## What is the purpose of the Rush Line BRT project?









### PROJECT PURPOSE

Provide transit service that satisfies the long-term regional mobility needs for businesses and the traveling public and supports sustainable development within the study area.

### PROJECT NEEDS



Serving the needs of people who rely on transit.



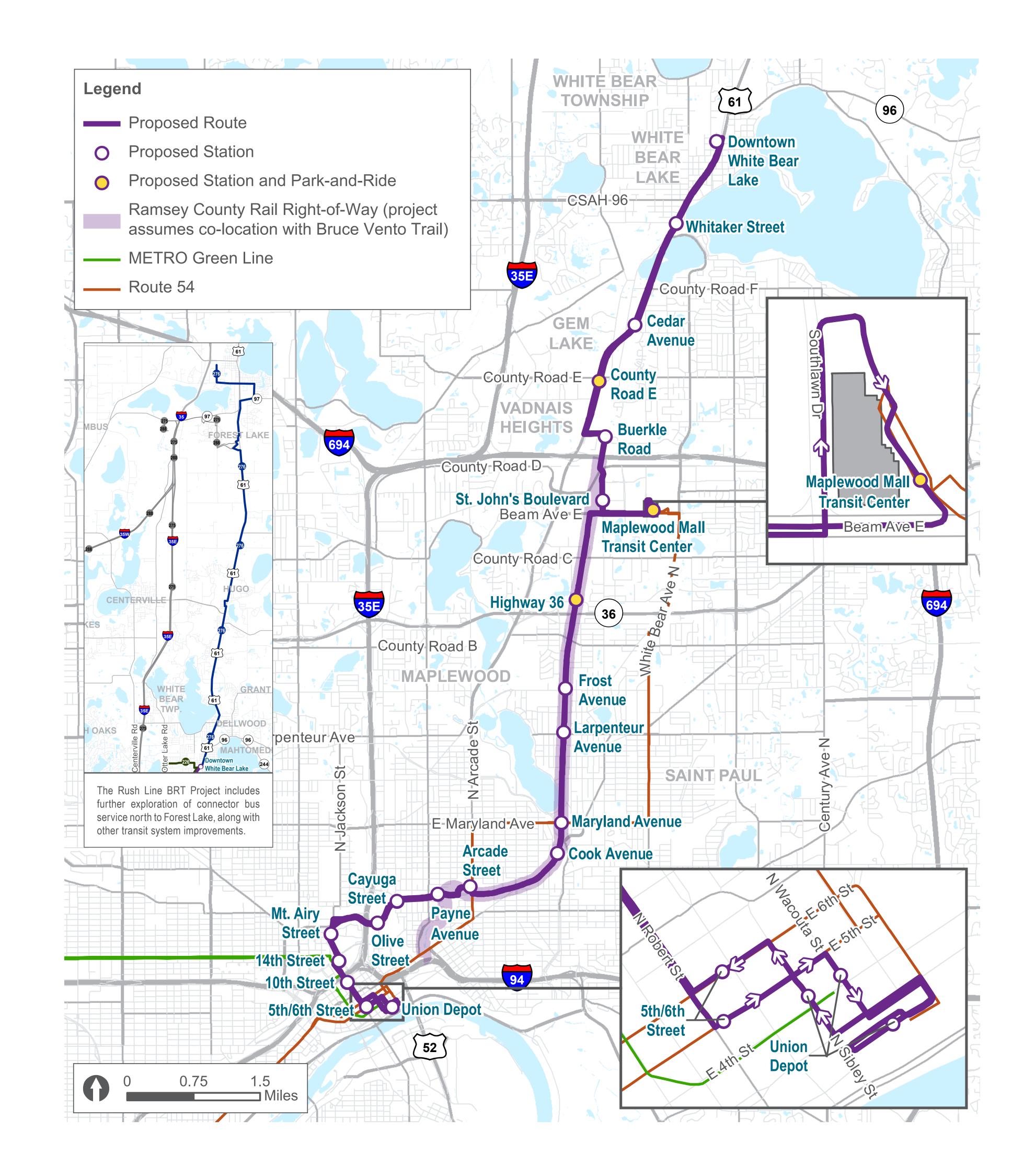
Planning for sustainable growth and development.



Meeting increasing demand for reliable, high-frequency transit.



Expanding multimodal travel options.

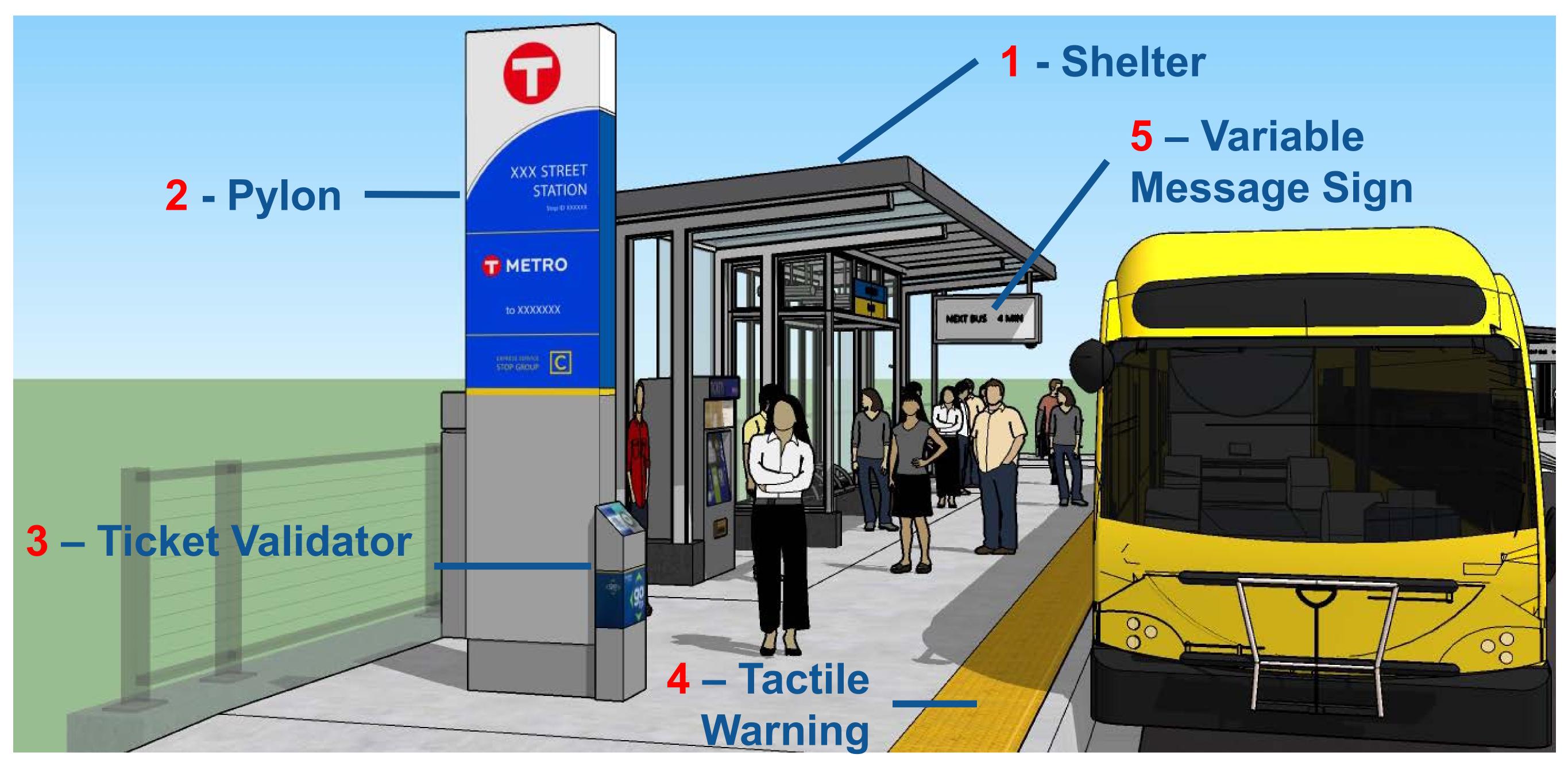


### What is BRT?



### HIGH-QUALITY TRANSIT SERVICE THAT:

- Provides service every 10 minutes during rush hours and every 15 minutes other times.
- Operates seven days a week from early in the morning to late at night.
- Has stations with amenities like shelter, light, heat, fare payment machines, real-time departure signs and raised platforms for level boarding with buses.
- Connects to METRO Green Line, local and intercity buses and Amtrak service at Union Depot.



Source: Metro Transit.

## Why is Rush Line BRT important?







Lettered BRT Lines operate in mixed traffic with signal priority

Both offer speed improvements of up to 25% over regular transit routes.





Key component connecting the northeast metro to the regional transit system.



Will serve more than 97,000 people who are diverse in income, race, ethnicity, age, ability and languages spoken.



Will connect to more than 106,000 jobs within a ten-minute walk of the 21 planned stations.



