesses on Central Avenue near Lowry Avenue. (Source: Metro Transit)

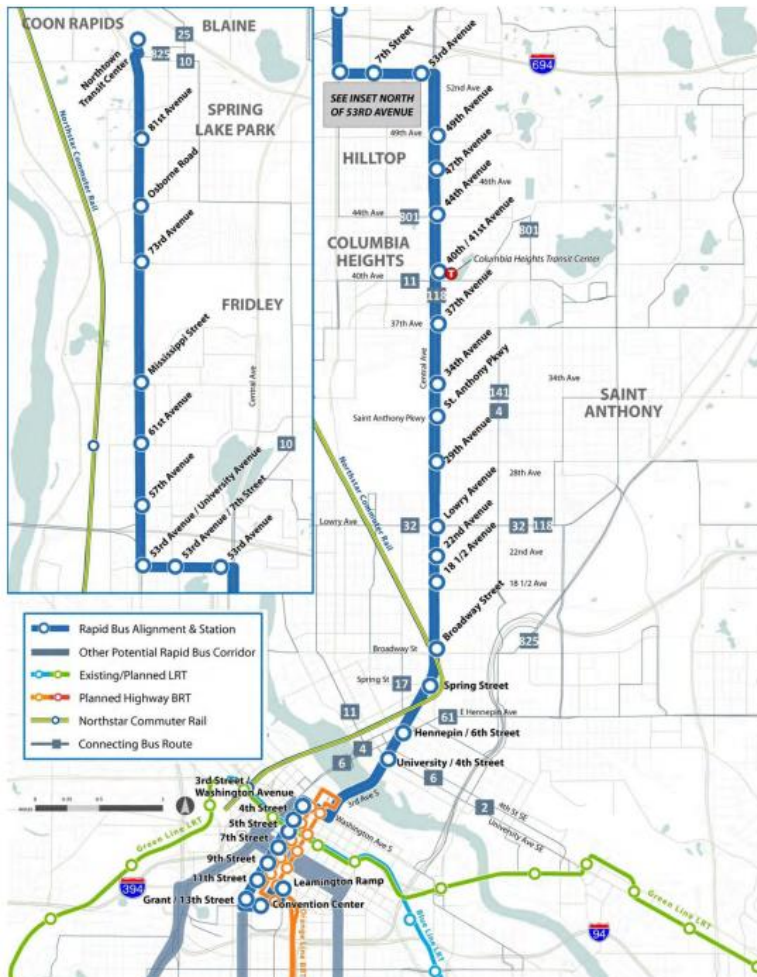
Planning Process

Previous Plans, Studies, and Projects

Arterial Transitway Corridors Study (2012)

In 2012, Metro Transit completed the [Arterial Transitway Corridors Study \(ATCS\)](#), which developed the arterial BRT concept and identified 11 corridors with high-ridership bus routes for implementation of arterial BRT. The ATCS presented the basic components of how arterial BRT would operate in the Twin Cities and offered initial concept-level station locations, ridership estimates, and costs for the eleven lines, including a Central Avenue corridor similar to the planned F Line corridor (Figure 4). The Central Avenue corridor performed well on the technical evaluation criteria but was not recommended for near-term implementation because it was expected to be analyzed for transit improvements in greater detail as part of a separate planning process.

Figure 4. ATCS Central Avenue corridor map (2012)

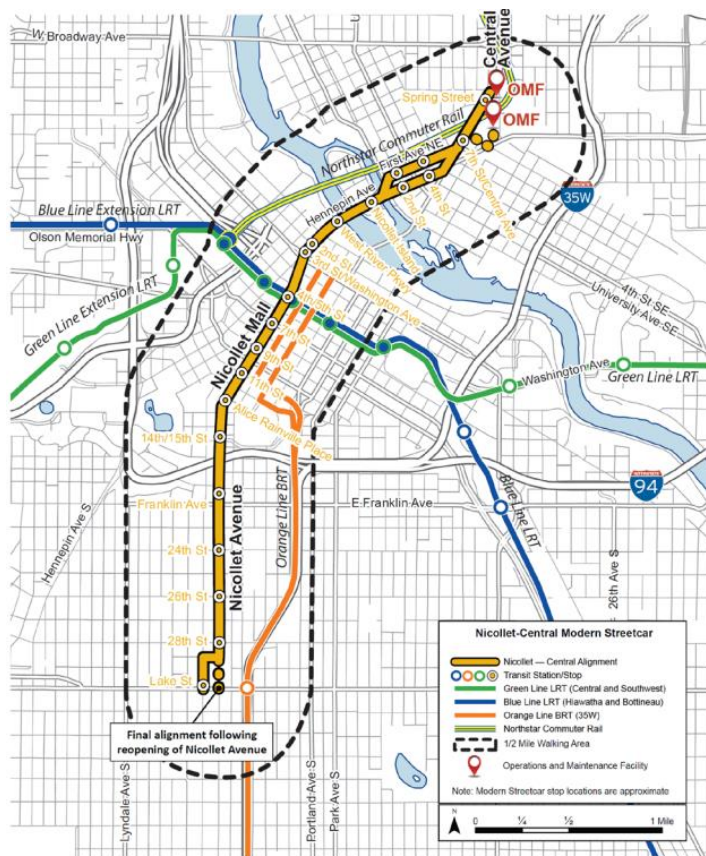


Nicollet-Central Modern Streetcar (2007)

In 2007, the City of Minneapolis completed a long-range streetcar feasibility study that recommended seven modern streetcar corridors, including the Nicollet Corridor between the I-35W & 46th Street (BRT) Station (BRT) and the Nicollet Mall (light rail) Station and the Central Corridor between the Nicollet Mall (light rail) Station and 49th Street in Columbia Heights. In 2013, the City of Minneapolis completed the Nicollet-Central Transit Alternatives Study to evaluate various alignments and modes for the corridor including No Build, Enhanced Bus, and Modern Streetcar options for the 9.2-mile Nicollet-Central corridor and a 3.4-mile modern streetcar line between Lake Street and at least 5th Street NE.

Based on project goals, public engagement, and technical analysis, the Minneapolis City Council approved a Locally Preferred Alternative (LPA) and recommended modern streetcar to the Metropolitan Council for inclusion in the Regional Transportation Policy Plan. This alternative included modern streetcar service along a 3.4-mile segment of the corridor running between Lake Street and at least 5th Street NE on Nicollet Avenue, Nicollet Mall, Hennepin and 1st avenues, and Central Avenue, using the Hennepin Avenue bridge to cross the Mississippi River (Figure 5). In its [Transportation Action Plan](#) (December 2020), the city of Minneapolis identified an action to plan, design, and construct high capacity, neighborhood-based transit along the Nicollet-Central corridors, partnering with Metro Transit to pursue new transit projects of high impact. Advancing the F Line in the Central Avenue corridor supports the City’s action in the Transportation Action Plan to plan, design and, construct high-capacity neighborhood transit along the Nicollet-Central corridors.

Figure 5. Nicollet-Central Modern Streetcar project map (2013)



Nicollet Mall Reconstruction (2015-2017)

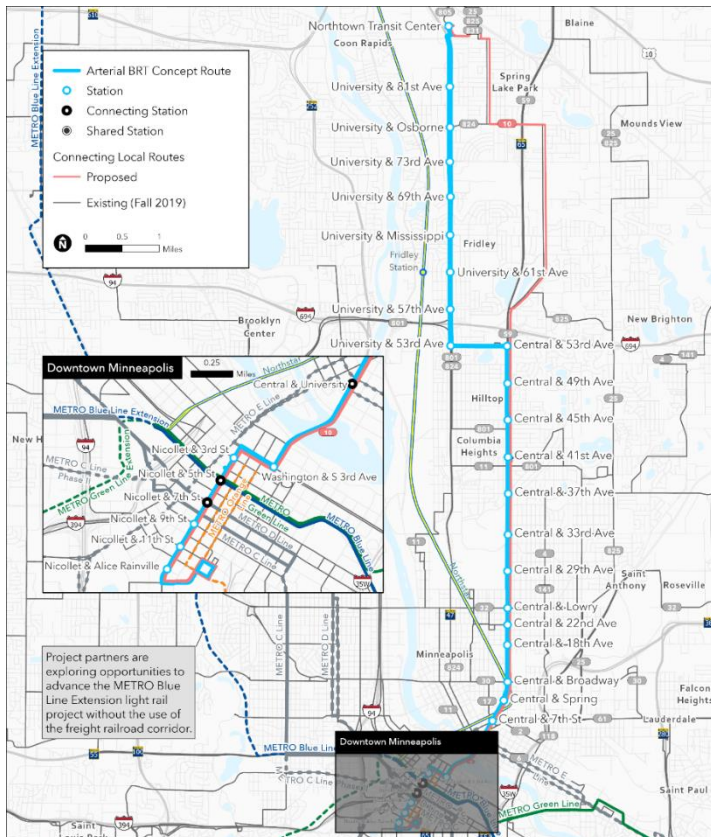
Between 2015 and 2017, the City of Minneapolis reconstructed Nicollet Mall in downtown Minneapolis from Washington Avenue N to Grant Street E. In addition to underground utility work, the project brought new lighting, more than 200 trees, public art, and other improvements, creating a more pedestrian-friendly environment. In conjunction, Metro Transit added a dozen new shelters with heat, light and real-time NexTrip information displays at existing bus stops along Nicollet Mall at 3rd, 5th, 7th, 9th, and 11th streets and Alice Rainville Place. These stops will be upgraded to F Line stations with METRO branding and fare collection equipment.

Network Next (2019-2021)

[Network Next](#) is Metro Transit's 20-year plan for expanding and improving the bus network. In 2020 and 2021, Metro Transit conducted technical analysis and engaged the public to identify the region's next arterial BRT priorities.

In February 2021, Metro Transit finalized recommendations for the METRO F, G, and H lines of the BRT network. The [Central Avenue](#) corridor was recommended as the F Line, with BRT service largely replacing Route 10 from downtown Minneapolis to Northtown Mall via Central and University avenues (Figure 6). The [Rice/Robert](#) and [Como/Maryland](#) corridors were recommended to be the G Line and H Line, respectively. The Metropolitan Council adopted these recommendations in March 2021. In March 2022, the F Line was Adopted by the Metropolitan Council into the [2040 Transportation Policy Plan](#).

Figure 6. Network Next Central Avenue corridor concept map (2021)



F Line Planning Stages

F Line Alignment Identified (March 2021)

The [Central Avenue corridor concept](#) developed as part of [Network Next](#) was recommended as the F Line in February 2021. The Metropolitan Council adopted the recommendation and established the Central Avenue corridor concept as the F Line in March 2021.

Early Project Coordination (2021-2022)

F Line planning has included coordination with other planned infrastructure projects throughout the corridor led by the Metropolitan Council, Metro Transit, and partner agencies including the cities of Columbia Heights, Fridley, and Minneapolis, Hennepin and Anoka counties, and MnDOT.

Corridor Plan: Station Location Identification (2022-2023)

The F Line planning phase began in earnest in 2022 with the initiation of corridor plan development. This began the work to review and refine the station locations and concept service plan for the Central Avenue corridor from Network Next, and to identify specific planning issues. The contents of this Recommended Corridor Plan were developed by Metro Transit staff throughout 2022 and into 2023 with inputs and feedback received from the Technical Advisory Committee consisting of staff from agency partners and through ongoing community outreach and engagement activities.

The Recommended Corridor Plan is the second of three planned versions of the Corridor Plan. It follows the release of the Draft Corridor Plan (October 2022), which has been revised based on community input, as described in the

Public Engagement section below. Following the conclusion of the Recommended Corridor Plan month-long public comment period, Metro Transit will review final comments received and begin the Metropolitan Council approval process. Council approval of the Final Corridor Plan is expected to be sought in summer 2023. Upon completion and approval, the plan will identify the final planned locations for F Line stations in advance of project engineering.



Left: Bench and shelter at the existing southbound Route 10 stop on University Avenue at 57th Avenue. Right: View of the existing southbound Route 10 stop and shelter on Central Avenue at Lowry Avenue. (Source: Metro Transit)

Technical Advisory Committee

This Recommended Corridor Plan was developed with input from various functional groups within Metro Transit and in consultation with an interagency Technical Advisory Committee (TAC), consisting of staff representatives from agency partners who advise the F Line project on planning issues throughout the corridor. The TAC provided input and input on the development of the F Line alignment and concept station locations in the study, refining the [Central Avenue corridor concept](#) developed as part of [Network Next](#). The proposed station and platform locations included this Recommended Corridor Plan were made in coordination with the TAC.

Participating TAC agencies include:

- Minnesota Department of Transportation (MnDOT)
- Hennepin County
- Anoka County
- City of Minneapolis
- City of Columbia Heights
- City of Hilltop
- City of Fridley
- City of Spring Lake Park
- City of Blaine
- Minneapolis Park and Recreation Board

Public Engagement

The purpose of F Line project outreach and engagement is to build broad community awareness and incorporate a range of community needs, concerns, and priorities into the planning and implementation process. It will use an equitable and transparent approach that reduces potential barriers to participation. Public engagement for the F Line project is led by a dedicated Metro Transit community outreach coordinator and supported by the broader F Line project team.

Metro Transit's community outreach coordinators focus on building relationships with communities to engage riders, residents, businesses, and other stakeholders on transit improvement projects like the F Line. The F Line outreach coordinator connects people to the F Line project to share information, engage in two-way conversations, respond to questions and comments, and help incorporate input to be reflected in project outcomes.

As Metro Transit engages community partners along the F Line corridor, we will consider barriers such as stakeholders' ability to participate, language, literacy, disability, and accessibility of information, and adjust our messaging to ensure our engagement efforts are inclusive and reflect communities who live, work, and travel along the corridor.

F Line planning has been informed by findings and engagement results from Network Next, the project and process used to identify Central Avenue (Route 10) corridor as the F Line. The first dedicated public engagement phase for the F Line project corresponded with the Draft Corridor Plan in October 2022.

Findings from Network Next (2020-2021)

As part of the [Network Next planning process](#), Metro Transit asked the public to share their priorities for the next arterial BRT lines to be implemented in the region. Participants consistently identified Central Avenue (Route 10) as a top priority. In September 2020, Central Avenue was identified as a top-rated corridor among 11 potential corridors to consider for additional planning.

In December and January 2020/21, Central Avenue was identified as the highest priority for near-term implementation by survey respondents. Respondents highlighted the Route 10 corridor as a high ridership corridor in need of reliability improvements and greater frequency.

Key destinations identified included Edison High School, downtown Minneapolis, affordable housing along the corridor, and the variety of social and cultural opportunities available along Central Avenue. Improved transit access to the northern suburbs was identified as a key need as well as connections to the broader transit network via the Green Line, Blue Line, and Northstar Line were emphasized as essential for transit along this corridor.

More information on the Network Next public engagement process is available at: metrotransit.org/network-next-public-engagement.

Corridor Plan Review & Engagement (2022-2023)

The Draft Corridor Plan is the first of three planned versions of the Corridor Plan. It was circulated for public review and comment between October 24 and December 5, 2022. Feedback received on the Draft Corridor Plan is summarized and incorporated into this Recommended Corridor Plan, which is being shared for an additional round of public outreach and engagement. A Final Corridor Plan will be advanced to the Metropolitan Council for approval, anticipated in summer 2023.

Draft Corridor Plan review

Metro Transit staff engaged riders and community members to share information about the F Line Draft Corridor Plan and collect feedback in fall/winter 2022. A public comment period was held October 24 – December 5, 2022.

[Individual station plans](#), the full Draft Corridor Plan, and [presentations and meeting materials](#) were available to view online, and a comment survey form, project email address (FLine@metrotransit.org), and phone number were also made available for the public to submit comments.

The Draft Corridor Plan release was communicated via print, digital, and in-person communications, including the following strategies:

- Translation of vital documents in English, Spanish, Somali, Hmong, Oromo, and Arabic
- Postcards mailed to 12,900 homes, businesses, and those who own property within a 1/2 mile of the F Line
- Posted signs at 64 Route 10 bus stops along the corridor
- Door knocked 129 properties near proposed F Line station locations, speaking with neighbors and/or distributing project information

- Sent multiple email updates to over 13,000 addresses signed up for the F Line Update newsletter, Metro Transit Rider Alerts, or Riders Club distribution lists, and Route 10 Go-To card users
- Two rounds of social media advertisements targeted at zip codes along the F Line corridor
- Partner agencies shared project information via more than 20 newsletters, websites, and social media postings
- Engaged 683 people at 27 events and meetings hosted by community organizations and neighborhood groups, who also shared project information via their networks
- Hosted an online open house on November 15, 2022 to share information, collect comments, and answer questions



Above: Photo of a Metro Transit arterial BRT bus taken at a community event in Columbia Heights (Source: Metro Transit).
 Below: Front and back of the postcard sent to all homes and businesses within 1/2 mile of the F Line alignment, providing information about the Draft Corridor Plan and public comment period.



The online survey was promoted and available during the six-week public comment period. It included two primary questions, intended to solicit feedback on individual station locations and the Draft Corridor Plan overall. These questions are listed below:

- What are your comments about the proposed station plan at this location (for example: location of station or platform placement at the intersection)?
- What are your general comments about the F Line Draft Corridor Plan?

Respondents were able to submit comments on multiple stations.

Metro Transit received 332 individual comments on the Draft Corridor Plan through the survey, emails, and phone calls. A complete summary of comments received, including by key themes, is included in *Appendix A: Corridor Plan Comment Summary*. Revisions to the plan based on this feedback are summarized below.

Recommended Corridor Plan process

After the conclusion of the F Line Draft Corridor Plan public comment period, Metro Transit revised the draft document based on feedback received and ongoing interagency coordination. This Recommended Corridor Plan is being circulated for public review and comment. Following the 30-day public comment period, Metro Transit will review final comments and advance a Final Corridor Plan to the Metropolitan Council for approval in summer 2023.

Revisions in the Recommended Corridor Plan

Metro Transit staff read and categorized each of the 332 comments received during the Draft Corridor Plan public comment period (see *Appendix A: Corridor Plan Comment Summary*), as well as those submitted by agency partners (see *Appendix B: Agency Comments*). These comments were reviewed against all proposed station and platform locations in the Draft Corridor Plan. Staff confirmed that assumptions and project coordination information in the Draft Corridor Plan remained relevant and true. As a result, no changes to station or platform locations are recommended at this time.

Responses to station-specific feedback and/or additional alternatives were analyzed at station locations with relatively large number of comments requesting changes to the plan or in opposition to the project, listed below. Upon additional analysis and review, no changes to these locations are recommended:

- Central & Lowry (additional discussion on page 99)
- Central & 22nd Avenue (see page 106)
- Central & Spring (see page 120)
- Central & 1st Avenue/7th Street (see page 124)

Detailed discussion of additional analysis and response to comments on specific station locations can be found at the page numbers listed above within the *Stations by Location* section of the plan.



Passengers aboard a crowded Route 10 bus (Sept. 2022) [Source: Metro Transit]

Project Elements

Arterial BRT projects have many elements that come together for a successful line. This section describes the different components of the project and the considerations that go into planning each.

The project elements described in this section of the corridor plan include:

- Alignment and termini – The path traveled by buses and the beginning and end of the route
- Stations and platforms – Where buses stop to pick up or drop off passengers. One **station** has a **platform** for each direction the bus travels
- Service – The route schedule, frequency, and type of bus service available in the corridor
- Bus priority treatments – Changes to traffic operations that can help speed up buses, move people faster, and deliver more reliable service

Alignment and Termini

Alignment and termini for the F Line were developed as part of Network Next and established when the Metropolitan Council adopted the Central Avenue corridor concept as the F Line in March 2021. From north to south, the F Line will operate from its northern terminal at Northtown Transit Center to its southern terminal at Nicollet & Alice Rainville in downtown Minneapolis via University Avenue, 53rd Avenue, Central Avenue, 3rd Avenue, Washington Avenue, and Nicollet Mall (Figure 1).

Stations and Platforms

Platforms are where transit passengers may enter (board) or exit (alight) a transit vehicle. In most cases, there are two platforms for each station, with one in each direction the bus travels.¹ Stations are collections of one or two platforms and are often communicated in terms of intersections or major points of interest (e.g., transit center). Stations are shorthand for the general area at which platforms are located and points of access to the transit line.

The purpose of the F Line Corridor Plan is to identify the locations of BRT stations and platforms and provide policy direction to Metro Transit to begin detailed design for the F Line.

Station Location Considerations

The following are among the many factors that affect where stations are planned to be located. Other site-specific and platform-related considerations often play an important role in selecting station locations.

¹ Stations at line termini and on one-way streets may have just one platform.

Station spacing

A key objective of arterial BRT is to offer faster trips for more people along the corridor. Faster trips depend in part upon the strategic placement of stations spaced farther apart than existing Route 10 bus stops while still serving existing customers well. Existing Route 10 stops are typically placed approximately every 1/8 to 1/4 mile.² On average, F Line stops would be placed about 0.4 miles apart (two to three stops per mile) to balance speed and access (Figure 7). Stopping less often is anticipated to help F Line service operate about 20 percent faster than the existing Route 10, when combined with other improvements.

Figure 7. Approximate Arterial BRT and local service stop spacing after F Line implementation

Today: Route 10



Future: F Line



Existing ridership & transit connections

When selecting arterial BRT station locations, planners use ridership data to identify the most popular existing bus stops along the corridor. BRT stations are prioritized at intersections where many riders are getting on and off the bus today. With the stations included in this plan, 85 percent of existing Route 10 riders in the corridor would be able to catch the F Line within a block of their current bus stop. Additionally, stations are selected based on connections to other transit lines along the corridor.

Community feedback

Feedback from existing Metro Transit customers and community members along the corridor is important to planning an effective arterial BRT line. The public engagement phase of the planning process helps to inform where stations are located along the corridor.

Land uses & access to destinations

When recommending station locations, Metro Transit considers surrounding land uses and activity generators. Ideally, arterial BRT stations are near to popular amenities and provide easy access to destinations like grocery stores, medical clinics, workplaces, and more. Arterial BRT stations should be near where people are or want to be.

² Most existing Route 10 stops along University Avenue are placed approximately every 1/2 mile.

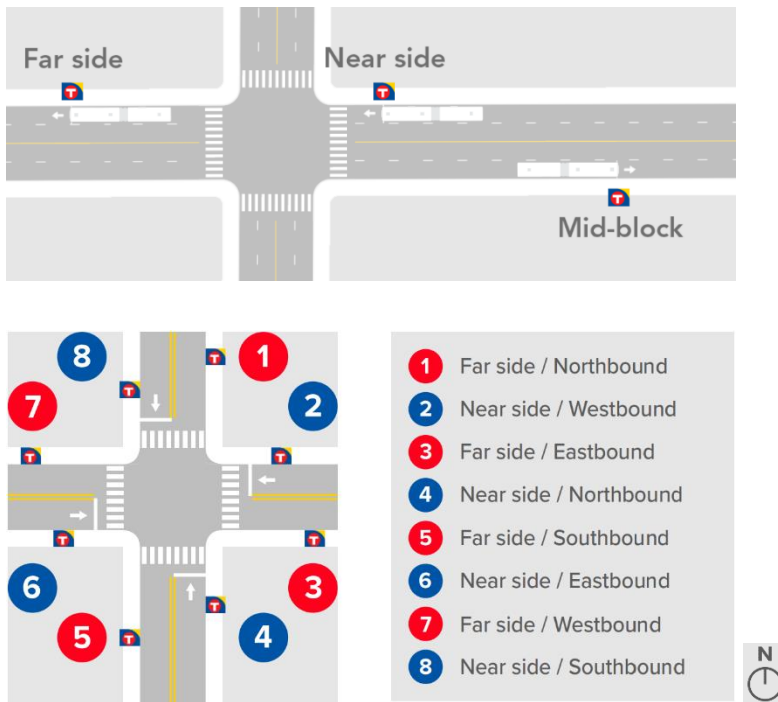
Street design & available right-of-way

Street design elements like bike and pedestrian facilities, driveways, and medians all influence the placement of stations in the corridor. Additionally, the amount of right-of-way available is also an important consideration when station locations are selected.

Platform Location Considerations

Almost every BRT station is made up of two platforms—one for each direction the bus travels. In most cases, platforms/bus stops can either be placed on the nearside or farside of an intersection. A station platform is located “nearside” when it is located just before a roadway intersection. A station platform is located “farside” when it is located just after a roadway intersection. A “midblock” platform location is not located next to an intersection (Figure 8). Midblock locations are generally less desirable than nearside and farside ones, because platforms at intersections provide places for riders to cross the street to destinations.

Figure 8. Bus stop positions: Nearside, farside, and midblock



Farside platforms are beneficial because they reduce conflicts between right-turning vehicles and stopped transit vehicles common at nearside stop locations. Farside stations also maximize transit signal priority effectiveness by allowing a bus to activate its priority call to the signal, progress through the intersection, and stop at the farside platform. This reduces delay in scenarios more common to nearside locations when a bus is required to stop twice before moving through an intersection: once to unload and load passengers at the platform itself and again for a red traffic signal after leaving the platform.

The preferred F Line platform location is on the farside of signalized and uncontrolled intersections. However, not all platforms are sited farside. Site-specific conditions that may result in a platform being located nearside include:

- Existing roadway access points or driveways
- Right-of-way constraints
- Surrounding land uses

Additionally, nearside platforms may be preferred in limited cases based on signal timing or certain bus priority treatments, or at four-way stop-controlled intersections.

Other Considerations

Shelter size

Preliminary shelter sizes are shown for each planned station to illustrate at a conceptual level how the shelter will fit into each location. All arterial BRT stations are equipped with shelters, as described in the previous section, *What is Arterial BRT?* A key variable at each station is shelter size: small, medium, or large shelter structures. Typical shelter dimensions are:

- Small shelter: 12 feet long by 5 feet wide by 9 feet high
- Medium shelter: 24 feet long by 5 feet wide by 9-12 feet high
- Large shelter: 36 feet long by 5 feet wide by 9-12 feet high

The primary consideration in determining shelter sizes at each platform is projected ridership throughout the day and at peak times (specifically, the number of waiting customers at a single platform) for all routes serving the station. Most arterial BRT platforms are equipped with small shelters, but some platforms with especially high anticipated ridership are equipped with medium or large shelters to ensure adequate shelter for customers.

Specific site conditions may also influence the size of the shelter planned for each location. Shelter size will ultimately be determined through detailed site engineering in the engineering phase of the project (anticipated to begin in summer 2023).



Example of a small arterial BRT shelter (Source: Metro Transit)



Example of a medium arterial BRT shelter (Source: Metro Transit)



Example of a large arterial BRT shelter (Source: Metro Transit)

Curb extensions

For each station in this plan, a conceptual design is included to illustrate how the station platforms will fit into the street. These are preliminary ideas for how the stations will fit into the surrounding environment that will be refined and finalized through detailed engineering. In many cases, curb extensions are shown.

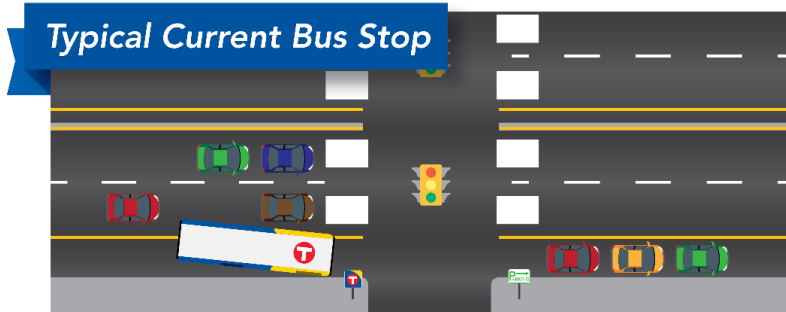
A curb extension is a strategy to improve safety for all road users, by extending the curb at a corner and narrowing the roadway width at intersections. At intersections where bus stops are in curbside parking lanes or right-turn lanes, curb extensions are used to expand the bus platform so that it is in line with the travel lane. Shown in Figure 9, curb extensions help reduce the delays from buses merging back into traffic. They also provide space for station amenities, bike facilities, and help to minimize conflicts between waiting bus passengers and pedestrians using the sidewalk.

Curb extensions can also potentially reduce overall bus stop zone length, which may allow on-street parking spaces to be added in space previously used for bus movements.

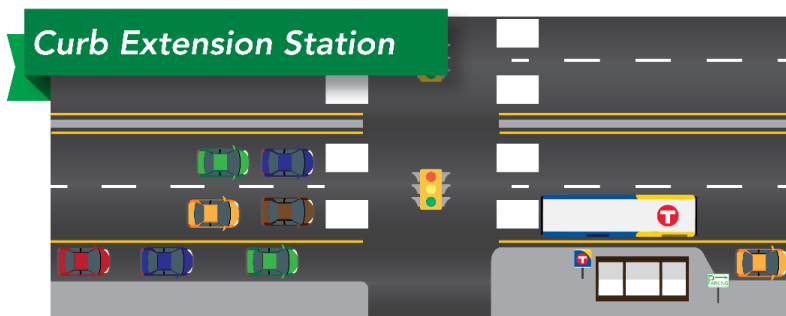
At locations where curb extensions are not considered due to lane configurations or absence of on-street parking, the platforms will be adjacent to the existing curbside travel lane without moving the curb.

At both types of platforms, buses will generally stop in the travel lane (“in-lane”) to eliminate the need to merge back into traffic when leaving stations. However, in-lane stops may be unsuitable in high-speed context.

Figure 9. Typical current bus stop versus curb extension



Today, buses stop outside of the through lane with little space for customer amenities. Merging back into traffic causes delay.



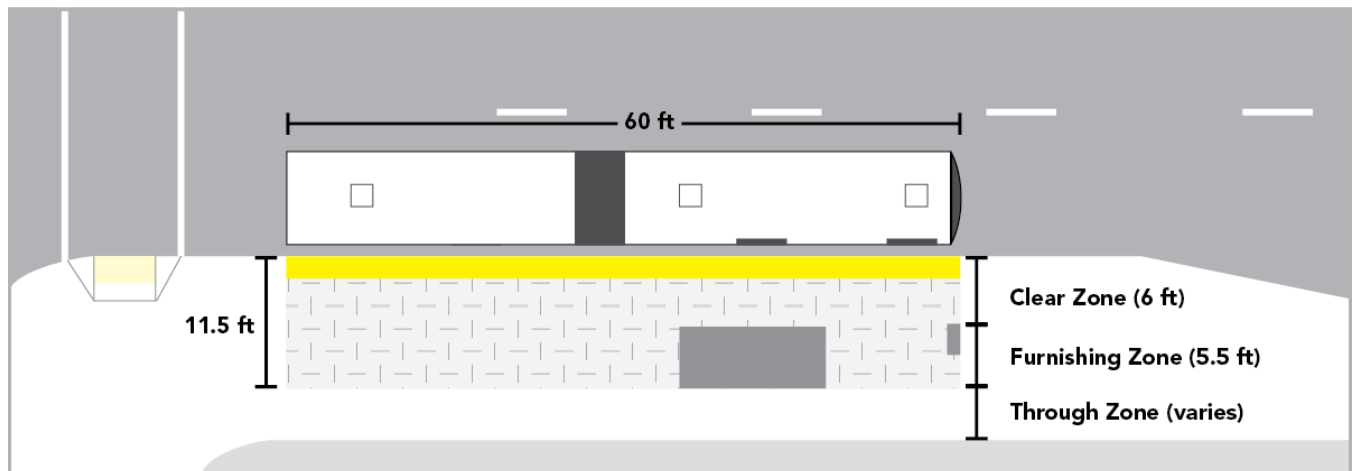
Curb bumpouts provide space for station amenities and pedestrians.

Platform length, width, and height

Typical dimensions for F Line platforms are shown in Figure 10. Generally, F Line platforms will be designed for a standard length of 60 feet. A 60-foot platform length can fully accommodate all doors of a 60-foot articulated bus planned for the F Line. Under rare circumstances, constrained conditions may prevent the construction of a standard platform. However, these situations are avoided wherever possible. In some places, stations may be designed at a longer length to accommodate more than one stopped bus. Platform lengths will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).

F Line platforms will generally be designed for a standard width of 11.5 feet. This width can accommodate a 6-foot-wide clear zone behind the curb and 5.5-foot-wide furnishing zone to accommodate BRT station elements including the shelter, pylon marker, and other amenities. The clear zone is generally provided independent from a through zone behind the platform. However, under certain constrained conditions, like narrow distances between the curb and a building face might prevent a full 11.5-foot-wide platform from being constructed in addition to a separate through zone. In these cases, the through zone and clear zone may be combined. Platform widths will be finalized during the engineering phase of the project.

Figure 10. Typical Arterial BRT platform dimensions



Platforms will generally be designed with a standard of nine-inch curb height to facilitate “near-level boarding.” Near-level boarding substantially reduces the vertical distance between the curb and the floor of the bus, easing vehicle access for passengers with low mobility and enabling faster boarding and alighting of all passengers. Near-level boarding does not eliminate the need for ramps to be deployed to assist passengers using mobility devices. Curb heights of nine inches or lower are compatible with all bus models in Metro Transit’s fleet. Curb heights for specific F Line platforms will be finalized during design.

Near-level boarding is not “level boarding,” where platforms are located at the same height as the floor of the bus, at approximately 14 inches. Light rail platforms within the Twin Cities are an example of level-boarding platforms. Level-boarding platforms are not being considered for the F Line due to engineering and operational considerations and the space constraints of the corridor. For example, the gradual ramping up to a 14-inch curb from a 6-inch sidewalk in many locations would require a prohibitively large

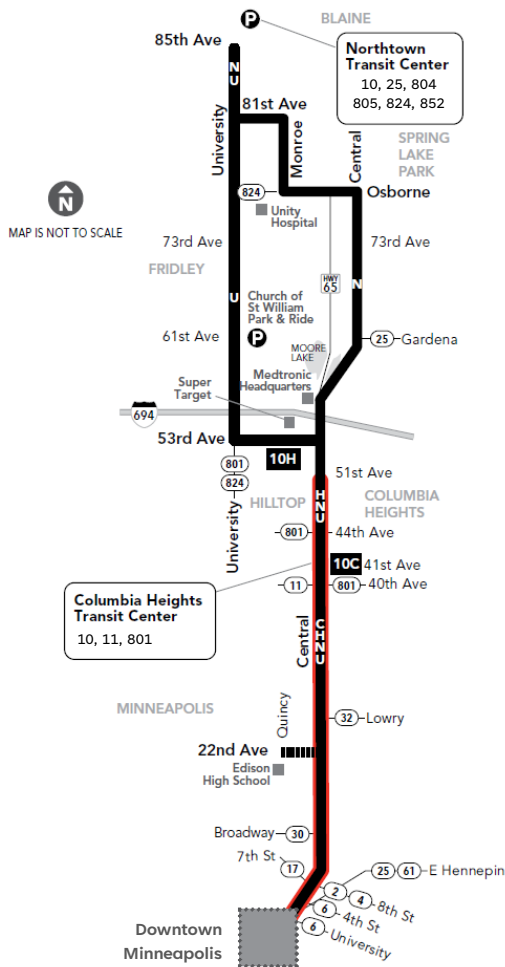
area. Level boarding also requires that buses slow down considerably upon approaching stations, which can significantly negate the travel time savings that arterial BRT provides.

Service

Today, the corridor is served primarily by Route 10, which operates two main patterns (or branches) based out of downtown Minneapolis and destined for Northtown Transit Center: Route 10U, via Central, 53rd, and University avenues; and Route 10N, via Central Avenue (Figure 11). Limited-stop Route 59 has also historically served the corridor between downtown Minneapolis and 53rd Avenue via Central Avenue, though the route has been suspended since March 2020.

Several other routes currently share smaller portions of the F Line corridor, particularly along Nicollet Mall in downtown Minneapolis (Routes 11, 17, 18, and 25) and along University Avenue in Fridley (Route 824). Many other local and express routes currently cross or connect to the F Line corridor.

Figure 11. Existing Route 10 map



Local bus service that could operate once the F Line service begins is shown in Figure 12. As described in the following sections, potential local service in the corridor from a modified Route 10 would be implemented with the F Line.

Figure 12. F Line and potential local service



F Line

March 2023

	METRO F Line (Bus Rapid Transit)
	Potential Route 10
Current METRO & commuter lines	
	C & D Lines (Bus Rapid Transit)
	Blue Line (Light Rail)
	Green Line (Light Rail)
	Orange Line (Bus Rapid Transit)
	Northstar Line (Commuter Rail)
Planned METRO lines	
	Bus Rapid Transit
	Light Rail
Potential Service Frequency	
	service up to every 10 minutes
	service every 30-60 minutes

Downtown Minneapolis detail



11-11-457262-23

Considerations

A key goal of the F Line is to provide faster and more reliable transit service than existing Route 10 service. Balancing speed and access to transit through wider stop spacing and alignment changes can result in localized changes in access as stops may be moved or consolidated. Other services that operate within the corridor also require evaluation as part of an overall assessment of how arterial BRT implementation will change transit service.

As recommendations for alignment and station locations have taken shape, Metro Transit has also evaluated the overall mix of bus service within the corridor. Key factors considered in this analysis included ridership and trip patterns (current and pre-COVID-19 pandemic), pedestrian access, demographics (riders with more mobility challenges or fewer transportation options), and operational cost and efficiency.

Proposed F Line Service

The F Line alignment mirrors that of existing Route 10U (see Figure 11), where existing ridership is greater and land uses are more transit-supportive compared to Route 10N.

The F Line is planned to operate as frequently as every 10 minutes, seven days a week during the day and most of the evening, substantially replacing Route 10 as the primary service in the corridor. On average, F Line stops would be placed about 0.4 miles apart (two or three stops per mile) to balance speed and access. Eighty-five percent of existing Route 10 riders would be able to catch the F Line within 1/8 mile of their current bus stop.³ The exact F Line schedule, including hours of service and transitions from 10-minute service during the core of the day into later evening service, will be developed closer to the opening of the F Line.

Potential Local Service in the Corridor

Local service could operate in a portion of the F Line corridor between Columbia Heights Transit Center (41st Avenue) and 53rd Avenue (Figure 12).

The modified Route 10 could continue to operate on a path similar to the existing Route 10N between Northtown Transit Center and Columbia Heights Transit Center, maintaining service through Spring Lake Park and Fridley along Central Avenue north of 53rd Avenue, and no longer serving downtown Minneapolis. The modified Route 10 could operate approximately every 30-60 minutes.

Final service plans, including the frequency and termini for local bus service along the F Line corridor, will be developed later in project development as the F Line nears implementation and as recovery from the COVID-19 pandemic continues. Key considerations will include public feedback, operating budget/bus driver workforce constraints, Route 10 ridership patterns, redevelopment/land use patterns, and anticipated transit travel times based on bus priority treatments. Additionally, Metro Transit will continue

³ For reference, 1/8 mile is comparable to a typical north-south city block in Minneapolis and Columbia Heights.

to explore potential changes to other routes in the project area and/or opportunities for shared mobility and microtransit to complement planned fixed route transit service.

Potential Limited-Stop Service in the Corridor

Route 59 typically serves the F Line corridor, providing peak-only limited stop service on Central Avenue between 53rd Avenue and downtown Minneapolis. With stops placed about 0.4 miles apart, on average, existing Route 59 is 10% to 15% faster than Route 10. Route 59 has been suspended since March 2020 due to the COVID-19 pandemic and subsequent substantial decline in ridership and disruption of transit needs and resources; the route remains suspended due to the bus driver workforce shortage. Route 59 is expected to be eliminated and replaced by the F Line.

Route 824 provides peak-only limited stop service between downtown Minneapolis and Northtown Transit Center, primarily on University Avenue. Route 824 overlaps the F Line corridor along University Avenue between 57th and Osborne avenues in Fridley. No changes are currently proposed to Route 824 as part of F Line implementation.



Columbia Heights Transit Center at Central Avenue and 41st Avenue (Source: Metro Transit)

Bus Priority Treatments

How can the F Line move people faster?

Providing faster, more reliable transit service is a key goal for the F Line project. Under existing conditions, Route 10 buses regularly average less than 10 miles per hour during rush hours. Frequent stops, lines of customers waiting to board, and red lights mean that buses are moving less than half the time. Inconsistent travel times and schedule variability means that customers have a hard time planning on the bus and are stuck waiting for late buses. Through several planned improvements across the corridor, the F Line is intended to operate about 20 percent faster or better than the existing Route 10.

Standard arterial BRT features

The F Line will include a core set of features that will help buses run faster and arrive on time.

Limited stops

Arterial BRT stations are spaced approximately every half mile, focusing on places where the greatest numbers of customers board buses today. Buses can travel significantly faster with more distance between stations, while also allowing for most customers to conveniently walk or roll to stations.

Platform placement

Platforms located on the farside of signalized intersections where feasible allow the bus to move through the intersection before stopping to pick up and drop off passengers, reducing the likelihood of stopping at a red light.

Curb extensions

Today, many existing local bus stops are located out of a thru-lane of traffic in right-turn lanes or in a curbside parking lane, causing delay for buses merging back into traffic. Curb extensions at station platforms eliminate the need to merge back into traffic.

Off-board fare payment and all-door boarding

Off-board fare payment speeds up the boarding process and significantly decreases dwell time at stations while customers get on the bus. Because fares are paid at the platform, customers can board any of three doors rather than standing in line to pay their fare at the front door.

Transit signal priority

Transit signal priority (TSP) helps buses more consistently move through intersections by reducing the frequency and time spent stopping at red lights, a substantial source of delay. Buses alert the traffic signal as they approach to extend green time, allowing the bus to get through the intersection. Updating timing of traffic signals to provide more time with a green light for all vehicles is also a tool that can speed transit operations.

TSP is a standard arterial BRT improvement and is assumed to be included at most signalized intersections along the F Line corridor. Metro Transit intends to work with its partners to implement TSP

as part of the F Line project. Signals along the corridor will be evaluated and considered for TSP implementation during the engineering phase of the project (anticipated to begin in summer 2023).

Queue jump signals

Queue jump signals allow the bus to bypass stopped vehicles at signalized intersections by providing the bus a dedicated green light ahead of the green for general traffic. The bus can get ahead of traffic by moving from a dedicated lane or shared right-turn and transit lane.

Queue jump signals should be considered for implementation at intersections with existing space on the right side of the roadway available for the bus to approach the intersection, either from a dedicated transit lane or a shared right-turn lane and move back into general purpose traffic from the intersection.

Metro Transit intends to work with its partners to explore queue jumps as part of the F Line project. As F Line design details are developed, intersections along the corridor will be evaluated for queue jump implementation.

Bus-only lanes

Bus-only lanes provide dedicated space for buses to operate out of general-purpose traffic, either all day or part of the day. Bus-only lanes can provide a significant improvement to the speed and reliability of service, as getting stuck in traffic is one of the primary sources for delay for buses. Bus-only lanes implemented elsewhere along the Metro Transit network have been proven to improve bus speeds and significantly reduce variability. These improvements can make sure that transit customers can count on the bus to arrive when they expect it to and to get them to their destination on time.

MnDOT is considering opportunities for bus-only lanes as part of its PEL Study (see *Highway 47 and Highway 65 Planning and Environmental Linkages (PEL) Study*). The outcome of the PEL Study will provide more information on how bus-only lanes may operate in the corridor.

The following section outlines Metro Transit priorities for implementation of bus-only lanes along the F Line corridor. Some of these improvements are being considered in coordination with other street projects and studies (like MnDOT's PEL Study), and others may potentially be implemented through Metro Transit's Speed & Reliability program, independent of planned F Line construction in 2025-2026.

Segments analyzed for bus-only lanes

As part of broader speed and reliability initiatives, in late 2021 Metro Transit analyzed transit corridors throughout the region to better understand where delays to buses and passengers are occurring and identify candidates for implementation of bus-only lanes to reduce delays and improve service. The results inform Metro Transit priorities for implementation of bus-only lanes along the F Line and throughout the bus network.

Street segments along Central Avenue from 1st Avenue/7th Street in northeast Minneapolis to 41st Avenue NE (Columbia Heights Transit Center) were analyzed because they represent the core portion of the F Line where speed and reliability challenges and passenger delays are greatest.⁴

The analysis incorporated historical transit vehicle and passenger data from fall 2018 to minimize the impact of detours and snow on the candidate corridors in the pre-pandemic era. Street segments within transit corridors were evaluated using several performance metrics used to prioritize segments and corridors where bus-only lanes would be most impactful.



METRO C Line bus in a bus-only lane in downtown Minneapolis (Source: Metro Transit)

Analysis results

Central Avenue from 1st Avenue/7th Street to 41st Avenue was analyzed based on vehicle and passenger delays occurring on street segments within the corridor. The analysis factors and results are summarized in Table 1.

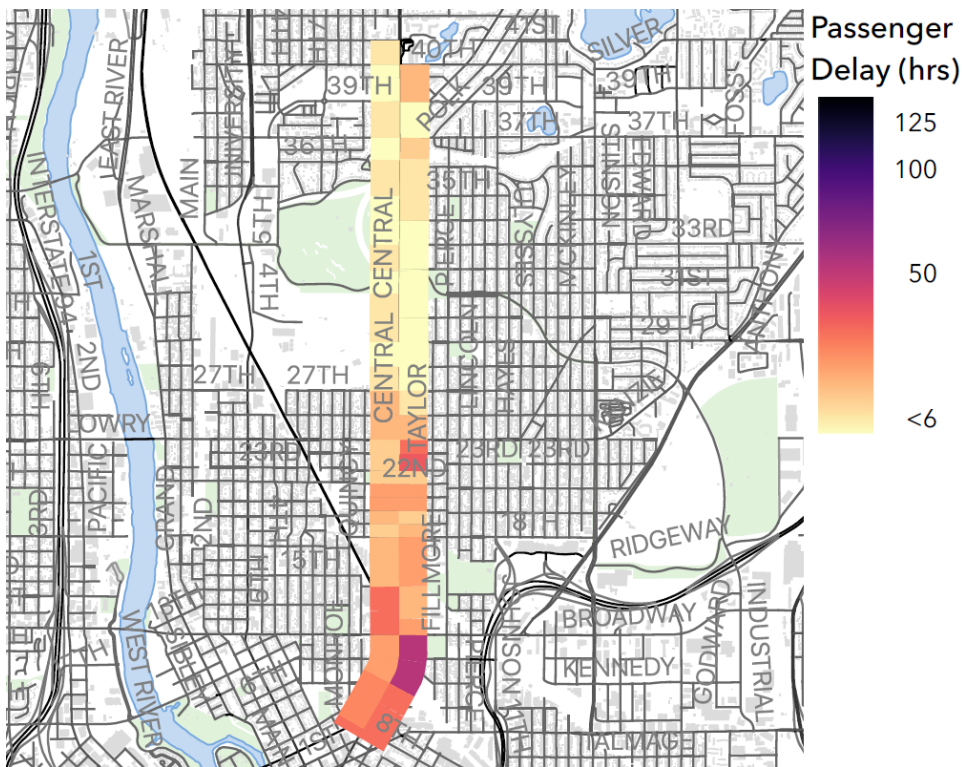
⁴ Areas south of 1st Avenue/7th Street in northeast Minneapolis were excluded from analysis because of the ongoing detour to Route 10 south of that point due to construction on the Central Avenue/3rd Avenue bridge.

Table 1. Existing delay analysis results: Central Avenue from 1st Avenue/7th Street to 41st Avenue (fall 2018)

Factor	Description	Result
Passenger Delay (Hrs.)	The total amount of time (in hours) that passengers spent stopped or moving slower than free-flow speed, on average, per day in fall 2018.	436
Passenger Delay (Hrs.) per Mile	Passenger delay (in hours) shown on a per mile basis to compare across segments of different length.	83
Passenger Throughput (Rides)	The average number of passengers per day riding through or getting on or off within the segment.	4,800

On a typical day, passengers and vehicles currently experience significant delay on Central Avenue from 1st Ave/7th Street to 41st Avenue. About 436 hours of cumulative passenger delay per day occur on this segment, with about 4,800 riders per day moving through (based on data from fall 2018). Figure 13 below shows the distribution of the 436 hours of passenger delay across individual street segments.

Figure 13. Existing average daily passenger delay (hours) by street segment by direction (fall 2018)



Passenger delay is most concentrated between 1st Avenue/7th Street and Lowry Avenue (Figure 13). Results show that in the southbound direction passenger delay is greatest in the morning and early afternoon, while delay in the northbound direction is greatest during the afternoon peak, approximately 3-6 p.m. Delay is more variable during these same direction and time of day patterns, as indicated by greater deviation from typical conditions. Greater variability results in less reliable service.

Observed passenger delay along this portion of Central Avenue is distributed relatively evenly in both directions and throughout the day, with smaller spikes or peaks of delay observed (i.e., the delay is more evenly distributed). Though there are opportunities for targeted application of bus-only lanes, the patterns of delay on this portion of the F Line corridor also point to need and benefit for a more complete application.

Based on the results of this analysis, the segment of Central Avenue between downtown Minneapolis and Columbia Heights Transit Center is a good candidate for the implementation of bus-only lanes to improve the speed and reliability of transit service in this corridor.

MnDOT is considering opportunities for bus-only lanes as part of the PEL Study (see *Highway 47 and Highway 65 Planning and Environmental Linkages (PEL) Study*). The outcome of the PEL Study will provide more information on how bus-only lanes may operate in the corridor.

Stations by Location

The following section contains individual station plans for each of the F Line stations. The plans communicate two core station components:

- the station intersection
- the intersection quadrant where platforms will be located

Other preliminary design details are provided for additional context but are conceptual and will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).

The individual station plans are organized north to south beginning at the Northtown Transit Center in Blaine and continuing to Nicollet & Alice Rainville Station in downtown Minneapolis. These stations do not include station plan illustrations, but descriptions are provided for information.

