

**Date:** 7/24/2025

**To:** Craig Lamothe, Project Manager

**From:** Jim Gersema, PE; Michael Jischke, ASLA, PLA

## RE: Arcade St. Station Design Summary

### Introduction

This memorandum will summarize the background, project coordination, stakeholder engagement, and design alternatives that have been developed to date starting during the Rush Line phase of work and extending through the current Purple Line design status. In principle, the Arcade St. station area is a location along the selected alignment where Metro Transit, Ramsey County, St. Paul and the public agree on the need for improved transit service and desire a station that serves the community well in both the near and long term. Nevertheless, complete consensus on the preferred location and configuration has been difficult to reach.

### Existing Station Area Environment

#### Land Use

Within a half mile of Arcade St. and Phalen Blvd, Planning District 4 (south of Phalen Boulevard) is characterized by a mixture of commercial, public services, and health care concentrated along Arcade Street, Minnehaha Avenue, and East 7<sup>th</sup> Street. Planning District 5 (north of Phalen Boulevard) includes the Seeger Square shopping center and other businesses lining both sides of Arcade Street extending north to Maryland Ave. Areas beyond are mostly residential. Atop the bluff to the northwest of Arcade Street and Neid Lane, the St. Paul Eastside YMCA and LEAP High School are two anchoring institutions.

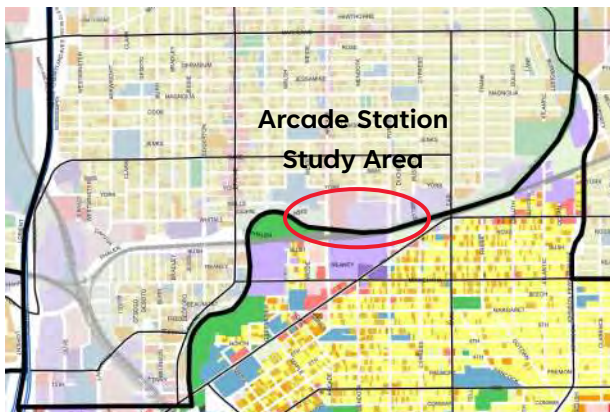


Figure 1 - District 4 Land Use Map (St Paul 2013)

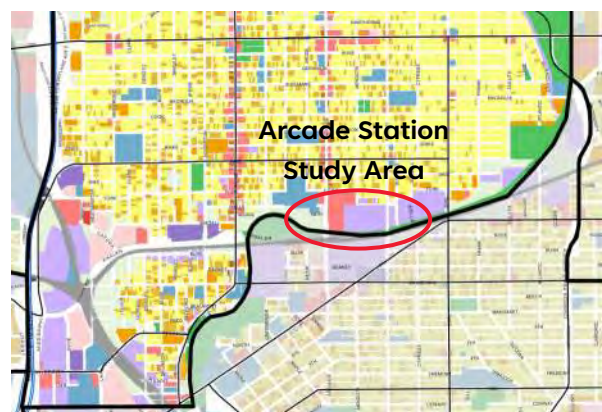


Figure 2 - District 5 Land Use Map (St Paul 2013)

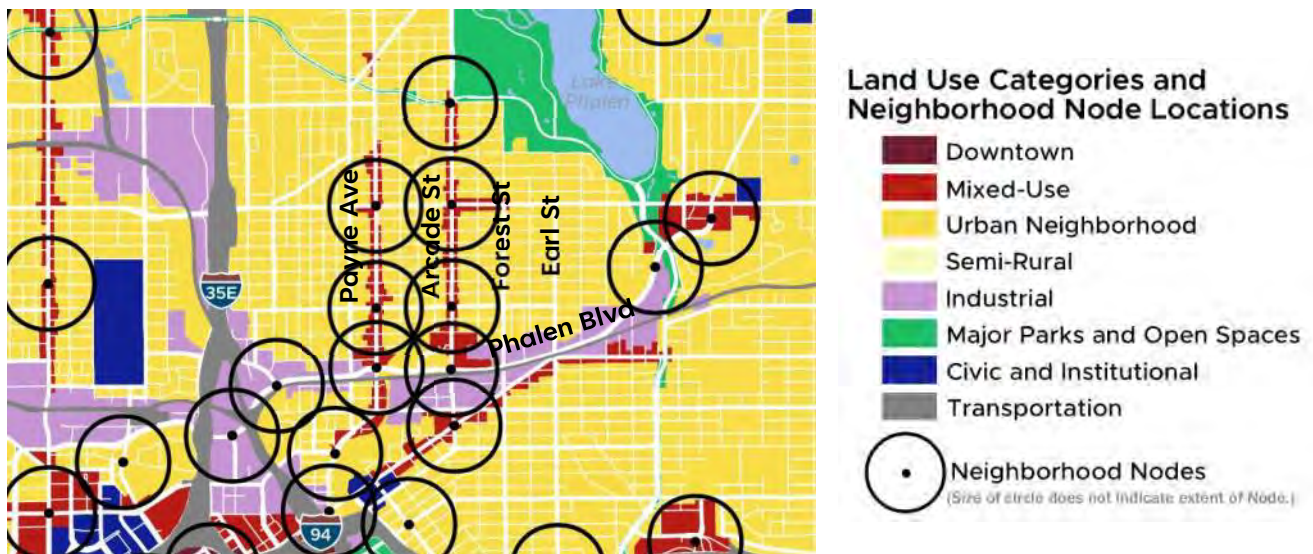


Figure 3 - Excerpt from St. Paul 2040 Land Use Map

### Roadways and Bridges

Arcade St. is four to five lanes in the vicinity of the station – two northbound, two southbound, and a left turn lane in some locations. It is part of the state highway system under MnDOT’s jurisdiction, and there are plans set for upgrades starting in spring 2025 separate from the Purple Line project. See the Project Coordination section for additional information. Arcade St. Bridge is approximately 580 feet long and passes over both Phalen Boulevard and the freight rail corridor and has sidewalks on both sides. North of Phalen Blvd., Neid Ln. provides access to Seeger Square to the east and curves down to Phalen Boulevard to the west.

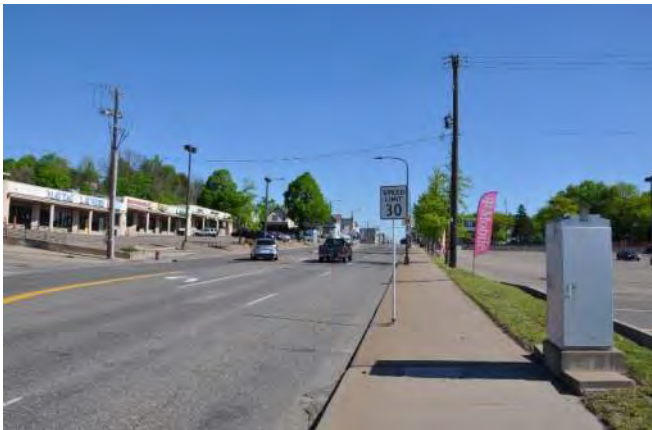


Figure 4 - Arcade St. Looking North



Figure 5 - Phalen Blvd. Looking East from Arcade St.



