

Seattle Department of Transportation

NORTH DOWNTOWN MOBILITY ACTION PLAN

Final Report



DECEMBER 2019



Seattle
Department of
Transportation

ACKNOWLEDGMENTS

Special thanks to the entire North Downtown community for their attendance and active participation in Mobility Action Plan events, meetings, and surveys. We would like to thank the following people and groups for their involvement in the development of the Mobility Action Plan:

Community Organizations

belltown20|20

Belltown Community Council

South Lake Union Community Council

Uptown Alliance

Arena Transportation Mobility Subcommittee

Community Outreach Liaisons, Department of Neighborhoods

Mercer Stakeholder Group

Interagency Working Group

Councilmember Bagshaw's Office

Department of Construction and Inspections

Department of Neighborhoods

Department of Transportation

King County Metro

Office of Economic Development

Office of Planning and Community Development

Port of Seattle

Seattle Center

Seattle Monorail

Seattle Public Schools

Sound Transit

SDOT

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LIST OF ABBREVIATIONS

BMP: Bicycle Master Plan

CL: Community Liaison

EIS: Environmental Impact Statement

FMP: Freight Master Plan

MAP: Mobility Action Plan

MUP: Master Use Permit

MOU: Memorandum of Understanding

OED: Office of Economic Development

OVG: Oak View Group

PMP: Pedestrian Master Plan

SDOT: Seattle Department of Transportation

SHA: Seattle Housing Authority

SR 99: State Route 99

TMP: Transit Master Plan

WSDOT: Washington State Department of Transportation



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CHAPTER 1

INTRODUCTION

PURPOSE

The purpose of the North Downtown Mobility Action Plan (NODO MAP) is to support access and livability in North Downtown, which includes the Uptown, Belltown, and South Lake Union neighborhoods (see Figure 1). The plan builds on existing community planning efforts, and identifies and prioritizes transportation improvements for all modes. Completed in partnership with neighborhood groups and community members, the MAP:

- **Reviews existing community plans and planned projects**
- **Identifies ways to improve how we move, connect, and experience our streets and public places**
- **Evaluates and prioritizes potential projects**



THE PURPOSE OF THE NORTH DOWNTOWN MOBILITY ACTION PLAN IS TO SUPPORT ACCESS AND LIVABILITY IN NORTH DOWNTOWN, WHICH INCLUDES THE **UPTOWN, BELLTOWN, AND SOUTH LAKE UNION** NEIGHBORHOODS.”

The NODO MAP is closely linked to the redevelopment of the Seattle Center Arena. The City of Seattle is working with Oak View Group (OVG) as the arena developer on this project. The official agreement between the two parties is the Transaction Documents which includes the Lease, Development Agreement, and Integration Agreement. The Transaction Documents were approved by the Seattle City Council. They outline several items important to development of the NODO MAP.

1. The Transaction Documents state the need to develop the NODO MAP and establishes the guiding principles for the project.
2. The Transaction Documents establishes a City (Arena) Transportation Fund, committing the developer to provide \$40 million over 39 years for mobility improvements that

Figure 1 North Downtown Study Area

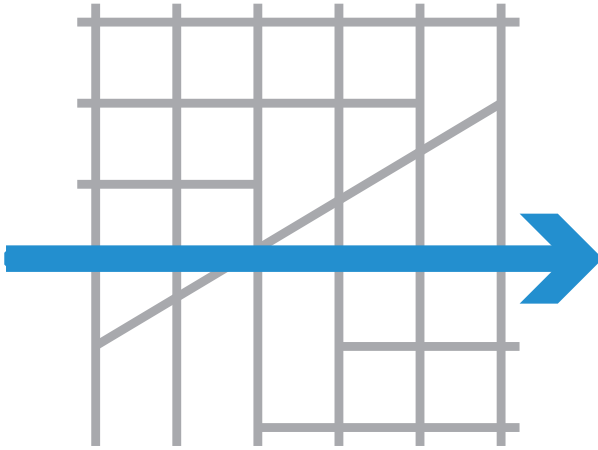


address access, safety, and quality of life in North Downtown. The NODO MAP makes recommendations on how to spend this fund, based on community priorities and transportation system needs. The transportation fund is discussed in more detail in Chapter 4.

3. The City required an Environmental Impact Assessment (EIS) to identify and evaluate impacts related to construction and operation of the renovated arena (such as more frequent events serving a greater number of attendees) and recommends mitigation. The EIS also analyzes transportation conditions, including a 2020 scenario without redevelopment of the area. The technical analysis from the EIS was used to develop the NODO MAP priority recommendations.

In addition to the \$40 million City (Arena) Transportation Fund contribution from the arena developer, the Port of Seattle and the City have entered into an MOU for a Safe and Swift Corridor Program. It aims to improve critical transportation corridors in Seattle and is focused on moving cargo and other modes safely and swiftly on city streets. As part of the MOU, the Port has committed \$5 million to make transportation improvements in the 15th Ave W/Elliott Ave W/Mercer St corridor, including areas around the Seattle Center. This area provides critical access to the regional highway system from the Ballard-Interbay-Northend Manufacturing/Industrial Center (BINMIC), Terminal 91 industrial operations and Smith Cove cruise terminal, and the North Waterfront, as well as access between BINMIC and the Duwamish MIC.

WHY DEVELOP A MOBILITY ACTION PLAN?



Existing transportation challenges

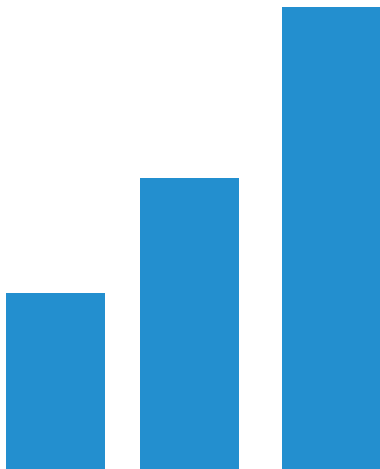
North Downtown has several unique mobility challenges including:

- A lack of east-west connections
- A street grid shift creating bottleneck intersections
- Disconnected bicycle routes
- High-traffic arterials difficult for pedestrians to cross
- Increased demands for urban goods delivery
- Significant barriers, such as SR 99 and railroad tracks, divide neighborhoods and impact waterfront access
- Freight movement between the City's manufacturing/industrial centers

Each North Downtown neighborhood has its own unique mobility assets and challenges. However, as a whole North Downtown relies on Mercer St and Denny Way for east-west travel. Denny Way is a major truck street and the only street to provide transit service and connect across I-5. The opening of the SR 99 tunnel and North Portal has changed how people access SR 99 in the neighborhoods.

Significant growth anticipated in North Downtown

By 2035, 15,000 new households and 20,000 new employees will be added to NODO. In South Lake Union, those growth estimates represent nearly a doubling of the number of housing units and a 35% increase in jobs over current levels. Planned construction and the increased number of people living and working in the North Downtown neighborhoods will mean increased travel demands in a constrained right-of-way.



15,000 NEW HOUSEHOLDS AND
20,000 NEW EMPLOYEES WILL BE
ADDED TO NODO BY 2035.”



Growth in the North Downtown neighborhoods combined with more frequent and larger events at the redeveloped Seattle Center Arena means more people than ever traveling to, through and within North Downtown.

Address community transportation concerns and needs

The NODO MAP builds on long-standing community plans and visions established by the community members and neighborhood groups. Through a synthesis of the mobility needs and solutions proposed in these established plans, and through active engagement and collaboration with community members, the NODO MAP prioritizes local solutions that best address the on-the-ground mobility challenges experienced throughout North Downtown.

New Seattle Center Arena will serve more people, more often

Event-related impacts from the redevelopment of the Seattle Center Arena will compound NODO's current mobility challenges. The new arena will have 3,000 more seats and host double the number of annual events, attracting thousands of attendees to North Downtown four to five times per week. Weekday evening arena events will sometimes overlap with evening rush hour, adding to early evening traffic and causing post-event influxes on surrounding streets and transit services. The Arena EIS identified ways to address many of these anticipated challenges. OVG will implement specific measures, and others will be a shared responsibility to fund with City (Arena) Transportation Fund investments, other city funds, Port of Seattle investments, and/or partnerships with other agencies.

GUIDING PRINCIPLES

The MOU contained five guiding principles that provide a foundation for the MAP. They were collaboratively developed by the three neighborhoods and refined through early NODO MAP outreach and engagement. The guiding principles and the plan's development were the basis for the criteria used to evaluate potential projects as outlined in Chapter 5.



BUILD ON COMMUNITY VISION

Align mobility improvement implementation with community priorities and vision.



IMPROVE CONNECTIVITY

Enhance connections within and between North Downtown and to adjacent neighborhoods.



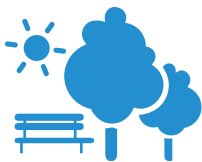
PRIORITIZE SUSTAINABLE TRANSPORTATION OPTIONS

Increase accessibility and convenience for people walking, biking, and taking transit between North Downtown and adjacent areas to support growth and accommodate Seattle Center events, while reducing automobile trips.



INCREASE SAFETY

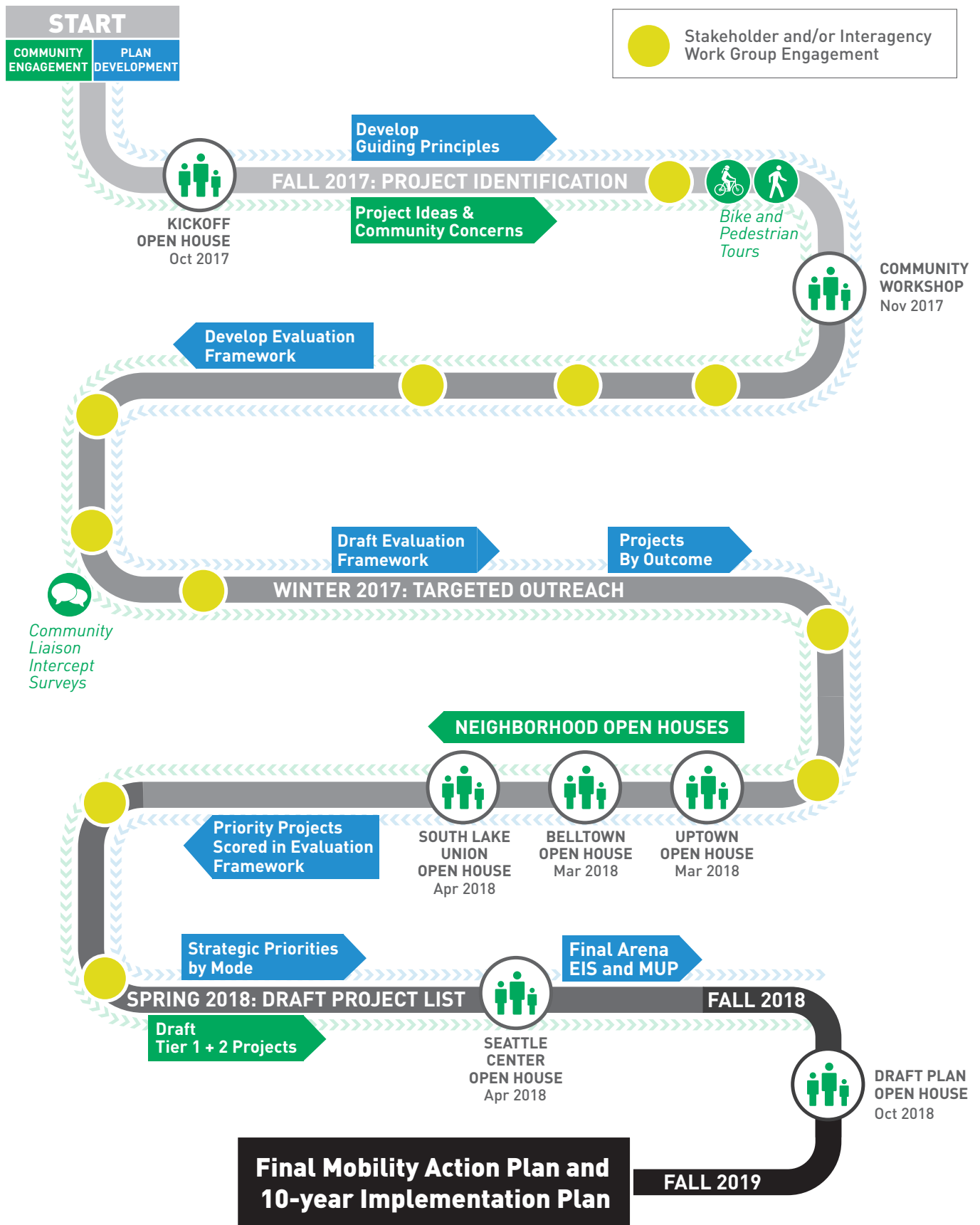
Enable safe access for all, regardless of age, ability, or transportation mode choice.



ENHANCE THE PUBLIC REALM

Create attractive places to walk, bike, ride transit, and play in North Downtown.

PROJECT TIMELINE & KEY MILESTONES





COMMUNITY ENGAGEMENT

2017



Fall 2017: Community Kick-off Meeting and All-day Workshop

Two community events helped launch the project: a community kick-off open house in October and an all-day workshop in November. We engaged community members to further develop desired outcomes of the Mobility Action Plan, confirm areas of focus, and identify key mobility and public realm challenges for improvement in North Downtown.



Winter 2017: Target Outreach and Collaboration with Stakeholders

The winter was spent gathering project ideas and potential solutions through review of existing community plans, targeted outreach, and collaboration with neighborhood stakeholders. Feedback from our fall outreach was used to develop specific evaluation criteria based on guiding principles.



Late Winter 2018: Neighborhood Open Houses

In late winter, we shared a draft list of projects, identified alignment with evaluation criteria, and used community feedback to refine and prioritize the project list.



Spring and Summer 2018: Seattle Center Open House

During spring and summer, while the arena mitigation was finalized, we refined the MAP project list to coordinate and leverage funding and implementation opportunities.



Fall 2018: Draft Plan Open House

The Mobility Action Plan culminated in the fall with a draft plan for public review. We attended a series of neighborhood meetings to share the priority recommendations and thank the community for their collaboration and contributions. The draft MAP built on the Seattle Center Arena master use permit conditions (issued in September).



Winter 2019: Draft Implementation Schedule

We developed the project implementation schedule for the first 10 years of the CATF. This included a review and revisions of the funding assumptions, assessment of staff capacity, and changes to the project list to align with our abilities to implement.



Spring-Fall 2019: Completion of Final Mobility Action Plan and 10-year Implementation Prioritization

The Mobility Action Plan continues as a program for implementing the prioritized project: NODO Mobility Action 10-year Implementation Program.

2019

The results of our conversations, and how the feedback shaped the priority recommendations, are described in Chapter 4.



Engagement Activities

Outreach Event	Location	Date(s)
Fall 2017 – Project Kickoff, Community Workshop, and Plan Review		
Kickoff Open House	Seattle Center Armory	October 23, 2017
Arena Design Open House	Cornish Playhouse	October 28, 2017
Arena Transportation Mobility Subcommittee	Seattle Center Armory	November 15, 2017
Community Workshop	Seattle Center Armory	November 18, 2017
Interagency Work Group	Seattle Municipal Tower	November 29, 2017
Winter 2017 – Project Development and Evaluation		
Freight Advisory Board	City Hall	December 12, 2017
Transit Advisory Board	City Hall	December 20, 2017
Bicycle Advisory Board	City Hall	January 3, 2018
Belltown Community Council	Belltown Community Center	January 10, 2018
Interagency Work Group	Seattle Municipal Tower Bank of America Building	January 25, 2018 March 5, 2018
Planning Commission	City Hall	January 25, 2018
Arena Transportation Mobility Subcommittee	Seattle Center Armory	January 29, 2018 March 7, 2018
South Lake Union Community Council-Transportation Committee	Fred Hutch	January 29, 2018
Mercer Stakeholders Group	Center for Infectious Disease Research	February 6, 2018 March 15, 2018
Pedestrian Advisory Board	City Hall	February 14, 2018
Terminal-91 Customer Meeting	Port of Seattle T-91	February 15, 2018
Community Liaison Intercept Surveys	Uptown Belltown South Lake Union	February 24 and 25, 2018 March 10, 2018 February 28, 2018 March 20, 2018 February 26 and 28, 2018 March 15, 2018
Spring and Summer 2018 – DRAFT Prioritized Project List		
Walking/Biking Happy Hour	Belltown Brewing	March 8, 2018
Neighborhood Open Houses (3)	Uptown: KEXP Space Belltown: Belltown Community Center South Lake Union: WeWork	March 13, 2018 March 14, 2018 April 3, 2018
Senior Living Communities	Michaelson Manor	March 28, 2018
Queen Anne Community Council	Queen Anne Manor	April 4, 2018
Seattle Housing Authority	Seattle Housing Authority Downtown Office	April 11, 2018
Downtown Transportation Alliance	Commute Seattle	April 24, 2018

Outreach Event	Location	Date(s)
NODO MAP Open House	Seattle Center Armory	April 25, 2018
Interagency Work Group	Seattle Municipal Tower	April 25, 2018
Mercer Stakeholders Group	Center for Infectious Disease Research	May 10, 2018
Arena Transportation Mobility Subcommittee	Seattle Center Armory	June 14, 2018
South Lake Union Community Council-Transportation Committee	Fred Hutch	June 27, 2018
Fall 2018 – DRAFT Mobility Action Plan Release and Public Review		
Arena Transportation Mobility Subcommittee	Seattle Center Armory Seattle Center Armory	July 19, 2018 August 9, 2018
Interagency Work Group	Seattle Municipal Tower	August 7, 2018
NODO MAP Open House	Seattle Center Armory	October 11, 2018
South Lake Union Community Council Transportation Committee	Fred Hutch	November 2018
Uptown Alliance	St. Paul's Episcopal Church	November 2018

Engagement activities took various forms, ranging from hosting community open houses to discussions at community organization meetings convened by others to presentations to standing advisory boards and commissions. Key community groups included the Uptown Alliance the Belltown Community Council, belltown20|20, the South Lake Union Community Council, Mercer Stakeholders, and the Arena Transportation Mobility Subcommittee.

Additionally, there was an Interagency Working Group comprised of representatives from the Port of Seattle, Sound Transit, King County Metro, Seattle Monorail, Seattle Public Schools, Seattle Center, and Councilmember Sally Bagshaw’s Office. Other participating City partners included the Office of Economic Development, Office of Planning and Community Development, Seattle Department of Construction and Inspections, Department of Neighborhoods, and Seattle Department of Transportation (project lead agency).



CHAPTER 2

NEIGHBORHOOD BACKGROUND AND COMMUNITY PLANS

Uptown, Belltown, and South Lake Union are neighborhoods with their own distinct character and identity.

NEIGHBORHOOD ¹	AREA (ACRES)	POPULATION	PERCENT SENIORS	MEDIAN INCOME	EMPLOYMENT ²
Uptown	293	4,508	12%	\$99,720	15,541
Belltown	161	5,072	13%	\$81,779	21,021
South Lake Union	342	5,882	14%	\$89,026	44,060

¹American Community Survey 2016, 5-Year Estimates by Census Tract

²Seattle 2035, Urban Village Indicators Monitoring Report (2018)



Belltown

Source: Nlson Boyd



Uptown

Source: NFFTY



South Lake Union

Source: Amazon

UPTOWN

The Uptown neighborhood is a growing urban center estimated to gain 3,000 households and 2,500 jobs by 2035. The regional hub is anchored by a vibrant arts and culture district and Seattle Center, a public campus and regional destination that attracts 12 million visitors every year. Uptown is home to destinations such as Seattle’s Space Needle, Pacific Science Center, the Museum of Pop Culture, KEXP, Seattle International Film Festival (SIFF), and an active, pedestrian-oriented commercial district.

The Seattle Center Monorail connects over 2 million patrons each year from Seattle Center to Westlake Center. Uptown’s major employers include the Gates Foundation and the future Expedia campus. Housing in Uptown is predominantly multi-family residential rental with nearly half of units built in the last decade. Access to the Ballard-Interbay-Northend Manufacturing/Industrial Center and cruise ship terminals at T-91 occur through Uptown.

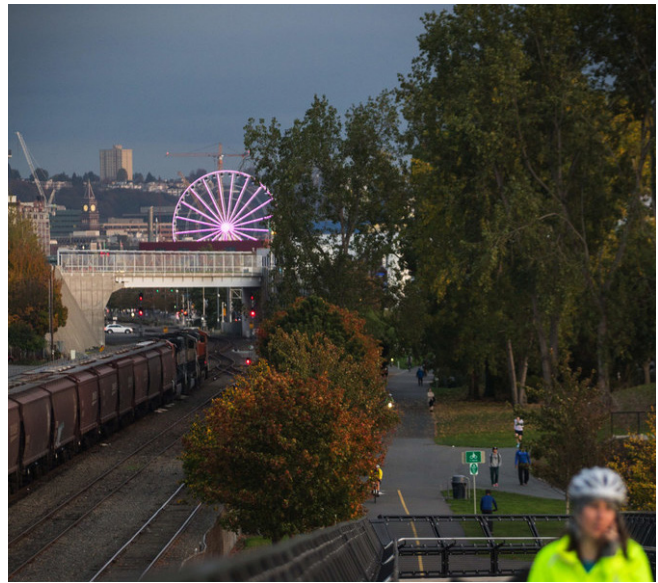


Up Garden, Mercer Garage, Uptown

Source: Eric Higbee

Unique mobility assets and challenges in Uptown include:

- The busy **Mercer Corridor** runs through the heart of Uptown and is the predominant east-west connection between Elliott Ave W and I-5.
- **Seattle Center**, an important open space and public realm asset, interrupts Uptown's street grid, placing significant demand on the few continuous north-south and east-west routes through the neighborhood.
- The **BNSF Mainline** is a barrier for bikes, pedestrians, and vehicles between the neighborhood and the waterfront. The **Thomas St Overpass and Helix Pedestrian Bridge** provide the only direct walking and biking connections to the Elliott Bay waterfront.
- **RapidRide high-capacity transit** along Queen Anne Ave N and 1st Ave N connect north to Ballard and south to Downtown.
- The **reconnection of east/west streets** Harrison, John, and Thomas will provide direct connections between Uptown and Seattle Center and South Lake Union.



Source: Lindsey Wasson



Source: Curtis Perry



Source: Seattle Bike Blog

BELLTOWN

Belltown is Seattle's densest residential neighborhood with 47,000 people per square mile.³ With its proximity to job centers in South Lake Union and downtown, Belltown is anticipated to gain 3,500 households over the next twenty years.

Several unique green streets and public spaces are vital neighborhood assets, including Growing Vine St, Bell Street Park, the Olympic Sculpture Park, and the Elliott Bay waterfront and trail. Known for its nightlife and entertainment district along 2nd Ave, Belltown proudly maintains a historic, quirky neighborhood character. Iconic and eclectic entertainment anchors in Belltown include Cinerama Theater, the historic Moore Theatre, and Jazz Alley, along with numerous restaurants, bars, and clubs.

Belltown hosts many social service providers and income-restricted affordable housing. People currently or recently experiencing homelessness or recovering from addiction are important members of the Belltown community.

Unique mobility assets and challenges in Belltown include:

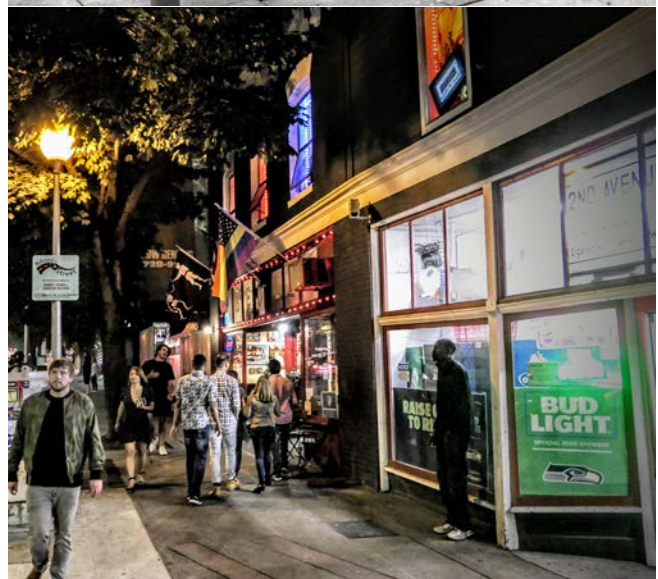
- Belltown's street network is comprised of **busy north-south arterial avenues, calm east-west streets** that are steep in locations, and a network of alleys. Desire for safer pedestrian crossings of arterial avenues and alley activation are themes in Belltown community plans.