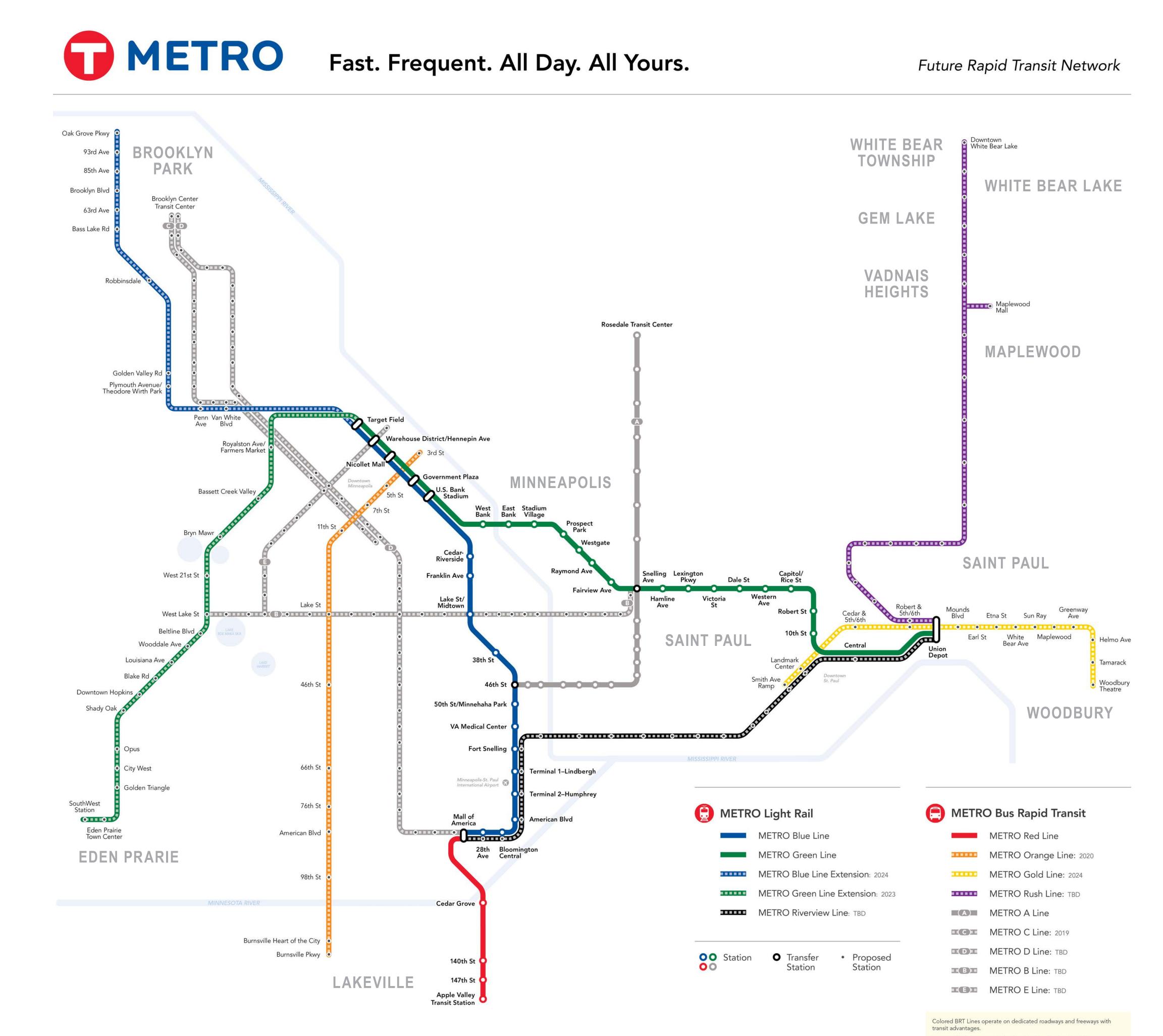
Can reduce traffic crashes and improve safety for pedestrians, cyclists and drivers.



Metro Transit is considering buying all electric buses, which would reduce air and noise pollution.



Ramsey County has been planning to add transit in this area since the 1990s. Previous studies have shown that BRT is a cost effective transportation solution to meet the needs of the communities served.



### Cook Avenue Station



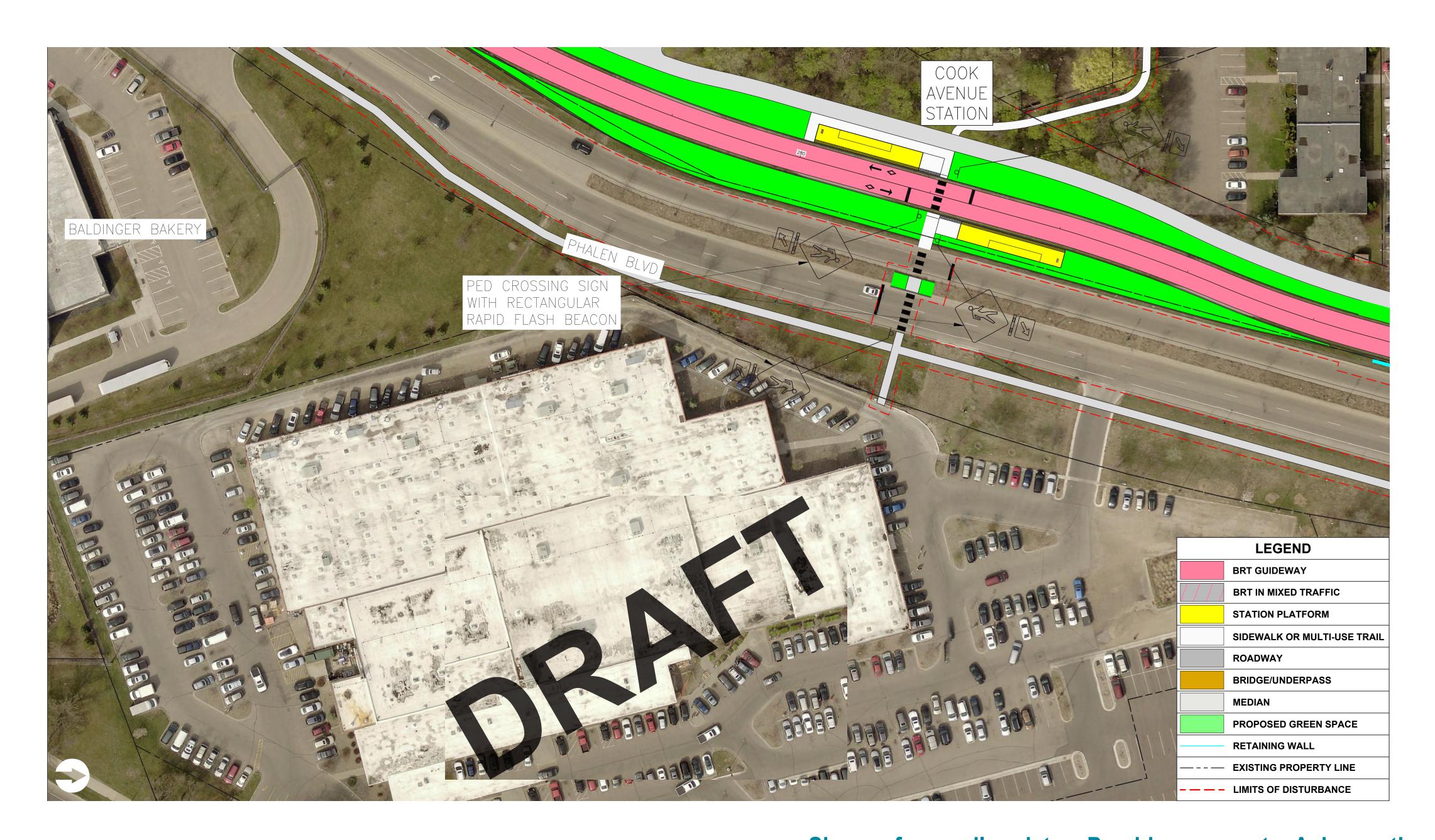
Community members requested an additional station in this area to improve access to Hmong Village, Duluth and Case Recreation Center, and nearby homes and businesses.