Northtown Transit Center* (Blaine)	Central & 29th Avenue
University & 81st Avenue (Fridley/Spring Lake Park)	Central & Lowry
University & Osborne	Central & 22nd Avenue
University & 73rd Avenue (Fridley)	Central & 18th Avenue
University & 69th Avenue	Central & 14th Avenue
University & Mississippi	Central & Broadway
University & 61st Avenue	Central & Spring
University & 57th Avenue	Central & 1st Avenue/7th Street
University & 53rd Avenue (Fridley/Columbia Heights)	Central & University/4th Street
53rd Avenue & Monroe-Central	3rd Avenue & 2nd Street
Central & 49th Avenue (Columbia Heights/Hilltop)	Nicollet & 3rd Street*
Central & 45th Avenue	Nicollet & 5th Street*
Central & 41st Avenue (Columbia Heights)	Nicollet & 7th Street*
Central & 37th Avenue (Columbia Heights/Minneapolis)	Nicollet & 9th Street*
Central & 35th Avenue (Minneapolis)	Nicollet & 11th St*
Central & St. Anthony	Nicollet & Alice Rainville*

*Denotes a station location that has been previously selected based on existing transit facilities.

The plan identifies 32 stations over the 13-mile corridor. Figure 14 through Figure 19 summarize the proposed station locations at the corridor-wide level, illustrating:

- Existing Route 10 ridership (Figure 14 and Figure 15)
- Planned station spacing (Figure 16 and Figure 17)
- Connecting bus service at each station (Figure 18 and Figure 19)

Figure 14. Existing Route 10 ridership (north of 45th Avenue)

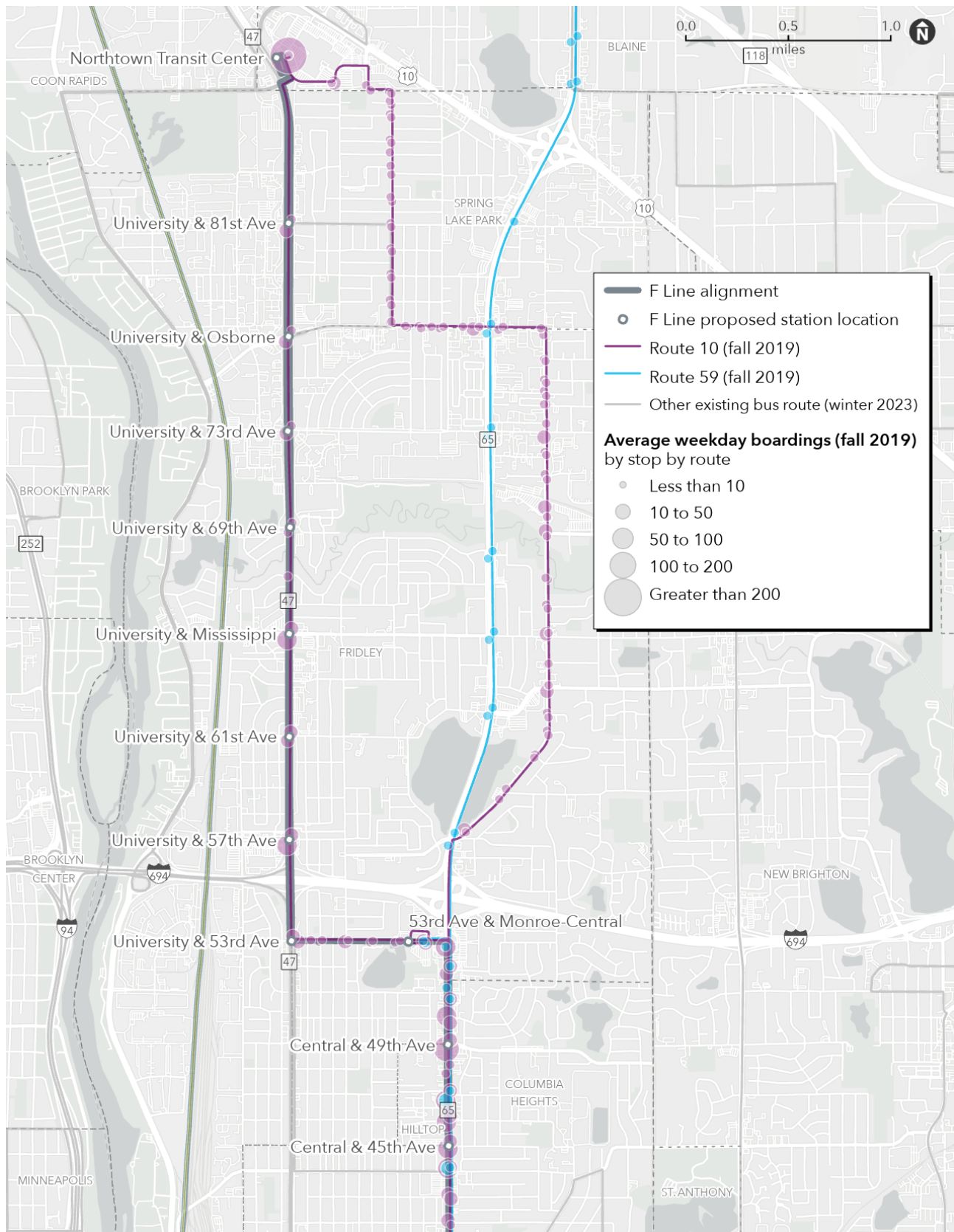


Figure 15. Existing Route 10 ridership (south of 45th Avenue)

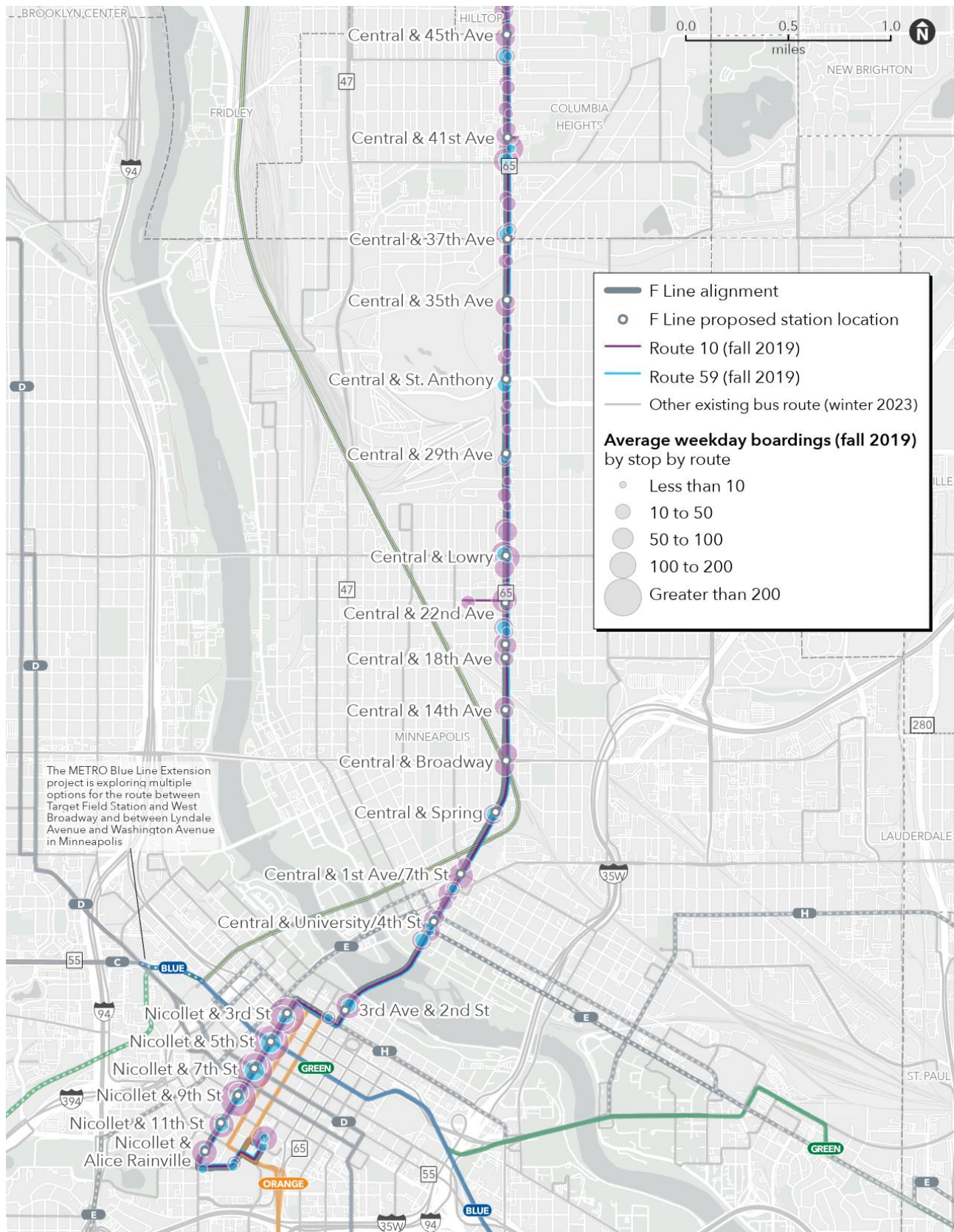


Figure 16. Planned station spacing (north of 45th Avenue)

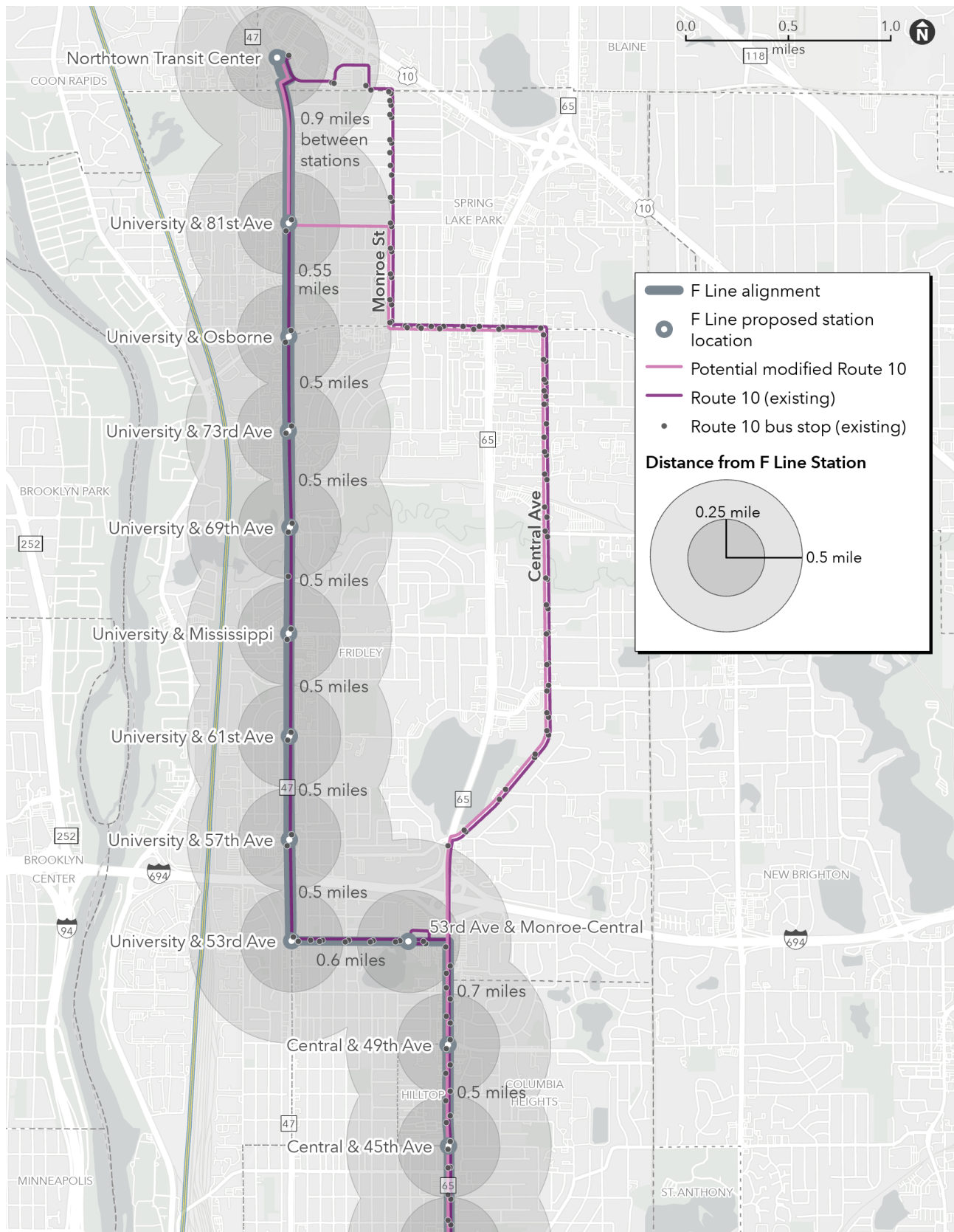


Figure 17. Planned station spacing (south of 45th Avenue)

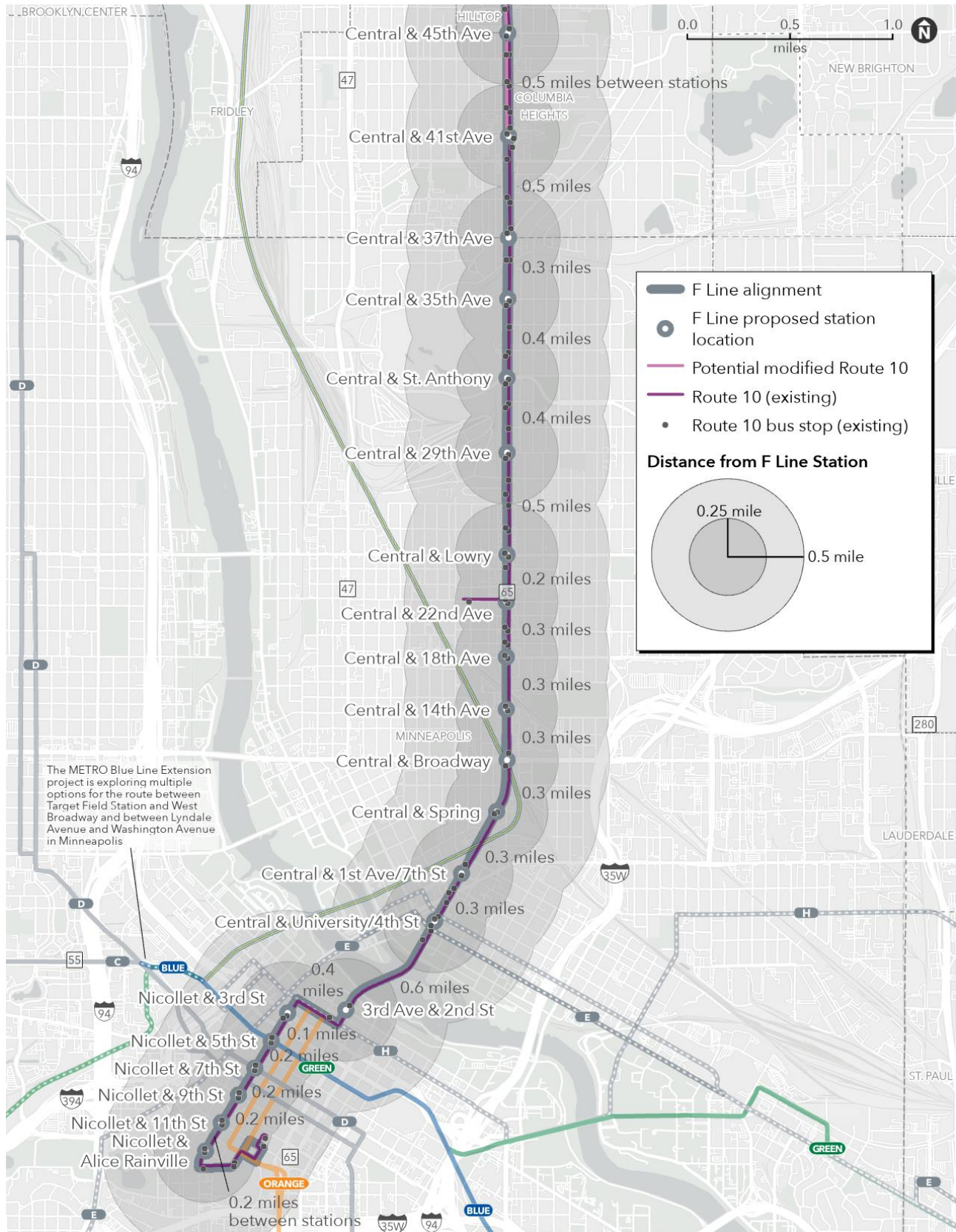


Figure 18. Connecting local bus service (north of 45th Avenue)

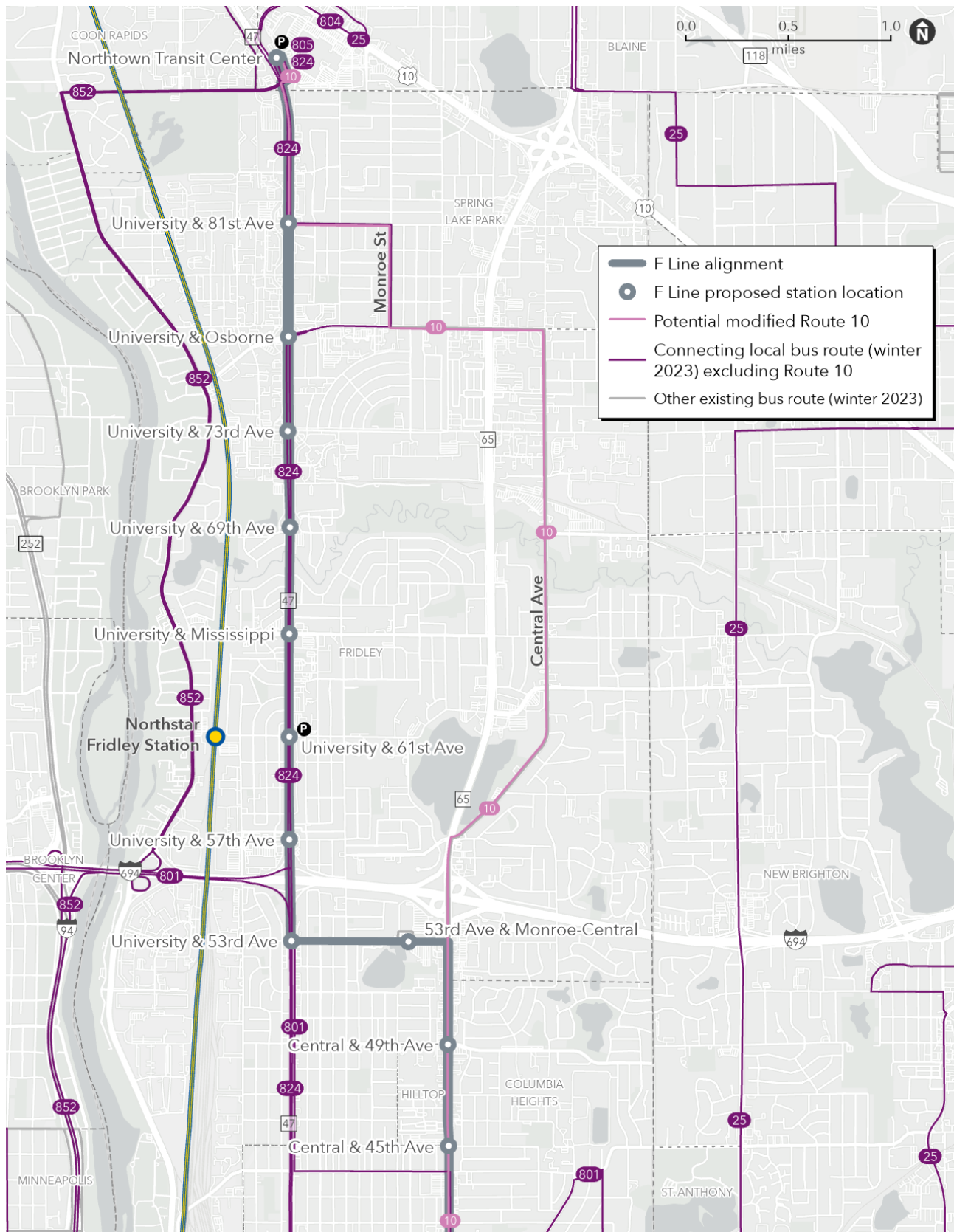
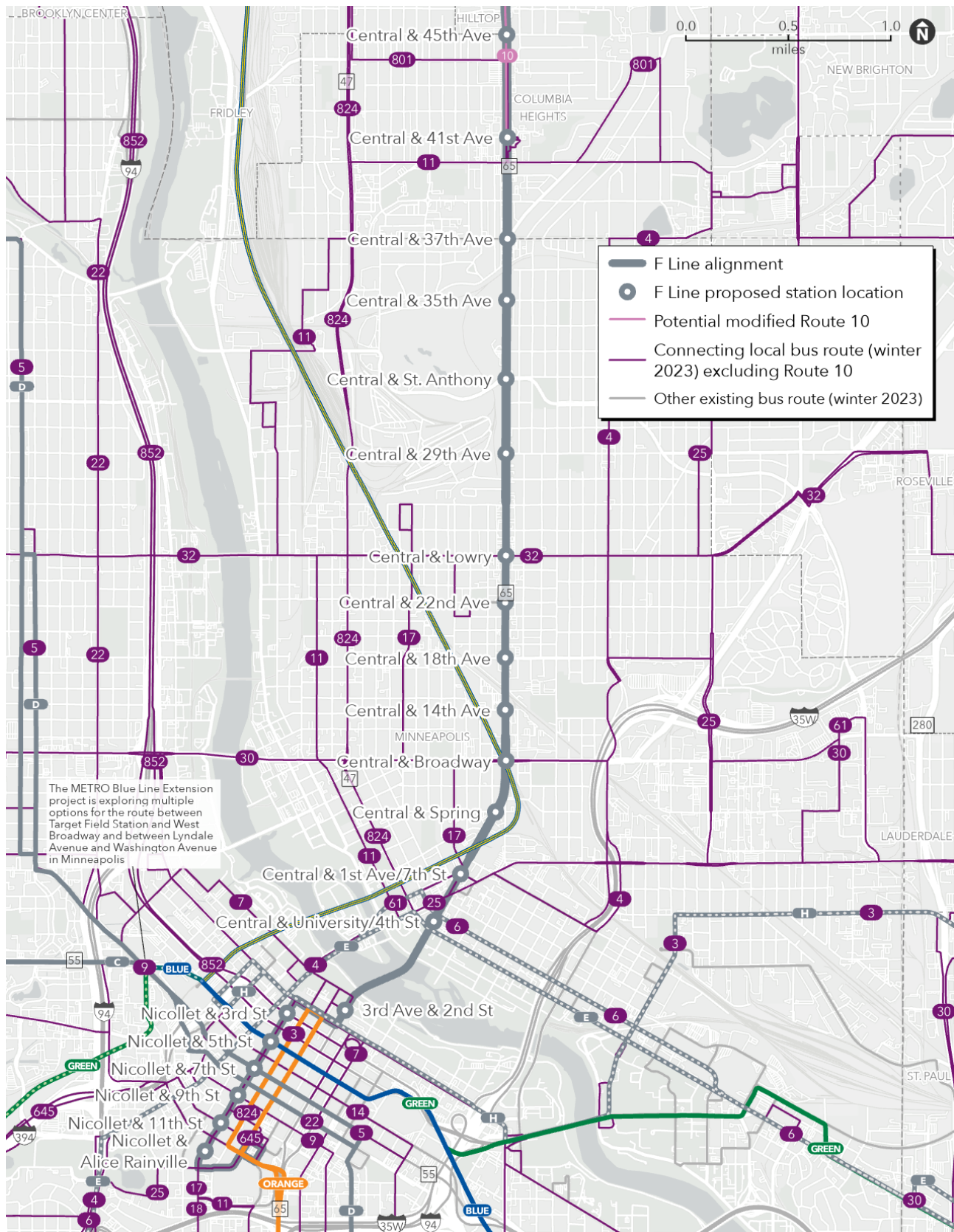


Figure 19. Connecting local bus service (south of 45th Avenue)



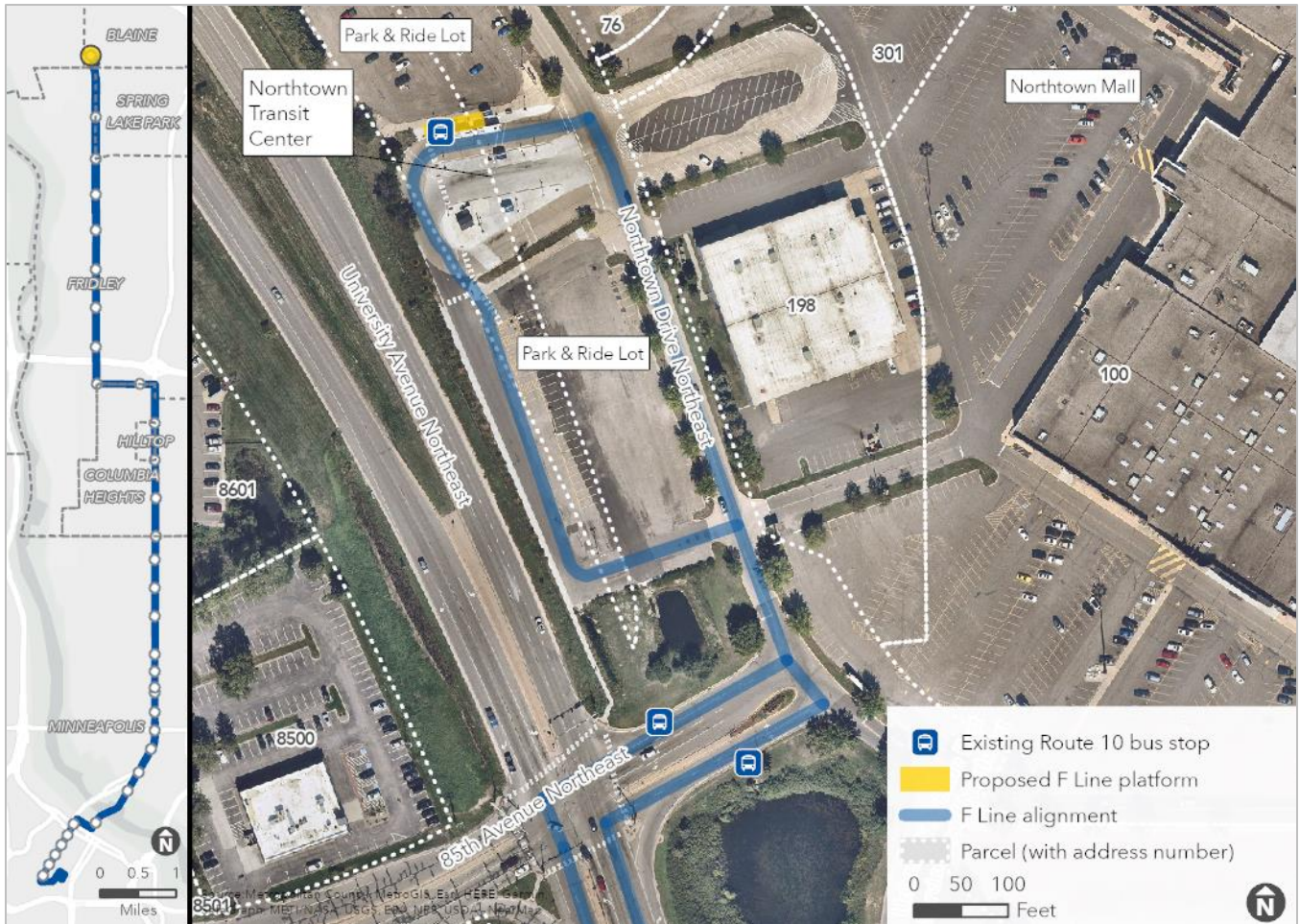
Northtown Transit Center

This station is the northern terminal for the F Line and currently offers connections to Routes 10, 25, 804, 805, 824, and 852. Northtown Transit Center Station is one of several stations requiring minimal enhancement prior to the opening of the F Line.

Improvements to the existing Northtown Transit Center were completed in 2022, including realignment of bus stops and vehicle circulation, new pedestrian infrastructure, new shelters with light and heat, a bus driver restroom facility, and NexTrip signs with real-time information. The F Line station at Northtown Transit Center will complement existing infrastructure with METRO branding and fare collection equipment.

The City of Blaine completed a [master plan](#) for the Northtown Mall site and surrounding area in July 2022. The plan identifies redevelopment opportunities and establishes a vision for a future vibrant mixed-use neighborhood. Among other transit-supportive changes within the broader Northtown district, the vision calls for a comprehensive network of sidewalks and trails and integration of the Transit Center and the F Line as part of a multimodal hub with transit-oriented development.

Proposed Station Location





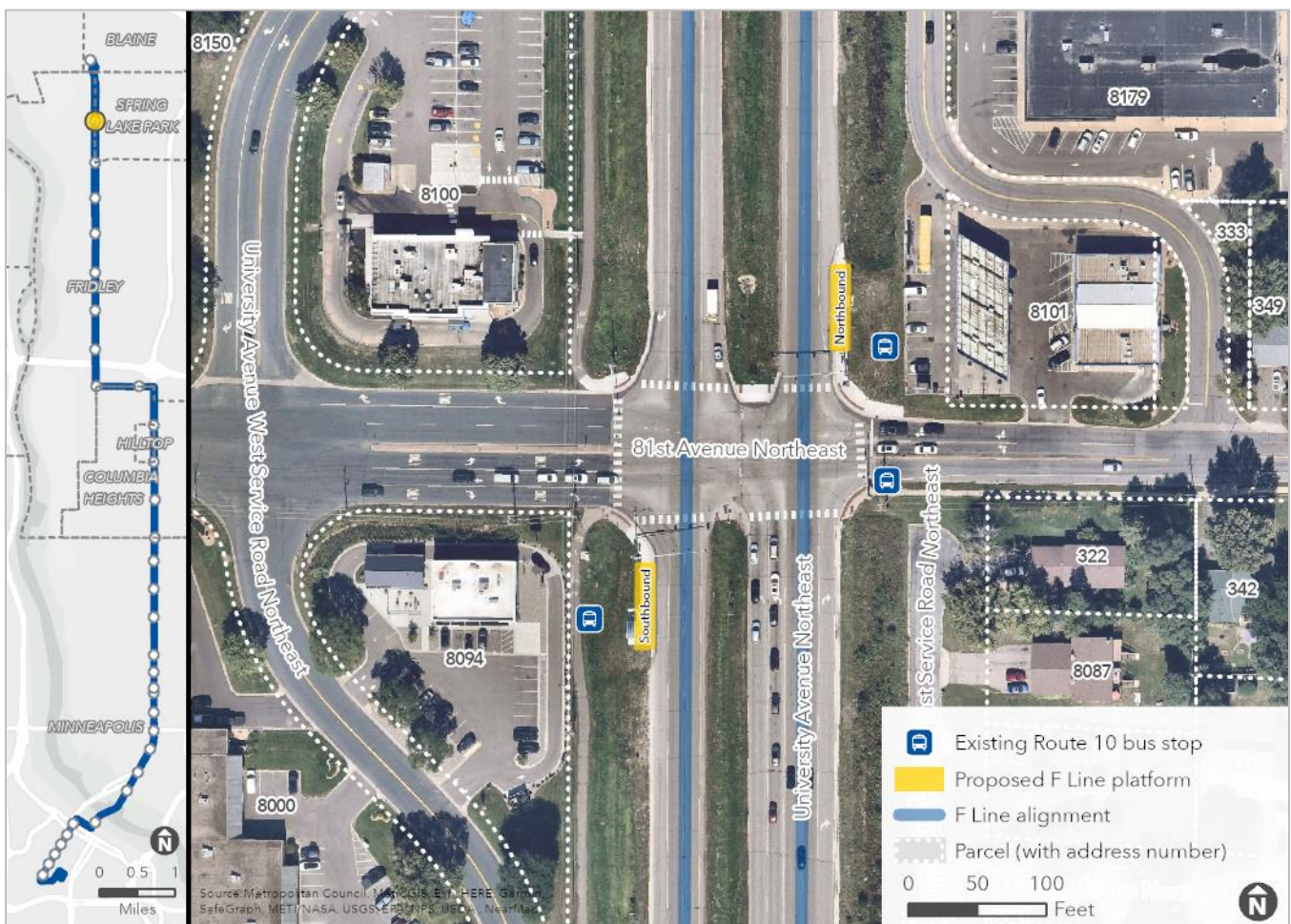
Passengers getting on and off a Route 10 bus at Northtown Transit Center (Sept. 2022) [Source: Metro Transit]

University & 81st Avenue

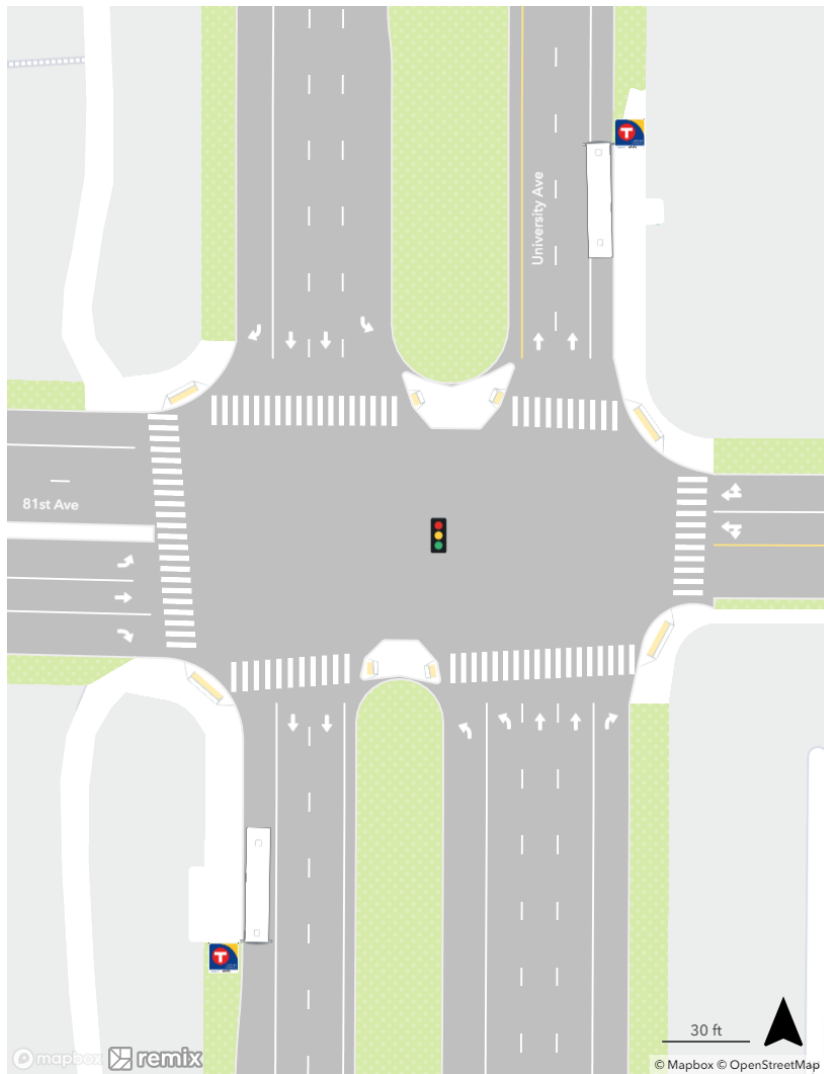
This station currently offers connections to Route 824 and could also be served by a modified Route 10 (see *Potential Local Service in the Corridor*). Proposed platforms are located at the same corners as current-day Route 10 stops. University Avenue is under the control of MnDOT, while the east and west legs of 81st Avenue are controlled by the cities of Spring Lake Park and Fridley, respectively.

Commercial activity defines the areas southwest, northwest, and northeast of the intersection, with a mix of commercial and industrial uses further west of University Avenue. Areas to the southeast and further east are largely made up of single-family homes.

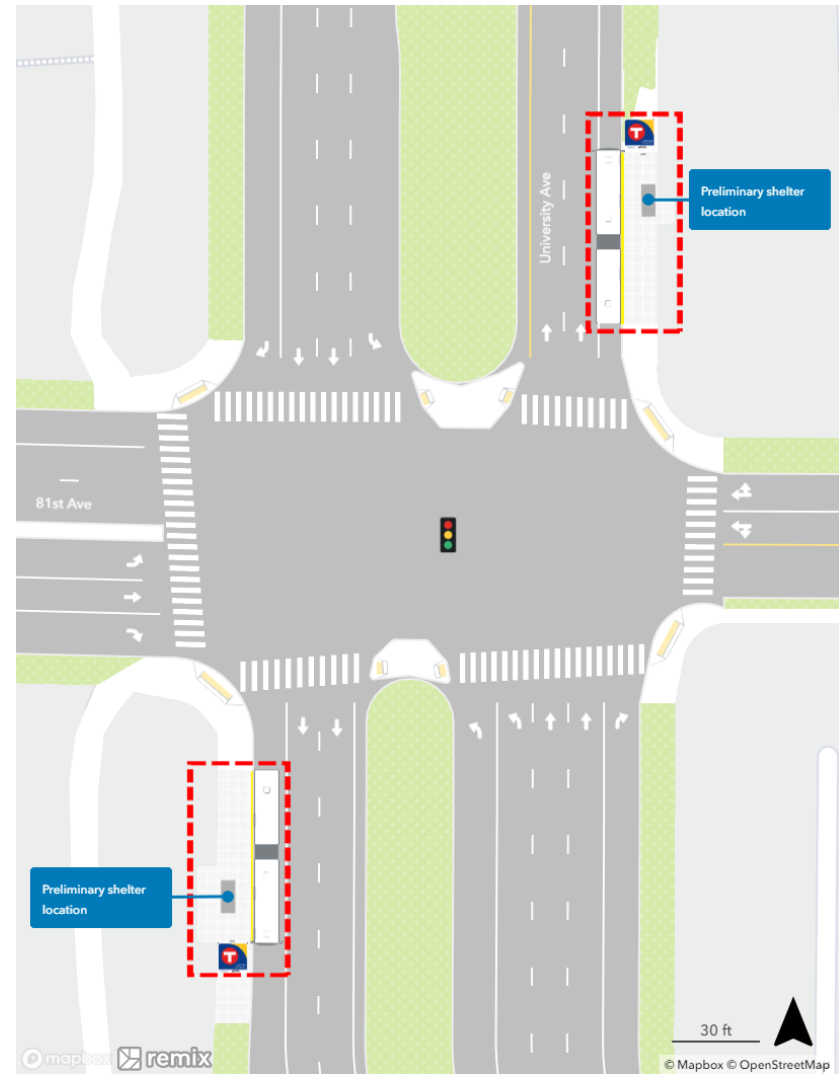
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Project coordination

- MnDOT has planned improvements at the intersection in 2025, including changes to corner radii to decrease turning speeds and shorten crossing distances.
- The station is within the study area of MnDOT's Highway 47 and Highway 65 PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Pedestrian access

- There are marked crosswalks and accessible pedestrian signals at the intersection.
- MnDOT recently added a crosswalk and reconstructed curb ramps at the northwest and northeast corners of the intersection, enabling crossing of University Avenue from both the north and south side of 81st Avenue.
- A shared-use trail immediately west of University Avenue provides access to housing, jobs, and commercial activity to the north and south.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).

Other locations considered

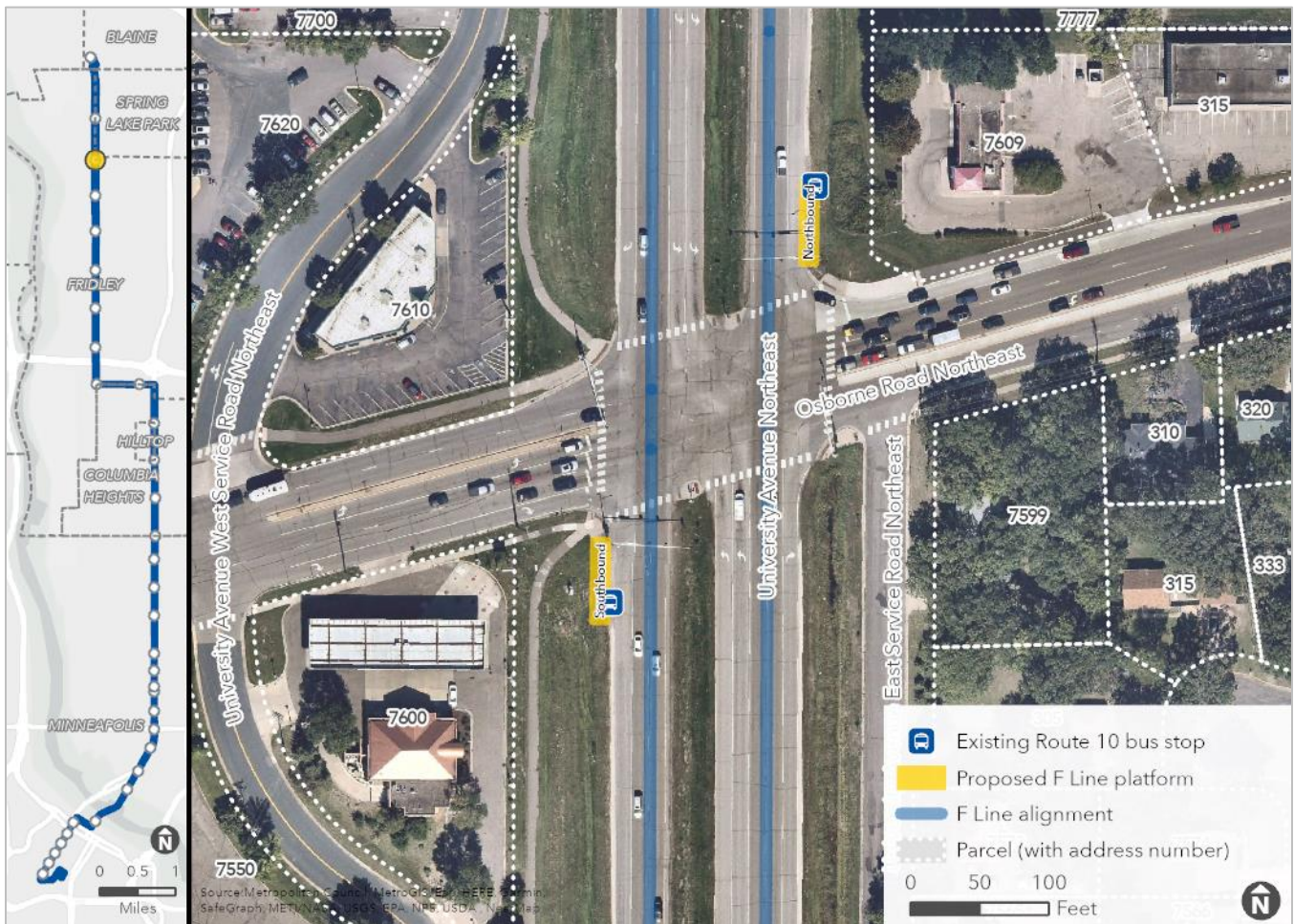
- **University Avenue and 83rd Avenue:** An alternative station location was considered but not advanced at 83rd Avenue. Crossing safety is a concern at the intersection of 83rd and University avenues; it is not a signalized intersection and has a history of pedestrian and bicycle crashes at this location. A platform at this location could encourage unsafe pedestrian and bicyclist crossings. There are currently no bus stops at the intersection for this reason.

University & Osborne

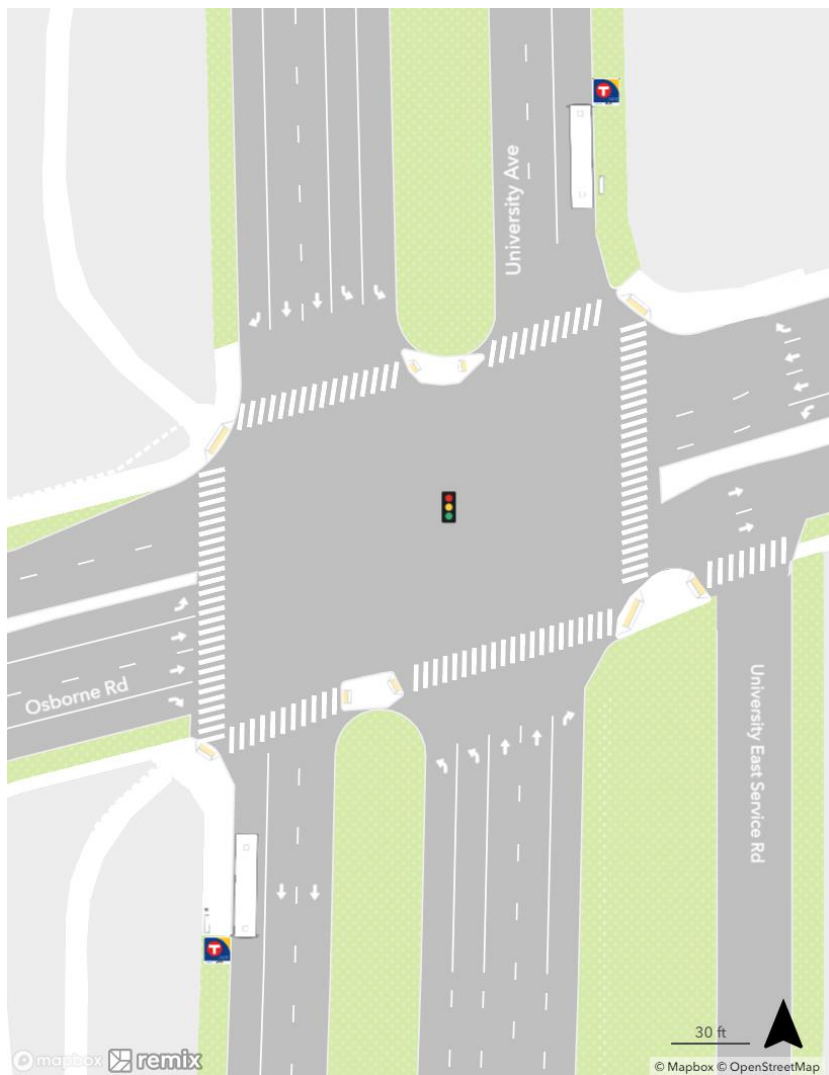
This station currently offers connections to Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT and Anoka County, respectively, are the roadway authorities for University Avenue and Osborne Avenue (County Road 8).

Commercial and industrial land uses define the area west of the station. The Fridley Medical Center, Unity Professional Building, and adjacent Mercy Hospital – Unity Campus located 1/4 mile east of the station location are important destinations and job centers in the community.

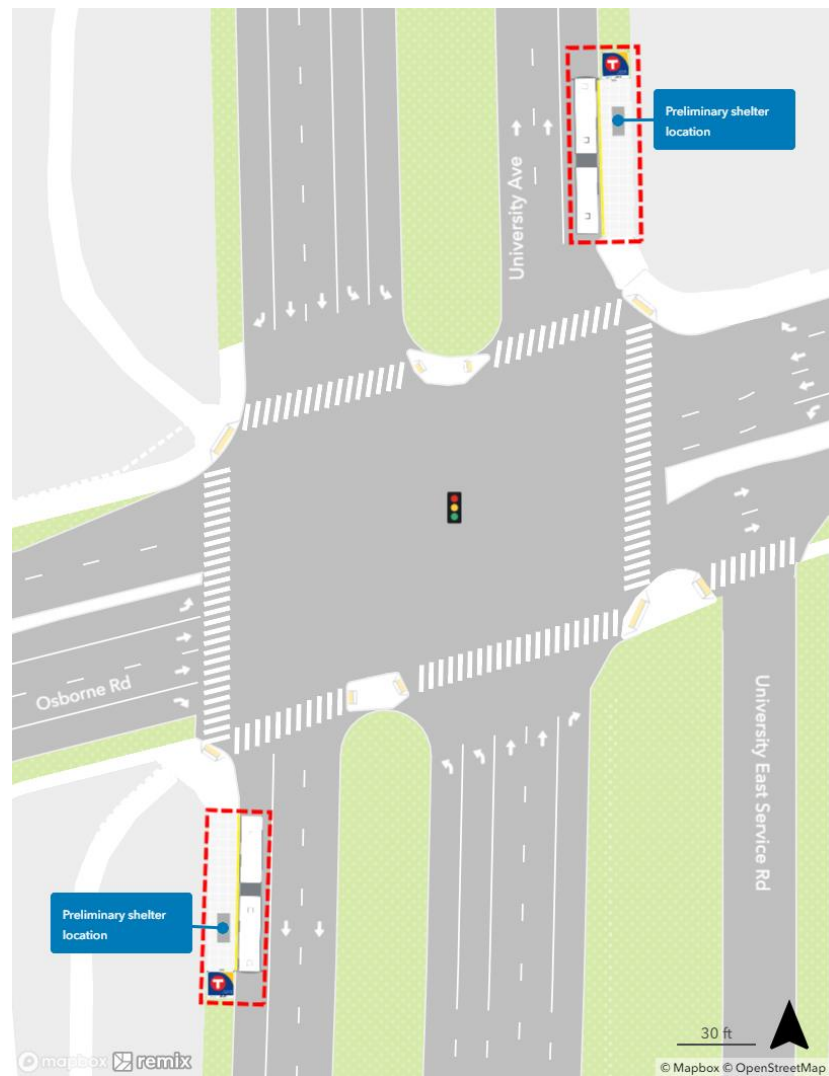
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- Unlike the next intersection to the north (79th Avenue), the Osborne Road intersection is signalized, has marked crosswalks, accessible curb ramps, and accessible pedestrian signals at all corners. There is a shared-use trail immediately west of University Avenue.

Project coordination

- MnDOT has planned improvements at the intersection in 2025, including changes to corner radii to decrease turning speeds and shorten crossing distances.
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).

