



# OLIVE ST & CAYUGA ST

## TRANSIT-ORIENTED DEVELOPMENT STATION AREAS PLAN

December 2025  
**DRAFT**

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*Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change. Further analysis and engineering design are necessary prior to implementing any of the recommendations contained herein.*



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# HOW TO USE THIS PLAN

The transit-oriented development (TOD) station area plans for the Bronze Line (formerly known as the Purple Line) bus rapid transit (BRT) were developed through a collaborative effort of a project team that included planning, design, and engagement professionals; representatives of Ramsey County, the City of Saint Paul, the Capitol Area Architectural and Planning Board (CAAPB); and many community-based organizations, residents, and transit users. The purpose of the station area plan is to provide a set of recommended policies, improvements, and opportunities that will make the Bronze Line BRT a viable option for safe and efficient transportation for those living and working around the stations.

This plan is intended to:

- Document and synthesize the planning process.
- Provide a snapshot of the people and physical characteristics of the station area today.
- Identify community-driven needs and goals.
- Provide guidance on future capital improvement projects, policies, and initiatives.
- Outline strategies for implementing plan recommendations.

## WHAT IS IN THIS PLAN

Each chapter's content is summarized below. When using the plan electronically, click on the name of the chapter to go to that part of the plan document.

### CHAPTER 1: INTRODUCTION

Chapter 1 provides the Bronze Line BRT route background and planning process and overall project timeline summary. This chapter also describes community engagement methods, approach to gathering and integrating feedback from community members into the planning process, and an account of in-person and online engagement tools and events.

This chapter includes the goals and Equitable Transit-Oriented Development (ETOD) themes that were developed during the planning process. These goals and themes served as a framework to organize and discuss needs and improvements throughout the engagement process. The same goals are carried through all of the Bronze Line BRT TOD Station Area Plans. The recommendations (Chapter 3: The Future of the Station Area) and the implementation strategies (Chapter 4: Getting There) are also organized by the goals. ETOD themes demonstrate how the ideas of anti-displacement, affordability, building wealth, mental health, wellness, support of local businesses, and environmental sustainability were woven into the planning process and plans.



## CHAPTER 2: THE STATION AREA TODAY

Chapter 2 establishes the station area planning boundary and describes the existing station area context during the planning process. The chapter describes the historical context of the station area, demographics of the neighborhood (in comparison with the City of Saint Paul), a current market condition analysis, and a list of existing plans and policies that informed the station area planning process.

A summary of station area-specific community engagement themes and ideas is also included. The flow chart of the three phases of engagement outlines how themes and input heard during engagement directly influenced the recommendations of the plan. Finally, a summary of community-based ETOD themes are documented, with priorities heard during engagement highlighted.

### GOAL #1: CREATE THRIVING NEIGHBORHOODS



### GOAL #2: MAKE VIBRANT PUBLIC PLACES



### GOAL #3: CONNECT PEOPLE AND PLACES



### GOAL #4: PRIORITIZE SAFETY AND SECURITY



Participants at the SAWG summit. See Chapter 1 for more details.

## CHAPTER 3: THE FUTURE OF THE STATION AREA

A set of policies, improvements, and opportunities are provided in this chapter to support the future use and success of the station area. These recommendations were developed based on community conversations and are organized by the goals. The chapter begins with the 'big ideas' that support multiple goals. After the 'big ideas,' the chapter has plan diagrams for each goal that help illustrate the recommendations and show where they are proposed within the station area. Goal 1: Create Thriving Neighborhoods also includes character areas to help organize recommendations. The intent of character areas is to capture the historic built form and land uses while guiding complementary future development.

## CHAPTER 4: GETTING THERE

Chapter 4 summarizes the following strategies for implementing recommendations: Enhancing Mobility in Station Areas; Supporting Neighborhood Infill; Engaging with Diverse Communities; Developing Gradually; and Cultivating Partnerships. These strategies are followed by a detailed table (organized by the goals) which lists recommendations from Chapter 3: The Future of the Station Area with information on the type of project, project partners, and relevant supporting plans. High priority projects are highlighted and next steps to be taken to implement the recommendation are listed. The chapter also includes a callout box highlighting ideas for addressing overall barriers to transit use and a callout box describing Saint Paul's Public Art Ordinance and how public art could be implemented in the station areas.

# INTRODUCTION

## BRONZE LINE OVERVIEW

The Bronze Line Bus Rapid Transit (BRT) project will provide the East Side of Ramsey County with faster, more reliable, and more convenient service than a conventional bus system, including bus-only lanes, pre-pay fares, raised platforms, and traffic signal prioritization. The line will begin at Union Depot in downtown Saint Paul and travel north to the Maplewood Mall Transit Center. The route will connect to existing and future light rail and BRT service of the METRO system. This improved access to transit will increase accessibility to jobs, housing, and services in the east metro area.

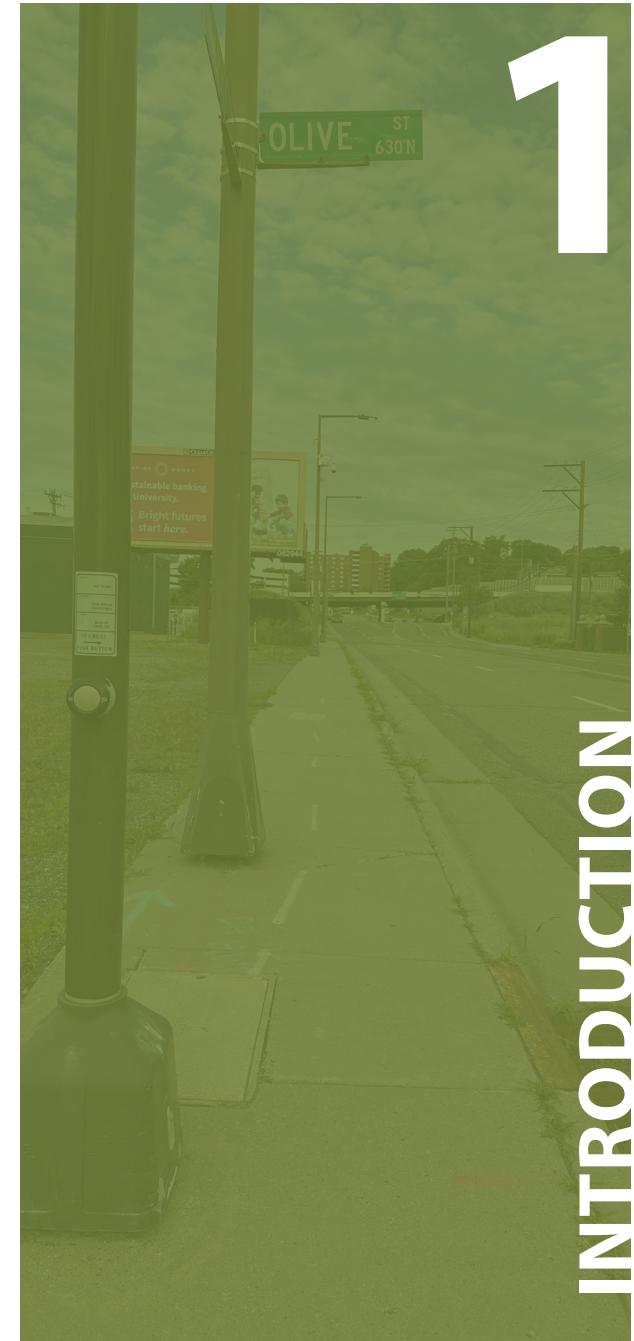
### WHAT IS BUS RAPID TRANSIT (BRT)?

Bus Rapid Transit (BRT) is an enhanced type of bus service that is up to 25% faster than local bus service. Introduced in the Twin Cities in 2016, BRT provides faster, more frequent service, with more customer amenities at stations. During the pandemic, BRT ridership remained strong and recovered faster than other types of service. As of 2024, BRT ridership accounted for about 16% of all regional rides, with more lines planned to open by 2030.

BRT routes have stations located further apart, allowing buses to make fewer stops and stay moving for greater portions of the ride. Ticket machines at the station and the use of mobile apps allow tickets to be purchased before boarding, eliminating the need to queue at the fare box on the bus. Lower bus floors and wider doors, combined with raised curbs at the station, make it quicker and easier to get on and off of the bus. BRT can move through intersections more efficiently because communication with traffic signals reduce time waiting for red lights and some sections of the route have dedicated traffic lanes for buses. Stations are equipped with security cameras, emergency phones, and enhanced lighting. Push button heating and NexTrip signs showing real time arrivals make the wait more pleasant and predictable.

### WHAT IS TOD STATION AREA PLANNING?

Transit-oriented development (TOD) station area planning encompasses the work that is done to expand the potential for transit beyond the station platform. It strives to increase transit use by improving connections between the people who live and work in the area and the transit line in order to make access to transit safer and more convenient. Station area planning also anticipates how land uses may change or development might occur in the future as a result of transit investments. The plan manages these changes by creating a framework for identifying community needs, supporting desired improvements, and preemptively addressing the concerns of future residents and businesses that would otherwise be impacted.



1

INTRODUCTION



## SCALE OF STATION AREA PLANNING

Each station area plan is centered on one or two Bronze Line stations and extends into the surrounding neighborhood approximately one half of a mile. This distance represents an approximate 10-minute walk for most able-bodied people and is likely the reach for most future users of the station. The set of Station Area Plans for the Bronze Line developed in 2025 includes 10th St, 14th St, Mt. Airy St, Cayuga St and Olive St, Payne Ave and Arcade St, and Cook Ave.

## PURPOSE OF STATION AREA PLANNING

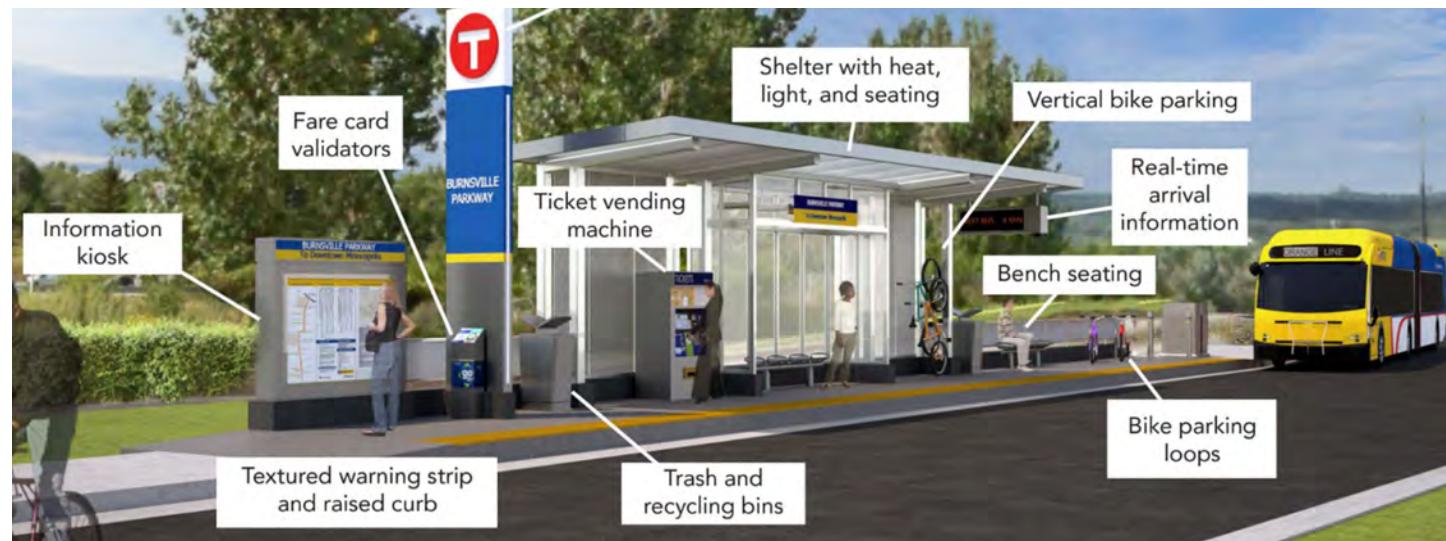
TOD station area planning is a collaborative process that identifies ways to promote safe and direct station access, identify opportunities for development within walking distance of transit stations, and support diverse community needs near transit where people have convenient access to jobs and services. These planning efforts engage the local community while also exploring the real estate and housing markets, opportunities for public investment, and potential barriers that need to be addressed.



- METRO Bronze Line
- Park & Ride
- Current METRO lines
- Gold Line (Bus Rapid Transit)
- Green Line (Light Rail)
- B Line (Bus Rapid Transit)
- Other Planned METRO lines
- Gold Line Extension (Bus Rapid Transit)
- G & H Lines (Bus Rapid Transit)



Figure 1.1 Bronze Line Route Map.



Features of a BRT Station.

## PLANNING PROCESS

Five Station Area Working Groups (SAWG) were created with community members to provide input and help inform decisions. After an initial kick-off “summit”, the process included three phases of engagement to map needs around the stations and identify and prioritize improvements to the station area that would address the goals developed during the initial SAWG “summit”. The SAWG meeting materials were also discussed with Ramsey County’s Supplemental Community Engagement Participation Program (SCEPP) participants. In addition to SWAG and SCEPP input, the plans were shaped through review by Ramsey County, the City of Saint Paul, the Capitol Area Architectural and Planning Board (CAAPB), MnDOT, Metropolitan Council and project consultants.

## PROJECT TIMELINE

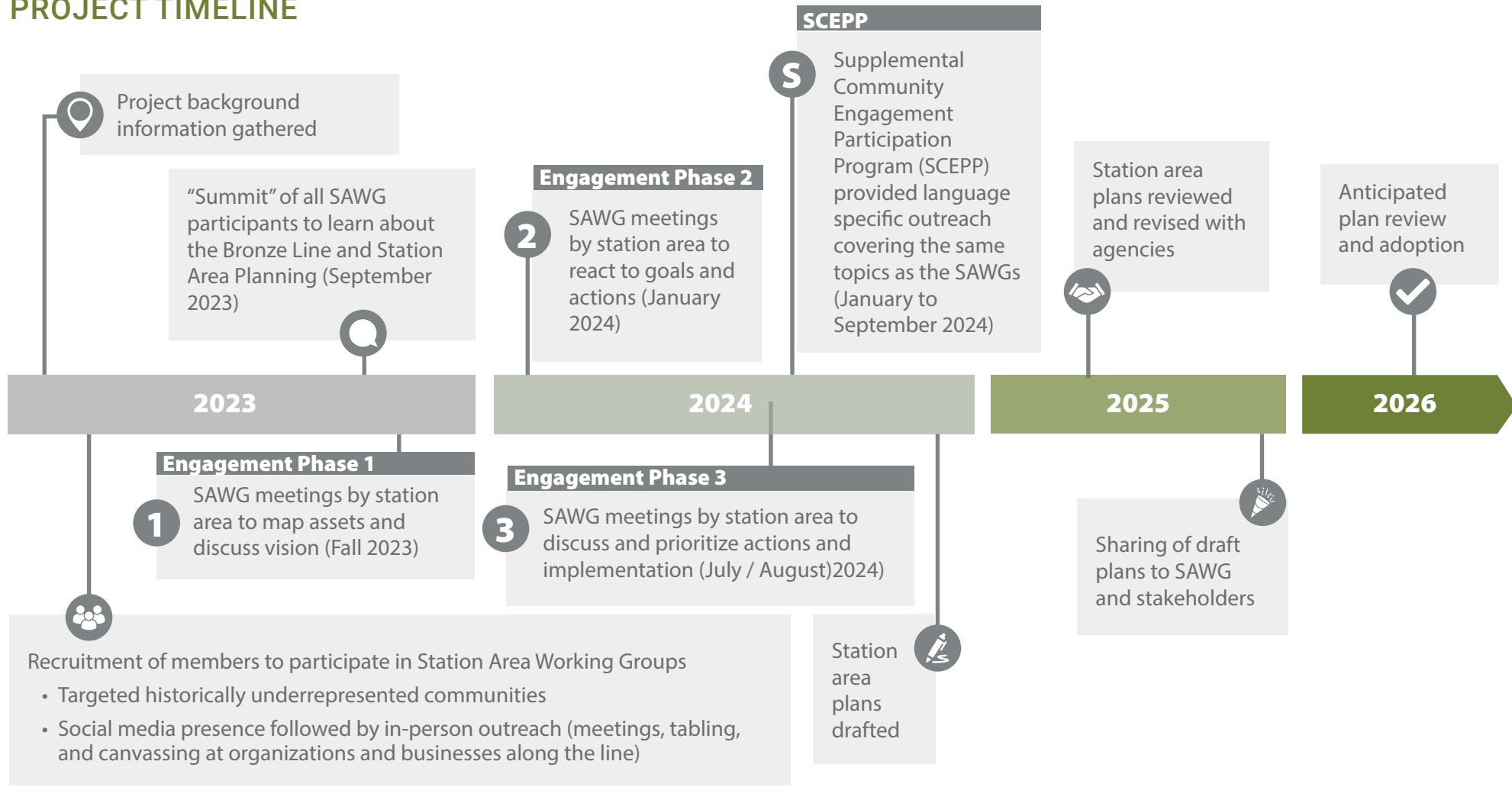
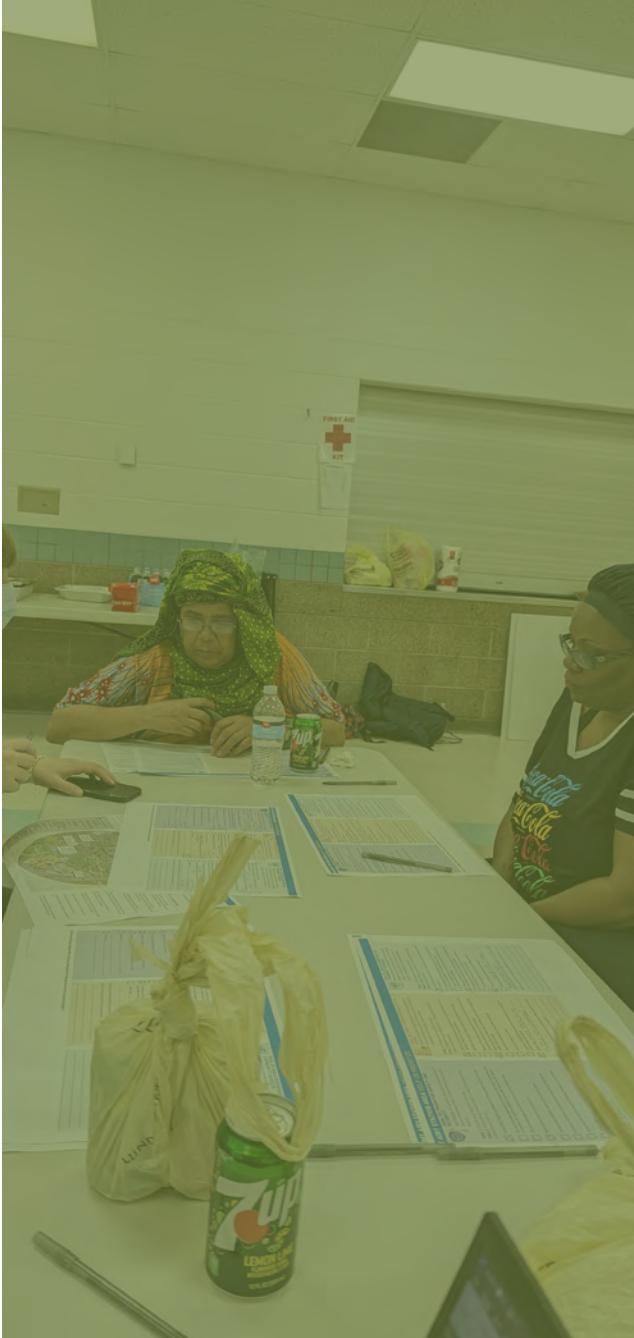


Figure 1.2 Project Timeline.