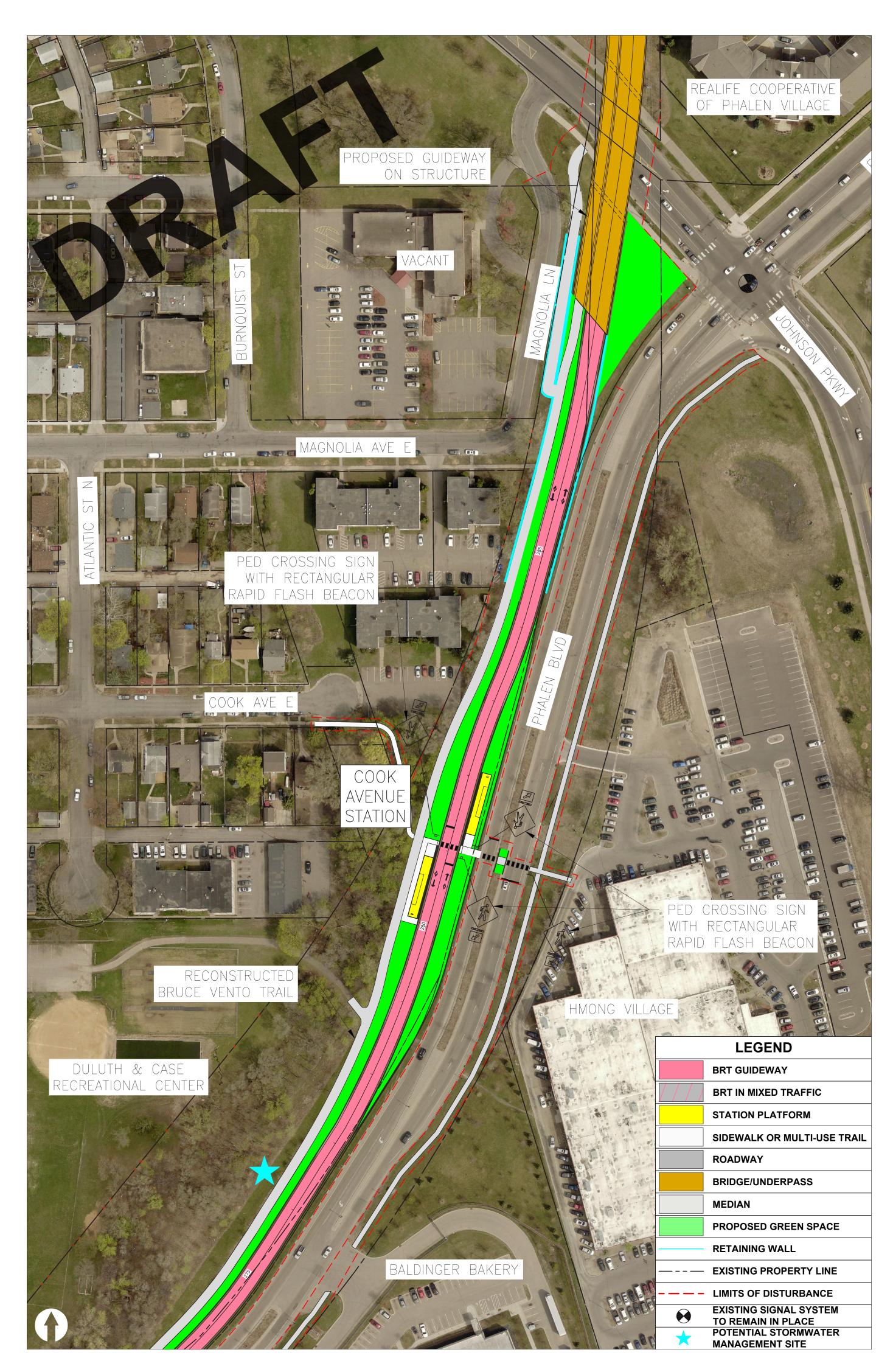
In addition to a station, a new crosswalk will be added across Phalen Boulevard, along with a pedestrian beacon.

Pedestrians can push a button to activate these lights, which require traffic to stop so that pedestrians can cross the street safely.



Example of a rectangular rapid flash beacon





# Ramsey County rail right-of way: past, present and future



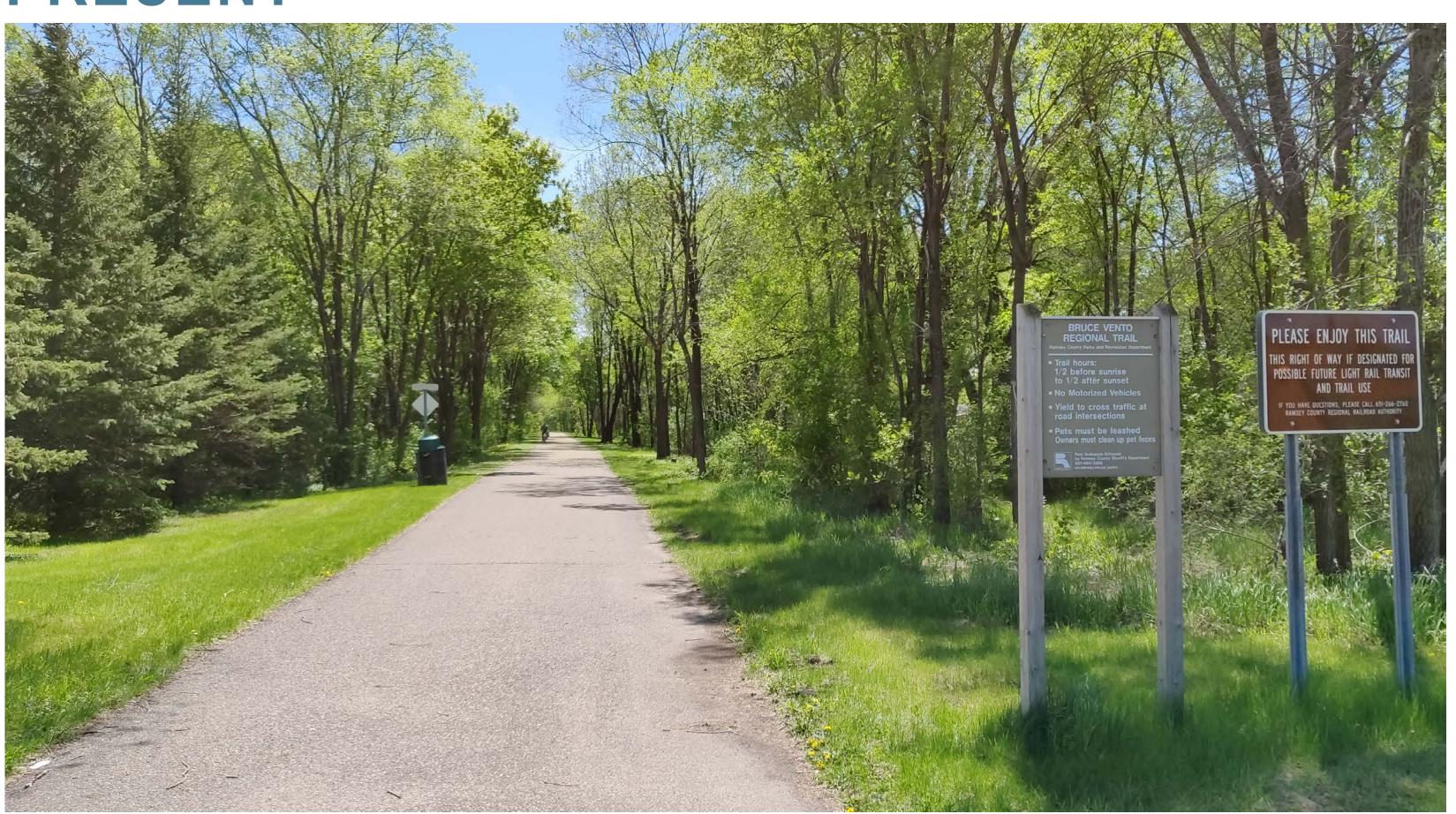








#### PRESENT



The Ramsey County rail right-of-way currently hosts the Bruce Vento Trail.

The Ramsey County rail right-of-way was once the Lake Superior & Mississippi Rail Corridor. Constructed between 1867 and 1870, the corridor was the first direct rail connection between Saint Paul and the Great Lakes Port of Duluth. Because of its historic transportation significance, the corridor is eligible for the National Register of Historic Places. Potential impacts as well as mitigation measures being evaluated as part of the Rush Line BRT Project.

### **FUTURE**



The Ramsey County rail right-of-way will host the Rush Line BRT guideway and stations, along with the Bruce Vento Trail. It is a priority of Ramsey County that the Bruce Vento Trail remain a community asset and that there are safe crossings with existing roadways.

## Planning for BRT and the Bruce Vento Trail: Ramsey County Rail Right-of-Way Design Guide









### RAMSEY COUNTY RAIL RIGHT-OF-WAY DESIGN GUIDE AREA

The Design Guide encompasses the portions of the Ramsey County rail right-of-way where Rush Line BRT will be co-located with the reconstructed Bruce Vento Trail. This area extends from the Arcade Street station to the Buerkle Road station, excluding the section between Beam Avenue and County Road D (see area outlined in yellow on map).

Additionally, guiding principles and recommendations developed for the Ramsey County rail right-of-way will help inform the design of the entire project where applicable

### GOAL

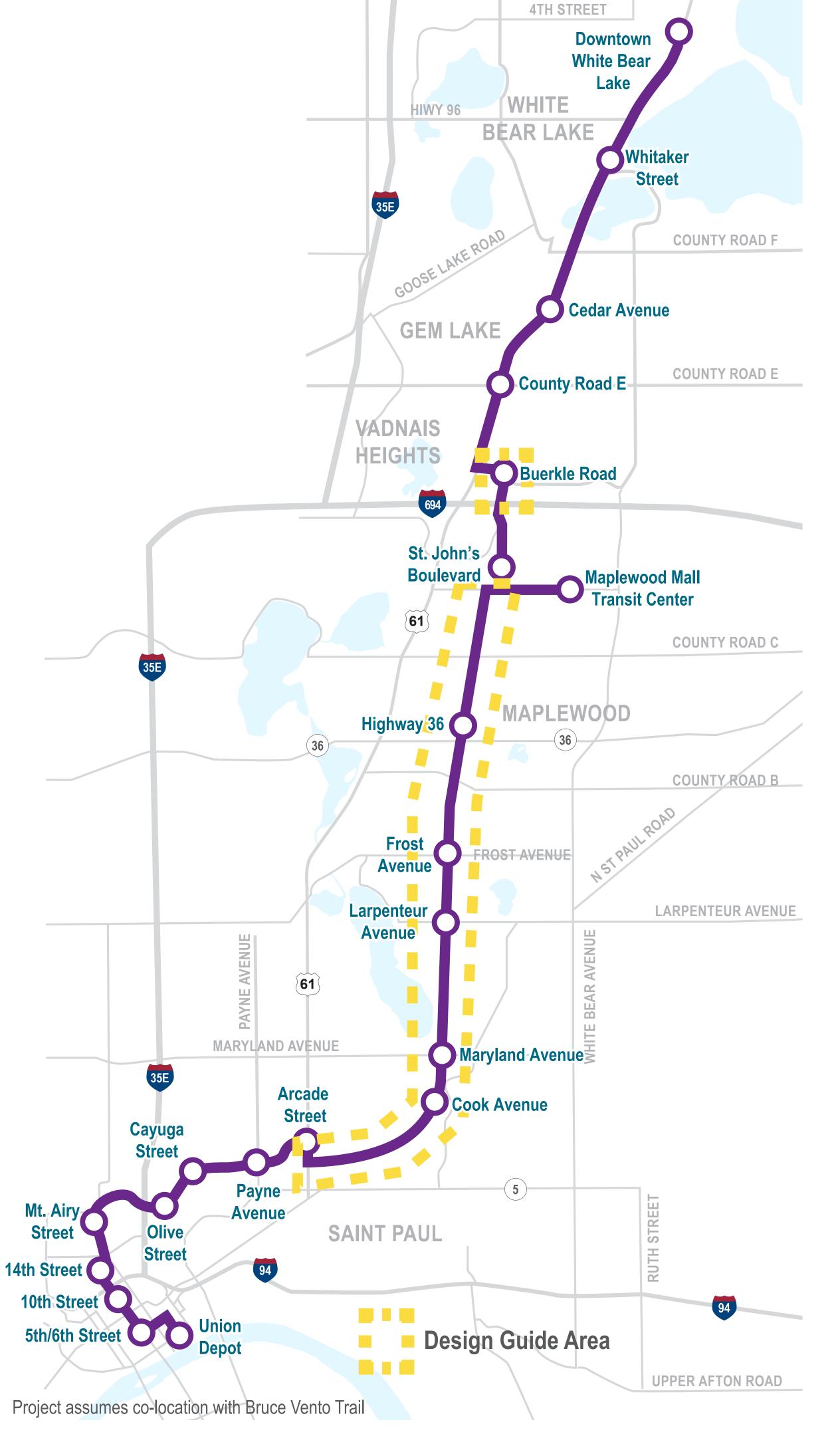
The goal of the Design Guide is to develop a safe and context-sensitive BRT guideway and shared use trail plan incorporating relevant user, stakeholder and public guidance.