University & 73rd Avenue

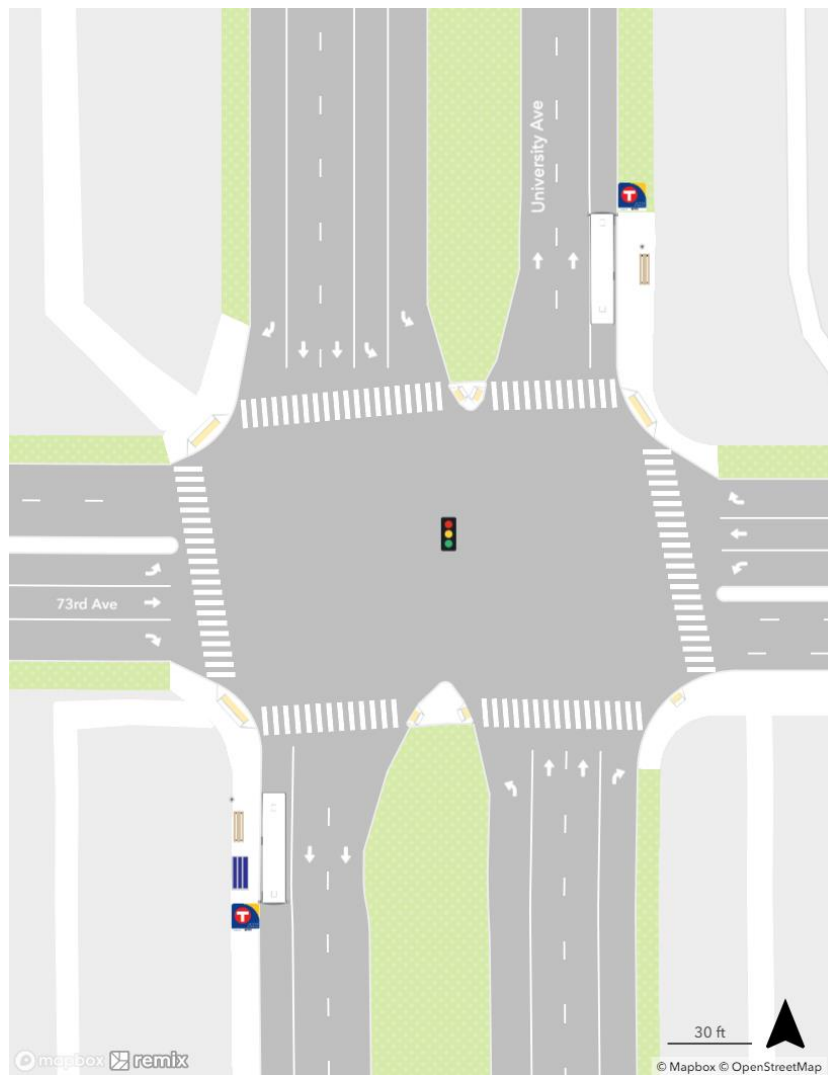
This station currently offers connections to Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for University Avenue, while 73rd Avenue is controlled by the City of Fridley.

Commercial and industrial activity define the areas northwest, southwest, and southeast of the intersection, with low- and high-density residential development to the northeast.

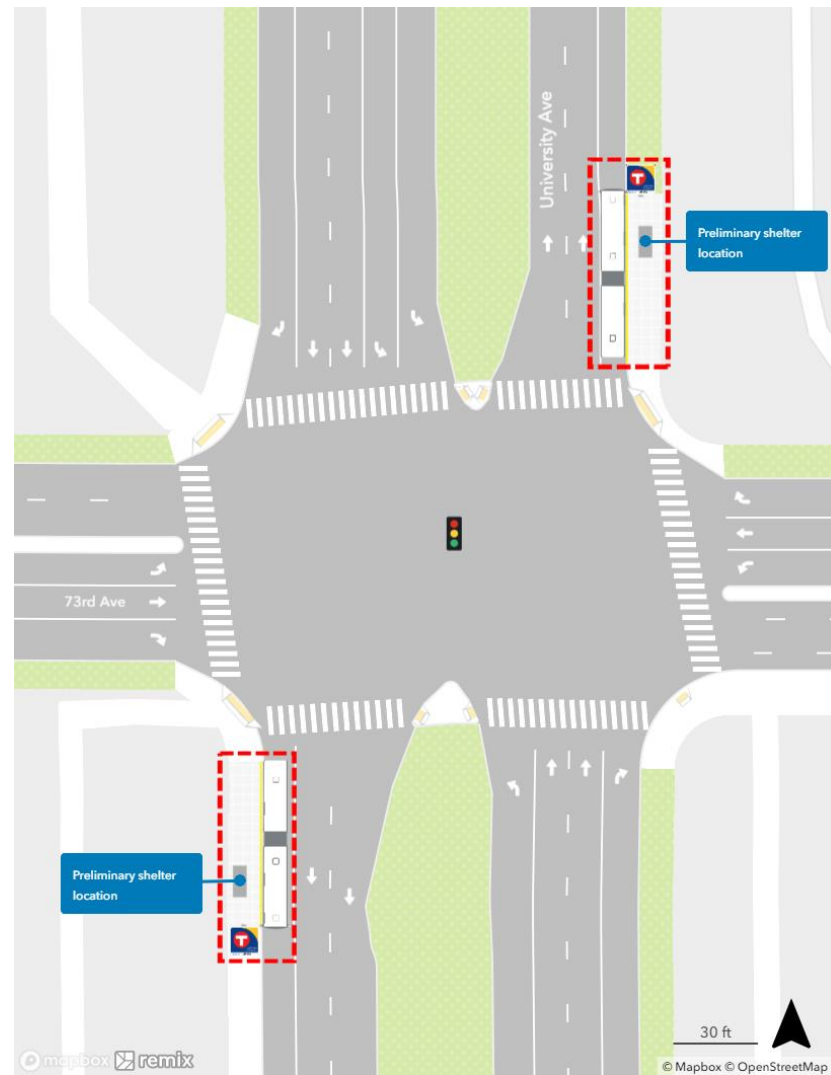
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- There is a shared-use trail immediately west of University Avenue.

Project coordination

- MnDOT has planned improvements at the intersection in 2025, including median extensions, changes to corner radii, and curb extensions.
- MnDOT is planning construct a short segment of shared-use path in 2025 to connect the southeast corner of the intersection of University and 73rd avenues to the University East Service Road. This will provide more direct access between F Line platforms and the business and industrial district on the south side of 73rd Avenue east of University Avenue.
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- The City of Fridley is planning to reconstruct 73rd Avenue in 2026.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).

University & 69th Avenue

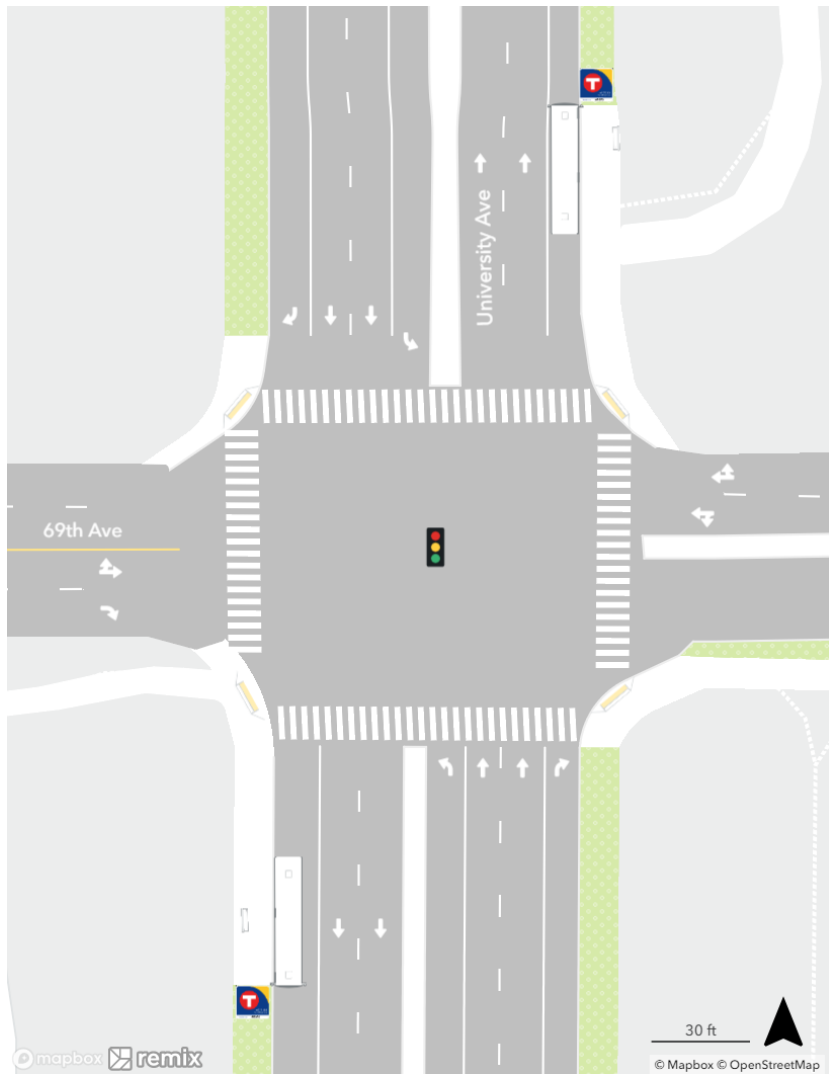
This station currently offers connections to Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT and the City of Fridley, respectively, are the roadway authorities for University Avenue and 69th Avenue.

The City of Fridley Civic Campus is located on the east side of University Avenue, north of the station. A neighborhood of recently built townhomes, condominiums, and single-family homes is located east of the proposed northbound platform. Fridley Community Park is located on the northwest corner of the intersection. Bordering the park to the north is industrial land use and Metro Heights Academy.

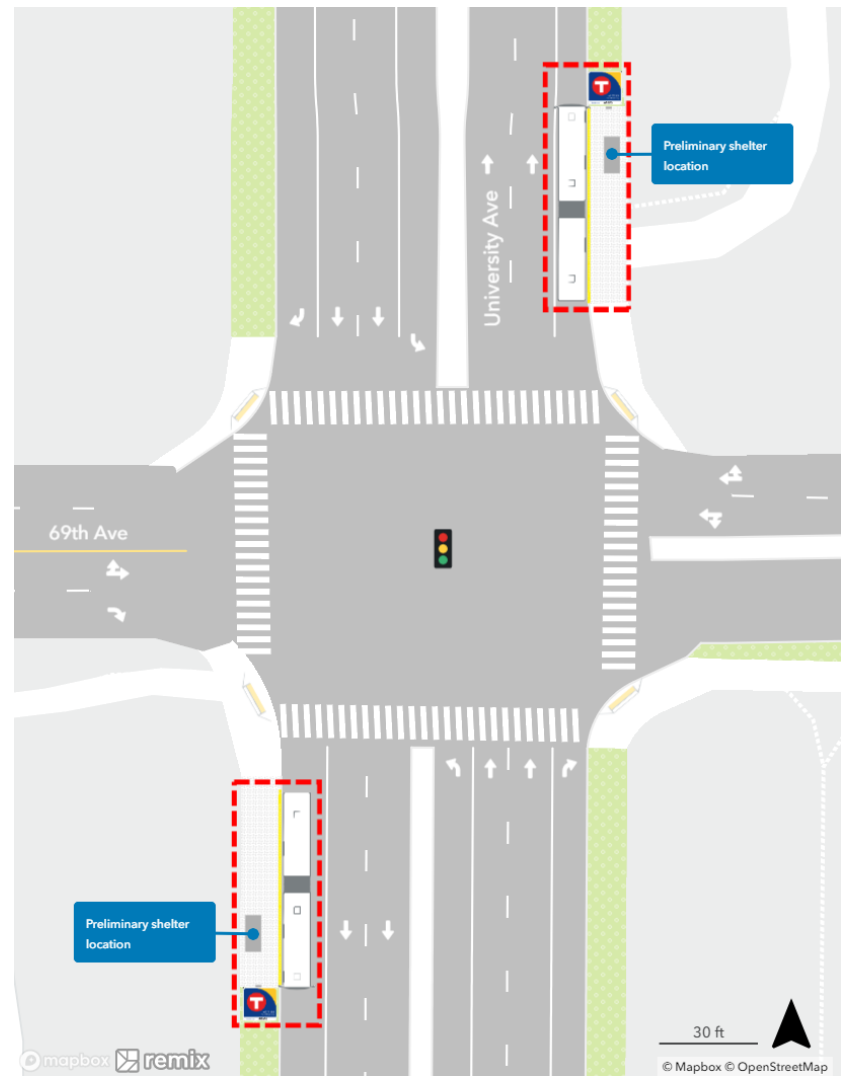
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- A shared-use trail on the east side of University Avenue connects the station to 73rd Avenue and Mississippi Street to the north and south, respectively.
- The City of Fridley plans to construct a shared-use trail between 69th and 61st avenues on the west side of University Avenue – extending south the existing trail that begins at 85th Avenue. The trail extension project is slated to begin in 2023.

Bicycle facilities

- The Rice Creek West Regional Trail crosses University Avenue on the south side of the intersection and connects Locke Park and the City of Fridley complex on the east side with Community Park and the Mississippi River to the west. Metro Transit will work with MnDOT, Anoka County, and the City of Fridley to ensure design of F Line platforms do not interfere with but enhance access to the regional trail.

Project coordination

- MnDOT has planned improvements at the intersection in 2025, including curb ramps and accessible pedestrian signals. Additionally, MnDOT will make improvements to the Rice Creek West Regional Trail near the intersection begin in 2023 or 2024, depending on funding sources.
- The station is within the study area of MnDOT’s PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Conceptual platform layout

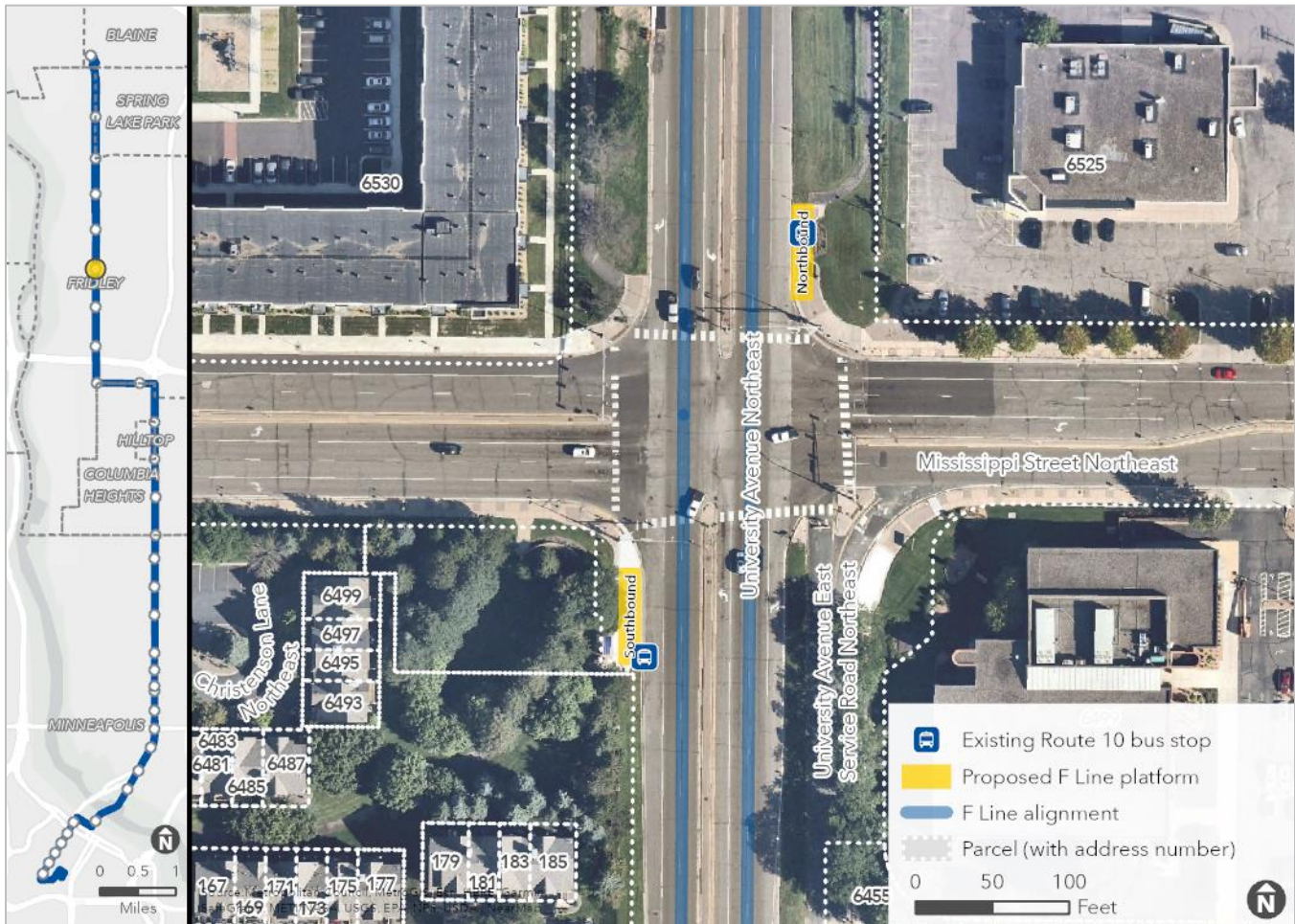
- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).

University & Mississippi

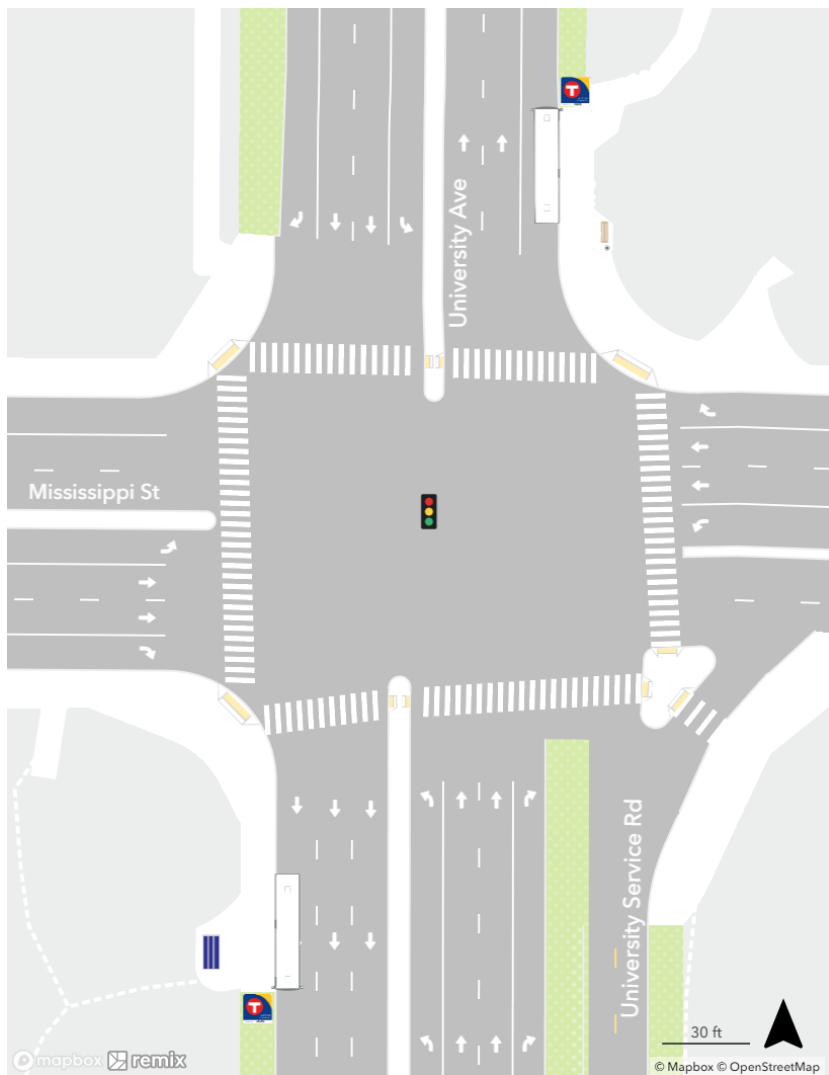
This station currently offers connections to Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for University Avenue, while Anoka County controls Mississippi Street (County Road 6).

The area around the proposed station is characterized by newer high-density residential and single-story commercial and strip mall developments.

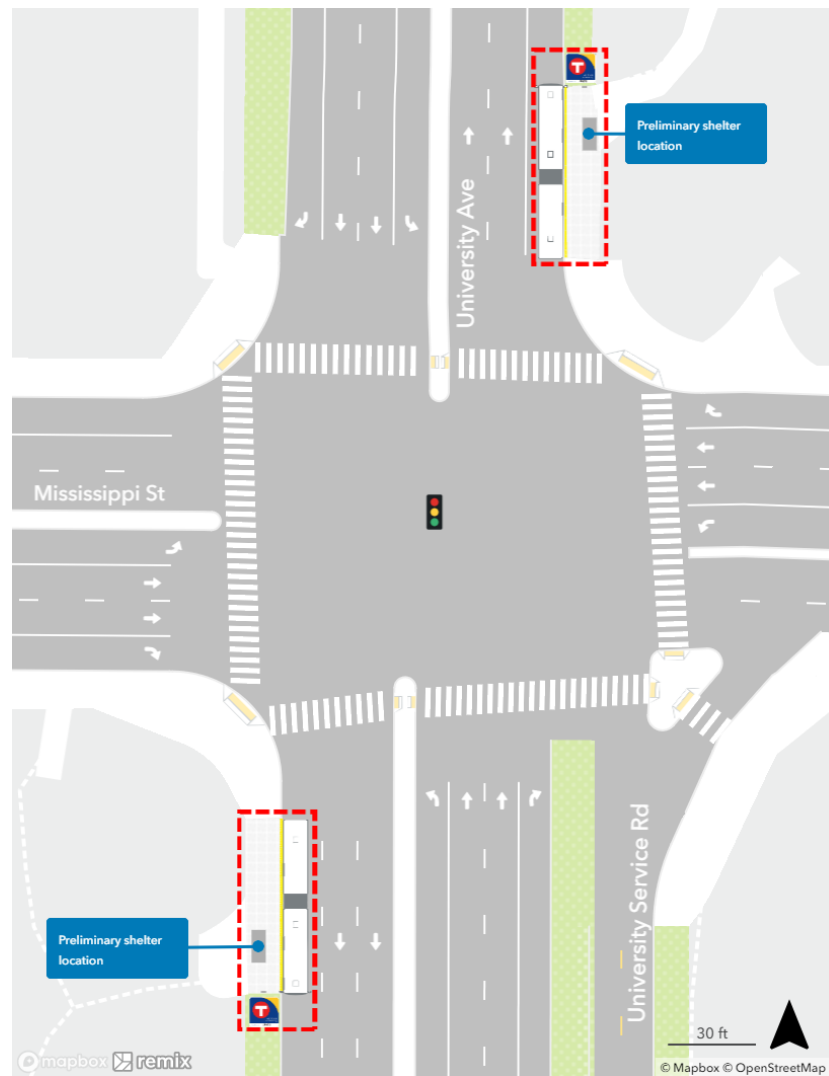
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- There are currently no sidewalks or other pedestrian facilities along University Avenue south of Mississippi Street; instead, people walk or roll using the University Service Road parallel to University Avenue. The City of Fridley plans to construct a shared-use trail between 69th and 61st avenues on the west side of University Avenue – extending south the existing trail that begins at 85th Avenue. The trail extension project is slated to begin in 2023. Additionally, the City plans to construct a shared-use trail in the area currently occupied by the University Service Road (east of University Ave), beginning near the southeast quadrant of the intersection of University Avenue and Mississippi Street, and continuing south to Fourmies Avenue.

Project coordination

- MnDOT has planned improvements at the intersection scheduled to occur over the course of 2023-2025 (depending on funding), including medians extensions, tightening corner radii, and upgrading accessible pedestrian signals.
- The station is within the study area of MnDOT’s PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- Anoka County will be reconstructing Mississippi Street on either side of University Avenue in 2025.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).



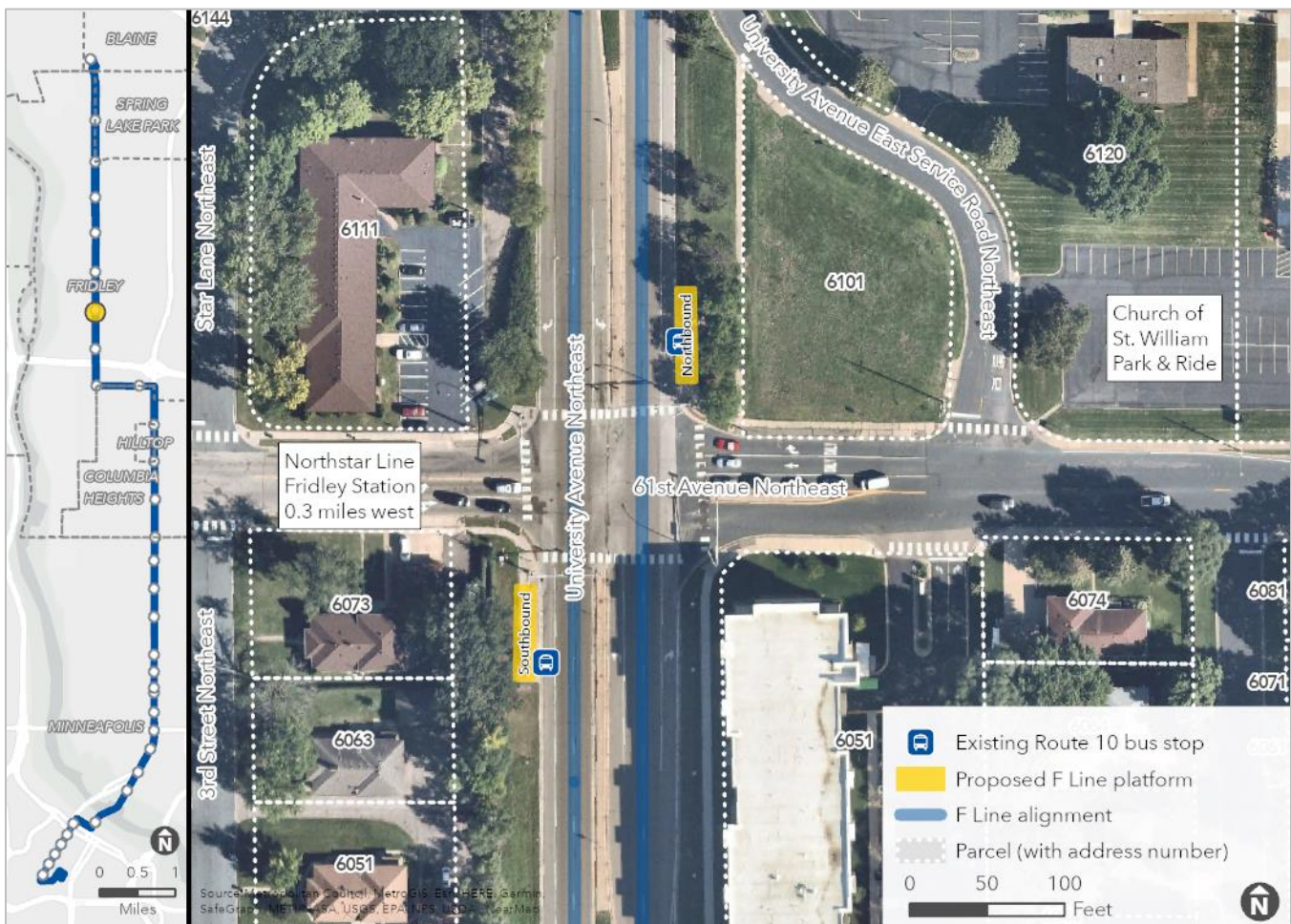
A Route 10 bus at the proposed southbound platform location, with new 262-unit workforce housing development (opened spring 2022) in the background (Source: Metro Transit)

University & 61st Avenue

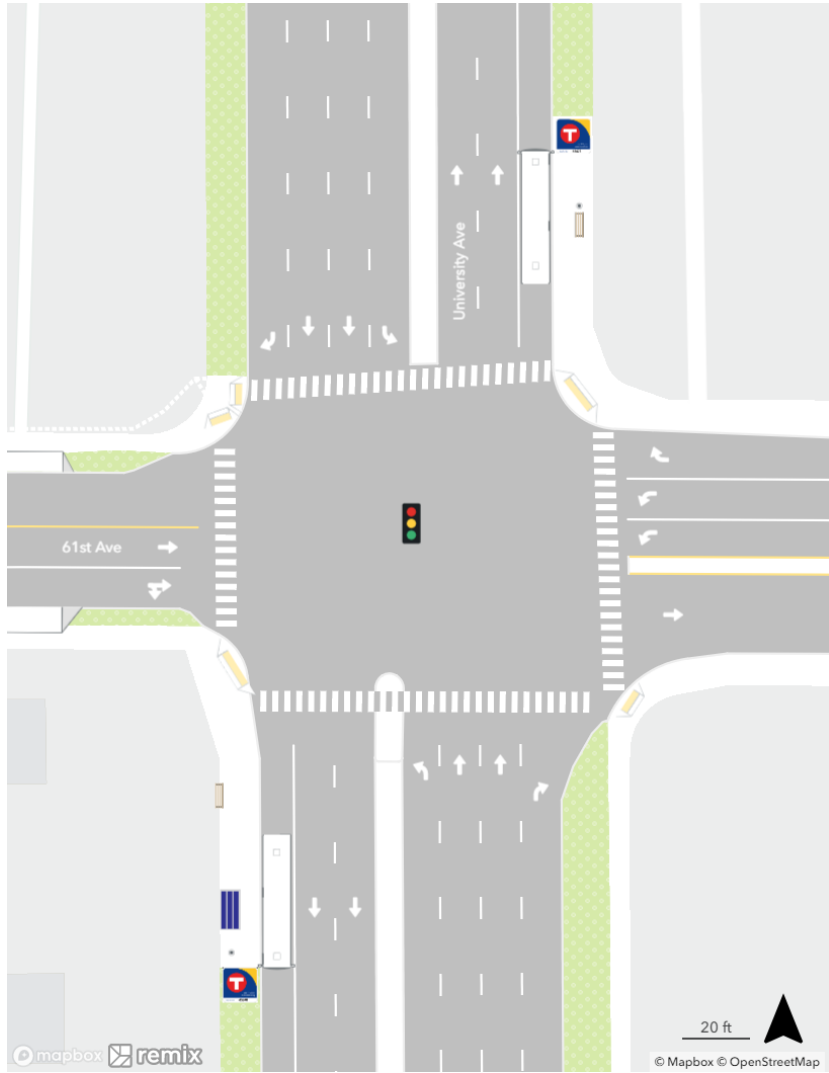
This station currently offers connections to Route 824 and the Church of St. William Park & Ride. Fridley Station on the Northstar Line is five blocks (0.3 mile) directly west of the proposed station. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT and the City of Fridley, respectively, are the roadway authorities for University Avenue and 61st Avenue.

The area immediately surrounding the station is largely residential, including single-family homes, duplexes, smaller apartment buildings (some affordable and/or senior housing), and newly built high-density housing. Fridley High and Middle schools and the Fridley Community Center are 1/3 to 1/2 mile east of the intersection.

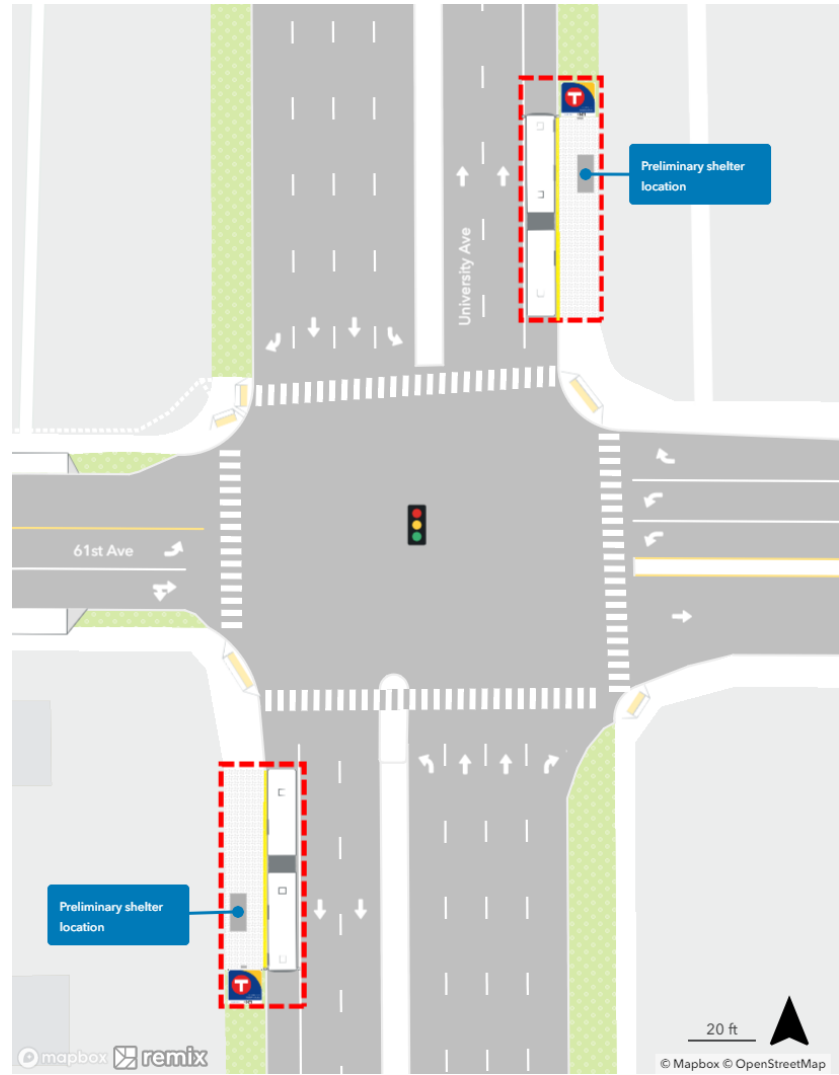
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- The City of Fridley is exploring opportunities for a new mobility hub⁵ near the proposed northbound platform on the City-owned parcel at the northeast corner of the intersection.
- The City plans to construct a shared-use trail between 69th and 61st avenues on the west side of University Avenue – extending south the existing trail that begins at 85th Avenue. The trail extension project is slated to begin in 2023. The City intends to extend this trail further south to 57th Avenue at a future date.

Project coordination

- The station is within the study area of MnDOT’s PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).



View of the proposed Central & 61st Avenue southbound platform location, with 269-unit housing development (constructed 2016-2019) across the street (Source: Metro Transit)

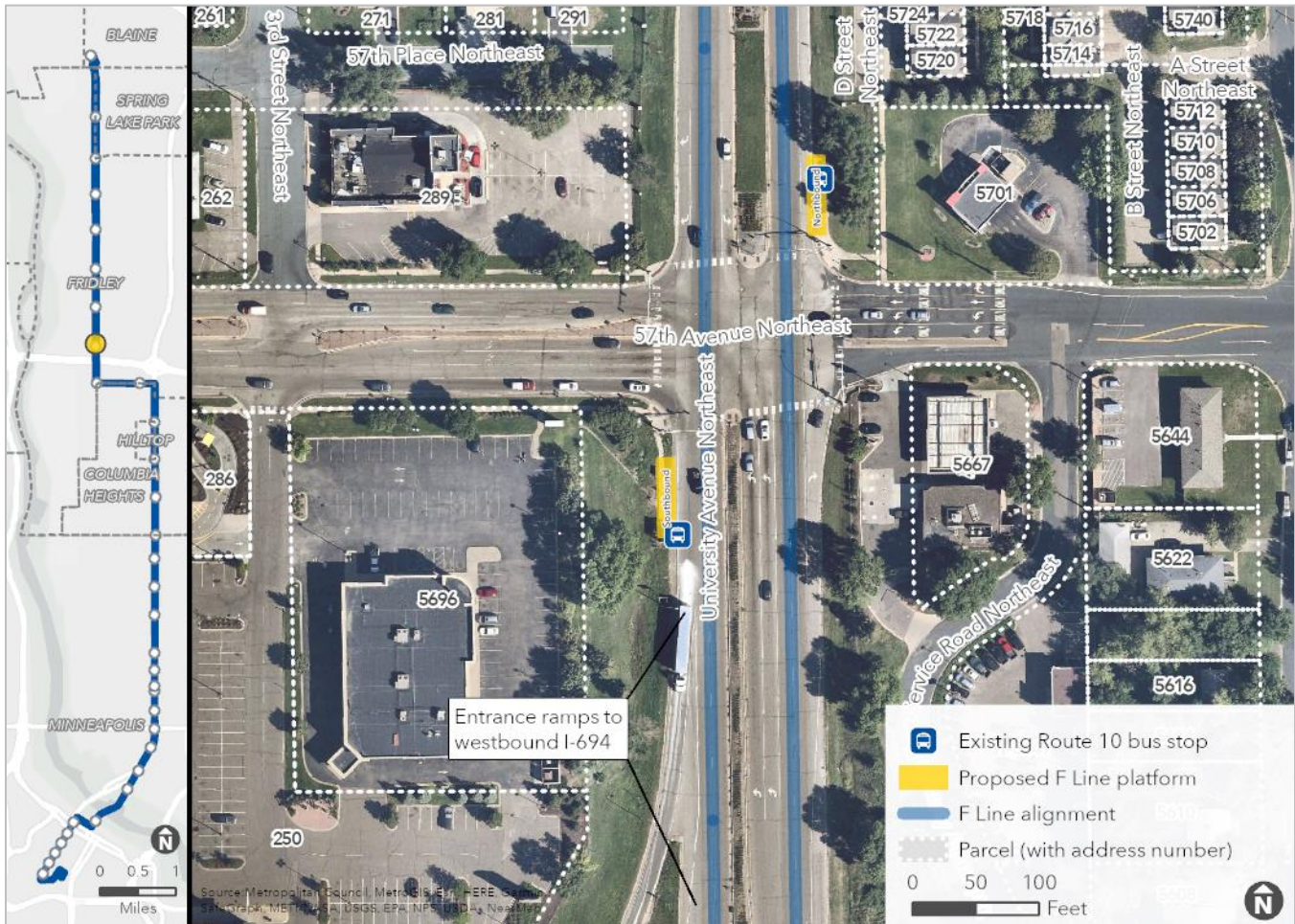
⁵ Mobility hubs are places where people can connect with multiple modes of transportation in a safe, comfortable, and accessible environment, facilitating convenient and reliable travel. Mobility hubs co-locate diverse transportation options and community amenities to help people quickly access a shared vehicle, connect between travel services, and orient themselves when they arrive. They are meant to be accessible and inclusive spaces for people to experience the simplicity of multimodal trip planning.

University & 57th Avenue

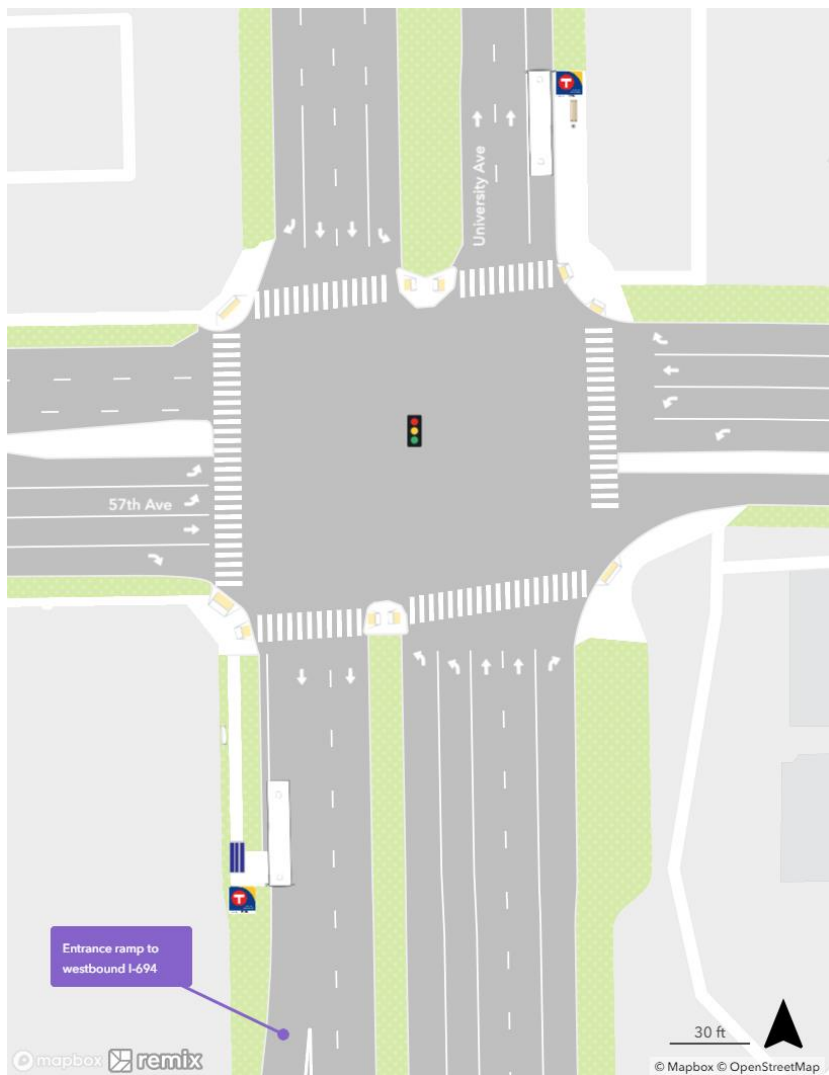
This station currently offers connections to Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for University Avenue, while the City of Fridley controls 57th Avenue.

Commercial activity lines 57th Avenue west of University Avenue; commercial uses are present at the northeast and southeast corners of the intersection. Residential neighborhoods with townhomes and attached and detached buildings define the areas east of the station.

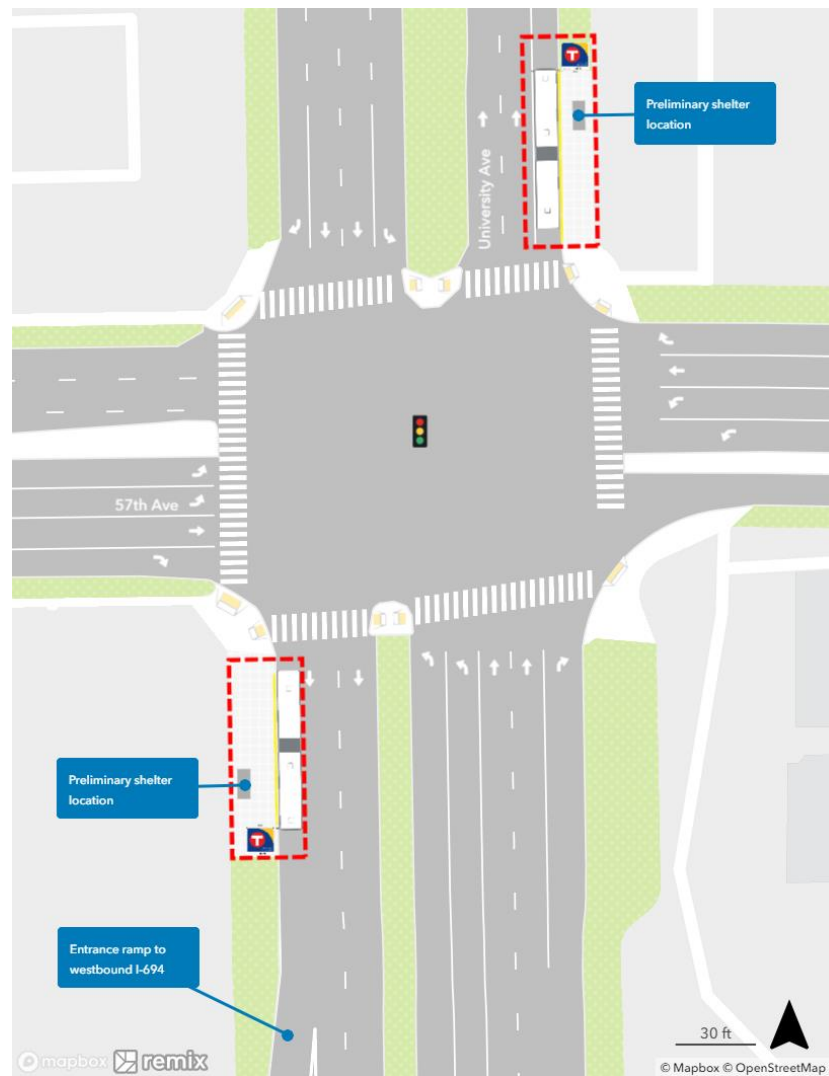
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Traffic operations

- The proposed southbound platform is about 75 feet north of one of the entrance ramps to westbound I-694 at the existing local bus stop. A stopped southbound bus in this location poses no obstruction to southbound traffic. Route 10 successfully operates at this location today according to current Route 10 drivers and other Metro Transit staff who regularly oversee and manage bus operations in this area. Metro Transit is working with MnDOT and local agencies to complete traffic modeling to understand the effect of proposed stations on traffic operations.

Pedestrian access

- The City of Fridley plans to construct a shared-use trail on the west side of University Avenue between 61st and 57th avenues, though a construction date has not yet been determined.

Project coordination

- MnDOT has planned improvements at the intersection in 2025, including changes to corner radii to decrease turning speeds and shorten crossing distances.
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).

University & 53rd Avenue

This station currently offers connections to Route 801 and Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for University Avenue, while the cities of Fridley and Columbia Heights control segments of 53rd Avenue in this area.

Strip commercial development lines the service road immediately east of University Avenue, surrounded by neighborhoods with a mix of single-family and multifamily buildings. Further west – about 1/4 mile from the station – are several businesses within an industrial park.

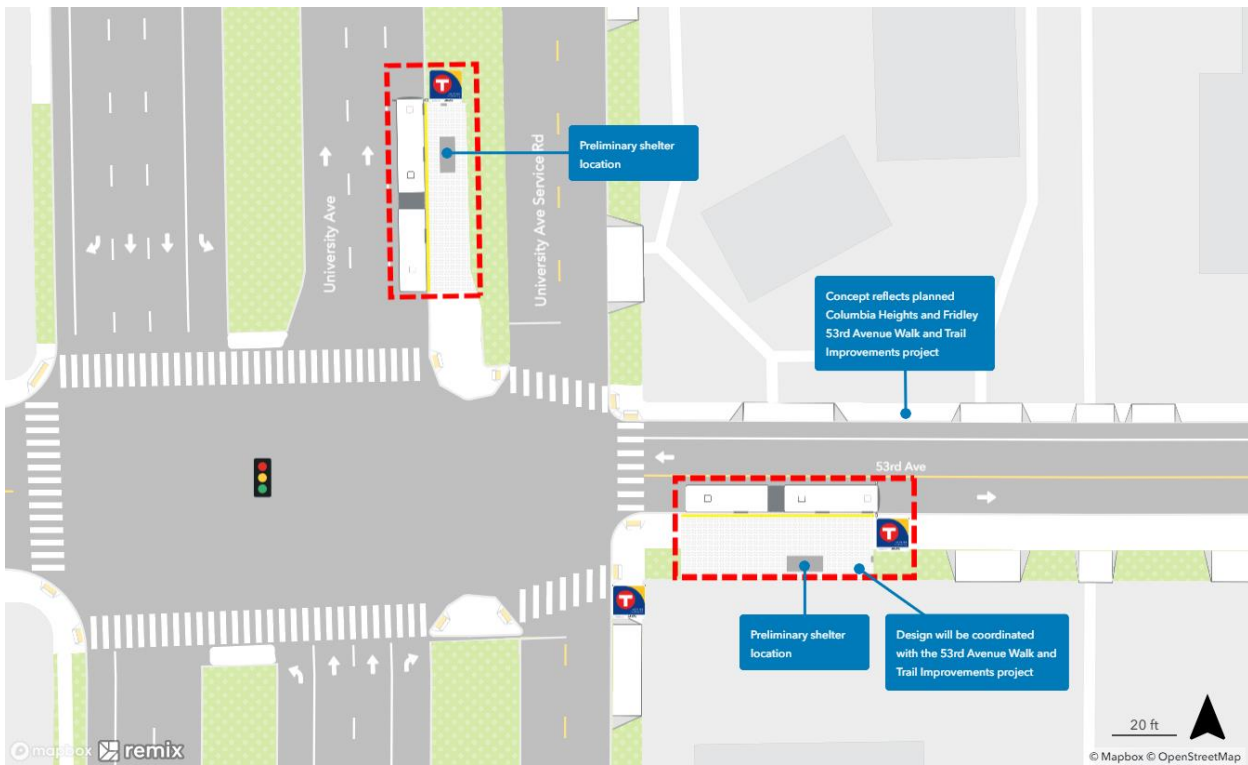
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Conceptual platform layout

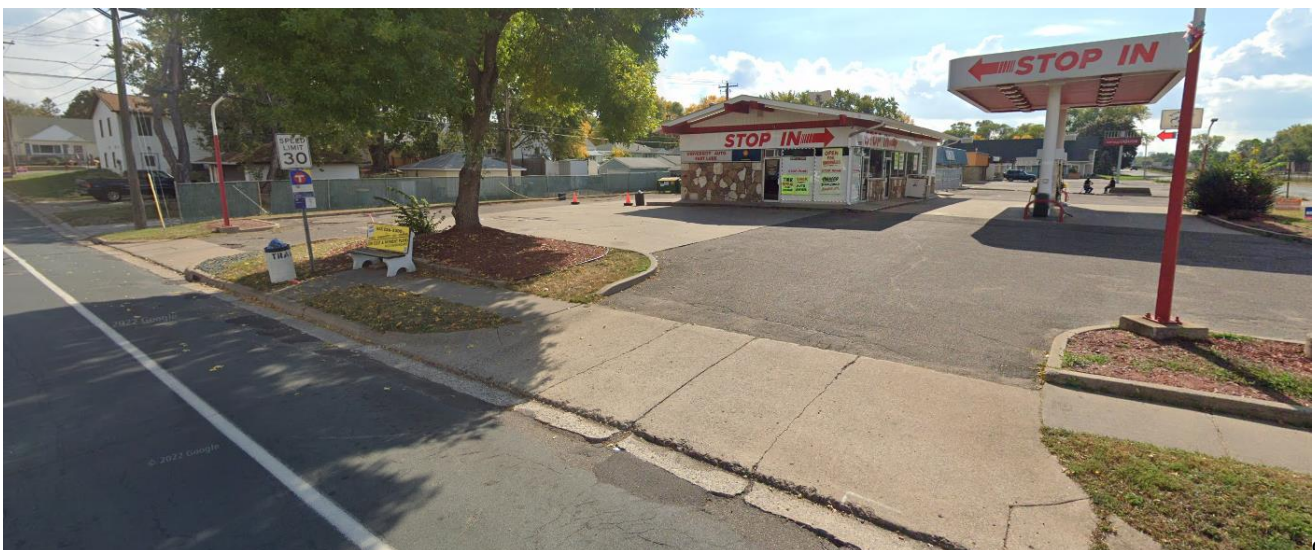
- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- The proposed southbound/eastbound platform on 53rd Avenue would be located next to an auto repair shop and gas station. Siting the proposed southbound/eastbound platform on 53rd Avenue would require the closure of the western driveway along 53rd Avenue to accommodate the platform. There are currently four driveways providing access to the property on which the business is located – two along the service road and two along 53rd Avenue.
- Metro Transit is working with MnDOT and local agencies to complete traffic modeling to understand the effect of proposed stations on traffic operations, including the southbound/eastbound platform on 53rd Avenue.