Source: Friends of Historic Belltown

³Belltown & Denny Triangle Connected Public Realm (July 2015)

- **Located between Pike Place Market, Seattle Center, and the waterfronts on Lake Union and Elliott Bay**, community plans have identified priority pedestrian routes and public realm strategies to enhance connections between important destinations, including Lake2Bay and Market to MOHAI.
- The **Seattle Center Monorail** runs through Belltown along and above 5th Ave but does not directly serve the Belltown neighborhood with a station.
- **RapidRide high-capacity transit** runs along 3rd Ave, Broad St, and Battery St providing frequent transit connections to destinations north along Aurora Ave or Elliott Ave and south into Downtown.
- The **BNSF Mainline railway** runs at surface level along the western edge of Belltown, at times creating a barrier between Belltown and the Elliott Bay waterfront. Direct walking and biking connections over the railway are at the Olympic Sculpture Park, Bell St, and Lenora St. Belltown community members desire enhanced connections to the waterfront.
- The **2nd Ave protected bike lane** runs north-south through Belltown connecting Pike Place Market and Seattle Center with an all ages and abilities bike facility.
- Belltown is home to Seattle’s first curbsless shared street, **Bell Street Park**, which some refer to as Belltown’s outdoor living room. Bell Street Park provides a park-like setting with seating, lighting, and plantings, along with flexible event space that invites businesses and residents onto the street.



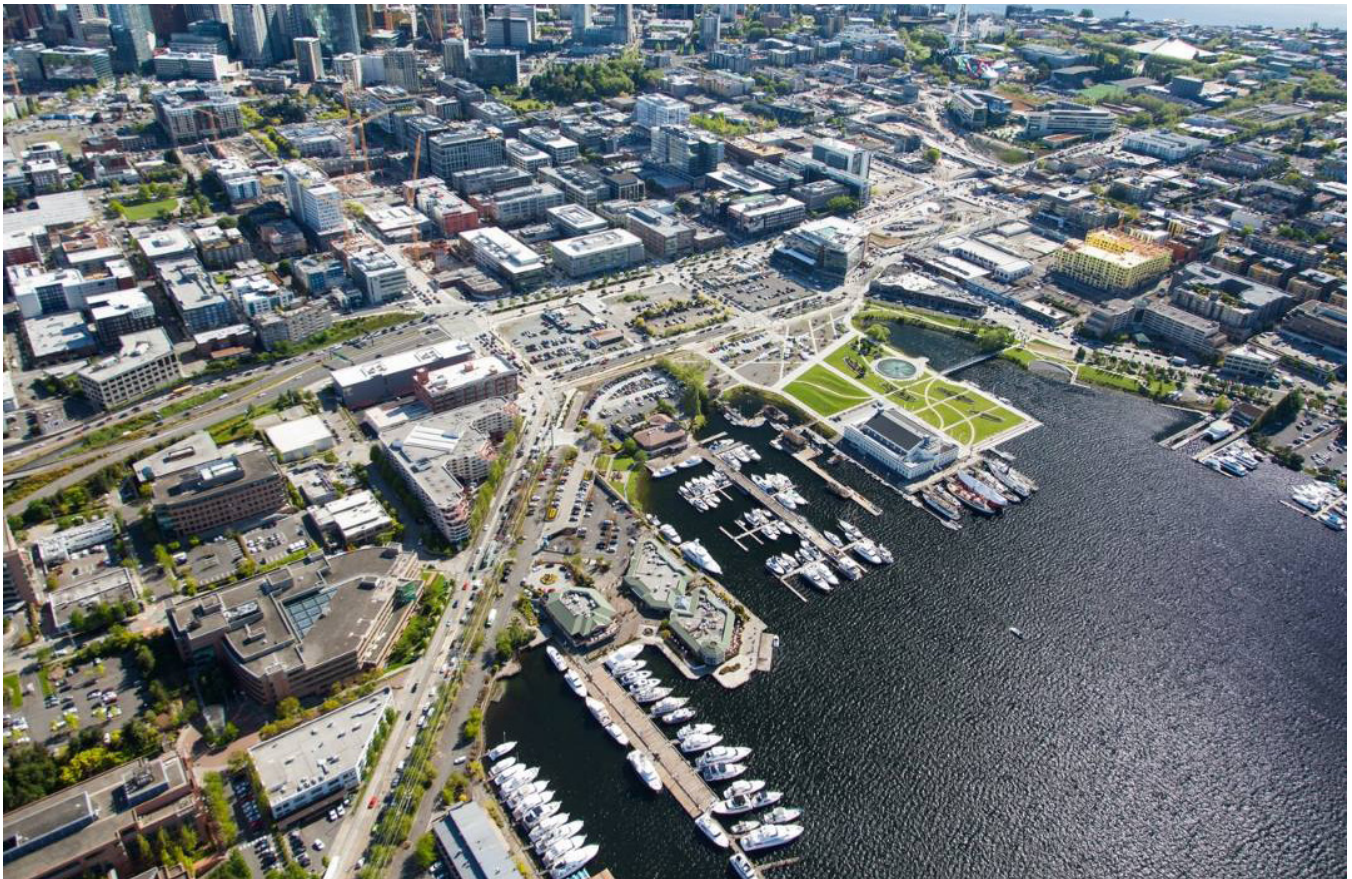
Source: Friends of Historic Belltown

SOUTH LAKE UNION

South Lake Union (SLU) is a dynamic, young, employment-rich urban center, home to 44,000 jobs and nearly 10,000 housing units. It is one of Seattle's fastest growing urban centers, having reached nearly 50% of its 20-year housing growth estimate in the last few years. SLU is expected to gain 7,500 more housing units and 15,000 more jobs by 2035.⁴

Now a nationally recognized urban technology hub, Amazon is most well-known for catalyzing the growth in SLU over the last fifteen years. SLU is home to Amazon's ever-expanding headquarters and other tech and bio-tech companies, including the Fred Hutchinson Cancer Research Center (Fred Hutch), Seattle Cancer Care Alliance, and University of Washington Medicine campuses.

The Cascade neighborhood between Eastlake and Fairview Aves has been SLU's historic residential core and includes Cascade Park and People's Center. The Lake Union waterfront and park, encircled by the Cheshiahud Loop urban trail and home to the Museum of History and Industry (MOHAI) and the Center for Wooden Boats, is a neighborhood open space with a regional draw. Historic Denny Park, as well as green streets and pocket parks throughout the neighborhood, add to SLU's thriving public realm.



Source: South Lake Union Community Council

⁴Seattle 2035, Urban Village Indicators Monitoring Report (2018)

Unique mobility assets and challenges in SLU include:

- The **South Lake Union Streetcar** runs north-south along Westlake and Terry Aves N connecting Lake Union Park and Fred Hutch with Westlake Center at McGraw Square.
- **Mercer St and Denny Way are the only continuous east-west connections** through SLU to neighborhoods beyond. King County Metro Route 8 operates on Denny Way and is the only transit connection across I-5 to Capitol Hill. High traffic volumes combined with the shift in the street grid make pedestrian and bike crossings of Denny Way challenging.
- **I-5 and SR 99 have been historic barriers** isolating South Lake Union from Capitol Hill and Queen Anne. The SR 99 tunnel project created access points to the tunnel north portal in the vicinity of Aurora Ave N and Republican St. New surface street connections at Harrison, John, and Thomas Sts will reconnect South Lake Union and Uptown.
 - » **Thomas St is envisioned as a green street** that will be designed to prioritize people walking and bicycling between Uptown and SLU.
 - » **Harrison St is envisioned as a transit pathway** providing new east-west transit connections and a mobility hub at the intersection of high-capacity transit lines at the future north portal.
- **Terry Ave N is identified as the “heart” street in the SLU Neighborhood Plan** and functions as a slow-speed pedestrian-priority street. Several adopted street concept plans for the streets outline visions for SLU streetscapes to function as attractive public amenities.
- **Market to MOHAI and Lake2Bay** priority pedestrian routes and public realm strategies connect key SLU destinations.



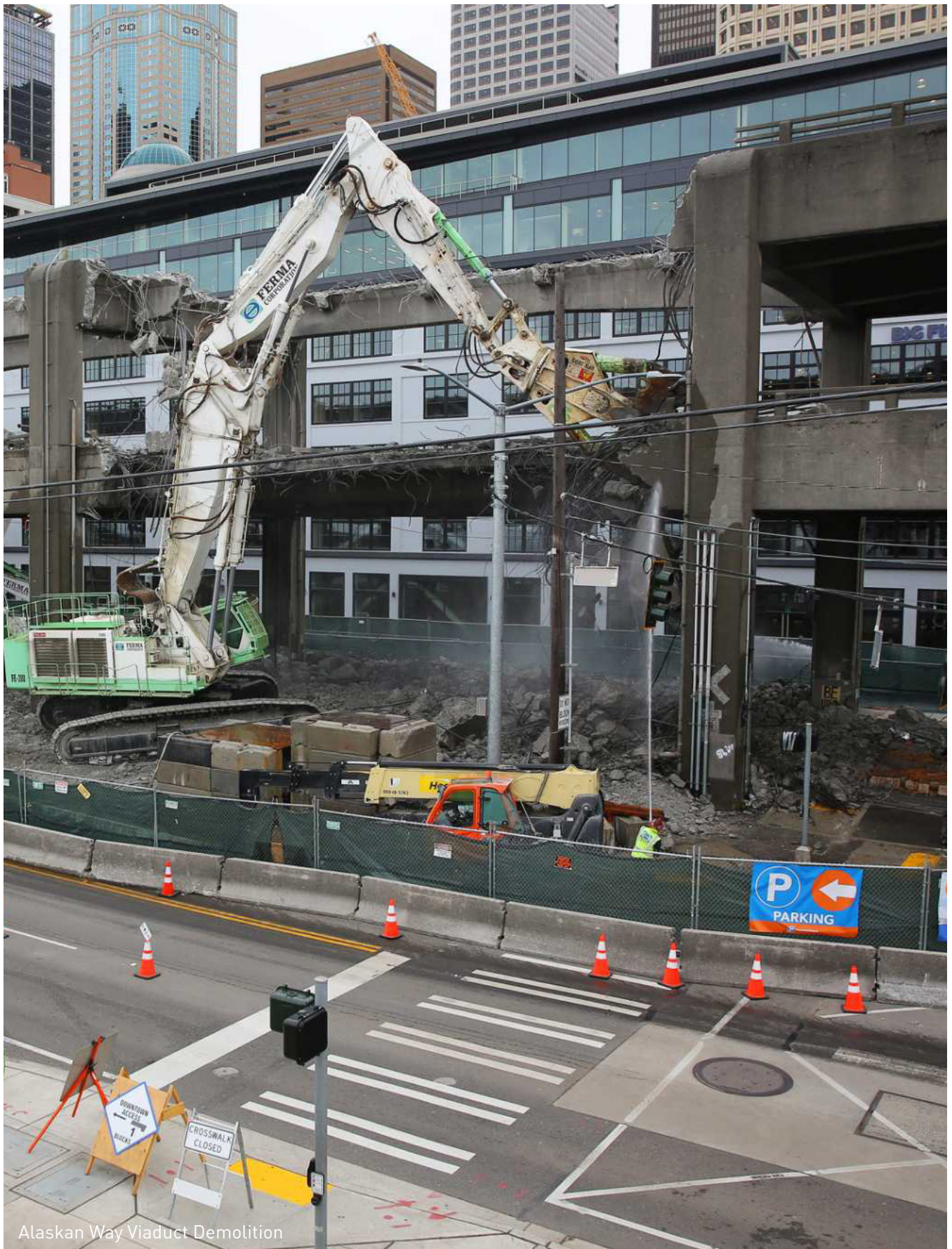
Source: Curtis Perry



Source: People for Bikes



Source: Bettina Hanson



Alaskan Way Viaduct Demolition

Source: Seattle PI

PROJECTS UNDERWAY

Many projects are in the works to improve mobility through and access within North Downtown neighborhoods. Over the next 20 years, many transformational projects will be funded and implemented by a variety of partners and agencies in North Downtown (see Figure 2). NODO MAP's priority projects build upon these numerous plans and projects already in motion and will strategically fill the gaps where Arena mitigation or existing modal plans lack scope or funding to address North Downtown's mobility and public realm needs. The MAP will supplement and partner with efforts in the works to deliver more complete solutions.

Below are additional projects and milestones that are likely to transform the public realm and how people get to North Downtown, particularly the Arena opening (2021), completion of ST2 Link light rail expansion (2024), and the ST3 Link light rail station at Seattle Center (2035).

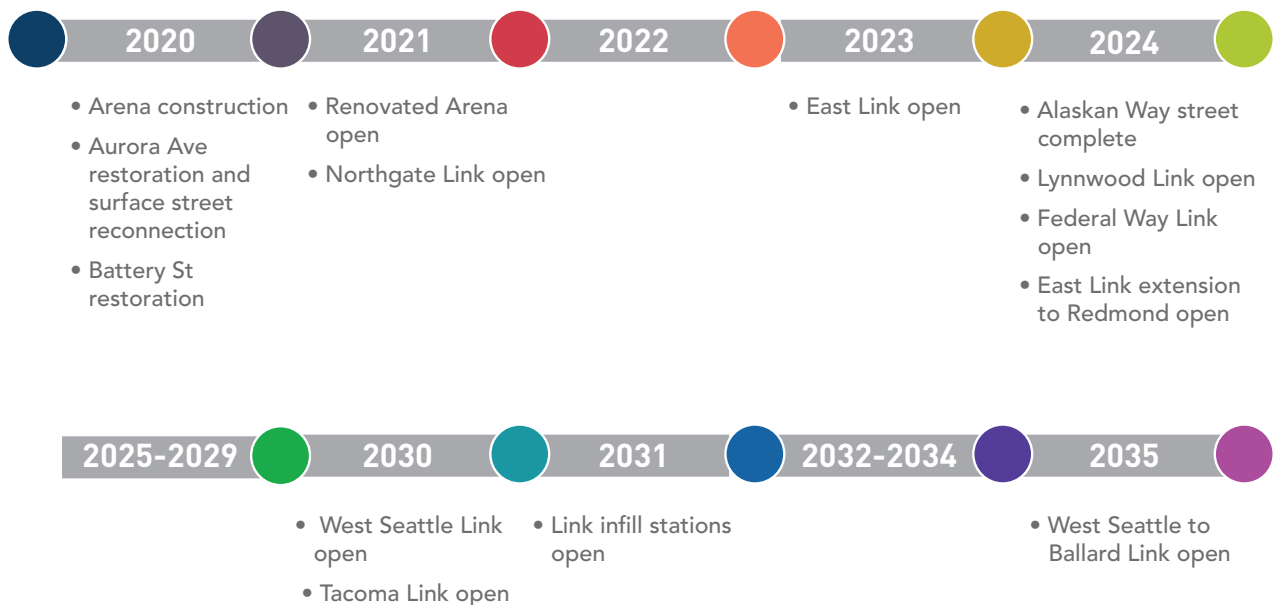
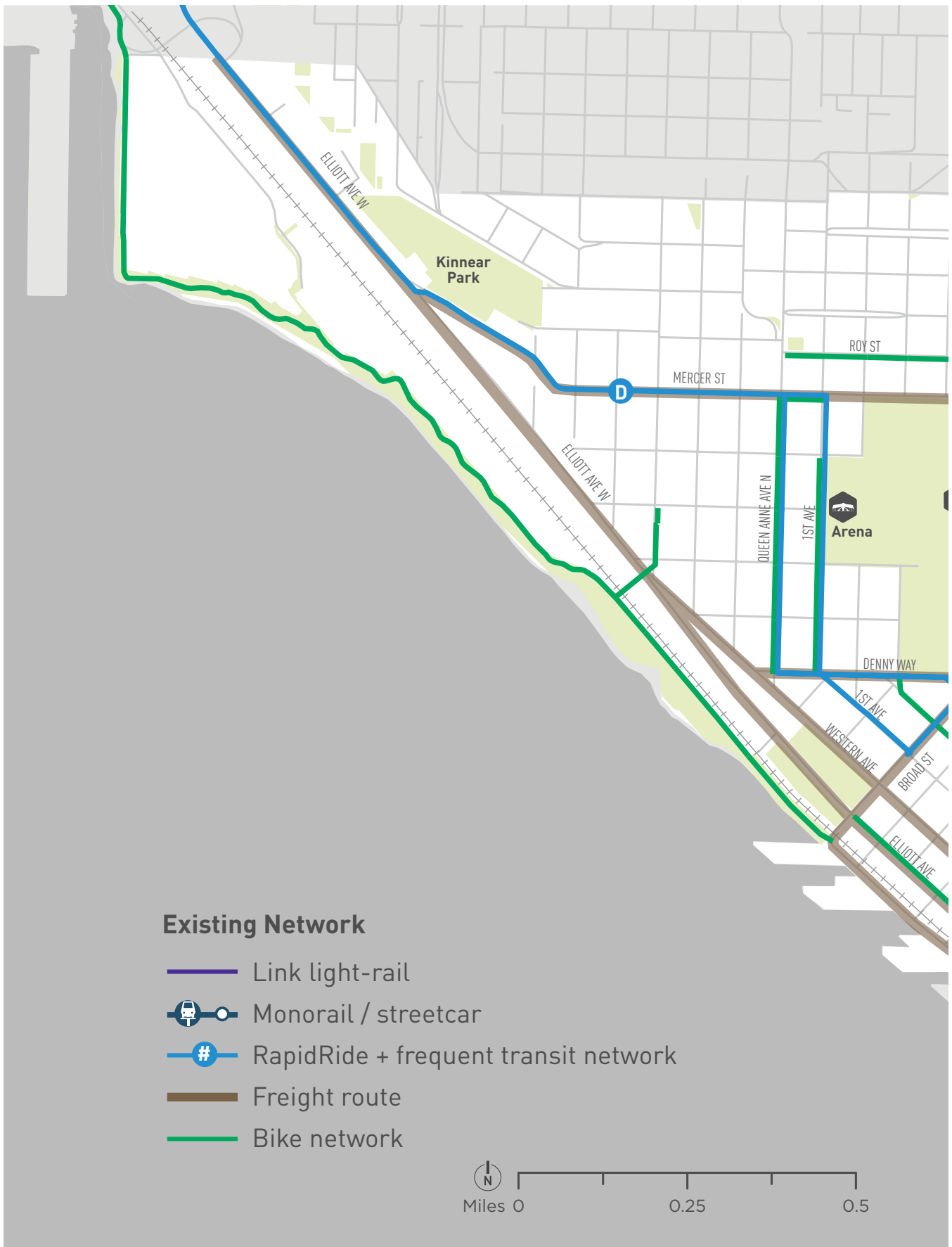