## COMMUNITY ENGAGEMENT OVERVIEW

BRT has been a part of the vision for the Twin Cities transit network for decades, with the understanding that the project is more than a bus line. The Bronze Line will contribute to employment generation, build community, and be a stabilizing element in communities along the route. In order for this to become a reality, community input and engagement is needed to build long-standing relationships that will inform the goals, policies, and outcomes of the plan. This effort requires a multi-faceted and multi-agency approach to reach community members that have been underrepresented in past planning and design efforts.

Community engagement for the station area plans relied on a variety of methods and incorporated both recurring and one-time events. The station area planning engagement activities and discussions were built on input and themes identified during earlier station planning efforts, including the Pre-Project Development Study (2014-2017) and the Environmental Analysis Phase (2018-2021). Engagement included in-person and online opportunities, along with continued communication to keep community members, businesses, and organizations informed throughout the process.

Three underlying objectives framed the engagement approach for station area planning:



Equitably engage a diversity of people.



Inform and collaborate with a diversity of people that result in generative outcomes.



Provide the greatest amount of access to a diversity of people.

## APPROACH AND METHODS

Community engagement was phased, with each round of input providing the basis for the next set of meetings and outreach. Key themes and big ideas heard in each round were incorporated into the next phase, from creating broad goal statements to later identifying the most important strategies to address challenges in specific station areas. Meetings and materials were structured to provide background information for new participants to catch up with the process and provide important insights at every step of the way. The approach to engagement emphasized relationship building, focusing on outreach with Black, Indigenous, and people of color (BIPOC) communities to ensure a diversity of perspectives and experiences were included from those typically underrepresented in transportation projects. While all input was considered, not all of the ideas generated were ultimately incorporated into the station area plans, particularly if it was outside of the scope of the station area plans.

### IN-PERSON ENGAGEMENT

#### STATION AREA WORKING GROUP (SAWG)

Station Area Working Groups (SAWG) met over the course of the planning process to guide the process and provide input on a grassroots level. SAWG participants included a mix of renters, homeowners, people experiencing homelessness, youth, seniors, people with disabilities, advocates and users of public transit, BIPOC, and immigrant residents. Recruitment for the SAWG included social media outreach, promotional flyers, website posts, and in-person outreach through attendance at local community events, meetings, and canvassing local organizations and businesses along the Bronze Line route. SAWG meetings for each station area were held at local community locations such as community centers, churches, or organization offices. Meals and \$25 gift cards were provided to participants at each meeting to compensate participants for their time.

SAWG participants first attended a SAWG Summit held at the beginning of the station area planning process in September 2023. This summit brought together SAWG members from all of the different station areas along the Bronze Line in Saint Paul, and provided an opportunity for participants to share and provide input on the planning process, goals, and strategies. Individual SAWGs then met three times, once during each engagement phase, to provide input, review, and prioritize the draft equitable transit oriented development (ETOD) themes, goals, and policies for the station area plan. Meetings were designed around activities including asset mapping, storytelling, and ranking themed policies to catalyze discussion and help prioritize input and recommendations.

#### SUPPLEMENTAL COMMUNITY ENGAGEMENT PARTICIPATION PROGRAM (SCEPP)

Focus groups led by community-based organizations through Ramsey County's Supplemental Community Engagement Participation Program (SCEPP) met two to three times throughout the engagement process to provide input for the station area plans using the same materials and exercises as the SAWGs. SCEPP groups provided language-specific outreach and input for a variety of communities within project areas. SCEPP language groups met with residents of East African, Hmong, Karen, and Latino descent.



Images from SAWG meeting #3.

### SCEPP PARTNERS

- Fortune Relief and Youth Empowerment Organization (FRAYEO)
- Urban Village
- MN Hmong Chamber of Commerce
- New Publica

## BUSINESS COMMUNITY AND REAL ESTATE DEVELOPMENT

The team met with both local business leaders and people involved in local real estate development in small group and one-on-one settings to ensure a comprehensive approach to identified issues and opportunities in the station area. Business-focused organizations included the Saint Paul Area Chamber of Commerce, East Side Area Business Association, Payne-Arcade Business Association, and East Side Neighborhood Development Corporation. The real estate market analysis was also informed by conversations and interviews with larger macro market brokers, developers, small business development centers, and locally based organizations.

## POP-UP ENGAGEMENT

During each engagement phase, the SAWG engagement process was supplemented with pop-up events as available. The station area planning team participated in events organized by the Bronze Line project office while additional outreach was also achieved through attendance by SCEPP partners.



Image from a SAWG meeting.

## 06 | Bronze Line BRT Olive St and Cayuga St Stations

Transit-Oriented Development Station Areas Plan | December 2025



Screenshots of online engagement methods.

## ONLINE ENGAGEMENT

### SURVEYS AND ONLINE MAPPING

A survey and an interactive online mapping tool were employed during the station area planning process to gather online feedback from a wide variety of people and perspectives. The survey was designed to provide the information necessary for members of the public to provide input, even if they had no previous knowledge of the project. The interactive map allowed the public to provide place-based input and ideas anchored to specific locations within the station area. The survey was available online in English, Spanish, and Somali and as a hard copy in English, Spanish, and Hmong.

### COMMUNICATION

A variety of communication channels were used to ensure accessible information for partners and community members. Channels included social media outlets, an e-newsletter distributed by Ramsey County, a standalone project website with content available in multiple languages and ADA accessibility, and culturally relevant local media outlets including radio stations and language-specific news sources.

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# GOALS

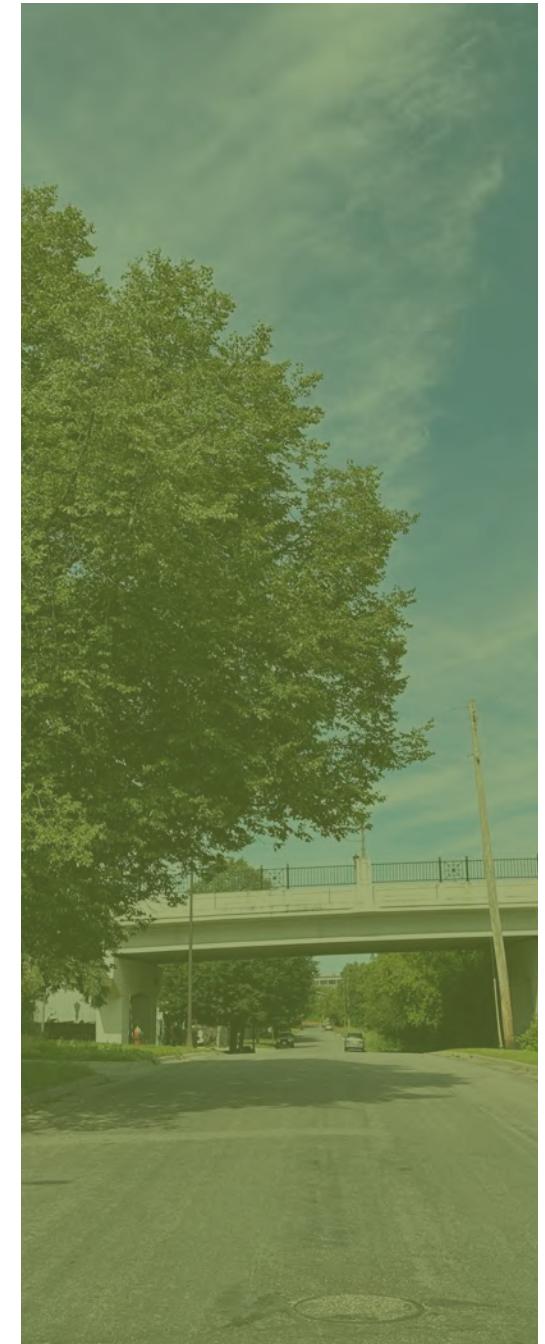
The following station area goals were developed based on feedback gathered during the SAWG summit, which included representatives from all station areas, and confirmed during the first phase of community engagement by the individual SAWGs. They were also informed through a baseline understanding of the issues and opportunities throughout the study area. These goals have served as a framework for presenting and reviewing conceptual ideas throughout later phases of community engagement, and also set the stage for the recommendations presented in Chapter 3 Future of the Station Area.

**As defined in this planning process, the goals are statements declaring how the community envisions the future station area.**

## GOAL #1: CREATE THRIVING NEIGHBORHOODS



The station areas are made up of distinct and unique neighborhoods that have a variety of housing types to suit the needs of residents today and into the future. These are neighborhoods where people live throughout varying stages of life, supporting a variety of household types and income levels. Destinations frequented by residents on a daily or weekly basis, such as grocery stores, are located near the stations, and businesses support residents and visitors using public transportation. The station areas are also destinations for places of employment and community services such as community centers, schools, places of worship, places to exercise, and places to receive healthcare. Thriving neighborhoods are resilient to a variety of risks over time. Managing stormwater through green infrastructure, supporting habitat for pollinator species and urban wildlife, and creating flexible spaces that adapt to our changing environment are examples of environmental resiliency.



## GOAL #2: MAKE VIBRANT PUBLIC PLACES



The station areas are vibrant, activated places where art, cultural history, and community identity are apparent, authentic, and visible. Parks, green spaces, and gathering spaces provide places to sit and gather with shade, views, and recreational amenities that support the health of residents and foster strong relationships throughout the neighborhood.

## GOAL #3: CONNECT PEOPLE AND PLACES



The station areas are places where people can easily and comfortably walk, bike, and take public transit, whether going short or long distances. Public transit is a viable, reliable, and preferred option for getting around. Sidewalks, streets, trails, and intersections are designed for people of all ages and abilities.

## GOAL #4: PRIORITIZE SAFETY AND SECURITY



The station areas are places where safety and security is a priority. Community-based approaches to security are unique and defined by each neighborhood. People of all ages and abilities feel comfortable using public transit, walking, and biking throughout the day and during all seasons.

# EQUITABLE TRANSIT-ORIENTED DEVELOPMENT

Equitable Transit-Oriented Development (ETOD) refers to efforts to center community priorities during the station area planning process in order to work towards ensuring that people of diverse backgrounds and income levels experience benefits and positive outcomes when new transit stations are built. High demand for housing and rapid appreciation of properties near transit stations can result in transit-oriented developments becoming too expensive and out of reach for low-income residents and contribute to gentrification and displacement of communities. ETOD aims to identify and align planning goals to specific community-driven priorities in order to preserve and expand affordable housing and connect residents to jobs, opportunities, and resources, while also considering resiliency, climate change, and other topics that influence quality of life.

The following are themes and potential actions that support the vision of equitable transit-oriented development. They were developed for the entire corridor and may differ in relevance or priority between station areas (see Chapter 2 Station Area Today for station area-specific community needs organized by these ETOD themes). These themes are interwoven into the recommendations and implementation strategies set forth within this plan. The ETOD themes were refined based on feedback and conversations held throughout the engagement effort.



## THEME #1: ANTI-DISPLACEMENT, AFFORDABILITY, AND BUILDING WEALTH

### Potential Actions:

- Plan for future mixed-income neighborhoods with a variety of housing types.
- Plan for preserving, protecting, and expanding affordable housing.
- Support mixed-income and affordable housing.
- Encourage services and uses that support residents' financial stability, such as childcare, healthcare, and supportive services.
- Explore public policies that may be effective in preventing or counteracting displacement, such as right-to-return or tenant right to purchase.

### HOW DO THE GOALS AND THEMES RELATE TO EACH OTHER?

**GOALS** are statements declaring what the station areas will be after transit investment and implementation of the station area plans have occurred.

The **ETOD THEMES** were used to inform the development of the policies, improvements, and opportunities identified to achieve the goals.



*Example of mixing housing types on a block.*



Example image of placemaking.



## THEME #2: MENTAL HEALTH, WELLNESS, AND QUALITY OF LIFE

### Potential Actions:

- Increase access and availability of high-quality park spaces, playgrounds, and open spaces.
- Plan for well-lit, accessible, and well-designed streets, trails, and sidewalks.
- Provide direct trail and sidewalk connections linking transit, schools, healthcare, and places of employment.
- Integrate placemaking, public art, and cultural and historical interpretive elements into the landscape within the station areas.
- Identify opportunities to improve access to healthy, affordable, and locally-sourced foods in areas that lack such options today.



Example image of creative commercial opportunities.



## THEME #3: SUPPORT LOCAL BUSINESSES AND WEALTH-BUILDING

### Potential Actions:

- Allow for future business incubator spaces, maker spaces, and community commercial kitchen spaces that can support new small business start-ups.
- Plan for accessible connections from streets and sidewalks to connect to business storefronts.
- Connect businesses to programs that support storefront/façade improvements.
- Connect businesses to technical assistance programs that can support their operations and growth.
- Identify outdoor seating and other public realm amenities that can support businesses and wealth-building in the station areas.



Example image of community-supported land management.



## THEME #4: SUSTAINABILITY AND THE ENVIRONMENT

### Potential Actions:

- Identify opportunities for green infrastructure to manage stormwater throughout the station areas.
- Identify areas where pavement reduction can contribute positively to the neighborhood, either by creating more green spaces, helping to manage stormwater, and/or by reducing the urban heat island effect.
- Identify opportunities that contributes to the longevity and resiliency of neighborhoods, such as community gardens, urban farms, native restoration, and sustainable land management.
- Plan and design for a diverse selection of hardy, native and climate adaptive species of plants that provide shade, amenity, and year-round interest throughout the station area.
- Address major barriers for walking and biking to make choosing non-motorized or public transportation a viable option to reduce carbon emissions.

# THE STATION AREA TODAY

This chapter provides the historical context and a snapshot of the people and physical characteristics that define the station area today. As shown on page 12, recommendations in Chapter 3 will focus on a narrower area to reduce duplication between station area plans.

## EXISTING NEIGHBORHOOD CONTEXT

The Olive St and Cayuga St stations are located northeast of the downtown Saint Paul core. Olive St is located directly east of Interstate 35E. The main neighborhoods around the stations include Payne-Phalen and Dayton's Bluff. Railroad Island is considered part of the Payne-Phalen neighborhood. A portion of the Mt. Airy neighborhood also falls in the station area, but will not be examined as closely in this chapter due to the physical separation between the station area and Mt. Airy by Interstate 35E.

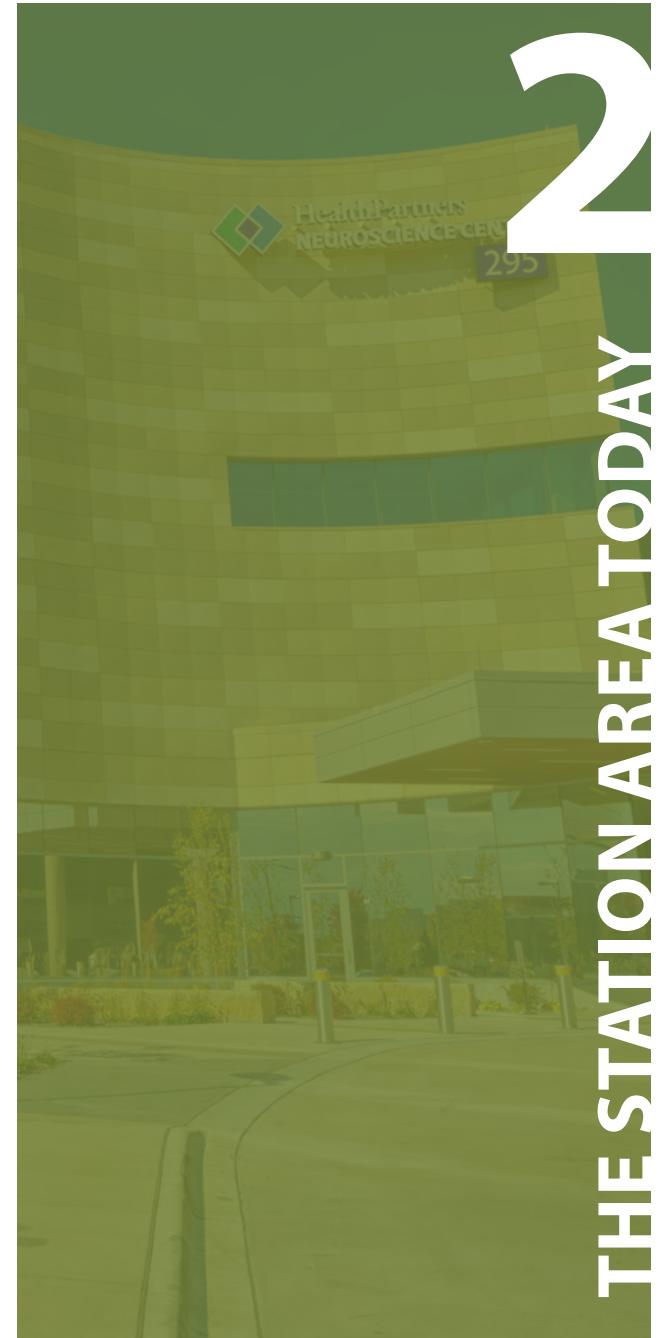
The highest concentrations of jobs in the station areas are in the southwest, closer to the downtown core. Here there are several government departments including the Saint Paul Police Department and Law Enforcement Center, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, and the Minnesota Department of Labor and Industry. The other high employment industry in the area is health care. Health care facilities in the station area include HealthPartners Neuroscience Center, HealthPartners Center for Memory and Aging, Saint Paul Specialty Clinic, and the Urgent Care for Adult Mental Health Clinic.



HealthPartners Neuroscience Center at Olive St.



Saint Paul Specialty Center at Cayuga St.



## STATION AREA DEFINITION

The Olive St and Cayuga St station areas extend west to Interstate 35E and to the Mt. Airy St / Capitol Heights station area and east to Burr St and the Eastside Heritage Park station area.

Railroad tracks bisect the area and define a clear division between the institutional uses on the east side of the station area and the residential uses of Railroad Island.

The City of Saint Paul Comprehensive Plan designates both station locations as neighborhood nodes. The node's boundary is hereby interpreted to extend to the station area boundary.

A neighborhood node is a compact, mixed-use area serving the neighborhood's daily needs by having shops, services, employment, and neighborhood-scale civic and institutional uses.