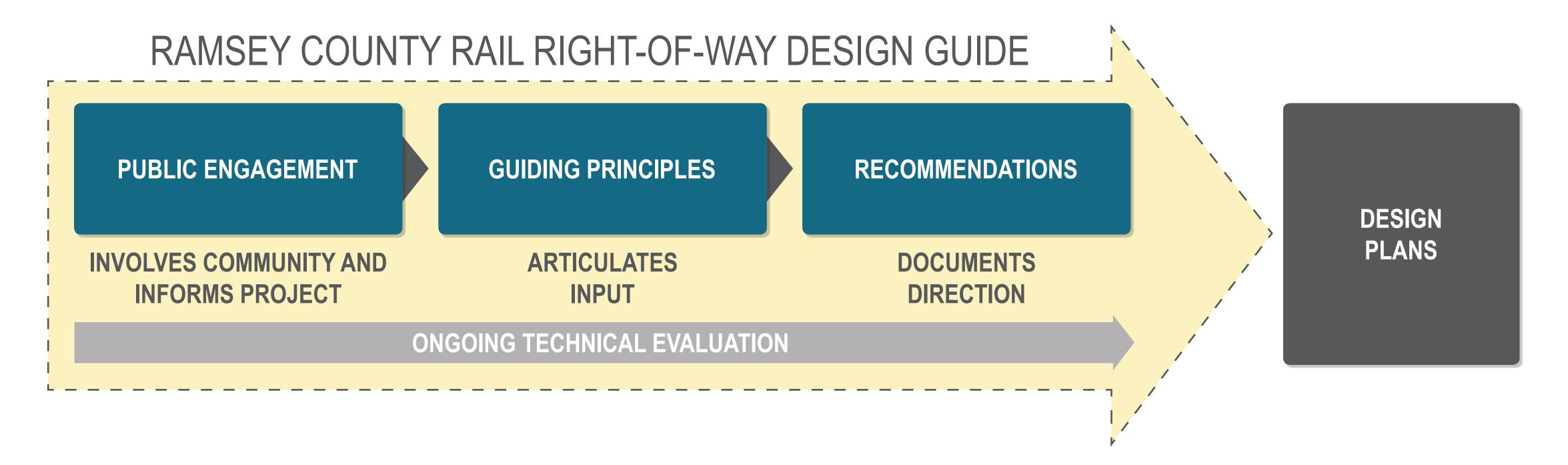
#### PUBLIC ENGAGEMENT

In summer 2019 Rush Line BRT Project staff hosted seven events to learn about community values and priorities regarding the Ramsey County rail right-of-way. Input gathered through these efforts was used to create the draft Design Guide.

#### **NEXT STEPS**

The Design Guide will be finalized in early 2020 and will inform the design of the Rush Line BRT guideway and Bruce Vento Trail.





### Public engagement: what we asked











### **MARCH 2019**

Design Guide workshop.



### MAY 2019

 Targeted mailing to nearby residents.



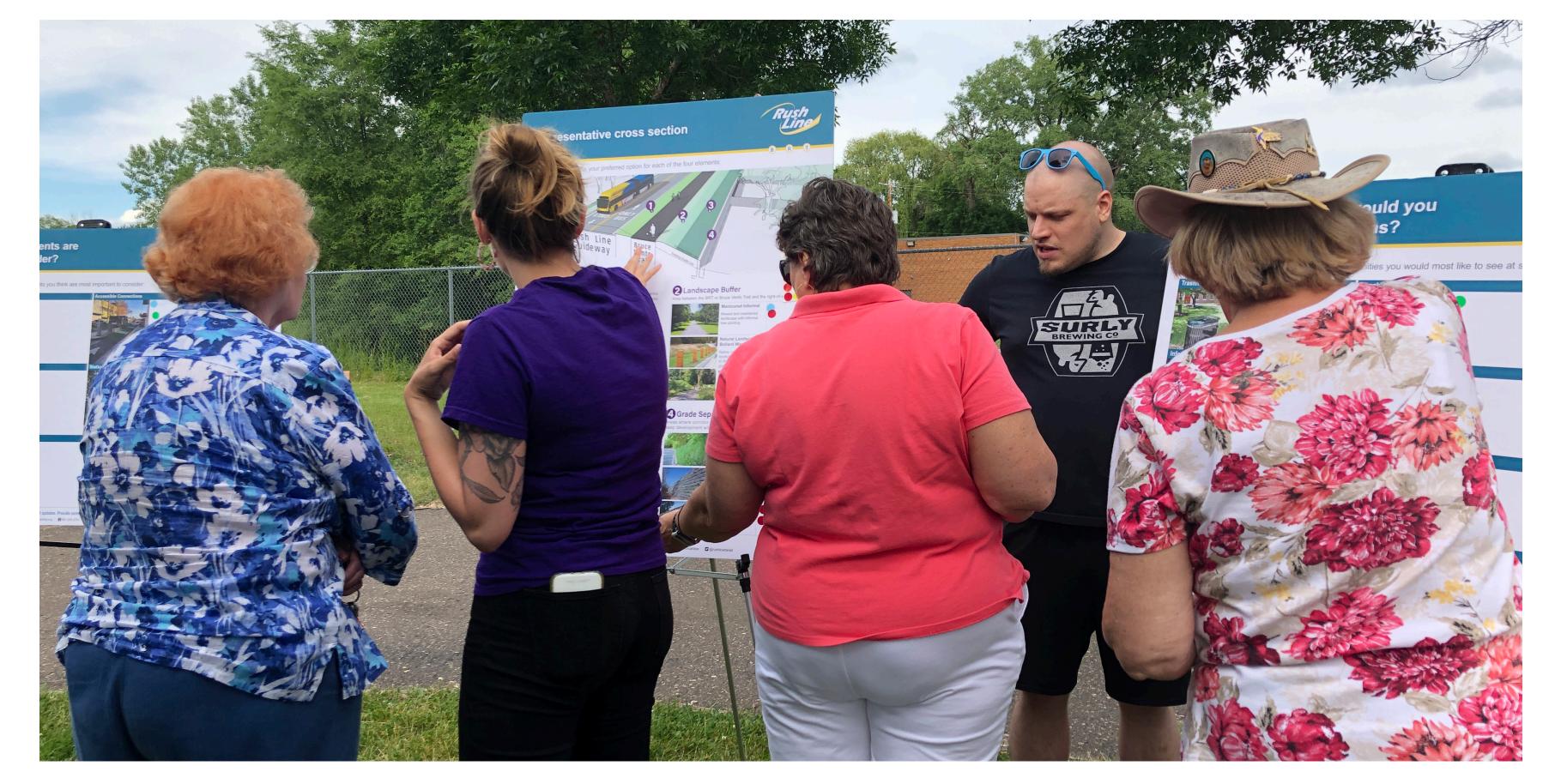
### **JUNE 2019**

- Pop-up events near right-of-way.
- Tuesdays on the Trail.
- Hmong community gathering.
- Online survey.

### INPUT SOUGHT

- Which right-of-way elements are highest priority?
  - Safety and security.
  - Design and aesthetics.
  - Additional station amenities (landscaping, public art, wayfinding signage, etc.).
  - Accessible connections.
  - Station design that fits with the surrounding community.

- How do you plan to use the right-of-way after Rush Line BRT is constructed?
- What do you prefer for the design of the Bruce Vento Trail and BRT guideway.
- What trail amenities would you like to see?