**Figure 6 - Neid Ln. Looking East**



**Figure 7 - Arcade St. Bridge and Bruce Vento Trail**

### **Multi-modal Facilities**

Existing transit service along Arcade St. includes routes 54, 61, and 74. The nearest existing bus stops along Arcade are located at the York, Neid, and Minnehaha intersections. Arcade St. has basic sidewalks on both sides, but overall, the street doesn't have a pedestrian-friendly character in the vicinity of the proposed station area with few amenities and no street trees. Pedestrian space will be improved with the planned MnDOT project but there are no new dedicated bicycle facilities planned. Arcade Street is not a designated bicycle route in St. Paul's Bicycle Plan, but the Bruce Vento Regional Trail and Trout Brook Trail are conveniently accessible nearby.

### **Topography and Drainage**

Following a portion of the former Phalen Creek route, Phalen Blvd. is generally low topographically in relation to the surroundings. There is approximately twenty to twenty-five feet of grade difference between the Arcade St. Bridge and Phalen Blvd. below. Overall, drainage trends towards the west and south towards the Mississippi River via the ravine through Swede Hollow Park and pipe networks. In the Arcade St. area, a major storm sewer tunnel follows Phalen Boulevard on the north side of the right of way, and its location, size, and age pose significant technical challenges to the Purple Line project. If the tunnel is impacted by Purple Line construction, it would add substantial cost to repair it, so it was a directive to avoid it if possible.

### **Green Space**

In the vicinity of the station area, there are four main types of green space: developed park and school playfields, peripheral woods along the Trout Brook ravine, Phalen and railroad corridor margins, and stormwater treatment areas for specific properties. The developed locations include Eastside Heritage Park and Johnson School. To varying degrees, these features provide recreational, visual, and ecological benefit to the surrounding neighborhoods. The large undeveloped green area immediately adjacent to Arcade St. Bridge is expansive but not actively used currently.



## Project Coordination

### MnDOT Roadway Reconstruction

In spring 2025, MnDOT will begin the two-year reconstruction project along East 7th St. and Arcade St. between I-94 in St. Paul and Roselawn Ave. in Maplewood. Construction will occur on Arcade St. during the 2025 construction season and on East 7th St. during the 2026 construction season. Construction is expected to be completed in fall 2026. When complete, the new roadway will improve traffic flow, decrease traffic delays and improve safety on the corridor.

Planned improvements include: resurfacing the road, repairing sidewalks, updating sidewalk curb ramps and driveways, improving safety features for all users, updating and improving pedestrian lighting, updating and improving traffic signals, updating and improving bus stops. Near Neid Ln., the roadway footprint will be reduced from five lanes to three lanes with increased space outside the curb lines for sidewalks and planted boulevards. From a Purple Line perspective, MnDOT's project will become the new baseline existing conditions that may require additional adaptation.

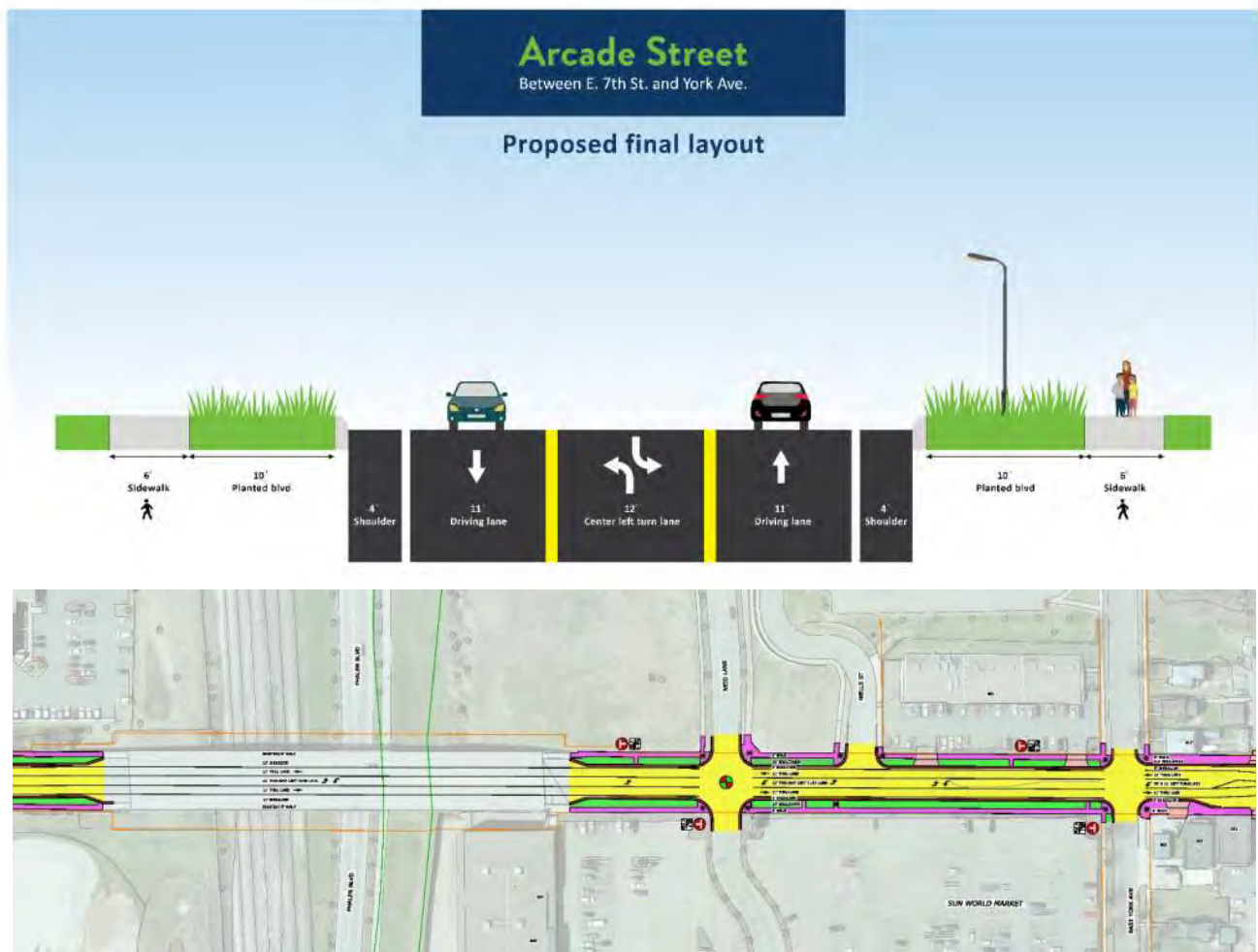
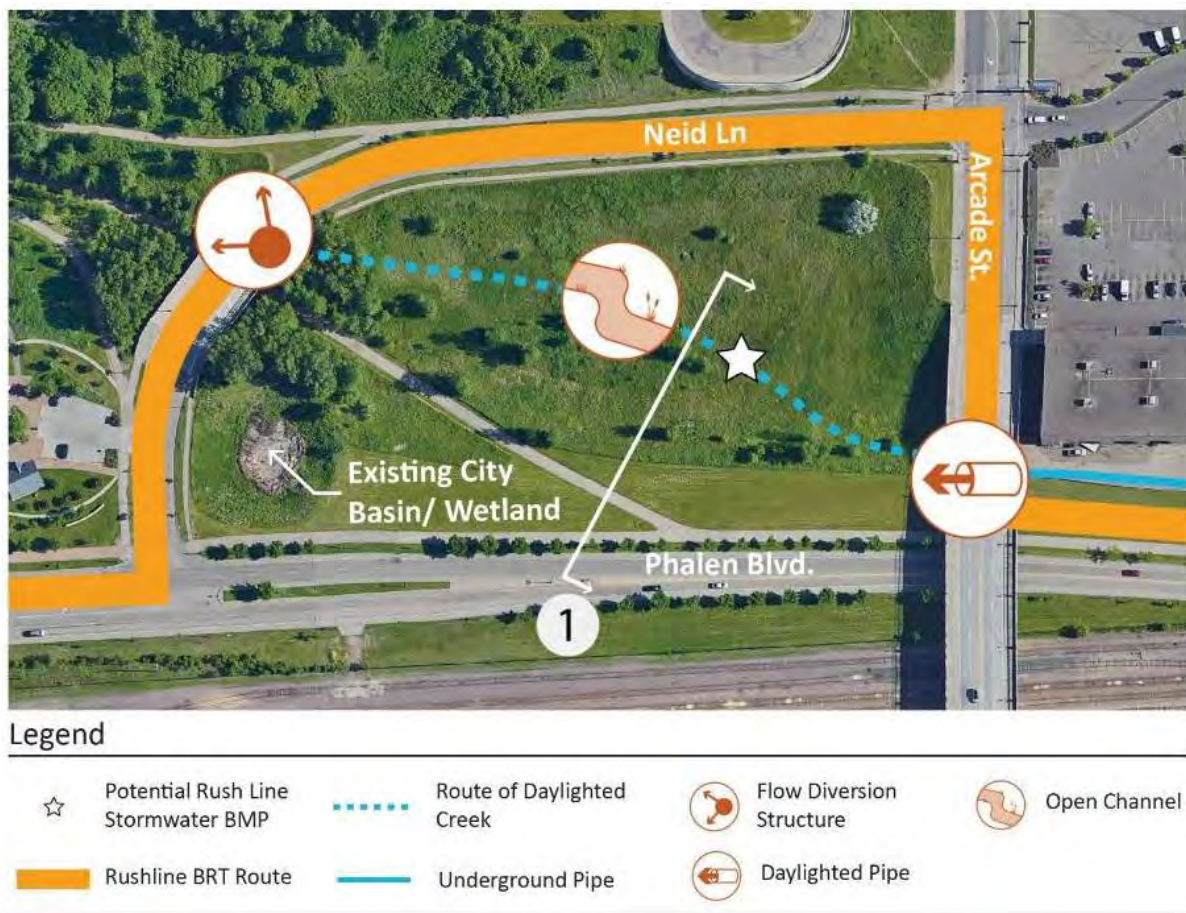