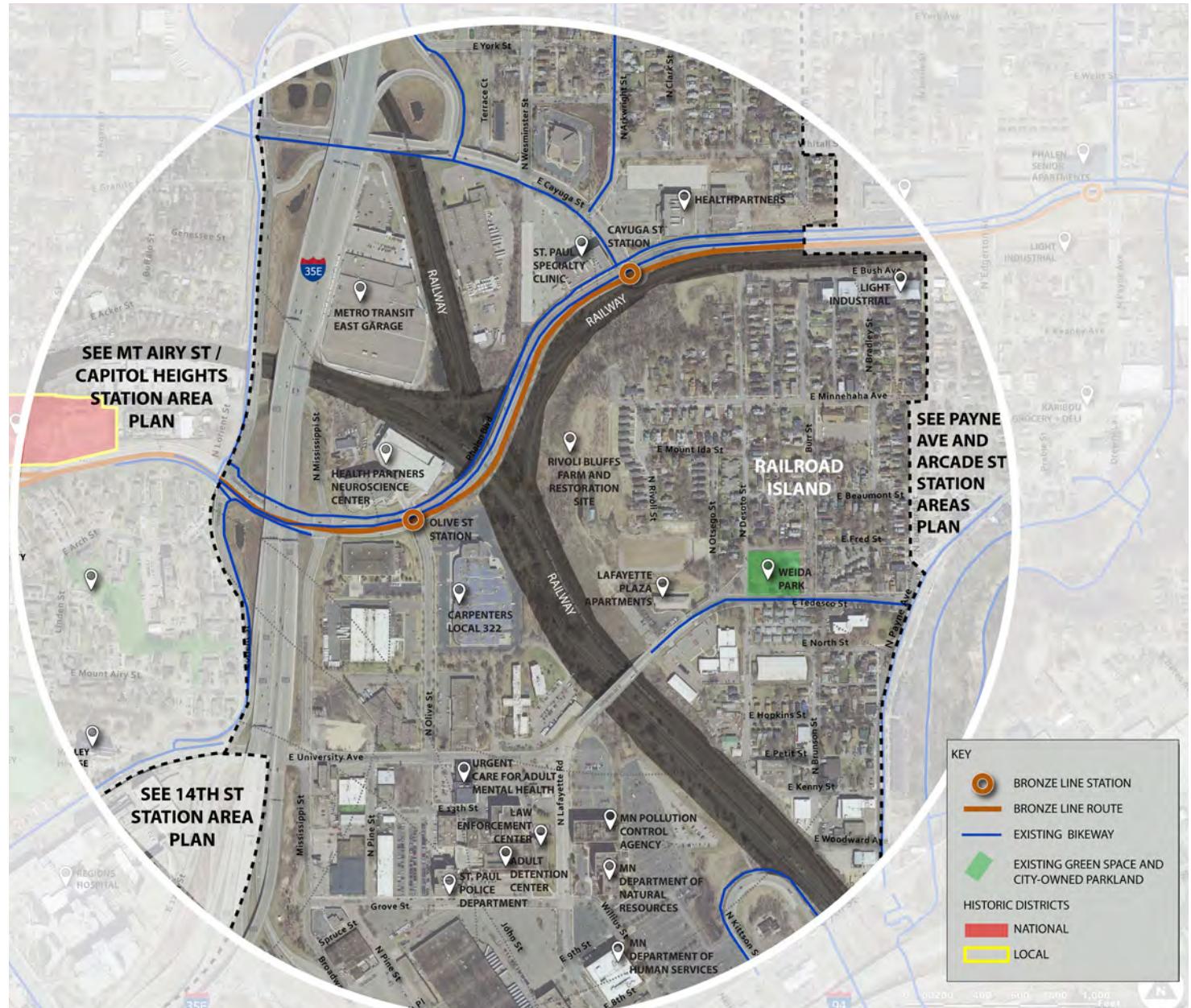


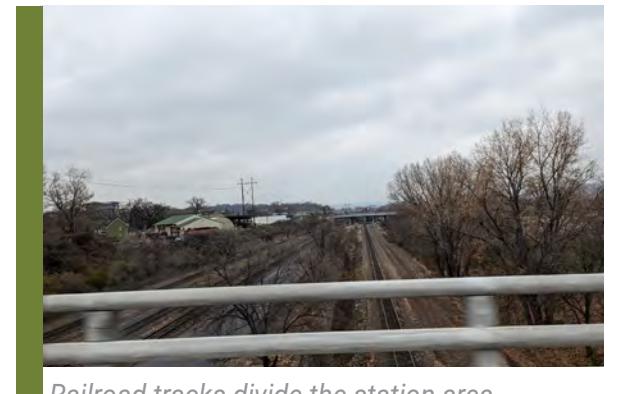
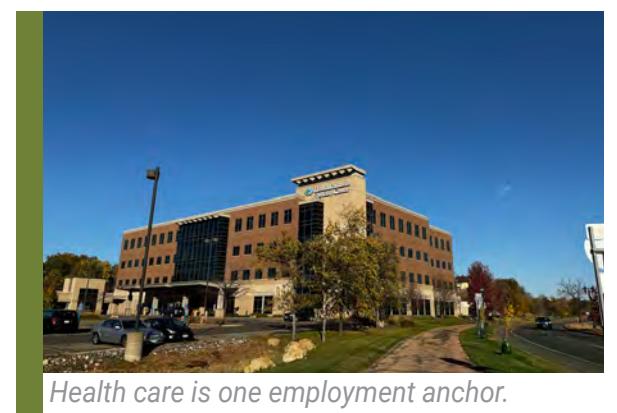
Figure 2.1 Olive St and Cayuga St Station Areas.

Railroad tracks cut diagonally through the station area crossing under Phalen Blvd, Lafayette Rd, and Cayuga St. This boundary generally divides commercial and residential uses. There are several small businesses and parking lots that back up to the railroad tracks. A majority of the commercial buildings in the area are on the west side of the railroad tracks, whereas the east side has a majority of the residential uses.



Weida Park is an example of a neighborhood park in the area, offering a playground, open field space, and basketball court. Swede Hollow Park provides additional access to green space in the southeastern part of the station area.

Also in the station area is the Rivoli Bluffs Farm, a three-acre community garden established by Urban Roots. This garden has allowed families in the area to build community, experience cultural diversity, and grow fresh produce.



## STREETSCAPE

Streetscape elements play an important part in the level of comfort for active transportation users. The street network in the one half mile station area radius is a well-connected grid system to the east of the station but is disconnected by the railroad and I-35E to the southwest.

The residential streetscape in the Olive St and Cayuga St station areas generally contributes to a lower-stress environment for bicycling and walking. Most residential streets have continuous sidewalks, street trees, vegetation, and streetlights.

In the southwest portion of the station area with industrial and government uses, there are some streetscape elements such as lighting and street trees along continuous sidewalks. However, they are more limited, and wider streets, large-scale buildings, and frequent parking access points make it a less comfortable experience.



## PEDESTRIAN AND BICYCLE INFRASTRUCTURE

The railroad limits direct connections along Phalen Blvd for both bicycles and pedestrians. Near the Olive St station, the area south of Phalen Blvd is primarily parking lots, manufacturing, industrial, and civic uses. Pedestrians and bicyclists rely on access via Olive St and the Bruce Vento Regional Trail (BVRT) along Phalen Blvd, as well as Lafayette/University Ave.

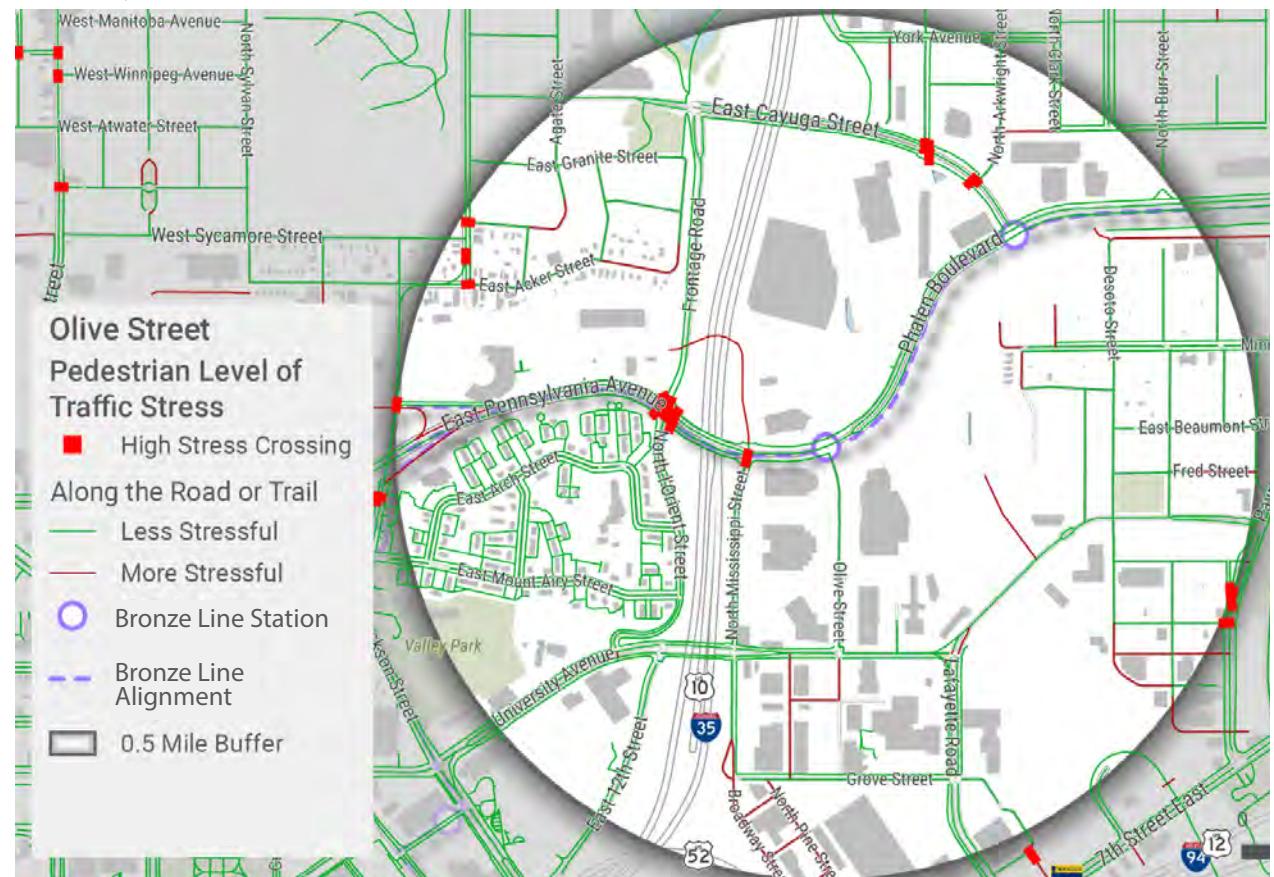


Figure 2.3 Olive St and Cayuga St Stations Pedestrian Level of Stress (2021 data).

Around the Cayuga St station, Railroad Island neighborhood residents (south of Phalen Blvd) rely on Payne Ave to connect them to Phalen Blvd as the Edgerton St bridge does not have a direct pedestrian access point to Phalen Blvd. Residents to the north can utilize connections to Cayuga St. The user experience on these limited pedestrian/bicycle access routes is paramount.

Both stations are connected to a shared-use path (SUP) along Phalen Blvd that connects the

east metro to downtown. This facility is a grade-separated path for pedestrians and bicyclists, creating a low-stress option for both modes of travel (Figures 2.3 and 2.4). Cayuga St also contains a SUP that connects the neighborhood to the Gateway State Trail and another SUP adjacent to Terrace Ct/York Ave. The trailhead for the Gateway State Trail is located near the intersection of Cayuga St and L'Orient St, within a one half mile radius of the Olive St and Cayuga St stations.

The streets in the station areas are generally low-stress for pedestrians with the exception of some access roads south of University Ave and Mississippi St, north of Phalen Blvd and Bush Ave (see Figure 2.3) which do not have sidewalk facilities on either side. Crossing conditions at intersections for most streets in this area are also low-stress due to the low speed and volume. There are high-stress intersections along Payne Ave and Cayuga St, as well as at the intersection of Minnehaha Ave and Edgerton St due to inadequate crossing treatments.

Crossing conditions at intersections for most streets in this area are low-stress due to the low speed and volume of the roadways. However,

## LEVEL OF TRAFFIC STRESS (LTS) EVALUATION

A level of traffic stress (LTS) analysis provides an objective assessment of current conditions for people walking, rolling, and bicycling. The methodology is based on available data, assumptions, and algorithms.



Example of a high-stress bikeway.



Example of a low-stress separated bikeway on Jackson St in Downtown Saint Paul.

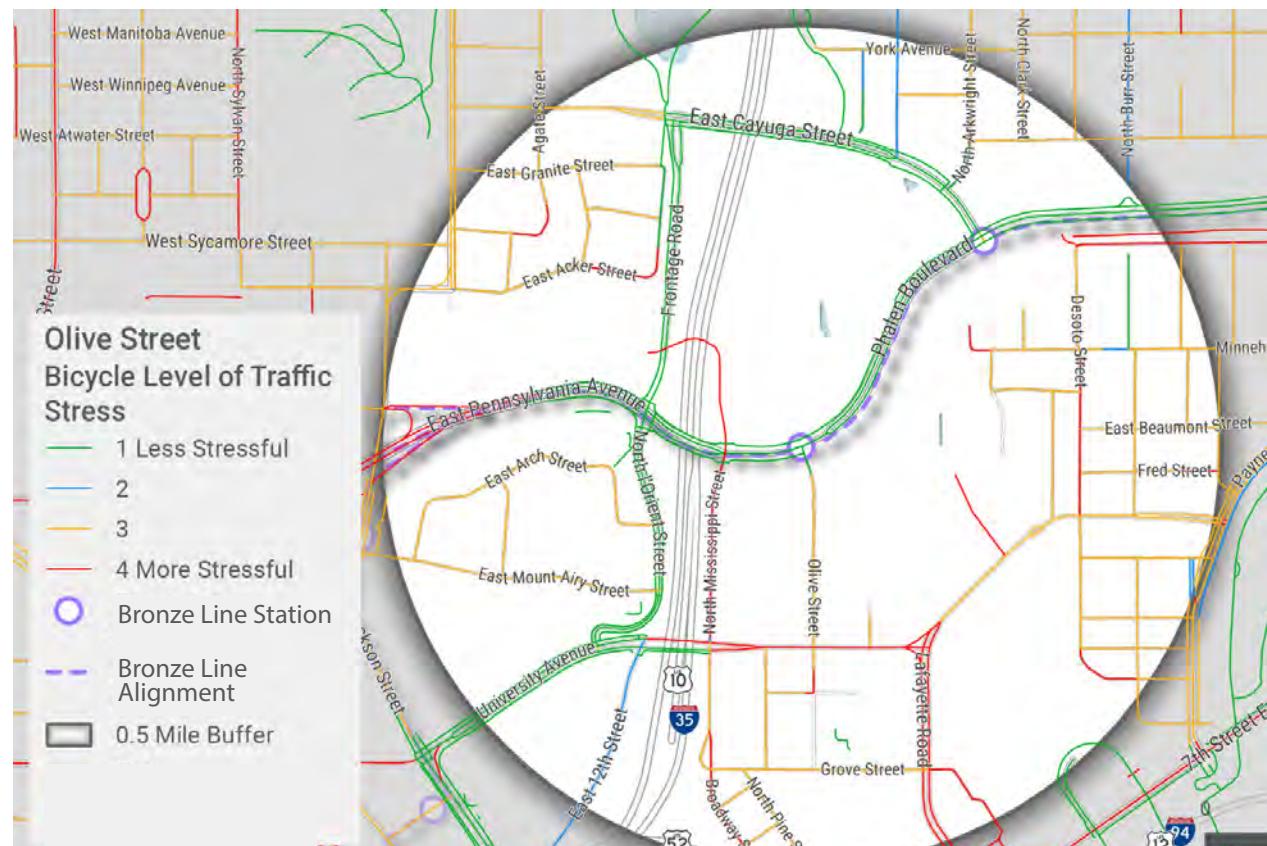


Figure 2.4 Olive St and Cayuga St Stations Bicycle Level of Traffic Stress (2021 data).



Existing streetscape at Whitall St and Edgerton St intersection.



Olive St connects transit riders with employment centers south of the station.



Wide crossing distances and a lack of signage creates barriers to pedestrian movement.

there are some signalized intersections along higher volume roadways which lack adequate crosswalk markings.

The bicycle LTS results are similar to the pedestrian LTS near this station. Figure 2.5 shows the one-mile bikeshed analysis area, including direct low-stress bicycle connections to the station in blue. Like the pedestrian LTS, bicycle level of traffic stress is influenced by road characteristics and will impact the accessibility of the station for many local users. High-stress environments exist at Bush Ave, Edgerton St, and a segment of Payne Ave, which are higher-speed roads without separate bicycle facilities.

### MISSING LINKS AND BARRIERS TO ACCESS

The Station Area Working Group identified the railroad tracks as a barrier for residents of Railroad Island. The presence of railroads, large roadways, and surface parking lots

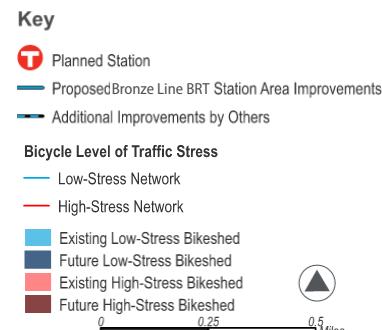


Figure 2.5 Olive St and Cayuga St Stations Bikeshed Analysis (2019 data).

all contribute to a challenging environment for pedestrians, cyclists, and transit-dependent residents.

When discussing the challenges related to movement through the station areas, many participants in the Station Area Working Group mentioned that the lack of lighting, or where it was dark due to vandalism of the lights, was a safety concern. Participants also mentioned that during the winter months it can be difficult to reach transit stops because snow is not cleared from the stops or from ramps.



# DEMOCRAPHICS

There are many things that affect an individual's or community's use of transit. The demographic composition of an area helps to better understand who might benefit from increased access to transit and the ways that transit might be used by community members. Data analyzed in this section was collected from the 2020 US Census, the 2018-2022 American Community Survey (ACS) 5-Year Estimates, and 2024 ESRI Estimates.

## POPULATION AND HOUSEHOLDS

As of 2024, the population for the Olive St and Cayuga St station areas was estimated at 4,165 and there were 1,169 households. This area has experienced a slight (3%) decrease in population over the last 14 years. There is an average household size of 3.24 which has decreased slightly from 3.32 since the 2010 census. This is higher than the average household size of Saint Paul (2.50).

## PEOPLE WITH DISABILITIES

In 2022, the percentage of households in the Olive St and Cayuga St station areas that had at least one person who lives with a disability was 43%. This is much higher than the percentage of households in the City of Saint Paul (25%). The data referenced includes a variety of disability types, specifically those relating to hearing, vision, cognitive, ambulatory, self-care, and independent living.

## RACE & DIVERSITY

The station areas are racially diverse. In 2024, Black/African Americans make up the largest racial group (36%), followed by Asians (33%), Whites (19%), and American Indians (1%). People identifying as other or two or more races make up 11% of the area's population. 10% of the population identifies as Hispanic (any race).

One useful metric for understanding the racial make up for an area is the diversity index (DI). This index shows the probability that two people

chosen at random will be from different racial and ethnic groups. The DI is a value between 0 and 1, with a zero-value indicating that everyone in the population has the same racial and ethnic characteristics, while a value close to 1 indicates that everyone in the population has different characteristics.

The Olive St and Cayuga St station areas have a DI of 0.771, higher than the City of Saint Paul as a whole (0.740), indicating a higher likelihood that two people chosen at random from this area will be from different racial groups.

## HOME OWNERSHIP

In the half-mile station areas for Olive St and Cayuga St, there is a significantly higher percentage of renter occupied housing (72%) than compared to the City of Saint Paul (53%). This is largely a result of the number of large apartment buildings in the area. Conversely, homeownership rates are only half as high here (28%) as compared to the City of Saint Paul (47%).

## EDUCATION

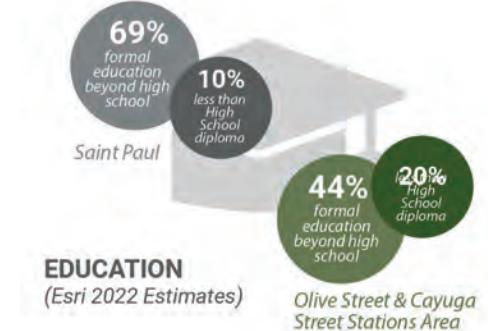
Overall, the highest levels of education completed in the Olive St and Cayuga St station areas are lower compared to Saint Paul as a whole. 20% of the station areas residents have less than a high school diploma and 44% have had formal education beyond high school compared to Saint Paul, where 10% have less than a high school diploma and 69% have had formal education beyond high school.