Figure 2 Existing Conditions in North Downtown



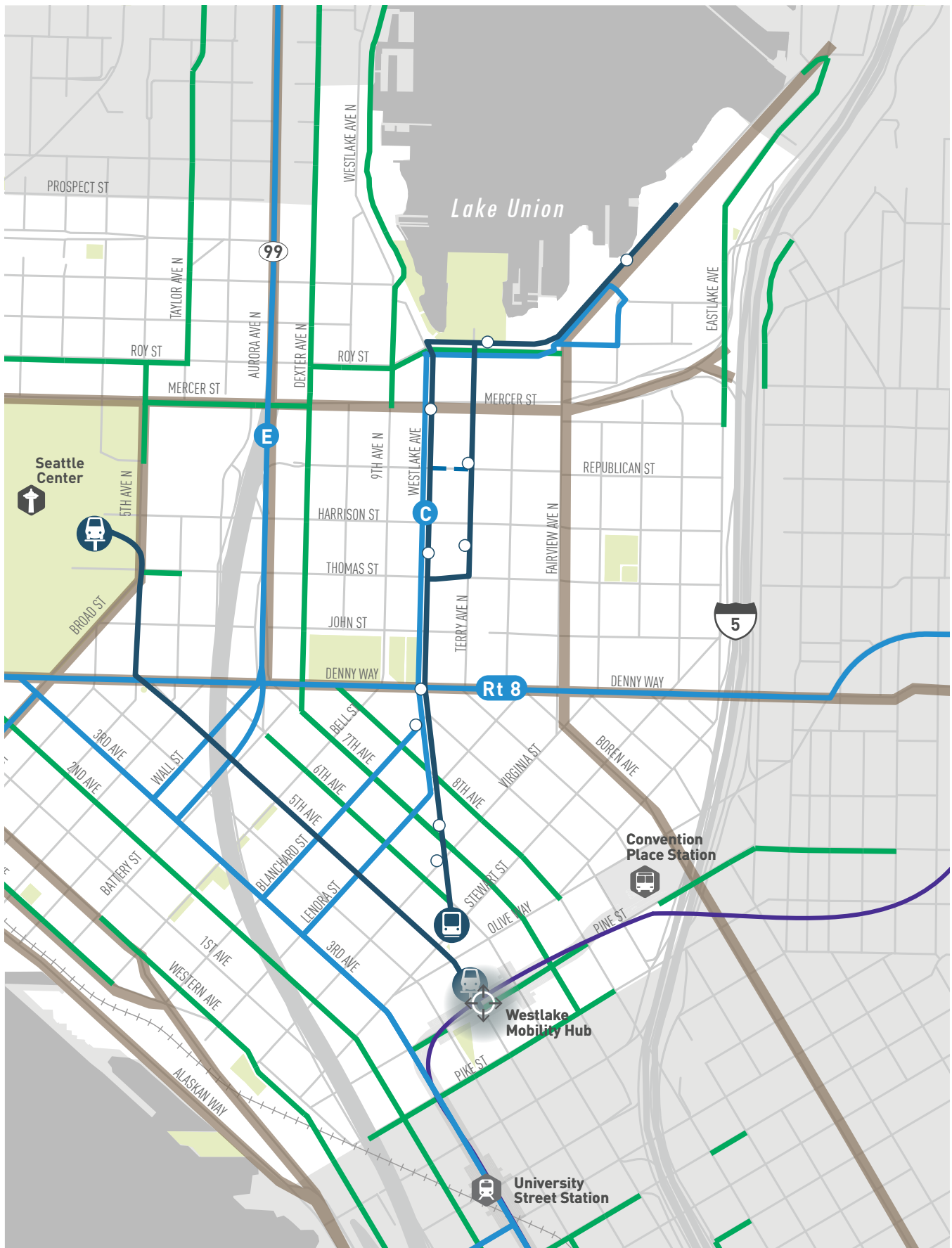
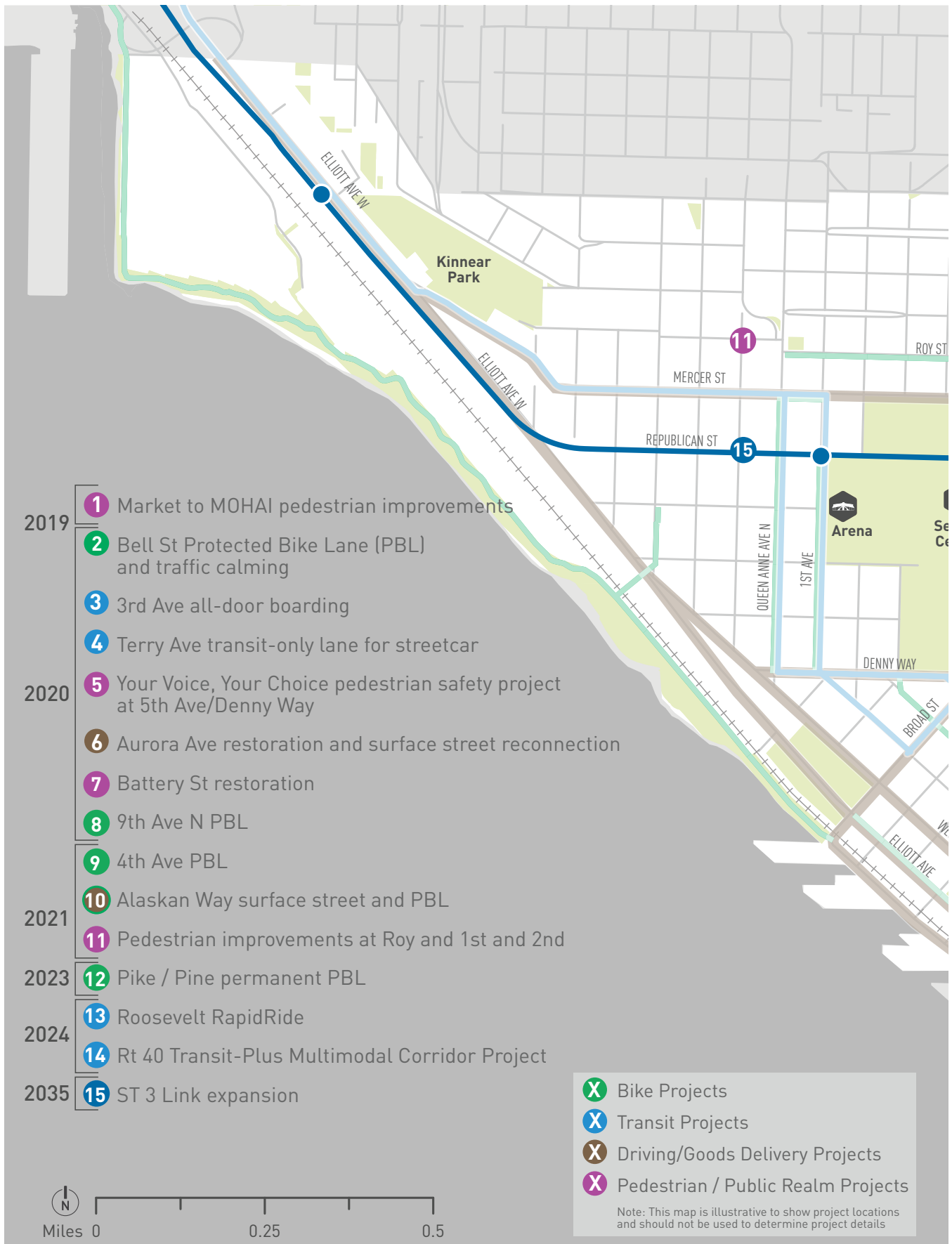
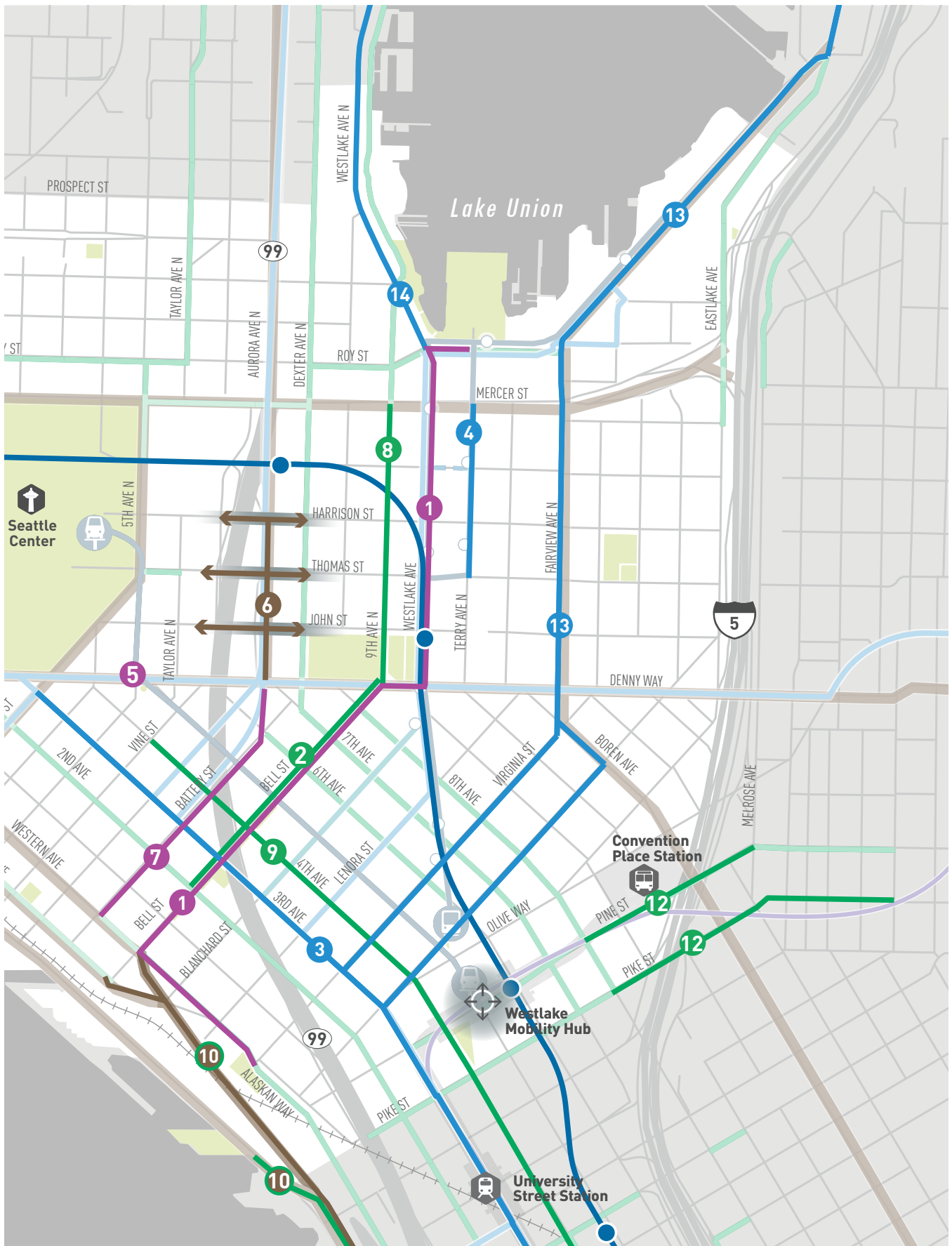


Figure 3 Major Capital Projects Underway in North Downtown





PLANNING CONTEXT

The project team reviewed an extensive number of existing plans and community vision documents, ranging from citywide master plans to neighborhood plans to street concept plans authored by neighborhood groups, the City of Seattle, and other agencies.

City of Seattle Modal Plans

Seattle's citywide plans, like the Seattle 2035 Comprehensive Plan or our modal master plans, form the basis of the multimodal transportation network and set the course for the future of Seattle's streets. These plans are based on substantial public engagement and data-driven technical analysis. Modal plan policies, programs, and projects address many of the mobility challenges cited by community members in North Downtown. The NODO MAP builds on the following modal plans to support the establishment of a well-connected mobility network, and leverage implementation.

- Bicycle Master Plan (2014)
- Transit Master Plan (2016)
- Freight Master Plan (2016)
- Pedestrian Master Plan (2017)

Seattle 2035 (Comprehensive Plan), the New Mobility Playbook, street concept plans, and METRO CONNECTS were also reviewed, with relevant projects in the North Downtown area carried forward in NODO MAP.

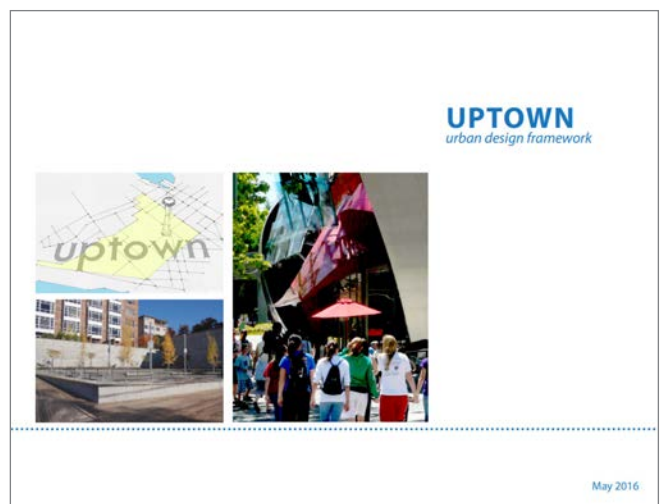
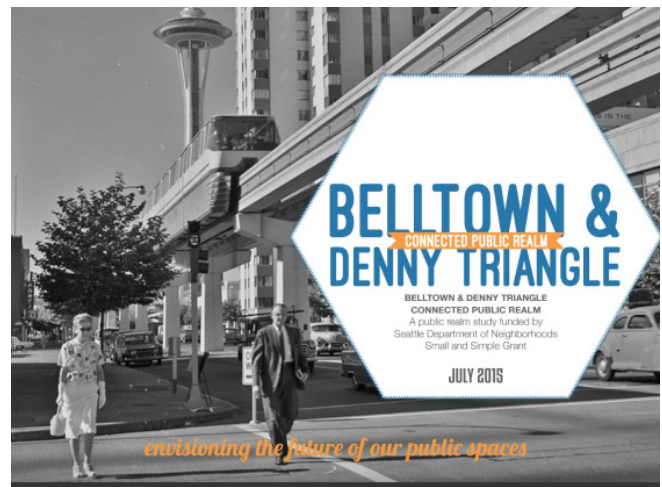
Recent Community Plans

Recent neighborhood and topic-specific plans also add to the body of transportation and public realm improvements planned in North Downtown. Neighborhood groups and community members authored or actively contributed to these plans and vision documents. Rich with compilations of local knowledge, they represent deep familiarity with existing conditions in North Downtown and are an important source for community ideas about how to improve North Downtown mobility.

The community plans listed below articulate desired outcomes and propose locally-vetted solutions that were integrated into the NODO MAP project selection process.

- South Lake Union Transportation Study (2004)
- South Lake Union Urban Center Neighborhood Plan (2007)
- Uptown Triangle On-St Parking Study (2008)
- Seattle Center Master Plan and EIS (2008)
- South Lake Union Mobility Plan (2010)
- South Lake Union Urban Design Framework (2010)
- South Lake Union and Uptown Triangle Mobility Study (2011)
- SDOT Downtown Access Strategy (2013)
- Belltown & Denny Triangle Connected Public Realm (2015)
- Uptown Urban Design Framework (2016)
- Seattle Center Monorail ORCA Ridership and Revenue Studies (2016-2017)
- Uptown Preliminary Rezone Recommendation Director's Report (2017)
- Uptown and Seattle Center Strategic Parking Study (2017)
- Seattle Center Monorail Stations Reconfiguration Evaluation Report (2018)

One Center City Near-Term Action Plan (2019): A significant level of investment is underway in Seattle’s center city neighborhoods, including those in North Downtown. One Center City (OCC) is a public/private partnership between the City of Seattle, King County Metro, Sound Transit and the Downtown Seattle Association. These agency partners are working together to deliver mobility and public space investments that help ensure Center City neighborhoods continue to thrive during the next five years, a period where the transportation system will be constrained due to a number of major public projects and by significant private development activity.

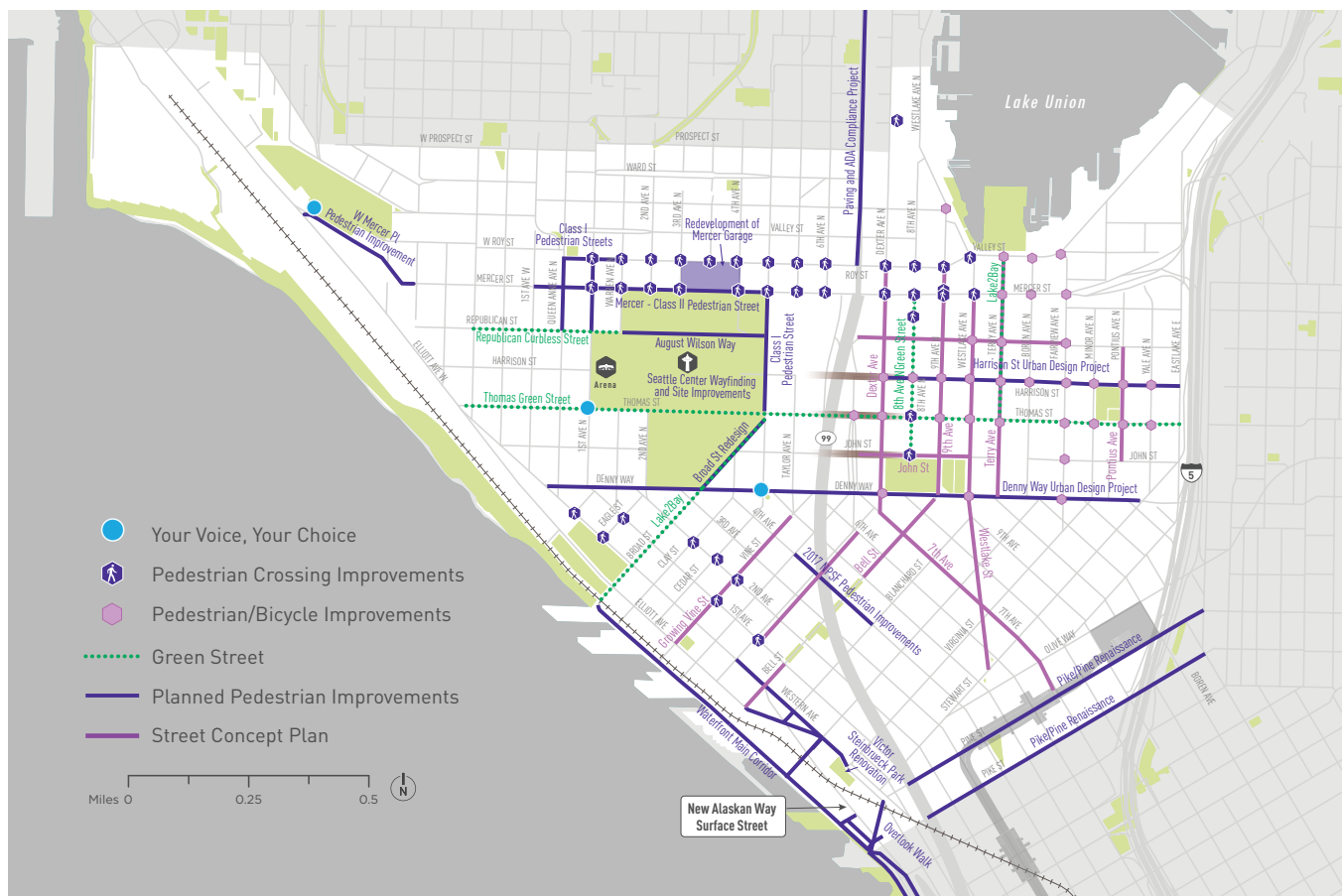


The following pages are a compilation – organized by mode - of the improvements identified in existing North Downtown plans. A visual synthesis of our review and integration of projects from existing plans, this group of projects served as the starting point for project identification and prioritization. Throughout development of the MAP, community members contributed more project ideas, commented on these previously-identified projects, and weighed-in on how these planned projects aligned with the MAP’s guiding principles.



A few of the many community plans that contributed to NODO MAP.

Figure 4 Pedestrian and Public Realm

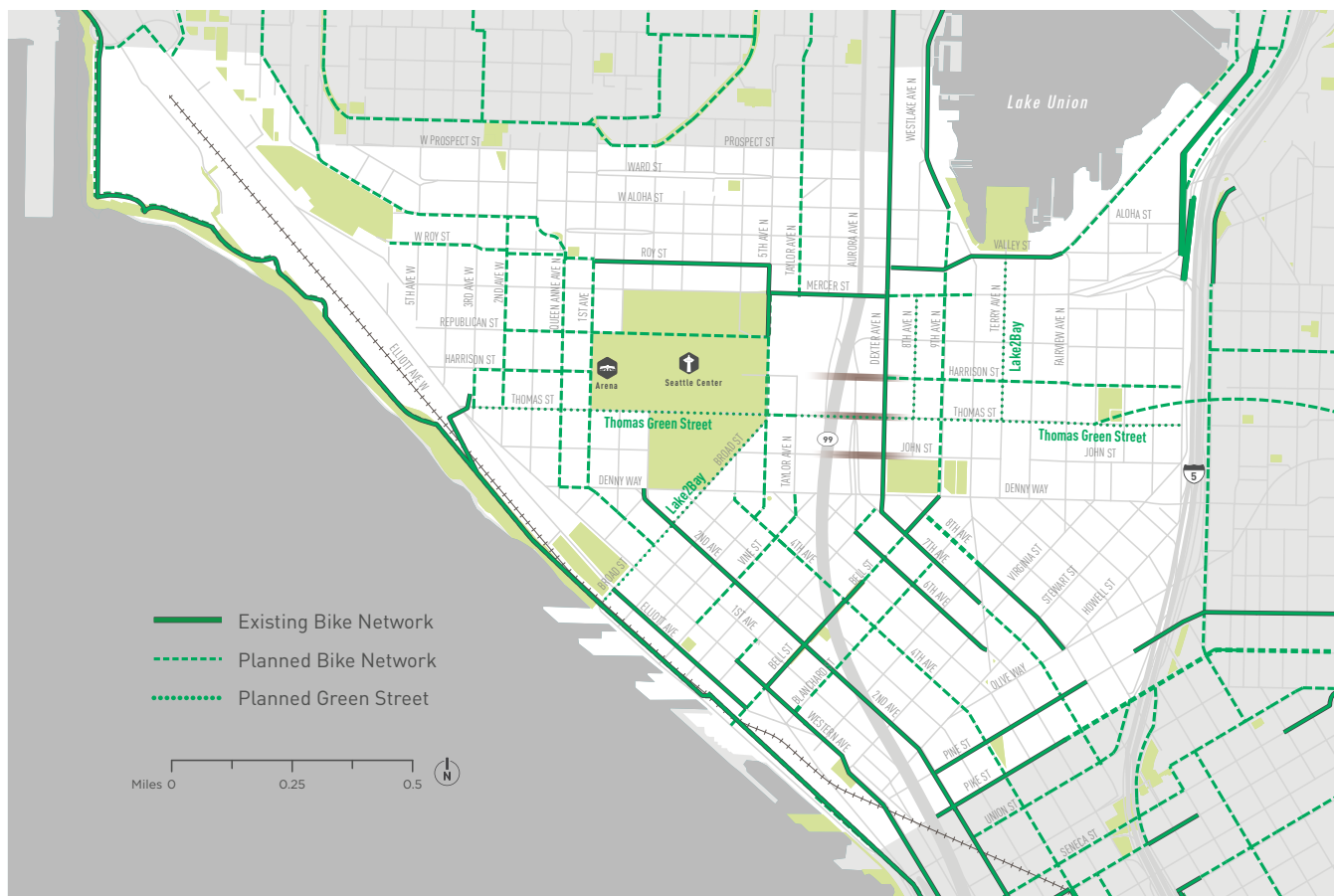


Key pedestrian and public realm improvements identified in existing plans for North Downtown include:

- Class I Pedestrian Streets identified in the Uptown Urban Design Framework
- Pedestrian crossing and intersection improvements identified in the South Lake Union (SLU)/Uptown Triangle Mobility Plan
- Pedestrian connections and corridor visions from street concept plans such as the Republican Urban Curbless Street, Thomas Green Street, South Lake Union Street Concepts, and the Lake2Bay and Market to MOHAI routes
- Improvements identified for implementation by citywide programs including Pedestrian Master Plan Implementation, Your Voice, Your Choice, Move Seattle, and the SDOT Capital Improvement Plan



Figure 5 Bicycle Network

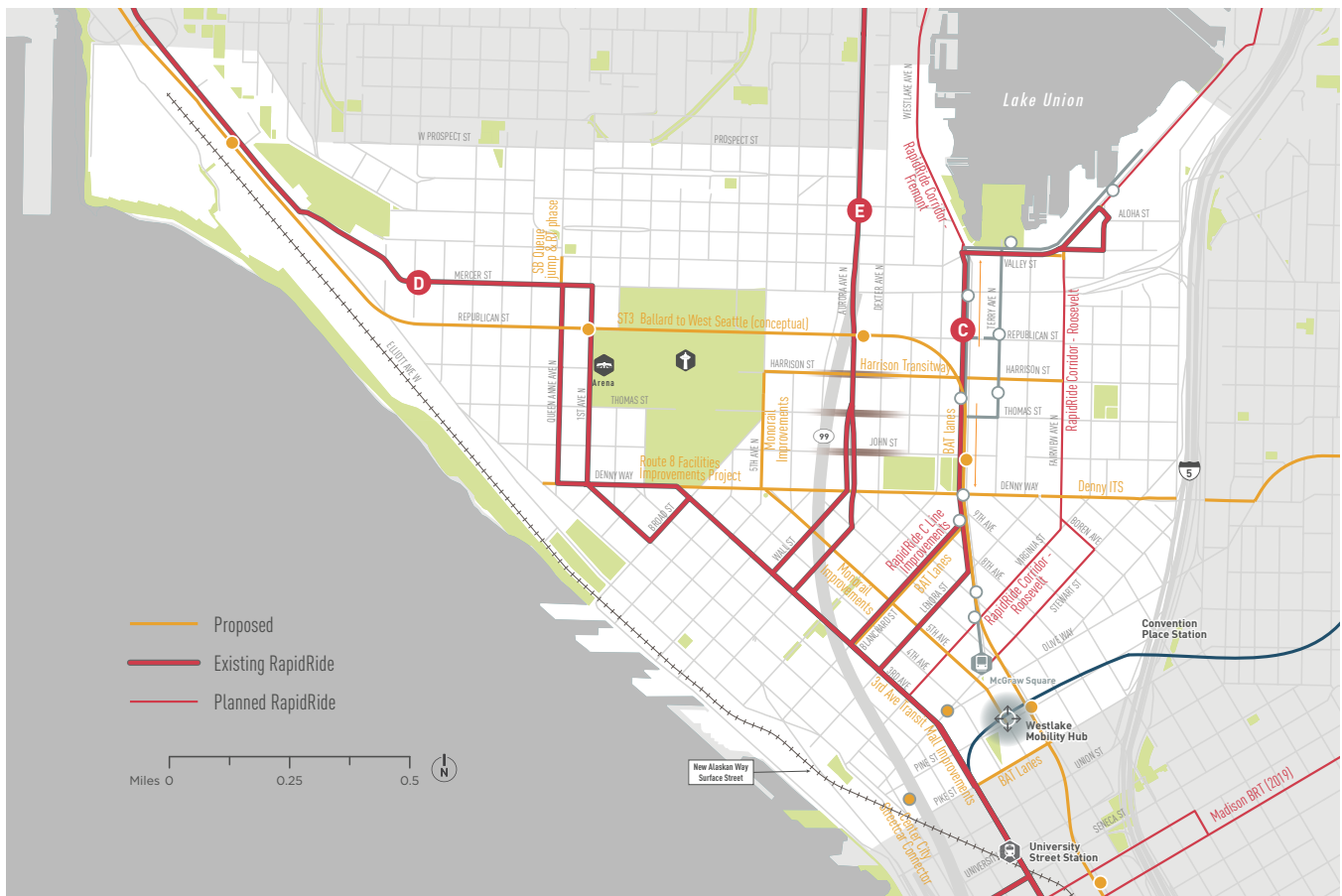


Key bike improvements identified in existing plans for North Downtown include:

- The citywide bike network as identified in Seattle’s Bike Master Plan (BMP) as well as near-term projects from the 2017-2021 BMP Implementation Plan.
- A joint proposal from Seattle Neighborhood Greenways and Cascade Bicycle Club, *Improving Seattle Center Arena Mobility through Bicycling*, identifying priority connections to complete a connected bike network throughout North Downtown.
- Bicycling connections proposed as a part of street concept plans and the Uptown Urban Design Framework.