Figure 8 – Proposed Arcade St. Cross Section and Layout (MnDOT 2024)

## Phalen Creek Daylighting

The Capital Region Watershed District (CRWD) and Wakan Tipi Awanyankapi (formerly Lower Phalen Creek Project) have been advocating and planning for creek daylighting and stormwater treatment in the Phalen corridor for many years. The Phalen Creek Daylighting Improvements Memorandum (2020) studied a daylighted creek within the historic path of Phalen Creek with a focus on Reaches 5 and 6. Subsequently, the Rush Line and Purple Line projects have engaged in ongoing coordination with CRWD and Wakan Tipi Awanyankapi through regular meetings and sharing design information. In the Arcade St. station area, the Purple Line plans currently include space for a daylighted channel between Arcade St. and East Side Heritage Park and several stormwater treatment basins.



**Figure 9 – Proposed Phalen Creek Daylighting near Arcade St. Station (HTPO 2020)**

## Preliminary Rush Line Phase Station Area Planning and Design

### Working Groups

In 2018, during the Rush Line Environmental Assessment phase, several working groups were convened to review potential locations. Comprised of local elected officials, agency staff, business representatives, and resident representatives. Ultimately, the station area planning process and other concurrent engagement led to the station location at the intersection of Arcade Street and Neid Lane.

### Market Assessment

In 2020, a Market Assessment was conducted which characterized neighborhood economic measures. The area around Arcade Street Station had a drop in employment of 50% between 2010 and 2015 due to several large manufacturing closures in the 90's and 00's. The average annual median income of approximately \$35,000 lags the county as a whole. The healthcare and social assistance employment sector accounts for approximately 30% of overall employment.

In general, the assessment concluded that were good opportunities for redevelopment and noted the following advantages and opportunities.

- The station platform is well-positioned at the intersection of Neid Lane and Arcade Street, providing desirable access to nearby destinations and visibility from well-traveled corridors.
- Large vacant properties in proximity of the planned station location offer opportunities to attract new development to an urbanized area with access to existing transportation corridors, pedestrian amenities, and utilities.
- Although current residential development has focused on small-scale infill units, this area is likely to attract new multi-family developments following development of the BRT line. Multi-family housing could serve people employed nearby in healthcare fields, as well as those commuting into downtown Saint Paul. Providing housing at a variety of price points is key.
- Well-positioned, available land makes the Arcade Street station area ripe for new construction of mixed-use projects that could include residential, convenience retail and office land uses.
- Aging strip retail centers along Arcade Street could also offer opportunities for redevelopment.



## Walkshed and Bikeshed Analysis

Also in 2020, an extensive walkshed and bikeshed analysis was conducted to assess connectivity to planned station locations. The analysis assessed walking paths within ¼ mile and ½ mile radii to determine the actual walkshed accounting for the street pattern and necessary crossings (Figure 10). The analysis also reviewed bicycle routes within the 1-mile and 3-mile radii to determine the boundaries of low-stress and high-stress areas with the station as the destination (Figure 11). Generally, areas south of Phalen Boulevard were indicated as more high-stress.