## HOUSEHOLDS WITH 1+ PERSONS WITH A DISABILITY (2020 ACS 5-yr Estimate)



## DIVERSITY INDEX (Esri 2022 Estimates)



## VEHICLE OWNERSHIP

Vehicle ownership in the Olive St and Cayuga St station areas is lower than the City of Saint Paul as a whole. 13% of Saint Paul's renter households do not have a personal vehicle, while 21% of renter households in Olive St and Cayuga St station areas do not have a personal vehicle.

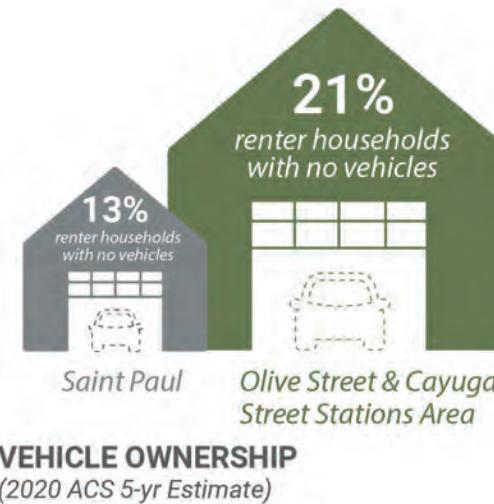
## INCOME

This area has a greater proportion of low-income population than Saint Paul as a whole. 31% of households fell below the poverty line according to the 2022 American Community Survey, and 11% of households received some form of public assistance income. The median household income is \$48,548, which is less than the median household income for Saint Paul as a whole (\$70,218).

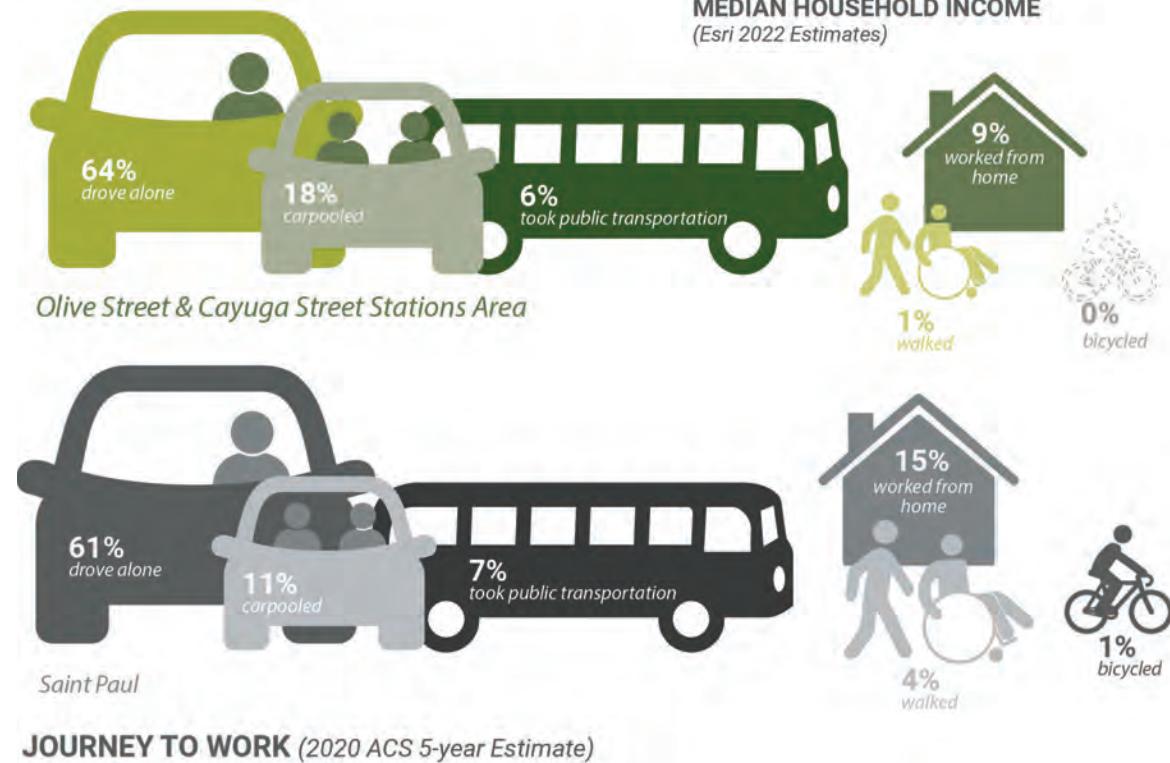
## JOURNEY TO WORK

In the Olive St and Cayuga St station areas, most people (64%) drive alone to work. This is slightly more than Saint Paul as a whole where 61% of people drive alone to work. Of those not driving alone, more people carpool and fewer people take public transportation, walk, bike, or work from home as compared to Saint Paul as a whole. The data collection period spans pre- and post-pandemic, so these patterns may be evolving.

This station area serves as a job center. At last count (2021 Census On the Map data), 6,867 people who live outside of the station areas come to this area for work, a comparatively small portion of people (1,216) live in this area but work elsewhere, and only 14 people both live and work in this area.



Low vehicle ownership, high prevalence of people with disabilities, high renter populations, and high racial diversity highlight the need for transit investments in the Olive and Cayuga St stations areas to make accessible, reliable and inclusive neighborhoods while maintaining affordable housing and safeguarding from displacement.



# MARKET CONDITIONS

The market analysis for the Olive St and Cayuga St stations was completed independently at the beginning of the planning process. Highlights are summarized below.

The Olive St and Cayuga St station areas are characterized by a mixture of land uses. Near the Olive St station, the land uses are predominantly non-residential uses such as health care, industrial, and public. The Cayuga St station has some non-residential uses in the immediate vicinity and then residential uses to the northeast and south. The market analysis found that there are opportunities for development and investment.

Around the Olive St station, commercial and industrial property sales have remained steady over the last few years, while there has been a slight upward trend in sales around the Cayuga St station, indicating a growing market for commercial and industrial properties near the Cayuga St station.

Duration on market for for-sale commercial properties in the Olive St station was consistent with the City of Saint Paul average of 7 to 11 months. For the Cayuga St station, data was limited before 2021. In 2022, average time on market was 24 months, signaling a potential slowdown in the market.

Market saturation analysis indicates that around the Olive St station, the area is saturated for commercial and industrial properties marketed for sale. Due to insufficient transactions, market saturation for Cayuga St station was unavailable. On a price-per-square-foot basis, the station

areas surpassed the city-wide average between 2021 and 2022.

Leasing data for the station areas was limited due to lack of transactions. Between 2020 and 2022, the annual price per square foot was the lowest among all station areas. The variability between the data indicates that there is a fluctuating market.

Single-family detached housing is the most common type of residential unit in the Olive

St and Cayuga St station areas. Around 50% of units in the station areas are renter-occupied units.

The Olive St and Cayuga St station areas have a higher percentage of larger-sized housing units than other station areas. Around Olive St, two-bedroom units make up nearly 31% of the housing stock, while around Cayuga St, three-bedroom units are around 29%.

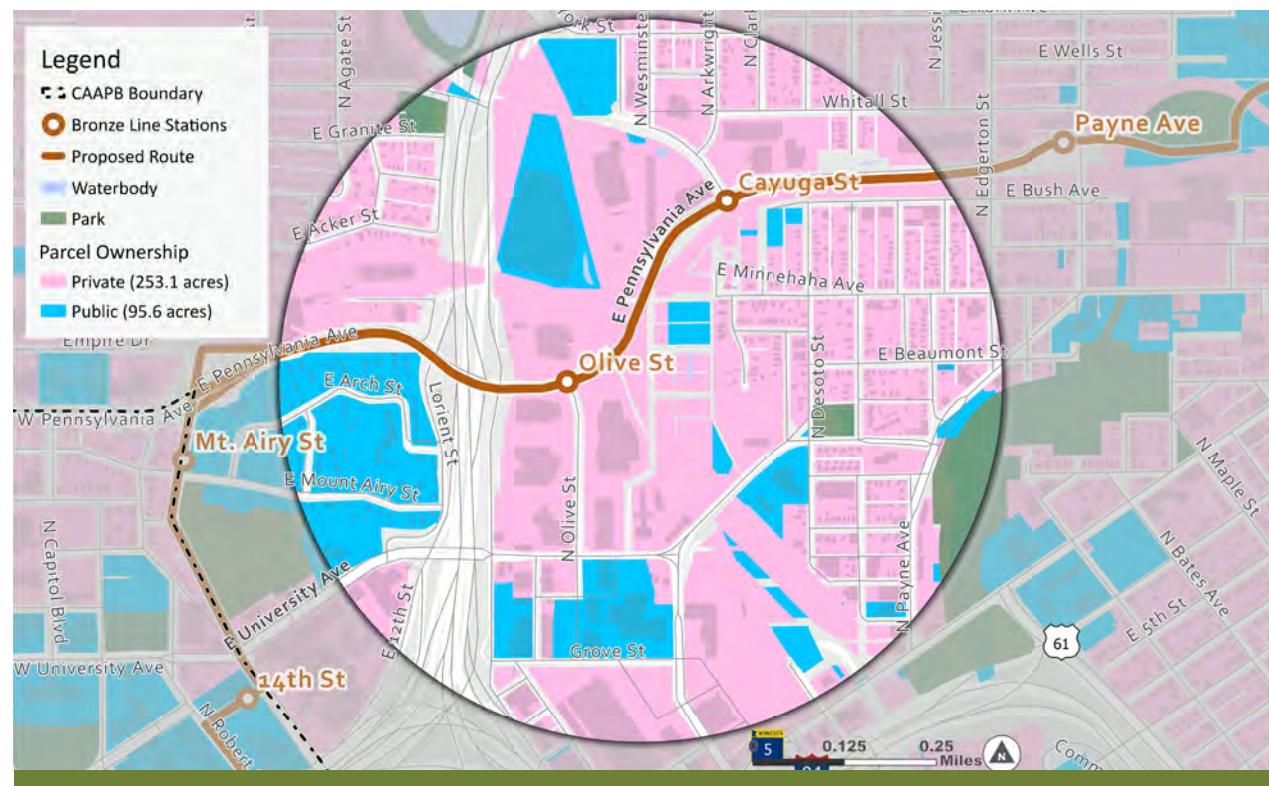


Figure 2.6 Parcel Ownership, Olive St and Cayuga St Stations.

Residential vacancy rates in the area are in line with other station area rates at around 7%.

On average, there is a slight surplus of low-wage jobs compared to low-income households in the area. As would be expected given the station locations, Olive St station has a higher number of low-wage jobs as compared to low-income households than Cayuga St station.

Large-scale, market rate developers cited a lack of livability amenities in the station area as a barrier to justifying the current market-rate, new construction residential model and its construction costs. However, they indicated that improved transit service in the area would be a great amenity for existing and future industrial uses.

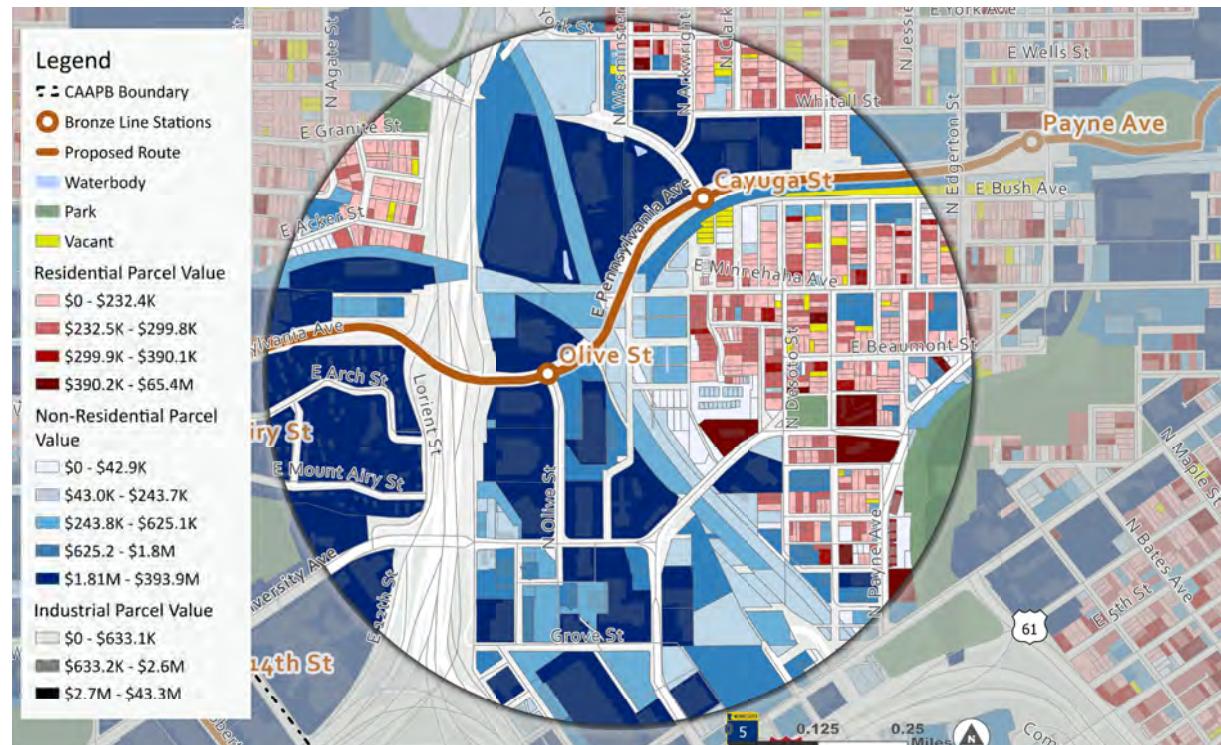


Figure 2.7 Estimated Market Value, Olive St and Cayuga St Stations.

## KEY CONSIDERATIONS FOR MARKET INTERVENTION

- The non-residential portions of the station area have opportunities for investment and development, particularly with surface parking lot conversion.
- There was a lot of fluctuation in non-residential sales and leases during the market study timeframe.
- The non-residential analysis was limited in multiple areas as there was an insufficient number of transactions.
- Additional residential development would help address the spatial mismatch between the number of low-wage jobs and low-income households in the station areas.
- The largest percentage of housing units (44%) are single-family detached properties. The majority of housing units (57%) are renters.
- The Olive St and Cayuga St station areas have a higher percentage of two- and three-bedroom housing units than other station areas. The census tracks with larger residential units are north of Case Ave and in Railroad Island.

### Station Area Parcel Values (as shown on Figure 2.7)

- Total Residential Value: \$135.3 M
- Non-Residential Value: \$680.6 M
- Industrial Value: \$91.5 M
- Vacant Land Value: \$524.9 K

# PLANS AND RELATED POLICIES

As might be expected, the land within the station areas has been the subject of many plans and planning efforts over time. Below is a list of the most relevant plans and policies that provide guidance for how future decisions should be made:

- Saint Paul 2040 Comprehensive Plan
- Saint Paul 2024 Bicycle Plan
- Saint Paul Pedestrian Plan
- Saint Paul Street Design Manual
- Saint Paul Public Art Ordinance Program
- Railroad Island Plan
- Payne Avenue Street Improvements
- Arcade Street Small Area Plan
- Phalen Corridor Development Strategy Summary
- Trout Brook Greenway Plan

## NEIGHBORHOOD PLANS

While there are several neighborhood and small area plans that overlap the Olive St and Cayuga St station areas, the plans are generally older and often address only small portions of the station areas. Some, such as the Railroad Island Plan, are less relevant without the construction of bridges over the railroad tracks to connect to the stations. Others, such as the Phalen Corridor Development Strategy are focused improvements that have already been completed, such as the construction of Phalen Boulevard.

## COMPREHENSIVE PLAN

Future land use plans are developed to communicate the community's vision for how an area will evolve over time. The Saint Paul 2040 Comprehensive Plan encourages the continuance of the highly diverse land use pattern that exists today.

Immediately around the Olive St station the designation is industrial. This type of land use is primarily the location of manufacturing or processing of products. Industrial uses can include light or heavy industrial land uses, large warehouse facilities, or utilities.

Further east of Olive St and around the Cayuga St station, the designation is urban neighborhood, which is intended for medium-

to high-density housing and small-scale commercial buildings.

Also within the station area is the mixed-use designation, which primarily indicates areas that are, or should be in the future, served by public transit. In the Railroad Island neighborhood, the land use designation is primarily urban neighborhood with some industrial.

The Payne-Phalen neighborhood is designated as a neighborhood node location. These nodes are intended as a compact, mixed-use area which serves the neighborhood's daily needs by having shops, services, recreational facilities, employment, and neighborhood-scale civic and institutional uses.



Saint Paul 2040 Land Use Map.

# ENGAGEMENT PHASES

## PHASE 1

### Themes and Asset Identification

- Introduce SAWG to station area planning and the Bronze Line.
- Identify community assets in the station area.
- Develop station area goals and ETOD themes.

#### **Engagement Methods:**

- SAWG summit and meeting #1
- Online engagement
- SCEPP meetings
- Pop-up events

#### **Key Themes:**

##### *Transportation Infrastructure and Maintenance:*

- There are concerns around maintenance and safety, with desire for flashing lights at pedestrian crossings, better snow removal, and improvement of street and sidewalk surfaces to address accessibility.
- Desire for expanded public transportation options and improved accessibility for folks with mobility issues.

##### *Amenities and Services:*

- Desire for more green space, preservation of green space, and request for accessibility improvements in existing parks, including picnic tables and shelters.
- Desire for more restaurants, a grocery store, and retail options.

##### *Public Safety:*

- Request for good lighting and emphasis on safety around station areas and in parks within the station area.
- Request for security and cleanliness at stations to help address crime and drug use.

- Input gathered in Phase 1 was used to draft the goals and equitable transit-oriented development themes, which guided the development of recommended policies, improvements, and opportunities.

## PHASE 2

### Goals and Actions

- Refine the station area ETOD themes and goals identified during Phase 1.
- Identify physical improvements, policies, and programs that support station area goals and themes of equitable transit-oriented development.

#### **Engagement Methods:**

- SAWG meeting #2
- SCEPP meetings
- Pop-up events

#### **Key Themes:**

- Need for better maintenance of public spaces and beautification, suggestion for community involvement in programs like "Adopt a Bus Shelter" to help bridge maintenance funding and staffing gaps.
- Recognized need for reliable, efficient, safe, and accessible public transit for all community members, including those with disabilities. Current perception of bus service as unreliable and inefficient.
- Safety identified as top priority, concerns around visible drug use, bad lighting, lack of cleanliness, and other factors that lead to people feeling unsafe.
- Call for more proposed development, improvements in local infrastructure and services, and concerns around a lack of ridership and "eyes on the street" outside business hours due to low density. Need more amenities and key locations along bus routes/stops.

- The input from Phase 2 was used to refine the policies, improvements, and opportunities identified under each station area plan goal.

## Phase 3

### Prioritization of Policies

- Refine policies, improvements, and opportunities.
- Prioritize policies and needs identified in Phase 2.