Figure 6 Transit



Key transit improvements identified in existing plans for North Downtown include:

- Improvements to transit service as identified in the Seattle Transit Master Plan; King County Metro’s long range plan, METRO CONNECTS, and Waterfront & North Belltown Transit Study; and Sound Transit’s ST2 and ST3 light rail network expansion plans.
- Through the RapidRide Expansion Program, more and improved high-capacity transit service is planned for North Downtown over the next 20 years, including transit speed and reliability improvements and the expansion of the RapidRide network with new lines currently in development.
- The Seattle Center Monorail recently evaluated and proposed improvements to increase capacity, improve accessibility and better connect the Monorail to the regional

transit network and downtown transportation infrastructure.

- With the completion of the SR 99 tunnel by the WSDOT, new east-west street connections will exist between Uptown and South Lake Union, with Harrison St planned as a transit pathway.
- One Center City near-term strategies include all-door boarding, including the installation of off-board fare collection with ORCA readers at all stops along 3rd Ave by 2020.



Figure 7 Driving and Goods Delivery



Key driving and goods delivery improvements identified in existing plans for North Downtown include:

- Seattle’s Freight Master Plan identifies key corridors throughout North Downtown as freight routes and major truck streets. Implementation of truck lanes and operational and signal improvements along key congested corridors are planned, including Elliott Ave and 15th Ave, Mercer St, and Denny Way.
- The decommissioning of the Battery St Tunnel and reconnection of Harrison, Thomas, and John streets as a part of the WSDOT SR 99 project are significant projects that affect driving and goods delivery in North Downtown.



CHAPTER 3

EXISTING CONDITIONS & MOBILITY CHALLENGES

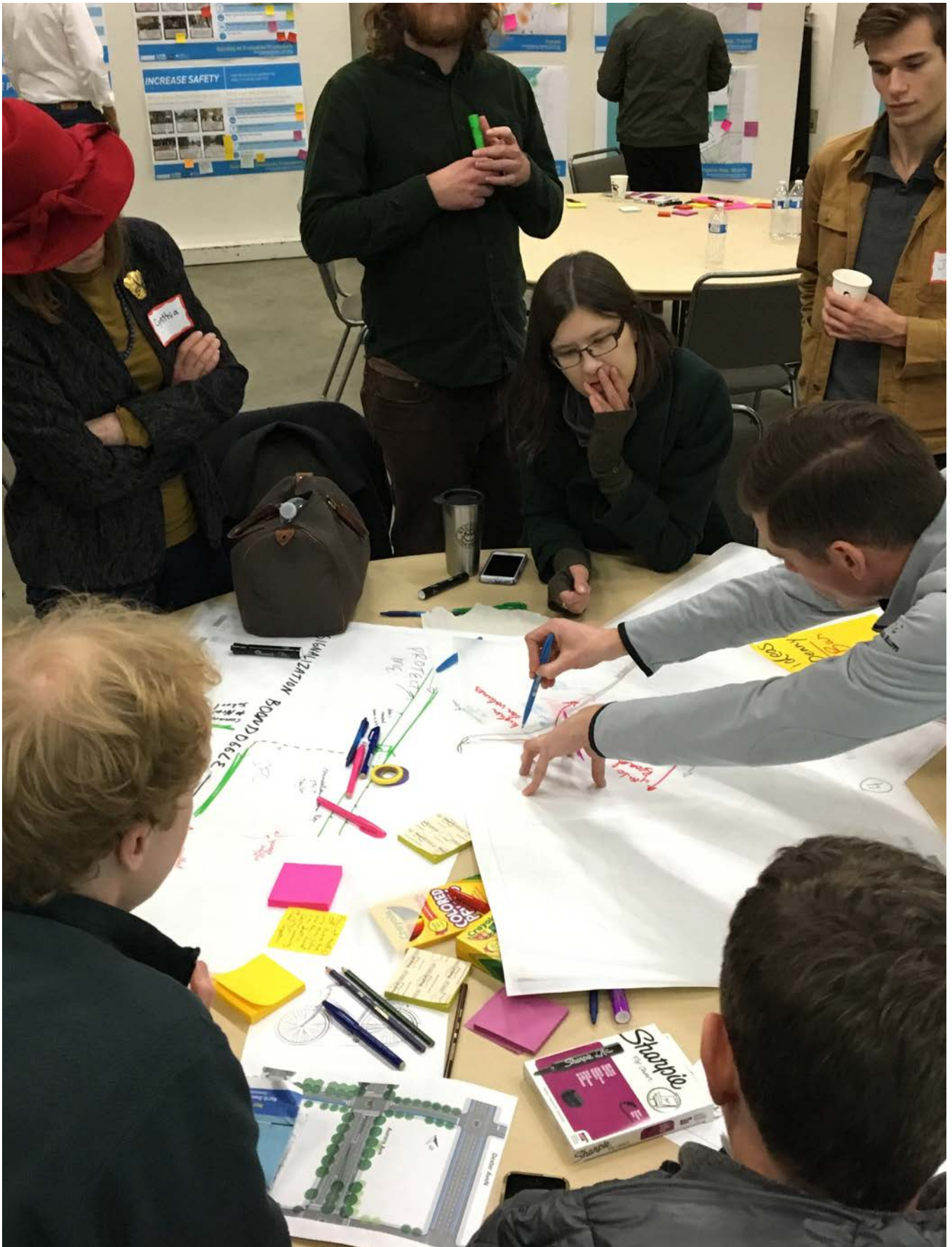
Using technical analysis and quantitative data from existing plans, the Seattle Center Arena Renovation Project Final Environmental Impact Statement transportation analysis, and concerns from community members, the project team identified mobility and public realm gaps or deficiencies in North Downtown. Feedback from community members coupled with technical analysis forms a more complete picture of the major mobility, access, and public realm challenges that exist today and are likely to worsen in the future if no action is taken.

The Arena EIS provides technical analysis that confirms many of the concerns and challenges cited by community members during Mobility Action Plan outreach, including:

- **Pedestrian crossings of busy streets are difficult, dangerous, and poorly timed** (e.g., Mercer St, Denny Way)
- **North Downtown has a disconnected bike network** where facilities end before connecting to other safe facilities
- **Transit services are slow and unreliable** because of traffic volatility and congestion, overcrowding on buses, and a lack of transit priority features

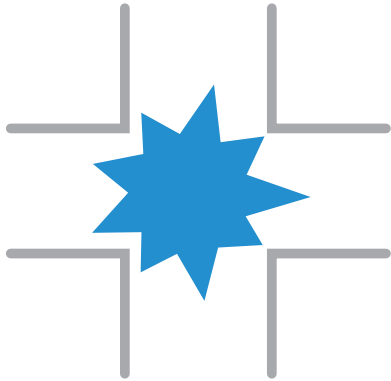
- **There are gaps in the transit network**, and it is difficult and inconvenient to transfer between modes
- **There are not enough east-west bicycle and transit connections** in North Downtown
- **Vehicle congestion consistently halts traffic on major roadways** (e.g., I-5, SR 99, Denny Way, Mercer St, Elliott Ave) and impacts freight reliability and goods movement, especially during peak periods
- **Pedestrians and vehicles experience conflicts at high-volume intersections**, especially with vehicles blocking the box or turning across crosswalks when pedestrians have the right of way
- **Transit stops and hubs feel unclean and unsafe**
- **Public open spaces are limited and underutilized** in North Downtown

The next several pages detail the anticipated mobility challenges identified in the technical analysis and confirmed by the themes that emerged through community outreach.



PEDESTRIAN & PUBLIC REALM

Challenges Identified in Technical Analysis



Several key intersections have high numbers of pedestrian collisions.

The Arena EIS analysis identifies several key intersections throughout North Downtown that have a history of high numbers of pedestrian collisions, including Mercer St/Queen Anne Ave N, Mercer St/1st Ave N, Mercer St/Terry Ave N, and Denny Way/Westlake Ave N. Seattle's Bicycle and Pedestrian Safety Analysis (2016) found that the majority of pedestrian crashes happen at intersections *with* a traffic signal (67%) versus unsignalized intersections.



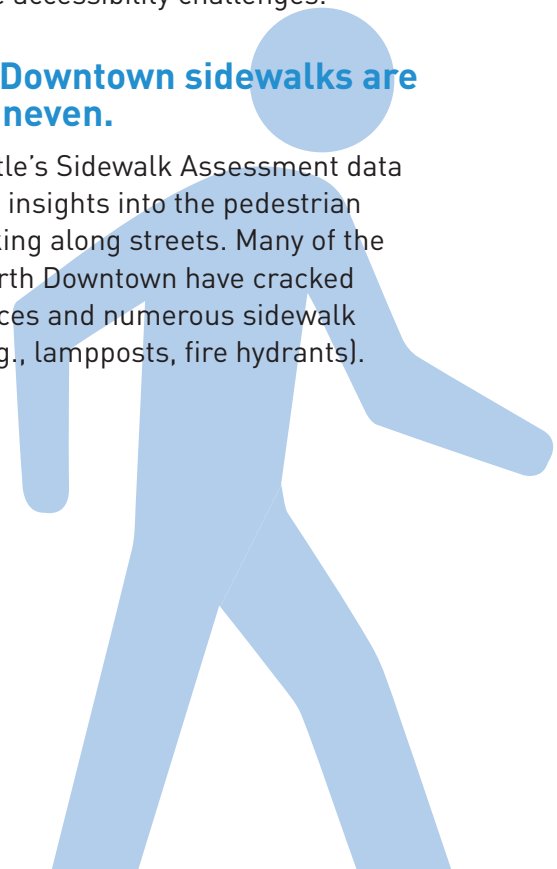
Lack of crosswalks or obstructions in the sidewalk impede pedestrian movement.

While the pedestrian network throughout North Downtown is well-established, many intersections lack crosswalks or controlled crossing opportunities. Often sidewalks are temporarily closed due to construction or obstacles create accessibility challenges.



Many North Downtown sidewalks are cracked or uneven.

The City of Seattle's Sidewalk Assessment data provides helpful insights into the pedestrian experience walking along streets. Many of the sidewalks in North Downtown have cracked or uneven surfaces and numerous sidewalk obstructions (e.g., lampposts, fire hydrants).



Pedestrian Themes from Outreach

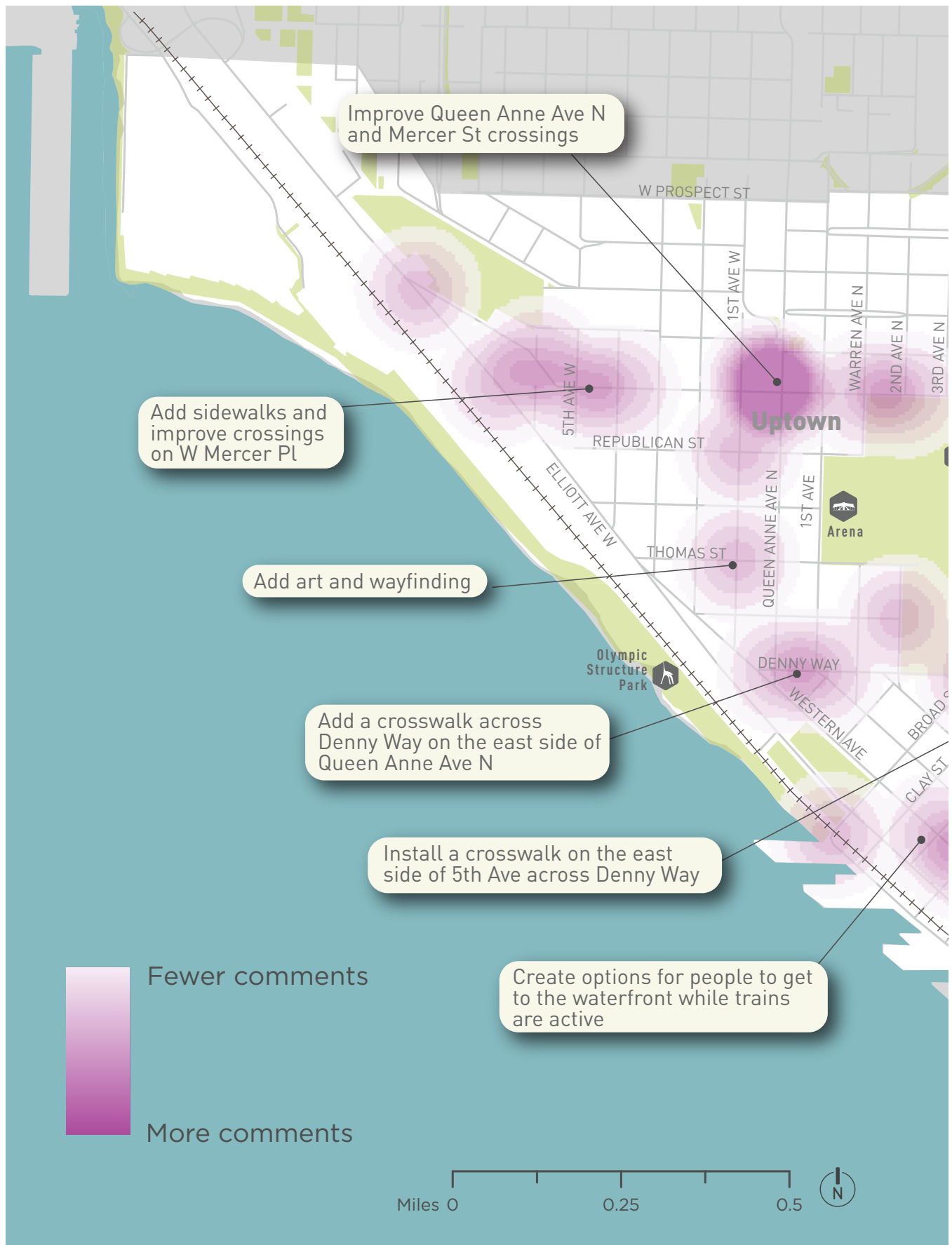
- **Improve pedestrian crossings of arterial streets in North Downtown.** Overwhelmingly, community members cited the need to make crossing busy streets easier for people walking. Suggestions included upgrading intersections to prioritize people crossing the street with longer and more frequent pedestrian phases and separating turning movements to reduce conflicts between turning vehicles and people in the crosswalk, especially in the heart of Uptown at Queen Anne Ave N and 1st Ave N at Mercer St. Additionally, people said many intersections need crosswalks installed or restriped, especially along north-south Aves in Belltown.
- **Improve pedestrian safety throughout North Downtown and along walking connections between neighborhoods, especially between downtown and Seattle Center through Belltown.** Community members indicated that better pedestrian lighting and more safe crossings (especially across Denny Way) are needed to enhance pedestrian safety through Belltown. Construction can create confusion and unpredictable walking routes for pedestrians. They suggested improvements that would enhance predictability between people walking, riding bicycles, and driving by reviewing stop control on local streets in residential neighborhoods.
- **Create high-quality, safe, pleasant connections between North Downtown neighborhoods.** Community members cited several corridors that could use improvements to enhance the pedestrian experience along these key arterials connecting neighborhoods, including Denny Way, Mercer St and Thomas St. Other specific needs mentioned were to maintain unimpeded walking paths by filling gaps in the sidewalk network (especially along W Mercer Place), maintaining an even sidewalk surface, and providing convenient, safe

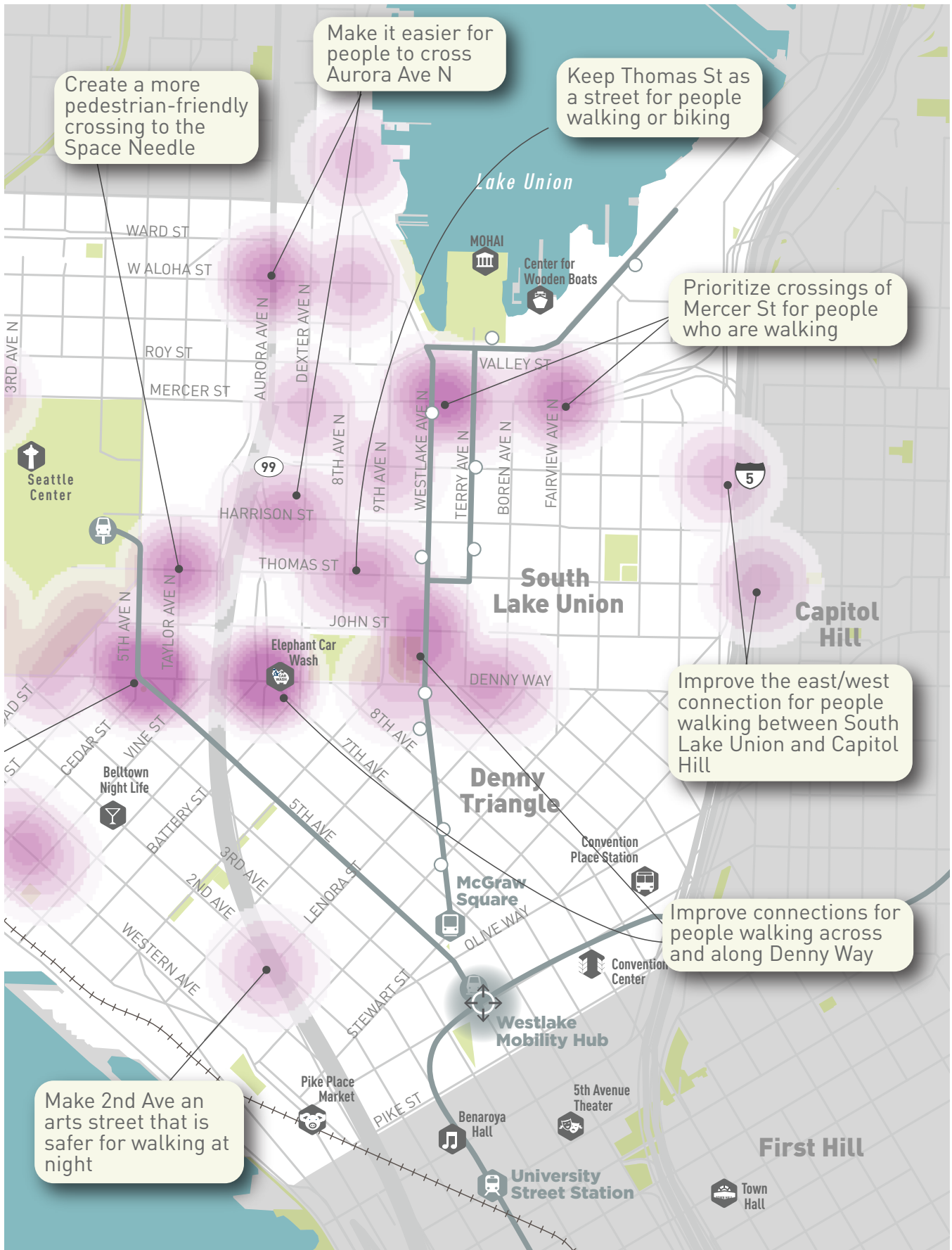
alternate routes if the sidewalk is obstructed by construction activity.

- **Enhance and activate public open space in North Downtown.** Community members want to keep public spaces clean and attractive with more frequent maintenance. Other needs mentioned were to improve lighting at parks and add more amenities and site furnishings in the right-of-way including benches and waste bins. Deploying neighborhood ambassadors could help connect people experiencing homelessness to services and increase the sense of public safety.
- **Enhance neighborhood character with pedestrian and public realm improvements.** People suggested that Belltown's nightlife could be supported by enhancing 2nd Ave as an entertainment corridor. There was support for implementing the Lake2Bay and Market to MOHAI concept plans to create high-quality, branded, and well-lit pedestrian connections between SLU, Uptown, Belltown, and the waterfront.



Figure 8 Pedestrian Public Comments





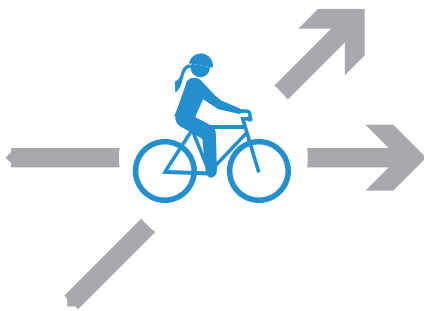
BICYCLE

Challenges Identified in Technical Analysis



North Downtown lacks a connected network of in-street protected bicycle infrastructure.

The 2nd Ave protected bike lane through Belltown is the most continuous piece of protected bicycle infrastructure in North Downtown. Short segments of protected bicycle infrastructure exist along Mercer St between Dexter Ave N and 5th Ave N and along 5th Ave N between Mercer St and Republican St. Community members stated they would consider traveling by bicycle if they could do so in a protected bike lane fully separated from traffic.



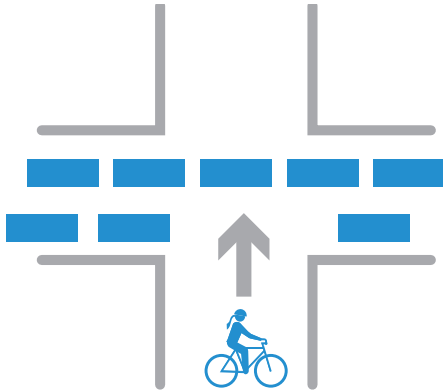
North Downtown needs more east-west and northeast-southwest bicycle connections.

No protected bicycle infrastructure exists between Seattle Center and the Elliott Bay waterfront. There is no continuous all ages and abilities bicycle connection between Uptown and South Lake Union. Bicycling is permitted across Seattle Center campus; however, no established bicycle connection exists.



Bicycle facilities in North Downtown are disconnected.

While the bicycle network in North Downtown is well-developed along some corridors, it is lacking along others. Many of the bicycle facilities end or become sharrows before connecting to major destinations or another bicycle facility. For example, the Roy St protected bike lane does not connect to the Mercer St protected bike lane. The 2nd Ave protected bike lane does not connect across Denny Way to Seattle Center. The 5th Ave N protected bike lane does not connect across Denny Way to bike facilities into downtown.



Bicyclists often have trouble crossing major arterials during peak periods due to vehicles that block the intersection.

Despite the presence of “Do Not Block Intersection” signs, vehicles often block the box at Mercer St and Denny Way, impeding people riding bikes from proceeding across the intersection and often forcing them to veer into the travel lane to get around.



Dockless bike share bikes often impede pedestrian movement along sidewalks.

Bike share bikes are often parked outside of the sidewalk’s furniture zone and affect pedestrian flow during busy periods.