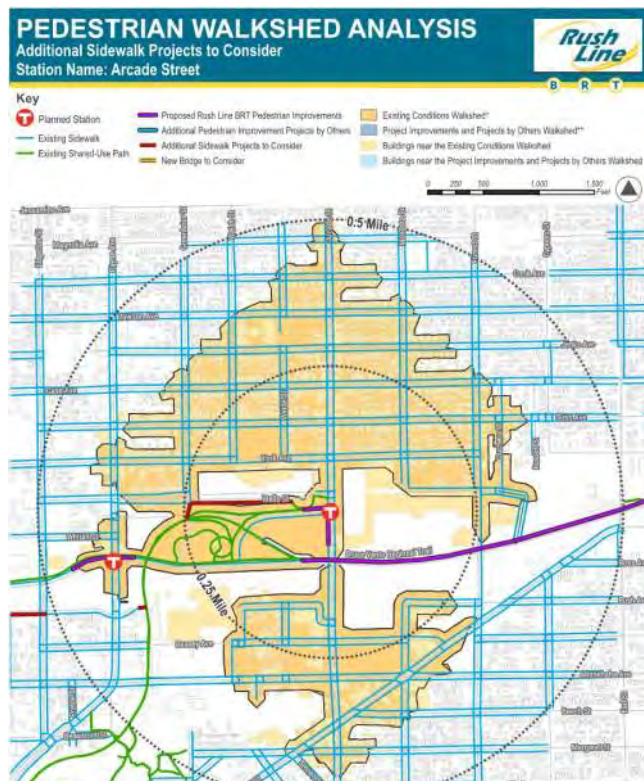


Figure 10 - Walkshed Analysis (2020)



Figure 11 - Bikeshed Analysis (2020)

## Preliminary Arcade St. Station Design (25% Plans)

At the conclusion of the Rush Line phase of work, a full set of 25% design plans was prepared for the proposed alignment. Figure 12 below illustrates the Arcade Street Station location and extents of other project work in the vicinity. The design included the following:

- BRT in mixed traffic to the west of Arcade and in a dedicated guideway to the east
- New BRT guideway bridge connection to Arcade Street Bridge for transit vehicles only (orange)
- (2) 14.5' x 80' BRT platforms on Neid Lane west of the Arcade Street intersection (yellow)
- Partial reconstruction of Neid Lane and sidewalks for station access
- Traffic signals at the Arcade/Neid intersection and the BRT guideway/Arcade Street Bridge
- Bruce Vento Trail realignment and reconstruction
- Stormwater treatment and Phalen Creek Daylighting opportunity in green space west of Arcade
- Coordination of local bus stop locations with new BRT station to facilitate convenient transfers
- Additional coordination with Metro Transit operations and MnDOT on final design requirements for the intersection of the dedicated guideway and Arcade Street bridge needed. Metro Transit had concerns about the steepness of the guideway grade of the structure for the operation of buses. MnDOT expressed concerns about sight lines and structural damage at the new mid-bridge intersection.
- The Payne-Phalen Community Council requested the addition of a bicycle and pedestrian side path on the new bridge.

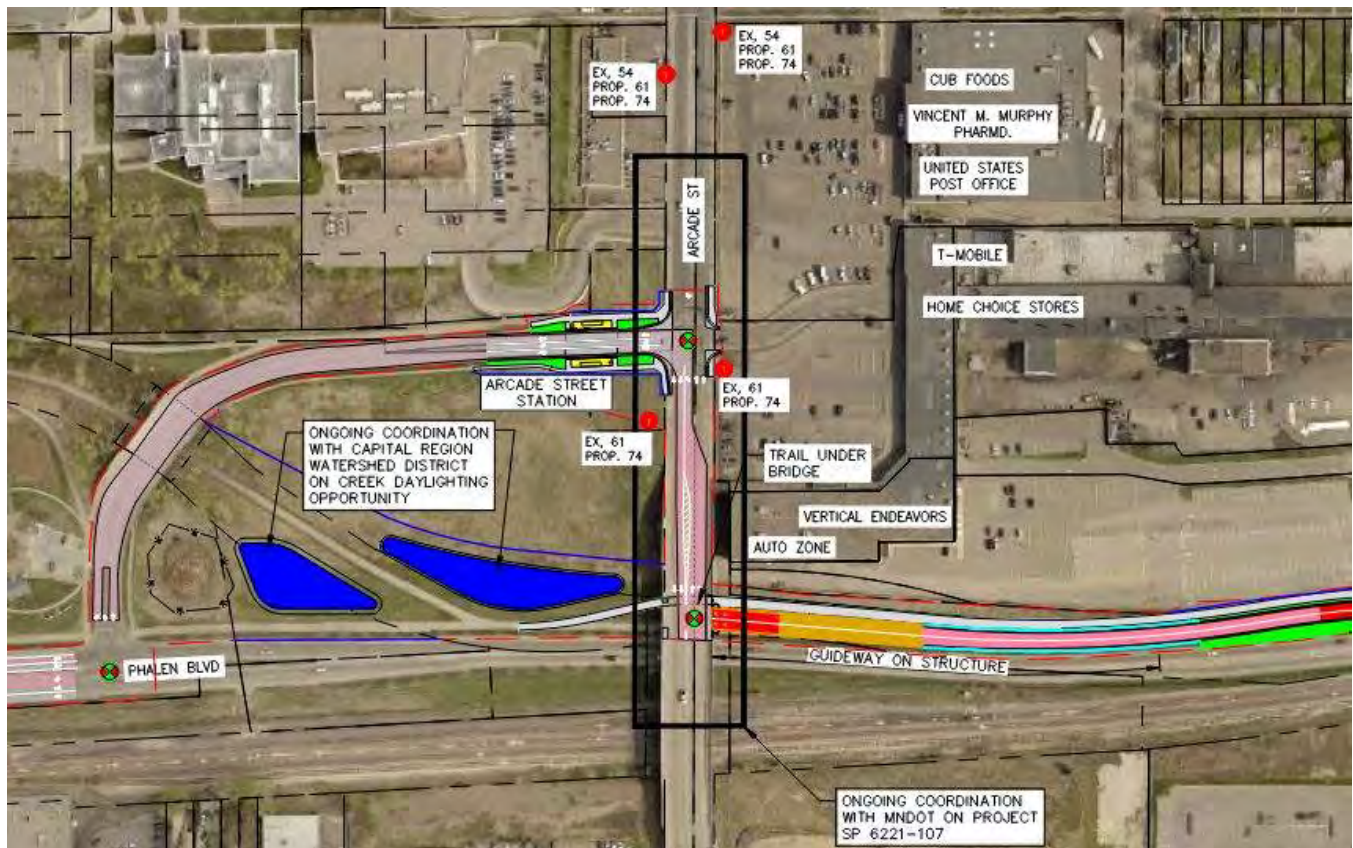


Figure 12 - 25% Design at Arcade Street Station Area (2021)



### 30% Station Design Alternatives

During preliminary design, the Purple Line project established a Design Advancement and Refinement Teams (DART) comprised of Metro Transit, Ramsey County, city staff, and design consultants to advance the 25% design to 30%. In Spring 2022, the St. Paul DART began reviewing the Arcade St. Station design. Early on, St. Paul staff noted new community interest in including a designated multi-use path on the BRT Guideway Bridge connection to Arcade Street. City staff also expressed the need to delve more deeply into the operation of the traffic signals.

The Purple Line project re-evaluated the preliminary bridge design and evaluated it against more detailed underground utility information. With widening needed for a multi-use path, conflicts were identified which would require bridge redesign and other additional roadway and infrastructure work. In light of these findings, the Purple Line project began to study additional alternative locations for the Arcade St. Station.