Pedestrian access

- The cities of Columbia Heights and Fridley are constructing multimodal improvements along 53rd Avenue in 2023-2024. The project will introduce a sidewalk along the north side of 53rd Avenue and a shared-use trail on the south side.

Project coordination

- MnDOT has planned improvements at the intersection in 2025, including a median extension to minimize the pedestrian crossing distance of 53rd Avenue and changes to corner radii to decrease vehicle speeds.
- The station is within the study area of MnDOT’s PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.



Proposed southbound platform location (an existing Route 10 bus stop) near the existing western driveway on 53rd Avenue (Source: Google Maps)

53rd Avenue & Monroe-Central

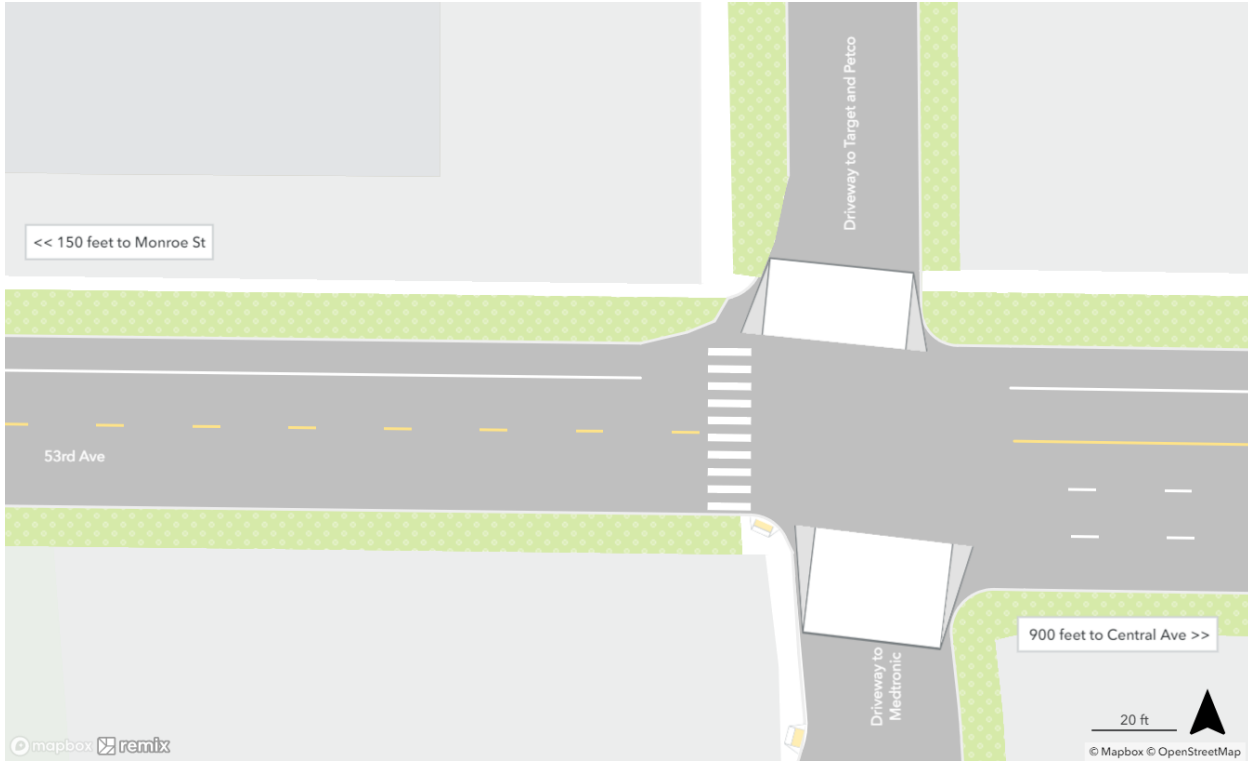
The station is located on 53rd Avenue adjacent to Target/Petco and Medtronic, between Monroe Street and Central Avenue. 53rd Avenue is the border between the two cities, with Columbia Heights controlling the south side of 53rd Avenue and Fridley controlling north side.

Land uses surrounding the station area are almost entirely commercial, with a mix of big-box stores and strip mall development. Nearby neighborhoods are largely single-family residential buildings, though there are several higher density residential buildings within the station area. Significant destinations in the station area west of Central Avenue include Target and surrounding commercial redevelopment, as well as Medtronic's Sullivan Lake Campus.

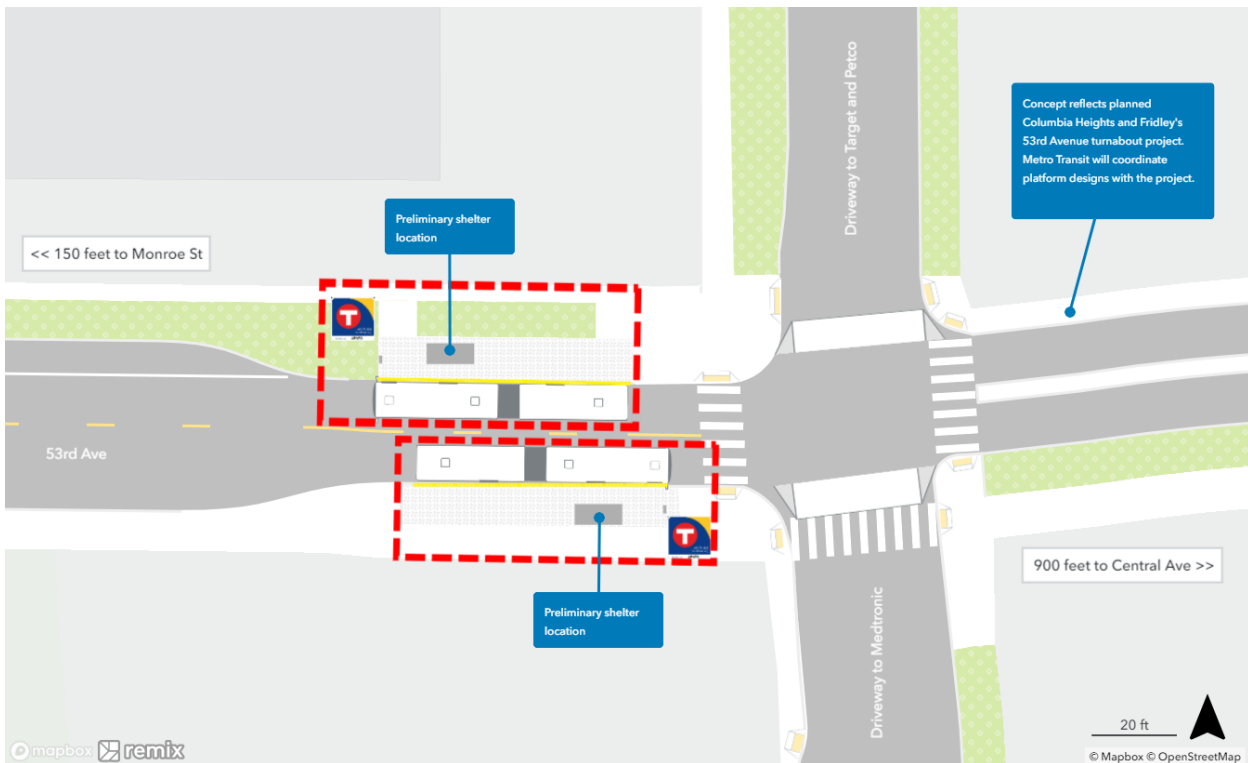
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Project coordination

- The cities of Columbia Heights and Fridley are constructing multimodal improvements and roadway rehabilitation along 53rd Avenue in 2023/2024. The project will introduce a sidewalk along the north side of 53rd Avenue west of Monroe Street (sidewalk existing to the east) and a shared-use trail on the south side (no trail or sidewalk today). Additionally, the cities will be rehabilitating 53rd Avenue between Central and University avenues, including adding a modified roundabout between the existing eastern and western Target driveways, new medians, sidewalks, and curb ramps. Combined, these projects will result in sidewalk or trail along the entire stretch of 53rd Avenue between University and Central avenues, enabling routes for pedestrians and bicyclists to access the proposed platforms. The cities and Metro Transit have coordinated to ensure Route 10 and proposed F Line service are considered in the design of the multimodal improvements and rehabilitation projects.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).

Other locations considered

- **53rd Avenue and 7th Street:** An additional station location was considered at 53rd Avenue and 7th Street but not advanced. Ridership near 7th Street is relatively low; the pair of existing bus stops at 7th Street, and one block east at Sullivan Drive, combined for just 21 daily boardings on a typical weekday in Fall 2019. By contrast, there are about 70 average weekday boardings at 53rd and University and about 100 boardings at 53rd and Central. Additionally, available right-of-way (i.e., physical space in the public realm) to site a platform is limited along 53rd Avenue near 7th Street, particularly on the north side of the street.
- **Central Avenue and 53rd Avenue:** Additional station locations were considered along Central Avenue in this segment but not advanced due to operational challenges and the need to ensure enough space to move into left turn lanes, residential and commercial driveways, and limited pedestrian crossing facilities

Central & 49th Avenue

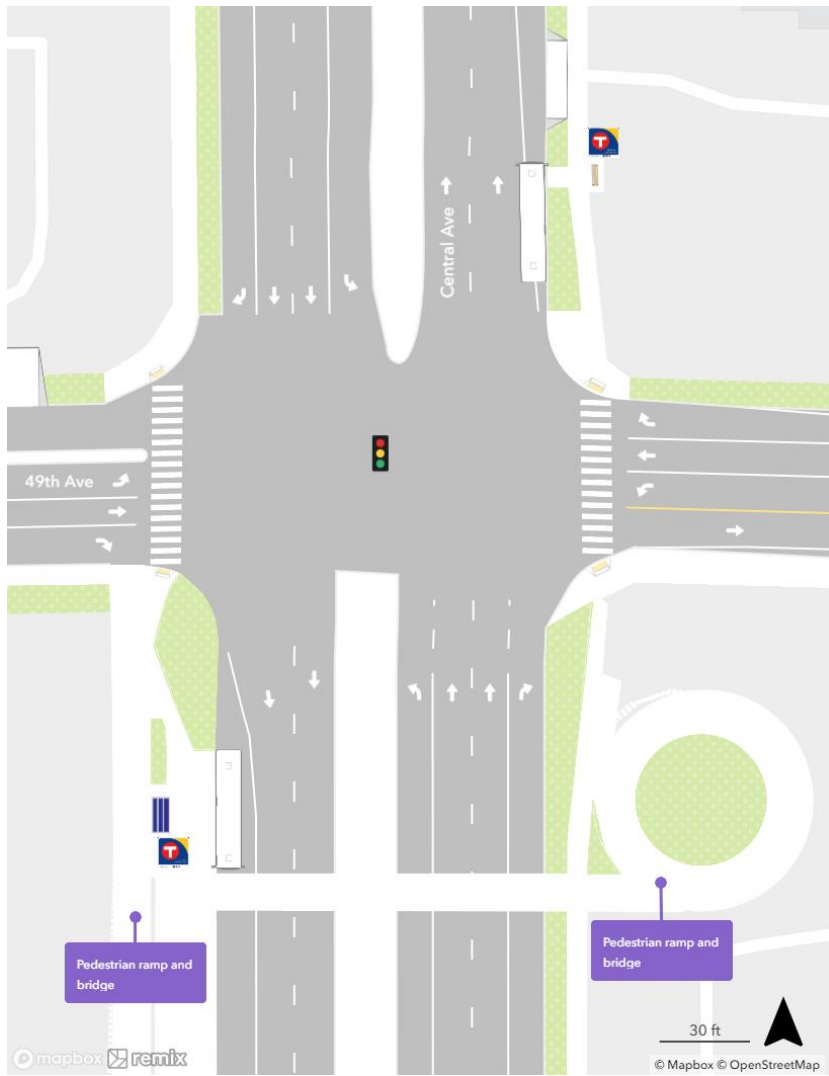
This station could also be served by a modified Route 10 (see *Potential Local Service in the Corridor*). The proposed southbound platform is located at the same corner as the current-day Route 10 stop (farside of 49th Avenue), but the proposed northbound platform is located south of 49th Avenue (nearside), unlike today’s farside bus stop location. MnDOT is the roadway authority for Central Avenue, while the cities of Hilltop and Columbia Heights, respectively, control 49th Avenue to the west and east of Central Avenue.

Land uses surrounding the station area are largely commercial, surrounded by educational uses, and residential neighborhoods with single-family and high-density developments.

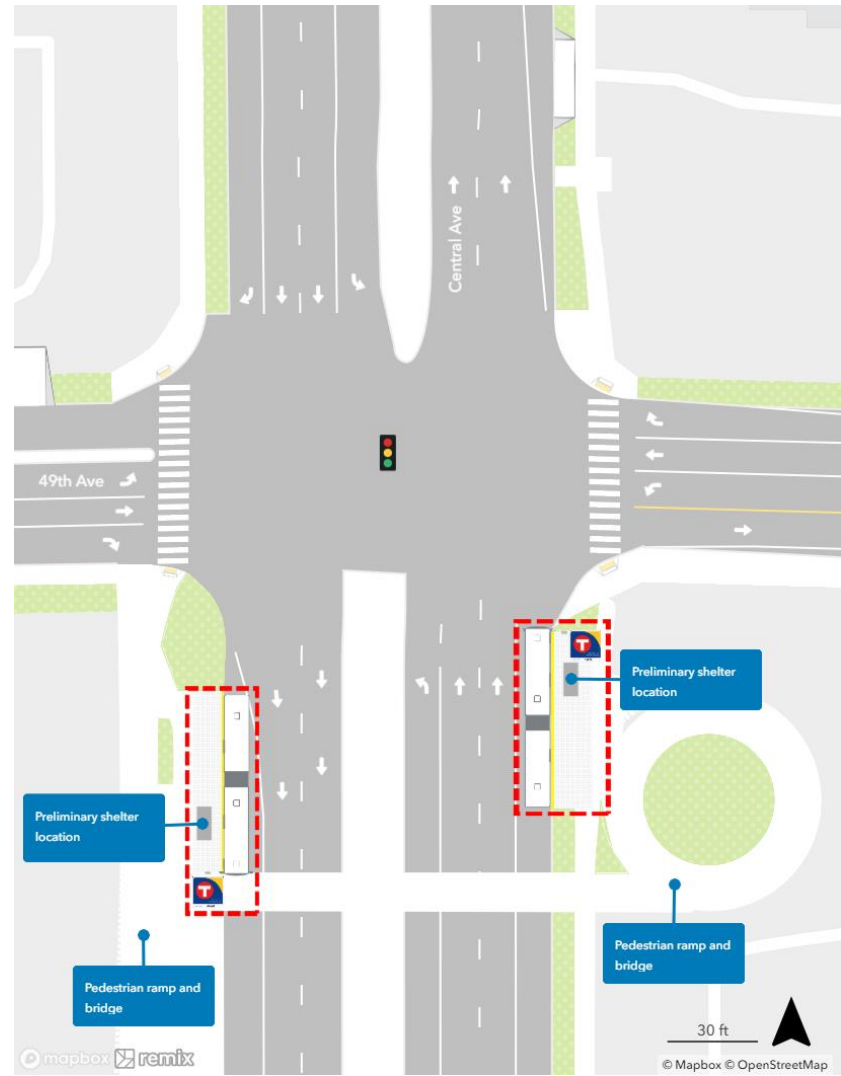
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- Proposed platforms are located just south of 49th Avenue, near the existing pedestrian bridge.
- As Metro Transit, MnDOT, and partner cities and counties continue project coordination, including as part of MnDOT’s PEL Study, the agencies will explore opportunities to increase pedestrian access and safety at and near this intersection.

Bicycle facilities

- There are no existing dedicated bikeways on this stretch of Central Avenue. However, the [Metropolitan Council’s Regional Bicycle Transportation Network](#) and [MnDOT’s Metro District Bicycle Plan](#) include this segment of Central Avenue as within a Tier 2 priority corridor for implementation. MnDOT, as part of its PEL Study, is considering how best to add a bikeway for people of all ages and abilities to this stretch of Central Avenue.
- Metro Transit, MnDOT, Anoka County, the cities of Columbia Heights and Hilltop, and other agency partners will continue to coordinate on station design, including the incorporation of any future bikeways. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Project coordination

- The station is within the study area of MnDOT’s PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).



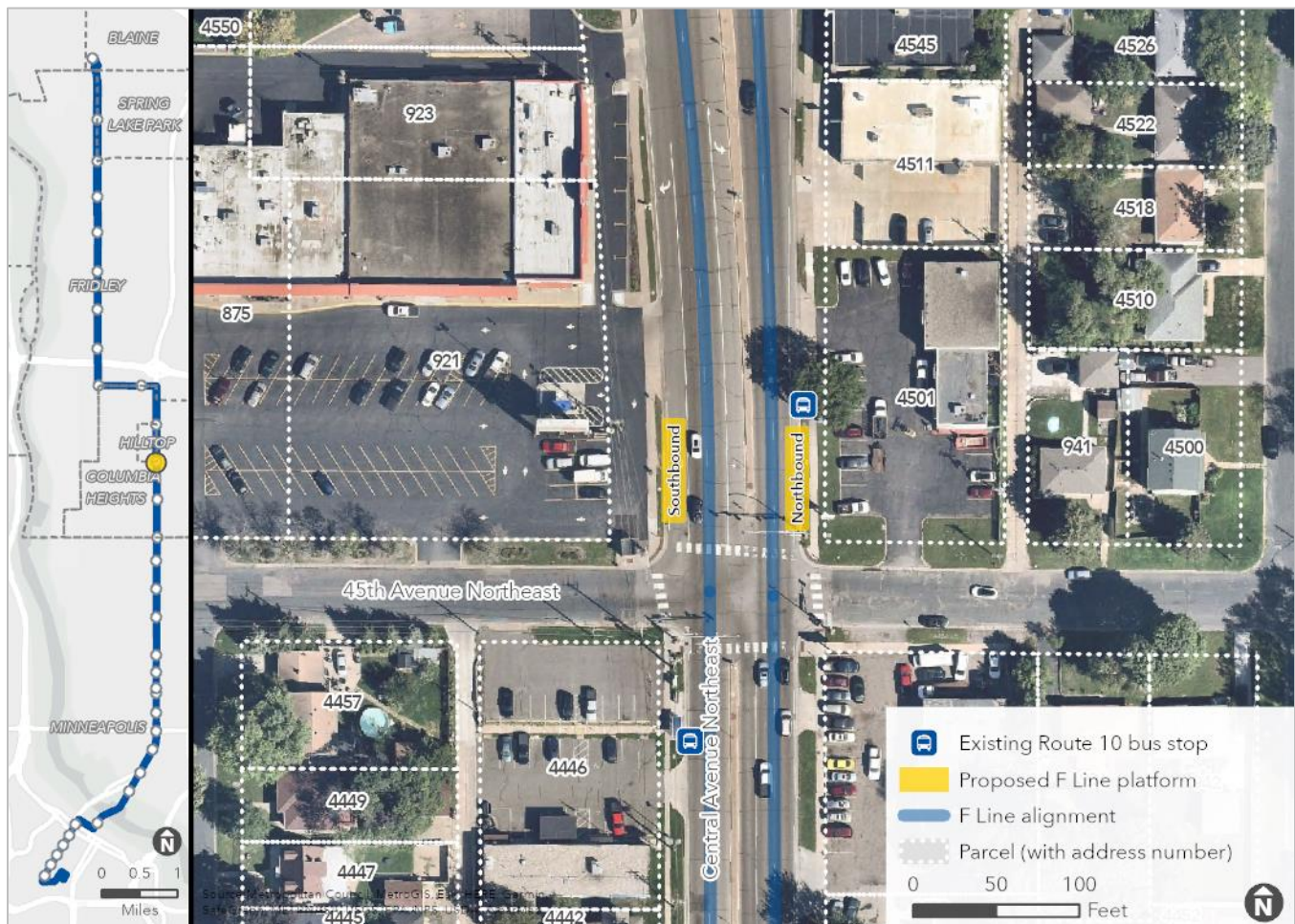
View south down Central Avenue at pedestrian bridge and proposed platform locations (Source: Metro Transit)

Central & 45th Avenue

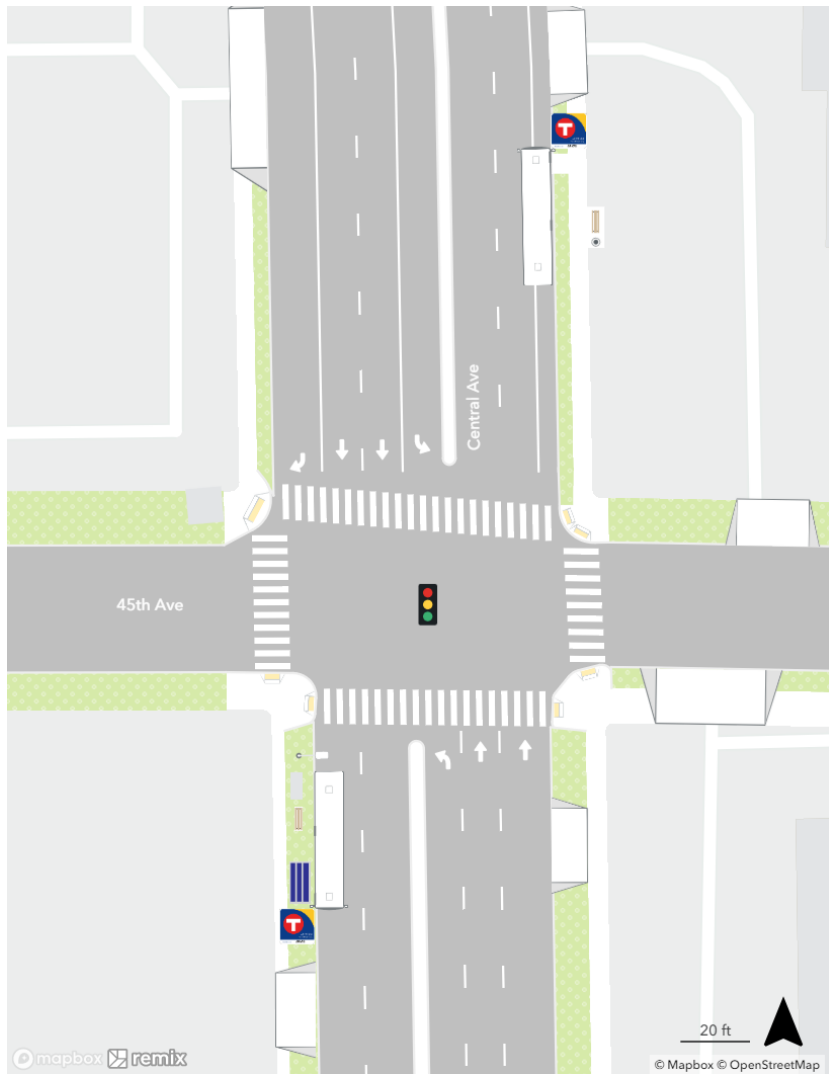
This station could also be served by a modified Route 10 (see *Potential Local Service in the Corridor*), and currently offers connections to Route 801 one block south at 44th Avenue. The proposed northbound platform is located at the same corner as the current-day Route 10 stop, but the proposed southbound platform is located nearside of 45th Avenue, unlike today's farside location. MnDOT is the roadway authority for Central Avenue, while the cities of Hilltop and Columbia Heights, respectively, control 45th Avenue to the west and east of Central Avenue.

Prominent destinations in the station area include the Hilltop Mobile Home Community and the Central Plaza businesses, including several small grocery stores. Along the west side of the 4300 block of Central Avenue is a 13-acre site where there are plans for a mixed-use redevelopment.

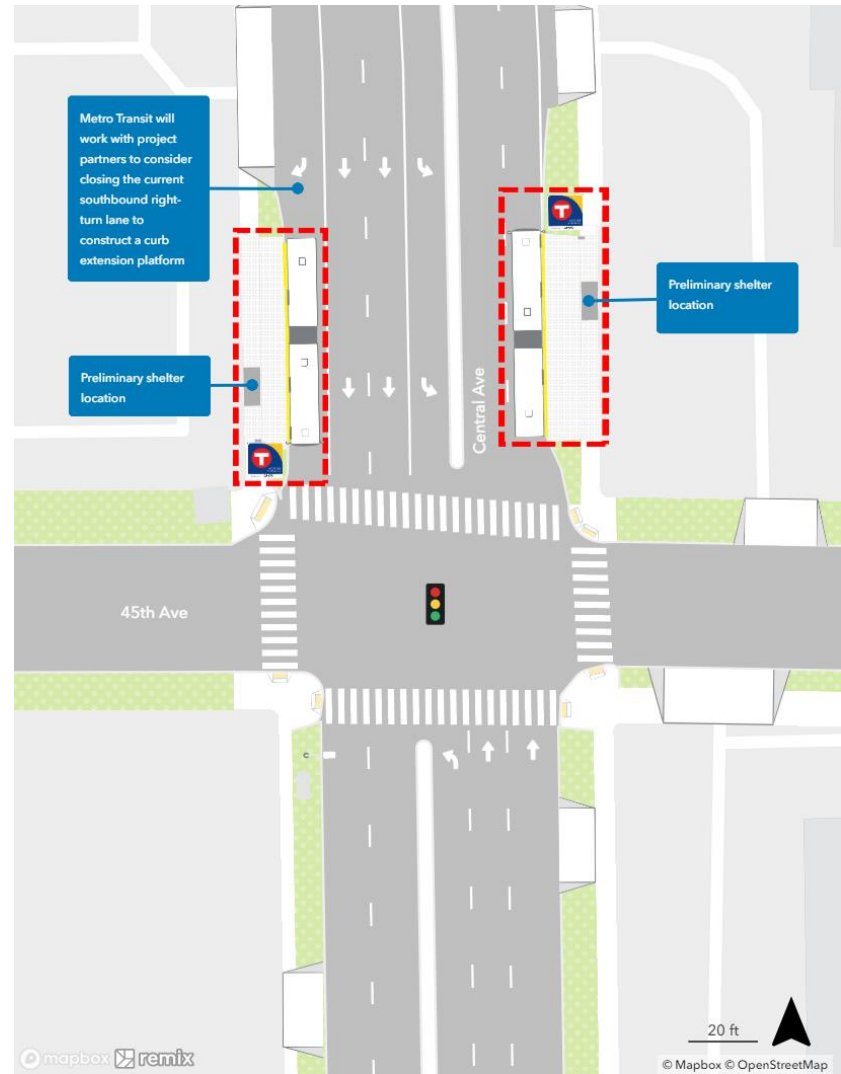
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Project coordination

- The City of Hilltop maintains an underground water main parallel to Central Avenue near the northwest corner of the intersection with 45th Avenue, where the water main connects to a pumping station. Metro Transit will coordinate closely with the City during design and construction of the southbound platform in this location.
- MnDOT and the City of Columbia Heights are constructing safety improvements on Central Avenue from 43rd to 47th avenues. This project will continue the safety improvements installed in 2016 from 47th to 51st avenues. Work will include new LED street and pedestrian lighting, new sidewalks, new signage, and minor right-of-way acquisition.
- The station is within the study area of MnDOT's PEL Study. Design of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Bicycle facilities

- There are no existing dedicated bikeways on this stretch of Central Avenue. However, the [Metropolitan Council's Regional Bicycle Transportation Network](#) and [MnDOT's Metro District Bicycle Plan](#) include this segment of Central Avenue as within a Tier 2 priority corridor for implementation. MnDOT, as part of its PEL Study, is considering how best to add a low stress bikeway to this stretch of Central Avenue.
- Metro Transit, MnDOT, Anoka County, the cities of Columbia Heights and Hilltop, and other agency partners will continue to coordinate on station design, including the incorporation of any future bikeways. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit is working with project partners to consider closing the current southbound right-turn lane to construct a curb extension platform, which will support faster bus service, shorten pedestrian crossing distances, and provide additional space for platform amenities. Metro Transit is working with MnDOT and local agencies to complete traffic modeling to understand the effect of proposed stations on traffic operations.

Other locations considered

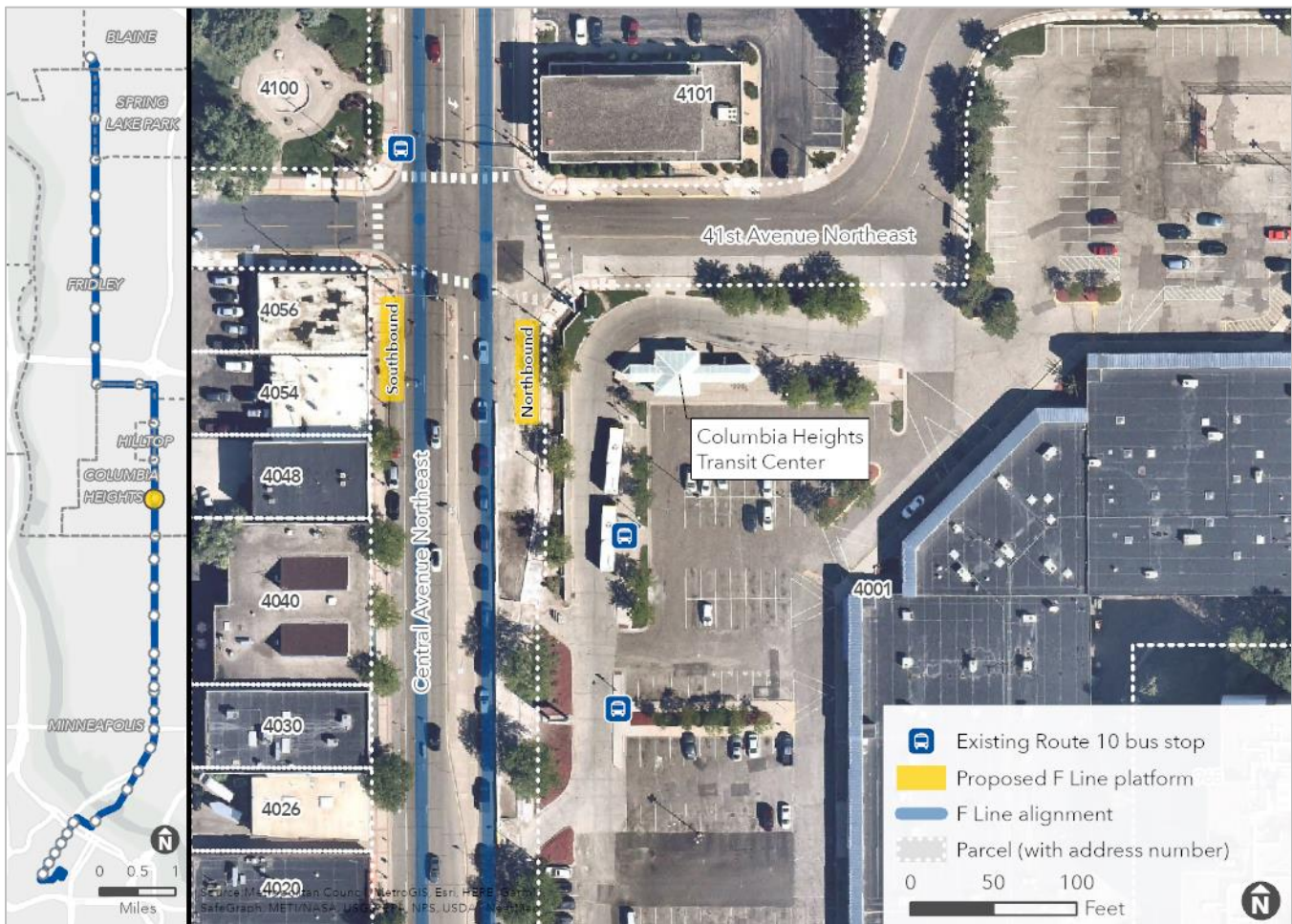
- **Central Avenue and 44th Avenue:** Metro Transit considered but did not advance 44th Avenue as an alternative location for this station. A station at 45th Avenue better aligns with station spacing goals, existing Route 10 ridership patterns, existing and planned land uses, and access to the station for people of color and people experiencing poverty.

Central & 41st Avenue

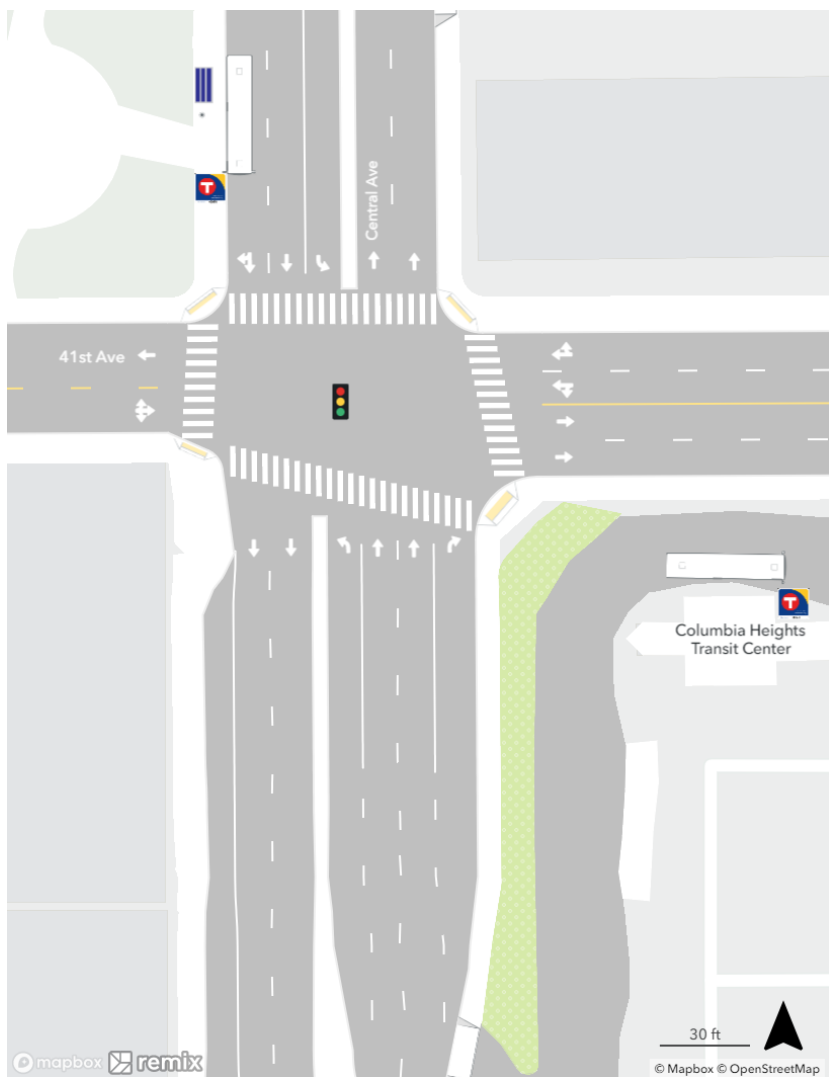
This station would be adjacent to Columbia Heights Transit Center, with current connections to Routes 11 and 801, and potential future service from modified Route 10 (see *Potential Local Service in the Corridor*). MnDOT is the roadway authority for Central Avenue, while the City of Columbia Heights controls 41st Avenue.

The station is within the heart of the Columbia Heights historic downtown corridor and main street, defined by pedestrian-scale development and many diverse small businesses within a walkable area.

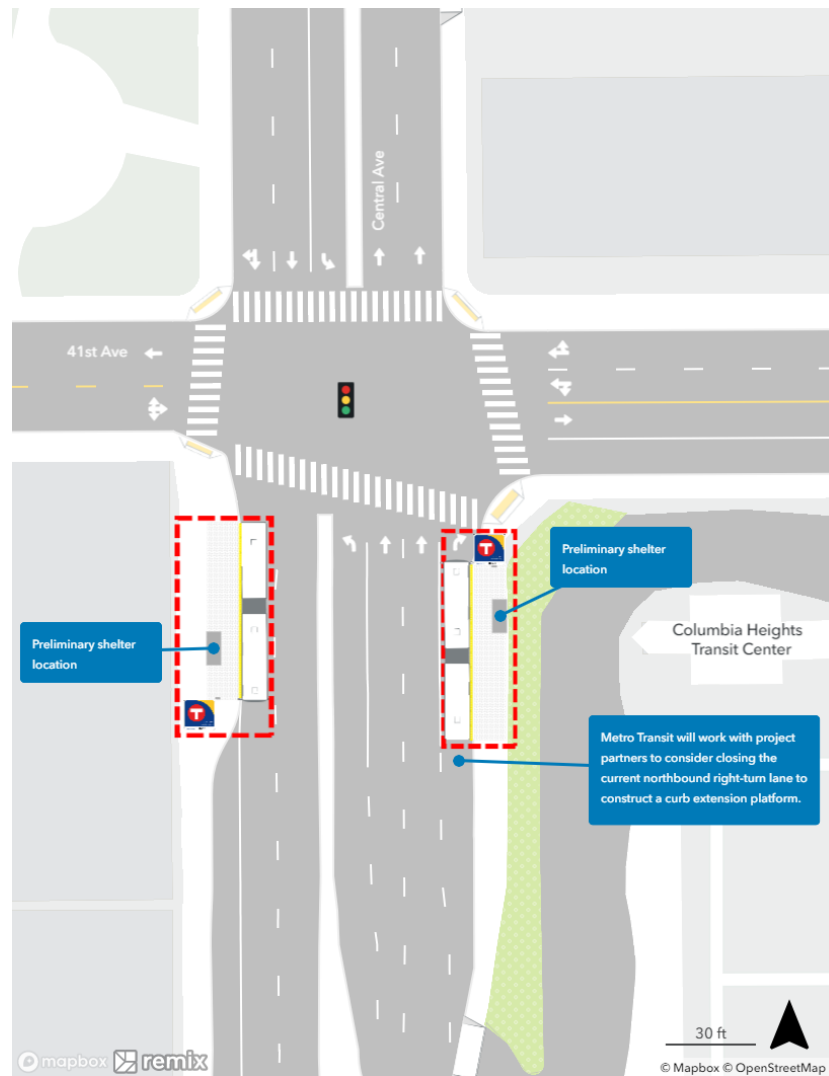
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Project coordination

- The station is within the study area of MnDOT’s PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are no existing dedicated bikeways on this stretch of Central Avenue. However, the [Metropolitan Council’s Regional Bicycle Transportation Network](#) and [MnDOT’s Metro District Bicycle Plan](#) include this segment of Central Avenue as within a Tier 2 priority corridor for implementation. MnDOT, as part of its PEL Study, is considering how best to add a low stress bikeway to this stretch of Central Avenue.
- Metro Transit, MnDOT, Anoka County, the City of Columbia Heights, and other agency partners will continue to coordinate on station design, including the incorporation of any future bikeways. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit will seek to construct a curb extension at the southbound platform location to create an in-lane stop, which will support faster bus service and provide additional space for platform amenities. Doing so may require the removal of select on-street parking spaces on the west side of Central Avenue.
- Metro Transit is working with project partners to consider closing the current northbound right-turn lane to construct a curb extension platform and create a northbound in-lane stop. Doing so will support faster bus service, shorten pedestrian crossing distances, and provide additional space for platform amenities. Metro Transit is working with MnDOT and local agencies to complete traffic modeling to understand the effect of proposed stations on traffic operations.

Other station locations considered

- **Central Avenue and 40th Avenue:** Metro Transit considered 40th Avenue as an alternative location for this station. The 40th Avenue alternative would better serve the new Columbia Heights City Hall mixed-use development at the southeast corner of the intersection with Central Avenue. However, the alternative location at 40th Avenue would pull the station away from Columbia Heights Transit Center and its amenities and bus network connections. After evaluating additional implications of the 40th Avenue alternative station location, such as existing Route 10 ridership patterns, existing and planned land uses, access to the station for people of color and people

experiencing poverty, and other site-specific considerations, Metro Transit is proposing the 41st Avenue location.

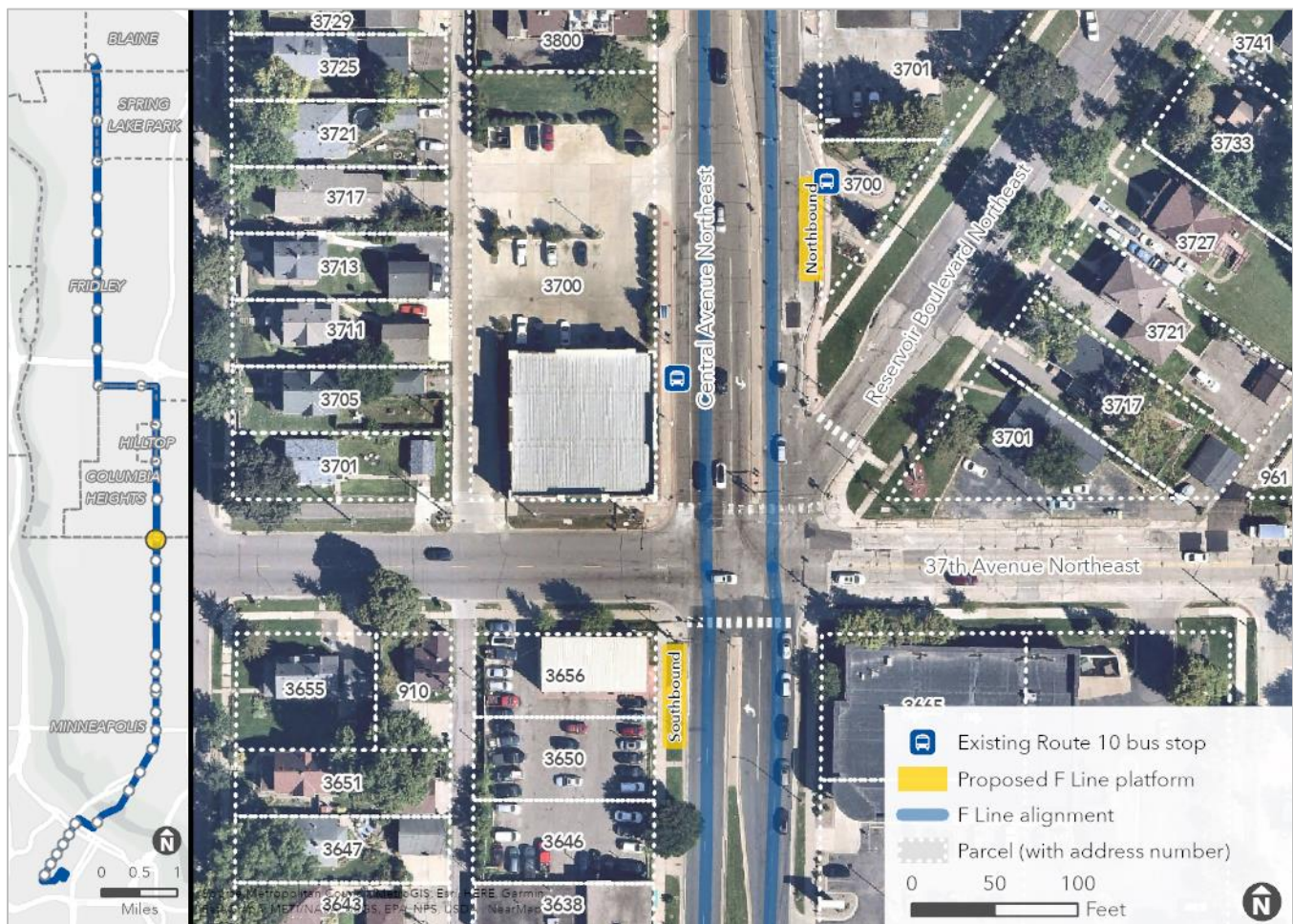
- **Existing platforms within Columbia Heights Transit Center:** On-street platforms on Central Avenue are preferred because the turning movements associated with entering and exiting the Transit Center would decrease the directness, speed, and reliability of the F Line. Platforms on Central Avenue adjacent to the Transit Center will provide direct pedestrian access to transfer connections.

Central & 37th Avenue

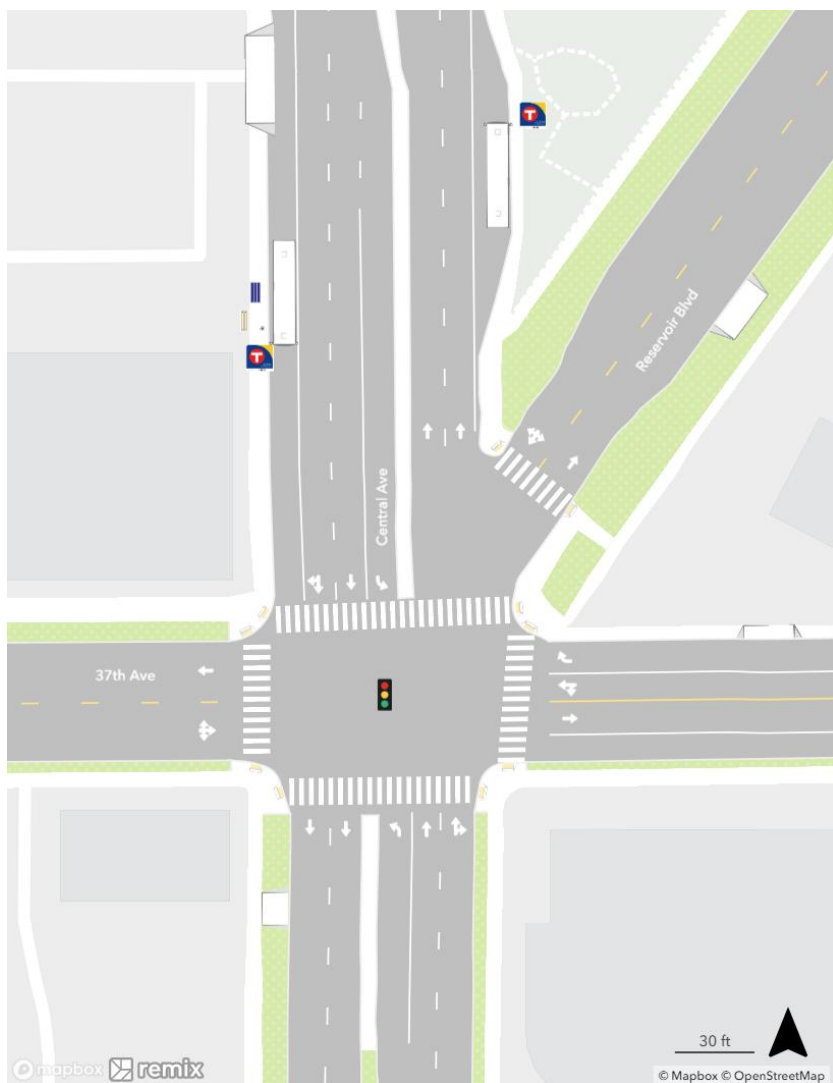
This station is located at the border between Columbia Heights and Minneapolis. The proposed northbound platform is located at the same corner as the current-day Route 10 stop, but the proposed southbound platform is located farside of 37th Avenue (southwest corner), unlike today's nearside bus stop location. MnDOT is the roadway authority for Central Avenue; Columbia Heights controls Reservoir Boulevard; and the cities of Columbia Heights and Minneapolis, respectively, control the north and south sides of 37th Avenue.

The station area is defined by commercial activity along Central Avenue, surrounded by largely single-family residential development. Nearby destinations include a pharmacy and multiple medical clinics.