#### Engagement Methods:

- SAWG meeting #3
- SCEPP meetings

#### Key Themes:

- Create community and promote more activity in the area through more green spaces, opportunities for elders to meet up, public art initiatives, support for business pop-ups, and storefront façade improvement programs.
- Make getting around more accessible through upgraded pedestrian and bicycle infrastructure, providing more tailored on-demand transit services for seniors and those with disabilities, connect Railroad Island to the neighborhood, install wayfinding in multiple languages, and provide free transit passes for youth and seniors.
- Need for maintenance at stations and along station access routes, including better snow and ice removal, regular litter removal. Support for staffed security and spaces designed to promote visibility and safety.
- Need for creation of additional housing, alternative housing ownership models, and support for property owners to invest in home maintenance and modernization.
- Identified need for additional commercial uses, specifically calls for small scale groceries. Need for mental health and dependency programs and support for programming for seniors and people with disabilities.

- Phase 3 input helped to prioritize the policies and needs identified in Phases 1 and 2 to address the goals.



Participants at the SAWG summit.

A photograph of a handout titled "OLIVE ST STATION AREA HELP US PRIORITIZE" and "GLOSSARY OF IDEAS". It includes a "GOAL #4: MAKE VIBRANT PUBLIC PLACES" section with a list of ideas and a "GOAL #2: CONNECT PEOPLE AND PLACES" section with a list of ideas. A "Did your rankings change after the group discussion? If so, please use this space to explain" section is also present.

Handout for Olive St SAWG meeting #3.



Attendees at SAWG meeting #2.

# SUPPORTING COMMUNITY NEEDS

Throughout the station area planning process, members of the community provided feedback on the ways in which their neighborhoods could be supported as the transit line is established. These needs center on quality of life issues involving housing, employment, health, social interaction, and the environment.

The policy and program items identified through the efforts of the Olive St and Cayuga St Station Areas Working Group are listed below, organized under the four Equitable Transit-Oriented Development (ETOD) themes. The items in **BOLD** were those ranked as being the most important policies or programs by those who participated in the work sessions. The items below do not include identified infrastructure improvements, which are described in Chapter 3 Future of the Station Area.

## ETOD THEME #1: ANTI-DISPLACEMENT, AFFORDABILITY, AND BUILDING WEALTH

- Support for property owners to reinvest in their homes' façade, complete maintenance, or modernize.
- **Opportunities for alternative housing ownership models (land trusts or down payment assistance, for example).**
- Improved childcare access.



## ETOD THEME #2: MENTAL HEALTH, WELLNESS, AND QUALITY OF LIFE

- Create neighborhood-led public art initiatives with local artists.
- Create a message board for community events and information.
- Create opportunities for elders to meet-up.
- Annual accessibility audits of the station area.
- **Improve maintenance and litter removal at the station.**
- Ensure snow and ice removal along station access routes.
- **Social engagement programs and activities for seniors and people with disabilities.**
- Inter-generational activities and programs – mentoring, sports and fitness, language or culture events.
- **Mental health and dependency support.**



## ETOD THEME #3: SUPPORT LOCAL BUSINESSES AND WEALTH-BUILDING

- Support storefront façade improvements.
- **Support for temporary pop-up business, food trucks, and activities near the station.**
- Workforce training and workforce readiness.
- Public/private partnerships to support development of community services and businesses.
- Job fairs geared towards neighborhood residents.



## ETOD THEME #4: SUSTAINABILITY AND THE ENVIRONMENT



- **Provide free passes for youth and seniors to access transit.**
- Make bike-share or scooter-share accessible.
- Provide more tailored on-demand transit services to support seniors and those with disabilities.
- Provide end-of-trip facilities (secure bike racks, etc.) at destinations near the station.
- Creation of neighborhood-driven maintenance programs for parks and green spaces.

# FUTURE OF THE STATION AREA

## INTRODUCTION

The future Olive St and Cayuga St stations will provide an expanded transportation option for residents and visitors to the surrounding neighborhoods. A set of policy, improvement, and opportunity recommendations have been developed to support the future use and success of the station areas based on feedback collected through all of the input gathered in the planning process. These recommendations are organized throughout this chapter by the Goals (as identified in Chapter 1 - Goals). Note that recommendations specific to areas west of I-35E can be found in either the Mt. Airy / Capitol Heights Station Area Plan or in the 14th St Station Plan. Recommendations for areas to the east of the Cayuga St station that are within the Payne Ave station walkshed can be found in the Payne Ave and Arcade St Station Areas Plan (see Figure 3.1).

## STATION AREA RECOMMENDATIONS

The following terms are used to define the recommendations throughout this chapter:

### POLICIES

Recommendations related to a system of guidelines to assist with future decision-making as the areas around the future Bronze Line station are developed, redeveloped, or improved.

### IMPROVEMENTS

Recommendations related to physical changes within the public realm of the station area, such as sidewalks, trails, and streetscape improvements.

### OPPORTUNITIES

Recommendations related to communication, placemaking, and creating identity within the station areas, such as wayfinding and public art.

**DRAFT**



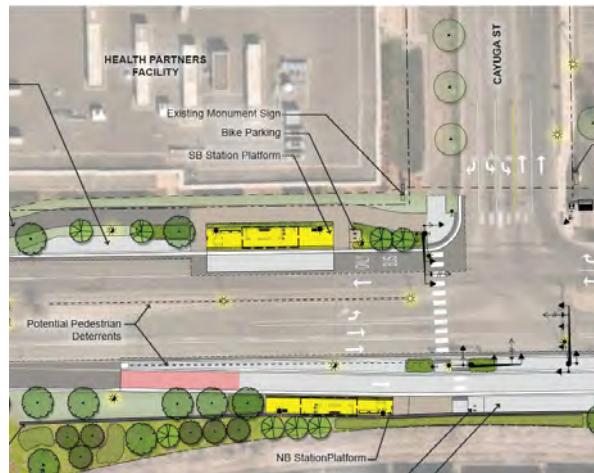
# STATION AREA RECOMMENDATIONS

A set of recommendations, including policies, improvements, and opportunities have been developed for the Olive St and Cayuga St stations. See Figure 3.1 for the location of recommendations and big ideas. Below is an expanded legend of the symbols shown on the figures.

## KEY (FOR FIGURES)

### BRONZE LINE STATION LOCATION

The future Olive St station will be located at Phalen Blvd and Olive St. The future Cayuga St Station will be located at Phalen Blvd and Cayuga St.



Olive St and Cayuga St BRT station designs (2024).

### BRONZE LINE ROUTE

Future route of the Bronze Line BRT.

### PROPOSED STATION AREA PEDESTRIAN CONNECTION

Future sidewalks as recommended in this station area plan. See Goal #3 policies.

### PRIORITY WALKING INVESTMENTS PER SAINT PAUL PEDESTRIAN PLAN

Future sidewalks as recommended in the 2019 Saint Paul Pedestrian Plan.

### PROPOSED STATION AREA BIKEWAY

Future bikeways as recommended in this station area plan. See Goal #3 policies.

### SAINT PAUL BICYCLE PLAN RECOMMENDATIONS

Future bikeways as recommended in the 2024 Saint Paul Bicycle Plan.

### EXISTING BIKEWAY

Existing off-street bikeway or on-street bikeway (bike lane or shared lane).

### PROPOSED STATION AREA STREETSCAPE IMPROVEMENTS

Roadway corridors that have been identified for future urban design improvements such as pedestrian lighting and improved design for safety and placemaking. See Goal #2 policies.

### PROPOSED STATION AREA INTERSECTION OR CROSSING IMPROVEMENTS

Intersections identified for future improvements such as curb extensions, crosswalk markings, and other safety improvements. See Goal #4 policies.

### EXISTING GREEN SPACE AND CITY-OWNED PARKLAND

Land that is either currently designated as a park or currently used for recreation and gathering.

### PROPOSED STATION AREA GREEN SPACE

Areas proposed as future green spaces. See Goal #2 policies.

### DESTINATIONS AND LANDMARKS

Recognizable businesses, civic services, and green spaces that serve as landmarks and destinations within the station area today.

### PROPOSED STATION AREA LOCATION FOR FUTURE PUBLIC ART

Areas identified for future public art locations. See Goal #2 policies.

### PROPOSED STATION AREA WAYFINDING

Areas identified for future wayfinding locations. See Goal #3 policies.

### PROPOSED STATION AREA PED/BIKE BRIDGE

Future bridge intended for pedestrian and bicycle use as recommended in this station area plan.

## BIG IDEAS

The policies that are proposed in the Olive St and Cayuga St station areas are driven primarily by a few larger proposed ideas that support multiple identified goals. See Figure 3.1 for locations.

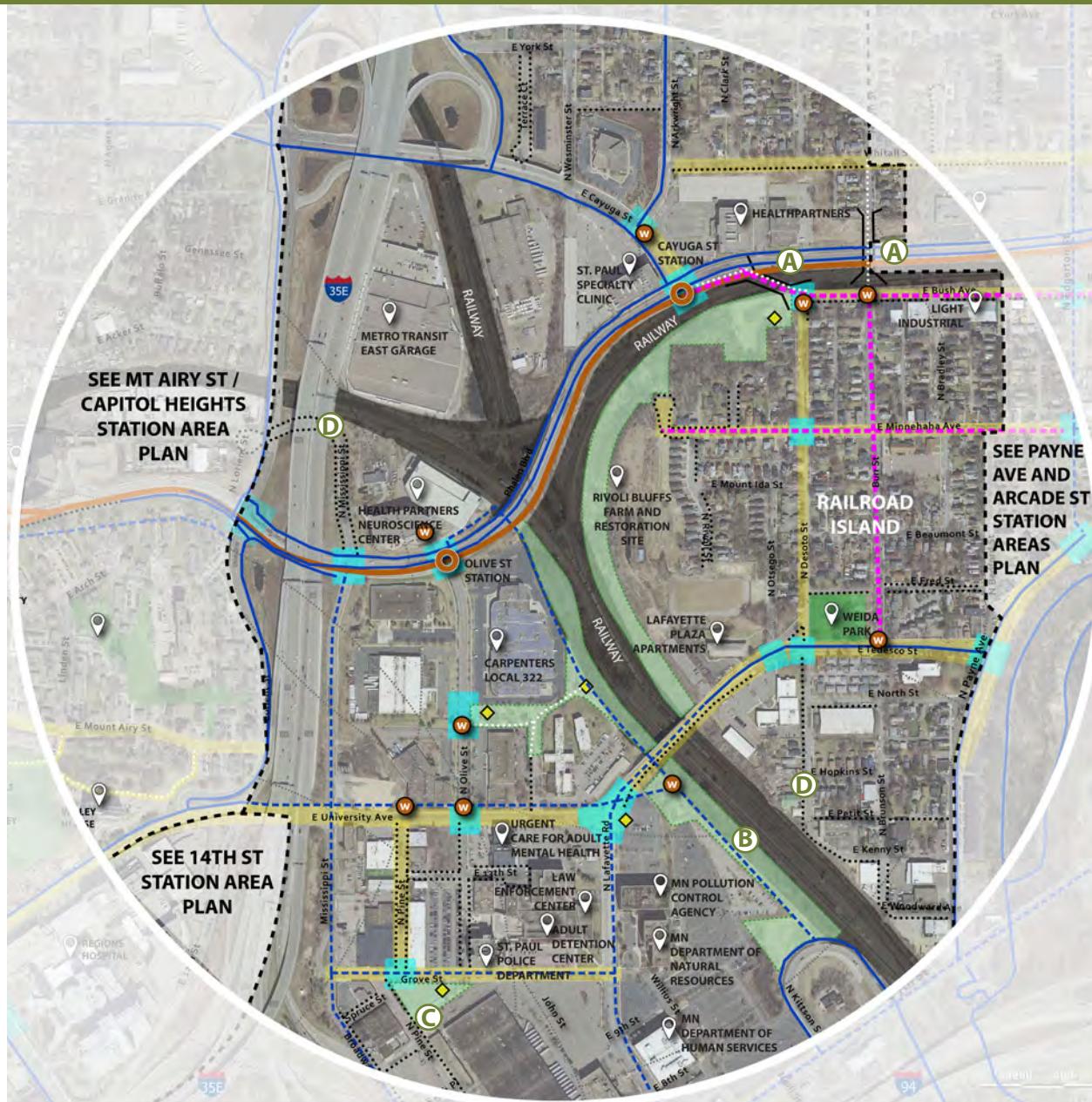


Figure 3.1 Recommendations and Big Ideas, Olive St and Cayuga St Station Areas.

### Ⓐ BRIDGE CONNECTIONS TO CAYUGA ST STATION

- There is an opportunity to explore pedestrian and bicycle access to Phalen Blvd and the stations from the Railroad Island neighborhood via a bridge at Bush Ave over the railroad corridor. This would provide direct access to both the Cayuga St and Payne Ave stations.
- There is also potential for exploring restoring a Railroad Island connection by reusing the existing bridge abutments at Burr St where a bridge over the railroad tracks was removed in the early 2000s during the Phalen Blvd construction.

### Ⓑ SAFETY AND CONNECTIVITY IMPROVEMENTS ALONG RAILROAD CORRIDOR & ROW

- In partnership with BNSF Railroad and adjacent property owners, there are opportunities to improve the existing linear space along the BNSF railroad for open visibility, lighting, and connectivity for pedestrians and bicyclists. A future shared-use path is planned here per the Saint Paul Bicycle Plan. There is also an opportunity to provide an accessible and visible pedestrian connection to the future bikeway via John St and Olive St.
- These improved areas present opportunities to integrate public art into the linear greenspace.

## ©SPACE FOR GATHERING

- With public-private partnerships, there is an opportunity to redevelop surface parking lots within the station areas for future green spaces that could include table seating, shade trees, benches, and other amenities to serve employees and people visiting the area for community services.

## GOAL #1: CREATE THRIVING NEIGHBORHOODS



EXPECTED DEVELOPMENT OR REDEVELOPMENT	AREA
Residential	300,000 SF (300 units)
Commercial	250,000 SF
Industrial	100,000 SF

Table 3.1 Expected Development from Real Estate Market and Housing Gap Analysis.

## ④STREETSCAPE IMPROVEMENTS FOR PEDESTRIAN AND BICYCLE CONNECTIVITY

- There is opportunity to improve the pedestrian realm throughout the station areas with upgraded lighting, intersection improvements, and streetscape improvements.
- Gaps can be filled in the sidewalk and bikeway network per the City of Saint Paul Pedestrian Plan and the City of Saint Paul Bicycle Plan that will connect pedestrians and bicyclists to vital community services and throughout both station areas.

The station areas are made up of distinct and unique neighborhoods that have a variety of housing types to suit the needs of residents today and into the future. These are neighborhoods where people are able to live throughout varying stages of life, supporting a variety of household types and income levels. Destinations frequented by residents on a daily or weekly basis, such as grocery stores, are located near the stations, and businesses support residents and visitors using public transportation. The station areas are also destinations for places of employment and community services such as community centers, schools, places of worship, places to exercise, and places to receive healthcare. Thriving neighborhoods are resilient to a variety of risks over time. Managing stormwater through green infrastructure, supporting habitat for pollinator species and urban wildlife, and creating flexible spaces that adapt to our changing environment are examples of environmental resiliency.

The Olive St and Cayuga St station areas is centered on a point between the two future station locations. It is made up of two areas that face different market forces in terms of redevelopment. West of the existing railroad corridor, there are a number of industrial and institutional uses at low densities. While this area will likely continue to appeal to those uses primarily interested in convenient freeway access, new opportunities for multifamily residential development may emerge along Grove St. There are opportunities for lower-density residential development south of the Cayuga St station, though the neighborhood is currently cut off from station access by the railroad tracks. Within the station areas, there are a limited number sites for commercial infill or redevelopment along Bush Ave.

## 1.1 POLICIES TO CREATE THRIVING NEIGHBORHOODS

1.1.1 Use streetscape improvements along University Ave and other blocks south of the Olive St station to encourage new commercial development that could support the daily needs of nearby employees or future residents.

1.1.2 Within the residential neighborhoods surrounding the Cayuga St station, explore opportunities to increase the diversity of housing types to support residents through all stages of their lives and to provide opportunities for individuals to work and live in the station area. Housing should be targeted towards 30 to 50% of area median income (AMI) and family-sized units to serve diverse household types.

## CHARACTER AREAS

The land along the BRT line can be described in ways that generalize the historic built form and land uses while anticipating complementary future development. These character areas are supported by policies to guide the direction of change under the headings of Redevelopment, Built Form, and Parking and Circulation. The recommendations below reflect the visions of the existing Comprehensive Plan while addressing needs identified to help support transit within the station area.

For the Olive St and Cayuga St station areas, the character areas are:

- Evolving Employment Hub
- Supportive Residential Neighborhoods
- Job-Centered Railroad Corridor

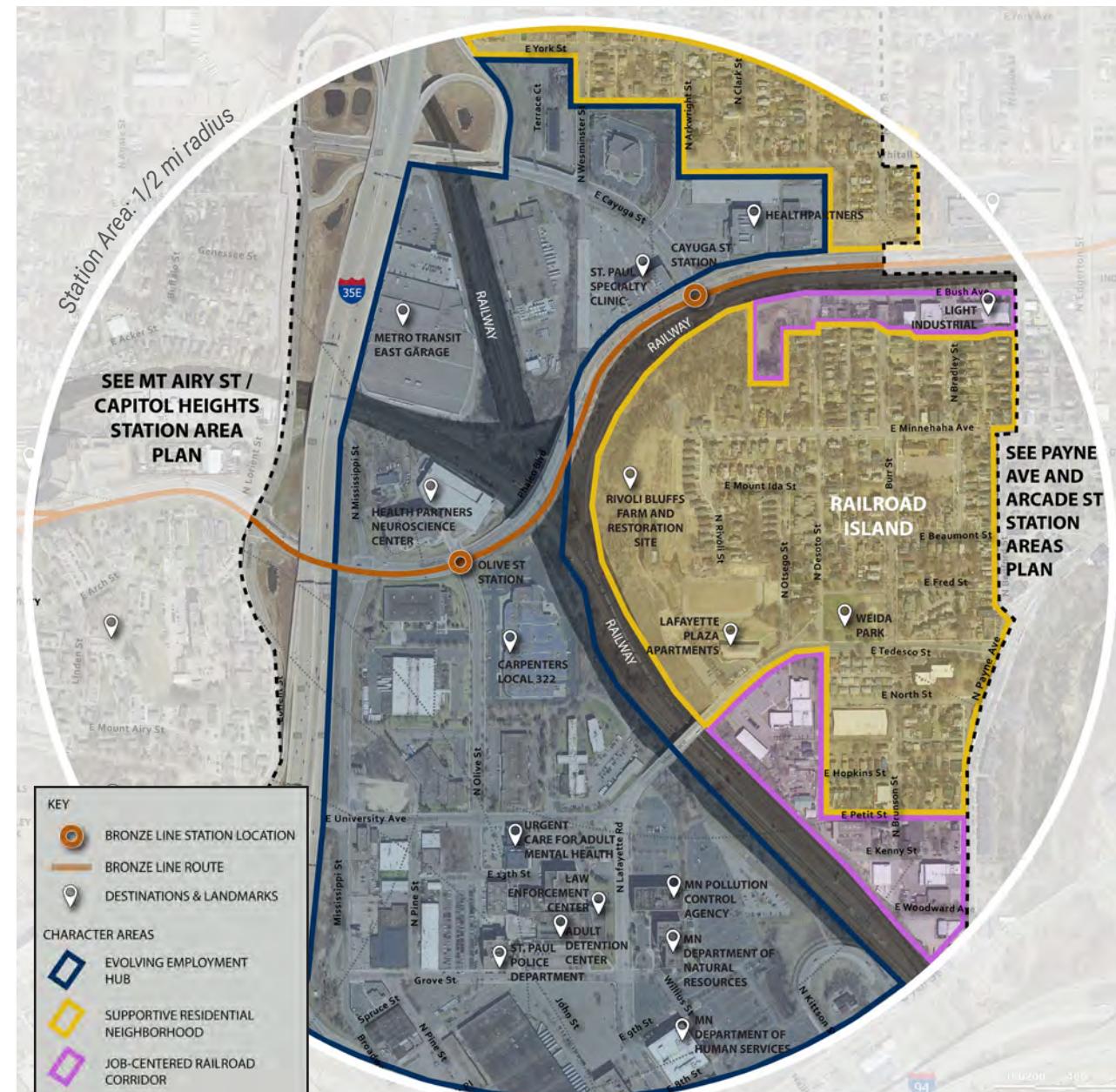


Figure 3.2 Olive St and Cayuga Station Areas Character Areas.