After considering a number of different preliminary scenarios and seeking DART input, four concepts were selected for further development and shared with Councilmember Yang and nearby affected property owners. One concept, in which the BRT Guideway would cut through the Seeger Square commercial property, didn't align with the property owner's current plans for the site and wasn't developed further. Advancement of three other options continued and are summarized below.



Figure 13 – Purple Line Station Locations in St. Paul

## Alternative Concept A - Baseline 25% Design plus Phalen Boulevard Roadway Shift



**Figure 14 - Alternative Concept A Layout**

### Primary Design Features

- Station platforms located on the west side of the Arcade/Neid intersection similar to 25% Design directly opposite each other.
- Widened and shifted bridge design to avoid Phalen storm tunnel conflict and include a pedestrian and bicycle connection from the Bruce Vento trail directly up to Arcade St. Bridge.
- Portions of Phalen Blvd. and Bruce Vento Trail realigned and reconstructed to south to avoid existing Arcade St. Bridge piers.
- Additional retaining wall construction along north edge of Phalen Boulevard right-of-way and commercial property east of Arcade.

### Key Positives

- Locates station in the community's preferred location near public neighborhood destinations and potential future redevelopment opportunity areas near the Arcade/Neid intersection.

### Key Negatives

- Adds significant cost (~\$6 million) resulting from a larger bridge, special lightweight fill over the storm sewer tunnel, additional retaining walls, and Phalen Blvd. reconstruction.
- Metro Transit operations concerned about buses using the guideway bridge in icy conditions.
- Creates challenging traffic operations with a new additional signal.
- St. Paul was concerned about the retaining wall at Wells St. being compromised during construction.
- Potential impacts to storm sewer tunnel and other utilities anticipated creating significant risk.



## Alternative Concept B - Phalen Boulevard Station plus Pedestrian Connection to Arcade Street



Figure 15 - Alternative Concept B Layout

### Primary Design Features

- Station platforms located along Phalen Blvd. to west of Arcade St. Bridge directly opposite each other.
- Dedicated guideway extended west of the bridge and new signalized BRT guideway access east of the Phalen Blvd./Neid Ln. intersection.
- Additional pedestrian connection from the Arcade St./Neid Ln. intersection through the undeveloped green space down to the station (approximately 20 ft. vertically at 5% grade max.)
- Reconfigured stormwater treatment area and creek daylighting.

### Key Positives

- Improves BRT travel time by avoiding routing up to Arcade St.
- Eliminates new BRT Guideway bridge and retaining walls (~\$10 million savings).
- 150 more Purple Line riders compared to the Baseline 2040 weekday ridership estimates.
- Avoids impacts to the Phalen storm tunnel.

### Key Negatives

- Station location along Phalen Blvd. feels remote from the activity of Arcade St. and associated public destinations.
- Walk connection from Arcade/Neid to station is ~400 ft at 5% running slope.



## Alternative Concept C – Wells St. Station (approximately 1000 ft. east of Arcade St.)



Figure 16 - Alternative Concept C Layout

### Primary Design Features

- Station platforms located near the Phalen Blvd. and Wells St. intersection in an offset nearside configuration along the BRT guideway.
- Partial realignment and reconstruction of Phalen Blvd. and Bruce Vento Trail.
- New sidewalk connection to Russell Street cul-de-sac to the north
- BRT Guideway extended along Phalen Blvd. beneath the Arcade Street Bridge, using a similar dedicated guideway entrance/exit as Arcade Alt B. (not shown in figure above)

### Key Positives

- Provides more equally distributed access to transit service for the neighborhood between Payne Avenue and Cook Avenue Stations where other alternatives would leave a gap (see Figure 19).
- Eliminates new BRT Guideway bridge and retaining walls (~\$10 million savings).
- 200 more riders compared to the Baseline 2040 weekday ridership estimates.
- Increases neighborhood connectivity to the Bruce Vento Trail.

### Key Negatives

- Station location along Phalen Blvd. feels remote from the activity of Arcade St. and associated public destinations.
- Future redevelopment is more limited in the area near Wells St since the Terracon site is now fully built out.

## Transit Access Comparison

Geographic analysis illustrated clear distinctions between the three concepts in two key measures: transit service access and pedestrian access. The spacing between three stations: Payne Ave., Arcade St., and Cook Ave. heavily influences these measures. In Concepts A and B, Payne and Arcade are located within 1/3 mile of each other with a larger 1 mile distance to Cook. In Concept C, they are all more evenly spaced at approximately 3/4 mile between them.

The map analyses below include Purple Line and other local and limited stop routes. Concepts A and B had similar results while Concept C noticeably improved access in the portions of the neighborhood east of Arcade St. and south of Maryland Ave indicated by the increased gold area.



Figure 17 - Concept A Transit Access



Figure 18 - Concept B Transit Access

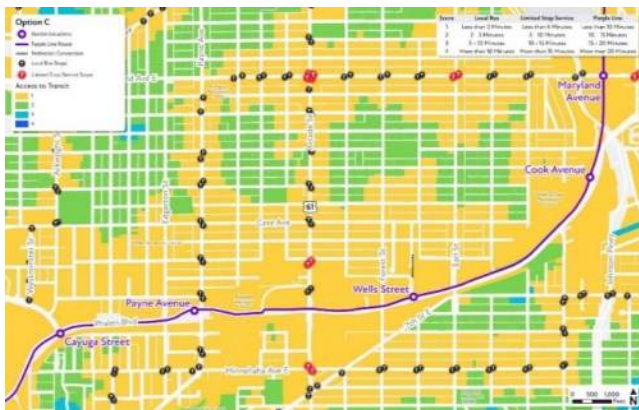


Figure 19 - Concept C Transit Access

Score	Local Bus	Limited Stop Service	Purple Line
1	Less than 2 Minutes	Less than 5 Minutes	Less than 10 Minutes
2	2 - 5 Minutes	5 - 10 Minutes	10 - 15 Minutes
3	5 - 10 Minutes	10 - 15 Minutes	15 - 20 Minutes
4	More than 10 Minutes	More than 15 Minutes	More than 20 Minutes

## Pedestrian Access Comparison

The map analyses below outline walksheds for each of the concepts within an overall 1/2 mile radius from each Purple Line station (a typical 10 minute walk). Concepts A and B had similar results with Payne and Arcade overlapping closely and a resulting gap between Arcade and Cook. Compared to A, Concept B also has a smaller walkshed at Arcade as a result of the additional distance to get down to the station location along Phalen Blvd. In Concept C, the more equally-spaced stations create a more contiguous walkshed coverage overall.