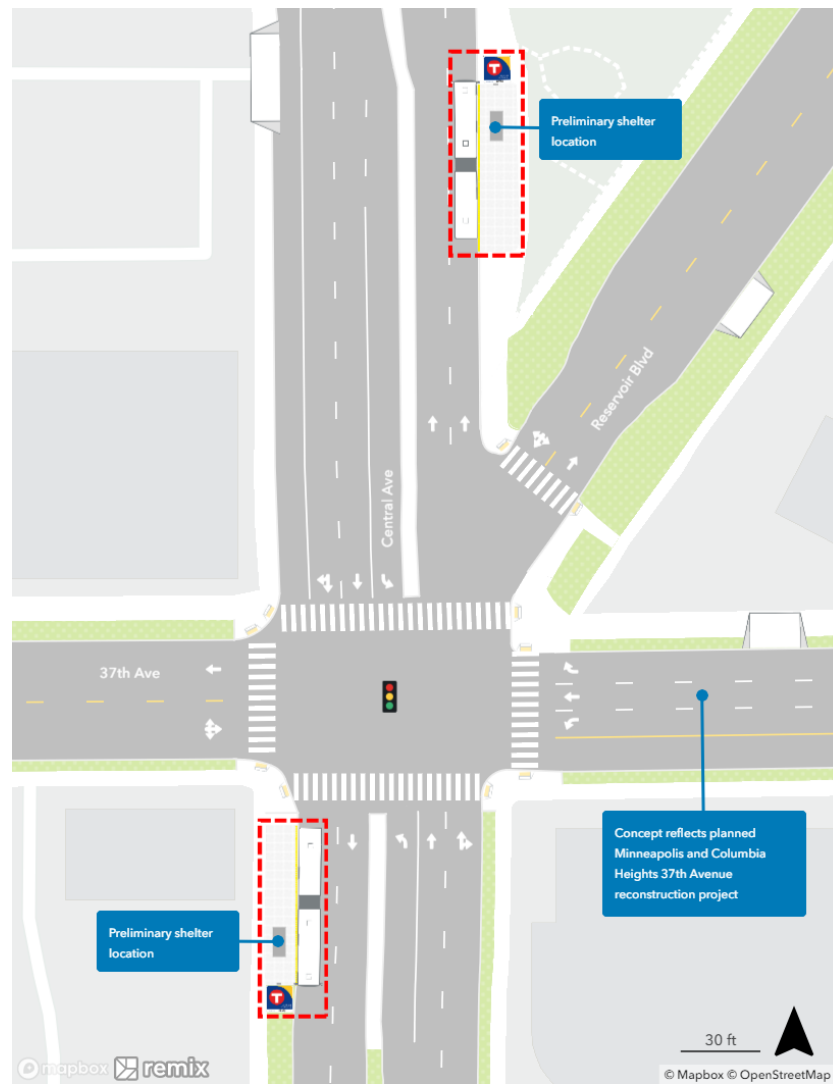
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Project coordination

- The cities of Minneapolis and Columbia Heights have plans to reconstruct 37th Avenue from Central Avenue to Stinson Boulevard in 2023. The new design calls for additional boulevard and green space, and the introduction of a shared-use trail on the north side of 37th Avenue to connect to the existing shared-used trail west of Central Avenue (extending west to University Avenue).
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Bicycle facilities

- There are no existing dedicated bikeways on this stretch of Central Avenue. However, the [Metropolitan Council's Regional Bicycle Transportation Network](#) and [MnDOT's Metro District Bicycle Plan](#) include this segment of Central Avenue as within a Tier 2 priority corridor for implementation. Additionally, Central Avenue from 37th to 27th avenues is identified as a long-term low stress bikeway in the [City of Minneapolis' network of bikeways for all ages and abilities](#). MnDOT, as part of its PEL Study, is considering how best to add a low stress bikeway to this stretch of Central Avenue.
- Metro Transit, MnDOT, Anoka and Hennepin counties, the cities of Columbia Heights and Minneapolis, the Minneapolis Park and Recreation Board, and other agency partners will continue to coordinate on station design, including the incorporation of any future bikeways. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.
- As Metro Transit, MnDOT, and partner cities continue project coordination, including as part of MnDOT's PEL Study, the agencies will explore opportunities to increase pedestrian access and safety at and near this intersection.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit is working with project partners to fill in the pull-out bay currently used by Route 10 buses at the proposed northbound platform farside of Reservoir Boulevard (northeast corner). The resulting in-lane stop at the northbound F Line platform would support faster bus service and provide additional space for platform amenities. Metro Transit is working with MnDOT and local agencies to complete traffic modeling to understand the effect of proposed stations on traffic operations.

Other locations considered

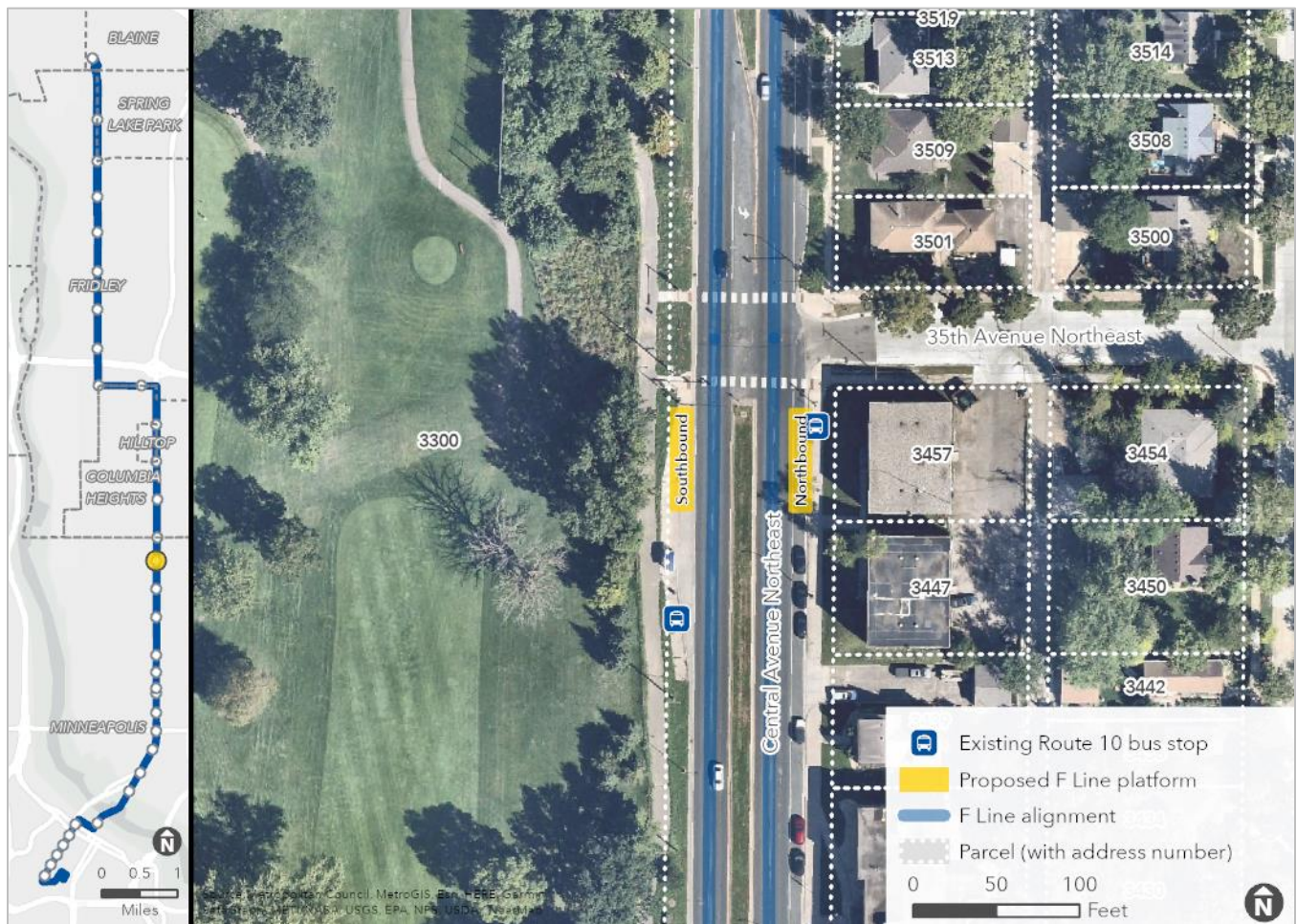
- A northbound platform at Central Avenue and 37th Avenue nearside (southeast corner) was considered but not recommended due to space constraints. The nearside location does not provide enough space within the existing right-of-way to accommodate needed widths for the BRT platform, potential low stress bikeway, and pedestrian space.

Central & 35th Avenue

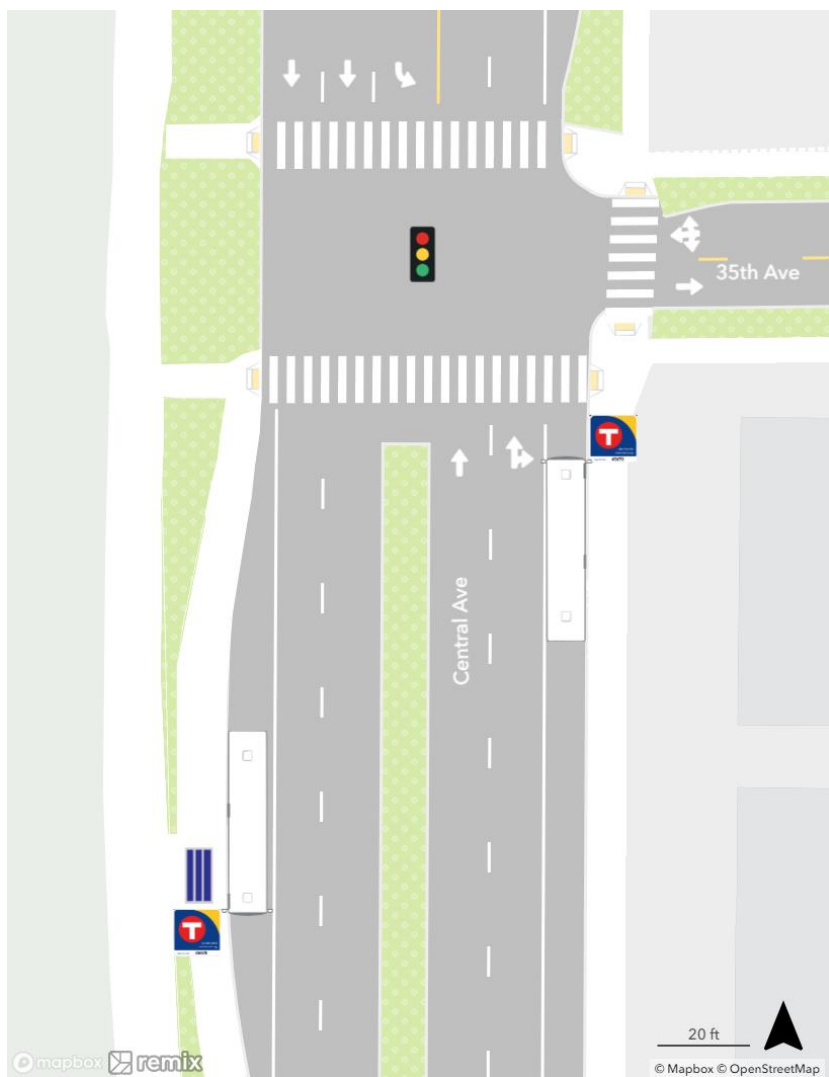
Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls 35th Avenue.

Multifamily homes line the east side of Central Avenue south of 35th Avenue. Further east and northeast of the station area are small-scale residential neighborhoods. Columbia Park and Golf Course spans the west side of Central Avenue in this area.

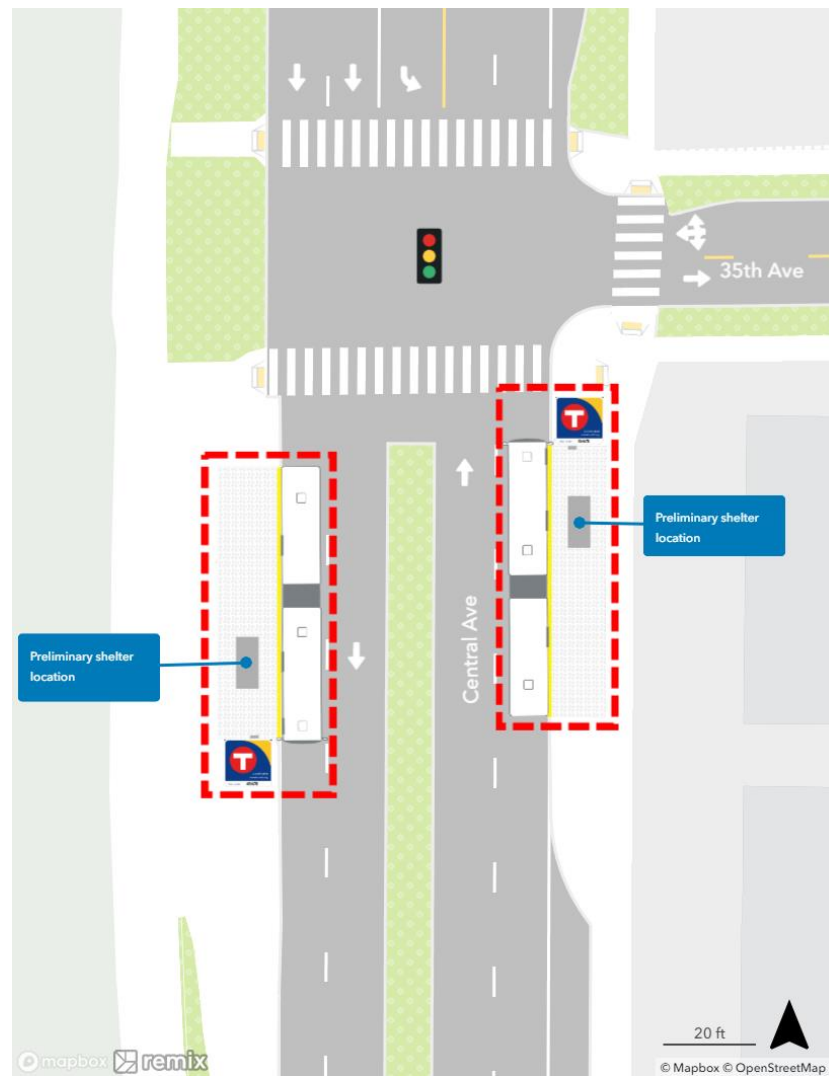
Proposed Station Location



Existing Station Area



Proposed Station Area



Notes and Discussion

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit will seek to fill in the pull-out bay currently used by Route 10 buses at the proposed southbound platform farside of 35th Avenue (southwest corner). The resulting in-lane stop would support faster bus service and reduce impacts to the adjacent trail and parkland. Metro Transit is working with MnDOT and local agencies to complete traffic modeling to understand the effect of proposed stations on traffic operations.

Bicycle facilities

- There are no existing dedicated bikeways on this stretch of Central Avenue. However, Central Avenue from 37th to 27th avenues is identified as a long-term low stress bikeway in the [City of Minneapolis' network of bikeways for all ages and abilities](#), and as a priority alignment within the [Metropolitan Council's Regional Bicycle Transportation Network](#) and [MnDOT's Metro District Bicycle Plan](#). MnDOT, as part of its PEL Study, is considering how best to add a low stress bikeway to this stretch of Central Avenue.
- Metro Transit, MnDOT, Hennepin County, the City of Minneapolis, the Minneapolis Park and Recreation Board, and other agency partners will continue to coordinate on station design, including the incorporation of any future bikeways. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Project coordination

- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- Metro Transit will work closely with the Minneapolis Park and Recreation Board, the City of Minneapolis, and Mississippi Watershed Management Organization during the design and construction of the station platforms, given station proximity to the Columbia Park and Golf Course.

Central & St. Anthony

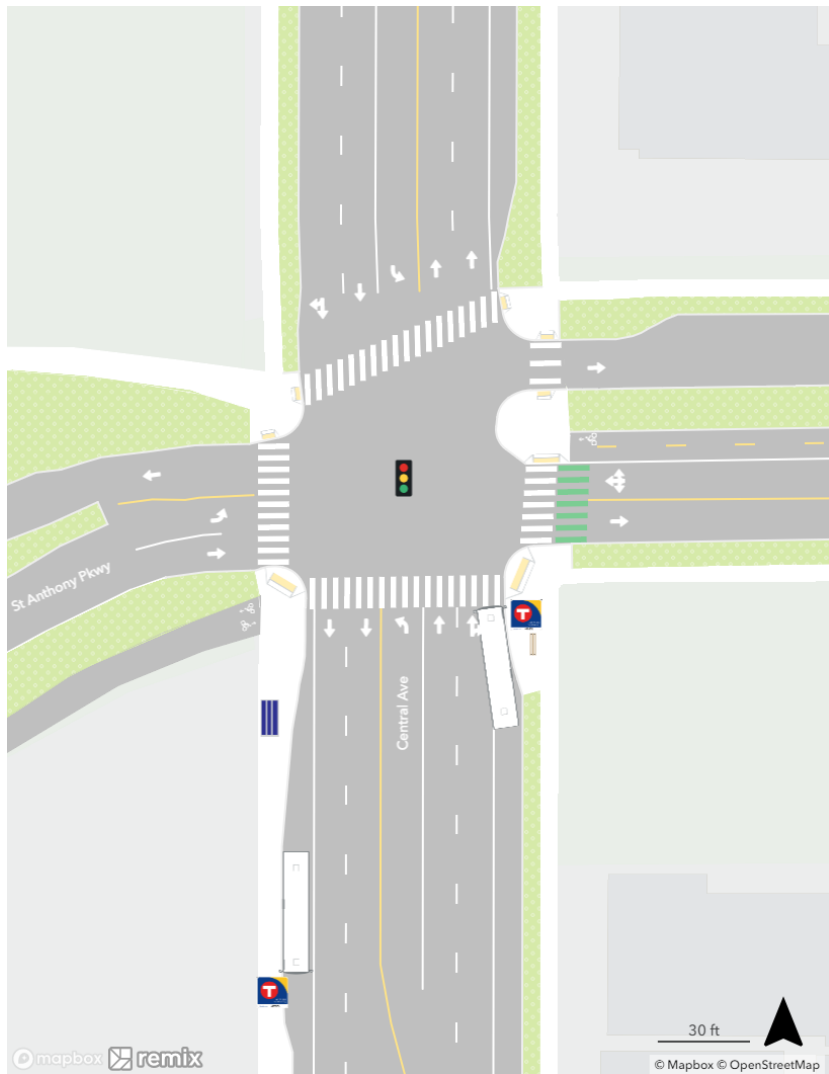
The proposed southbound platform is located at the same corner as the current-day Route 10 stop (farside of St. Anthony Parkway), but the proposed northbound platform is located farside of St. Anthony Parkway (northeast corner), unlike today’s nearside bus stop location. MnDOT is the roadway authority for Central Avenue, while the Minneapolis Park and Recreation Board controls St. Anthony Parkway.

West of Central Avenue is Columbia Park and Golf Course. Single-family homes, small shops, duplexes, and small apartment buildings line the east side of Central Avenue within the station area. Further east are residential neighborhoods of largely single-family homes. An Oromo Christian church and a mosque and cultural center are located at the northeast and southeast corners of the intersection, respectively.

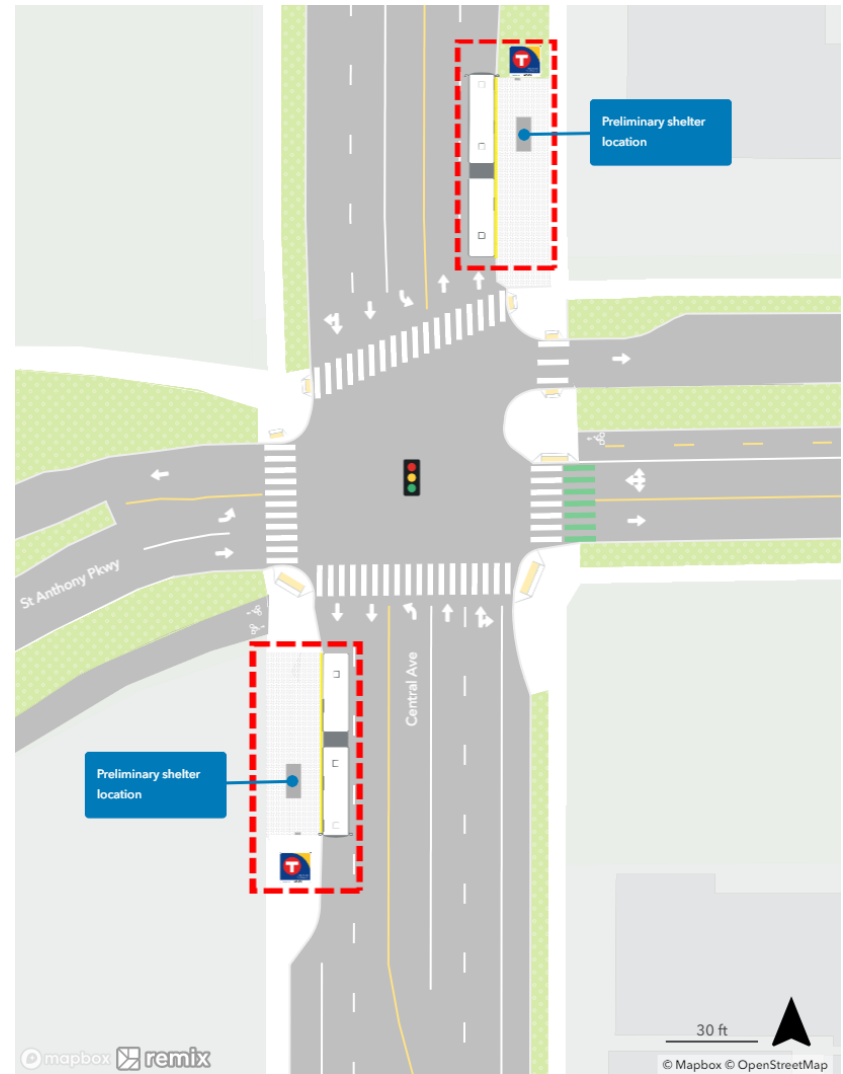
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Bicycle facilities

- The St. Anthony Parkway Regional Trail (multiuse trail) passes through Columbia Park on the north side of St. Anthony Parkway, through the station intersection, and continues east of Central Avenue to Stinson Boulevard. St. Anthony Parkway Regional Trail is part of the [Grand Rounds National Scenic Byway](#).
- There are no existing dedicated bikeways on this stretch of Central Avenue. However, Central Avenue from 37th to 27th avenues is identified as a long-term low stress bikeway in the [City of Minneapolis' network of bikeways for all ages and abilities](#), and as a priority alignment within the [Metropolitan Council's Regional Bicycle Transportation Network](#) and [MnDOT's Metro District Bicycle Plan](#). MnDOT, as part of its PEL Study, is considering how best to add a low stress bikeway to this stretch of Central Avenue.
- Metro Transit, MnDOT, Hennepin County, the City of Minneapolis, and the Minneapolis Park and Recreation Board will continue to coordinate on station design, including the incorporation of any existing/future bikeways. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Project coordination

- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit will seek to fill in the pull-out bay currently used by Route 10 buses at the proposed southbound platform farside of St. Anthony Parkway (southwest corner). Similarly, Metro Transit will look to fill in the parking bay on the east side of Central Avenue north of St. Anthony Parkway. These changes will result in in-lane stops at both proposed platforms, which support faster bus service. Additionally, these changes would provide additional space for platform amenities. Doing so may require the removal of select on-street parking spaces on the east side of Central Avenue.
- Given the proposed in-lane stop configuration at the southbound platform, Metro Transit will evaluate potential for turning conflicts or congestion between eastbound-to-southbound turning vehicles, buses, and bicyclists using the St. Anthony Parkway Regional Trail on the south leg of the intersection to cross over Central Avenue.

Central & 29th Avenue

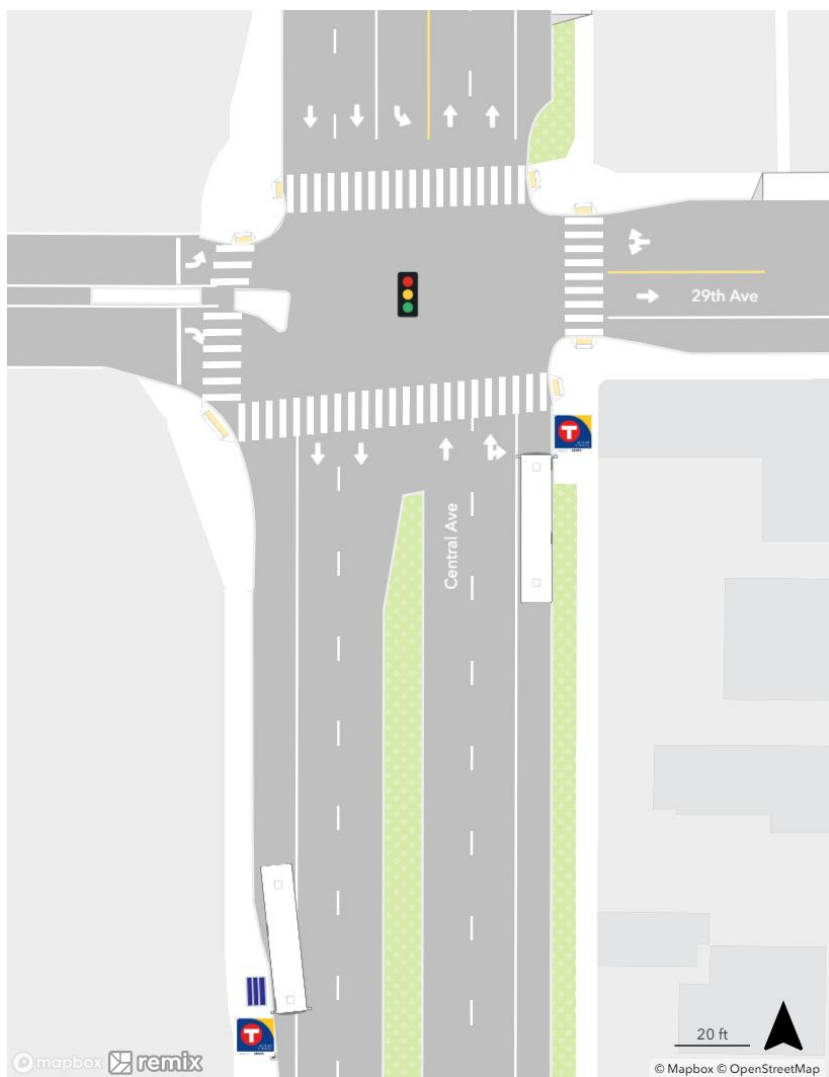
Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls 29th Avenue.

The 230-acre Shoreham Yards rail and trucking facility owned by Canadian Pacific dominates the station area west of Central Avenue. The east side of Central Avenue is lined with a mix of commercial uses. Residential neighborhoods of multifamily buildings, duplexes, and single-family homes define the area further east of Central.

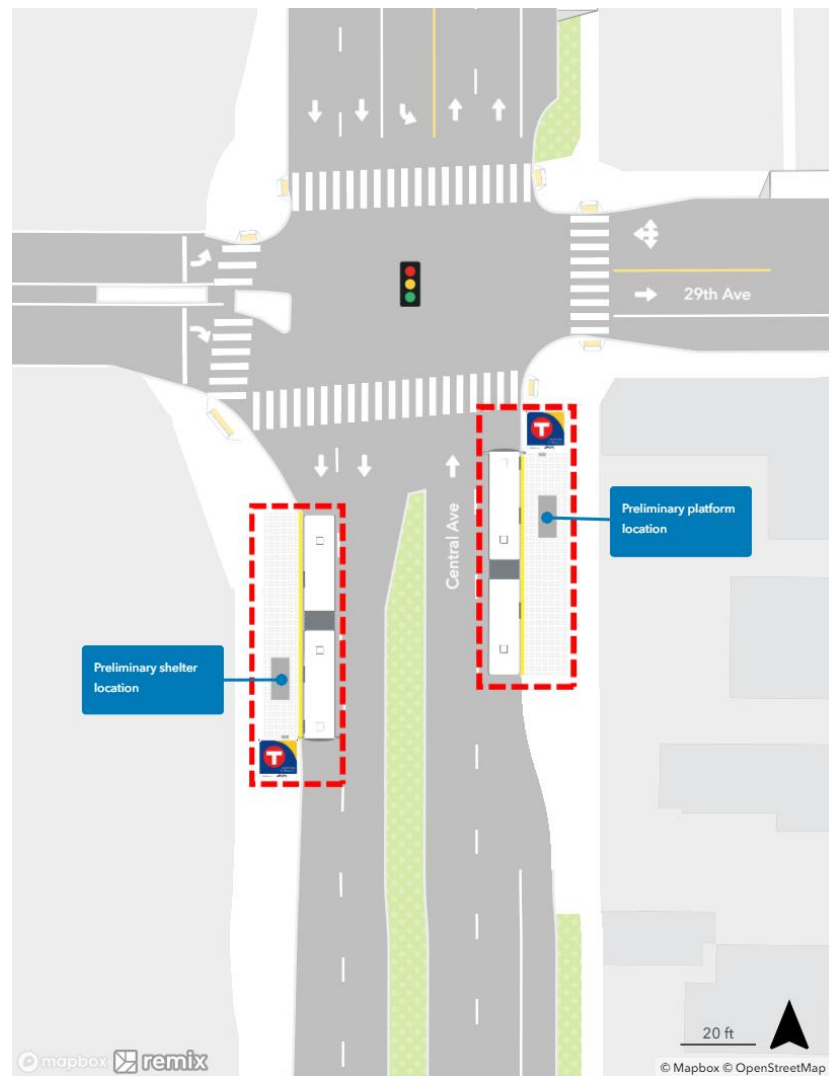
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit will seek to construct curb extensions into the no-parking roadway shoulder space already dedicated to the existing Route 10 bus stops. Doing so will result in in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety.

Traffic operations

- The western leg of the signalized intersection operates as one-way, exit-only for heavy truck traffic leaving the Shoreham Yards facility. Metro Transit is working with MnDOT and local agencies to complete traffic modeling to understand the effect of proposed stations on traffic operations.

Bicycle facilities

- There are no existing dedicated bikeways on this stretch of Central Avenue. However, Central Avenue from 37th to 27th avenues is identified as a long-term low stress bikeway in the [City of Minneapolis' network of bikeways for all ages and abilities](#), and as a priority alignment within the [Metropolitan Council's Regional Bicycle Transportation Network](#) and [MnDOT's Metro District Bicycle Plan](#). MnDOT, as part of its PEL Study, is considering how best to add a low stress bikeway to this stretch of Central Avenue.
- Metro Transit, MnDOT, Hennepin County, the City of Minneapolis, and other agency partners will continue to coordinate on station design, including the incorporation of any existing/future bikeways. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Project coordination

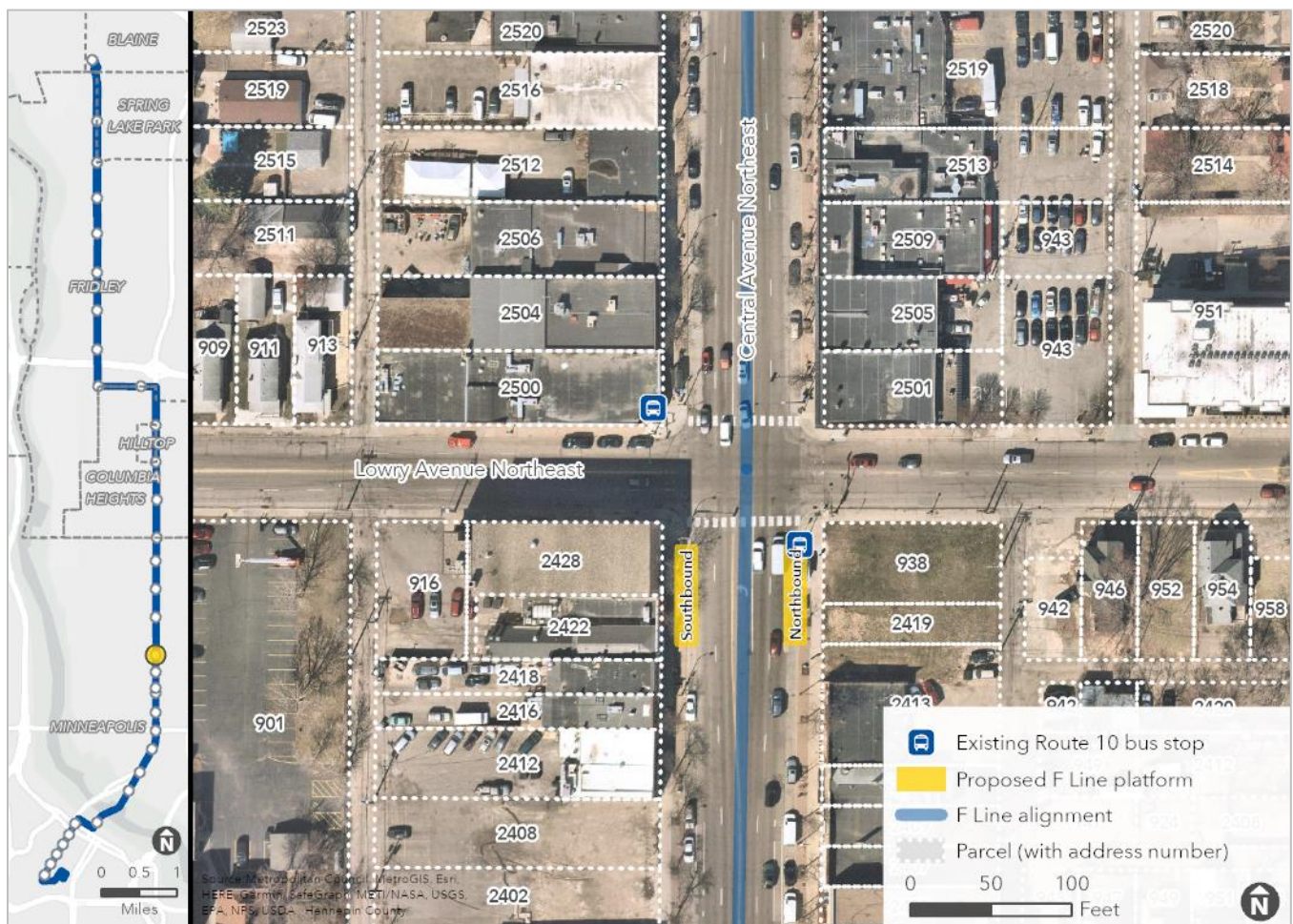
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Central & Lowry

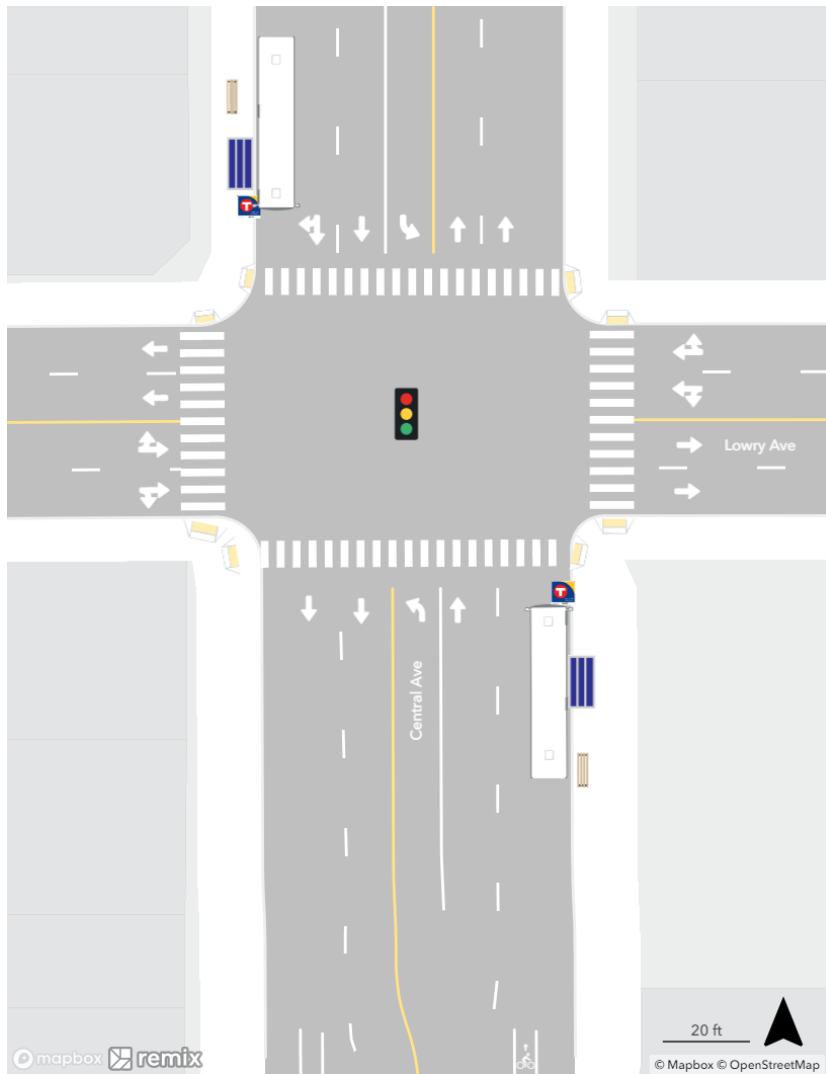
This station currently offers connections to Route 32. The Lowry Avenue corridor is identified as an expansion priority for the arterial BRT network in the Metropolitan Council's [amended 2040 Transportation Policy Plan](#).

The proposed northbound platform is located at the same corner as the current-day Route 10 stop (nearside of Lowry Avenue), but the proposed southbound platform is located farside of Lowry Avenue, unlike today's nearside location. MnDOT is the roadway authority for Central Avenue, while Hennepin County controls Lowry Avenue.

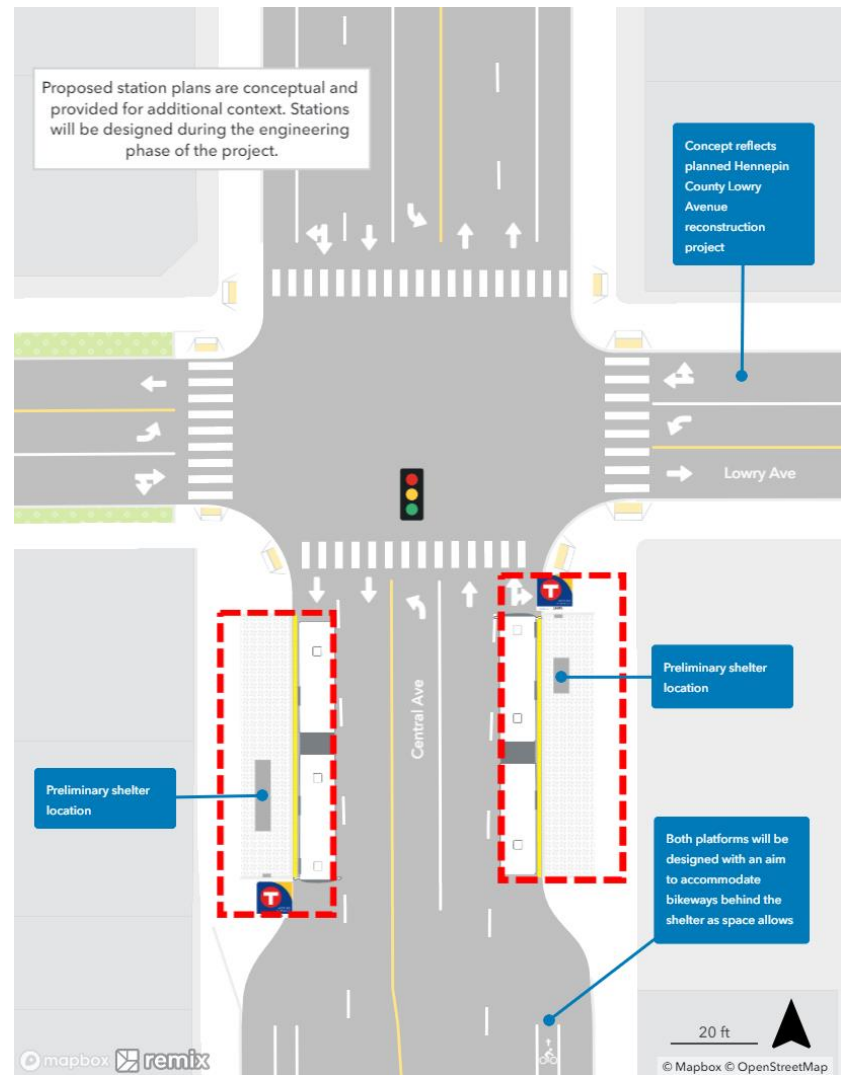
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Project coordination

- Hennepin County is currently leading a project to update the roadway design and reconstruct Lowry Avenue between Marshall and Johnson streets in Northeast Minneapolis, including at the intersection with Central Avenue. Current plans call for a two-way shared-use path along the north side of Lowry Avenue and a new three-lane configuration (with one lane in each direction plus a center left-turn lane) at the intersection with Central Avenue. Metro Transit will continue to coordinate with Hennepin County as design progresses for both projects (Lowry construction 2024-2025). Additional project details are available at: hennepin.us/lowry-avenue.
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- The parcel in the southeast corner of the intersection (where the northbound platform is proposed to be located) is owned by the City of Minneapolis and is planned for future redevelopment through [Lowry Avenue Community Works](#).

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- Intermittent on-street bike lane markings exist along Central Avenue from 27th to 13th avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the [City of Minneapolis' network of bikeways for all ages and abilities](#), the [Metropolitan Council's Regional Bicycle Transportation Network](#), and [MnDOT's Metro District Bicycle Plan](#).
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, the City of Minneapolis, and other agency partners to accommodate existing/future bikeways along Central Avenue. Platforms will be designed with an aim to accommodate bikeways behind the BRT shelter, as space allows. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety. Doing so may require the removal of select on-street parking spaces on either side of Central Avenue.



Publicly-owned redevelopment parcel at the southeast corner of the intersection – location of the proposed northbound platform (Source: Metro Transit)

Additional Analysis Based on Feedback on Draft Plan

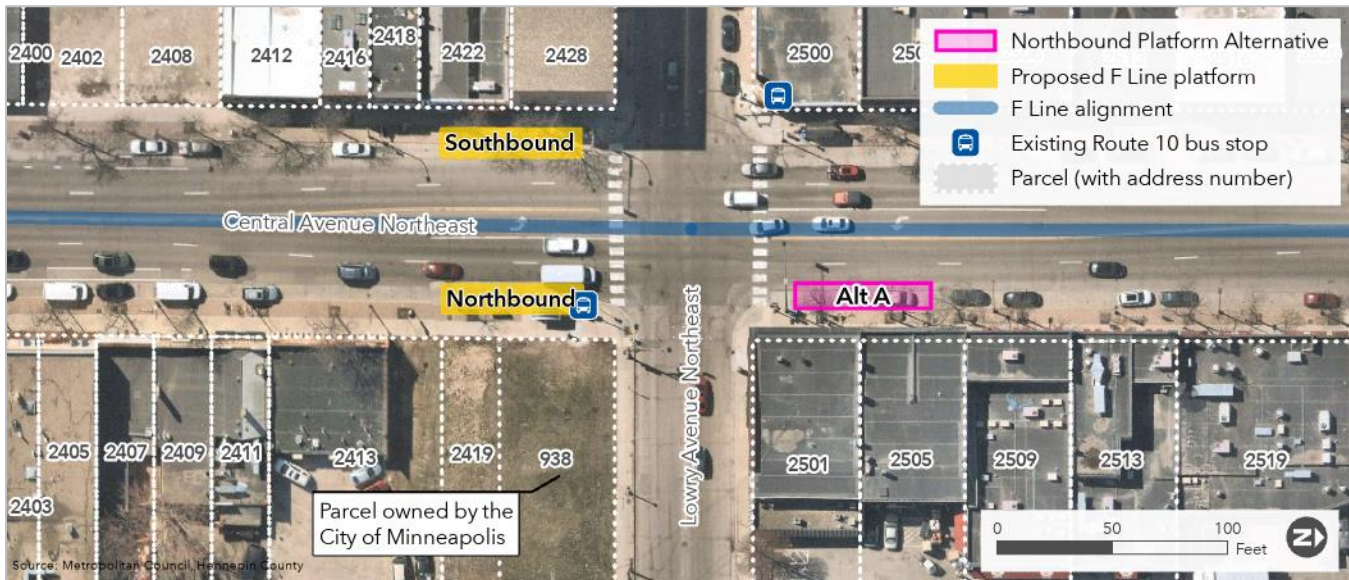
Additional alternatives for the northbound and southbound platforms were analyzed based on public feedback received on the Draft Corridor Plan, particularly concerns over access to destinations, aggressive car driver behavior and pedestrian safety, and the removal of on-street parking. More information is included below.

Northbound platform

An additional location for the northbound platform was analyzed at the following location:

- Baseline location: Central Avenue and Lowry Avenue nearside
- Alternative A: Central Avenue and Lowry Avenue farside (Figure 20)

Figure 20. Central & Lowry northbound alternatives



Alternative A was compared with the Baseline platform location on additional factors shown in Table 2.

Table 2. Additional analysis of Central & Lowry northbound platform location

Key to symbols		Green = Preferred	Yellow = Not Preferred
Factor	Baseline: Central Avenue and Lowry Avenue nearside	Alternative A: Central Avenue and Lowry Avenue farside	
Safe pedestrian crossings	Encourages crossing at signalized intersection [green]	Encourages crossing at signalized intersection [green]	
Access to destinations	Station serves commercial center directly with convenient access to destinations [green]	Station serves commercial center directly with convenient access to destinations [green]	
Station spacing	Station between 1/4-1/2 mile to neighboring stations [green]	Station between 1/4-1/2 mile to neighboring stations [green]	
Available right-of-way and effective space	Space available to meet needed widths for BRT platform, bicycle facility, and pedestrian space; potential use of the adjacent undeveloped parcel (owned by the City of Minneapolis) provides flexibility for future roadway design alternatives for Central Avenue coming out of MnDOT's PEL Study [green]	Space limited due to existing buildings; provides less flexibility for future roadway design alternatives for Central Avenue under consideration as part of MnDOT's PEL Study [yellow]	
Speed & reliability	Nearside platform location at signalized intersection increases likelihood of stopping at red light [yellow]	Farside platform location at signalized intersection reduces likelihood of stopping at red light [green]	
Concern identified by station neighbors: On-street parking	3-4 parking spaces removed; no parking allowed at existing bus stop immediately south of the intersection [yellow]	4-6 total parking spaces removed; 7-8 parking spaces removed north of the intersection plus 2-3 parking spaces that could be added south of the intersection at existing bus stop location to be closed [yellow]	
Recommendation	Retain platform from draft plan [green]	Do not advance [orange]	

The intersection of Central and Lowry avenues is a landmark in Northeast Minneapolis. Thousands of people each day walk, roll, bike, use transit, and drive to and from this active neighborhood node. Both the Baseline location (nearside) and Alternative A (farside) provide convenient access to this commercial center, which has common destinations north and south of the intersection.

F Line platforms at the intersection of these important corridors will contribute to traffic calming and increase pedestrian safety. Central Avenue and Lowry Avenue are identified as [High Injury Streets](#) in the City of Minneapolis' [Vision Zero Action Plan](#). Further, both Hennepin County's Lowry Avenue corridor improvement project (scheduled for 2024-2025 construction) and MnDOT's PEL Study have primary goals of improving safety for all users, particularly vulnerable users.

Comments received on the Draft Corridor Plan cited general traffic safety concerns as reason to not locate a station at the intersection. The Baseline location and Alternative A would have similar positive effects on traffic calming at the intersection. Under either location scenario, Metro Transit would construct curb extensions at the platform location to create in-lane stops, which shorten intersection crossing distances, increase visibility of pedestrians, and reduce driver speeds at pedestrian crossings. The City’s [Vision Zero Action Plan](#) lists adding safety treatments such as curb extensions (or “bump outs”) and supporting increased transit use as strategies to create safe streets and improve traffic safety.

Compared to the Baseline location (nearside), Alternative A (farside) provides greater opportunity for speed and reliability improvements. However, the Alternative A location has less space and provides less design flexibility than the Baseline location to accommodate needed widths for a BRT platform, bicycle facility, and pedestrian space.

The long-term future configuration of Central Avenue is being explored through MnDOT’s PEL Study – a multi-year feasibility and public engagement effort to improve safety and mobility in the corridor. Alternative A is adjacent to existing buildings, which limits the amount of usable space and provides less flexibility for future roadway design alternatives for Central Avenue under consideration as part of MnDOT’s PEL Study. The Baseline location is preferred as it is adjacent an undeveloped parcel owned by the City of Minneapolis that is planned for future redevelopment through [Lowry Avenue Community Works](#). The undeveloped, publicly owned parcel provides greater flexibility for the design of the F Line platform to meet the needs of various users.

Compared to Alternative A, the Baseline location of the northbound platform would affect fewer existing on-street parking spaces. The Baseline location would result in 3-4 total parking spaces removed, while Alternative A would result in 6-7 parking spaces removed. The Baseline location would have less impact to existing parking as it is the location of an existing Route 10 bus stop.

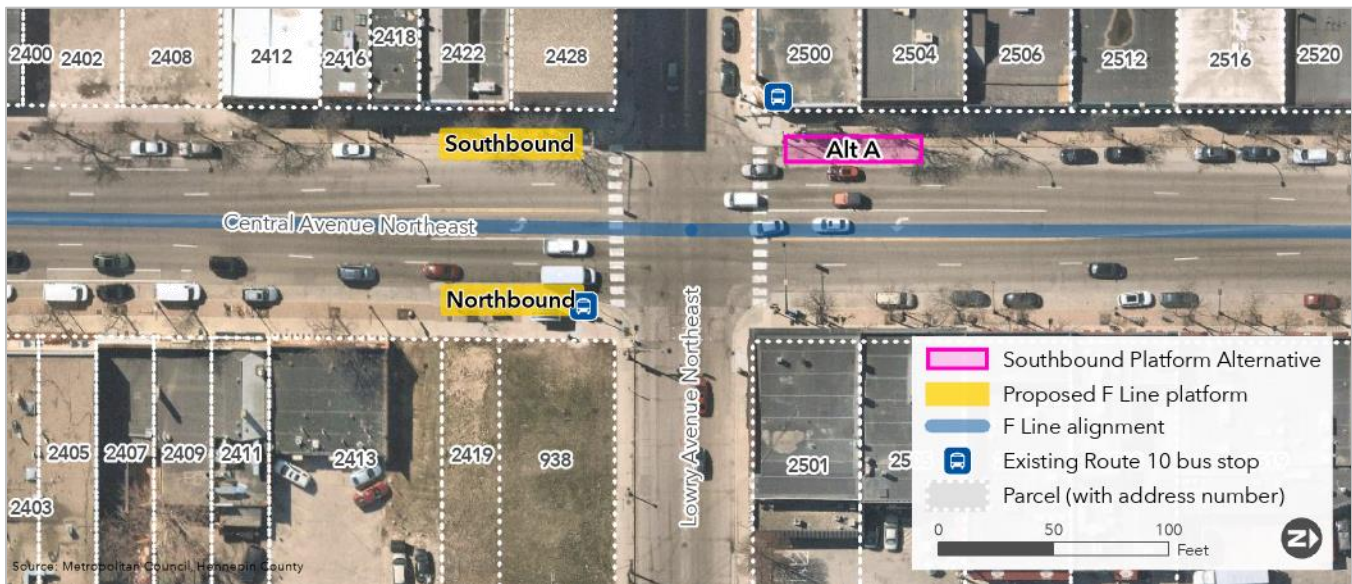
Based on these considerations, no change is recommended to the northbound platform location.