Tuesdays on the Trail at Harvest Park, June 25



Tuesdays on the Trail at Frost Avenue, June 18



### Public engagement: what we heard









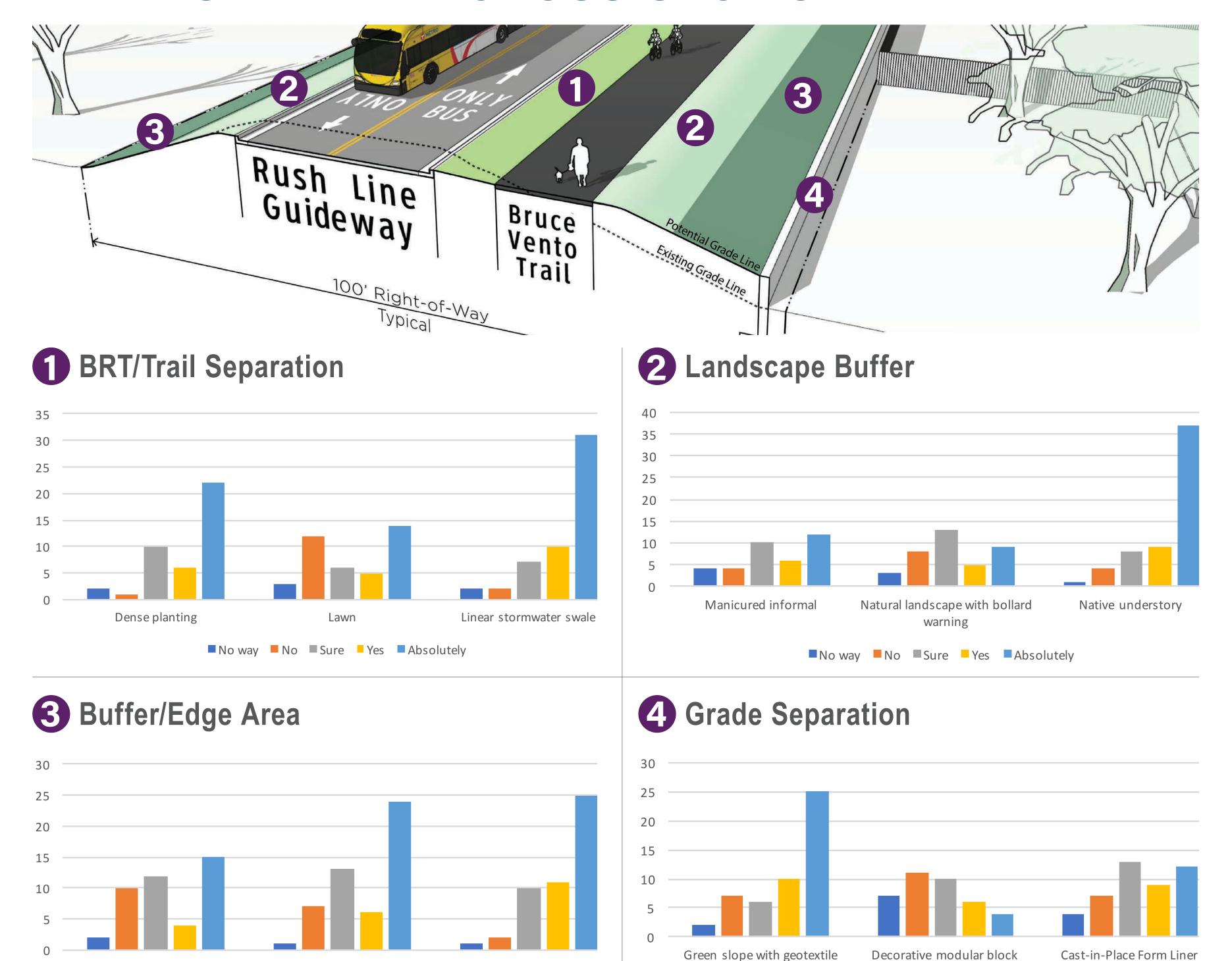
### MOST COMMON THEMES:

Ornamental hedge

■ No way ■ No ■ Sure ■ Yes ■ Absolutely

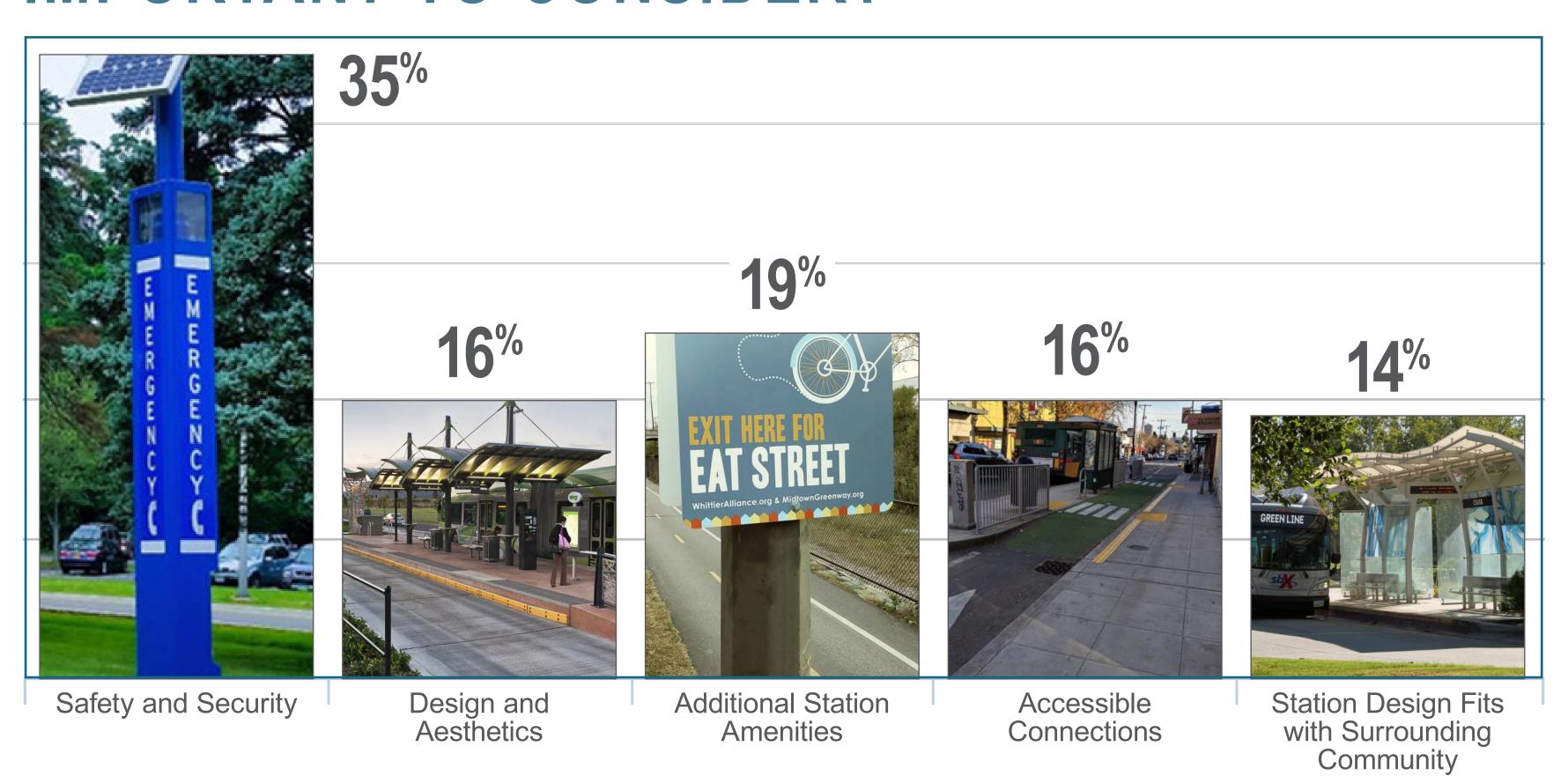
- Maintain natural feel of the existing trail corridor.
- Promote safety and security for all users (pedestrians, bikers, transit riders).
- Preferred amenities are trash/recycling receptacles, drinking fountains, informational kiosks and benches.