Bicycle Themes from Outreach

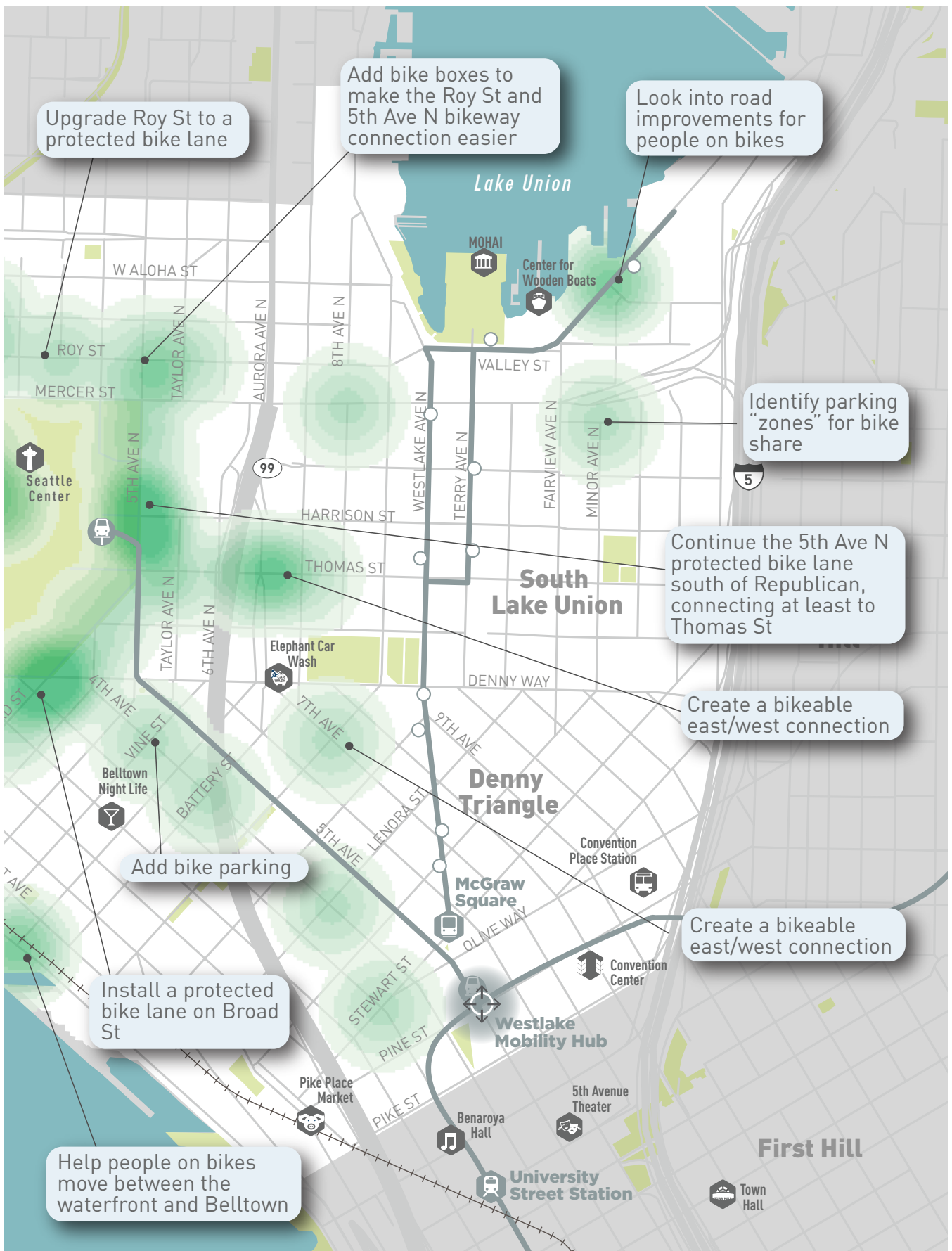
- **Create visible, separate street space for people riding bikes.** Build new or upgrade current bike facilities to be fully protected from traffic. For example, create protected bike lanes along 1st Ave N and Queen Anne Ave N in Uptown. Upgrade Roy St to a fully protected bike lane connecting from the Mercer St green path to Kinnear Park.
- **Connect protected bike facilities to create a continuous network.** Community members iterated that they would be more likely to use a bicycle for transportation if they were confident they could get to their destination via a network of safe, protected bike lanes. Desired connections include completing the connection from the 2nd Ave protected bike lane into Seattle Center or connecting the 5th Ave N protected bike lane from Roy St across Denny Way to bike routes into downtown.
- **Create east-west bicycle connections across Seattle Center between Uptown and South Lake Union.** People frequently cited the lack of safe and comfortable east-west bike routes through North Downtown, as there is no designated space on much of Mercer St or Denny Way for people riding bikes. Community members suggested that Thomas St and August Wilson Way across Seattle Center could be improved to prioritize people walking and bicycling. A new bicycle and pedestrian-only crossing is planned across the future Aurora Ave N surface street.
- **Improve bicycle connections between the Central Waterfront, Belltown, and Uptown.** Many community members cited confusion when looking for a preferred bicycle connection across Denny Way between Belltown and Uptown, and from Seattle Center to the waterfront. Ideas from the community for better connections include improvements along Republican St and 3rd Ave West in Uptown to create a safe connection between Seattle Center and the Thomas St overpass. Implementation of the Lake2Bay Corridor Concept Plan would also designate space on Broad St for people riding bikes.
- **Encourage bicycling as a preferred access mode with wayfinding, amenities and programs.** Community members shared ideas for a bike station at Seattle Center, bike valet parking at Arena events, improved route signage from downtown to Seattle Center, and coordinated bike share availability to connect Seattle Center event attendees to Westlake transit connections.





Figure 9 Bicycle Public Comments





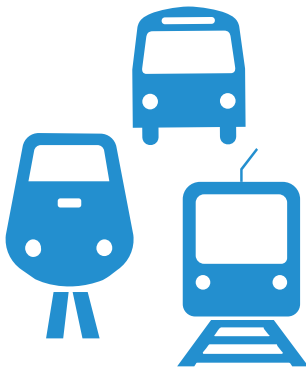
TRANSIT

Challenges Identified in Technical Analysis



North Downtown lacks high-capacity frequent east-west transit service between Uptown and South Lake Union.

Denny Way provides the only east-west transit connection between North Downtown and destinations east of I-5, and it often experiences delay. Transit service through North Downtown mostly exists on north-south or northwest-southeast arterials.



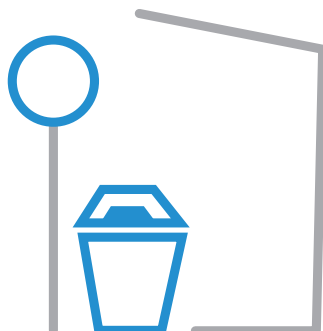
A variety of transit types serve North Downtown and see varying levels of ridership.

RapidRide bus service, frequent and local bus service, streetcar, and the Monorail all serve North Downtown. The RapidRide D-Line through Uptown and Belltown experiences the highest levels of ridership and overcrowding at peak hours near Seattle Center.



Buses along Denny Way experience delay caused by congestion.

Denny Way and the Queen Anne Ave N and 1st Ave N couplet see the highest bus volumes near the Seattle Center Arena.



North Downtown bus stops have varying levels of rider amenities

Shelters and benches are provided at many, but not all bus stops. RapidRide stops provide the most enhanced passenger waiting environment.



Only RapidRide stops have features that enhance transit speed and reliability.

Some bus stops allow buses to stop in the travel lane while others have pull-outs. RapidRide stops expedite passenger boarding and alighting with off-vehicle fare payment and all-door boarding.



North Downtown is home to some of the *least* and *most* transit dependent residents in Seattle.

Seattle’s Transit Master Plan found that access to a private vehicle also varies considerably across North Downtown neighborhoods, emphasizing the need for other transportation options like transit, shared mobility services, or bicycle facilities.



Transit Themes from Outreach

- **Improve east-west transit service and reliability between Uptown, SLU and Capitol Hill.** Community members often expressed frustration with Route 8 delays along Denny Way that could be remedied with transit priority features and speed and reliability improvements. Upon completion of the SR 99 tunnel, Harrison St could also function as a transitway providing desirable east-west transit connections. Notably, there was a recent slate of speed and reliability improvements to Route 8.
- **Improve transit speed and reliability between downtown, Belltown, and Uptown.** North Downtown transit riders cited several ideas for improving transit speed and reliability along key corridors, including more bus-only lanes and transit priority at intersections, especially along Denny Way. They suggested temporary transit priority features to make transit the preferred travel mode for Arena event attendees. Community members also mentioned they would use the Monorail more if it were easier to access and had increased capacity and frequency.
- **Create new high-capacity transit connections between downtown and North Downtown neighborhoods.** Many ideas for new transit connections emerged during the action plan development including a street car extension connecting Seattle Center and South Lake Union, adding a new Monorail stop in Belltown, and accelerating the construction and opening of LINK light rail at Seattle Center.

- **Improve passenger experience at transit stops and stations.** To make transit a preferred travel mode to and through North Downtown, community members cited the need for enhanced cleanliness and sense of safety at bus stops and stations. Improved lighting, accurate real-time information, and comfortable seating are highly desired amenities.
- **Utilize fast ferry service and the existing rail line along Elliott Bay to connect people to and from North Downtown.** Community members suggested leveraging existing assets including the waterfronts in North Downtown and the existing Amtrak and Sounder rail line to enhance mobility. For example, a new intermodal hub at the Thomas St overpass served by Amtrak, Sounder, and water taxi could provide direct connections to future Arena events.
- **Create mobility hubs that bring shared mobility services together at major transit junctions or station areas.** Community members would like to see enhanced transit hubs to facilitate seamless connections between modes, including shared mobility services. A more intuitive, direct connection between LINK light rail and the Monorail is a top priority for North Downtown transit riders. People indicated that future hub locations at the intersection of high-capacity transit modes, including Harrison St and SR 99 and the Seattle Center LINK station/ RapidRide D-Line, should seamlessly integrate a wide range of mobility options and wayfinding.

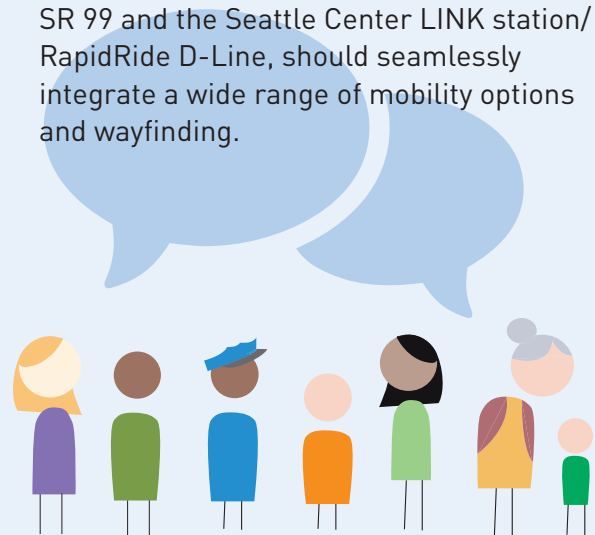
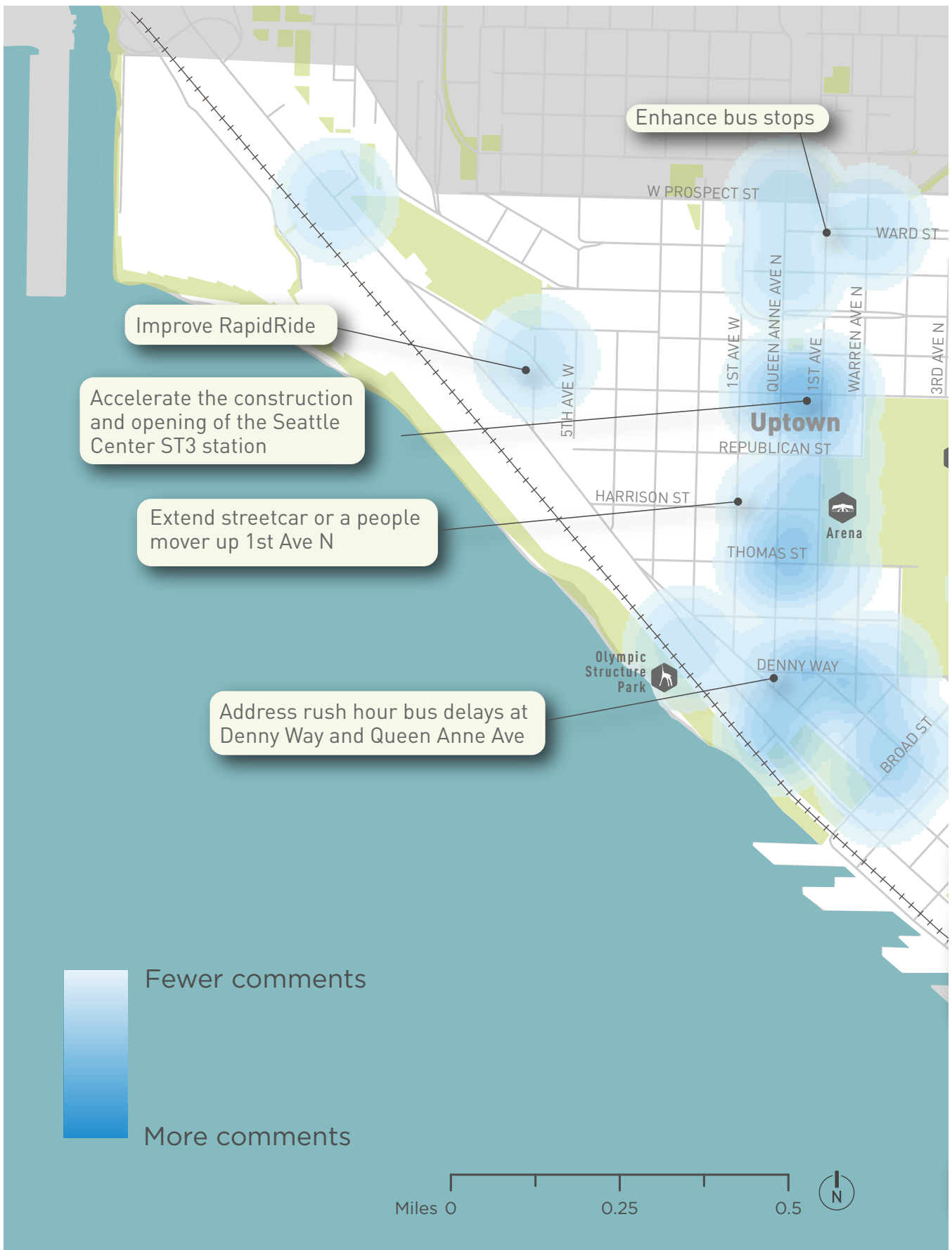
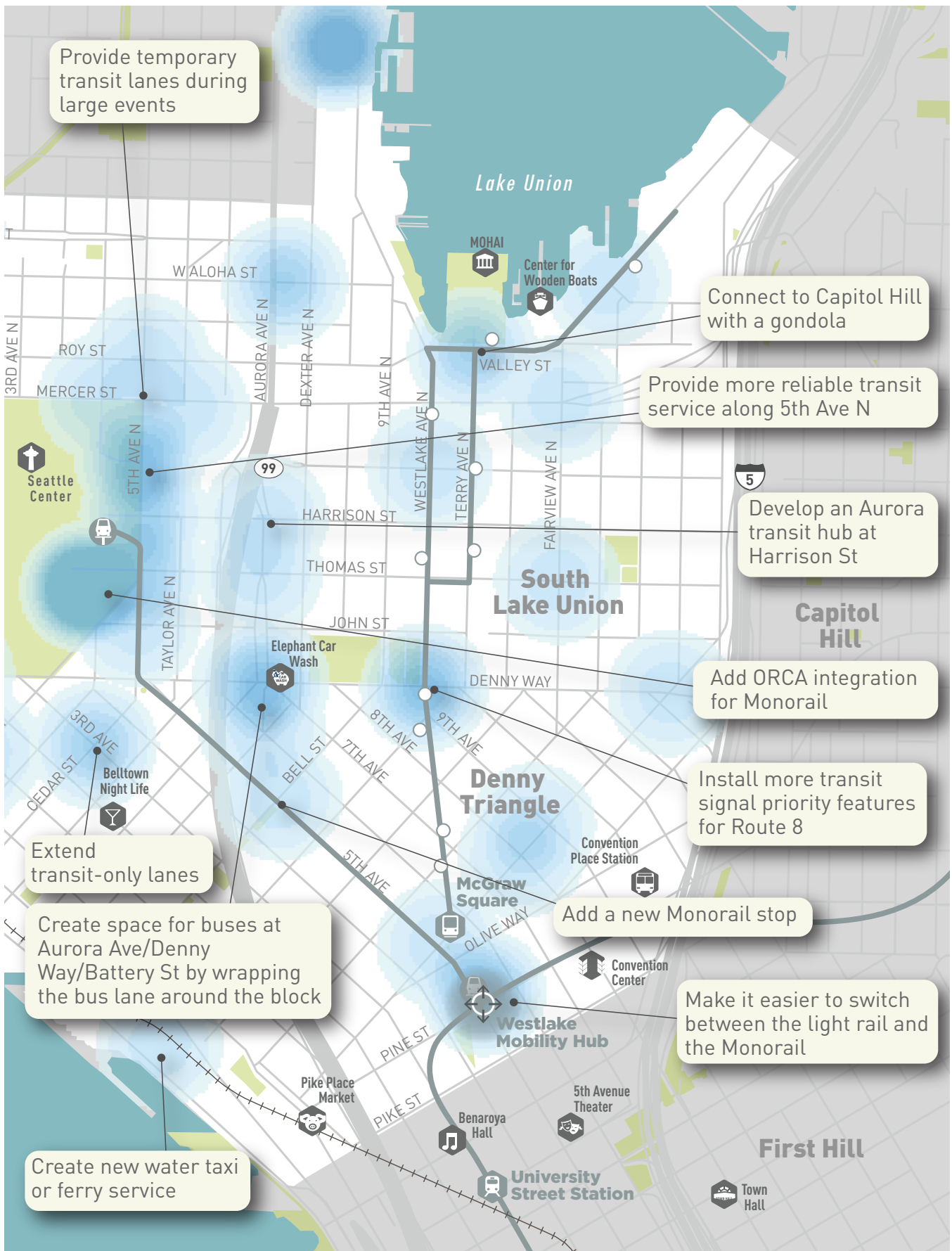




Figure 10 Transit Public Comments





Provide temporary transit lanes during large events

Connect to Capitol Hill with a gondola

Provide more reliable transit service along 5th Ave N

Develop an Aurora transit hub at Harrison St

Add ORCA integration for Monorail

Install more transit signal priority features for Route 8

Add a new Monorail stop

Make it easier to switch between the light rail and the Monorail

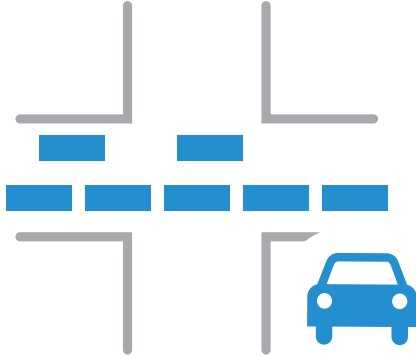
Extend transit-only lanes

Create space for buses at Aurora Ave/Denny Way/Battery St by wrapping the bus lane around the block

Create new water taxi or ferry service

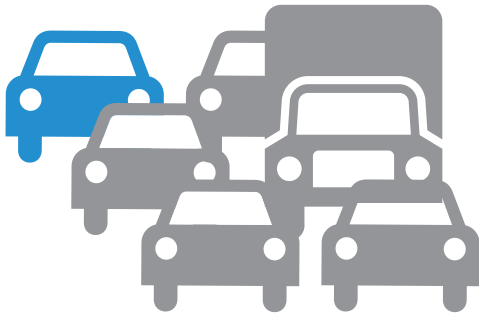
DRIVING AND GOODS DELIVERY

Challenges Identified in Technical Analysis



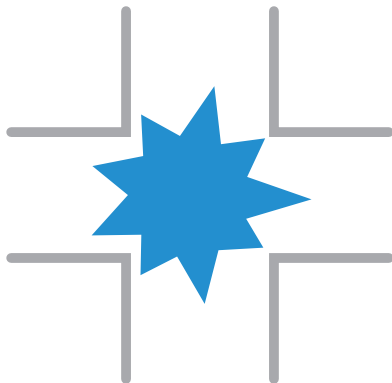
During the peak of the evening rush hour, a number of intersections along Mercer St and Denny Way have significant traffic delays heading eastbound.

Travel times along Mercer St between Fairview Ave N and 4th Ave N average 22 minutes at 2 miles per hour. Travel times along Denny Way between Yale Ave and Stewart St and Taylor Ave N average 17 minutes at 3 miles per hour. Congestion on I-5 causes substantial traffic back-ups in the eastbound direction, contributing to traffic delays.



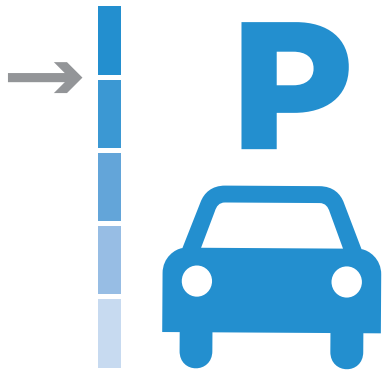
Substantial traffic back-ups congest Mercer St and Denny Way, as well as their side-street approaches.

Eastbound traffic headed toward I-5 from Mercer St creates substantial back-ups along the corridor during rush hours. Similar conditions exist in the eastbound direction of Denny Way. Additionally, weekday peak hour congestion on I-5 causes back-ups onto Mercer St and Denny Way. This impacts freight reliability and goods movement along these corridors.



Several intersections along Denny Way are high collision locations.

These intersections are concentrated between 5th Ave N and Stewart St. Left-turn and angled vehicular collisions are the most common collision types. The intersections of Mercer St/ Fairview Ave N, 5th Ave/Olive Way, 4th Ave/Battery St, and Yale Ave/Stewart St are also high collision locations.



On-street parking demand near Seattle Center is highest during Saturday evening Arena events that overlap with peak travel periods, while garages remain modestly utilized.

Saturday evening occupancy for on-street parking near Seattle Center increases to 81% versus 67% on a typical weekday evening. However, off-street parking occupancy only increases to 22% versus 11% on a typical weekday evening. There are approximately 5,000 off-street parking stalls near Seattle Center and approximately 3,000 on-street parking spaces.



Seattle's street segments with the highest concentration of truck collisions are located in North Downtown.

The 2016 Seattle Freight Master Plan found that in general, locations with high truck collisions correspond to facilities with a high volume of trucks. While safety improvements have been made to specific high-collision locations, the impacts have yet to be evaluated.



Significant freight bottlenecks are located in North Downtown's north-south arterials.

Seattle's Freight Master Plan found that freight congestion occurs on north-south segments of the freight network, which also overlaps with pedestrian and bicycle crashes during the study period. These findings illustrate a need for more predictable movement for goods and delivery, and facilities that minimize conflicts with pedestrians and movement of people.

Driving and Goods Delivery Themes from Outreach

- **Improve signals on key corridors connecting North Downtown neighborhoods.**

Community members often cited significant levels of traffic delay and congestion during peak hours throughout North Downtown. The increased delay makes freight movement and goods delivery more difficult, as cited by stakeholders in the Ballard-Interbay-Northend Manufacturing/Industrial Center. Signalization improvements and signal timing coordination along key corridors were frequently suggested as potential solutions. Ensuring reliability along freight corridors was also cited as a top priority.

- **Improve traffic operations throughout North Downtown.**

Several improvements aimed at reducing congestion and increasing safety came up during plan development, including separating turning movements to eliminate conflicts between crossing pedestrians and turning vehicles, installing new signals and more visible signage, lengthening vehicular left-turn phases, and better organizing street space among travel modes in frequently congested streets.

- **Increase enforcement to ensure people travel safely.**

Peak-hour enforcement and turning restrictions to prevent vehicles from blocking the box at intersections was one of the most frequently suggested improvements. In addition, calming traffic in residential areas with high pedestrian volumes and access management along Bell Street Park were also cited.