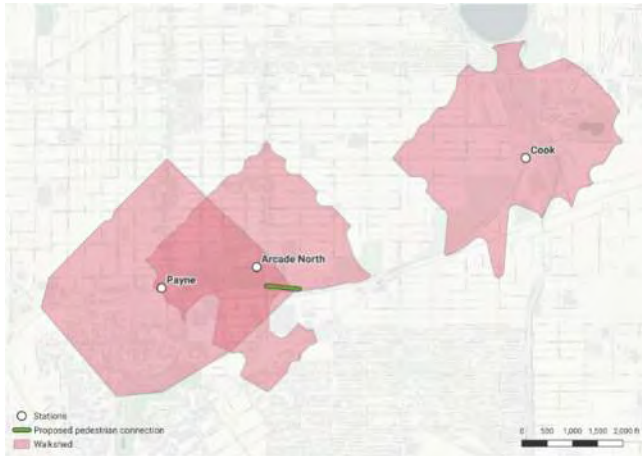


Figure 20 - Concept A Pedestrian Walkshed

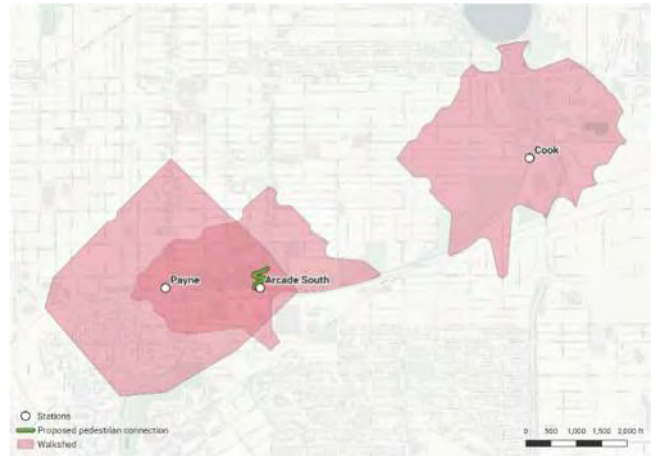


Figure 21 - Concept B Pedestrian Walkshed

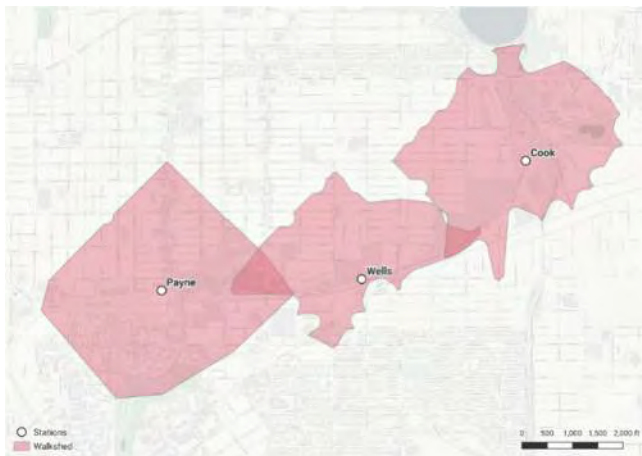


Figure 22 - Concept C Pedestrian Walkshed



## Key Criteria Comparison

In comparison to the 25% Baseline Design, the following key qualitative and quantitative criteria listed in Table 1 below were outlined and reviewed by the DART. Additional cost estimating, ridership modeling, and mapping analysis was undertaken to provide supporting data.

**Table 1 – Key Design Alternative Criteria Comparison**

Criteria	Alternative A	Alternative B	Alternative C
Capital Cost Impact	Increase (+\$6 million)	Decrease (-\$10 million)	Decrease (-\$10 million)
O&M Impact	Slight Increase	Decrease	Decrease
Travel Time Impact	Neutral	Improved	Improved
2040 Purple Line Ridership Impact	Maintains Baseline	Addl 150 Riders daily	Addl 200 Riders daily
Overall Transit Access Impact	Maintains Baseline	Increase in underserved area between Arcade and Cook	Increase in underserved area between Arcade and Cook
Includes Bridge	Yes	No	No
Approximate Spacing from Payne Avenue	0.40 miles	0.35 miles	0.75 miles
Proximate to Existing Public Neighborhood Destinations	Arcade St commercial spine, YMCA, Johnson School, Eastside Heritage Park	Eastside Heritage Park	No
Proximate to Existing Residential Areas	Yes	No	Yes
Proximate to Future Redevelopment Areas	Yes	Yes	No

In addition, Table 2 below compares the design alternatives using the primary goals developed during Rush Line Preliminary Station Area Planning (2018) as criteria.

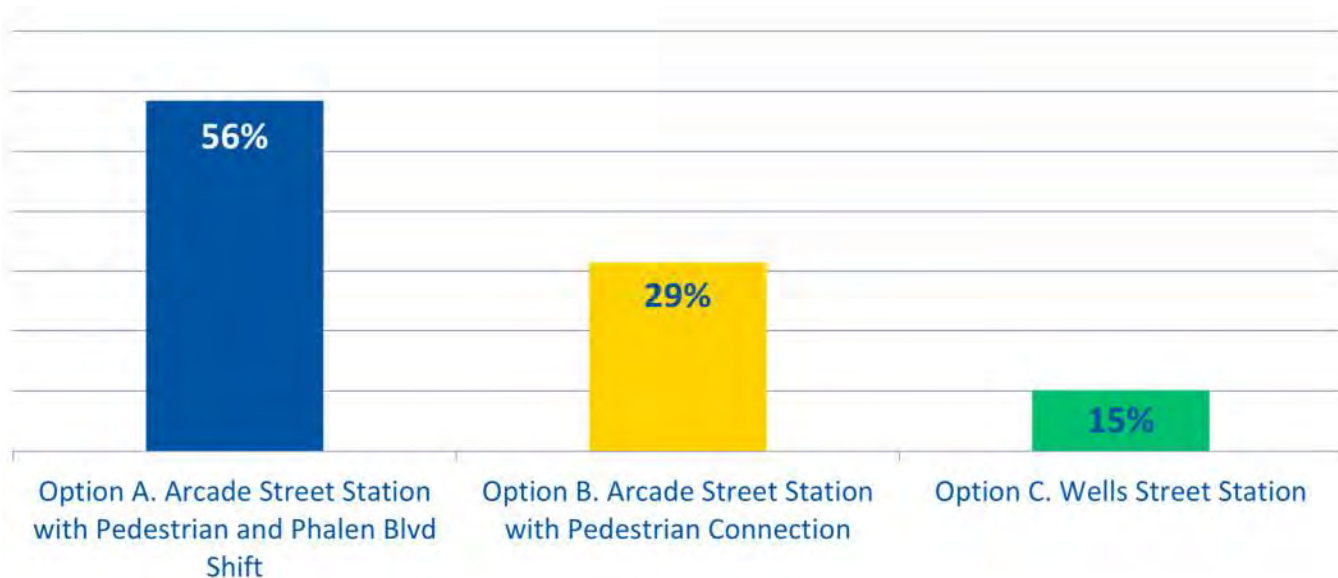
**Table 2 – Preliminary Station Area Planning Phase Criteria Comparison**