### REPRESENTATIVE CROSS SECTION

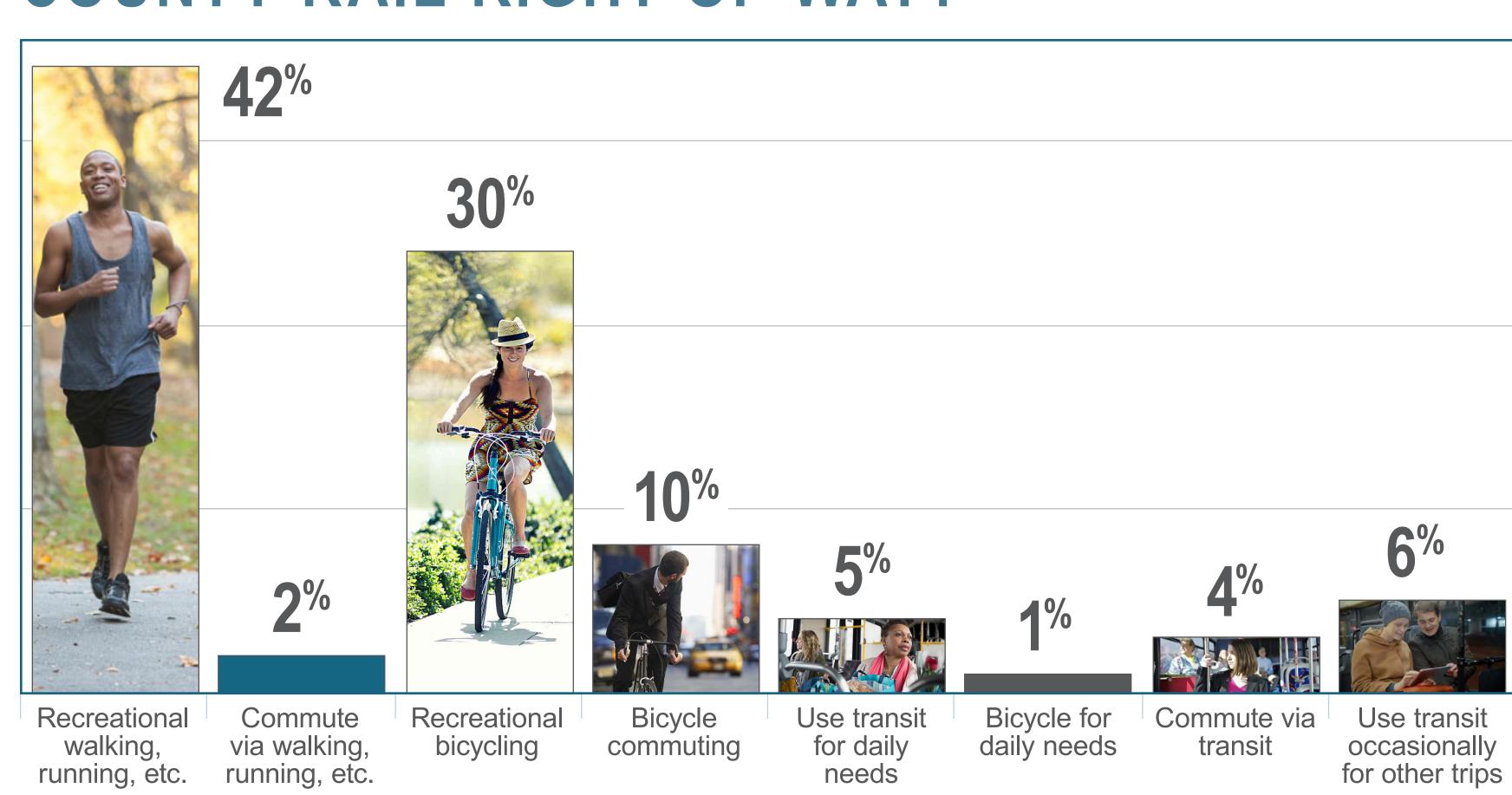


Natural buffer

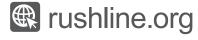
### WHICH RIGHT-OF-WAY ELEMENTS ARE MOST IMPORTANT TO CONSIDER?



### HOW DO YOU PLAN TO USE THE RAMSEY COUNTY RAIL RIGHT-OF-WAY?



Sign up for email updates. Provide comments. Ask questions. Learn more.





■ No way ■ No ■ Sure ■ Yes ■ Absolutely

Concrete Wall

## Draft Guiding Principles







### 1. LANDSCAPE IMPACTS AND CHARACTER

Preserve the existing landscape and enhance the right-of-way with ecologically beneficial, resilient, seasonally diverse and low maintenance vegetation.



#### 2. SAFETY AND SECURITY

Reduce and/or remove perceived security concerns and minimize physical safety conflicts.



#### 3. ACCESS AND BORDERS

Retain ease of access while promoting safe crossings of the guideway.



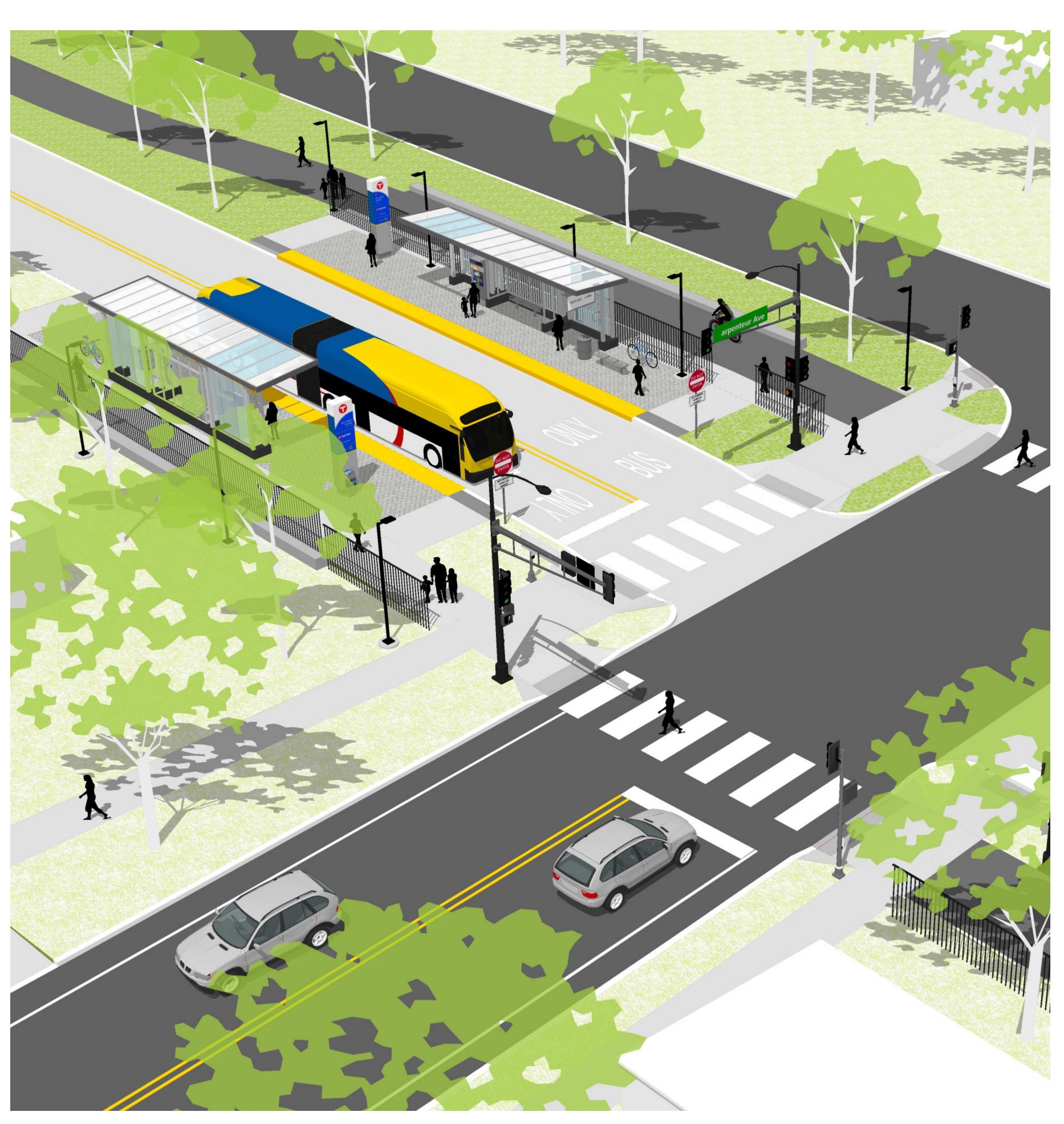
### 4. MAINTENANCE

Use design strategies and materials that are durable, affordable and easy to maintain.



### 5. OPERATIONS

Provide a safe, high-quality trail and BRT user experience.