## 1.2 POLICIES FOR EVOLVING EMPLOYMENT HUB

The area between I-35E and the railroad corridor is anchored by the HealthPartners Neuroscience Center and parking ramp adjacent to the Olive St station. A number of one-story office/warehouse structures sit on either side of Olive St to the south, separated from the right-of-way by front yard surface parking. This area has also seen new residential development. The existing expansive surface parking lots and potential future changes to office facility needs make the area ripe for development. South of University Ave, Ramsey County and Saint Paul law enforcement, as well as Minnesota State government offices, occupy larger buildings. Small-scale commercial uses are scattered along the periphery, with a number of vacant lots along Mississippi St to the west. As the BRT route moves along the Phalen Blvd corridor, it passes by medical and other large stand-alone buildings to the north. The medical offices are multi-story with significant amounts of structured and surface parking. These uses have a high volume of visitors each day.



Figure 3.3 Evolving Employment Hub Character Area.

### 1.2.1 Redevelopment

- Small-scale commercial and convenience uses should be encouraged near the stations to support riders' daily needs as they travel to and from their workplaces.
- As sites for redevelopment emerge near Grove St, explore the potential for additional multi-family residential uses.

### 1.2.2 The Built Form

- Where possible, large blocks should be broken up to create a more walkable environment of smaller-scaled streets and blocks.
- At University Ave and Mississippi St, new buildings should be positioned at the corner in order to anchor the intersection and support bicycle and pedestrian improvements.
- As redevelopment or intensification occurs, buildings should replace surface parking close to the street to create a more pedestrian-friendly environment. Encourage design elements such as windows, doors, and architectural details along building facades.
- Leverage opportunities within public spaces along right-of-way to provide green stormwater infrastructure.

### 1.2.3 Circulation and Parking

- As redevelopment occurs, add parking structures to replace large surface parking lots south of University Ave.
- Redevelopment north of University Ave should relocate parking behind buildings to support a pedestrian friendly streetscape along Olive St.
- Continue to enhance the University Ave streetscape with vegetation and fencing.
- Enhance pedestrian crossings of Phalen Blvd at Olive St and Cayuga St to help pedestrians and bicyclists feel safe when accessing the station.
- Encourage canopy tree planting and other streetscape elements to improve walkability along large surface parking lots on Cayuga St.

## 1.3 POLICIES FOR SUPPORTIVE RESIDENTIAL NEIGHBORHOODS

The area north of Whitall St, as well as a majority of Railroad Island, is predominantly established residential neighborhoods with a variety of housing types – single-family homes, duplexes, townhomes, and small apartments. A handful of local commercial business are scattered in these areas at small nodes or located along their edges. The Rivoli Bluffs Farm on the west side of Railroad Island is a three-acre community garden. This area is separated from the Cayuga St station by the railroad tracks. Large-scale change is not expected in these neighborhoods, but targeted infill and redevelopment opportunities are likely to occur over time and would strengthen the transit-supportive conditions that currently exist.



Figure 3.4 *Supportive Residential Neighborhoods Character Areas*.

### 1.3.1 Redevelopment

- a. Opportunities for new residential uses at the west end of Minnehaha Ave E, along with the current development in-progress on the south end of Rivoli St, will provide housing for potential new riders.
- b. Tedesco St and Payne Ave may support a mix of neighborhood businesses with residential infill or medium-density mixed-use development.

### 1.3.2 The Built Form

- a. Encourage residential infill development and reinvestment in existing properties to increase housing options.
- b. New residential development should observe the existing design elements, setbacks, relationships to the street, and building forms (massing, roof lines, windows, etc.) of the surrounding neighborhood.
- c. Buildings should help define a walkable, pedestrian-friendly environment with frontages that may include shallow front yards, entrances with human-scaled elements like porches, stoops, entries, and balconies oriented toward the street.

### 1.3.3 Circulation and Parking

- a. Establish bikeways through Railroad Island on Minnehaha Ave, Bush Ave, and Burr St to help connect people in the neighborhood with the stations.
- b. Continue to improve pedestrian facilities along Whitall St to connect people to the station.
- c. Off-street parking should be located within a garage or to the side or rear of the principal structure.



Houses along Minnehaha Ave today are set close to the street.

## 1.4 POLICIES FOR JOB-CENTERED RAILROAD CORRIDOR

Along E Bush Ave there are lots occupied by light industrial uses, including a construction material yard, auto repair and towing, and other small-scale production operations. These uses provide a buffer between the railroad corridor and the residential neighborhood to the south. At the south end of Railroad Island, close to E 7th St and west of Payne Ave, there are similar light industrial uses along the railroad corridor.

### 1.4.1 Redevelopment

- a. Gradual infill or redevelopment of non-residential lots along E Bush Ave and at the south end of Railroad Island should provide continued opportunities for light industrial or maker space uses.

### 1.4.2 The Built Form

- a. Structures should be sited to screen views of parking, outdoor storage, or other industrial operations to the extent possible.
- b. Explore ways to limit the impacts of stormwater runoff from impervious coverage through landscaping and other green stormwater infrastructure.

### 1.4.3 Circulation and Parking

- a. Where parking and loading areas are adjacent to residential properties, require screening to reduce visual and noise impacts.



*Example of a maker space for entrepreneurial use.*

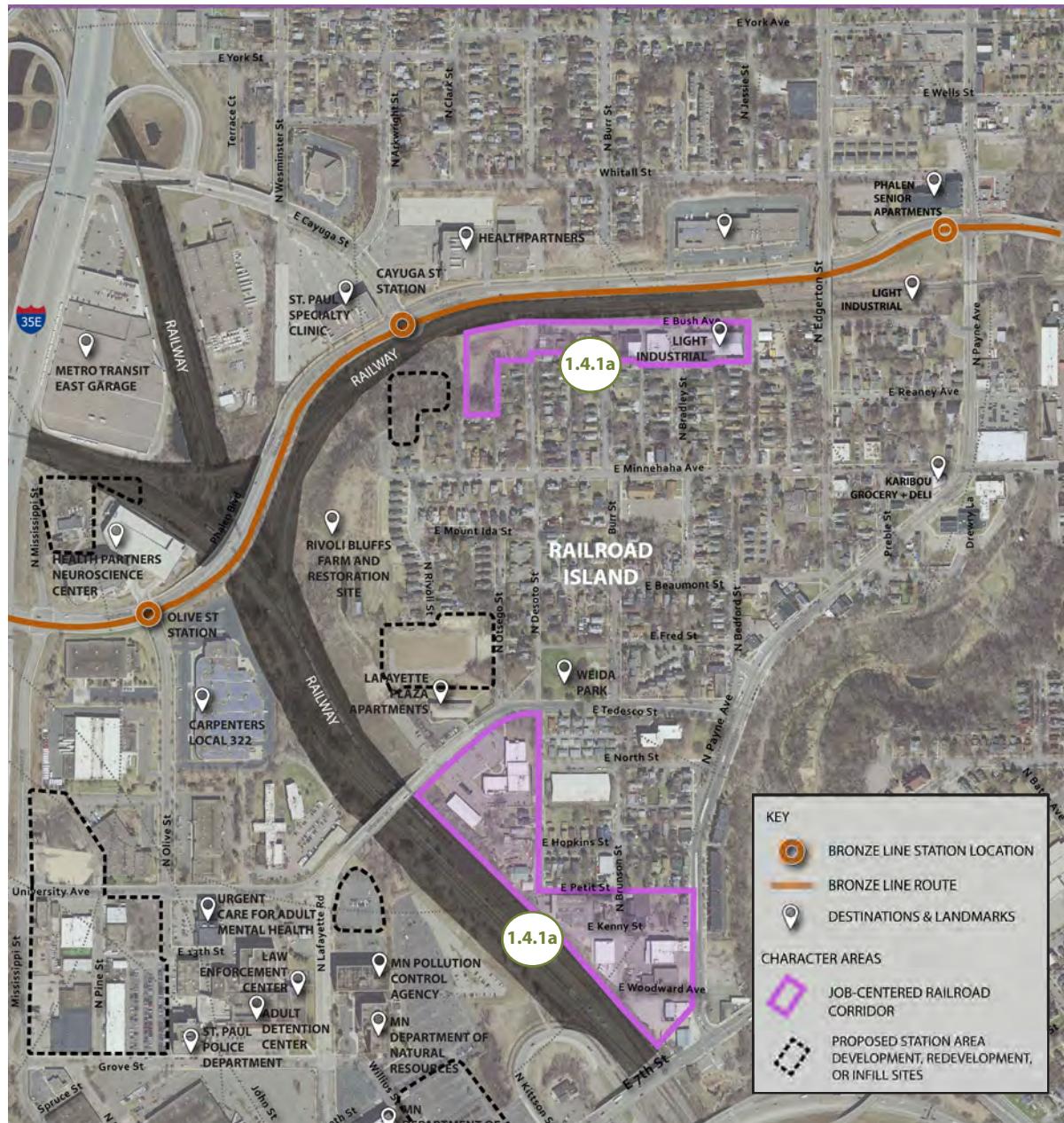
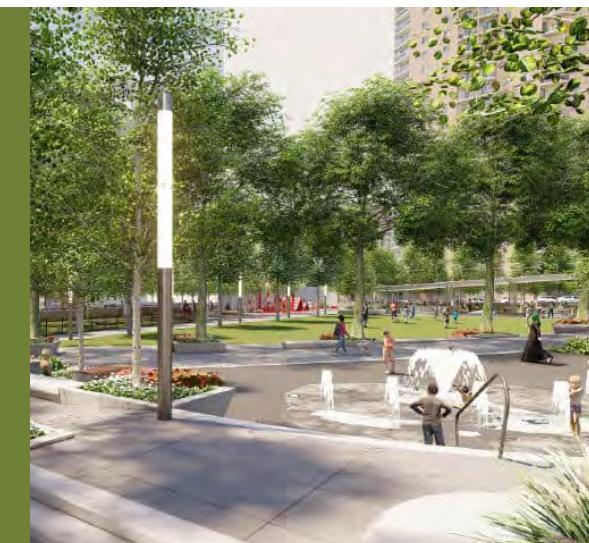


Figure 3.5 Job-Centered Railroad Corridor Character Areas.

## GOAL #2: MAKE VIBRANT PUBLIC PLACES



Precedent rendering of public plaza/gathering space (Pedro Park, Saint Paul, MN).

The station areas are vibrant, activated places where art, cultural history, and community identity are apparent, authentic, and visible. Parks, green spaces and gathering spaces provide places to sit and gather with shade, views, and recreational amenities that support the health of residents and foster strong relationships throughout the neighborhood.

### 2.1 PUBLIC SPACE IMPROVEMENTS

#### 2.1.1 Explore safety and connectivity improvements along the railroad corridor and right-of-way space to create a vibrant, linear green space in coordination with planned bikeway connections.

- Selective clearing of un-maintained vegetative areas species throughout the corridor will open up sight lines and provide an opportunity for diverse plant restoration, hillside erosion control, and stormwater management.
- The future bikeway has the potential to have integrated lighting to increase visibility of trail users at night from adjacent institutional and commercial spaces.

#### 2.1.2 Explore redevelopment of surface parking lots south of University Ave as pocket parks or plazas.

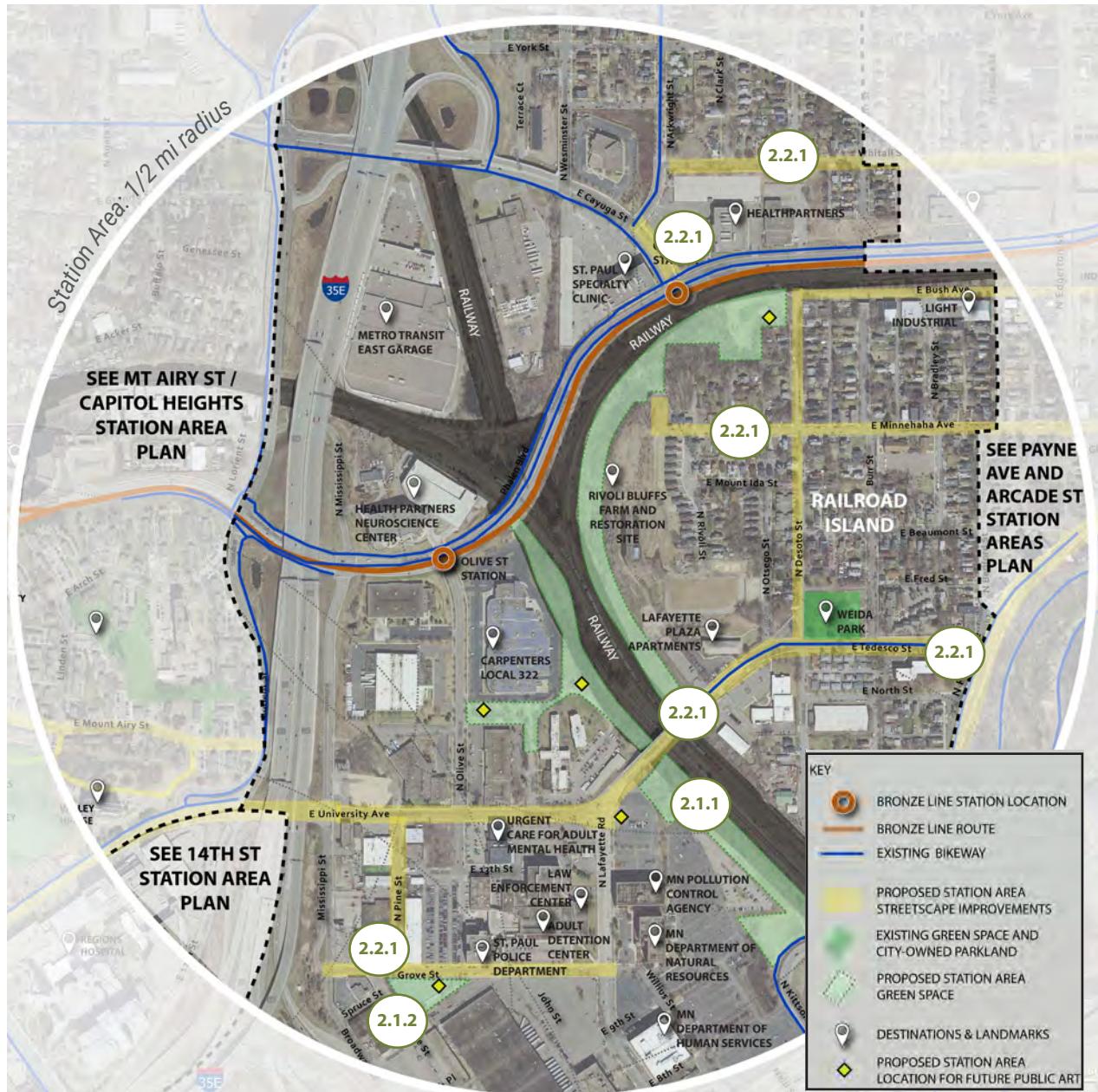
- There is potential for this space to be created as a public-private partnership with the existing landowner.
- An outdoor gathering space with seating, shade, landscaping, public art, and amenities to support outdoor events will provide much-needed space for outdoor respite. Employees of the institutional, service, commercial, and non-profit sectors, along with visitors and patrons of these places currently have no public green spaces of this type within walking distance.



Paley Park - example of pocket park in Manhattan.



Example of a rail trail with lighting (example does not depict Saint Paul standard light fixture - see page 38).



## 2.2 PUBLIC REALM IMPROVEMENTS

### 2.2.1 Improve the streetscape within the station areas:

- Explore improvement of the streetscapes within the station areas with lighting, widened sidewalks, separated bikeways, narrowed roadway widths, and urban design features to elevate the public realm experience. Improvements could coincide with planned roadway, bikeway, and pedestrian improvements.

- Pine St
- University Ave /Tedesco St
- Grove St
- Desoto St
- Minnehaha Ave
- Cayuga St between Phalen Blvd and Arkwright St
- Whitall St

## 2.3 PUBLIC ART OPPORTUNITIES

### 2.3.1 Explore potential public art locations as shown on Figure 3.6.

- Generally these would be implemented with a future redevelopment site or streetscape improvement area. The City of Saint Paul has an ordinance and policy related to the funding and process for public art on City-owned property. Ramsey County, private land owners, and local agencies are potential project leads for public art initiatives outside of City-owned property.

Figure 3.6 Public Spaces, Art, and Streetscape, Olive St and Cayuga St Station Areas.

## GOAL #3: CONNECT PEOPLE AND PLACES



Precedent image of multi-use grade-separated bridge over a railroad corridor.

The station areas will be places where people can easily and comfortably walk, bike, and take public transit, whether going short or long distances. Public transit will be a viable, reliable, and preferred option for getting around. Sidewalks, streets, trails, and intersections will be designed for people of all ages and abilities.

### 3.1 NETWORK IMPROVEMENTS

#### 3.1.1 Fill bikeway gaps per the Saint Paul Bicycle Plan in the Olive St station area.

- The Olive St station area has a significant number of planned bikeway improvements per the City of Saint Paul Bicycle Plan. All of the proposed bikeways in the station area support direct and indirect access to the Olive St station.