- **Review curbspace needs throughout North Downtown.**

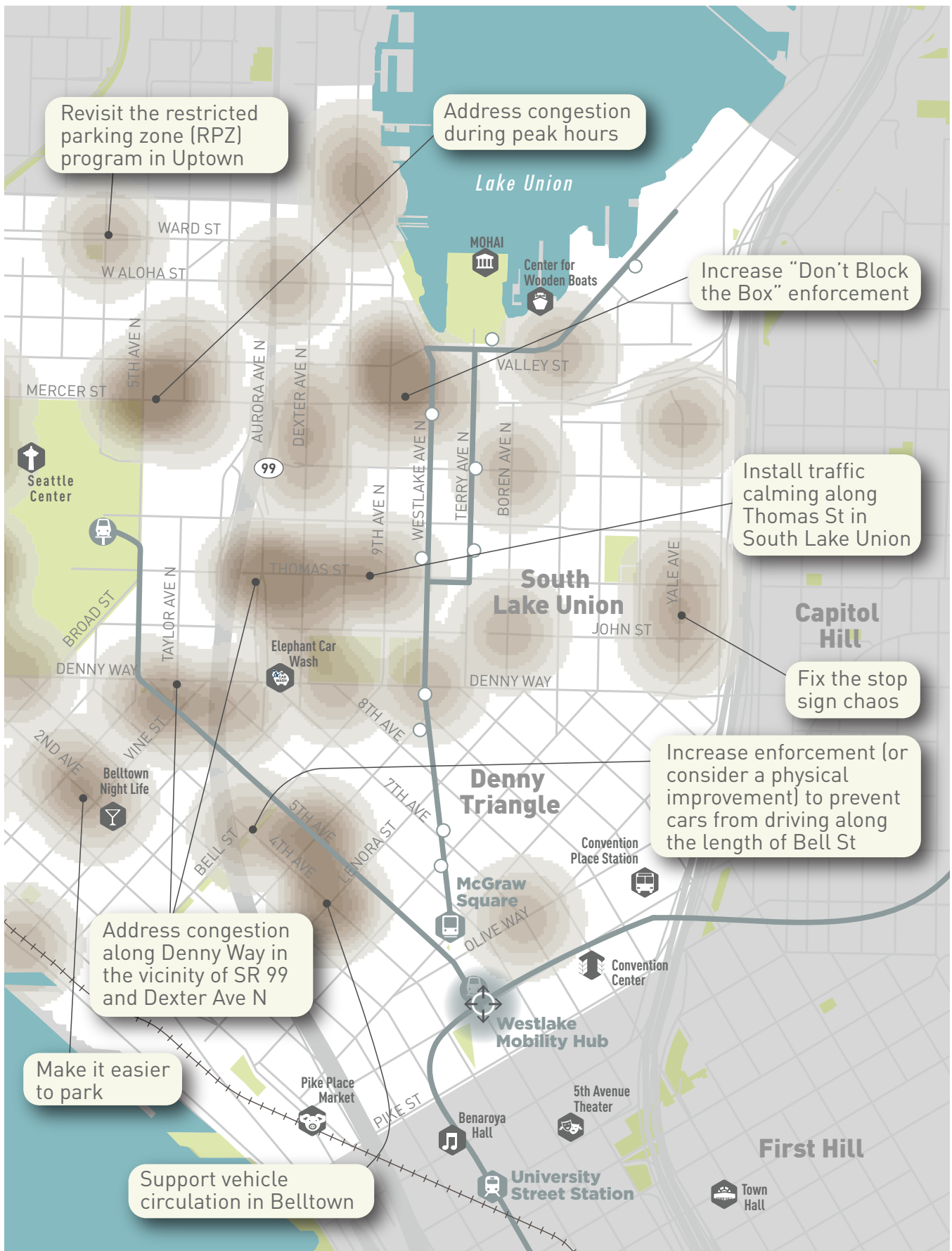
Community members cited the many competing needs for curbspace throughout downtown, from rideshare pick-up/drop-off to goods delivery to on-street parking. An overall strategy is needed in North Downtown to designate curbspace to serve the most people and those without alternatives, including local businesses reliant on goods delivery and people with mobility restrictions.





Figure 11 Driving and Good Delivery Comments





Revisit the restricted parking zone (RPZ) program in Uptown

Address congestion during peak hours

Increase "Don't Block the Box" enforcement

Install traffic calming along Thomas St in South Lake Union

Fix the stop sign chaos

Increase enforcement (or consider a physical improvement) to prevent cars from driving along the length of Bell St

Address congestion along Denny Way in the vicinity of SR 99 and Dexter Ave N

Make it easier to park

Support vehicle circulation in Belltown

CHAPTER 4

PROJECT DEVELOPMENT & EVALUATION

The NODO MAP was developed through extensive community outreach. An evaluation framework was developed and used to rate and rank candidate projects and programs. The evaluation framework was guided by community-developed guiding principles (see right of page). Equity, safety, and access to opportunity were central to the evaluation, ensuring the City's commitment to North Downtown's most vulnerable residents, workers, and visitors.

Over 500 project and program ideas were identified through existing plans and MAP outreach. An initial screen was conducted based on:

- Alignment with Guiding Principles (High/Medium/Low)
- Identified in Existing Plans (Y/N)
- Anticipated Costs (\$-\$\$\$\$)
- Level of Community Support (Y/N)

The top tier of projects was presented to the public and key stakeholder groups for review and input. Further technical study, including results of the Arena EIS transportation analysis, and evaluation of funding opportunities narrowed that candidate project list.

The team identified an implementation pathway for most of the top tier projects (see Appendix for a list of projects). The final list of recommended projects is bounded by anticipated funding from the City (Arena) Transportation Fund (\$40M over 39 years) and a \$5M anticipated contribution from the Port of Seattle.

GUIDING PRINCIPLES



BUILD ON COMMUNITY VISION

Align mobility improvement implementation with community priorities and vision.



PRIORITIZE SUSTAINABLE TRANSPORTATION OPTIONS

Increase accessibility and convenience for people walking, biking, and taking transit between North Downtown and adjacent areas to support growth and accommodate Seattle Center events, while reducing automobile trips.



ENHANCE THE PUBLIC REALM

Create attractive places to walk, bike, ride transit, and play in North Downtown.



IMPROVE CONNECTIVITY

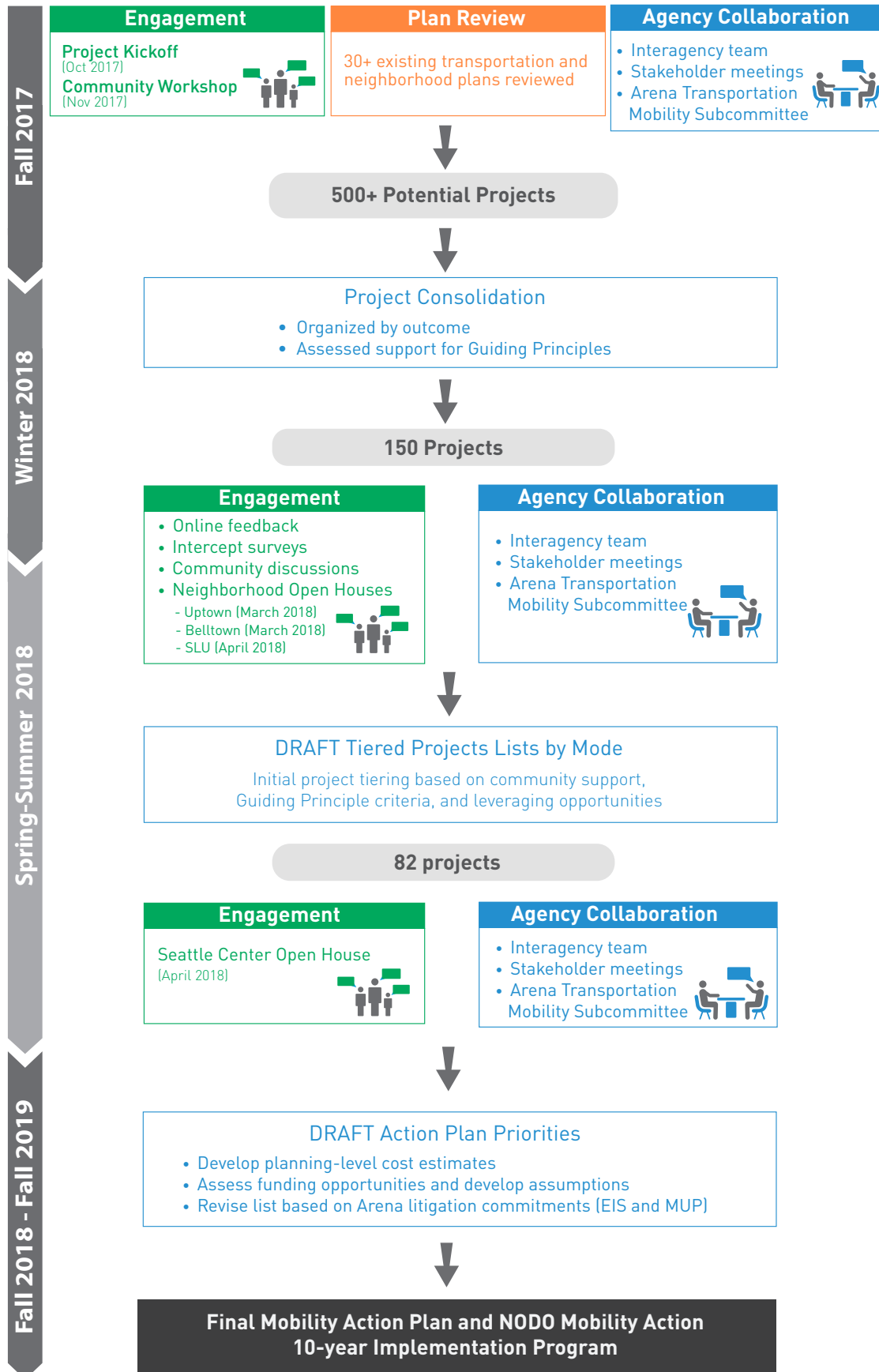
Enhance connections within and between North Downtown and to adjacent neighborhoods.



INCREASE SAFETY

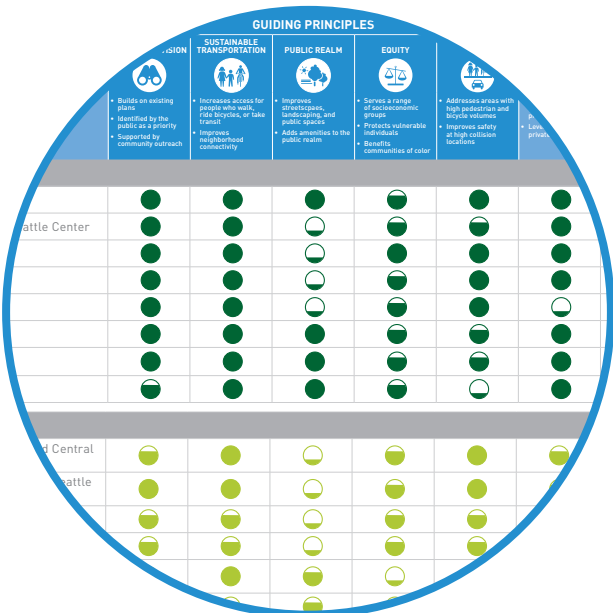
Enable safe access for all, regardless of age, ability, or transportation mode choice.

PROJECT DEVELOPMENT PROCESS



PROJECT EVALUATION

Selecting projects most responsive to community needs requires an evaluation driven by community input and direction. Guiding principles developed and tested for community support formed the backbone of the project evaluation approach. Specific evaluation criteria were organized to support these principles and City priorities around equity. Criteria were applied to each project and overall ratings used to guide project selection.



Projects were evaluated using criteria develop to align with community-developed guiding principles.

EVALUATION CRITERIA



COMMUNITY VISION

- Builds on existing plans
- Identified by the public as a priority
- Supported by community outreach

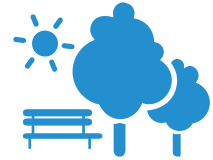


SUSTAINABLE TRANSPORTATION



IMPROVE CONNECTIVITY

- Increases access for people who walk, ride bicycles, or take transit
- Improves neighborhood connectivity



PUBLIC REALM

- Improves streetscapes, landscaping, and public spaces
- Adds amenities to the public realm



EQUITY

- Serves a range of socioeconomic groups
- Protects vulnerable individuals
- Benefits communities of color



SAFETY

- Addresses areas with high pedestrian and bicycle volumes
- Improves safety at high collision locations

STRATEGIC PRIORITIES BY MODE

The following strategic priorities reflect the community's desired outcomes for the NODO MAP's projects and programs. Projects and programs that rated highest in the evaluation framework and best achieve these strategic priorities were recommended for implementation in the first 10 years of the CATF.



Bicycle Projects: Strategic Priorities

- Create east/west bicycle connections across Seattle Center between Uptown and South Lake Union
- Improve bicycle connections between the Central Waterfront, Belltown, and Uptown
- Upgrade and complete bicycle connections in Uptown
- Encourage bicycling as a preferred access mode with wayfinding, amenities, and programs



Transit Projects: Strategic Priorities

- Improve east/west transit service and reliability between Uptown, South Lake Union, and Capitol Hill
- Improve transit speed and reliability between Downtown, Belltown, and Uptown
- Create new transit connections serving North Downtown neighborhoods
- Create mobility hubs that centralize and connect transportation services at major transit junctions or station areas
- Improve passenger experience at transit stops and stations
- Continue to reduce drive alone mode share in North Downtown



Driving/Goods Delivery Projects: Strategic Priorities

- Improve operations on key corridors connecting North Downtown neighborhoods, including use of Intelligent Transportation System (ITS) features
- Implement peak hour enforcement and turning restrictions to ensure people travel safely
- Review curbspace needs throughout North Downtown neighborhoods
- Improve traffic operations throughout North Downtown
- Decrease drive-alone mode share and improve safety and accessibility for all people using the transportation system



Public Realm Projects: Strategic Priorities

- Create high-quality, safe, pleasant connections between North Downtown neighborhoods
- Enhance neighborhood character with pedestrian and public realm improvements
- Enhance and activate the public open spaces in North Downtown
- Create vibrant places for people to walk, rest, socialize, and access mobility services throughout North Downtown



Pedestrian Projects: Strategic Priorities

- Improve pedestrian crossings of arterial streets in North Downtown
- Improve pedestrian safety throughout North Downtown and walking connections between neighborhoods
- Improve the pedestrian experience along key North Downtown arterials
- Educate, encourage, and empower people to walk to and throughout North Downtown

FUNDING ASSUMPTIONS

As part of the Seattle Center Arena Transaction Documents, OVG will contribute \$40 million over 39 years to a City Transportation Fund

(\$1,025,000 each per year, with no allowances for inflation).

SDOT looked at a number of different ways to fund the projects outlined in the plan. Including:

- Assigning various project improvements to leverage existing SDOT funding and use the OVG funding to augment existing funding to complete the improvements.
- Borrowing a large sum (or annual borrowing in a series for a similar amount), then using the OVG funding to service the debt (paying back the borrowed principle, with interest and fees included).
- Using a pay-as-you-go scenario, using the OVG funding to closely match the work being completed on a yearly basis.
- A hybrid approach, using one or more of the methods above based on the best suited approach.

After additional analysis and discussions, it became clear that no one single approach was best for funding all improvements. While the pay-as-you-go approach seems to make the most sense, it also limits the scale of improvements that are needed early on in the process. Similarly, borrowing had some serious limitations that require the useful life of the improvements to be equal or greater than the term of the borrowing note – while some of the improvements will use have a useful life in excess of the note -most of these costs would not. In the end, the hybrid approach seemed to make the most sense for funding these improvements.



Based on these assumptions, we anticipate nearly \$9 million dollars in improvements being made in the between now and 2021 – with improvements made on a prioritized basis – and around \$28 million in the first 10 years when combined with a number of existing programs, mitigation resources and other funding sources.

In addition, SDOT and the Port of Seattle are partnering for freight mobility improvements in the North Downtown area, including the critical corridors for the Ballard Interbay Manufacturing Industrial Center along the 15th Ave W/Elliott Ave W/Mercer St, with North Waterfront Access Improvements on Broad and Denny Way corridors.

CHAPTER 5

PRIORITY PROJECTS & PROGRAMS

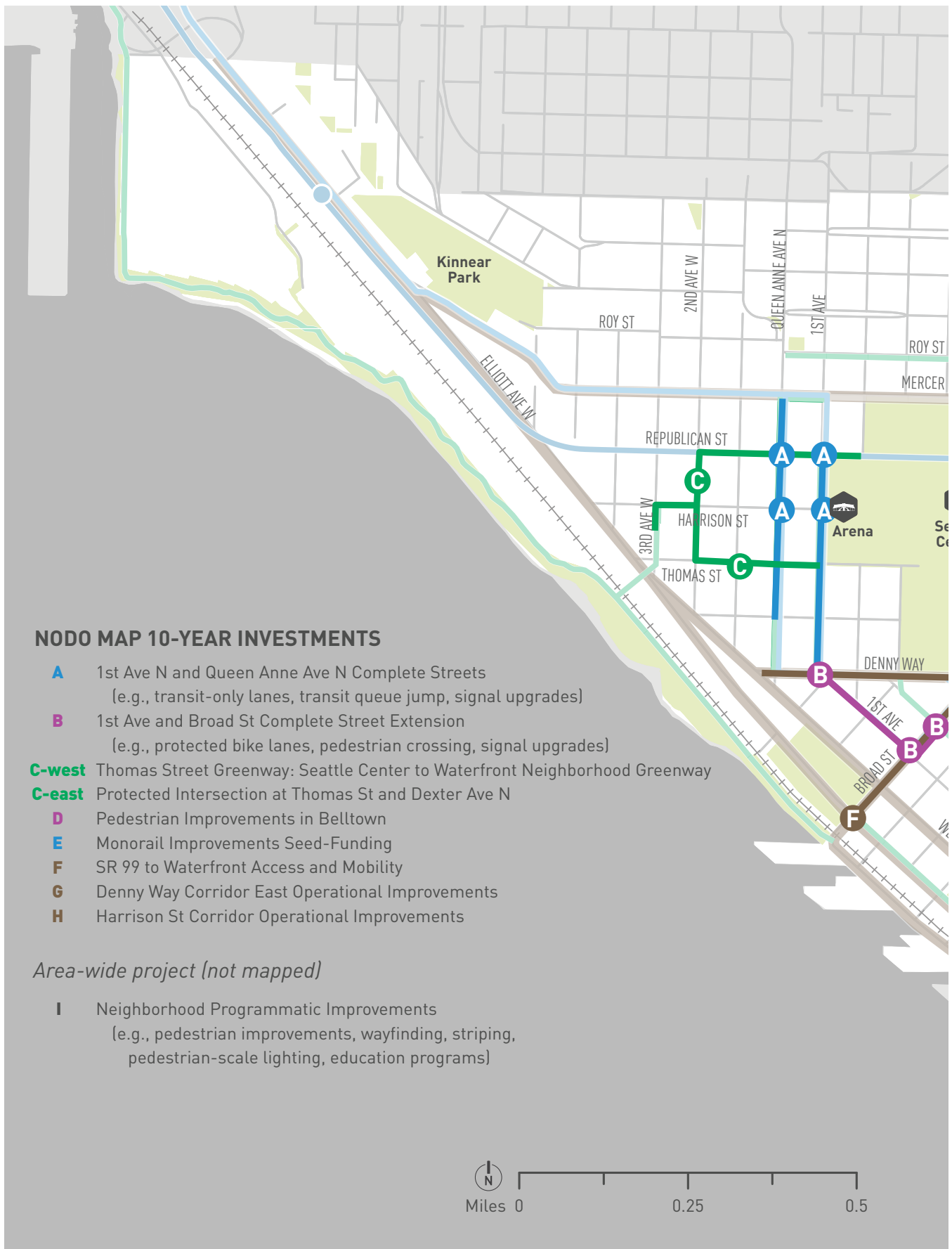
The NODO MAP relied on the project evaluation and funding assumptions outlined in Chapter 4 to determine the priority projects and programs recommended to be funded in the next 10 years by the City (Arena) Transportation Fund. Many of the Tier 1 projects were incorporated into the priority projects and/or are being carried forward through other SDOT programs.

The priority projects make key network connections when combined with existing facilities and up-coming planned investments. These connections fill gaps in the bicycle network, make key investments along freight and transit routes, and improve pedestrian safety and mobility at priority intersections.

Several of the projects also align with the mitigation identified in the arena master use permit (MUP) conditions. These projects include fair-share contributions from both Oak View Group (OVG) and the City. Projects that had a City fair-share contribution, were identified through the NODO MAP process, and align with the NODO guiding principles, were included in the priority projects selected for the City (Arena) Transportation Fund.

Priority projects and programs are shown on the following map and described further in this chapter.

Figure 12 Recommended Project Map





A 1ST AVE N AND QUEEN ANNE AVE N COMPLETE STREETS

Project Description

1st Ave N and Queen Anne Ave N are key north-south corridors that connect Belltown and Uptown and serve the front door of the Seattle Center arena. The project will prioritize people taking transit, walking, and bicycling by including transit-only lanes and protected bicycle lanes. Intersection improvements include new signals to improve pedestrian safety, curb bulbs at select intersections, a transit queue jump to benefit transit speed and reliability, and signal upgrades to improve network connectivity through predictable bicycle and vehicular movements. Protected bike lanes on 1st Ave N and Queen Anne Ave N are consistent with the Bicycle Master Plan.

Transit-only lanes

- 1st Ave N between Denny Way and Republican St
- Queen Anne Ave N between Mercer St and John St

Protected bicycle lanes*

- Queen Anne Ave N
- 1st Ave N

Curb bulbs*

- 1st Ave N and Harrison St
- 1st Ave N and Republican St

New signals*






- Queen Anne Ave N and Thomas St
- 1st Ave N and Thomas St

Signal upgrades

- Queen Anne Ave N and Harrison St
- 1st Ave N and Harrison St
- Queen Anne Ave N and Republican St
- 1st Ave N and Republican St (with transit queue jump)

**OVG funded per master use permit condition*

Strategic Priorities Addressed

-  Upgrade and complete bicycle connections in Uptown
-  Improve bicycle connections between the Central Waterfront, Belltown, and Uptown
-  Improve transit speed and reliability between Downtown, Belltown, and Uptown
-  Decrease drive alone mode share and improve safety and accessibility for all people using the transportation system
-  Improve traffic operations throughout North Downtown

Tier 1 Projects Incorporated

1st Ave N and Queen Anne Ave N Protected Bike Lanes

Improve RapidRide C, D, and E Lines Speed, Reliability and Passenger Experience

Pedestrian Improvements at Unsignalized Crossings



Figure 13 1st Ave N and Queen Anne Ave N Complete Streets



Community Support



Planning-Level Cost Estimate



Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

Funding Sources

- City Transportation Fund
- Oak View Group



B 1ST AVE AND BROAD ST COMPLETE STREET EXTENSION

Project Description

Leverage improvements along 1st Ave N and Queen Anne Ave N to complete the bicycle connection between the 2nd Ave protected bike lane (PBL) and the future 1st Ave N PBL. The project will also upgrade signals to add a new pedestrian crosswalk at 1st Ave and Denny Way, provide bicycle signals, and enhance transit speed and reliability between 3rd Ave and 1st Ave N.






Protected bicycle lanes

- Two-way PBL along Broad St between 2nd Ave and 1st Ave
- Two-way PBL along 1st Ave between Broad St and Denny Way
- Bike boxes and bicycle crossing markings

Signal upgrades

- Denny Way and 1st Ave
- Broad St and 1st Ave
- Broad St and 2nd Ave

Strategic Priorities Addressed

-  Improve bicycle connections between the Central Waterfront, Belltown, and Uptown
-  Improve transit speed and reliability between Downtown, Belltown, and Uptown
-  Decrease drive alone mode share and improve safety and accessibility for all people using the transportation system
-  Improve traffic operations throughout North Downtown
-  Improve pedestrian safety throughout North Downtown and walking connections between neighborhoods

Tier 1 Projects Incorporated

Improve RapidRide C, D, and E Lines Speed, Reliability and Passenger Experience

Improve Pedestrian Environment at Denny Way Intersections

Pedestrian Crossing Improvements at High Priority Signalized Intersections

Tier 2 Projects Incorporated

Connect 2nd Ave PBL to 1st Ave N and Queen Anne Ave N PBLs



Figure 14 1st Ave and Broad St Complete Street Extension



Community Support



Planning-Level Cost Estimate



Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

Funding Sources

City Transportation Fund

THOMAS ST GREENWAY

Project Description

C-west: Seattle Center to Waterfront Greenway

Improve and highlight the walking and bicycling connections between the Seattle Center and the Central Waterfront via the Thomas St overpass.

Build upon the longstanding vision for the Thomas Green Street and leverage intersection improvements at Thomas St and 1st Ave N and Queen Anne Ave N to establish a safe and obvious walking and biking connection between Seattle Center and the Thomas St overpass.

Establish an all ages and abilities bicycle connection between the Thomas St overpass and Seattle Center by working with the topography to prioritize people riding bicycles along the least steep routes along 3rd Ave W.

C-east: Protected Intersection at Dexter and Thomas

Implement a key element of the community's vision for a pedestrian and bicycle friendly Thomas Green Street. A protected intersection at Dexter and Thomas will include diverters to prohibit through vehicle travel across Aurora Ave N (now 7th Ave N) and a new signal.