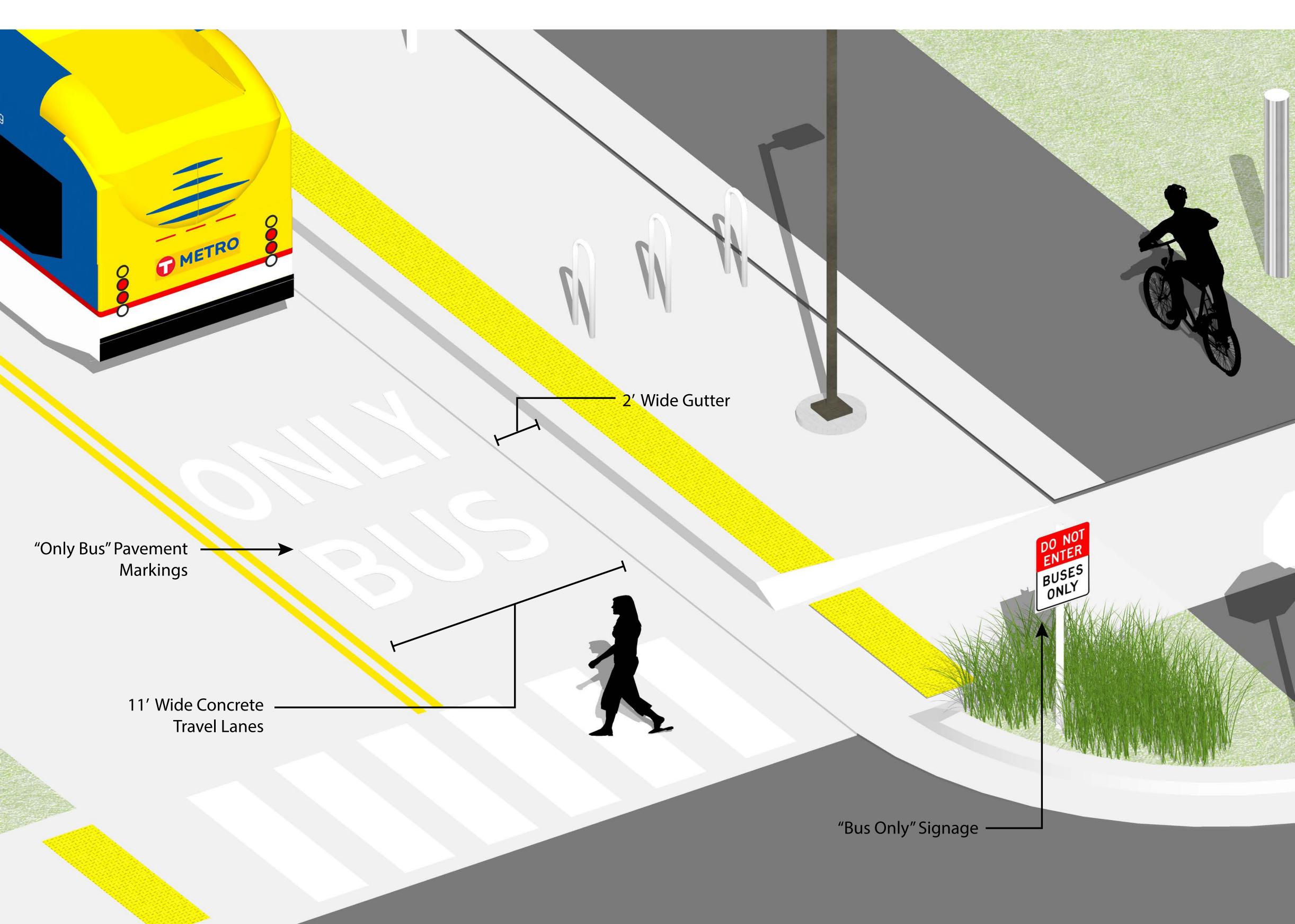


Potential station design concept. Station designs will adhere to Guiding Principles.

# Draft Recommendations: Trail and BRT Guideway



- BRT guideway will be 26 feet wide and used exclusively for buses and, when needed, emergency vehicles.
- Guideway and trail should be separated by a vegetated buffer.
- The trail is recommended to remain a 12 foot wide shared-use path.
- A narrower trail may be used near obstructions.
- Fences may be implemented where needed for safety.

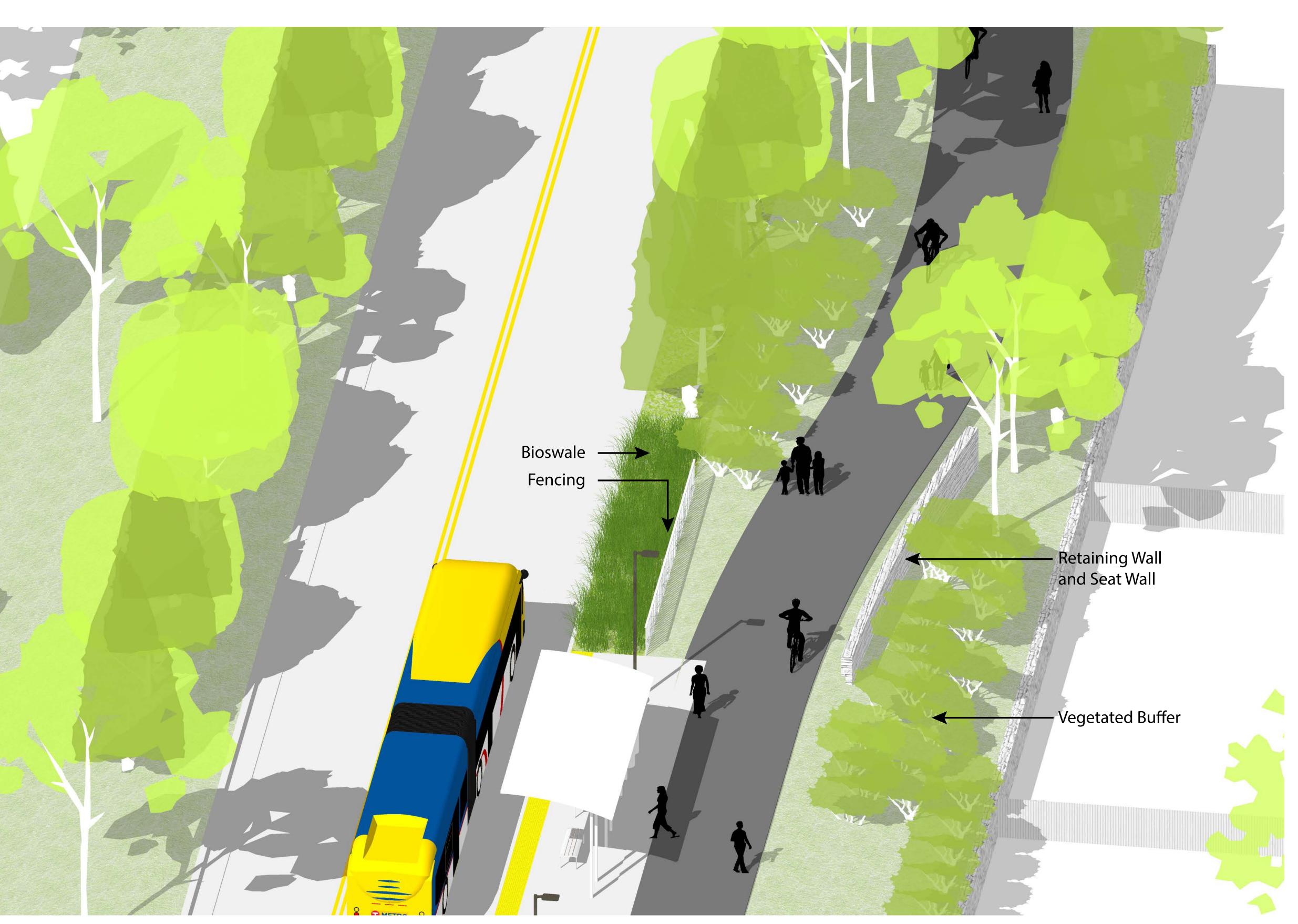


Typical BRT guideway and trail at station area

# Draft Recommendations: Buffers and Screening



- Preserve existing vegetation as much as possible and add native, diverse plant sizes and species.
- Use vegetated buffers to preserve privacy between right-of-way and surrounding properties.
- Use topography, ditches, fencing and railings to deter crossing and access in unsafe locations.
- Design elements such as fencing and walls with natural appearance qualities.



Buffer and screening strategies

# Draft Recommendations: Landscape Character



- Use hardy, native and lowmaintenance vegetation.
- Design plantings to be organically arranged and diverse in height and spacing.
- Use ornamental and seasonally diverse plants in station areas.
- Minimize density and height of plants in station and crossing areas to maintain visibility.

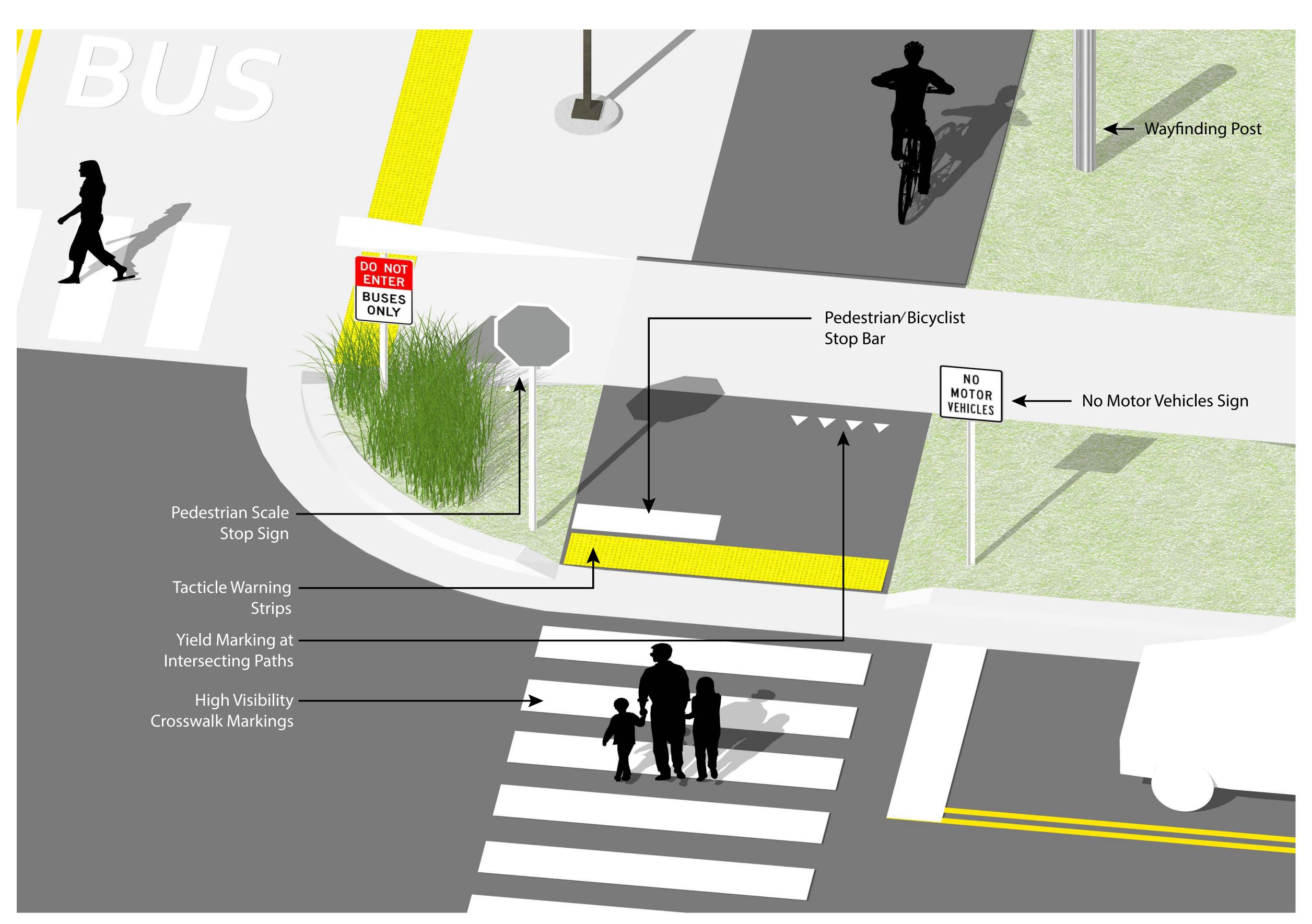


Natural landscape character example

# Draft Recommendations: Safety



- Use signage to promote safety and help navigation.
- Use lighting at stations and crossings. Limit lighting in between stations and crossings to minimize light pollution.
- Avoid obstructing lighting and lines of sight.
- Use pavement markings, signage and other tools to prevent motor vehicle access.