#### 3.1.2 Fill sidewalk gaps per the Saint Paul Pedestrian Plan in the Olive St station area.

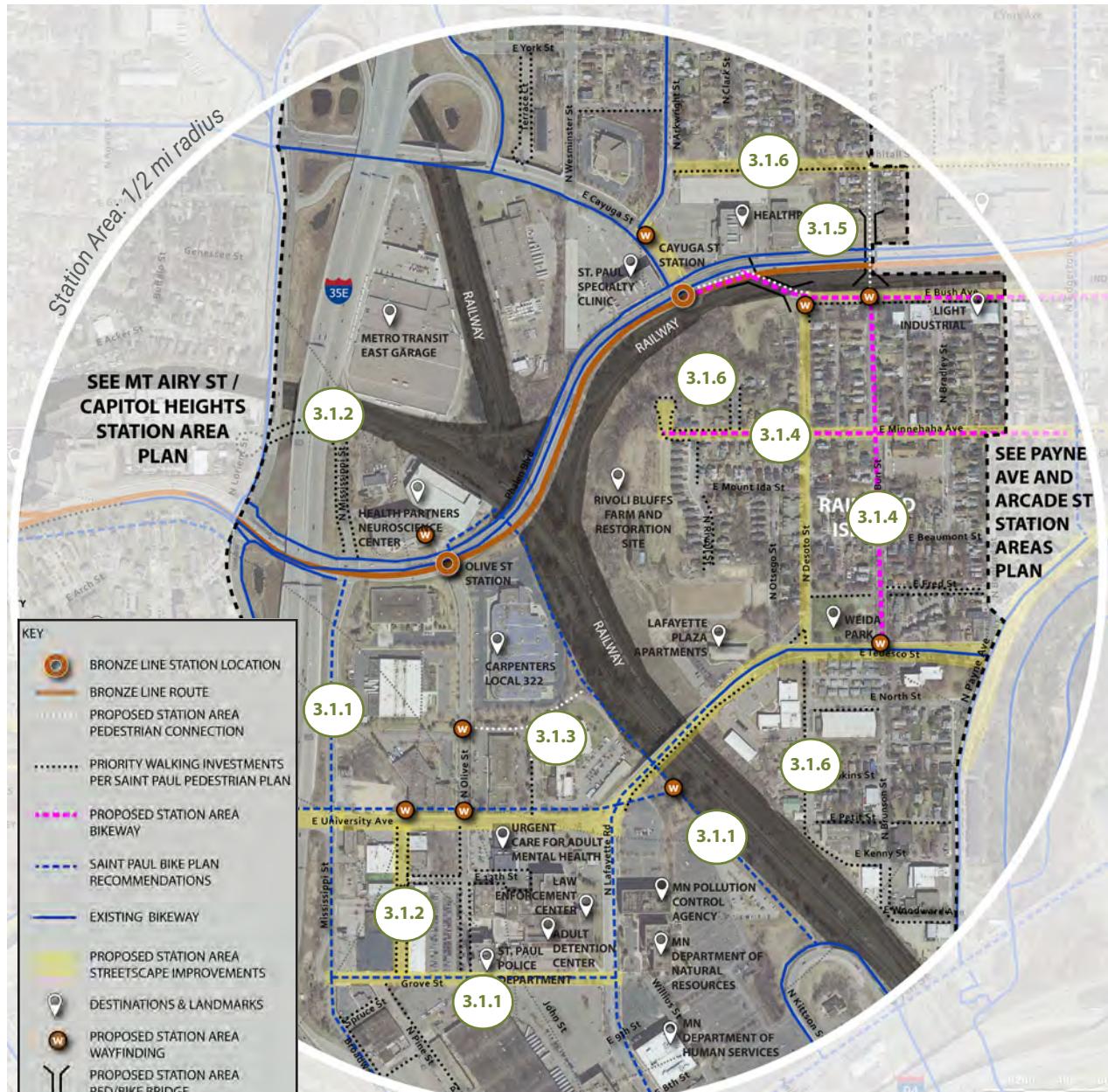
- A number of planned sidewalk improvements in the area south of University Ave in the station areas will provide block-level connectivity to vital community service locations.
- A planned sidewalk network on Mississippi St will provide connection under I-35E to L'Orient St, filling a necessary gap and connecting pedestrians to the Olive St station.

#### 3.1.3 Provide an additional pedestrian connection from John St in the Olive St station area to the future railroad corridor bikeway. The location will assist with safety and connectivity for residents at Union Gospel Mission.

#### 3.1.4 Explore additional bikeway connections for north-south and east-west travel within the Railroad Island neighborhood on Burr St, Minnehaha Ave and Bush Ave in the Cayuga St station area.

#### 3.1.5 Explore grade-separated crossings over the railroad corridor from Railroad Island to Phalen Blvd, BVRT, and the Cayuga St station. Two potential bridge connections are shown, both of which should be considered for future feasibility:

- Bridge connection at Desoto St and Bush Ave, with direct connection for pedestrians and bicyclists to the Cayuga St Station. Without this connection, residents of Railroad Island will not have direct access to these stations.
- Bridge connection at Burr St over the railroad corridor. This would be restoring the bridge which existed historically in this location (the abutments are still visible from Bush Ave). The original bridge was deconstructed when Phalen Blvd was constructed and was never re-installed. This has resulted in lack of connectivity to the neighborhood for decades.



### 3.1.6 Fill sidewalk gaps per the Saint Paul Pedestrian Plan in the Cayuga St station area.

- Many short and longer-length sidewalk gaps exist today in the Cayuga St station area that have been identified as priorities in the Saint Paul Pedestrian Plan. Making these connections will serve transit users and residents of the area.

## 3.2 WAYFINDING OPPORTUNITIES

### 3.2.1 Directing transit users to the Bronze Line stations at Olive St and Cayuga St is the priority of the wayfinding opportunity locations shown on Figure 3.7, and is a response to ideas collected through community engagement. Bronze Line wayfinding design, installation, and maintenance will need Metro Transit to lead the effort.

- Suggested locations for directional wayfinding to direct transit users to the stations include:
  - HealthPartners Neuroscience Center
  - Pine St and University Ave
  - Olive St (one block south of Phalen Blvd)
  - Railroad corridor bikeway connection at University Ave
  - Grove St at Olive St
  - Tedesco St and Burr St (near Weida Park)
  - Desoto St and Bush Ave
  - Bush Ave and Burr St
  - Cayuga St and Arkwright St
- Suggested languages for wayfinding translation:
  - Dakota
  - Ojibwe
  - Hmong
  - Somali
  - Karen
  - Spanish

Figure 3.7 Wayfinding, Network and Streetscape Improvements, Olive St and Cayuga St Station Areas.

## GOAL #4: PRIORITIZE SAFETY AND SECURITY



The station areas will be places where safety and security is a priority. Community-based approaches to security are unique and will be defined by each neighborhood. People of all ages and abilities will feel comfortable using public transit, walking, and biking throughout the day and all seasons.

### 4.1 LIGHTING IMPROVEMENTS

**4.1.1 Lighting considerations include spacing, pole height, illumination levels, and security measures to avoid copper wire theft. The following streets are recommended for updated lighting to increase safety for pedestrians within the station area and encourage use of transit in the evenings:**

- Bikeway along railroad corridor
- University Ave / Tedesco St
- Olive St (south of University Ave)
- Pine St
- Grove St
- Desoto St
- Minnehaha Ave
- Bush Ave
- Whithall St



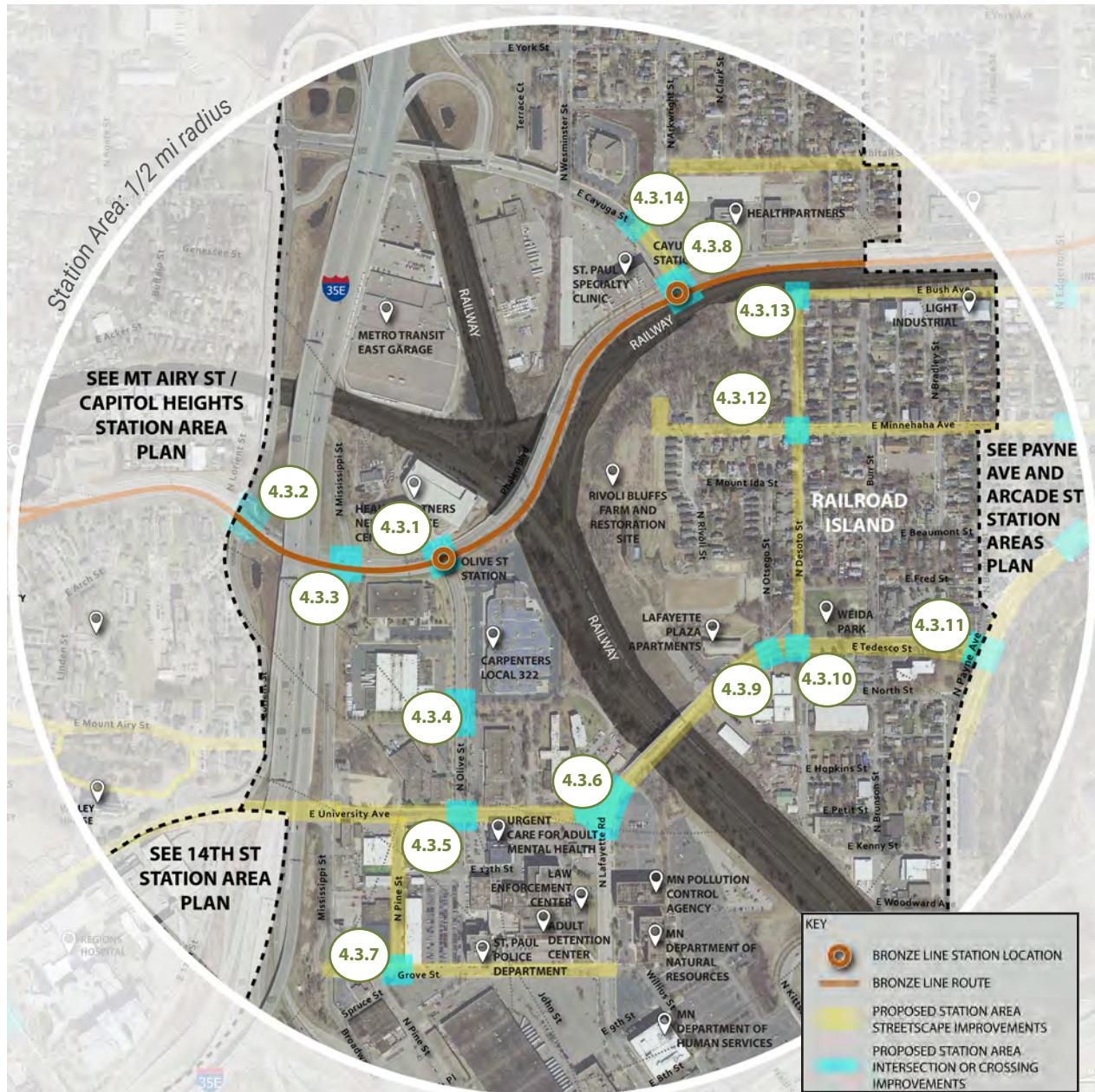
Light fixtures are typically the lantern-style shown here with high hand holes to prevent wire theft.



Precedent image of lighting at transit station, Cincinnati, OH.



Precedent image of lighting designed to increase safety for pedestrians.



## 4.2 SAFETY POLICIES

- 4.2.1 Ensure new developments are designed to keep “eyes on the street” views open to the stations. This can be accomplished by integrating public space with views towards the station, as well as ensuring that developments have activated uses at ground level.

## 4.3 INTERSECTION IMPROVEMENTS

- Intersection improvements are recommended to increase safety and comfort for pedestrians and bicyclists at key intersections within the station area. These improvements aim to increase visibility for all modes of traffic at an intersection through increased lighting, upgraded signals, high visibility crosswalk markings, and curb extensions that decrease the crossing distances for people crossing roadways.
- Table 3.2 lists each intersection improvement area along with issues and concerns that have been identified by the project team as part of this planning process.
- Pages 42 - 45 include the Bronze Line Station Area Plan Intersection Countermeasures Toolkit. This toolkit is intended to define and pair typical safety issues at intersections with potential countermeasures to be explored. The toolkit applies to all Bronze Line Station Area Plans within the City of Saint Paul.

Figure 3.8 Streetscape, Intersection and Safety Improvements, Olive St and Cayuga St Station Areas.

Table 3.2 Intersections and Issues/Concerns at Olive St and Cayuga St Station Areas.

4.3.1	LOCATION	ISSUES / CONCERNS
4.3.1	Phalen Blvd and Olive St	<ul style="list-style-type: none"> <li>Crosswalks are conventional transverse markings*</li> <li>Long crossing distances across Olive St</li> <li>Drainage issues on NE corner</li> </ul>
4.3.2	Pennsylvania Ave and L'Orient St	<ul style="list-style-type: none"> <li>Curb ramps and crosswalks are not at least the width of the shared use paths</li> <li>Long crossing distances across L'Orient St</li> <li>Large curb radii</li> <li>Crosswalk markings are faded/worn*</li> </ul>
4.3.3	Phalen Blvd and Mississippi St	<ul style="list-style-type: none"> <li>Curb ramps and crosswalks are not at least the width of the shared use paths</li> <li>Long crossing distances across Mississippi St</li> <li>Large curb radii</li> <li>Pedestrian phase is short on north/south movements</li> <li>Missing sidewalk on west side of south leg (Mississippi St)</li> </ul>
4.3.4	Olive St mid-block	<ul style="list-style-type: none"> <li>Long distance along Olive St with no features on street to slow down drivers</li> </ul>
4.3.5	University Ave and Olive St	<ul style="list-style-type: none"> <li>Curb ramps are too steep and lack detectable warnings</li> <li>No pedestrian recall</li> <li>Pedestrian signals are dated</li> <li>Pedestrian push buttons are not accessible</li> <li>Crosswalks are conventional transverse markings*</li> <li>Missing sidewalk on west side of south leg (Olive St)</li> <li>Drainage issues on NW corner</li> </ul>
4.3.6	University Ave and Lafayette Rd	<ul style="list-style-type: none"> <li>Curb ramps are too steep and lack detectable warnings</li> <li>No pedestrian recall</li> <li>Intersection has too many lanes for existing traffic volumes</li> <li>Slip lanes encourage high turning speeds</li> <li>Bus stop is located on a channelizing island between travel lanes and a right turn slip lane</li> <li>There is a walking desire line (worn path) from the west corner of Lafayette Rd bridge to the Union Gospel Mission</li> <li>Pedestrian signals are small and do not follow the current Federal Highway Administration guidelines in the Manual on Uniform Traffic Control Devices</li> <li>Pedestrian push buttons are not accessible</li> </ul>

\*Contact Public Works to obtain policy on crosswalk markings when considering marked crosswalks.

Table 3.3 Intersections and Issues/Concerns at Olive St and Cayuga St Station Areas (continued).

	LOCATION	ISSUES / CONCERNS
<b>4.3.7</b>	Grove St and Pine St	<ul style="list-style-type: none"> <li>• Curb ramps are too steep and lack detectable warnings</li> <li>• No crossing across Pine St</li> <li>• Sidewalks adjacent to curb ramps along Pine St are steep and uneven</li> </ul>
<b>4.3.8</b>	Cayuga St and Phalen Blvd	<ul style="list-style-type: none"> <li>• Crosswalk across Cayuga St is not at least the width of the trail</li> <li>• Long crossing distances across Cayuga St</li> </ul>
<b>4.3.9</b>	Tedesco St and Otsego St	<ul style="list-style-type: none"> <li>• Crossings are located along curve, making visibility challenging</li> <li>• Street illumination is sparse and doesn't illuminate every crosswalk</li> </ul>
<b>4.3.10</b>	Tedesco St Desoto St	<ul style="list-style-type: none"> <li>• Crossings are located along curve, making visibility challenging</li> <li>• No sidewalk on east side of south leg (Desoto St); street illumination is sparse and doesn't illuminate every crosswalk</li> </ul>
<b>4.3.11</b>	Tedesco St and Payne Ave	<ul style="list-style-type: none"> <li>• Commercial driveway is very close to the intersection and built more like a minor street, with pedestrian crossing at street level and adding additional bike lane conflicts</li> <li>• Crosswalks are conventional transverse markings*</li> <li>• Bike lanes do not easily connect to Swede Hollow Trail</li> </ul>
<b>4.3.12</b>	Desoto St and Minnehaha Ave	<ul style="list-style-type: none"> <li>• Curb ramps have steep slopes and lack detectable warning surfaces</li> <li>• Crosswalk south from NW corner does not have a receiving ramp</li> <li>• Long crossing distances due to offset intersection</li> </ul>
<b>4.3.13</b>	Bush Ave and Burr St	<ul style="list-style-type: none"> <li>• No connection across Phalen Blvd or to the station</li> </ul>
<b>4.3.14</b>	Cayuga St and Arkwright St	<ul style="list-style-type: none"> <li>• Long crossing distances</li> <li>• No pedestrian recall</li> </ul>

# BRONZE LINE STATION AREA PLAN INTERSECTION COUNTERMEASURES TOOLKIT

## BRONZE LINE STATION AREA PLAN INTERSECTION COUNTERMEASURES TOOLKIT

During the process of observing, documenting, and analyzing the roadway intersections in Bronze Line station areas, it became apparent that many of the same observations were being made throughout the corridor. The Station Area Plan Intersection Countermeasures Toolkit was developed as a way to communicate potential treatments and countermeasures that could be explored to address issues.

The toolkit contains a set of definitions and accompanying example images, along with a table that ties common issues with an explanation of potential safety risks and countermeasures that can be taken. The list is not exhaustive, and is intended to serve as a starting point for future study.

The Bronze Line Station Area Plan Intersection Countermeasures Toolkit applies to Bronze Line station areas within the City of Saint Paul. As subsequent station areas are planned beyond the City's limits, additions or amendments will be made to this toolkit.

For all recommendations, further design and analysis by the City of Saint Paul and Ramsey County staff is needed to understand the feasibility of each.

## DEFINITIONS AND EXAMPLES



### ART CROSSWALKS

Also called decorative crosswalks, art crosswalks are marked pedestrian crossings that include an artistic element, such as murals, patterns and colors. Often created through community partnerships, they provide aesthetic enhancements to pedestrian crossings.



### CURB EXTENSIONS

Also known as curb bump-outs or bulb-outs, curb extensions narrow the roadway at intersections and mid-block crosswalks to shorten crossing distance for pedestrians and can make space for other amenities such as vegetation or transit stops.



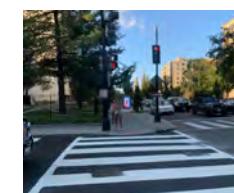
### CURB RAMPS

Curb ramps are transitions between the sidewalks and street crossings that cuts through or is built up to the curb. Curb ramps can be perpendicular or parallel, or a combination of parallel and perpendicular ramps.



### DIRECTIONAL CURB RAMPS

A type of curb ramp where the ramps are aligned with the direction of travel / crossing.



### HIGH-VISIBILITY CROSSWALKS

Pavement marking patterns (i.e., bar pairs, continental, ladder) at crosswalks that are visible to both the driver and pedestrian from farther away.



### LANE CONVERSION

Also referred to as a road diet, this form of design transformation reduces the number of lanes on a corridor. This can lead to crash reduction and potential safety improvements for pedestrians, cyclists, and transit users.



### LEADING PEDESTRIAN INTERVAL (LPI)

A form of signal priority that gives pedestrians a head start when entering the intersection to reduce the time pedestrians are in conflict with turning traffic.

# BRONZE LINE STATION AREA PLAN INTERSECTION COUNTERMEASURES TOOLKIT

## DEFINITIONS AND EXAMPLES (CONTINUED)



### MODERNIZED PEDESTRIAN SIGNALIZATION

Refers to a set of comprehensive pedestrian signal improvements including longer walk times, LPIs, and accessible push buttons.



### PEDESTRIAN HYBRID BEACON (PHB)

Traffic control device designed to help pedestrians safely cross higher-speed roadways at midblock crossings and uncontrolled intersections.



### SEPARATED BIKEWAY INTERSECTIONS

Various methods of providing physical separation between bicyclists and motor vehicle traffic further into the intersection, allowing bicyclists to cross more safely.



### PEDESTRIAN RECALL

Pedestrian phase is automatically activated every cycle, as opposed to being manually triggered by a push button.



### RAISED CROSSINGS

Ramped speed tables that elevate the pedestrian crossing closer to the level of the sidewalk; this reduces motor vehicle speed limits and enhances pedestrian safety/comfort.



### STORMWATER FACILITY

Elements such as swales, rain gardens, stormwater planters, permeable pavements, or other facility that can be incorporated into intersections/ right-of-ways to manage and/or treat runoff.



### MEDIAN CROSSING ISLAND

Protected island centered on a crossing to facilitate safe crossings and reduce exposure to traffic.



### RECTANGULAR RAPID FLASHING BEACON (RRFB)

Rectangular Rapid Flashing Beacons (RRFB) are a type of active warning beacon that uses rapid, irregular flashes to alert motorists to yield to pedestrians and bicyclists at crossings/intersections.



### TACTILE WARNING PLATES / DETECTABLE WARNING SURFACES (DWS)

Detectable warning surface installed at the edge of pedestrian right-of-way/ intersections to indicate the boundary between pedestrian and vehicular routes.



### PEDESTRIAN SIGNAL HEADS

Pedestrian signal heads are used to provide traffic signals that exclusively control pedestrian traffic.