Greenway treatments

- Thomas St from 1st Ave N to 3rd Ave W via 2nd Ave W, Republican St, and Harrison St

Bicycle connection to Seattle Center

- Wayfinding and greenway treatments from Thomas St overpass to Seattle Center via 3rd Ave W and Republican St

Traffic management in Uptown

- Stop signs, crosswalks, and signal modifications

New signals:

- Dexter Ave N and Thomas St
- Thomas St and 1st Ave N*
- Thomas St and Queen Anne Ave N*

Strategic Priorities Addressed



Create high-quality, safe, pleasant connections between North Downtown neighborhoods



Create east-west bicycle connections across Seattle Center between Uptown and South Lake Union



Enhance neighborhood character with pedestrian and public realm improvements



Decrease drive-alone mode share and improve safety and accessibility for all people using the transportation system



Improve pedestrian safety throughout North Downtown and walking connections between neighborhoods

Tier 1 Projects Incorporated

Thomas St Neighborhood Greenway

Bicycle Connection between Thomas St Overpass and Seattle Center

Pedestrian Safety and Crossing Enhancements between Seattle Center and Thomas St Overpass

Thomas Green Street Concept Plan

Lake2Bay and Market to MOHAI Age-Friendly Improvements

New signals on Thomas St

**OVG funded per master use permit condition*

Figure 15 Thomas St Greenway



Community Support



Planning-Level Cost Estimate



Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

Potential Funding Sources and Partnerships




- City Transportation Fund
- SDOT Neighborhood Greenways Program
- Private Development
- LCLIP
- Oak View Group

D PEDESTRIAN IMPROVEMENTS IN BELLTOWN

Project Description

Enhance pedestrian safety and comfort in Belltown at 1st Ave and Battery St, a high priority pedestrian crossing location. Intersection improvements include a new traffic signal, crosswalks, and potential paint-and-post curb bulbs to shorten pedestrian crossing distance and slow turning vehicles.

Strategic Priorities Addressed

-  Improve pedestrian crossings of arterial streets in North Downtown
-  Improve pedestrian safety throughout North Downtown
-  Decrease drive alone mode share and improve safety and accessibility for all people using the transportation system

New signal

- 1st Ave and Battery St

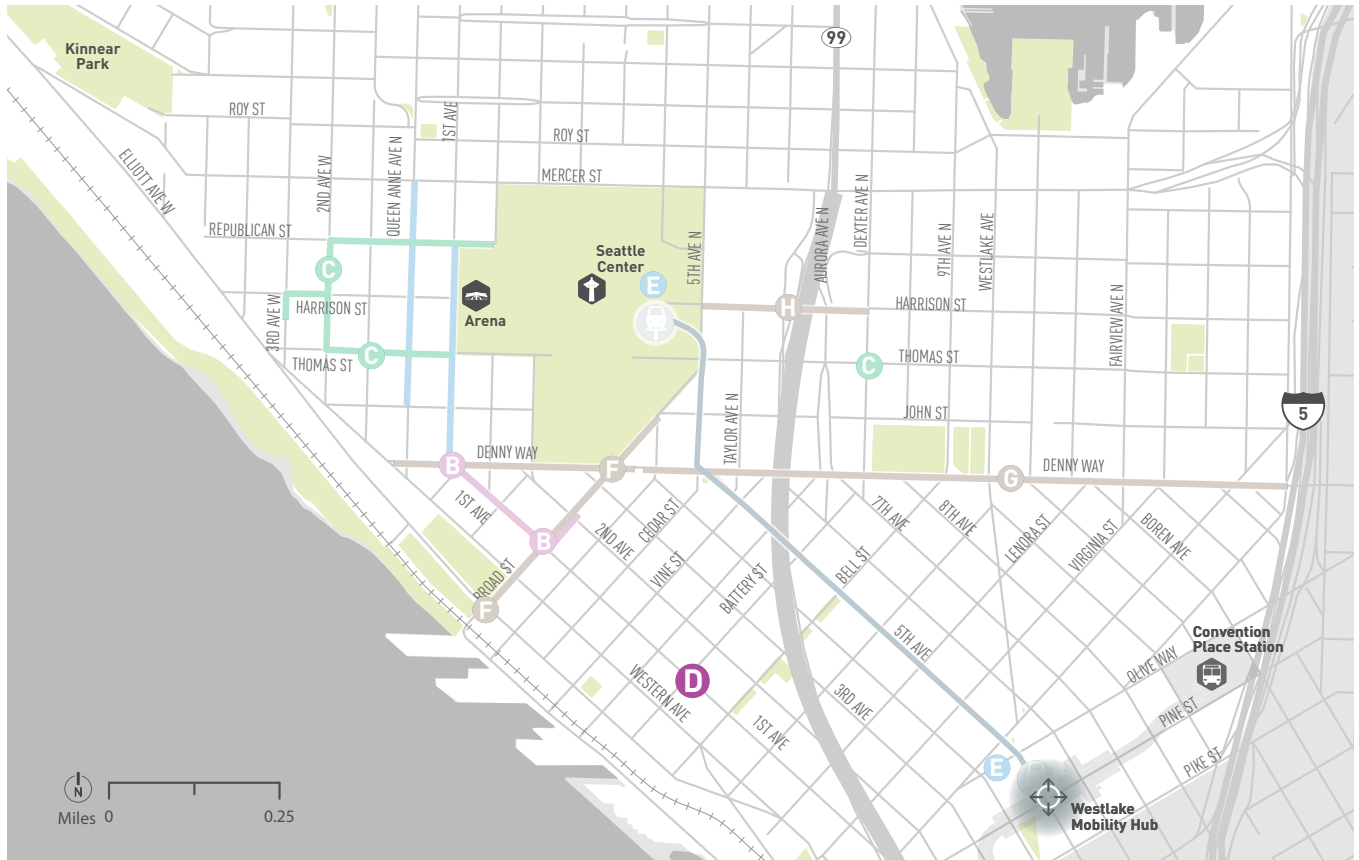
Tier 1 Projects Incorporated

Traffic Calming and Pedestrian Crossing Improvements at High Priority Unsignalized Crossings

1st Ave at Battery St



Figure 16 Pedestrian Improvements in Belltown



Community Support



Planning-Level Cost Estimate



Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

Funding Sources

City Transportation Fund

E MONORAIL IMPROVEMENTS

Project Description

Support improvements to the Monorail that enhance sustainable transportation options, mobility, and convenience for North Downtown residents, workers, and commuters with connections to the Westlake Hub and light rail in downtown. Community outreach indicated wayfinding and accessibility improvements as priorities. The City Transportation Fund would provide \$1 million in seed funding to leverage other partner investments to fund the improvements identified in the Seattle Center Monorail Stations Reconfiguration Evaluation Report (2018). These recommended improvements will enhance sustainable transportation options, mobility, and convenience for North Downtown residents, workers, and commuters with connections to the Westlake Hub and light rail in downtown. Community outreach indicated wayfinding and accessibility improvements as priorities.

Recommendations

Phase 1: \$6,950,000

- Improvements to existing platforms at the Seattle Center station (\$3,100,000) and the Westlake station (\$3,850,000)




Phase 2: \$13,050,000

- Improvements to increase capacity at Westlake (\$9,200,000)
- Entry and accessibility improvements at Seattle Center (\$3,850,000)

Phase 3: \$3,000,000

- Seattle Center station north entrance addition (\$3,000,000)

Strategic Priorities Addressed

-  Improve transit speed and reliability between Downtown, Belltown, and Uptown
-  Create new transit connections serving North Downtown neighborhoods
-  Decrease drive alone mode share and improve safety and accessibility for all people using the transportation system

Tier 1 Projects Incorporated

Seattle Center and Westlake Station Enhancements Recommended in the Seattle Center Monorail Stations Reconfiguration Evaluation Report

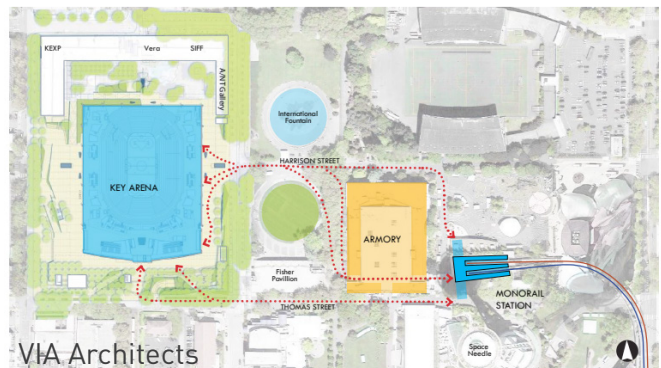


Figure 17 Monorail Improvements



Community Support



Planning-Level Cost Estimate



Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

Funding Sources

City Transportation Fund

Funds would be used to leverage other partner investments

CORRIDOR OPERATIONAL IMPROVEMENTS

Project Description

Operational improvements will be made along three corridors, and include updates to signal timing, vehicle detection, and fiber communications to improve traffic flow. As with all signal timing in the City, decisions on how to balance competing needs are made by applying policy guidance contained in the City's modal plans and by evaluating performance data, such as collision history and transit travel time. Advanced signal systems, including adaptive signals, allow for greater ability to meet those needs because we can develop many timing plan options, as well as incorporate external inputs, such as special event schedules.

Contributions from the Port of Seattle are proposed to help fund the SR 99 to Waterfront Access and Mobility project, which supports freight mobility with upgrades along Broad St and the western portion of Denny Way. The Freight Master Plan identified Denny Way intelligent transportation system (ITS) improvements as a priority project.

Figure 18 Corridor Operational Improvements



F SR 99 to Waterfront Access and Mobility

Improve 11 signals connecting the 15th Ave corridor to the SR 99 north tunnel portal and the waterfront along Broad St and Denny Way:

- Broad St and Elliott Ave
- Broad St and Western Ave
- Broad St and 1st Ave*
- Broad St and 2nd Ave*
- Broad St and 3rd Ave
- Broad St and 5th Ave
- Broad St and Denny Way
- Broad St and John St
- Denny Way and Queen Anne Ave N/ Western Ave
- Denny Way and 1st Ave N
- Denny Way and 2nd Ave N

*Broad St and 1st Ave and Broad St and 2nd Ave signals are funded through the City Transportation Fund as part of the 1st Ave and Broad St Complete Street extension project



Photo: SDOT

Community Support



Planning-Level Cost Estimate



Funding Sources

- City Transportation Fund
- Provisional Port of Seattle
- SDOT
- Oak View Group

Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

CORRIDOR OPERATIONAL IMPROVEMENTS

G Denny Way East (4th Ave N to I-5)

Upgrade 11 signals from 4th Ave N to I-5 to improve operating conditions in this key transit and freight corridor.

- Denny Way and 4th Ave
- Denny Way and 5th Ave
- Denny Way and Taylor Ave
- Denny Way and 6th Ave
- Denny Way and 7th Ave
- Denny Way and Dexter Ave
- Denny Way and 9th Ave
- Denny Way and Westlake Ave
- Denny Way and Terry Ave
- Denny Way and Fairview Ave
- Denny Way and Yale Ave/Stewart St



Photo: Urbanist

Community Support



Planning-Level Cost Estimate



Funding Sources

- City Transportation Fund
- SDOT
- Oak View Group

Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

H Harrison St Corridor

Improve 4 signals between 5th Ave N and Dexter Ave N connecting to the SR 99 north tunnel portal. Harrison St is also a future transit corridor that will benefit from the signal upgrades.

- Harrison St and 5th Ave N
- Harrison St and 6th Ave N
- Harrison St and 7th Ave N
- Harrison St and Dexter Ave N

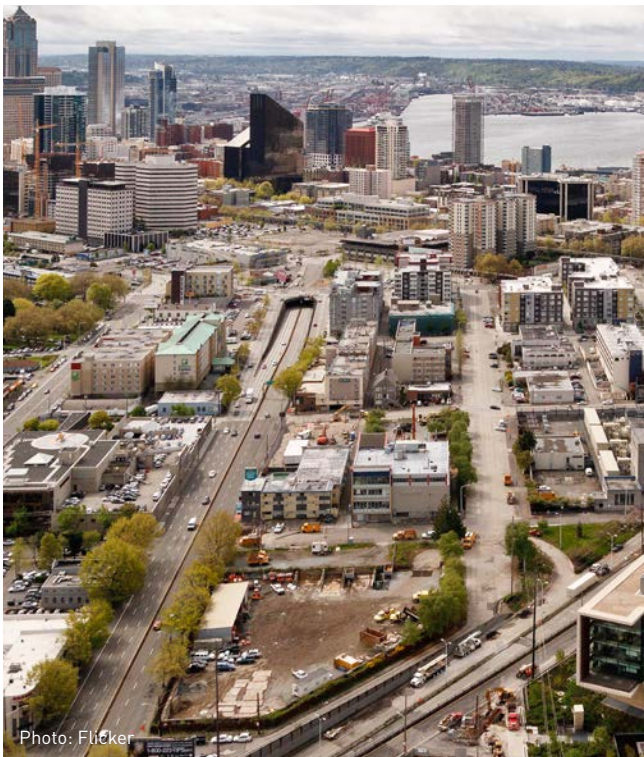


Photo: Flickr

Community Support



Planning-Level Cost Estimate



Funding Sources

- City Transportation Fund
- SDOT
- Oak View Group

Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

I PROGRAMMATIC IMPROVEMENTS

Pedestrian and Bicycle Wayfinding




Project Description

Implement wayfinding along pedestrian priority routes connecting North Downtown neighborhoods and major destinations. This project is also a Pedestrian Master Plan strategy.

Bicycle Wayfinding

Improve wayfinding and bike route signage throughout North Downtown. Highlight the all ages and abilities bike routes connecting North Downtown neighborhoods, the waterfront, and major destinations.

Strategic Priorities Addressed

-  Educate, encourage, and empower people to walk to and throughout North Downtown
-  Create high-quality, safe, pleasant connections between North Downtown neighborhood
-  Encourage bicycling as a preferred access mode with wayfinding, amenities, and programs

Community Support



Tier 1 Projects Incorporated

- Bicycle Route Wayfinding
- Wayfinding along Pedestrian Priority Routes

Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	



Pedestrian Improvements at High Priority Intersections





Project Description

Enhance pedestrian comfort and safety at key intersections in North Downtown. Pedestrian crossing improvements aim to reinforce pedestrian priority in crosswalks, increase pedestrian visibility, shorten crossing distances, eliminate conflicts with turning vehicles, and provide more frequent and longer pedestrian signal phases.

High priority intersections:

- Denny Way/Dexter Ave N/7th Ave: Explore signal modifications (e.g., RTOR restrictions, LPI), pavement spot improvements
- Denny Way and Cedar St: Curb bulbs, explore signal modifications (e.g., RTOR restrictions, LPI), and signage
- Denny Way and Queen Anne Ave N: Widen crosswalks and relocate stop bar, explore signal modifications and permanent or paint and post curb bulb opportunities
- Mercer St and Queen Anne Ave N: Paint and post curb bulbs, signage, explore signal modifications (e.g., RTOR restrictions, LPI), stop bars, and widened crosswalks
- Mercer St and 1st Ave N: Paint and post curb bulbs, signage, stop bars, and widened crosswalks
- Mercer St and Dexter Ave N: Explore signal modifications & lighting improvements, explore a planted buffer along PBL to SW corner for tighter turn radii/ped comfort
- W Roy St at 1st Ave W, 2nd Ave W, and 3rd Ave W: Curb ramps, curb bulbs, crosswalks, stop sign control at unsignalized intersections

Strategic Priorities Addressed

-  Improve pedestrian crossings of arterial streets in North Downtown
-  Improve pedestrian safety throughout North Downtown and walking connections between neighborhoods
-  Improve the pedestrian experience along key North Downtown arterials
-  Create high-quality, safe, pleasant connections between North Downtown neighborhoods

Tier 1 Projects Incorporated

Pedestrian Crossing Improvements at High Priority Signalized Intersections

Traffic Calming and Pedestrian Crossing Improvements at High Priority Unsignalized Crossings

Pedestrian Improvements on Mercer St and Denny Way

Improve Pedestrian Environment at Denny Way Intersections

Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

I PROGRAMMATIC IMPROVEMENTS

North Downtown Education, Encouragement, and Enforcement Programs

Project Description

Vision Zero Education and Encouragement

Education NODO residents, workers, and visitors about pedestrian and bicycle safety and new pedestrian improvements. Focus on vulnerable populations at high crash locations, including seniors.





Driver Education and Enforcement along Denny Way, Mercer St, and Westlake Ave

Develop a campaign to educate and enforce safe, compliant driver behavior at key congested intersections, especially along Mercer St, Denny Way, and Westlake Ave. Focus areas include Don't Block the Box, right-turn-on-red, transit only lanes, and peak period restrictions. Pursue policy changes to allow photo traffic enforcement.

Bicycle Encouragement Program

Partner with bike share providers provide education, in-app wayfinding and publicity for all ages and abilities routes, ride discounts, and cost-sharing. Ensure availability of bikes for making the connection between Westlake high capacity transit and Seattle Center.

Strategic Priorities Addressed

-  Implement peak hour enforcement and turning restrictions to ensure people travel safely
-  Educate, encourage, and empower people to walk to and throughout North Downtown
-  Improve pedestrian crossings of arterial streets in North Downtown
-  Encourage bicycling as a preferred access mode with wayfinding, amenities, and programs

Tier 1 Projects Incorporated

Driver Education and Enforcement along Denny Way, Mercer St. and Westlake Ave

North Downtown Vision Zero Focus Area

Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

Community Support



Pedestrian Scale Lighting

Project Description

Improve pedestrian-scale lighting along key corridors connecting North Downtown neighborhoods, Seattle Center, and the waterfront to encourage year-round pedestrian travel. Explore opportunities to partner with private development and other entities for implementation. This project is also a Pedestrian Master Plan strategy.

Community Support



Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

Strategic Priorities Addressed

- Create high-quality, safe, pleasant connections between North Downtown neighborhoods
- Improve pedestrian safety throughout North Downtown
- Improve the pedestrian experience along key North Downtown arterials

Tier 1 Projects Incorporated

Increase Lighting, Activation, and Sense of Safety in North Downtown Public Spaces




Pedestrian Lighting Improvements along Key Corridors

CONTINGENCY PROJECT: CONNECT ROY ST PBL, MERCER GREEN PATH, AND 5TH AVE N PBL

Project Description

Complete the connection between the Roy St buffered bike lane, the Mercer Green Path, and the 5th Ave N protected bike lane with a segment of protected bike lanes along 5th Ave N between Mercer St and Roy St, including intersection improvements at Mercer St and 5th Ave N, and Roy St and 5th Ave N to highlight to create visible, intuitive space for people riding bicycles.

Strategic Priorities Addressed

-  Upgrade and complete bicycle connections in Uptown
-  Decrease drive alone mode share and improve safety and accessibility for all people using the transportation system
-  Improve traffic operations throughout North Downtown

Protected bike lanes

- 5th Ave N between Roy St and Mercer St
- Bike boxes and bicycle crossing markings

Intersection Improvements

- Curb bulb reconfiguration
- Protected signal phase of bicycle through movement

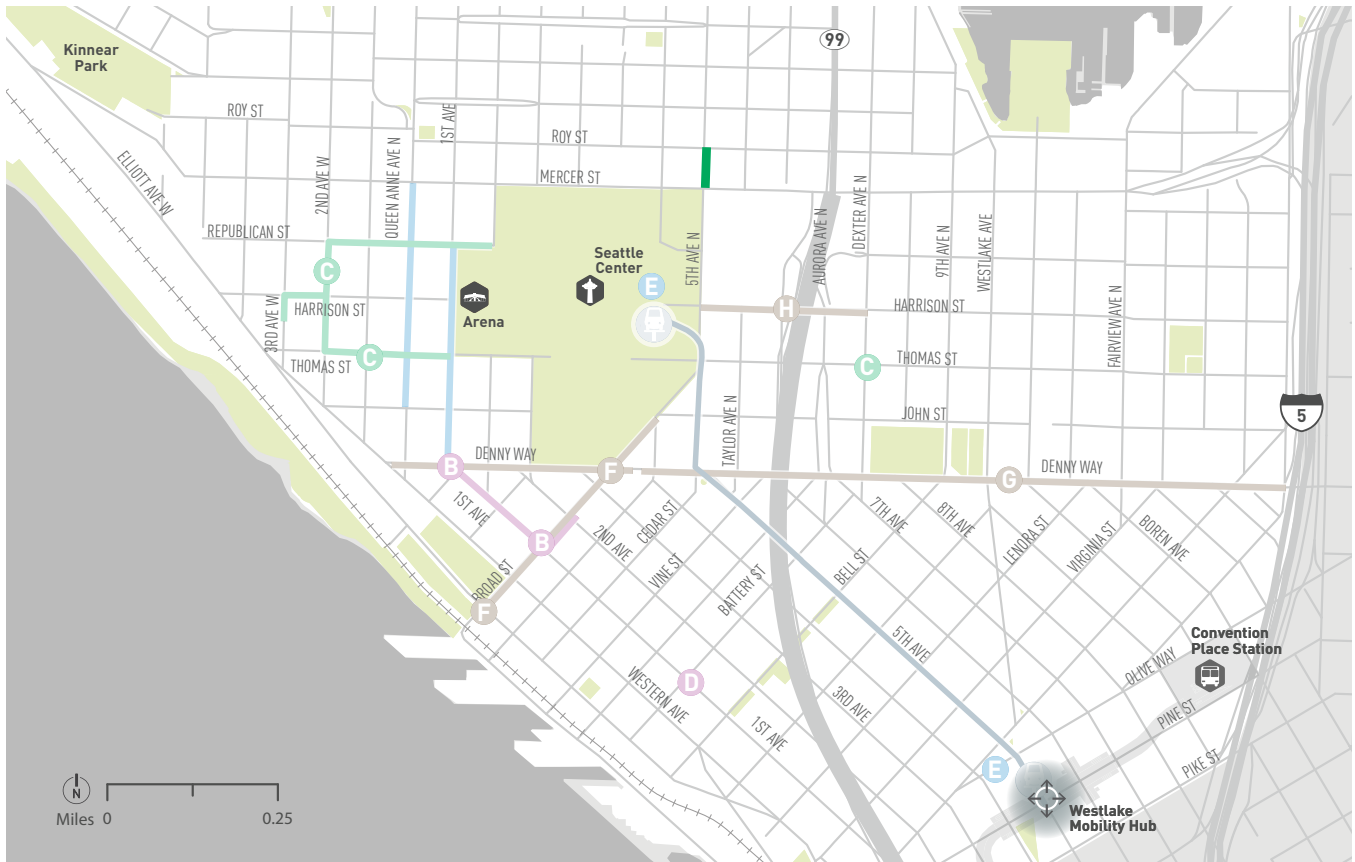
Tier 1 Projects Incorporated

Roy St Bike Lane Upgrade

Enhance Predictability and Visibility of Uptown Local Streets



Figure 19 Connect Roy St PBL, Mercer Green Path, and 5th Ave N PBL



Community Support



Planning-Level Cost Estimate



Guiding Principles /Evaluation Framework




	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

CONTINGENCY PROJECT: EAST SEATTLE CENTER TO BELLTOWN BICYCLE CONNECTION

Project Description

Connect Belltown to the eastern side of Seattle Center along Taylor Ave N and Vine St. The project will include greenway treatments (e.g., signage, striping, speed humps) along Taylor Ave N between Thomas St and Denny Way and provide a protected bicycle connection from the 2nd Ave PBL to Denny Way via Vine St. The project will coordinate with the Growing Vine Street Headwaters pavement to park implementation to determine what intersection improvements are needed at Denny Way and Taylor Ave N. Project is consistent with the Bicycle Master Plan, including connections to the Center City Bicycle Network.