Southbound platform

An additional location for the southbound platform was analyzed at the following location:

- Baseline location: Central Avenue and Lowry Avenue farside
- Alternative A: Central Avenue and Lowry Avenue nearside (Figure 21)

Figure 21. Central & Lowry southbound alternatives



Alternative A was compared with the Baseline platform location on additional factors shown in Table 3.

Multiple factors addressed above regarding the analysis of the northbound platform – access to destinations, pedestrian safety, and traffic calming – also apply to the southbound platform. Both the southbound Baseline location (farside) and Alternative A (nearside) provide convenient access to the commercial activity surrounding the intersection. This neighborhood node of activity has common destinations north and south of the intersection.

The Baseline location and Alternative A would have similar effects on traffic calming at the intersection. Under either location scenario, Metro Transit would seek to construct curb extensions at the platform location to create in-lane stops, which the City of Minneapolis’ [Vision Zero Action Plan](#) lists as a strategy to create safe streets and improve traffic safety.

Some comments received expressed concern about potential conflicts between eastbound to southbound right-turning vehicles and pedestrians at the Baseline location compared to Alternative A. Traffic volume data collected in November 2022 suggest that the right-turn volumes near the southbound Baseline location (farside) are less than those at the Alternative A location (nearside). Metro Transit is completing traffic modeling to understand the effect of proposed F Line stations on existing traffic operations. The results of the traffic analysis will inform the Final Corridor Plan.

Compared to the southbound Baseline location, Alternative A would affect fewer existing on-street parking spaces. The Baseline location would result in 6-7 total parking spaces removed, while Alternative A would result in 3-4 parking spaces removed. Alternative A would have less impact to existing parking as it is the location of an existing Route 10 bus stop.

However, the southbound Baseline location on the farside of the intersection would be less likely to stop at a red light compared to Alternative A on the nearside of the intersection. The speed and reliability benefit of the Baseline location supports the purpose and need of the F Line project.

Based on these considerations, no change is recommended to the northbound platform location.

Table 3. Additional analysis of Central & Lowry southbound platform location

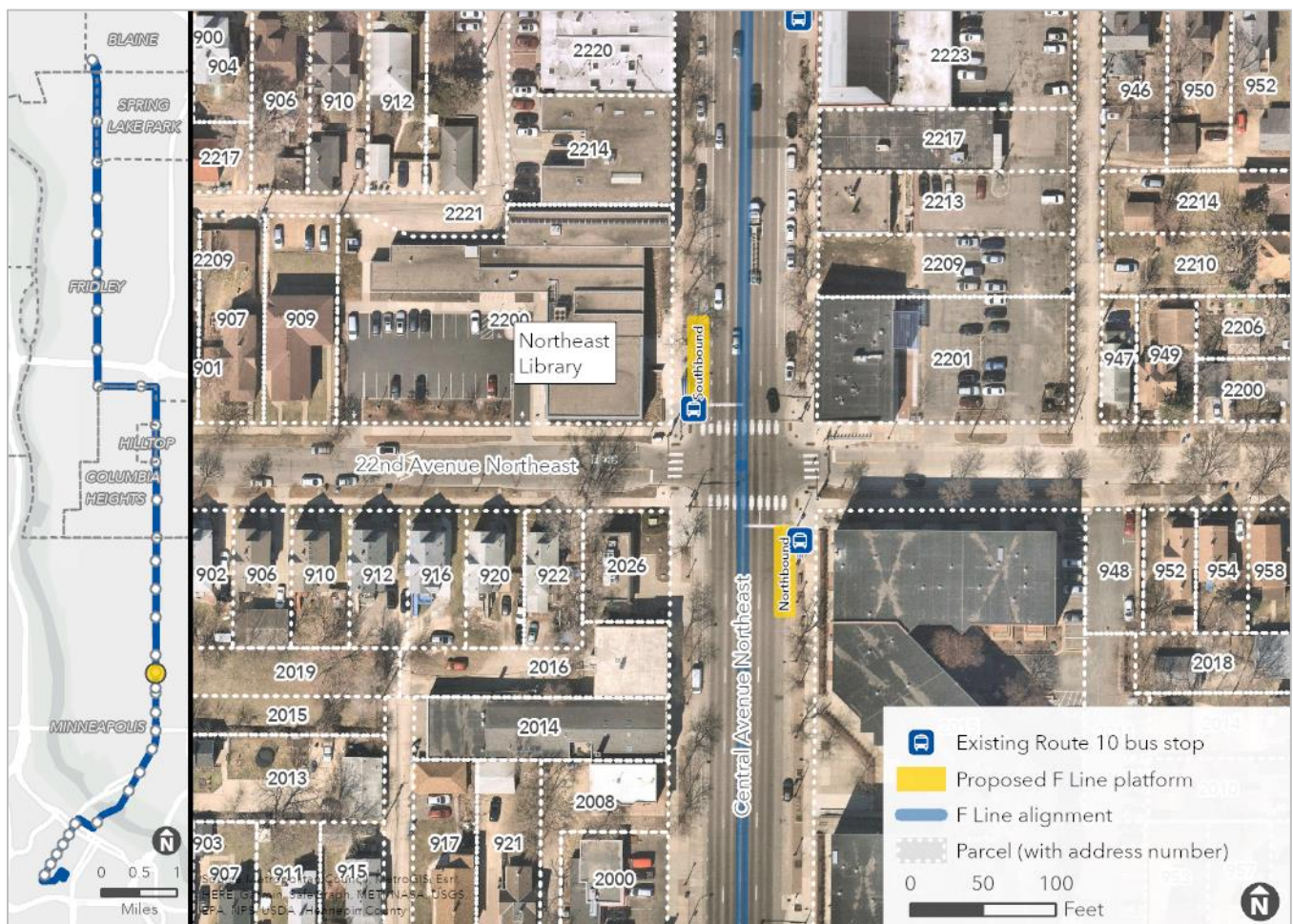
Key to symbols		Green = Preferred	Yellow = Not Preferred
Factor	Baseline: Central Avenue and Lowry Avenue farside	Alternative A: Central Avenue and Lowry Avenue nearside	
Safe pedestrian crossings	Encourages crossing at signalized intersection; lower daily volume of right-turning vehicles (eastbound to southbound) near platform [green]	Encourages crossing at signalized intersection; higher daily volume of right-turning vehicles (southbound to westbound) near platform [green]	
Access to destinations	Station serves commercial center directly with convenient access to destinations [green]	Station serves commercial center directly with convenient access to destinations [green]	
Station spacing	Station between 1/4-1/2 mile to neighboring stations [green]	Station between 1/4-1/2 mile to neighboring stations [green]	
Available right-of-way and effective space	Space available to meet needed widths for BRT platform, bicycle facility, and pedestrian space [green]	Space available to meet needed widths for BRT platform, bicycle facility, and pedestrian space [green]	
Speed & reliability	Farside platform location at signalized intersection reduces likelihood of stopping at red light [green]	Nearside platform location at signalized intersection increases likelihood of stopping at red light [yellow]	
Concern identified by station neighbors: On-street parking	4-6 total parking spaces removed; 7-8 parking spaces removed south of the intersection plus 2-3 parking spaces that could be added north of the intersection at existing bus stop location to be closed [yellow]	3-4 parking spaces removed; no parking allowed at existing bus stop immediately north of the intersection [yellow]	
Recommendation	Retain platform from draft plan [green]	Do not advance [orange]	

Central & 22nd Avenue

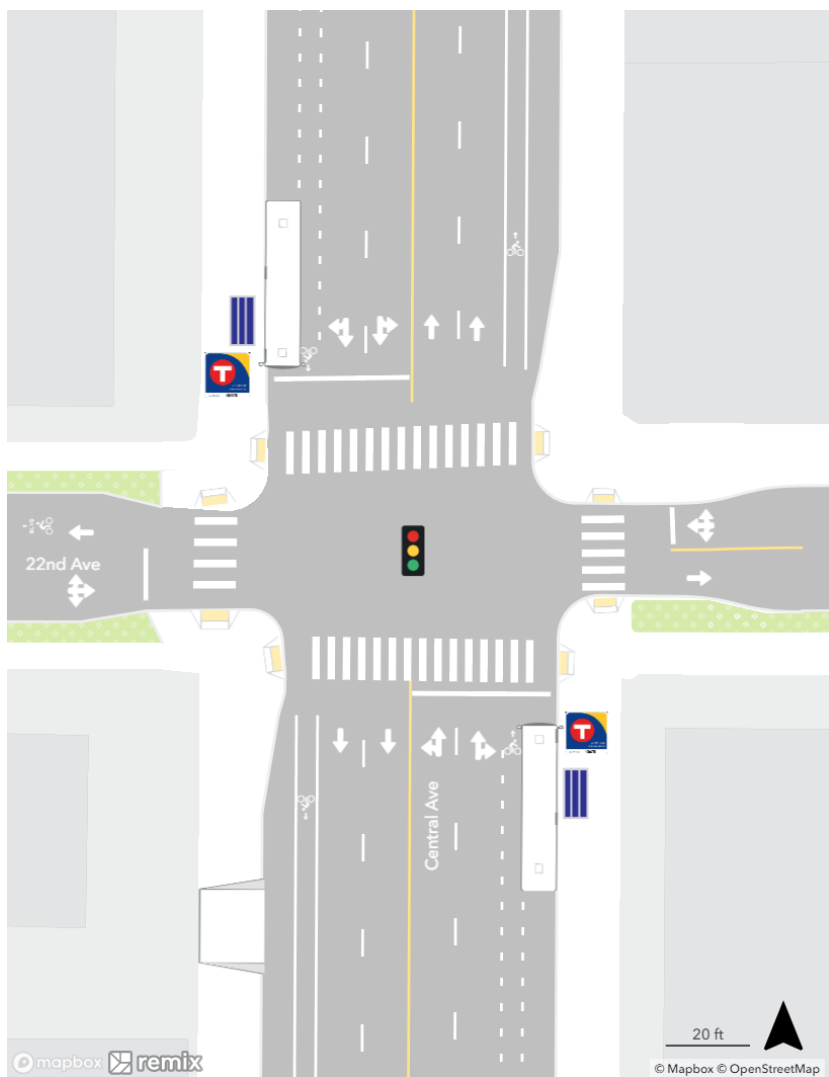
Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls 22nd Avenue.

This stretch of Central Avenue is lined with a mix of commercial and residential uses, including restaurants, grocers, shops, community spaces, other neighborhood services, and mixed-use multifamily buildings. Residential neighborhoods of multifamily buildings, duplexes, and single-family homes define the area further east and west of Central. Hennepin County Northeast Library is located on the northwest corner of the intersection and Edison High School is located three blocks west.

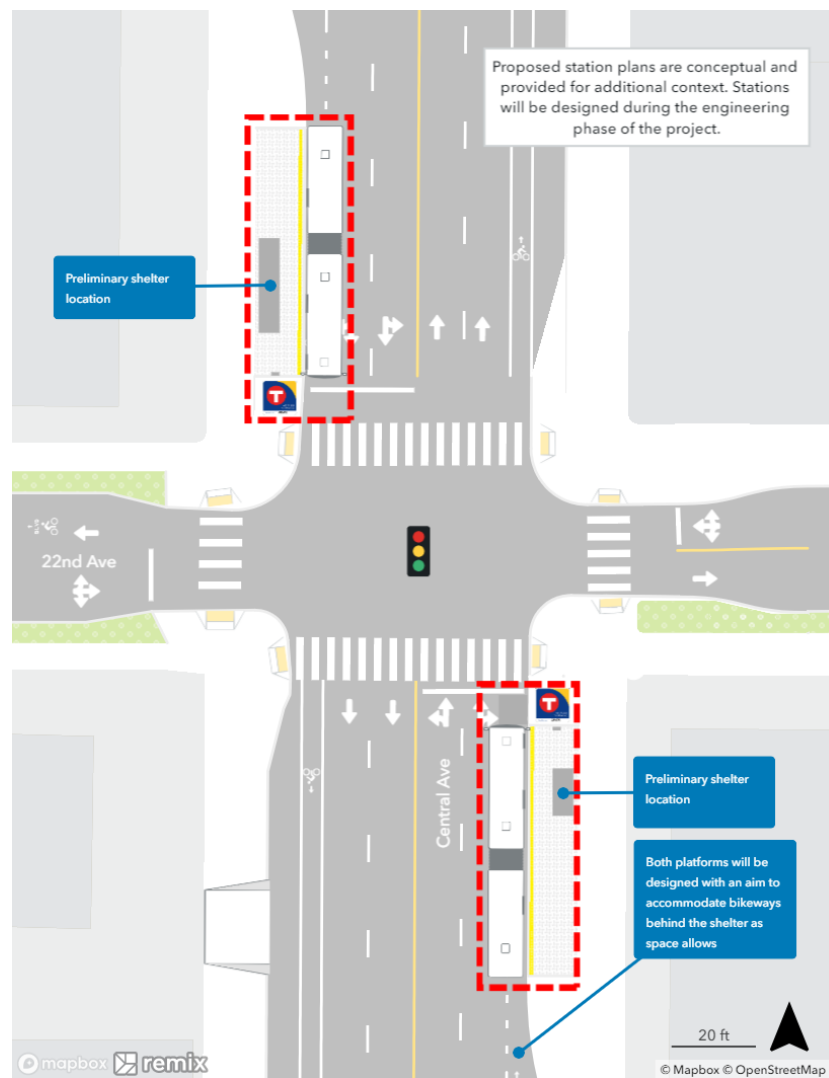
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- Intermittent on-street bike lane markings exist along Central Avenue from 27th to 13th avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the [City of Minneapolis' network of bikeways for all ages and abilities](#), the [Metropolitan Council's Regional Bicycle Transportation Network](#), and [MnDOT's Metro District Bicycle Plan](#).
- 22nd Avenue is an existing bicycle boulevard, part of the City of Minneapolis' low stress network of bikeways for all ages and abilities.
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, the City of Minneapolis, and other agency partners to accommodate existing/future bikeways along Central Avenue. Platforms will be designed with an aim to accommodate bikeways behind the BRT shelter, as space allows. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety.

Project coordination

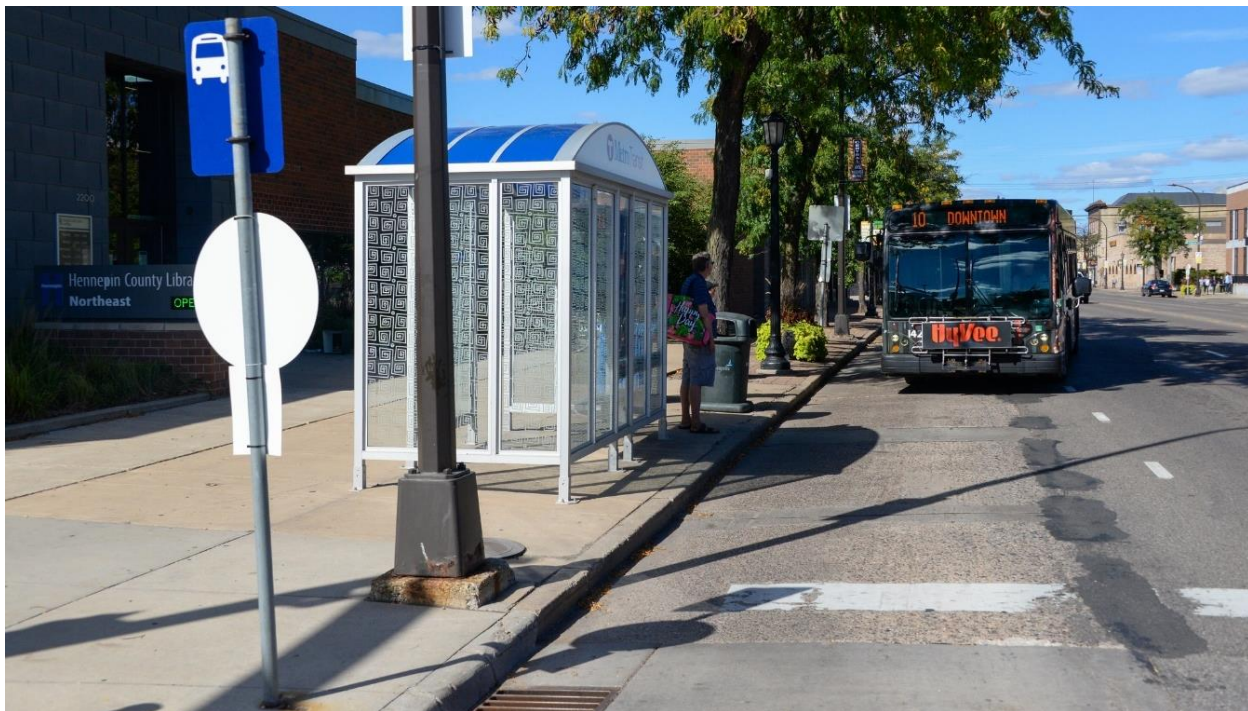
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Response to Feedback on Draft Plan

Metro Transit received 9 comments on the proposed Central & 22nd Avenue Station, with 5 comments in support and 4 comments requesting changes to the proposed station or platforms. Comments in support of the proposed station plan referenced access to destinations, including Hennepin County Northeast Library (adjacent to the southbound platform), and improved service reliability resulting from the F Line. Comments also noted the importance of designing platforms with bicyclist and pedestrian safety, and a desire to incorporate bike lanes behind F Line shelters.

The comments requesting changes to the proposed station plan requested that the northbound platform be located on the farside of 22nd Avenue, and removal of the station given concerns over station spacing. Responses to these concerns are below.

- Central & 22nd Avenue Station meets the 1/4-to-1/2-mile station spacing standard for arterial BRT, with Central & 18th Avenue Station 1/4 mile to the south and Central & Lowry Station 1/4 mile to the north. Station spacing on this segment of the F Line corridor is shorter than elsewhere due to existing Route 10 ridership and the proposal for no underlying local bus service along the F Line alignment south of Columbia Heights Transit Center (at Central and 41st avenues). Further, the station would provide access to important community destinations, including Northeast Library and Edison High School.
- The recommended northbound platform is on the nearside of 22nd Avenue. The nearside location differs from Metro Transit’s general preference for farside platforms at signalized intersections, which can provide speed and reliability benefits. However, site-specific conditions may result in a platform being located nearside. In this case, the farside location (northeast corner) is not recommended for the northbound platform because it has less effective space and provides less design flexibility than the nearside location (southeast corner). Metro Transit is committed to identifying F Line platform locations that benefit transit users while also maintaining flexibility such that potential outcomes of MnDOT’s PEL Study (see *Highway 47 and Highway 65 Planning and Environmental Linkages (PEL) Study*) – including different lane configurations, curb uses, and potential low-stress bikeways and bus-only lanes – can be implemented by MnDOT with or after the F Line project is built. Notably, the existing building at the farside location (northeast corner) is against the property line and has four entrance and exit doors within the length of the expected platform area. By comparison, the recommended nearside location (southeast corner) provides fewer obstacles and design challenges and maintains desired flexibility for the design of the F Line platform to meet the needs of various users. Additionally, the recommended nearside location is closer to and would require fewer street crossings to access Edison High School.



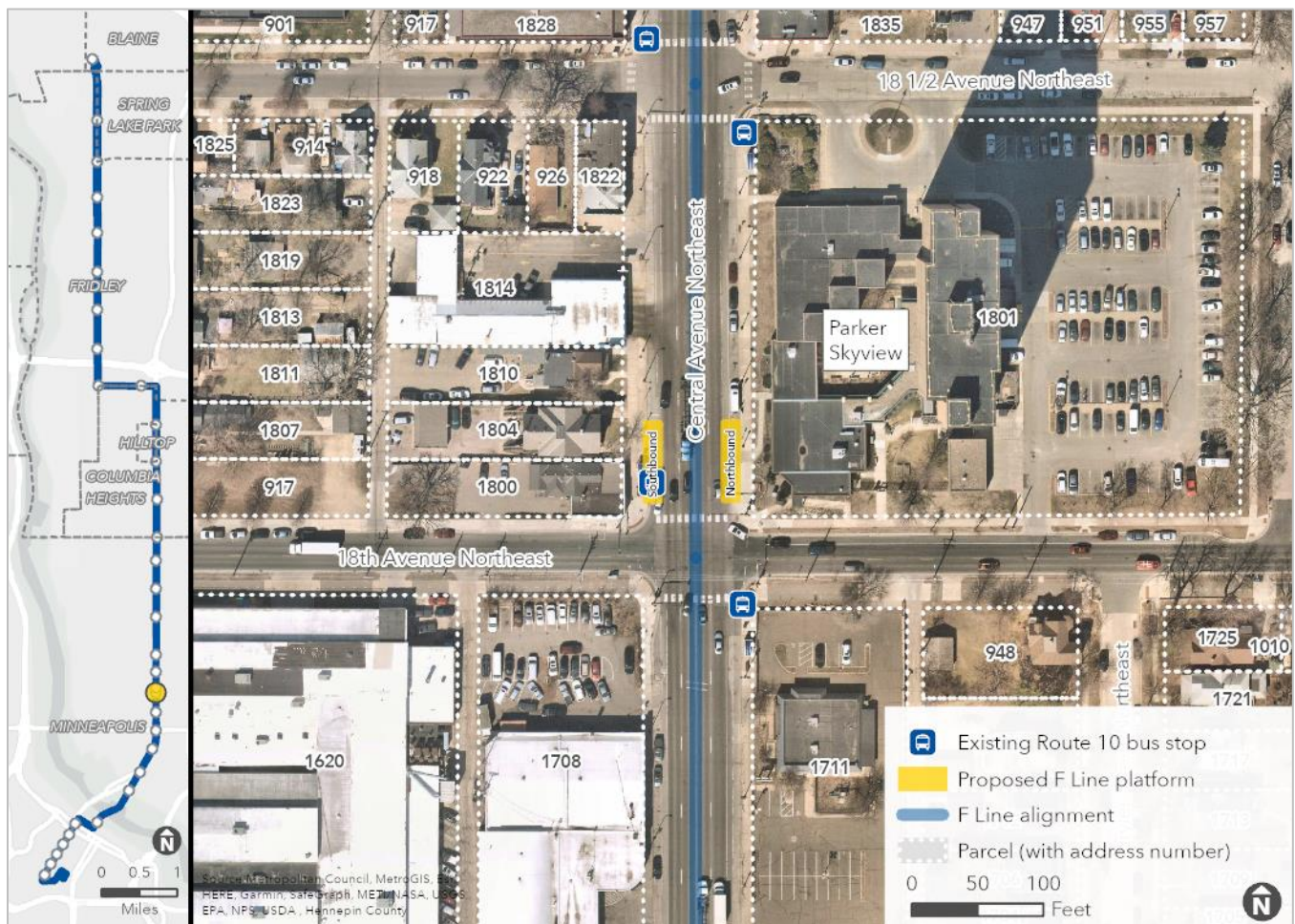
Passenger waiting for a Route 10 bus at the location of the proposed Central & 22nd Street southbound platform (Source: Metro Transit)

Central & 18th Avenue

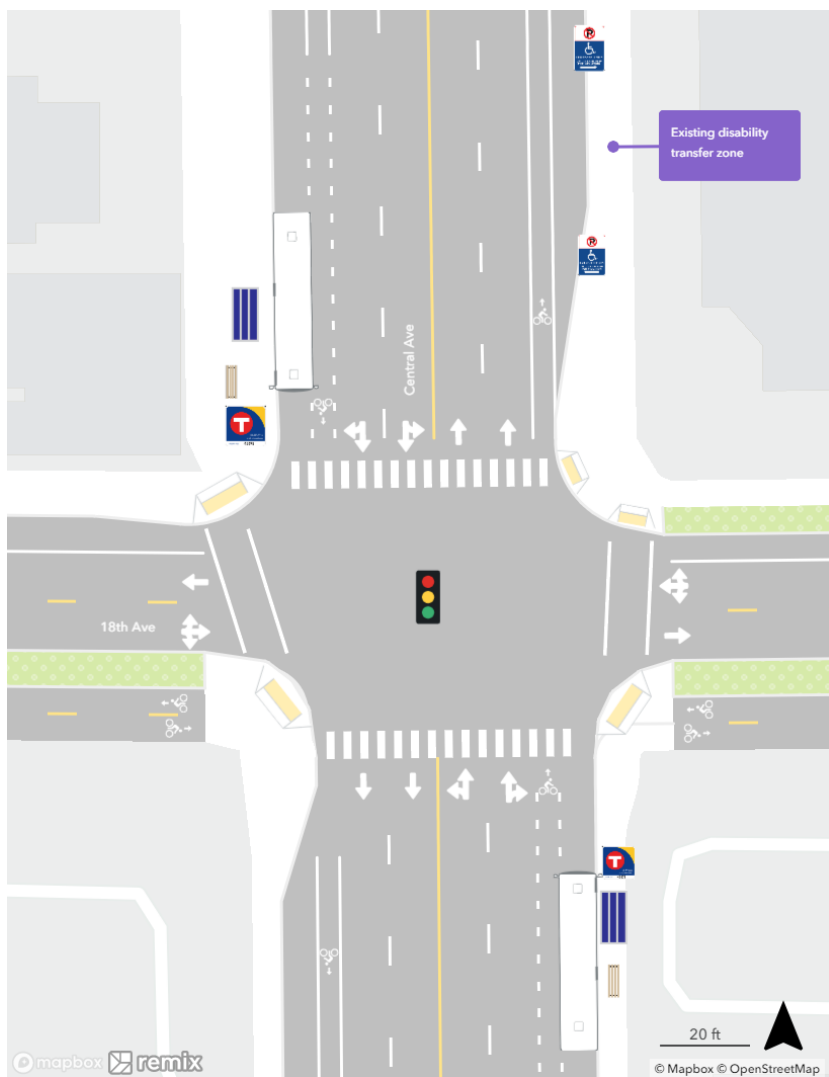
The proposed southbound platform is located at the same corner as the current-day Route 10 stop (nearside of 18th Avenue), but the proposed northbound platform is located farside of 18th Avenue (northeast corner), unlike today’s nearside bus stop location. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls 18th Avenue.

This stretch of Central Avenue is lined with a mix of commercial and residential uses. Parker Skyview, a 333-unit Minneapolis Public Housing Authority high-rise building designated for seniors, is located along the east side of the 1800 block of Central Avenue. Additionally, within the building is the Senior Food Shelf, a food distribution site for seniors.

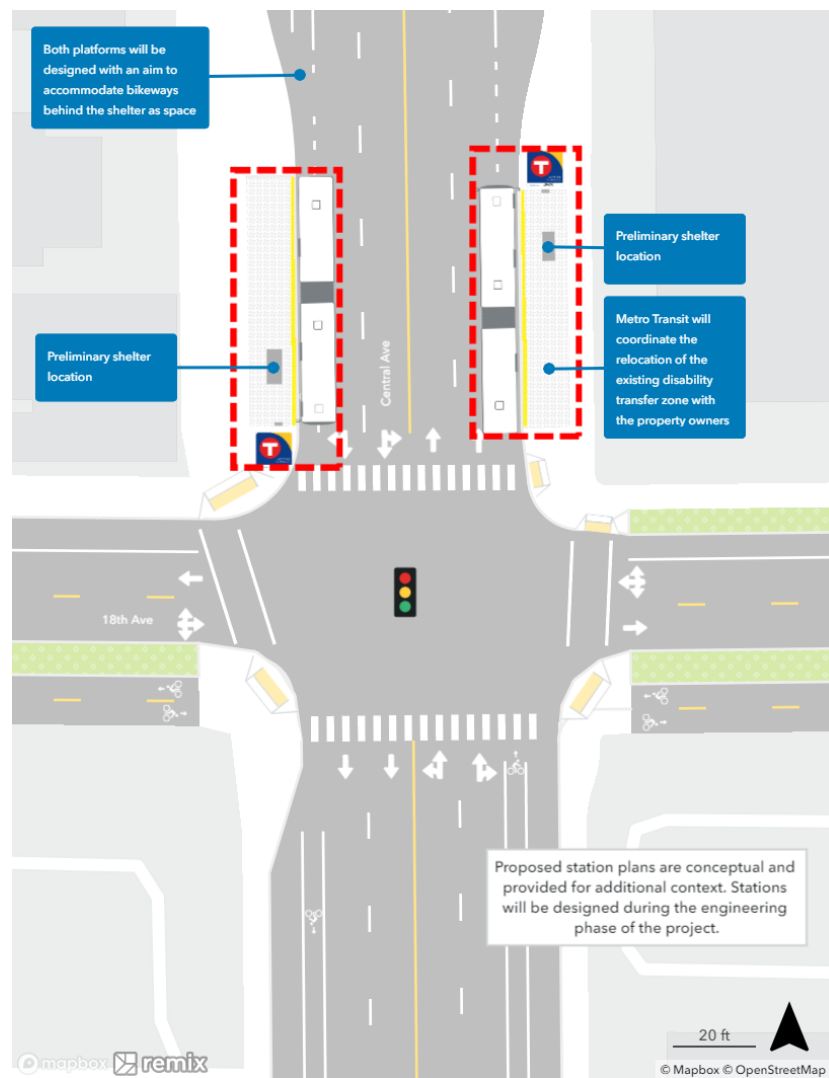
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- Intermittent on-street bike lane markings exist along Central Avenue from 27th to 13th avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the [City of Minneapolis' network of bikeways for all ages and abilities](#), the [Metropolitan Council's Regional Bicycle Transportation Network](#), and [MnDOT's Metro District Bicycle Plan](#).
- There is an existing two-way sidewalk-level protected bikeway along the south side of 18th Avenue, part of the City of Minneapolis' low stress network of bikeways for all ages and abilities.
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, the City of Minneapolis, and other agency partners to accommodate existing/future bikeways along Central Avenue. Platforms will be designed with an aim to accommodate bikeways behind the BRT shelter, as space allows. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety. Doing so may require the removal of select on-street parking spaces on the east side of Central Avenue.
- The proposed northbound platform is located farside of 18th Avenue (northeast corner) adjacent the Parker Skyview public housing high-rise and the Senior Food Shelf. Locating the platform here provides Parker Skyview residents and visitors with excellent transit access, while eliminating the need to cross 18th Avenue. However, placing the northbound platform at this location would require relocating the existing disability transfer zone currently on Central Avenue. Metro Transit will work closely with the Minneapolis Public Housing Authority and City of Minneapolis to relocate the disability transfer zone.

Project coordination

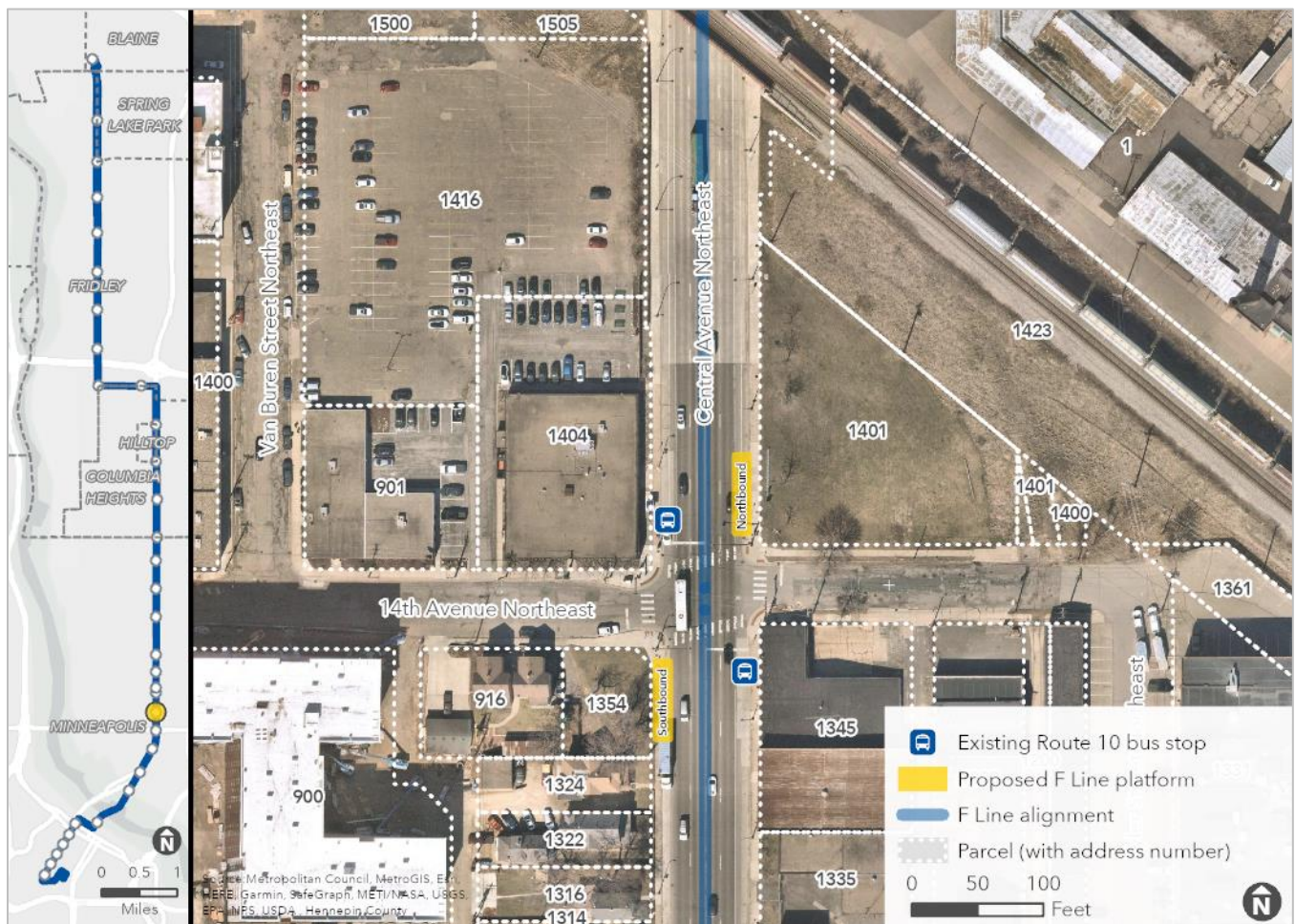
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Central & 14th Avenue

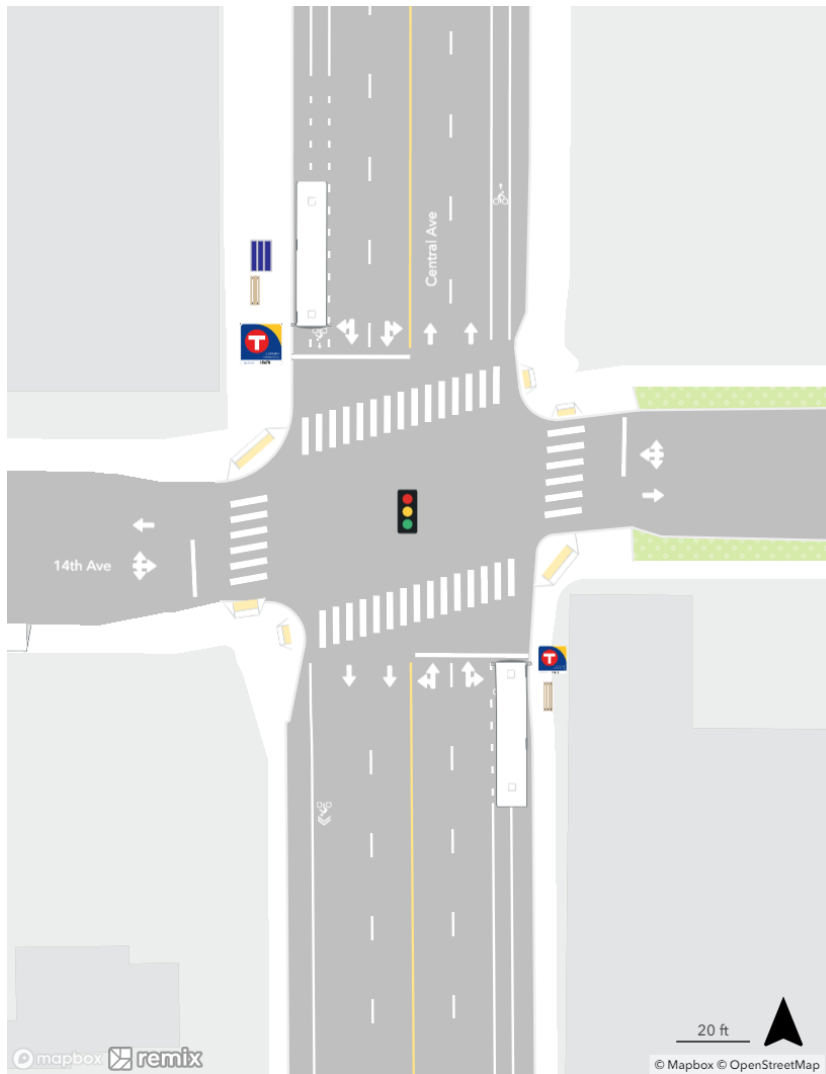
Both proposed platforms are located farside of 14th Avenue, deviating from the current-day Route 10 stops, which are both nearside of 14th Avenue. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls 18th Avenue.

This stretch of Central Avenue is surrounded by industrial and commercial uses, with some residential development (from single-family homes to six-story multifamily buildings). The railroad bridge north of 14th Avenue acts as a boundary between the 14th Avenue and 18th Avenue station areas. The City of Minneapolis owns the vacant parcel at the northeast corner of the intersection adjacent the proposed northbound platform farside of 14th Avenue.

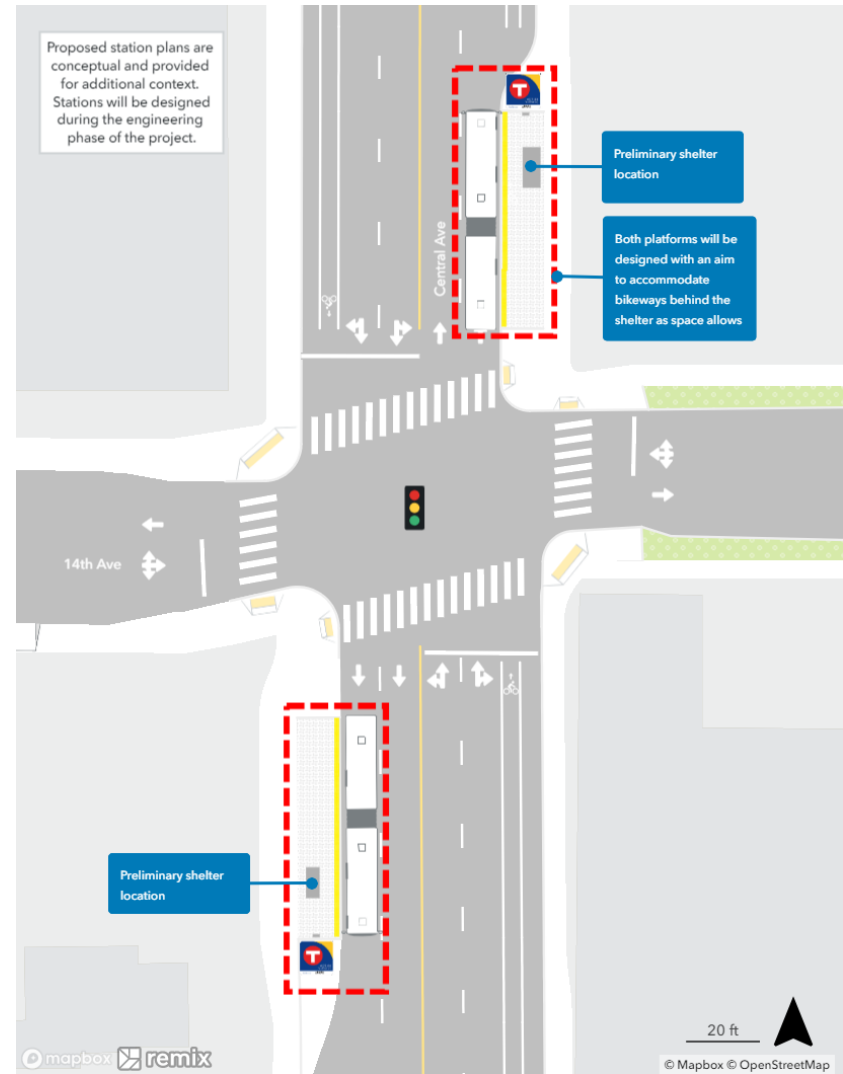
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- Intermittent on-street bike lane markings exist along Central Avenue from 27th to 13th avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the [City of Minneapolis' network of bikeways for all ages and abilities](#), the [Metropolitan Council's Regional Bicycle Transportation Network](#), and [MnDOT's Metro District Bicycle Plan](#).
- The City of Minneapolis' [Transportation Action Plan](#), calls for a connector or long-term low stress bikeway along 14th Avenue as part of the City's planned network of bikeways for all ages and abilities.
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, the City of Minneapolis, and other agency partners to accommodate existing/future bikeways along Central Avenue. Platforms will be designed with an aim to accommodate bikeways behind the BRT shelter, as space allows. At space-constrained platform locations, Metro Transit is working with agency partners to explore other design solutions that support safe operations for all roadway users, including people biking, people getting on, off, and waiting for transit, and other people walking or rolling. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety. Doing so may require the removal of select on-street parking spaces on the west side of Central Avenue.

Project coordination

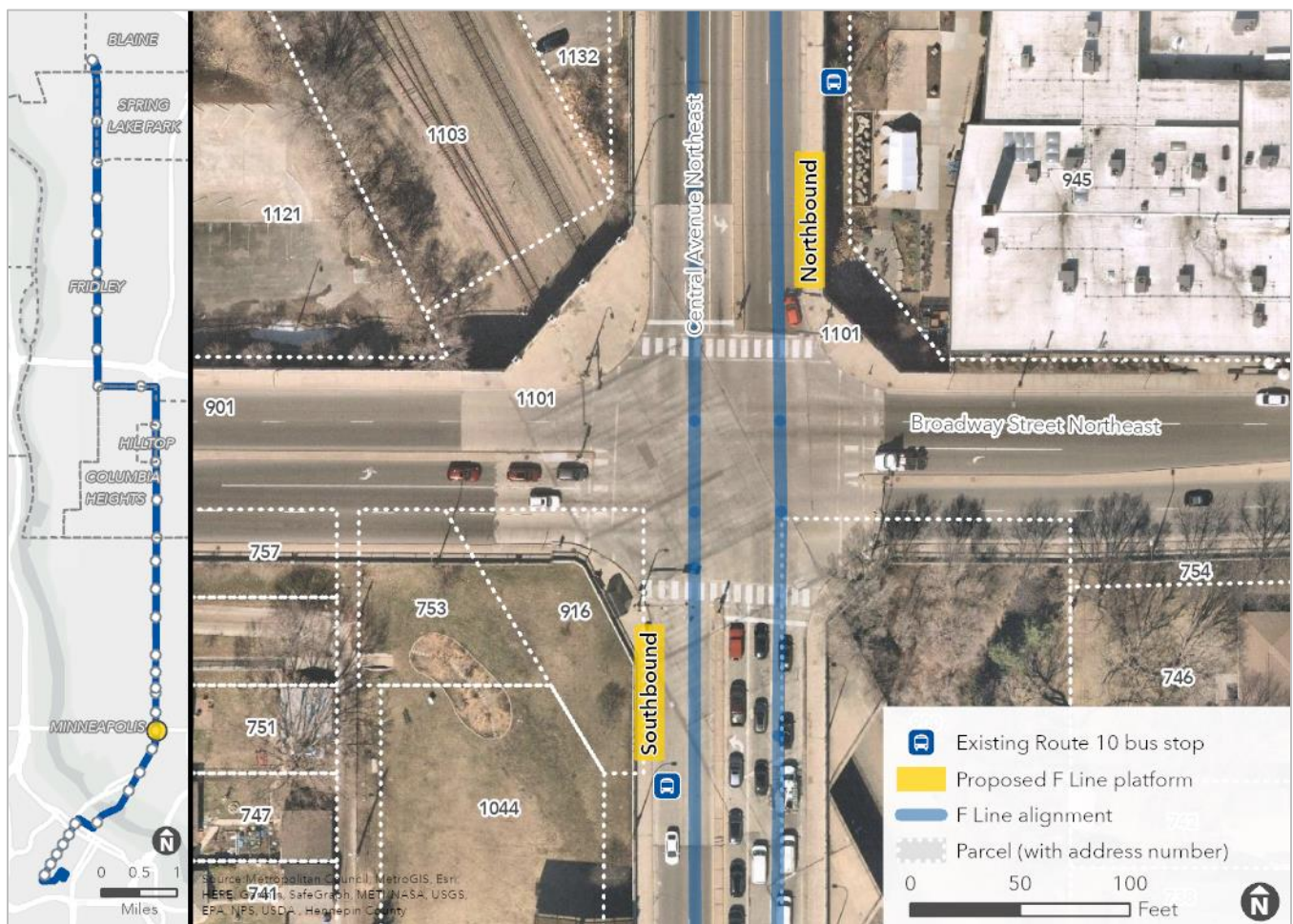
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Central & Broadway

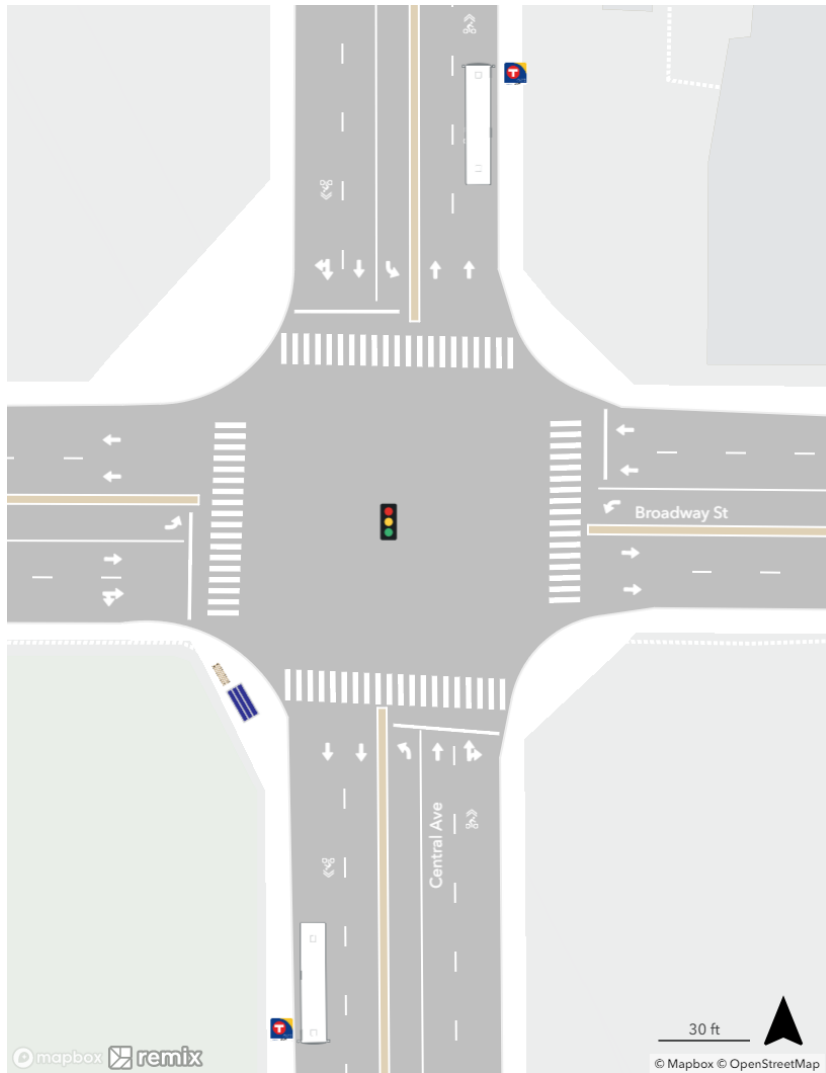
This station currently offers connections to Route 30, an east-west crosstown route operating between north Minneapolis and the Westgate Station of the METRO Green Line. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for Central Avenue, while Hennepin County controls Broadway Street.

Broadway Street is an important east-west arterial roadway along the corridor. This stretch of Central Avenue is surrounded by industrial and commercial uses, and residential development (from single-family homes to larger multifamily buildings).