Criteria	Alternative A	Alternative B	Alternative C
<b>Increase Transit Use</b>	<p><b>Pro</b></p> <p>Community's preferred location</p> <p><b>Con</b></p> <p>Overlap w/Route 54</p> <p>Diversion off Phalen increases travel time</p>	<p><b>Pro</b></p> <p>Stays on Phalen and improves travel time</p> <p><b>Con</b></p> <p>Long ped access to station</p>	<p><b>Pro</b></p> <p>More equal station spacing</p> <p>New transit in area with less service currently</p> <p>Stays on Phalen and improves travel time</p>
<b>Implementable Project</b>	<p><b>Con</b></p> <p>New Arcade Bridge increased costs for widening</p> <p>Addl Phalen Blvd construction costs</p> <p>Phalen staging challenges</p>	<p><b>Pro</b></p> <p>No bridge costs</p> <p><b>Con</b></p> <p>Addl guideway costs</p> <p>Addl ped connection costs</p>	<p><b>Pro</b></p> <p>No bridge costs</p> <p><b>Con</b></p> <p>Addl guideway costs</p> <p>Addl ped connection costs</p>
<b>Improves Quality of Life</b>	<p><b>Pro</b></p> <p>Avoids creek daylighting area and planned stormwater bmp's</p>	<p><b>Con</b></p> <p>Limitations on space for creek daylighting and planned stormwater bmp's</p>	<p><b>Pro</b></p> <p>Avoids creek daylighting area and planned stormwater bmp's</p>
<b>Improves Sustainable Transit Options</b>	<p><b>Pro</b></p> <p>New ped connection between Arcade and Phalen Blvd Trail on new bridge</p> <p><b>Con</b></p> <p>Payne Ave Station walkshed overlap</p>	<p><b>Pro</b></p> <p>Better access from Phalen Blvd Trail</p> <p><b>Con</b></p> <p>Long ped access from Arcade</p> <p>Payne Ave Station walkshed overlap</p>	<p><b>Pro</b></p> <p>New ped connectivity to Russell cul-de-sac</p> <p>Additional ped/bike connectivity to Forest (designated route)</p>
<b>Enhances Regional Connectivity</b>	<p><b>Con</b></p> <p>Significant realignment of Phalen Blvd</p> <p>New signal on Arcade bridge would impact traffic flow</p>	<p><b>Con</b></p> <p>New intersection and signal at Neid and Phalen Blvd for guideway access creates atypical traffic pattern</p>	<p><b>Con</b></p> <p>New signal at Wells and Phalen Blvd intersection for Guideway infringes on current traffic operations</p>
<b>Supports Local Vision</b>	<p><b>Pro</b></p> <p>Preserves all TOD potential near station on adjacent parcels</p>	<p><b>Con</b></p> <p>Introduces some space limitations on TOD potential west of Arcade</p>	<p><b>Pro</b></p> <p>Preserves TOD potential near Arcade</p> <p><b>Con</b></p> <p>Area near Wells has less development opportunity</p>

## Community Engagement on Design Alternatives

### Community Survey

In fall 2021, Purple Line project staff conducted several public engagement activities focused on the Arcade design alternatives. This consisted of an on-line survey, neighborhood canvassing, and pop-up events at popular community destinations. Figure 23 is a summary of the results.



**Figure 23 – Community Survey Results**

The following is a summary of reasons that community members identified a preference for each station location alternative:

#### Option A

- Easy transfer to other buses
- Closer to home/destinations (YMCA specifically)
- More visible/safe

#### Option B

- More walkable to get to/from
- Less traffic
- Connection to other bus lines

#### Option C

- Evenly distributes station locations
- Closer to home and more accessible for nearby residents
- Less infrastructure/lower cost
- Safety at night



## **Payne Phalen Community Council**

The Board of Directors of the Payne-Phalen Community Council voted in support of retaining the intended Arcade Street Station on the Purple Line at the intersection of Neid Steet and Arcade Street. The Board voted against the two other locations “down in” Phalen Boulevard that were recently studied by Metro Transit.

### **Option A**

- Best transit connectivity with existing bus routes
- Best support existing businesses, schools and cultural institutions operating on and around the Arcade Street corridor
- Only one of the three locations studied that will successfully generate new transit-oriented development

### **Options B and C**

- Hard for pedestrians to get to and from
- Ridership at these stops will be very low, thus undermining the Purple Line project’s stated purpose of serving communities that are highly transit-dependent

## **Seeger Square Property Owners**

- Did not want property impacts to shopping center; planned to be fully leased out and continue as currently operating into the future.
- Option B would be best.

## **St. Paul Port Authority – Beacon Bluff Development**

- 1,021 jobs currently at Beacon Bluff businesses.
- Felt that any options would provide decent access to Beacon Bluff development, but Option A would be best for Vomela and winter access.
- Large development in process at Beacon Bluff closer to Wells St., as well as multifamily housing in the area.

## **Dayton’s Bluff Community Council**

- Acknowledged Option A as most expensive but understandable it is the preference of the Payne-Phalen neighborhood.
- Options B and C on Phalen Blvd provided good access to Dayton’s Bluff neighborhood.

## **Saint Paul Public Schools**

- Prefers Options A or B.
- Option A would be best for their students because of proximity to LEAP High School.

## Issue Resolution and Design Advancement

### Alternative Concept A2 (Current Design)

Recognizing the community's clearly stated preference for Concept A, the Purple Line project sought a solution that keeps the station as close as possible to the Arcade/Neid intersection while overcoming the technical obstacles of the bridge conflict with the existing storm sewer tunnel. In response, Concept A2 was developed and shared with stakeholders. While not universally endorsed, it is now the current design included in the 30% plans. Notably, the Payne Phalen Community Council doesn't support the design as is.



Figure 24 - Alternative Concept A2 Layout

#### Primary Design Features

- Station platforms located on the west side of the Arcade/Neid intersection with an enhanced pedestrian connection. Potential connection to the LEAP school was also considered.
- BRT Guideway passes underneath the Arcade St. Bridge avoiding the storm tunnel conflict.
- New BRT Guideway Bridge passes over the realigned Bruce Vento Trail and the daylighted creek.
- New connecting path from Brice Vento Trail up to Neid Ln.

#### Key Positives

- Locates station near the community's preferred location near public neighborhood destinations and potential future redevelopment opportunity areas near the Arcade/Neid intersection.
- Avoids impacts to the Phalen storm tunnel.
- Less costly BRT Guideway Bridge.
- Reduced risk of compromising the Wells St. retaining wall with new station location further away.

#### Key Negatives

- Limits developability of the city-owned parcel in the southwest corner of the Arcade/Neid intersection.



Figure 25 - Concept A2 Visualization from Above



Figure 26 - Concept A2 Visualization at Station

## Additional Conceptual Design Alternatives

Based on feedback from community leaders advocating for a station located closer to and serving the neighborhood around Arcade, project staff studied additional alternatives to test the feasibility of keeping the station closer to the Arcade/Neid intersection. Each of these includes property impacts to the Seeger Square property and potentially others east of Arcade St. due to new guideway alignments. Alternatives B1.1 and B2.1 divert the BRT Guideway north at Mendota Cir. and extend through Seeger Square. Alternative E utilizes a small roundabout turnaround within the Seeger Square parking lot where the BRT route would reverse and return to Phalen Blvd. Likewise, Alternative F incorporates a full roundabout at the Arcade/Neid intersection allowing buses to turn around. Roundabouts may create additional challenges for bus operations. A next step for this station advancement would be to continue working with all stakeholders to review the following concepts.