### MODIFIED SLIP LANE

Right turn slip lanes can be modified to allow truck movements while minimizing turning speeds. This avoids large radii on corners for truck movements.

# BRONZE LINE STATION AREA PLAN INTERSECTION COUNTERMEASURES TOOLKIT

## COUNTERMEASURE TOOLKIT

ISSUE	EXPLANATION OF ISSUE	POTENTIAL COUNTERMEASURE
Conventional/ Transverse or Missing Crosswalk Markings	<ul style="list-style-type: none"> <li>Transverse crosswalk markings are more easily missed by drivers than high-visibility crosswalk markings.</li> <li>Motorists who do not notice pedestrians may strike them.</li> </ul>	<ul style="list-style-type: none"> <li>High-visibility crosswalk markings, consistent with the Saint Paul Public Works crosswalk marking policy.</li> <li>Art crosswalks (where connection to adjacent public spaces is desired).</li> </ul>
Non-compliant or Missing Curb Ramps or Detectable Warning Surfaces (DWS)	<ul style="list-style-type: none"> <li>The Pedestrian Right-of-Way Guidelines (PROWAG) are the most up-to-date national regulations on accommodating users with disabilities in the public right-of-way. Compliance with the Americans with Disabilities Act should be assumed to comply with PROWAG.</li> <li>Non-compliant infrastructure puts users who rely on detectable warnings and curb ramps at risk of injury and creates discomfort for most users.</li> </ul>	<ul style="list-style-type: none"> <li>Install or reinstall compliant directional curb ramps and/or DWS as needed.</li> <li>Widen narrow refuge medians to ADA minimum width.</li> </ul>
Missing and/ or Obstructed Pedestrian Access Route	<ul style="list-style-type: none"> <li>Where pedestrian access routes or sidewalks are missing, or obstructed (not ADA-compliant), mobility is decreased and pedestrians may walk in roadway or on boulevard.</li> </ul>	<ul style="list-style-type: none"> <li>Remove obstacles, including relocating bus stop facilities, signs, poles, or other obstructions.</li> <li>Sidewalk installation.</li> <li>Reconstruct noncompliant pedestrian access routes.</li> </ul>
Long Crossing Distances	<ul style="list-style-type: none"> <li>Longer crossing distances increase pedestrian exposure to conflicting traffic.</li> <li>At uncontrolled locations it can be difficult to safely cross several lanes of fast-moving traffic.</li> </ul>	<ul style="list-style-type: none"> <li>Curb extensions.</li> <li>Pedestrian refuge islands/medians.</li> <li>Reduce and/or narrow motor vehicle travel, turning and parking lanes.</li> <li>Pedestrian Hybrid Beacons (PHBs), generally at mid-block locations.</li> </ul>
Wide Corner Radius	<ul style="list-style-type: none"> <li>Wide corner radii lengthen pedestrian crossings and allow vehicles to turn at higher speeds, increasing the potential of serious collisions.</li> </ul>	<ul style="list-style-type: none"> <li>Curb extension.</li> <li>Reduce corner radii.</li> <li>Add truck apron or pillow.</li> </ul>
Right Turn Slip Lane	<ul style="list-style-type: none"> <li>Slip lanes have all of the downsides of wide corner radii while often allowing turning vehicles to avoid stopping or significantly slowing, increasing the potential for collisions.</li> </ul>	<ul style="list-style-type: none"> <li>Remove slip lanes.</li> <li>Curb extension.</li> <li>Add directional curb ramps.</li> <li>Install modified slip lane.</li> <li>Add raised pedestrian crossing.</li> </ul>

# BRONZE LINE STATION AREA PLAN INTERSECTION COUNTERMEASURES TOOLKIT

## COUNTERMEASURE TOOLKIT (CONTINUED)

ISSUE	EXPLANATION OF ISSUE	POTENTIAL COUNTERMEASURE
Drainage Issues	<ul style="list-style-type: none"> <li>Poor drainage can lead to puddles at curb ramps, either soaking pedestrians or forcing them to use another route.</li> </ul>	<ul style="list-style-type: none"> <li>Reconstruction or installation of new drainage facilities at areas of concern.</li> <li>Reconstruction of area of concern to provide positive drainage to nearest collection point.</li> </ul>
No Pedestrian Signal Head and/or Accessible Pedestrian Signal (APS)	<ul style="list-style-type: none"> <li>At stoplights without pedestrian signals, pedestrians try to cross with a green light, but take much longer to clear the intersection on a yellow than vehicles potentially exposing them to conflicting traffic with a green light.</li> <li>Intersections and crossings are especially difficult for people with vision impairments, and APS systems enable these people to cross much more safely.</li> </ul>	<ul style="list-style-type: none"> <li>Install pedestrian signal head and/or accessible pedestrian signal.</li> </ul>
Crosswalk Lighting	<ul style="list-style-type: none"> <li>Lighting increases pedestrian visibility at night.</li> <li>Drivers will not stop for a pedestrian they do not notice.</li> <li>Lighting increases the perception of pedestrian personal safety at night.</li> </ul>	<ul style="list-style-type: none"> <li>Install lighting that provides high positive contrast of pedestrians at all crosswalks.</li> </ul>
Wide, Straight, and/or Under-parked Roads	<ul style="list-style-type: none"> <li>Wide and straight car lanes encourage speeding.</li> <li>Under-parked streets can effectively widen adjacent travel lanes, even when the adjacent travel lane is narrow, encouraging speeding.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce and/or narrow motor vehicle travel, turning and parking lanes.</li> <li>Install curb extensions.</li> <li>Install vertical deflection to slow speeds: <ul style="list-style-type: none"> <li>Speed humps/cushions/tables.</li> <li>Raised crossings.</li> <li>Raised intersections.</li> </ul> </li> <li>Install horizontal deflection to slow speeds: <ul style="list-style-type: none"> <li>Chicanes.</li> <li>Pedestrian refuge medians.</li> <li>Traffic circles.</li> </ul> </li> </ul>
Wayfinding/Signage/Pavement Markings	<ul style="list-style-type: none"> <li>Lack of clear wayfinding, signage and pavement markings may cause confusion while traveling within the station area and to the BRT station.</li> </ul>	<ul style="list-style-type: none"> <li>Install wayfinding signs.</li> <li>Install uniform pavement markings, signs, and traffic control devices.</li> </ul>



# GETTING THERE

## INTRODUCTION

The station area plan identifies a set of policies, improvements, and opportunities intended to support the successful implementation of the Bronze Line BRT by increasing ridership by connecting people to the stations and supporting transit oriented development throughout the surrounding neighborhoods. Implementation strategies should center racial and economic equity by prioritizing investments that benefit low-income renters, people with disabilities, and transit-dependent residents and workers in the station areas. A clear implementation plan is key to advancing the policies, improvements, and opportunities identified in the planning process.

Implementation of the public improvements and private development opportunities identified for each station area is likely to occur over several years, depending on demand and need, available funding sources, and market conditions. The public sector is expected to play a primary role implementing physical improvements and policy and regulatory initiatives. The private sector is expected to lead the way in the development and redevelopment of transit-oriented uses near the stations. Implementation of public infrastructure and policies that support transit-oriented development may play a key role in catalyzing development interest near the transit stations.

## STRATEGIES FOR IMPLEMENTATION

The following five strategies will be necessary for implementing the station area plan:



### ENHANCING MOBILITY IN STATION AREAS

In addition to allowing people to easily and safely move through the station area to reach their transit stop, enhancing mobility involves improving access between work, services, home, and leisure destinations. This includes filling local and regional gaps in the bicycle and pedestrian network and ensuring routes are designed to provide safe and comfortable travel throughout the year that meets or exceeds ADA standards. Travel Demand Management (TDM) strategies can reduce trips by car to the station area. For example, creating mixed use nodes that provide multiple neighborhood destinations allows for a reduction in trips by car, while also promoting social interactions and a more lively streetscape.



GETTING THERE

## ADDRESSING THE BARRIERS TO TRANSIT

Improving access to transit involves more than just removing physical barriers. In order to be successful, a holistic approach that addresses a wide range of other needs must be pursued. Through interactions with members of the Station Area Working Group, a number of needs were identified that could be supported by project partners to help improve the lives of those who live, work, and get their daily needs met near the transit station.

### METROPOLITAN COUNCIL (METRO TRANSIT)

- Expanded fare reduction opportunities for youth and seniors
- Tailored on-demand transit services to support seniors and those with disabilities
- Security at stations

### RAMSEY COUNTY

- Storefront façade improvements
- Workforce training and workforce readiness
- Mental health and dependency support

### BUSINESS COMMUNITY

- Bike racks and other end-of-trip facilities at destinations near the station
- Job fairs geared towards neighborhood residents
- Improved access to childcare
- Public/private partnerships to support development of services and businesses

### HOUSING ADVOCATES

- Reinvestment programs for home façades and modernization
- Alternative housing ownership models for home buyers

### NEIGHBORHOOD ORGANIZATIONS

- Community message board for events and information
- Social engagement programs and activities for seniors and people with disabilities
- Inter-generational activities, programs, and events



## SUPPORTING NEIGHBORHOOD INFILL

As the transit line is established, there will be opportunities to increase the density and intensity of development within the station area by supporting neighborhood infill of vacant or underutilized lots. Creating additional housing for new residents or commercial spaces for businesses adds to the number of potential transit users. When located close to the station location, the new development generates activity and potential commercial options for those taking transit. A more complete streetscape that fills gaps created by vacant properties, surface parking lots, and small buildings on large lots is a more inviting environment for those walking or biking. Public sector investment may be needed to catalyze infill and redevelopment, particularly to address challenges with site assembly and clean up.



## ASSURING COMMUNITY BENEFITS

The Bronze Line BRT corridor has a number of racially and ethnically diverse communities along its length. As policies, improvements, and opportunities are implemented, it will be important to continue to engage with these communities to ensure their needs are being met. There is the potential for gentrification and displacement of low-income individuals, families, and small businesses as property values rise as a result of development. Those who wish to stay and contribute to and benefit from its revitalization must have the option to do so.



## DEVELOPING GRADUALLY

The recommendations contained in the station area plan are concepts that show what might be possible, and are a demonstration of how the goals and ETOD themes created during the planning process could be utilized to guide development within the station area. They are examples of how the plan may potentially be implemented; other actions that are consistent with the community goals are also possible.

Although listed in this document, the realization of these recommendations is dependent on public investment for physical improvements or on collaboration with private developers or property owners. Until changes are made to current zoning or other regulations guiding development, private property may continue its existing use as long as it meets applicable standards and conditions.

The full development potential of each station area will only be met over a long period of time. Given that the market may not be ready to support full implementation in the short term, the City may find it beneficial to support incremental development that can be a stepping stone towards long-term implementation of the station area plan and a fully realized transit-supportive environment.



## CULTIVATING PARTNERSHIPS

Meeting the long-term objectives of the Bronze Line BRT station area plans will require coordination with the following agencies (but not limited to):

- Saint Paul Planning and Economic Development
- Saint Paul Parks and Recreation
- Saint Paul Public Works
- Saint Paul Public Housing Authority
- CAAPB
- Metropolitan Council/ Metro Transit
- Ramsey County
- MnDOT
- Community-based Organizations



Public art installed at the intersection of University Ave and Jackson St.

## PUBLIC ART IN SAINT PAUL

The City of Saint Paul Public Art Ordinance mandates that capital projects funded by eligible sources that result in a property operated by the City shall dedicate one (1) percent of eligible project funds for public art. One half (1/2) of one (1) percent of the total Capital Improvement Budget for such projects shall be appropriated to support maintenance and restoration of the City's public art collection. The Public Art Ordinance also states that artists shall be involved in the "design, implementation and integration of art in public projects." The City of Saint Paul also has a Public Art Ideas List (PAIL) that is available as a resource for visualizing different types of public art that could be applicable to a specific project area.

Proposed public art locations shown in Figure 3.6 and listed under Goal #2 are located on a combination of City-owned and County-owned properties. The Saint Paul Public Art Ordinance applies to locations within the City's right-of-way or on City property. For future projects located on Ramsey County right-of-way or on private parcels, it is recommended that a similar process be taken to allocate funding for capital improvements, ongoing maintenance, and inclusion of a public artist early in the design process.

For more information, see: <https://www.stpaul.gov/departments/planning-and-economic-development/public-art-ordinance-program>

# PREPARING FOR IMPLEMENTATION

The tables below and on the following pages summarize the recommendations by goal identified in the Future of the Station Area chapter to position them for action as time and resources allow. Each recommendation has the type and sub-type identified (for example, an Improvement related to the Pedestrian Network), as well as potential project partners who might be called upon to support implementation. **The City of Saint Paul is not listed as a project partner as the station area plans were created for their use.** The tables then draw connections to other plans where the policy or a similar recommendation is included to better coordinate future actions. A timeframe for implementation is identified, detailing whether a project is ongoing, short-term (less than five years), or long-term (more than five years). The final column on the right describes next (or first) steps to be taken towards implementing the improvement, policy or opportunity.

## GOAL #1: CREATE THRIVING NEIGHBORHOODS



#	RECOMMENDATION	TYPE (IMPROVEMENT, POLICY, OR OPPORTUNITY)	PROJECT PARTNERS	SUPPORTING PLANS	TIME-FRAME	NEXT STEPS
1.1.1	Use streetscape improvements south of the Olive St station to encourage new development to support the daily needs of employees or future residents.	Policies to Create Thriving Neighborhoods	Saint Paul Public Housing Authority, Local Non-Profit Organizations	Ramsey County Economic Competitiveness & Inclusion Plan	Ongoing	Update the zoning code as needed to support redevelopment.
1.1.2	Explore opportunities to increase the diversity of housing types to support residents through all stages of their lives and to provide opportunities for individuals to work and live in the station area.	Policies to Create Thriving Neighborhoods	Business Owners, Saint Paul Public Housing Authority, Local Non-Profit Organizations	Ramsey County Economic Competitiveness & Inclusion Plan	Ongoing	Explore public partnerships to help fund projects that support housing and businesses.
1.2.1 to 1.2.4	Implement redevelopment, built form, parking and circulation policies for Evolving Employment Hub Character Area.	Policies for Evolving Employment Hub	Ramsey County, BNSF, Business Owners, Medical Institutions		Ongoing	Update Comprehensive Plan and zoning code as needed to reflect character area policies.
1.3.1 to 1.3.3	Implement redevelopment, built form, parking and circulation policies for Supportive Residential Neighborhoods Character Area.	Policies for Supportive Residential Neighborhoods	Ramsey County		Ongoing	Update Comprehensive Plan and zoning code as needed to reflect character area policies.
1.4.1	Implement redevelopment policies for Job-Centered Railroad Corridor Character Area.	Policies for Job-Centered Railroad Corridor	Ramsey County, BNSF		Ongoing	Update Comprehensive Plan and zoning code as needed to reflect character area policies.

Table 4.1 Implementation - Goal #1: Create Thriving Neighborhoods.

## GOAL #2: MAKE VIBRANT PLACES



#	RECOMMENDATION	TYPE (IMPROVEMENT, POLICY, OR OPPORTUNITY)	PROJECT PARTNERS	SUPPORTING PLANS	TIME- FRAME	NEXT STEPS
2.1.1	Explore safety and connectivity improvements along the railroad corridor and right-of-way space to create a vibrant, linear green space in coordination with planned bikeway connections.	Public Space Improvements	BNSF, Business Owners and Property Owners	City of Saint Paul Bicycle Plan	Short-term	Consider features as part of future feasibility study and integrate into preliminary design.
2.1.2	Explore redevelopment of surface parking lots south of University Ave as pocket parks or plazas.	Public Space Improvements	Local Non-Profit Organizations, Business Owners		Short-term	Update the zoning code as needed to allow for public space development. Consider features as part of future redevelopment sites.
2.2.1	Improve the streetscapes within the station areas.	Public Realm Improvement	Adjacent Businesses / Property Owners	City of Saint Paul Bicycle Plan, City of Saint Paul Pedestrian Plan	Long-term	Consider features as part of future roadway reconstruction project.
2.3.1	Install public art in coordination with streetscape or public space improvements.	Public Art Opportunity	Local Non-Profit Organizations, Business Owners		Long-term	Integrate a public art process into public redevelopment, streetscape and public space projects.

Table 4.2 Implementation - Goal #2: Make Vibrant Public Places.

## GOAL #3: CONNECT PEOPLE AND PLACES



#	RECOMMENDATION	TYPE (IMPROVEMENT, POLICY, OR OPPORTUNITY)	PROJECT PARTNERS	SUPPORTING PLANS	TIME-FRAME	NEXT STEPS
3.1.1	Fill bikeway gaps per the Saint Paul Bicycle Plan in the Olive St station area.	Network Improvement		City of Saint Paul Bicycle Plan, City of Saint Paul Pedestrian Plan	Long-term	Seek funding for bikeway improvements.
3.1.2	Fill sidewalk gaps per the Saint Paul Pedestrian Plan in the Olive St station area.	Network Improvement		City of Saint Paul Pedestrian Plan	Long-term	Seek funding for sidewalk network improvements.
3.1.3	Provide pedestrian connection from John St to the future railroad corridor bikeway for multi-use pedestrian connectivity.	Network Improvement	BNSF	City of Saint Paul Pedestrian Plan	Long-term	Conduct feasibility study and preliminary design.
3.1.4	Explore additional bikeway connections for north-south and east-west travel within the Railroad Island neighborhood.	Network Improvement	BNSF		Short-term	Conduct feasibility study and preliminary design.
3.1.5	Explore grade-separated crossings over the railroad corridor from Railroad Island to the Cayuga St station.	Network Improvement	BNSF, Metro Transit		Short-term and long-term	Integrate into station design considerations. Conduct feasibility study and preliminary design.
3.1.6	Fill sidewalk gaps per the Saint Paul Pedestrian Plan in the Cayuga St station area.	Network Improvement		City of Saint Paul Pedestrian Plan	Long-term	Seek funding for sidewalk network improvements.
3.2.1	Install directional wayfinding to direct transit users to the Olive St and Cayuga St stations at identified locations and in suggested languages.	Wayfinding Opportunities	Ramsey County, FRAYEO, Urban Village		Short-term	Integrate wayfinding into final design of the Olive St and Cayuga St stations.

Table 4.3 Implementation - Goal #3: Connect People and Places.

## GOAL #4: PRIORITIZE SAFETY AND SECURITY



#	RECOMMENDATION	TYPE (IMPROVEMENT, POLICY, OR OPPORTUNITY)	PROJECT PARTNERS	SUPPORTING PLANS	TIME-FRAME	NEXT STEPS
4.1.1	Update lighting on identified City of Saint Paul streets on page 38.	Lighting Improvement		City of Saint Paul Bicycle Plan, City of Saint Paul Pedestrian Plan	Long-term	Integrate into final design for the Olive St and Cayuga St stations in areas immediate to the stations and seek funding for additional lighting improvements.
4.2.1	Ensure new developments are designed to keep "eyes on the street" views open to the stations.	Safety Policies	Saint Paul Public Housing Authority		Ongoing	Evaluate viewsheds during site development review and site design.
4.3.1	Install intersection improvements at Phalen Blvd and Olive St.	Intersection Improvements	Metro Transit		Short-term	Integrate recommended improvements into final design for the Olive St station.
4.3.2 to 4.3.13	Install intersection improvements at locations indicated in Table 3.2	Intersection Improvements			Long-term	Conduct analysis, seek funding for projects.
4.3.14	Install intersection improvements at Cayuga St and Arkwright St.	Intersection Improvements	Metro Transit		Short-term	Integrate recommended improvements into final design for the Cayuga St station.

Table 4.4 Implementation - Goal #4: Prioritize Safety and Security.