Typical signage and markings at roadway crossings

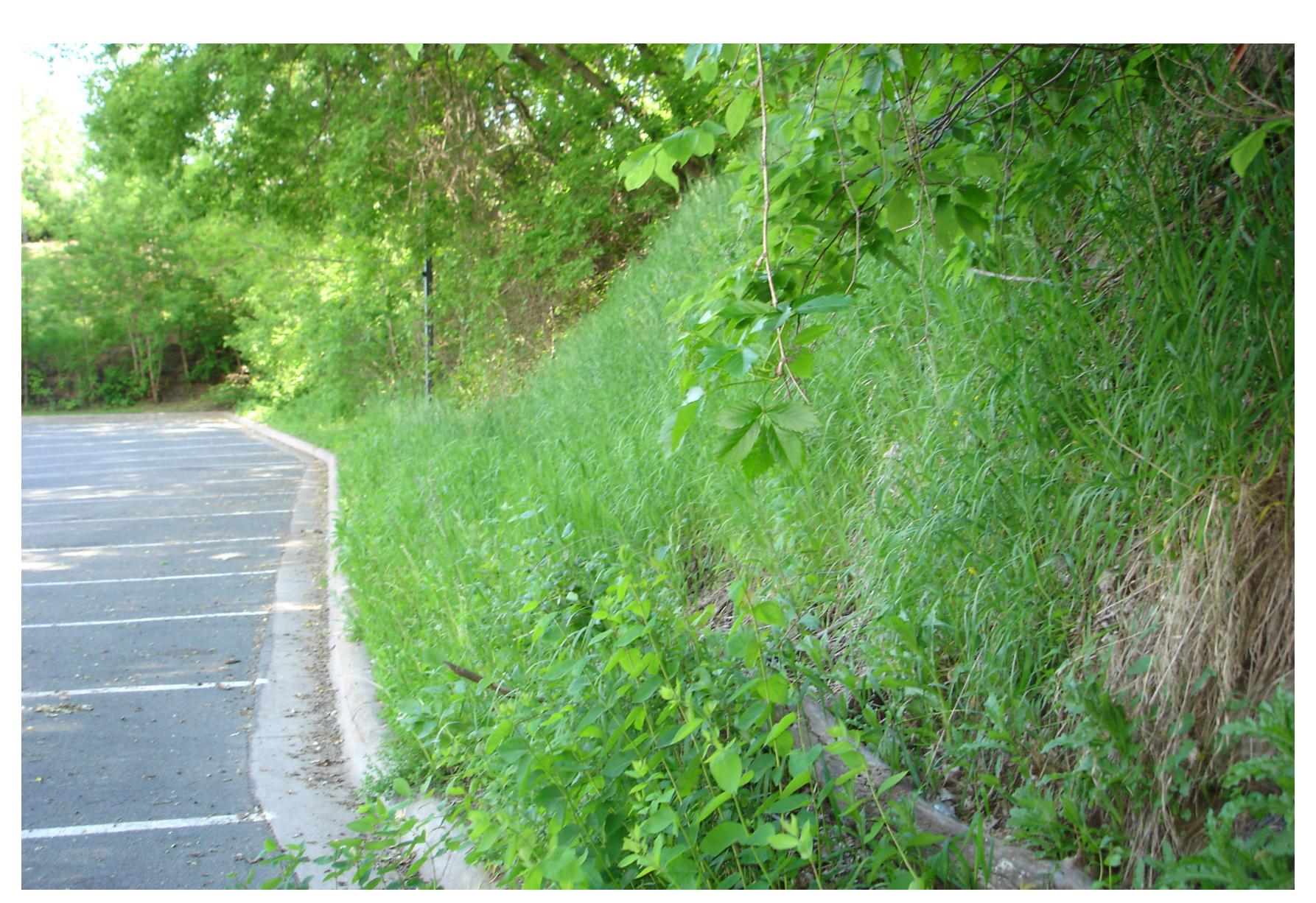
## Draft Recommendations: Environment



- Where possible, preserve existing vegetation and reestablish habitat.
- Manage stormwater using bioswales and other natural management options.
- Use engineered slopes where possible for mitigating steep grade changes.
- Coordinate stormwater treatment needs with community desire to daylight portions of Phalen Creek where applicable.

- Install amenities and wayfinding in a manner consistent with other Ramsey County and Saint Paul parks and trails:
  - Benches.
  - Trash and recycling receptacles.
  - Bicycle repair stations.
  - Dog waste pick-up stations.
  - Trail route maps.
  - Directional kiosks.





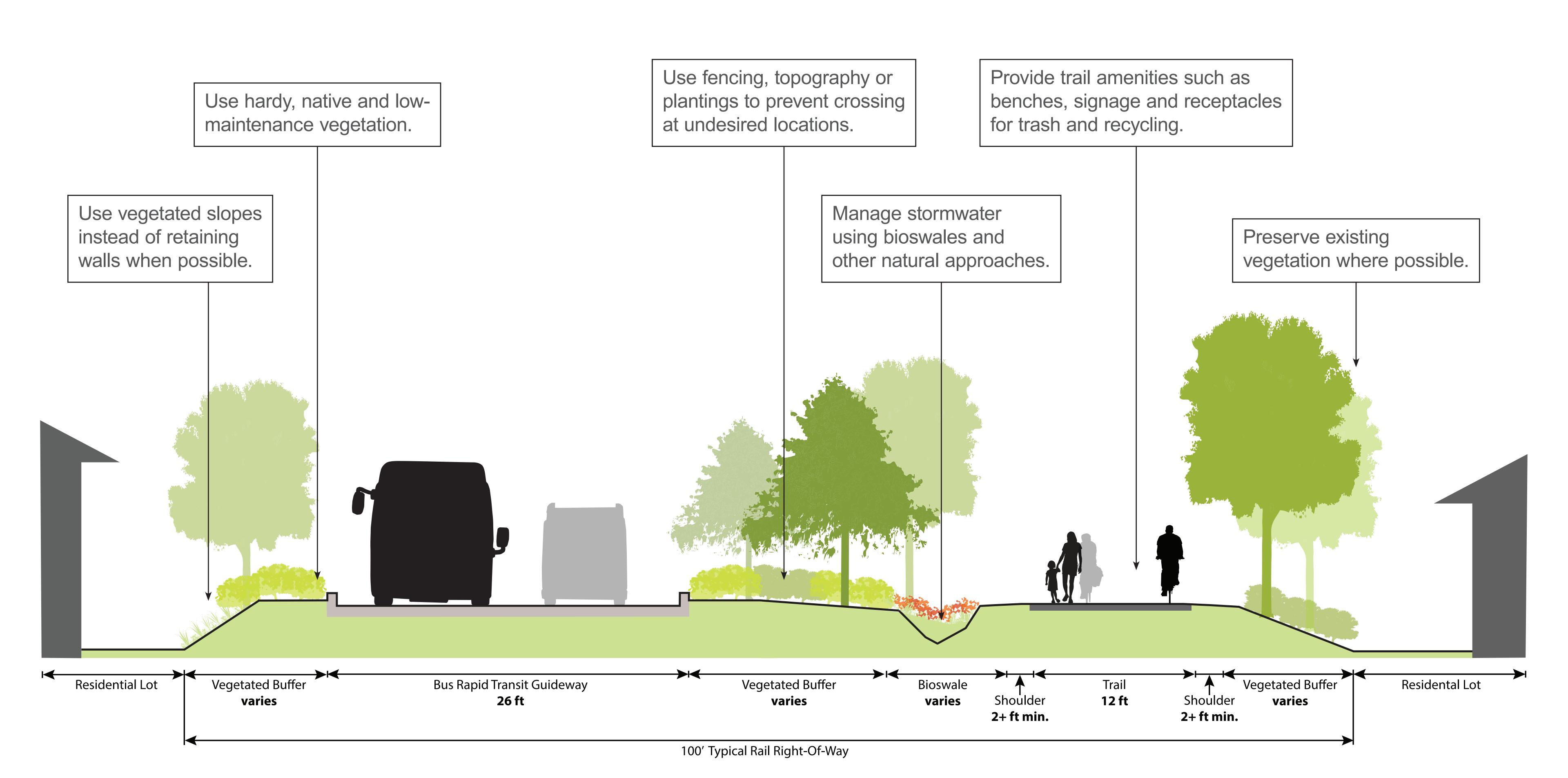
Bioswale

Engineered green slope

# What It Could Look Like: Application of Recommendations Along the Guideway







## What It Could Look Like: Recommendations at a Station