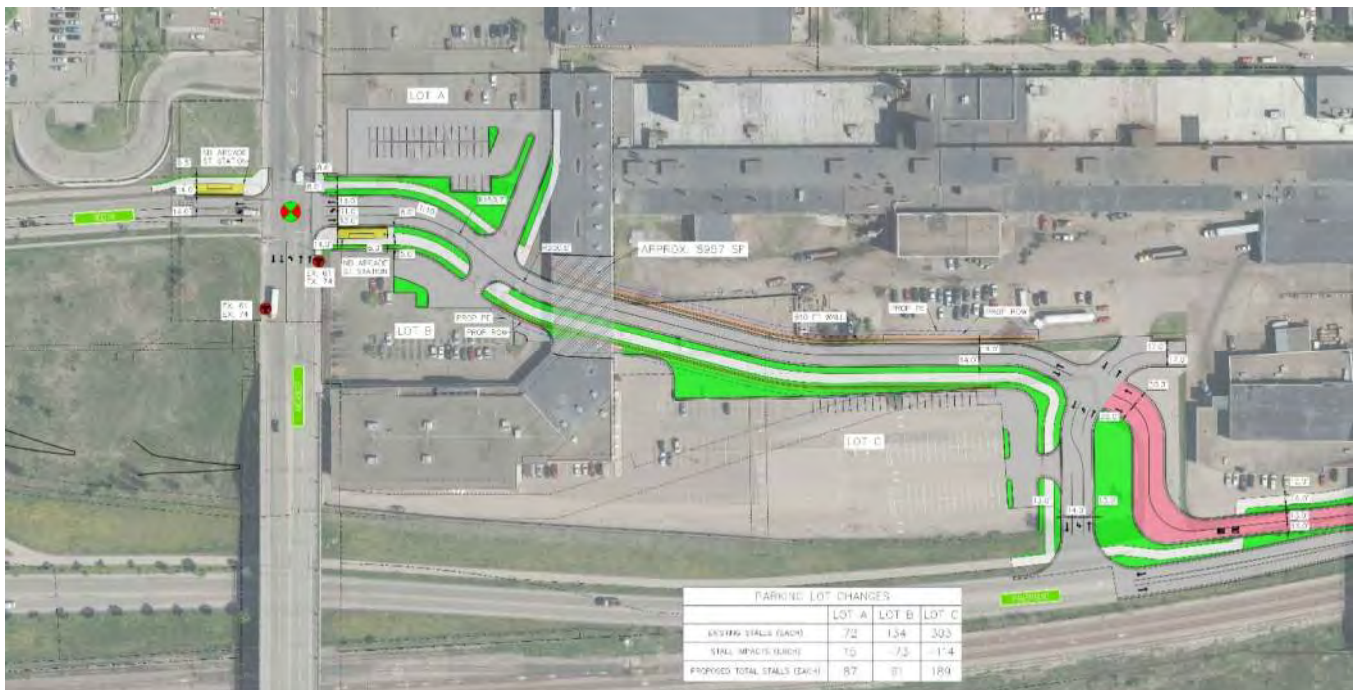


Figure 27 - Alternative Concept B1.1 Layout (stations located kitty-corner at Arcade/Neid intersection)





Figure 28 - Alternative Concept B2.1 Layout (stations located opposite each other at Arcade/Neid intersection)

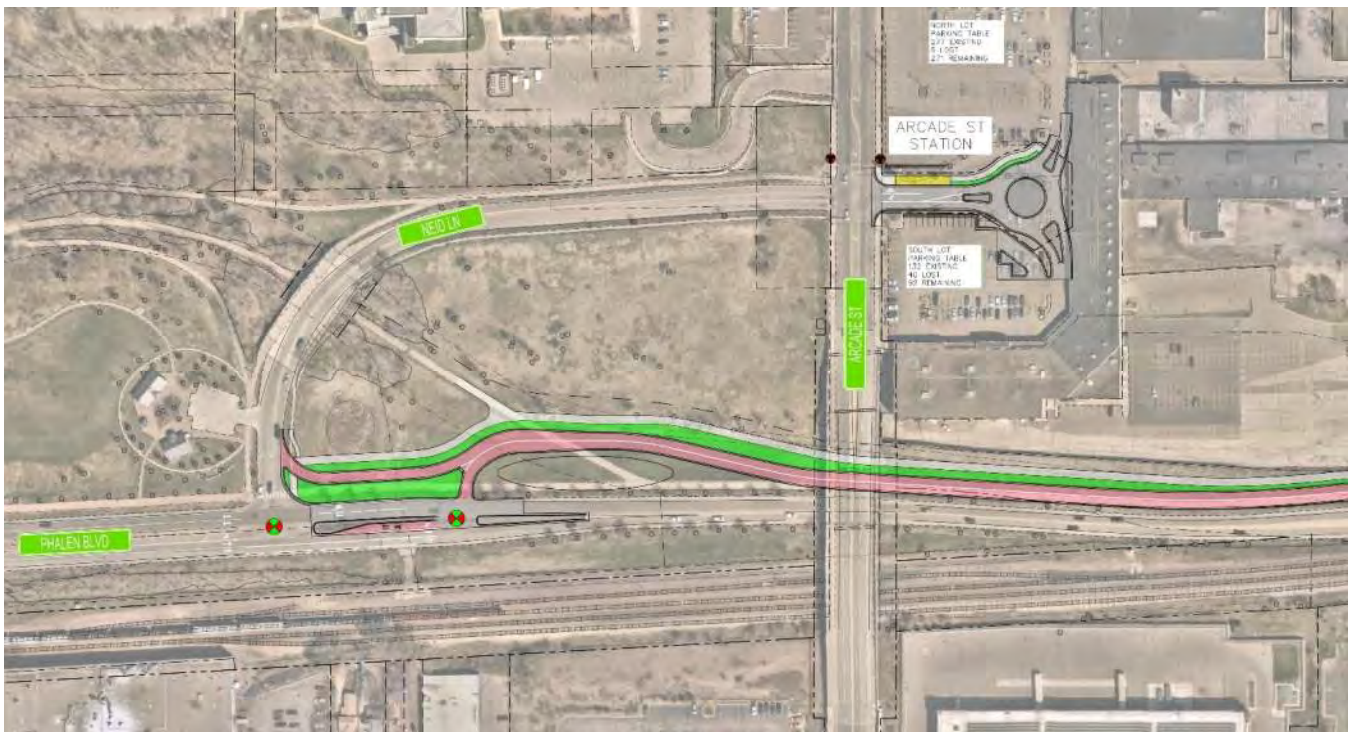


Figure 29 - Alternative Concept E Layout (one platform with roundabout bus turnaround/property access)