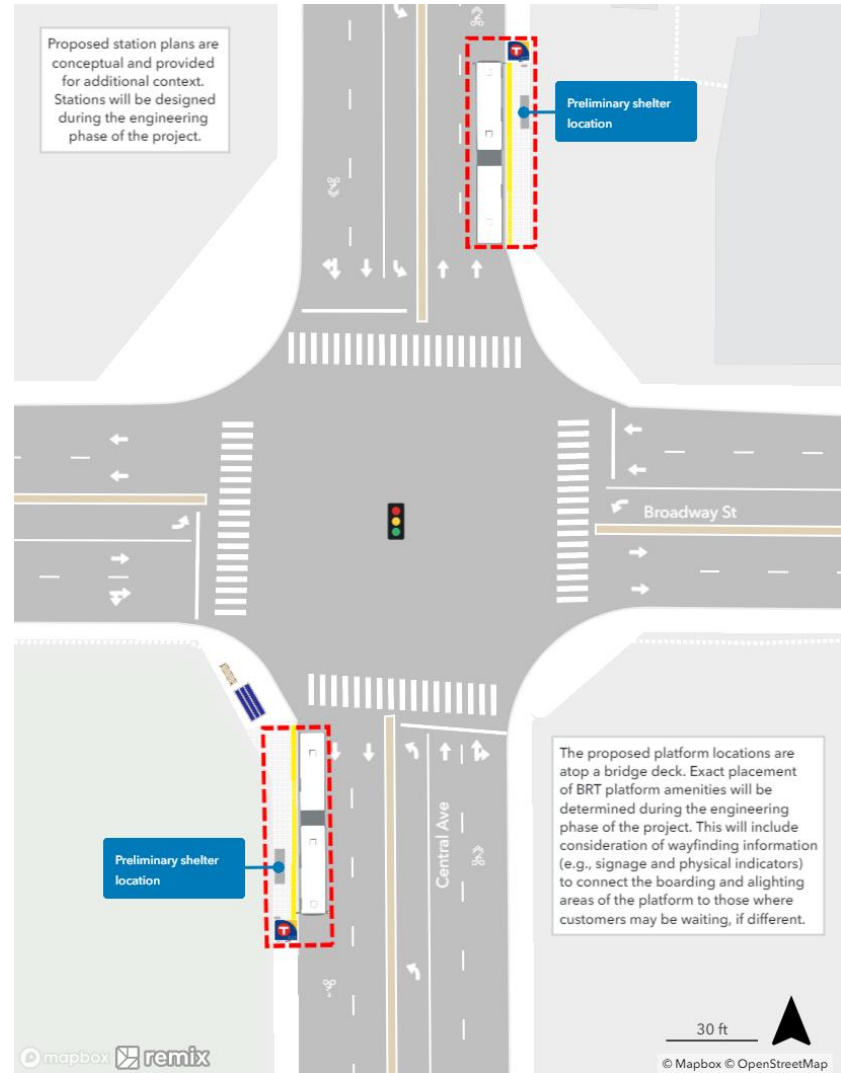
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing shared lane pavement markings (sometimes referred to as “sharrows”), indicating shared space between vehicles and bicycles, along Central Avenue between 13th Avenue and Spring Street. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the [City of Minneapolis’ network of bikeways for all ages and abilities](#), the [Metropolitan Council’s Regional Bicycle Transportation Network](#), and [MnDOT’s Metro District Bicycle Plan](#).
- The City of Minneapolis’ [Transportation Action Plan](#), calls for a connector or long-term low stress bikeway along Broadway Street as part of the City’s planned network of bikeways for all ages and abilities.
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, the City of Minneapolis, and other agency partners to accommodate existing/future bikeways along Central Avenue. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.
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Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- The intersection of Central Avenue and Broadway Street is atop a bridge deck spanning active railroad tracks. Siting platforms on the bridge poses geometric and constructability constraints. Metro Transit will continue to work closely with MnDOT to understand these limitations. Platform layout and amenities at this location may differ from those typically found elsewhere in the corridor.

Project coordination

- The station is within the study area of MnDOT’s PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Response to Feedback on Draft Plan

Metro Transit received 10 comments on the proposed Central & Broadway Station. In addition to general support for the station and/or platform locations, respondents noted several needed improvements and other important considerations at this busy neighborhood node.

The proposed platform locations are atop a bridge deck. Metro Transit does not expect to make station improvements that affect the structural integrity of the bridge. Exact placement of BRT platform

amenities such as shelters, pylon markers, and real-time NexTrip signs will be determined during the engineering phase of the project (anticipated to begin in summer 2023). This will include consideration of wayfinding information (e.g., signage and physical indicators) to connect the boarding and alighting areas of the platform to those where customers may be waiting.

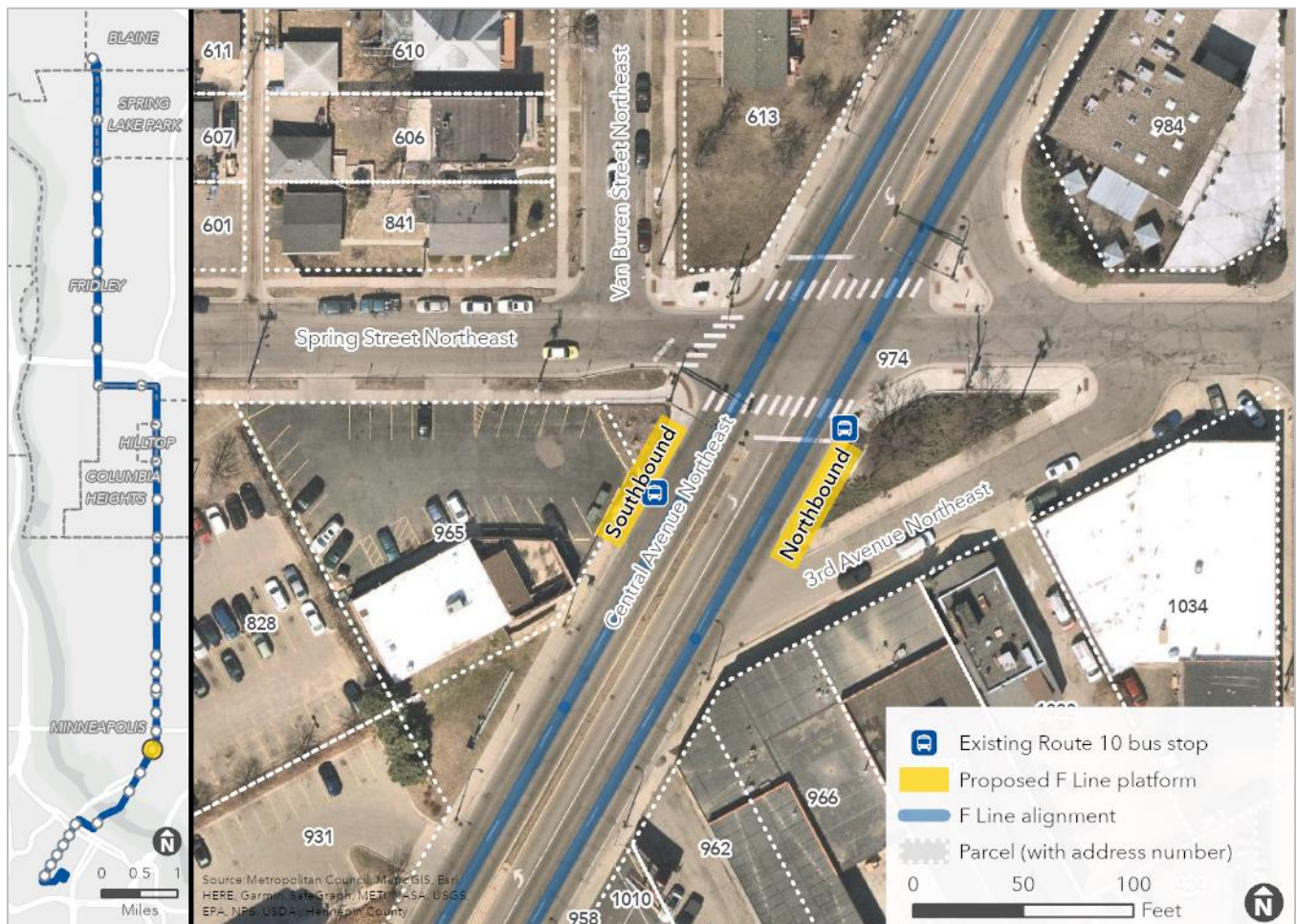
Metro Transit will work with MnDOT and Hennepin County to improve the safety and comfort of people walking, rolling, riding, and using transit near proposed F Line platforms, including accessibility improvements and potential traffic calming measures to reduce vehicle speeds and aggressive driver behavior.

Central & Spring

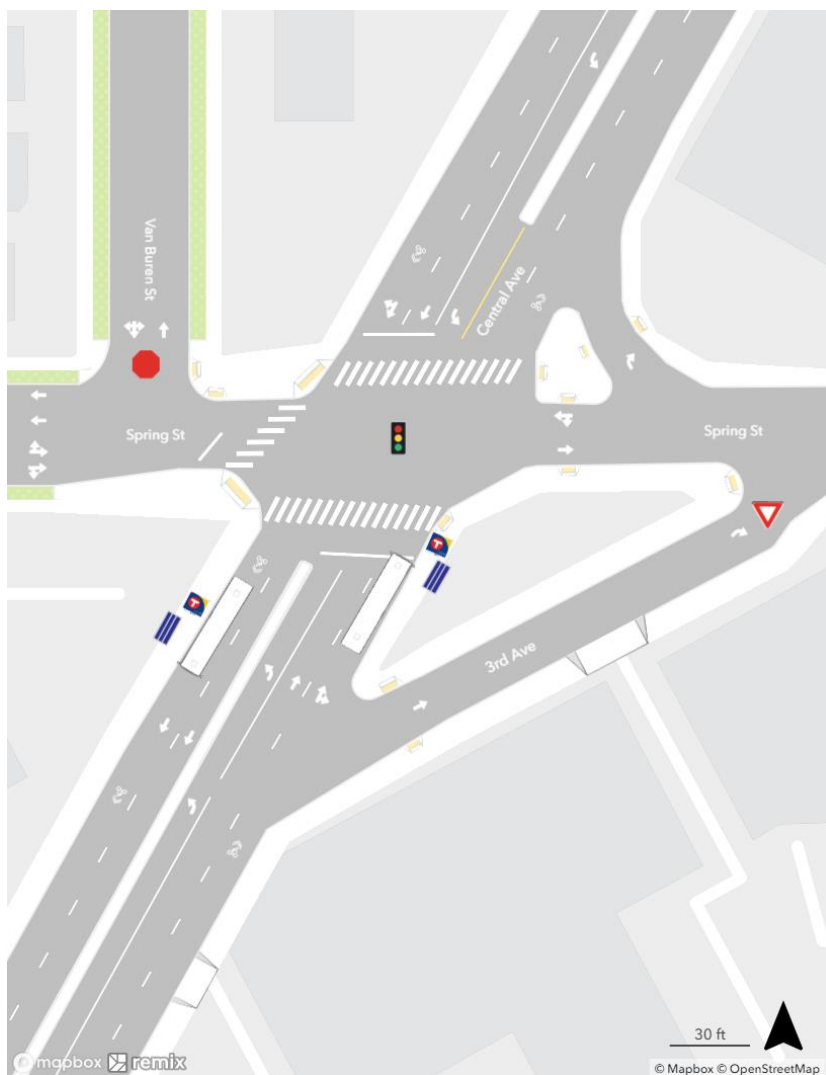
Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls Spring Street.

This stretch of Central Avenue is surrounded by industrial and commercial uses to the east, with residential development (from single-family homes to larger multifamily buildings) defining areas to the west.

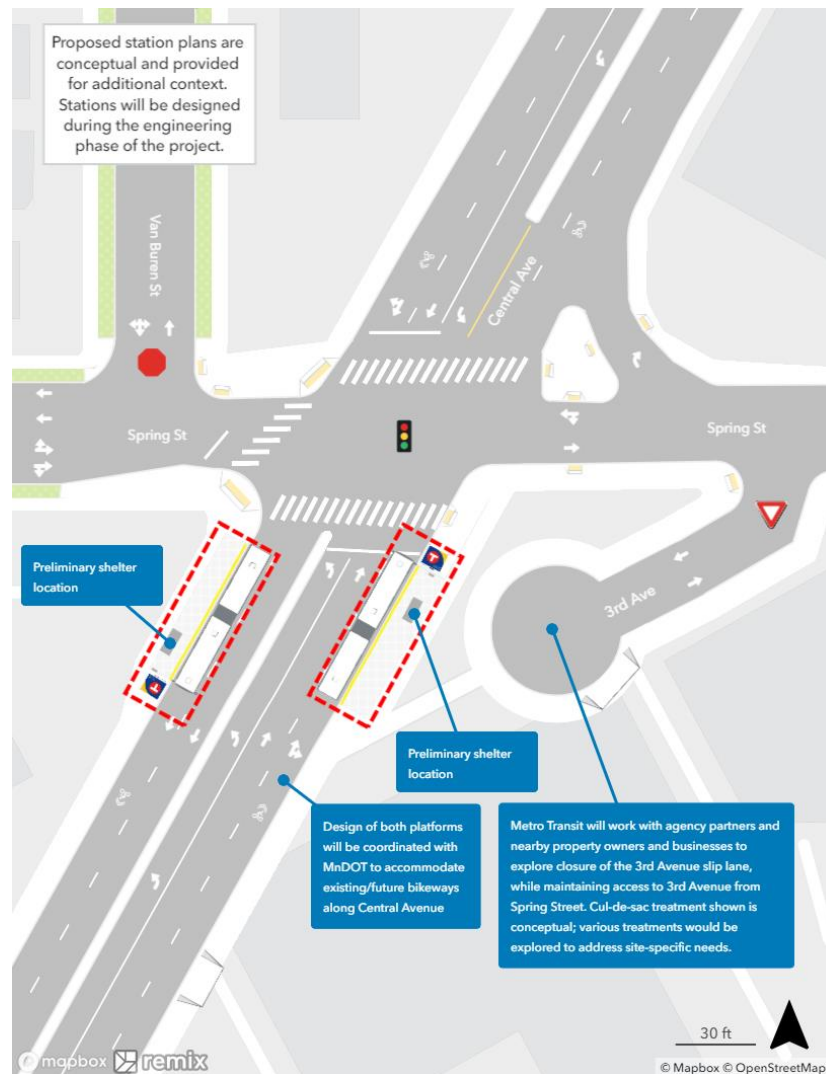
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing shared lane pavement markings (sometimes referred to as “sharrows”), indicating shared space between vehicles and bicycles, along Central Avenue between 13th and University avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the [City of Minneapolis’ network of bikeways for all ages and abilities](#), the [Metropolitan Council’s Regional Bicycle Transportation Network](#), and [MnDOT’s Metro District Bicycle Plan](#).
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, the City of Minneapolis, and other agency partners to accommodate existing/future bikeways along Central Avenue. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- The tail end of a 60-foot articulated bus (planned to be used on the F Line) may not be able to clear the intersection of Central and 3rd avenues due to the existing slip lane south of the intersection. Metro Transit will work with agency partners and nearby property owners and businesses to explore the closure or narrowing of the 3rd Avenue slip lane to allow for adequate platform length, while maintaining access to 3rd Avenue from Spring Street. A cul-de-sac is shown in the proposed station plan (see above); however, this is conceptual; various treatments will be explored to address site-specific needs.

Other locations considered

- A northbound platform farside (northeast corner) of Spring Street was considered. The right turn slip lane in the northeast corner of the intersection, along with physical space constraints pose challenges for siting a platform at this location.

Project coordination

- The station is within the study area of MnDOT’s PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Response to Feedback on Draft Plan

Metro Transit received 17 comments on the proposed Central & Spring station. The majority of comments were in support of the proposed station and platforms, including reasons listed below.

- The proposed station is about 400 feet east of Spring Manor, a 189-unit Minneapolis Public Housing Authority high-rise building designated for seniors, located at 828 Spring Street. A second Minneapolis Public Housing Authority complex is located across the street at 809 Spring Street contains 32 units of affordable housing. Additionally, the proposed station is about 350 feet northeast of Clare Housing, a 32-unit building at 929 Central Avenue providing supportive housing for people living with HIV.
- Several comments received were in support of the potential closure or narrowing of the 3rd Avenue slip lane to allow for adequate platform length. Comments noted that removing the slip lane would improve pedestrian safety and comfort, while providing potential opportunities to create public space with greening, art, and a mobility hub – a place where people can connect to multiple modes of transportation (e.g., transit, shared scooters and Nice Ride bicycles, etc.) to make their trip as safe, convenient, and reliable as possible.⁶

Comments in opposition to the proposed station primarily cited station spacing. Central & Spring Station meets the 1/4-to-1/2-mile station spacing standard for arterial BRT, with Central & 1st Avenue/7th Street station 1/3 mile to the south and Central & Broadway Station 1/4 mile to the north. Locating an F Line station at Central Avenue and Spring Street would provide convenient access to surrounding neighborhoods and destinations, while serving the many Route 10 riders who get on or off the bus at this location each weekday. Absent a Central & Spring Station, people would be required to walk or roll northbound uphill to Central & Broadway or southbound uphill to Central & 1st Avenue/7th Street.



View looking south down Central Avenue, showing the location of the proposed southbound platform with Spring Manor and Clare Housing developments in the background (Source: Metro Transit)

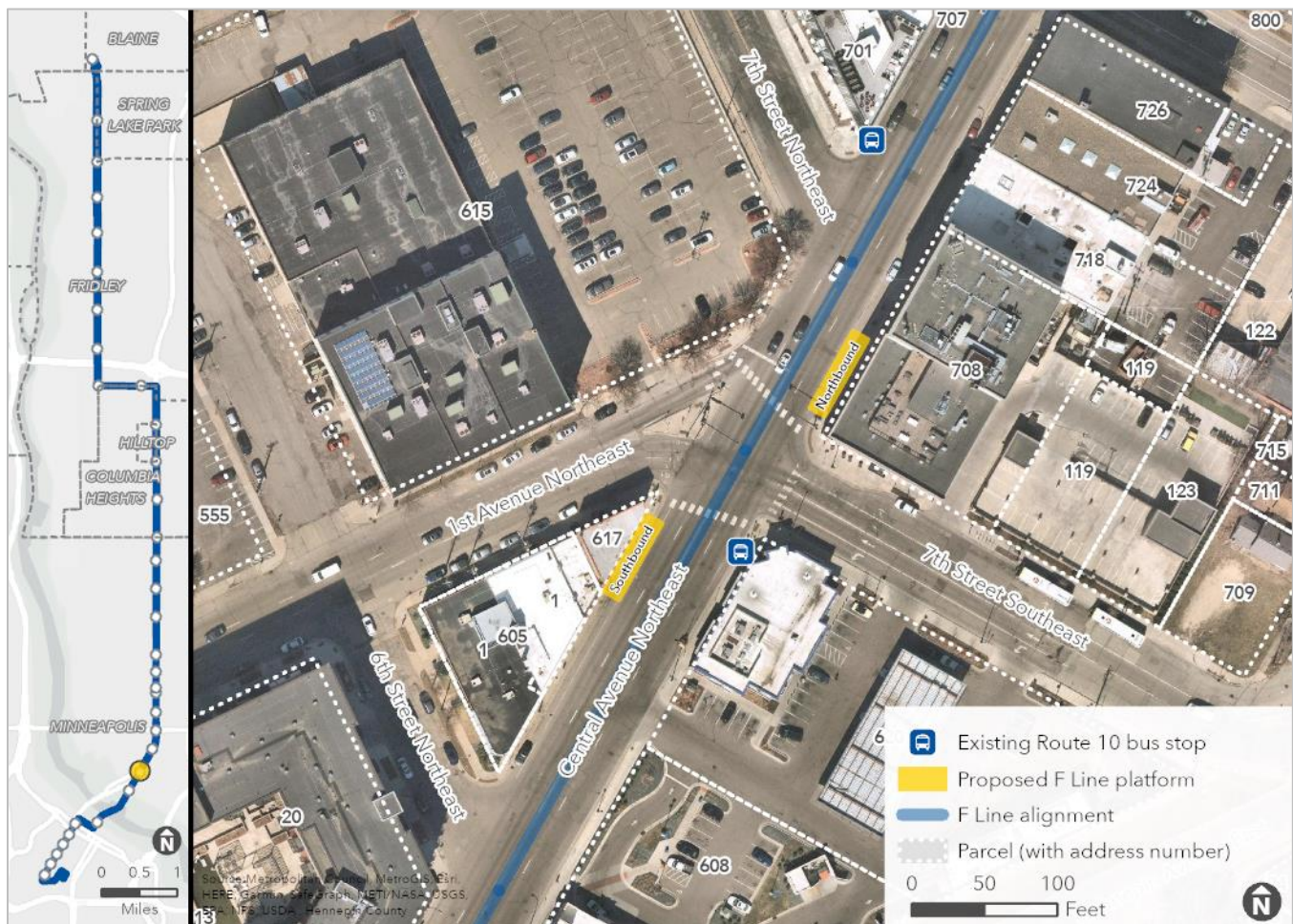
⁶ The City of Minneapolis has created several Mobility Hub pilot projects in partnership with Metro Transit. You can learn about the Minneapolis mobility hub pilot program at <https://www.minneapolismn.gov/government/programs-initiatives/transportation-programs/mobility-hubs/>.

Central & 1st Avenue/7th Street

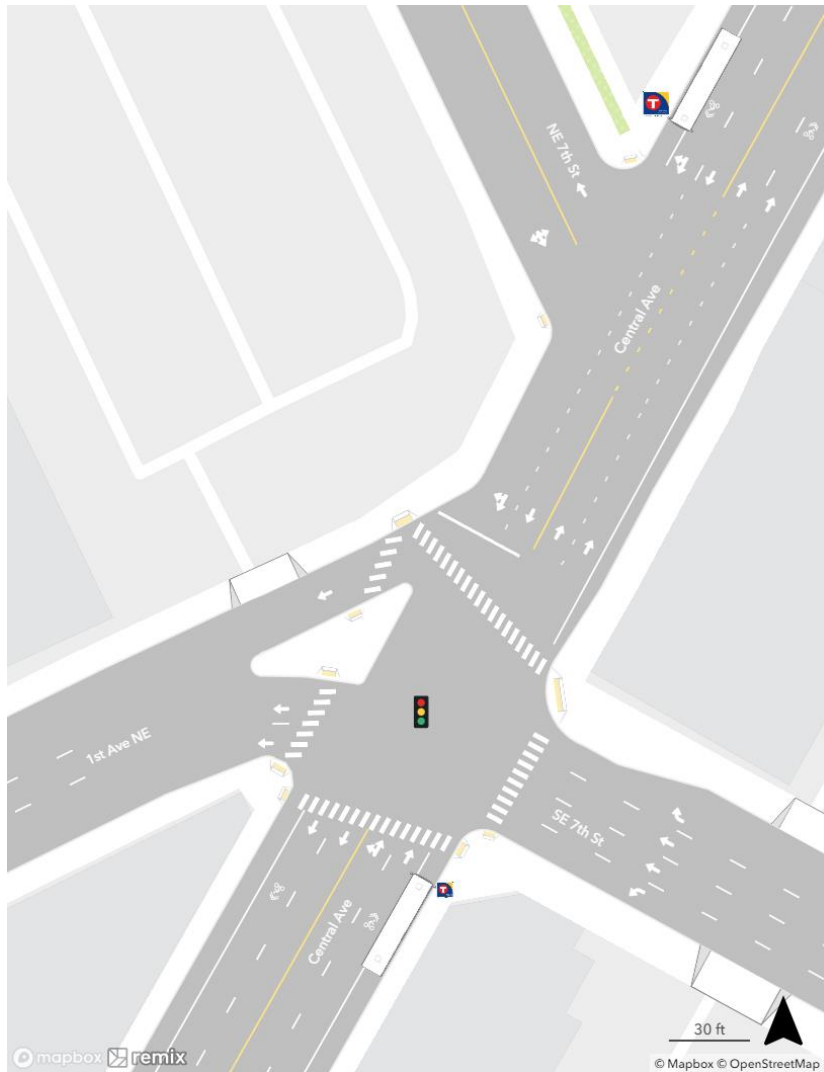
This station currently offers connections to Routes 2, 4, 17, 25, and 61. This station would also provide a connection to the Johnson/Lyndale corridor, which is identified as an expansion priority between 2030 and 2040 for the arterial BRT network in the Metropolitan Council's [2040 Transportation Policy Plan](#). MnDOT is the roadway authority for Central Avenue, while Hennepin County controls 1st Avenue/7th Street.

This stretch of Central Avenue is a mix of higher intensity commercial, office, and residential uses. The station area is near the eastern/northern edge of the loosely defined area of increased development and activity immediately east of downtown Minneapolis and the Mississippi River.

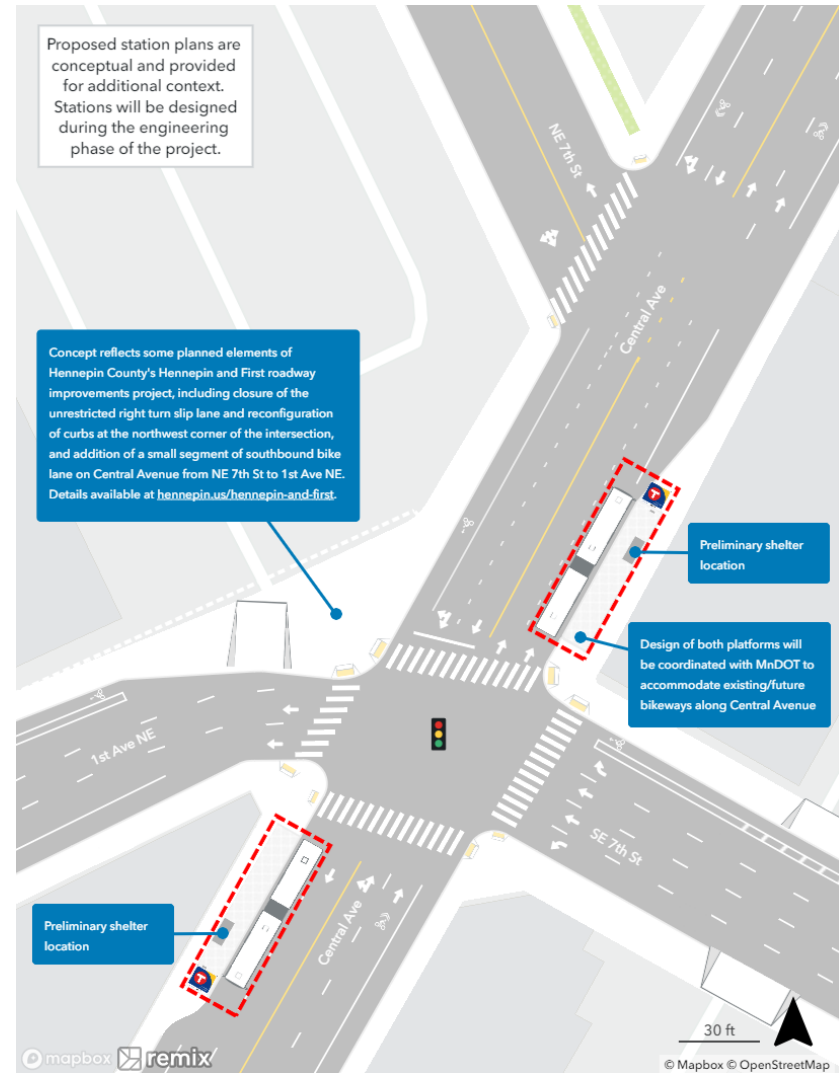
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Project coordination

- The station is within the study area of MnDOT’s PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- Hennepin County is developing roadway improvements on Hennepin and 1st avenues (County Road 52) between Main and 8th streets in Northeast Minneapolis. Metro Transit is in coordination with the County as design plans are refined and as the project approaches construction and completion in 2024.

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing shared lane pavement markings (sometimes referred to as “sharrows”), indicating shared space between vehicles and bicycles, along Central Avenue between 13th and University avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the [City of Minneapolis’ network of bikeways for all ages and abilities](#), the [Metropolitan Council’s Regional Bicycle Transportation Network](#), and [MnDOT’s Metro District Bicycle Plan](#).
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, the City of Minneapolis, and other agency partners to accommodate existing/future bikeways along Central Avenue. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Conceptual platform layout

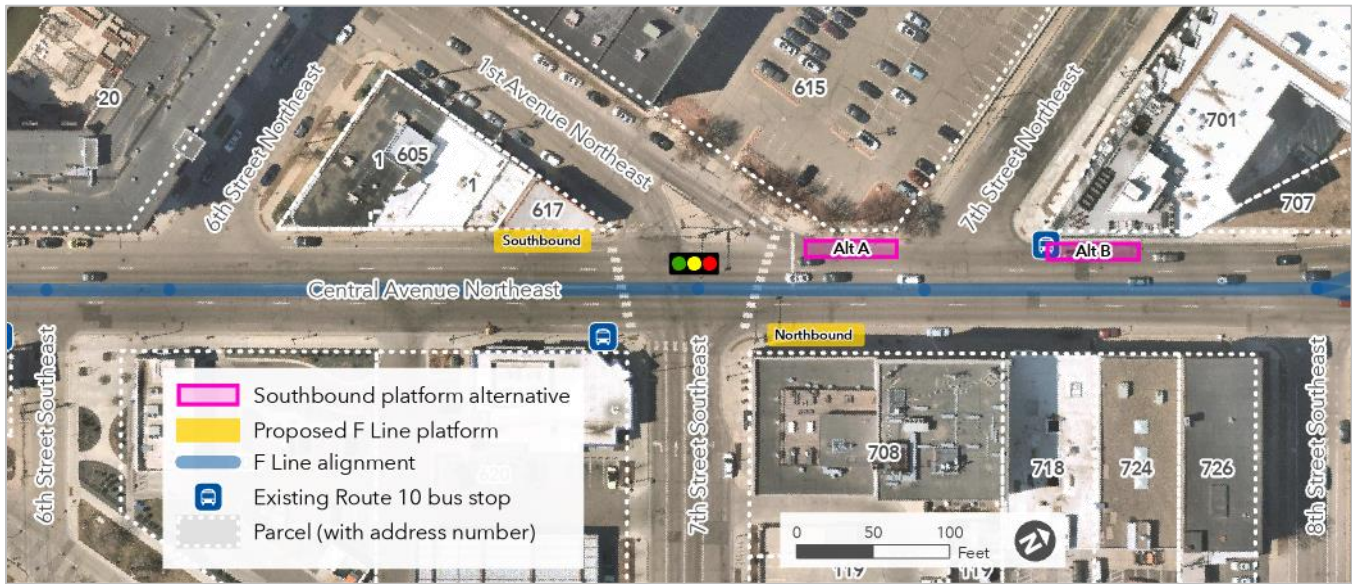
- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety. Doing so may require the removal of select on-street parking spaces on either side of Central Avenue.

Additional Analysis Based on Feedback on Draft Plan

Based on public feedback received on the Draft Corridor Plan – particularly concerns about the removal of on-street parking – additional locations for the southbound platform were analyzed (Figure 22):

- Baseline location: Central Avenue and 1st Avenue NE/7th Street SE farside
- Alternative A: Central Avenue and 1st Avenue NE/7th Street SE nearside
- Alternative B: Central Avenue and 7th Street NE nearside

Figure 22. Central & 1st Avenue/7th Street southbound alternatives



Alternatives A and B were compared with the Baseline platform location on additional factors shown in Table 4.

Alternative B on Central Avenue nearside of 7th Street NE (northwest corner) is at an unsignalized intersection; a platform at this location could encourage unsafe pedestrian and bicyclist crossings of Central Avenue. Additionally, Alternative B is located further from the commercial center and provides less convenient access to destinations.

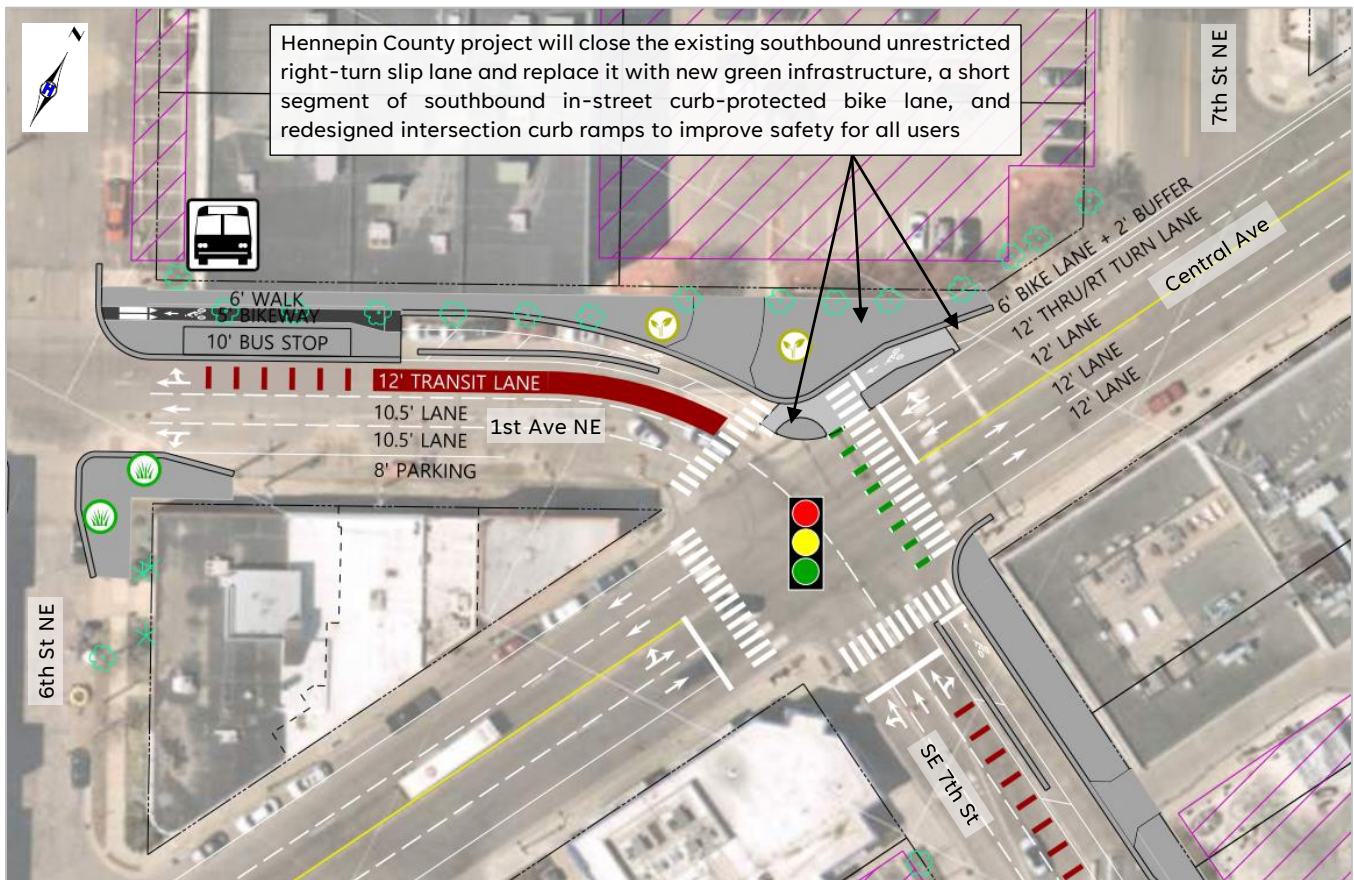
Compared to Alternative A, the Baseline location provides speed and reliability improvements and has more available right-of-way and effective space for a BRT platform, bicycle facility, and pedestrian space. Hennepin County, through its Hennepin and First roadway improvements project, is redesigning the intersection of Central Avenue and 1st Avenue/7th Street – including the location of Alternative A (northwest corner). Design of the project is nearly complete, and construction is planned for 2024. Shown in Figure 23, the County’s project will close the existing southbound unrestricted right-turn slip lane and replace it with new green infrastructure, a short segment of southbound in-street curb-protected bike lane, and redesigned intersection curb ramps to improve safety for all users.⁷ It was determined through ongoing coordination with Hennepin County and the City of Minneapolis that an F Line southbound platform could not be accommodated at the Alternative A location while also meeting the goals of the Hennepin & First project.

⁷ Additional project details and the full recommended concept layout with design details are available at hennepin.us/hennepin-and-first.

Table 4. Additional analysis of Central & 1st Avenue/7th Street southbound platform location

Key to symbols			
	Green = Preferred	Yellow = Not Preferred	Orange = Undesirable
Factor	Baseline: Central Avenue and 1st Avenue NE/7th Street SE farside	Alternative A: Central Avenue and 1st Avenue NE/7th Street SE nearside	Alternative B: Central Avenue and 7th Street NE nearside
Safe pedestrian crossings	Encourages crossing at signalized intersection [green]	Encourages crossing at signalized intersection [green]	Encourages crossing at unsignalized intersection [orange]
Access to destinations	Station serves commercial center directly with convenient access to destinations [green]	Station serves commercial center directly with convenient access to destinations [green]	Station is offset from commercial center with less convenient access to destinations [yellow]
Station spacing	Station between 1/4-1/2 mile to neighboring stations [green]	Station between 1/4-1/2 mile to neighboring stations [green]	Station between 1/4-1/2 mile to neighboring stations [green]
Available right-of-way and effective space	Space available to meet needed widths for BRT platform, bicycle facility, and pedestrian space [green]	Space not available to meet needed widths for BRT platform, bicycle facility, and pedestrian space, given other improvements [orange]	Space available to meet needed widths for BRT platform, bicycle facility, and pedestrian space [green]
Speed & reliability	Farside platform location at signalized intersection reduces likelihood of stopping at red light [green]	Nearside platform location at signalized intersection increases likelihood of stopping at red light [yellow]	Platform location at uncontrolled intersection, no impact on speed and reliability [green]
Traffic operations	No or minimal impact or concerns [green]	Pedestrian and bicyclist safety concerns [orange]	No or minimal impact or concerns [green]
Concern identified by station neighbors: On-street parking	3-5 total parking spaces removed; 5-6 parking spaces removed southbound plus 1-2 parking spaces that could be added northbound (across the street) at existing bus stop location to be closed [yellow]	0 total parking spaces removed; no parking allowed at location [green]	0 total parking spaces removed; no parking allowed at location [green]
Recommendation	Retain platform from draft plan [green]	Do not advance [orange]	Do not advance [orange]

Figure 23. Hennepin and First project recommended concept at Central and 1st Avenue/7th Street (June 2022)



Additional project details and the full recommended concept layout with design details are available at hennepin.us/hennepin-and-first (Source: Hennepin County)

Alternative A presents unique traffic operations challenges, given traffic patterns and intersection geometry. In their role advising the F Line project on planning issues throughout the corridor, TAC agency staff expressed concerns about potential pedestrian and bicyclist safety issues resulting from motorist behavior near a BRT platform at the Alternative A location. There are a relatively high number of vehicles that travel south on Central Avenue and turn right onto 1st Avenue NE toward downtown. TAC agency staff are concerned that, given the right-turn traffic volumes and the positioning of a bus serving the platform at the Alternative A location, motorists would often seek to move around a bus stopped to pick up and drop off passengers then make an illegal right turn in front of the bus from the left lane (dedicated to through travel). This behavior presents potential conflicts and safety issues for pedestrians and bicyclists crossing over 1st Avenue NE, as motorists accelerate into their right turn without anticipating people in the crosswalk. Agency partner staff believe the unique conditions and safety concerns for people walking and biking at this intersection are enough to warrant not locating the southbound platform at Alternative A location.

The Baseline location would result in 3-5 total parking spaces removed: 5-6 metered parking spaces removed for the southbound platform on the west side of Central Avenue, plus 1-2 metered parking spaces that could be added directly across the street on the east side of Central Avenue where the existing Route 10 bus stop would be closed.

The proposed northbound platform would result in 7-8 metered parking spaces removed on the east side of Central Avenue north of 1st Avenue/7th Street.

There are currently 65 on-street parking spaces (metered and unmetered) within 2-minute walk/roll of the proposed southbound platform. Approximately 55 parking spaces would remain after construction of planned changes from Hennepin County's Hennepin and First roadway improvements project in 2024. In total, considering the southbound and northbound platforms, the proposed F Line station at Central & 1st Avenue/7th Street would result in 10 to 13 total parking spaces removed (approximately 20% decrease), leaving 42 to 45 on-street parking spaces would remain within a 2-minute walk/roll of the proposed southbound platform. There are hundreds of additional on-street parking spaces and several off-street parking resources available within a 5-minute walk/roll from the intersection.

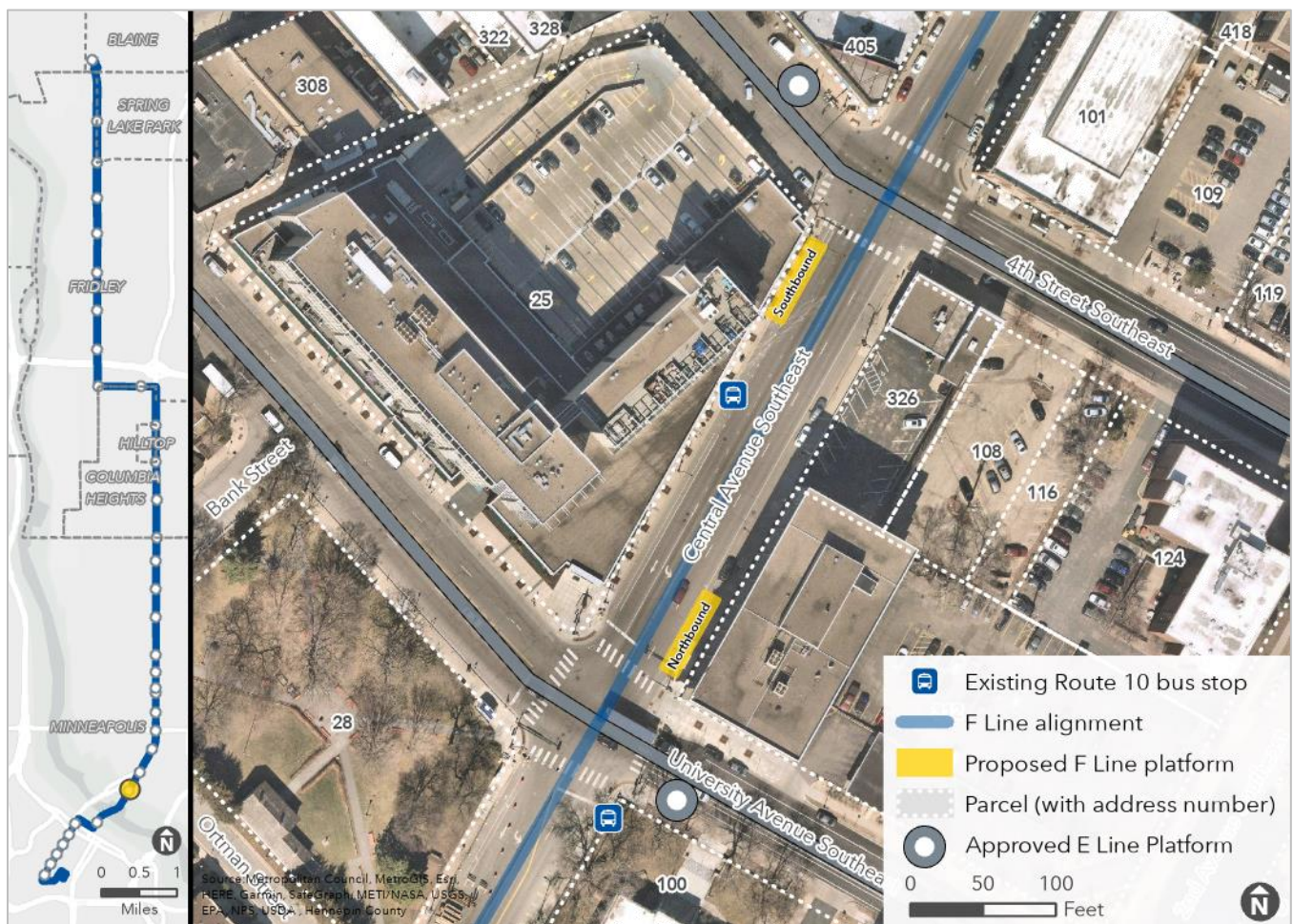
Based on these considerations, no change is recommended to the southbound platform location.

Central & University/4th Street

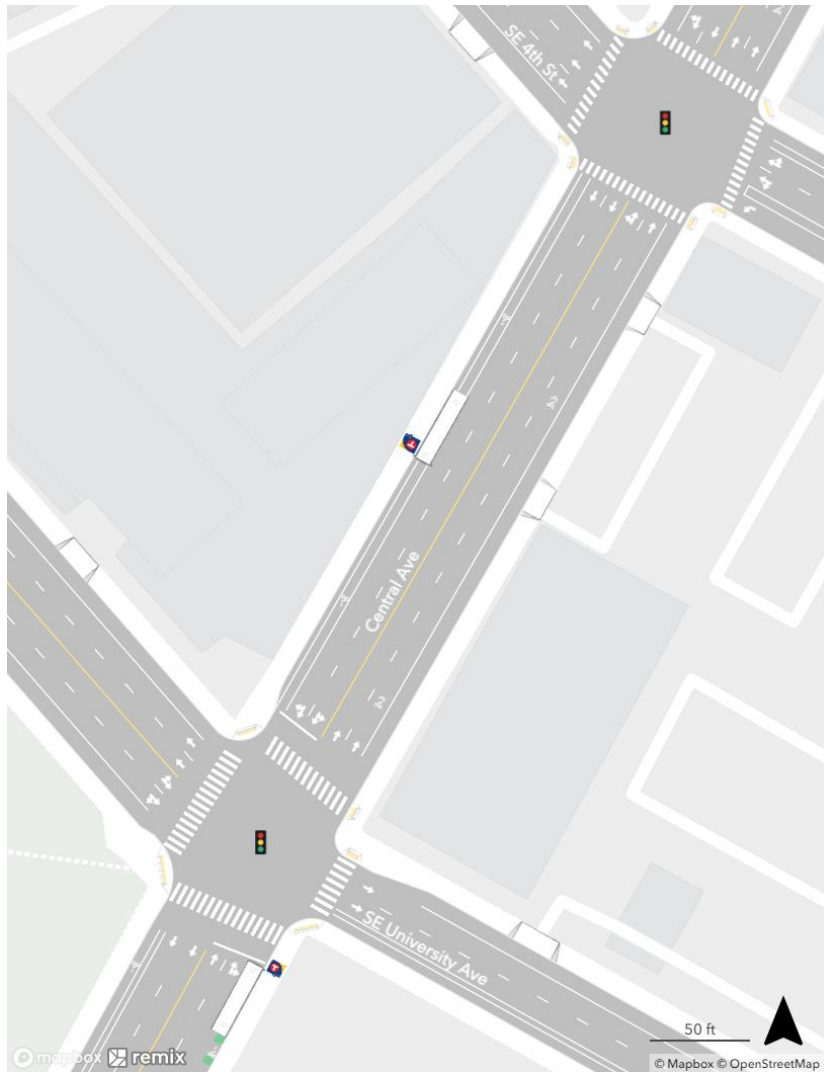
This station currently offers connections to Routes 2, 4, 6, 17, 25, 61, and multiple commuter and express routes. This station will also offer a connection to the future METRO E Line. MnDOT is the roadway authority for Central and University avenues, as well as 4th Street east of Central Avenue, the City of Minneapolis controls 4th Street west of Central Avenue.

This stretch of Central Avenue is a mix of higher intensity commercial, office, and residential uses. The station area is near the western/southern edge of the loosely defined area of increased development and activity immediately east of downtown Minneapolis and the Mississippi River.

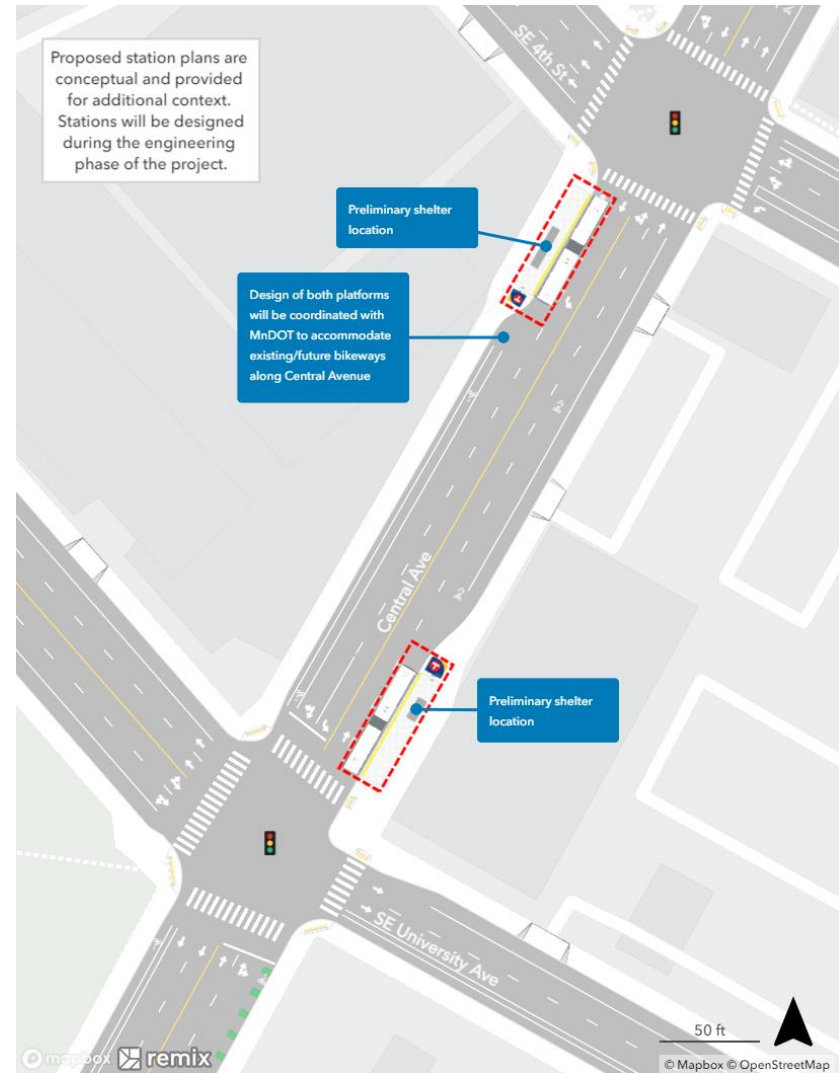
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing shared lane pavement markings (sometimes referred to as “sharrows”), indicating shared space between vehicles and bicycles, along Central Avenue between 13th and University avenues. There are existing on-street protected bike lanes on Central Avenue south of University Avenue. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the [City of Minneapolis’ network of bikeways for all ages and abilities](#), the [Metropolitan Council’s Regional Bicycle Transportation Network](#), and [MnDOT’s Metro District Bicycle Plan](#).
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, the City of Minneapolis, the Minneapolis Park and Recreation Board, and other agency partners to accommodate existing/future bikeways along Central Avenue. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety. Doing so may require the removal of select on-street parking spaces on the east side of Central Avenue north of the intersection.

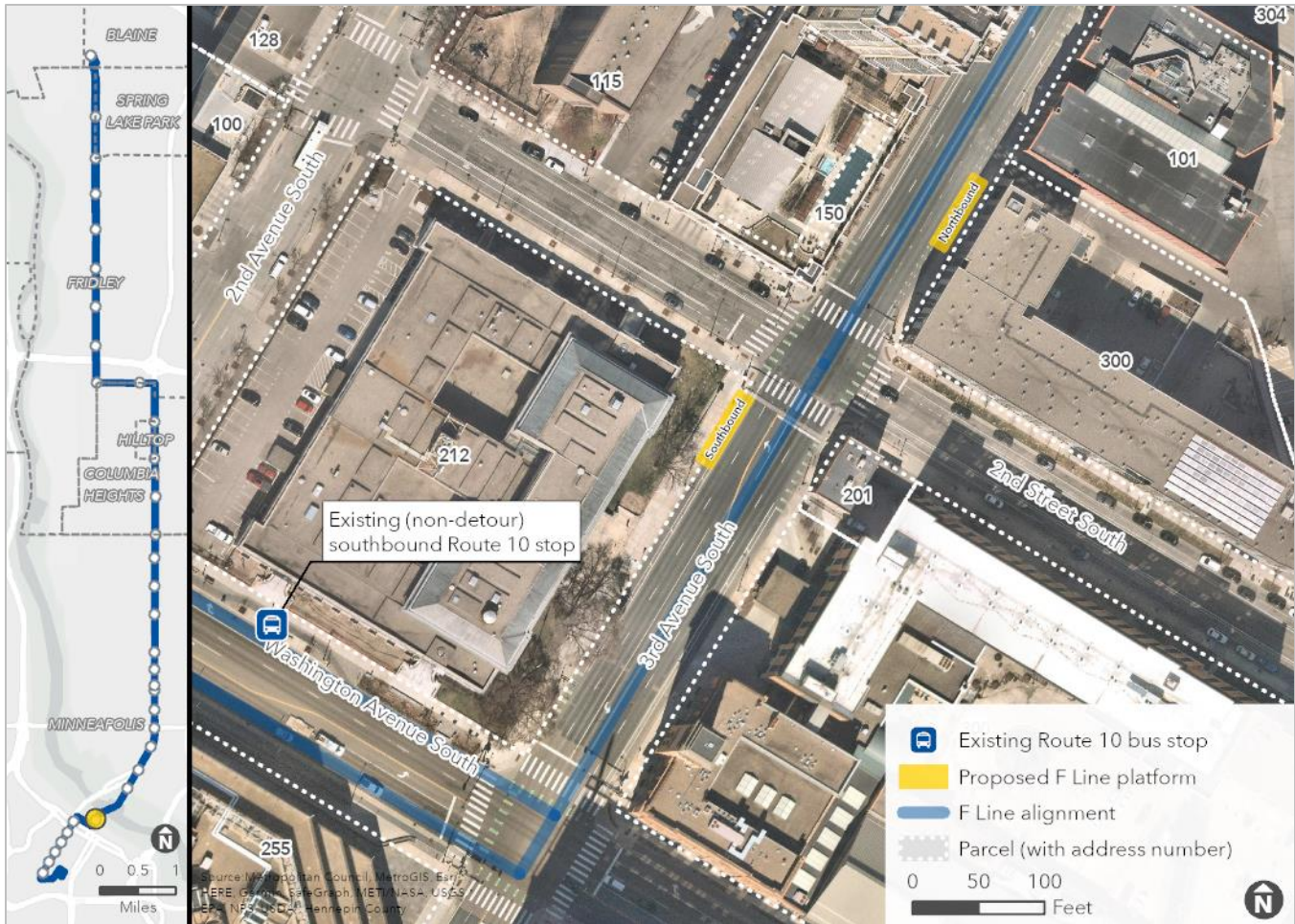
Project coordination

- The station is within the study area of MnDOT’s PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- MnDOT has planned improvements along University Avenue from the intersection with Central Avenue to just south of 27th Avenue NE, including resurfacing, bikeways, and pedestrian improvements.

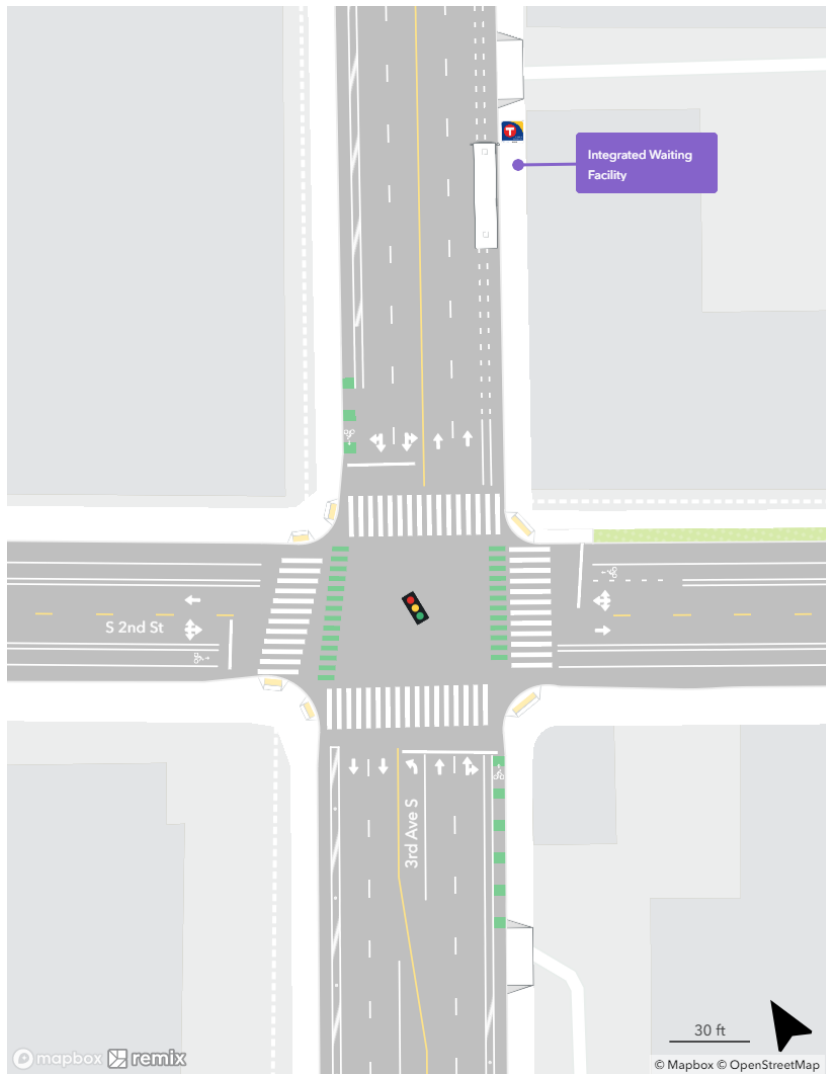
3rd Avenue & 2nd Street

This station currently offers connections to Routes 3, 7, and 18 (which operate on Washington Avenue one block south of 2nd Street), multiple commuter and express routes, and the nearby METRO Orange Line. This station will also offer a connection to the future METRO H Line (planned to begin construction in 2027, pending full funding) on Washington Avenue.

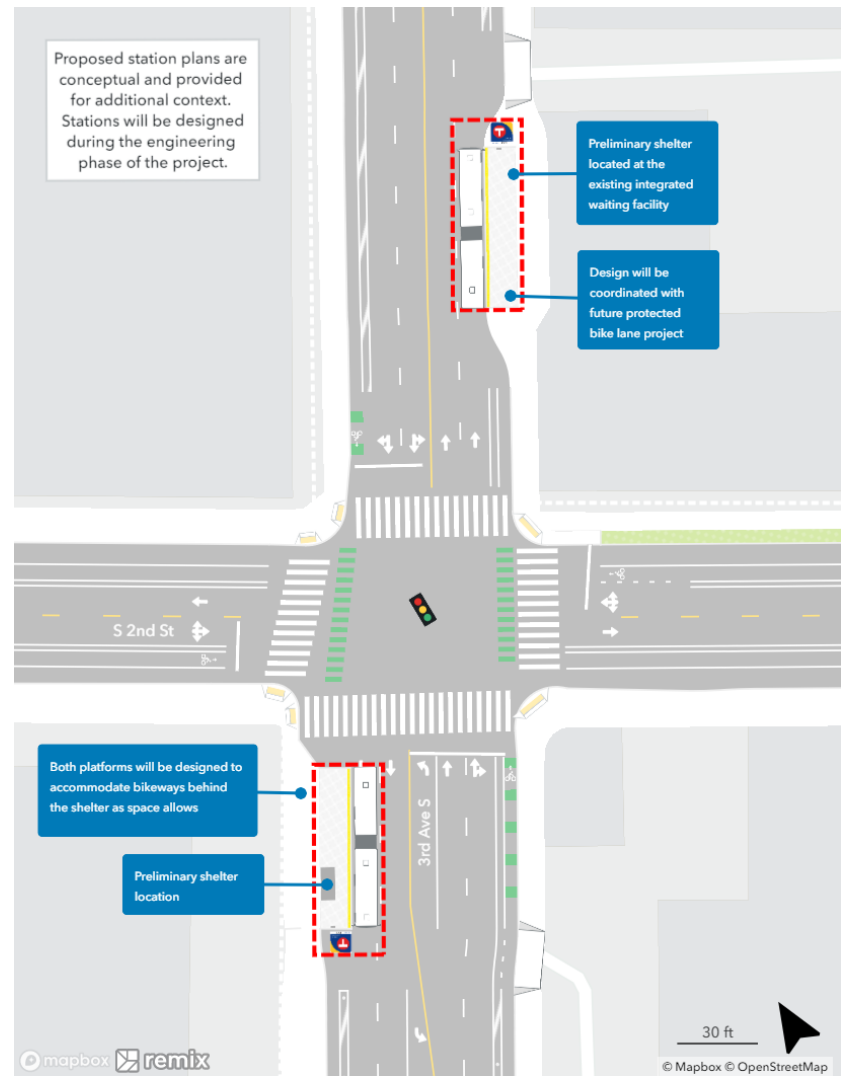
Proposed Station Location



Existing Station Area



Proposed Station Plan



Notes and Discussion

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing on-street delineator-protected bike lanes on 3rd Avenue, which start on the south end of downtown and continue over the Mississippi River bridge, including through the station area.
- There are existing sidewalk-level protected bike lanes on Washington Avenue several blocks east and west of 3rd Avenue.
- MnDOT, in coordination with the City of Minneapolis, is exploring opportunities to upgrade existing bicycle and pedestrian facilities on 3rd Avenue (Highway 65) between 1st Street and Washington Avenue. Continued development of this proposed station design will be coordinated as both projects advance. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.

Conceptual platform layout

- The proposed station plans included in this document are conceptual and provided for additional context. Station designs will be finalized during the engineering phase of the project (anticipated to begin in summer 2023).
- Design of the proposed platforms will be coordinated to accommodate existing/future bikeways in this segment. The southbound platforms will be designed with an aim to accommodate the bikeway behind the BRT shelter, as space allows. This treatment of the bicycle facility may not be possible at the northbound platform, where space is more limited. Metro Transit will work with agency partners to explore other design solutions that support safe operations for all roadway users, including people biking, people getting on, off, and waiting for transit, and other people walking or rolling. See *Bikeway integration and safety* in Appendix A for more information about how Metro Transit and agency partners are incorporating bikeways into F Line project development.
- The proposed northbound platform could make use of an existing integrated waiting facility typically used by Route 10 at the Mill City Quarter apartment building at the northeast corner of the intersection of 3rd Avenue and 2nd Street. Today, the integrated waiting facility provides shelter, light, heat, and transit information to Route 10 riders.



View looking south down 3rd Avenue with the intersection with 2nd Street in the background and showing existing on-street protected bike lanes on either side of 3rd Avenue; the existing integrated waiting facility and location of the proposed northbound platform is shown in the foreground (source: Google Maps)

Other locations considered

- Several locations were considered for both platforms, including on Washington Avenue at several locations west of 3rd Avenue, on 3rd Avenue at several locations north of Washington Avenue, and ultimately the proposed locations on 3rd Avenue near 2nd Street.
- Platform locations were chosen to maintain operational flexibility, achieve appropriate station spacing, be near activity generators, and anticipate future operations and connection between the F Line and future H Line on Washington Avenue. The proposed platform locations represent the best available options to balance these needs considering additional site-specific constraints.

Nicollet Mall Downtown Stations

The F Line will serve six stations along Nicollet Mall at the existing local bus stops at 3rd, 5th, 7th, 9th, and 11th streets, and Alice Rainville Place. These stops are currently served by Route 10 and other local bus routes and offer connections to all downtown local and commuter and express routes, including nearby METRO Blue, Green, Orange, C, and D lines.

Enhanced shelters with light, heat, and real-time NexTrip information signs were added to bus stops along Nicollet Mall in coordination with the Nicollet Mall Reconstruction project (2015-2017) led by the City of Minneapolis. These locations are currently served by Route 10 and other local bus routes and will be upgraded to BRT stations with METRO branding and fare collection equipment with the implementation of the F Line.

Proposed Station Locations





Southbound Route 10 at Nicollet & 5th Street (Sept. 2022) [Source: Metro Transit]

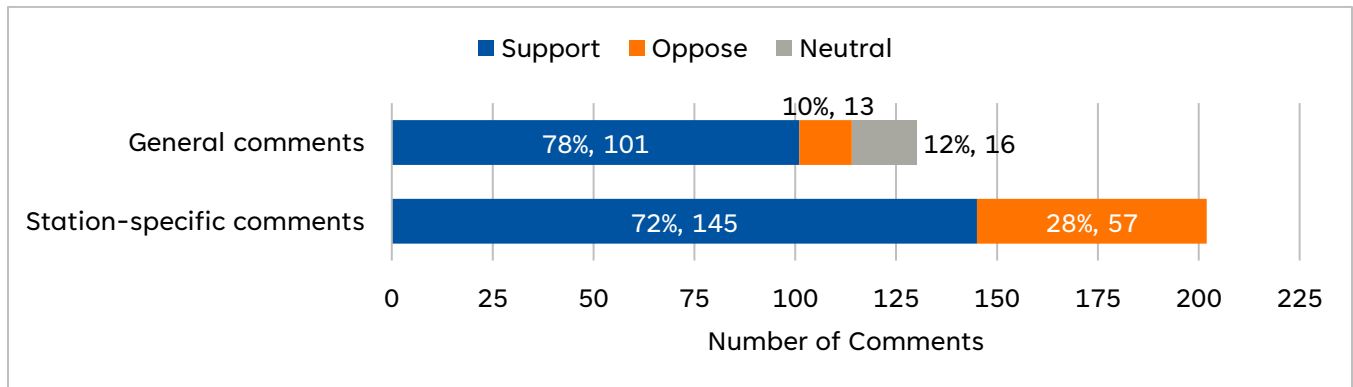
Appendix A: Corridor Plan Comment Summary

Comment Summary

Metro Transit received 332 individual survey responses, emails, and phone calls providing feedback on the Draft Corridor Plan. Individual survey responses, emails, and phone calls often included comments on the plan in general and comments specific to a single station. The distribution of comments based on sentiment is shown in Figure 24 below.

The figures below do not incorporate a petition submitted to the project team that was organized by a nearby business. The petition is in opposition to the Central & 1st Avenue/7th Street southbound platform. This is discussed in greater detail below and on page 124.

Figure 24: Draft Corridor Plan comment sentiment by comment type



Overall, most of the comments received on the Draft Corridor Plan – 246 of 332, or 74% – were in support of the plan.

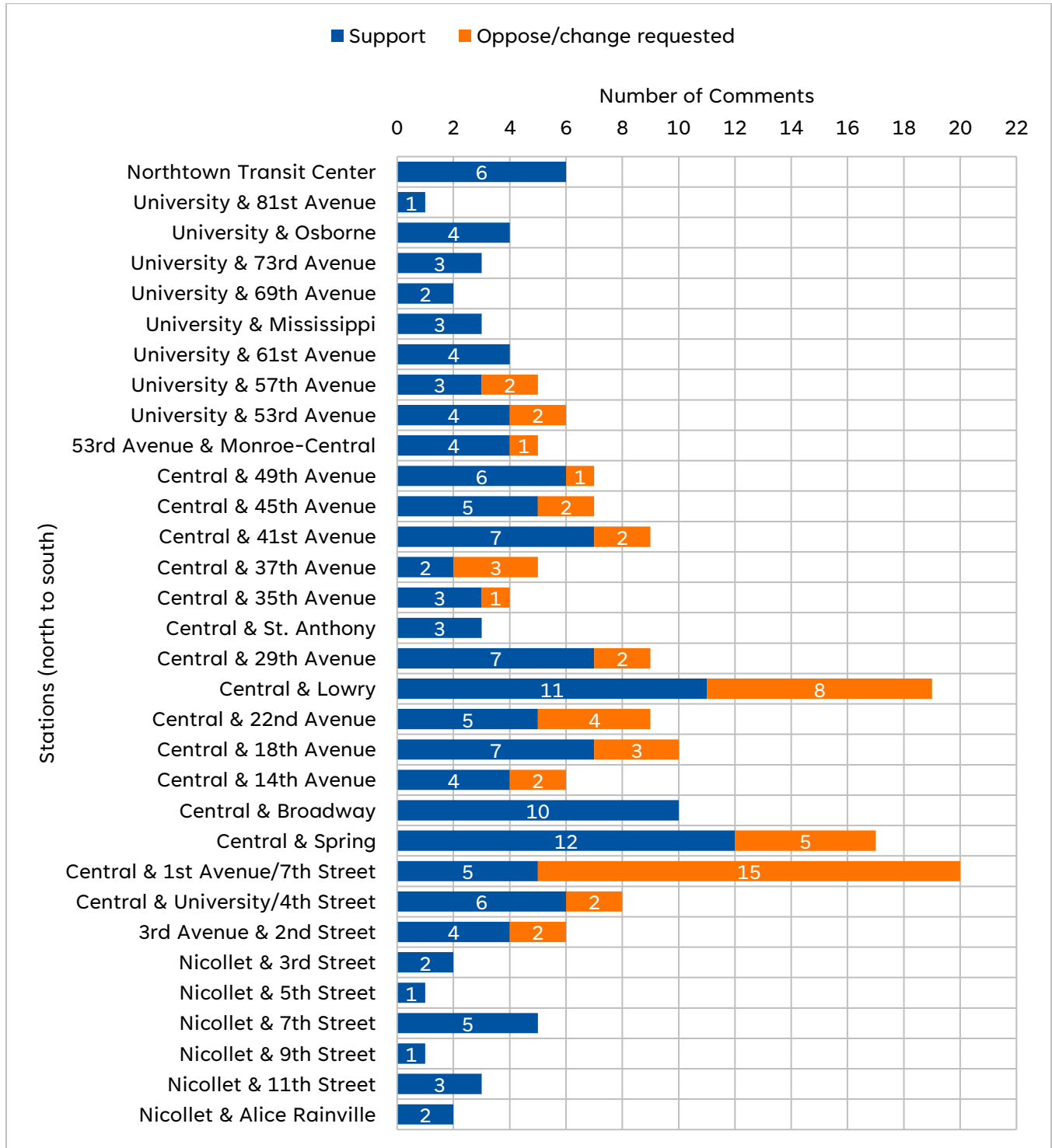
Among 130 general comments received, common topics are routing, speed and reliability improvements and bus priority, local and connecting bus service, access to destinations, and general support. As shown in Figure 24, (101) 78% of the general comments received express support for the project, with 13 (10%) in opposition and the remaining 13 (12%) neutral.

Comments on specific station locations generally either identify specific features of a proposed station location for support or opposition, suggest alternative locations, or raise specific concerns about a particular platform location. Of the 202 station-specific comments received, 145 (72%) are in support of the plan as shown and 57 (28%) requested changes or opposed the plan. This distribution varies by individual station location. Figure 25 below shows the number of comments received and sentiment by station.

Station-specific comments are relatively evenly distributed, except for a few outliers: Central & 1st Avenue/7th Street (20 comments, 10% of station-specific comments), Central & Lowry (19, 9%), and Central & Spring (17, 8%).

In addition to survey responses and emails referring to specific station locations, Metro Transit received a petition organized by a business adjacent the proposed Central & 1st Avenue/7th Street Station voicing opposition to the proposed southbound platform location. The petition is not reflected in Figure 25.

Figure 25: Draft Corridor Plan comment sentiment by station



Responses to station-specific feedback and/or additional alternatives were analyzed at station locations with 4 or more comments requesting changes to the plan or in opposition to the project, listed below. Upon additional analysis and review, no changes to these locations are recommended:

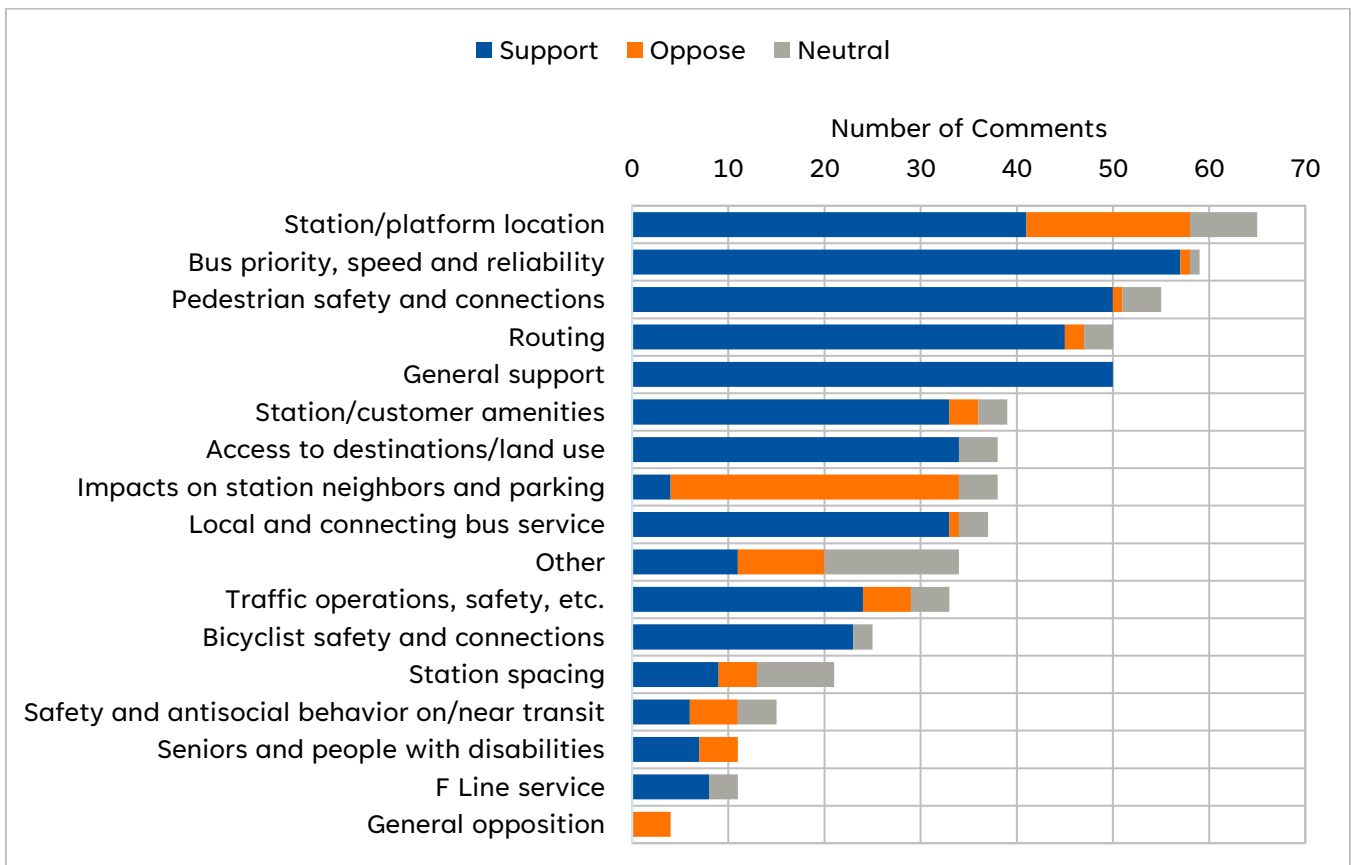
- Central & Lowry (additional discussion on page 99)
- Central & 22nd Avenue (see page 106)
- Central & Spring (see page 120)
- Central & 1st Avenue/7th Street (see page 124)

Detailed discussion of additional analysis and response to comments on specific station locations can be found at the page numbers listed above within the *Stations by Location* section of the plan.

Key Comment Themes

Many of the 332 comments received addressed similar topics. Project staff assigned one or more topic to each comment received; these generalized topics are shown in Figure 26. Many comments addressed multiple topics and were included in each relevant topic count.

Figure 26: Draft Corridor Plan comment sentiment by topic



These generalized topics were then reviewed to identify key themes. These are explored in greater detail below.

Bus-only lanes

16 comments were submitted in support of implementing bus-only lanes on segments of the F Line corridor. The segment of Central Avenue south of 53rd Avenue, and on Washington Avenue in downtown Minneapolis were specifically identified in comments. Key reasons for support included challenges with existing traffic congestion, slow service, and frequent delays. Improving existing transit performance was identified as a key support for implementation of bus only lanes.

Comment response

Bus-only lanes are currently being considered on Central Avenue south of 47th Avenue in the F Line corridor through MnDOT's Highway 47 and Highway 65 Planning and Environmental Linkages (PEL) Study, as summarized below.

- Northbound bus-only lane on Central Avenue from University Avenue to 27th Avenue
- Northbound and southbound bus-only lanes on Central Avenue from 27th Avenue to 47th Avenue

The broader set of multimodal changes to Central Avenue and University Avenue that come out of MnDOT's PEL Study will be implemented through a project or projects following the completion of the study, and not necessarily at the same time as construction of the F Line (2025-2026).

Other bus-only lanes may potentially be implemented through Metro Transit's Speed & Reliability program, independent of planned F Line construction in 2025-2026.

Metro Transit continues to work with MnDOT and corridor cities and counties to develop strategic bus priority treatments that will help achieve project goals while addressing other agency goals.

Improved speed and reliability

43 comments were received that expressed support for planned improvements to speed and reliability that did not reference bus-only lanes. These comments were primarily in support of locating platforms on the farside of signalized intersections and using transit signal priority.

Comment response

Metro Transit is working with agency partners to implement transit signal priority at signalized intersections along the F Line alignment. Metro Transit intends to work with its partners to implement TSP and explore queue jumps at signals as part of the F Line project. Signals along the corridor will be evaluated and considered during the engineering phase of the project (anticipated to begin in summer 2023) for implementation.

Farside platforms at signalized intersections are preferred for BRT operations to improve speed and reliability of service, particularly when paired with transit signal priority to extend the green light for buses. They can reduce certain conflicts between right-turning vehicles and stopped transit vehicles. At stop sign-controlled intersections, nearside platform placement is typically preferred to minimize the number of times the bus stops.

However, the preferred platform placement is not always feasible or advisable due to site-specific conditions such as existing roadway access points or driveways and right-of-way/waiting space constraints. Where possible and advisable, F Line platforms have been located at the preferred platform location to maximize the speed and reliability improvement over existing service.

Pedestrian safety

55 comments referenced concern for pedestrian safety near station locations or along the F Line alignment. Topics cited in these comments included ensuring safe pedestrian crossings at stations, providing adequate space for pedestrians to move safely, comfortably, and predictably, and desire for general traffic calming measures that reduce vehicle speeds and discourage unsafe driver behavior to improve pedestrian safety. Comments also cited a general concern about the F Line stopping in areas with high pedestrian traffic.

Comment response

All transit users are pedestrians at some point in their journeys. Pedestrian safety is a key consideration for Metro Transit when identifying platform locations. Many platform locations will include curb extensions that will reduce the crossing distance for people walking and rolling. Platform locations are located near intersections rather than at midblock locations to encourage the safe crossing of streets at intersections.

Metro Transit is coordinating implementation of the F Line with other roadway projects being led by MnDOT, Anoka and Hennepin counties, and the cities of Minneapolis, Columbia Heights, and Fridley that will make accessing F Line stations easier and safer (see *Coordinated Implementation*). Improving safety for pedestrians and/or bicyclists are key goals of each of these projects. Other pedestrian crossing improvements will be considered during the engineering phase of the project (anticipated to begin in summer 2023) in coordination with agency partners.

Bikeway integration and safety

25 comments received were in support of designing stations to accommodate existing bikeways and/or integrate bike lanes behind station platforms. Specific segments included Central Avenue from Lowry Avenue and locations to the south, as well as 3rd Avenue & 2nd Street in downtown Minneapolis. Comments referenced safety and maneuvering challenges between buses and bikes at conflict points near bus stops.

Comment response

Metro Transit is coordinating closely with MnDOT, Hennepin and Anoka counties, the cities of Minneapolis, Columbia Heights, and Hilltop, the Minneapolis Park and Recreation Board, and other agencies along the corridor to ensure that transit facilities are located and designed in a way that would accommodate existing bike lanes and not preclude the implementation of bikeways in adopted plans and policies, including the [Minneapolis Transportation Action Plan](#). MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along Central Avenue to align with adopted plans and policies.

Metro Transit and partner agencies are actively coordinating on how bikeways can be incorporated into platform design, which will be carried through to the engineering phase of the F Line project (anticipated to begin in summer 2023). This could include platforms that provide space for protected bike lanes behind the BRT shelter, where space allows. This design is often referred to as a “floating bus stop” or “boarding island stop” and incorporates principles of protected intersections.⁸ Examples of existing BRT platforms designed to locate protected bike lanes behind the BRT shelter can be found along Hennepin Avenue in downtown Minneapolis (constructed in anticipation of the METRO E Line). The “floating bus stop” design will be applied to existing on-street and protected bike lanes in the corridor, where space allows.

At space-constrained platform locations, Metro Transit will work with agency partners to explore other design solutions that support safe operations for all roadway users, including people biking, people getting on, off, and waiting for transit, and other people walking or rolling.

This Recommended Corridor Plan establishes two core station components: the station intersection and the location of platforms within the intersection. Metro Transit and agency partners have considered existing and proposed bikeways, potential ways to minimize conflicts between buses and bicyclists, existing and anticipated available space, and design flexibility as part of identifying proposed platform locations in this plan. The preliminary design concepts in the plan are provided for additional context but are conceptual and will be finalized through detailed design during the engineering phase of the project (anticipated to begin in summer 2023).

F Line alignment (Routing)

27 comments requested an extension or contraction to the F Line alignment. The most common request was to extend the south end of the alignment along Nicollet Avenue to connect to Lake Street and points south, followed by shrinking the northern alignment to end at 53rd Avenue & Monroe-Central.

23 total comments requested a change to the F Line alignment to shift from a particular street segment. These comments focused primarily on Central Avenue (north of 53rd Avenue), University Avenue (south of 53rd Avenue), and Nicollet Mall.

Comment response

Through [Network Next](#), the F Line on Central Avenue from downtown Minneapolis to Northtown Transit Center was named and adopted by the Metropolitan Council in March 2021, and was subsequently amended into the [Transportation Policy Plan \(Amendment #1\)](#). Metro Transit is now advancing the F Line as adopted and included in the long-range Transportation Policy Plan. There are no plans at this time to change the F Line alignment or terminals.

[Network Next](#) is Metro Transit’s 20-year plan for expanding and improving the bus network. In 2020 and 2021, Metro Transit conducted technical analysis and engaged the public and agency partners to identify the region's next arterial BRT priorities, including what would become the F Line alignment.

⁸ Additional information is available from the Metro Transit [Regular-Route Bus Stop Design Guide](#), City of Minneapolis [Street Design Guide](#), and MnDOT [Bicycle Facility Design Manual](#).

During Network Next planning in 2020-2021, due to the significant overlap between the Nicollet Avenue BRT corridor and the Nicollet-Central Modern Streetcar Locally Preferred Alternative, the Nicollet Avenue corridor was not recommended for near-term BRT implementation but remains a candidate for implementation before 2040. The Network Next plan noted that as the City of Minneapolis' plans for transit in the Nicollet-Central corridor advance, this outcome may be reconsidered.

Those same plans remain in place today. As Metro Transit advances the F Line, nothing in the project scope precludes the possibility of extending operations on the corridor further south, should plans evolve.

Metro Transit is also working closely with the City on their [New Nicollet Redevelopment project to reopen Nicollet at Lake Street](#) to ensure it can be supportive of BRT on Nicollet. The next update to the arterial BRT expansion plan is scheduled to begin in early 2025.

Northtown Transit Center is a major transit center which provides several benefits as a northern end of the F Line, including offering opportunities to connect to local service operating to the north and in surrounding areas; dedicated layover space and facilities to provide a break for drivers and get back on schedule; and connect to destinations at and around the mall. The F Line, as proposed, would stop about every half mile along University Avenue north of 53rd Avenue, like today. Hundreds of existing Route 10 riders board along this segment of the route throughout the day, not just during peak periods.

Access to destinations

34 comments received expressed support for station locations based on providing improved transit access to key destinations including commercial and retail destinations, housing, medical services, and schools. 4 comments received requested access to destinations outside of the F Line corridor.

Comment response

To ensure that the F Line will best serve transit riders and the community, Metro Transit tries to place BRT stations in locations that will provide the most benefit to people. These locations include existing high ridership bus stops, opportunities to connect to other transit routes, places with high population and job density, commercial and retail areas, and other key destinations including medical services and schools. The F Line alignment and station locations were identified with these factors in mind.

Removal of parking

12 individual comments and one 205-signature petition opposed the potential removal of on-street parking spaces due to the implementation of BRT stations. The petition, and nearly all 12 comments (received by survey, email, or phone) were regarding Central & 1st Avenue/7th Street. Concerns noted that the removal of on-street parking spaces directly in front of or adjacent the businesses could make it more inconvenient and less likely for customers to visit these locations.

Comment response

Removing a small number of total parking spaces in places with other on- and off-street parking resources for a transit stop enables safe and convenient public transit access to destinations. By providing better access to places by people using transit, the F Line will expand overall access by all modes with a minor impact on access by car.

The Central & 1st Avenue/7th Street F Line station would result in the removal of 10 to 13 total on-street parking spaces, or about 20% of the 55 on-street parking spaces within a 2-minute walk/roll of the intersection (see page 124 for additional details). There are hundreds of additional on-street parking spaces and several off-street parking resources available within a 5-minute walk/roll from the intersection.

In locations where the BRT platform will be located at a different location than the existing bus stop, Metro Transit will work with agency partners on establishing new parking spaces at the former bus stop location. Metro Transit will also continue to work with agency partners should they explore broader parking management strategies at key locations as appropriate. Final changes to on-street parking will be determined in the engineering process beginning later in summer 2023.

Businesses and neighborhood character

23 total comments received were related to concerns about the location and/or scale of BRT stations and a disruption to businesses and the existing character of the surrounding neighborhood. Separate from parking-related comments (see *Removal of parking* above), these comments referenced concern about the potential for shelters potentially blocking the visibility of nearby businesses, disrupting sidewalk areas, being sited in proximity to single-family houses, and station maintenance.

Comment response

The majority of F Line stations are planned to be approximately the same size as standard local bus shelters installed on the corridor today. BRT shelters and pylons are designed for consistency, both for customers and for ease of timely maintenance across the growing system. Consistent station design is important to providing predictable and recognizable BRT service. Determining the appropriate shelter size at station locations is based both on existing and potential ridership at the location as well as site-specific conditions and constraints.

During the engineering phase (anticipated to begin in summer 2023), Metro Transit will identify specific placement of BRT shelters and other amenities. Design will consider adjacent land uses and, where applicable, station features will also be configured to minimize effects on uses in the public realm. At many locations, in-lane stops with curb extensions will ensure that there is enough space for the station amenities while maintaining enough sidewalk space behind the shelter for comfortable pedestrian movement and access and visibility to storefronts. Additionally, F Line shelters will use clear glass, making it easier to see storefronts behind the shelter.

Additional BRT station amenities will be included along the platforms, including pedestrian-scale lighting, benches, bike parking, and trees (either retained existing trees or new replacement trees).

Local and connecting bus service

37 comments addressed local and connecting bus service. Most of these comments indicated preference for or against a station location based on connections to existing local or METRO service. A small number of comments included questions about changes to existing Route 10, while others suggested changes to local service that would support and connect to the F Line.

Comment response

The proposed F Line station locations were chosen to allow for convenient connections to other local and METRO routes. While one of several factors (see *Station Location Considerations*) transfer opportunities to and from other routes are important to the success of the F Line and its role in building a broader, more effective, and convenient transit network.

Today, Route 10 operates two main patterns (or branches) based out of downtown Minneapolis and destined for Northtown Transit Center: Route 10U, via Central, 53rd, and University avenues; and Route 10N, via Central Avenue (Figure 11). The F Line alignment mirrors that of existing Route 10U, where existing ridership is greater and land uses are more transit-supportive compared to Route 10N. With the introduction of the F Line, existing Route 10N riders will be served but by a modified Route 10, which will maintain service along Central Avenue north of 53rd Avenue.

Modified Route 10 and potential other changes to existing or new local routes near the F Line corridor will be developed later in project development as the F Line nears implementation in 2026 and as recovery from the COVID-19 pandemic continues. See *Potential Local Service in the Corridor* for additional details.

Traffic operations

33 comments referenced concern about the impact of the F Line on traffic operations. Common concerns related to traffic included buses stopping in the lane of traffic, station locations interfering with cars at intersections, and station locations further contributing to traffic safety concerns.

Comment response

Transit and traffic operations were a key consideration in making platform placement recommendations. As part of project planning, Metro Transit is completing traffic modeling at locations where the F Line would result in changes to stop locations and/or the positioning of buses relative to other vehicles to understand the effect of proposed stations on traffic operations. Metro Transit is completing this work in coordination with MnDOT, city, and county traffic staff. Modeling results will inform the final recommended station locations prior to the release of the Final Corridor Plan.

Station spacing

15 comments regarding station spacing requested fewer stations with stations spaced farther apart. Specific segments identified include Central & 14th Avenue, Central & Spring, Central & 22nd Avenue, and Central & 35th Avenue, and generally on Central Avenue south of Lowry Avenue.

5 comments regarding station spacing requested additional stations spaced closer together. Specific segments identified include Central Avenue near 47th Avenue in Columbia Heights, and Central Avenue near 18th 1/2 Avenue. Comments focused on the additional distance required for seniors and people with disabilities to walk or roll to access stations compared to existing Route 10 stops.

Comment response

The Recommended F Line Corridor Plan does not add any new stations or remove any stations that were included in the Draft Corridor Plan. A key objective of arterial BRT is to offer faster trips for more people

along the corridor. Faster trips depend in part upon the strategic placement of stations spaced farther apart than existing Route 10 bus stops. The existing Route 10 stops approximately every 1/8 to 1/4 of a mile on Central Avenue, and about every 1/2 mile on University Avenue. On average, F Line stops would be placed about 0.4 miles apart (two to three stops per mile) to balance speed and access, consistent with BRT station spacing guidelines.

Most customers who use Route 10 within the F Line corridor would be served by the F Line with no or minimal increase in distance to walk or roll to access the service. With the stations included in this Recommended Corridor Plan:

- 92% of current Route 10 riders who use existing bus stops along the F Line alignment will be able to get on or off the F Line at or within one block of their current bus stop; nearly all (99%) will be within 1/4 mile
- 88% of current Route 10 riders – including those who use existing Route 10 stops not along of the F Line alignment (e.g., Route 10N) – will be able to get on or off the F Line at or within one block of their current bus stop; nearly all (96%) will be within 1/4 mile

Appendix B: Agency Comments

Metro Transit received formal comments on the Draft Corridor Plan from the City of Fridley, City of Minneapolis, and the Minneapolis Park & Recreation Board. These letters are included in this appendix.



Fridley Civic Campus

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December 1, 2022

Mr. Jake Knight
Senior Planner, Arterial Bus Rapid Transit
Metro Transit
Jake.Knight@MetroTransit.org

Dear Mr. Knight,

The City of Fridley appreciates this opportunity to provide a letter of support for the Metro F Line- Draft Corridor Plan. The proposed upgrades to Route 10 will provide an improved transit experience for Fridley riders as well as the numerous employees that travel into Fridley for work. This Plan complements the City's investment in active transportation infrastructure to provide its residents access to safe, multimodal transportation.

Additionally, the City supports the Plan's installation of improved stations and station amenities. University Avenue is one of the primary corridors through Fridley and forms many commuters' primary impression the city. The visual impact and maintenance of Metro Transit stations along the corridor is of high importance to us and the pride we have in our city.

Thank you for your agency's efforts to solicit feedback on the development of the F Line. As plans develop, we look forward to continued coordination regarding construction staging for the F Line alongside City and MnDOT projects in order to minimize construction impacts as well as ongoing conversations regarding accompanying local service routes.

Sincerely,

A handwritten signature in black ink that reads 'Scott J. Lund'.

Scott J. Lund
Mayor
City of Fridley



December 1, 2022

City of Minneapolis Comments on Metro Transit's F Line Arterial BRT Draft Corridor Plan

The City of Minneapolis appreciates the opportunity to review and comment on the F Line Draft Corridor Plan. The F Line is proposed to operate along Central Avenue, which is a major thoroughfare in Northeast Minneapolis connecting twelve neighborhoods across three wards, while also serving as a critical link to northern suburbs including Columbia Heights, Hilltop, Fridley, Spring Lake Park, and Blaine. Throughout the planning process for [Network Next](#), Metro Transit's 20-year plan for expanding and improving the bus network, there was a need identified for improved bus service along Central Avenue based on equity considerations, existing ridership, market potential, and community plans and priorities. The City has long had a vision for improving transit along the [Nicollet – Central corridor](#), and sees the F Line as realizing a part of that vision. Although the F Line ends in downtown Minneapolis, the City looks forward to collaborating on a future effort to enhance transit service further south along Nicollet Avenue as identified in Network Next as a mid-term BRT line.

While this Draft Corridor Plan provides the opportunity to support various goals outlined in the City of Minneapolis' [Transportation Action Plan \(TAP\)](#), additional opportunities exist to modify the F Line Corridor to better meet the goals of safety, equity, prosperity, mobility, climate, and active partnerships. City staff look forward to working with Metro Transit staff to advance the Final Corridor Plan.

General Comments:

- The City of Minneapolis supports the F Line project and supports the station locations identified in the F Line Draft Corridor Plan.
- Addressing safety along Central Avenue is key and a primary goal for the City of Minneapolis. Central Avenue is identified as a [High Injury Street](#) in the City's [Vision Zero Action Plan](#). There were 895 reported crashes on Central Avenue between January 2012 and September 2022, including 23 serious injury crashes, and 2 fatal crashes.¹ Transit users walk or roll to stations and making improvements along the entire corridor in coordination with the F Line will help achieve the greatest safety gains.
- Central Avenue is identified in several TAP modal networks including the Pedestrian Priority Network (PPN), the All Ages and Abilities Network (AAA), and is identified as a Transit Priority Corridor. The City requests that the station locations identified in the Draft Corridor Plan be built to include a protected bikeway design that will align with a future protected bikeway along the entire corridor along Central Avenue. We also request that the station locations and corridor meet or exceed the design requirements in [the City's Street Design Guide](#) and includes transit priority treatments along the corridor.
- Perhaps the most important and critical aspect of the F Line and Central Avenue corridor is the ongoing coordination with MnDOT's 47/65 Planning and Environmental Linkages (PEL) Study. The PEL will identify a set of desired roadway design alternatives for this corridor, which may include changes to the width of the roadway, number of travel lanes, bikeway elements, and implementation of other safety improvements. These identified alternatives will be implemented through a future project(s) following the completion of the PEL study, currently there is minimal funding identified for future improvements to Central Avenue. Although possible future configurations of Central Avenue will be identified through the PEL (final study completion anticipated fall 2023), a preferred concept will not be identified. This results in a challenge given that the platform locations identified in the Draft Corridor Plan will set the curb lines at the station locations, therefore precluding additional future changes to Central Avenue without significant disruption, rework and potential paybacks. The City requests closer coordination between Metro Transit, MnDOT, and the City to ensure that the proposed station locations align with the future vision of Central Avenue and in alignment with MnDOT, Metro Transit, and City policies and goals.
- Minneapolis encourages continued coordination with ongoing capital projects along the F Line corridor to ensure delivery and compatibility, including, but not limited to Hennepin County's University Avenue and 4th Street Bikeway, Hennepin Avenue and 1st Street Bikeway and Lowry Avenue Northeast Reconstruction projects, and the City's 37th Avenue Northeast Reconstruction project that are scheduled for construction

¹ MnDOT MnCMAT. Accessed November 2022.

across 2023-24.

- Minneapolis requests that Metro Transit develop their Arterial BRT projects with a scope and matching budget that acknowledges the full range of infrastructure and operational investment necessary to make the transit project complete and successful. Minneapolis has been contributing local funding to past projects in order to ensure intersections are fully upgraded to meet ADA and improve safety for all users and to implement transit advantages. Minneapolis believes these scope elements are essential to the success of the transit project and should be part of the Arterial BRT project scope and budget. Minneapolis' ability to continue to contribute local funding to these projects into the future is not guaranteed.
- In support of future transit improvements to the south of the F Line along Nicollet Avenue, the City supports Metro Transit's current efforts to ensure future interlining of the F Line and a future transit extension.

Transit priority treatment comments:

- Metro Transit acknowledges that Central Avenue is one of the slowest transit corridors in the region with current Route 10 buses regularly averaging less than 12 miles per hour during rush hours. As with all Arterial BRT projects, Metro Transit's goal is to improve transit travel time by 20%. In order to achieve that goal, the City encourages Metro Transit to lead on the traffic analysis and agency coordination around corridor wide transit priority evaluation. The City is a willing partner with Metro Transit and MnDOT to support a more robust evaluation and implementation plan for transit priority to support the speed and reliability of the F Line.
 - Central Avenue from the 3rd Avenue bridge to the northern city boundary (37th Avenue Northeast) is identified in the TAP to evaluate for transit priority lanes and/or other transit advantages (see [Transit Action 2.3](#)).
- The City supports providing transit advantages such as transit signal priority (TSP) and queue jumps. The Draft Corridor Plan outlines the suite of options available in an Arterial BRT project but currently does not specify where along the F Line these are targeted for deployment. The City requests Metro Transit make progress to identify where along the corridor specific treatments are proposed in order to properly plan for improvements as a cohesive project package.

Additional staff comments:

The City of Minneapolis supports the F Line Arterial BRT project and sees it as an important improvement to make positive change for people living, working, and traveling along this corridor as well as to meet climate, mode shift, and equity goals. Similar to all Arterial BRT projects, the City sees this as a corridor-wide improvement that goes beyond station platforms. We want to work together to deliver a complete project with our partners – Metro Transit and MnDOT – that follows a complete streets approach, improves the safety of the corridor, and aligns with the City's transportation goals, plans, and policies.

The City of Minneapolis is committed to partnering with Metro Transit on the F Line Arterial BRT, as evidenced by its participation on the Technical Advisory Committee. The City looks forward to further coordination and collaboration through the design and development of the F Line Arterial BRT to bring faster, more reliable transit options for the people of Minneapolis and the larger region.

Minneapolis Park & Recreation Board



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Secretary to the Board
Jennifer B. Ringold



November 9, 2022

Dear Jake,

On behalf of the Minneapolis Park and Recreation Board, thank you for the opportunity to provide input on the F Line BRT planning process both on the Technical Advisory Committee and as a partner agency in the public comment period. MPRB supports connections to our parks through regional transportation improvements and is committed to the ongoing coordination on BRT projects. While there were initially three stops adjacent to parks, there are two in the proposed plan. MPRB is supportive of exploring the third, southbound station platform at Chute Square Park at the 4th/University intersection if there is continued interest in that option that was discussed in the planning process. For the two proposed stops adjacent to parks and parkways that are the jurisdiction of Minneapolis Park and Recreation Board on the proposed F Line route, both stops adjacent to parkland should be considered a 4(f) resource. MPRB agrees to coordinate on the 4(f) concurrence process with Metro Transit throughout the design and construction process. If easements are required for station platforms that encroach on parkland, MPRB will also coordinate with Metro Transit staff. The [East of the River Park Master Plan](#) and the [St. Anthony Regional Park Master Plan](#) are both guiding the park design and development of parks along the line and provides MPRB staff with the policy basis for the following comments.

Southbound Central & 35th Avenue

Adjacent to Columbia Park and Golf Course, this station uses the area that is currently a bus pull out bay and converts it into an in-lane bus platform. MPRB does not foresee any negative impacts to the park as a result of the platform reconfiguration or addition of the BRT station or bus traffic. The [Columbia Park Master Plan](#) calls for public art along the sidewalk adjacent to the station area and MPRB would be interested in pursuing public art opportunities in the area or on the station if any opportunities arise. There are new stormwater BMPs in the Columbia Golf Course and Park that should be considered in the design and construction process. The stormwater project is a joint effort between the City of Minneapolis, MPRB, and the Mississippi Watershed Management Organization. There are two stormwater projects that should be considered, the [Columbia Stormwater Pretreatment](#) project and the [Northern Columbia Green Infrastructure](#).

Central & St. Anthony

The southbound station planned on Central and St. Anthony falls adjacent to St. Anthony Parkway Regional Park. On pg 53 of the Master Plan, there is a bike trail on the southside of St Anthony that crosses

Central Ave near the proposed bus platform. With the new in-lane stopping proposed for the bus, MPRB staff are interested in learning more about the potential turning conflicts or congestion that might occur for drivers turning south from eastbound St. Anthony Parkway, with special attention to the fact that cyclists will be using the crossing for the regional trail on that side of the intersection. More information is needed to understand the potential traffic impacts. However, MPRB is in support of traffic calming at this intersection, and understands there are some benefits to slowing traffic through an in-lane bus stop. Other nearby park uses that may be of interest to Metro Transit is the archery range on the west side of the railroad. This should not pose a safety threat to bus shelter users as the RR and topography provide a barrier.

Corridor-wide Considerations

MPRB will also continue to monitor the station area plans for the tree preservation and planting plans. Tree preservation is of the utmost importance to the health of our urban tree canopy and park system.

Thank you again for the opportunity to review the plans and provide comment. MPRB looks forward to these transit improvements in our region.

Sincerely,



Carrie Christensen
Senior Planner
Minneapolis Park & Recreation Board