Strategic Priorities Addressed

-  Improve bicycle connections between the Central Waterfront, Uptown, and Belltown
-  Decrease drive alone mode share and improve safety and accessibility for all people using the transportation system
-  Create high-quality, safe, pleasant connections between North Downtown neighborhoods

Tier 1 Projects Incorporated

East Seattle Center bicycle connection

Greenway treatments

- Taylor Ave N between Thomas St and Denny Way

Protected bicycle lanes

- Vine St between 2nd Ave PBL and Denny Way

Intersection improvements

- Denny Way and Taylor Ave N

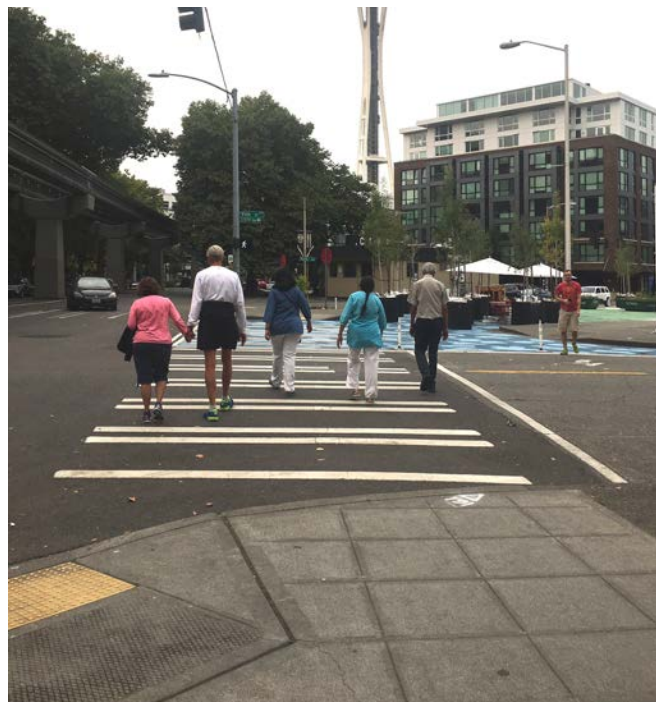


Figure 20 East Seattle Center to Belltown Bicycle Connection



Community Support



Planning-Level Cost Estimate



Guiding Principles /Evaluation Framework

	Community Vision	
	Sustainable Transportation	
	Public Realm	
	Equity	
	Safety	

CHAPTER 6

IMPLEMENTATION STRATEGY

The following table includes the priority projects that will be implemented in the initial 10-year timeframe, planning-level cost estimates, and anticipated funding sources. Planning-level cost estimates are based on the high-level project concepts included in the draft version of the North Downtown Mobility Action Plan, and include inflation, contingency, and outreach. Costs will be refined as project design takes place during implementation.

The Seattle Department of Transportation (SDOT) intends to partner with other projects and programs in North Downtown to leverage funding for prioritized projects. SDOT will work with the Seattle Center Monorail team, including Seattle Center and Seattle Monorail Services, to help leverage seed funding and private investment toward completing a larger scope of station improvements. SDOT will continue to coordinate with the Port of Seattle to finalize the scope of contribution for investment in freight access in North Downtown.

Figure 21: Draft Implementation Schedule and Funding

Project	Planning-level cost estimates ¹	Anticipated Sources
A: 1st Ave N & Queen Anne Ave N Complete Streets	\$3,870,000	CATF/OVG
B: 1st Ave & Broad St Complete Street Extension	\$1,870,000	CATF
C-East: Thomas St Greenway: Thomas/Dexter Protected Intersection	\$990,000	LCLIP
C-West: Thomas St Greenway: Seattle Center to Waterfront Neighborhood Greenway	\$2,200,000	CATF
D: Pedestrian Improvements in Belltown	\$730,000	CATF
E: Monorail Improvement Seed-funding	\$1,000,000	CATF
F: SR 99 to Waterfront Access and Mobility ^{2,3}	\$5,000,000	Port/OVG
G: Denny Way Corridor East Operational Improvements ³	\$10,080,000	SDOT/Grants/OVG
H: Harrison St Corridor Operational Improvements ³	\$2,880,000	CATF/SDOT/OVG
I: Neighborhood Programmatic Improvements	\$850,000	CATF

1. Excludes infrastructure improvements done by others

2. Anticipated date pending further coordination with the Port of Seattle

3. Operational improvements will be made along three corridors, and include updates to signal timing, vehicle detection, and fiber

The 10-year implementation plan accounts for projects for the first ten years. The Memorandum of Understanding with Oak View Group provides \$40 million over 39 years. There will need to be further planning and program management beyond this ten-year priority project delivery. The appendix to this plan includes other potential projects that could potentially be implemented after the first ten years.



Year									
2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Planning	Design	Construction							
Planning	Design	Construction							
Planning	Design	Construction							
Construction	Planning	Design	Construction						
					Planning	Design	Construction		
	Seed Funding								
	Planning	Design	Construction						
Design	Design	Construction							
		Planning	Design	Construction					
		Planning	Design	Construction	Construction	Construction	Construction	Construction	Construction

APPENDIX

PROJECT LISTS BY MODE

Community input and review of existing plans provided the basis for potential projects and resulted in identification of over 500 potential project ideas or concepts. These elements were then consolidated into 150 projects and assessed for alignment with the community's guiding principles. After further input and review, the projects were culled to 82 projects (organized by mode) and were stratified into two tiers based on how well they aligned with the guiding principles. Both Tier 1 and Tier 2 projects were presented to the community for validation in April 2018.



Bicycle Projects: Strategic Priorities

- Create east/west bicycle connections across Seattle Center between Uptown and South Lake Union
- Improve bicycle connections between the Central Waterfront, Belltown, and Uptown
- Upgrade and complete bicycle connections in Uptown
- Encourage bicycling as a preferred access mode with wayfinding, amenities, and programs

Tier 1 Projects

ID	Title	Description	Cost
1	Thomas St Neighborhood Greenway	Prioritize the reconnected Thomas St crossing of Aurora Ave N for people bicycling and walking by installing diverters to minimize motorized vehicle volumes along Thomas St.	\$\$
2	Bicycle connection between Thomas St overpass and Seattle Center	Improve the bicycle connection from Seattle Center to the Thomas Street overpass via Republican St and 3rd Ave W.	\$
3	1st Ave N and Queen Anne Ave N Protected Bike Lanes	Upgrade 1st Ave N and Queen Anne Ave N bike lane couplet to protected bike lanes between Roy St and Denny Way.	\$\$
4	5th Ave N Protected Bike Lane Extension	Extend the existing protected bike lane along 5th Ave N both north to Roy St and south to Denny Way.	\$\$
5	Intersection Improvement at 5th Ave N and Mercer St	Improve the intersection of 5th Ave N and Mercer St for people riding bicycles.	\$
6	August Wilson Way Bicycle Connection	Study and implement improvements along August Wilson Way to create a low-stress bike connection in coordination with Memorial Stadium redevelopment.	\$\$
7	Bike Route Wayfinding	Improve wayfinding and bike route signage throughout North Downtown and Seattle Center, including highlighting the connection to the waterfront and Elliott Bay Trail via the Thomas Street overpass.	\$
8	Enhance Bicycle Storage and Bike Valet at Arena Events	Provide enhanced bicycle storage and bike parking in North Downtown, including bike valet services in coordination with Arena events.	\$



Bicycle Projects: Strategic Priorities

- Create east/west bicycle connections across Seattle Center between Uptown and South Lake Union
- Improve bicycle connections between the Central Waterfront, Belltown, and Uptown
- Upgrade and complete bicycle connections in Uptown
- Encourage bicycling as a preferred access mode with wayfinding, amenities, and programs

Tier 2 Projects			
ID	Title	Description	Cost
9	Bicycle Connection between 2nd Ave Protected Bike Lane and Central Waterfront	Connect the 2nd Ave protected bike lane to the Central Waterfront and Elliott Bay Trail via Broad St.	\$\$
10	Bicycle Connection between 2nd Ave Protected Bike Lane and Seattle Center	Connect the 2nd Ave protected bike lane to Seattle Center.	\$
11	Roy St Bike Lane Upgrade	Upgrade Roy St to a protected bike lane and extend the bicycle connection across Queen Anne Avenue N to Kinnear Park.	\$\$
12	Enhance Predictability and Visibility of Uptown Local Streets	Enhance predictability and visibility at intersections of local streets in Uptown.	\$
13	Bike Share Staging between Westlake and Seattle Center for Arena Events	Work with bike share providers to ensure bike availability for connecting Arena event attendees from the Westlake Mobility Hub.	\$
14	Protected Bicycle Lane Education	Increase awareness and proper use of protected bike lanes to reduce conflicts between people walking, biking, and delivering goods.	\$



Transit Projects: Strategic Priorities

- Improve east/west transit service and reliability between Uptown, South Lake Union, and Capitol Hill
- Improve transit speed and reliability between Downtown, Belltown, and Uptown
- Create new transit connections serving North Downtown neighborhoods
- Create mobility hubs that centralize and connect transportation services at major transit junctions or station areas
- Improve passenger experience at transit stops and stations
- Continue to reduce drive alone mode share in North Downtown

Tier 1 Projects			
ID	Title	Description	Cost
1	Denny Way Transit Speed, Reliability, and Frequency Improvements	Improve bus speed and reliability along Denny Way by implementing transit priority features and improvements to Route 8. Improvements could include transit-only lanes, transit signal priority, and more frequent service.	\$\$
2	Harrison St Transit Pathway and Mobility Hub	Establish a transit-priority pathway along Harrison St, and explore opportunities to provide additional service connecting Uptown and South Lake Union. Develop a mobility hub in the vicinity of the SR 99 North Portal to facilitate seamless transfers and connections between transit and shared mobility services.	\$\$\$
3	Seattle Center and Westlake Station Enhancements Recommended in the Monorail Feasibility Study	Improve access, speed, and reliability of the Monorail by implementing the findings of the Monorail Feasibility Study (2018).	\$\$\$
4	Improve RapidRide C, D, and E Lines Speed, Reliability, and Passenger Experience	Improve the speed, reliability, and passenger experience of RapidRide C, D, and E Lines through Belltown, Uptown, and along Aurora Ave N by implementing the findings of the RapidRide Improvement Study (2018). Improvements could include transit priority features and station improvements/expansion, transit-only lanes, transit signal priority, and station lighting improvements.	\$\$
5	3rd Ave Transit Speed and Reliability Improvements in Belltown	Enhance transit speed and reliability along 3rd Ave through Downtown and Belltown. Improvements could include extending bus-only restrictions, off-board fare payment, implementing “block the box” enforcement at peak hours, and other transit priority features.	\$\$
6	Feasibility Study of 1st Ave Streetcar Extension to Seattle Center	Study a streetcar alignment along the 1st Ave corridor to connect Downtown and Uptown/Seattle Center; consider rubber-tired alternatives.	\$\$\$
7	Seattle Center Mobility Hub	Establish a Seattle Center Mobility hub that centralizes connections between transit and shared mobility services near the northwest corner of Seattle Center. The hub should be accessible for people of all ages and abilities, and may include real-time travel information, seating and site furnishings, traveler services and amenities, and rideshare/Transportation Network Company (TNC) passenger pick-up/drop-off.	\$\$



Transit Projects: Strategic Priorities

- Improve east/west transit service and reliability between Uptown, South Lake Union, and Capitol Hill
- Improve transit speed and reliability between Downtown, Belltown, and Uptown
- Create new transit connections serving North Downtown neighborhoods
- Create mobility hubs that centralize and connect transportation services at major transit junctions or station areas
- Improve passenger experience at transit stops and stations
- Continue to reduce drive alone mode share in North Downtown

Tier 1 Projects

ID	Title	Description	Cost
8	North Downtown Bus Stop and Rider Experience Improvements	Improve transit stops and passenger experience through regular maintenance, improved lighting, and additional fare enforcement.	\$

Tier 2 Projects

ID	Title	Description	Cost
9	Seattle Center – SLU – Capitol Hill Gondola Feasibility Study	Explore the feasibility of a gondola connecting Seattle Center, South Lake Union, and Capitol Hill.	\$\$\$
10	Additional Transit Service Connecting Downtown, Belltown, and Uptown	Explore options to provide transit service that connects Downtown, Belltown, and Uptown. Options could include 1st Ave, 5th Ave, and the waterfront.	\$\$
11	Belltown Monorail Infill Station	Explore a Monorail infill station in Belltown.	\$\$\$
12	North Downtown Fast Ferry Service from Pier 66/69 Vicinity	Study fast ferry service to connect people to and from North Downtown. Potential routes could connect to Eastside communities, Ballard, and/or Kitsap County.	\$\$\$
13	Sounder/Amtrak Infill Station and Regional Mobility Hub	Establish a regional transportation hub with a Sounder/Amtrak infill station in the vicinity of the Thomas St overpass.	\$\$\$
14	SLU Streetcar Stop Seating	Add seating at SLU Streetcar stops.	\$
15	Denny Way Bus Stop and Passenger Experience Improvements	Improve transit stops along Denny Way with transit shelters, off-board fare payment, seating and other furnishings, and real-time transit information.	\$
16	North Downtown Mobility as a Service (MaaS) Platforms	Develop Mobility as a Service (MaaS) platforms to better connect travelers to a broad range of shared mobility services (including transit) with trip and cost planning services.	\$



Driving/Goods Delivery Projects: Strategic Priorities

- Improve operations on key corridors connecting North Downtown neighborhoods, including use of Intelligent Transportation System (ITS) features
- Implement peak hour enforcement and turning restrictions to ensure people travel safely
- Review curbspace needs throughout North Downtown neighborhoods
- Improve traffic operations throughout North Downtown
- Decrease drive-alone mode share and improve safety and accessibility for all people using the transportation system

Tier 1 Projects			
ID	Title	Description	Cost
1	Mercer St Adaptive Signal System Improvements for Pedestrian Crossings and Left Turns	Improve adaptive signal system along Mercer St, including creating more frequent and longer pedestrian signal phases and evaluating wait time for left-turning vehicles.	\$\$
2	Intelligent Transportation System Upgrades along Denny Way	Install Intelligent Transportation System (ITS) upgrades to the signals along Denny Way.	\$\$
3	Actively Manage On-Street Parking in Uptown	Expand the area of actively managed parking in Uptown.	\$\$
4	New Traffic Signals on Republican St and Thomas St	Install new traffic signals at select locations along Republican St and Thomas St to improve predictability and travel flow.	\$\$
5	Study Two-Way Conversion of Queen Anne Ave N and 1st Ave N	Study the conversion of Queen Anne Ave N and 1st Ave N from one-way streets to two-way streets. Look for opportunities to incorporate transit-only lanes and protected bike lanes.	\$\$
6	Rechannelize W Mercer Pl for Safety, Bus Reliability, and Goods Movement	Explore opportunities along W Mercer Pl to improve safety for freight vehicles and buses.	\$
7	Driver Education and Enforcement along Denny Way, Mercer St, and Westlake Ave	Implement driver education and enforcement, especially along and on side streets intersecting Denny Way, Mercer St, and Westlake Ave N. Focus areas include transit only lanes, peak period restrictions, and don't "block the box." Pursue policy changes to allow photo traffic enforcement.	\$
8	Improve Goods Access and Reliability	Maintain and improve goods access through implementation of innovative goods delivery programs, especially in areas of North Downtown where small and local businesses are impacted.	\$
9	Optimize Curbspace Use	Implement programs and policies to maximize convenience, promote efficient use of curb space for business deliveries, and reduce search-for-parking traffic.	\$
10	North Downtown Travel Demand Management (TDM) Programming for Residents and Seattle Center Visitors	Invest in Transportation Demand Management (TDM) programming, highlighting all options for getting residents and visitors to and from North Downtown.	\$
11	North Downtown Employer-Provided Alternative Commute Benefits (non-drive alone)	Expand partnerships with North Downtown employers to develop Commute Trip Reduction programs that include employer-provided transit benefits and ORCA passes.	\$



Driving/Goods Delivery Projects: Strategic Priorities

- Improve Intelligent Transportation System (ITS) features on key corridors connecting North Downtown neighborhoods
- Implement peak hour enforcement and turning restrictions to ensure people travel safely
- Review curbspace needs throughout North Downtown neighborhoods
- Improve traffic operations throughout North Downtown
- Decrease drive alone mode share and improve safety and accessibility for all people using the transportation system

Tier 2 Projects			
ID	Title	Description	Cost
12	Bell St Volume Management	Improve access management along Bell St to prioritize sustainable transportation modes.	\$
13	5th Ave Signal Timing and Coordination	Synchronize signal timing along 5th Avenue through Belltown.	\$
14	Driver Education and Enforcement: Don't Block the Box at Taylor Ave N and Roy St	Enforce four-way stop and "Block the Box" compliance at Taylor Ave N and Roy St.	\$
15	No Turn on Red Restrictions for Side Street Approaches to Mercer St	Implement "No Turn on Red" restriction from side streets onto Mercer St, especially during peak and event hours.	\$
16	Peak Hour Left Turn Restrictions	Explore peak hour left turn restrictions along key corridors in North Downtown, including 1st Ave in Belltown.	\$
17	Intersection Improvement at Fairview Ave and Valley St	Explore ways to organize car, pedestrian, and streetcar space in the vicinity of Fairview Ave N and Valley St.	\$\$
18	All-Way Stop Control in Cascade	Review stop control in the Cascade neighborhood.	\$
19	New Traffic Signals at Vine St/3rd Ave and Boren Ave/Harrison St	Install new traffic signals at Vine St/3rd Ave and Boren Ave/Harrison St to improve predictability and travel flow.	\$\$



Public Realm Projects: Strategic Priorities

- Create high-quality, safe, pleasant connections between North Downtown neighborhoods
- Enhance neighborhood character with pedestrian and public realm improvements
- Enhance and activate the public open spaces in North Downtown
- Create vibrant places for people to walk, rest, socialize, and access mobility services throughout North Downtown

Tier 1 Projects

ID	Title	Description	Cost
A	Improve Pedestrian Environment at Denny Way Intersections	Review opportunities to repurpose the right-of-way at Denny Way intersections to improve the pedestrian environment.	\$\$
B	Thomas Green Street Missing Segments	Evaluate the completed portions of the Thomas Green Street through South Lake Union and Uptown to determine where additional improvements are needed.	\$\$
C	Lake2Bay and Market to MOHAI Age-Friendly Improvements	Determine where age-friendly elements are needed, including curb ramps, curb bulbs, signal timing, and pedestrian lights.	\$\$
D	Broad St Pedestrian and Public Realm Improvements	Enhance pedestrian connections to Seattle Center by making improvements to Broad St between 5th Ave N and Denny Way.	\$\$
G	Increase Lighting, Activation, and Sense of Safety in North Downtown Public Spaces	Increase lighting, activation, and sense of safety in North Downtown parks and open spaces, including Regrade Park, Denny Park, and Kinneer Park.	\$
E	Make Growing Vine St Pavement to Park Permanent	Advance implementation of permanent open space at the Growing Vine Pavement to Park at Taylor Ave and 5th Ave.	\$\$
F	Republican St "Urban Curbless Street" Implementation and Activation	Implement and activate a curbless street along Republican St between Warren Ave N and Queen Anne Ave N.	\$\$

Tier 2 Projects

ID	Title	Description	Cost
H	Pedestrian Experience and Public Realm Improvements along Key Uptown Streets	Enhance the Uptown neighborhood character through pedestrian and public realm improvements along certain segments of Mercer St, Roy St, Queen Anne Ave N, 1st Ave N, and 5th Ave N.	\$\$
I	Belltown Entertainment District: 2nd Ave Pedestrian and Public Realm Improvements	Enhance Belltown neighborhood's night life and entertainment character along 2nd Ave through pedestrian and public realm improvements.	\$\$
J	Public Art throughout North Downtown	Highlight and celebrate neighborhood character with artwork and activation of blank walls (e.g., along the Mercer St underpass and frontages under construction) using 1% for the Arts funding.	\$
K	Add Amenities to North Downtown Public Spaces	Provide additional amenities in North Downtown open spaces such as public restrooms, weather protection, seating and site furnishings, or a community center at Denny Park.	\$\$
L	Public Space Activation with Downtown Seattle Association (DSA) and SDOT in Coordination with Seattle Center Events	Encourage a variety of vending, activation, and programming in the right-of-way, especially along the perimeter of the Seattle Center campus in coordination with Seattle Center or Arena events.	\$
M	Develop New Public Spaces with Pavement to Parks Program	Repurpose street space to create activated urban parks with the Pavement to Parks program.	\$



Pedestrian Projects: Strategic Priorities

- Improve pedestrian crossings of arterial streets in North Downtown
- Improve pedestrian safety throughout North Downtown and walking connections between neighborhoods
- Improve the pedestrian experience along key North Downtown arterials
- Educate, encourage, and empower people to walk to and throughout North Downtown

Tier 1 Projects			
ID	Title	Description	Cost
1	Pedestrian Signal Phasing Improvements along Corridors with Adaptive Signal Systems	Modify signal phasing along corridors with adaptive signal systems (e.g., Mercer St) to provide additional walking time, more frequent pedestrian phases, and default walk phases.	\$
2	Pedestrian Crossing Improvements at High Priority Signalized Intersections	<p>Improve pedestrian crossings at signalized intersections. Improvements may include default walk signal phases (eliminate need to press button), right-turn restrictions for vehicles, improved sightlines for pedestrian visibility, leading pedestrian intervals, longer walk phases, or all-walk phases.</p> <p>Priority intersections for evaluation include: Denny Way/Dexter Ave N/7th Ave, Denny Way/5th Ave N, Denny Way/Queen Anne Ave N/Western Ave, Denny Way/1st Ave N, Mercer St/Queen Anne Ave N, Roy St/Queen Anne Ave N, Elliott Ave W/W Mercer Pl, Mercer St/1st Ave N, and Mercer St/Dexter Ave N.</p>	\$\$
3	Traffic Calming and Pedestrian Crossing Improvements at High Priority Unsignalized Crossings	Identify opportunities to calm traffic and improve pedestrian crossings at unsignalized intersections along Roy St, John St, and 1st Ave.	\$\$
4	W Mercer Pl Sidewalk	Complete the sidewalk connection along W Mercer Pl and improve the crossing at Elliott Ave W.	\$\$\$
5	Add Stop Control on Uptown Local Streets to Increase Safety and Predictability	Review stop control on local streets in Uptown to provide more predictability and reduce conflicts for people walking.	\$
6	Pedestrian Safety and Crossing Enhancements between Seattle Center and Thomas St Overpass	Improve visibility and pedestrian crossings on W Harrison St and 3rd Ave W connecting Seattle Center to the Thomas St overpass.	\$
7	Pedestrian Improvements on Mercer St and Denny Way	Provide pedestrian improvements along Denny Way and Mercer St, wide, well-lit sidewalks buffered from traffic with plantings and furnishings.	\$\$
8	Pedestrian Lighting Improvements on Key Corridors	Improve pedestrian lighting along key corridors connecting North Downtown neighborhoods, through Seattle Center, and along the Elliott Bay Trail.	\$\$
9	Wayfinding along Pedestrian Priority Routes	Implement wayfinding along pedestrian priority routes connecting North Downtown neighborhoods and major destinations.	\$
10	Review and Enforce Traffic Control Plans at Construction Sites	Review, inspect, and enforce construction traffic control plans in North Downtown to maintain pedestrian routes during construction.	\$
11	North Downtown Vision Zero Focus Area	Implement a Vision Zero focus area in North Downtown to encourage and influence safer travel behavior for all modes.	\$



Pedestrian Projects: Strategic Priorities

- Improve pedestrian crossings of arterial streets in North Downtown
- Improve pedestrian safety throughout North Downtown and walking connections between neighborhoods
- Improve the pedestrian experience along key North Downtown arterials
- Educate, encourage, and empower people to walk to and throughout North Downtown

Tier 2 Projects

ID	Title	Description	Cost
12	Crosswalks at Unexpected Pedestrian Crossings	Install and maintain high-visibility crosswalks or pedestrian crossing signs at unexpected pedestrian crossings, including intersections of local streets, dead end streets with stairways, or driveways.	\$
13	Improve Lighting and Maintenance on North Downtown Hill Climbs and Stairways	Improve lighting, visibility, and maintenance of North Downtown hill climbs and stairways.	\$
14	Install and Improve High Visibility Crosswalks throughout North Downtown	Ensure high-visibility crosswalks are installed and well-maintained throughout North Downtown.	\$
15	Safety-Related Pedestrian Experience Improvements throughout North Downtown	Apply Crime Prevention Through Environmental Design (CPTED) principles, such as maintaining vegetation and landscaping for clear sightlines, increasing lighting, and ensuring cleanliness, especially on neighborhood streets.	\$
16	Pedestrian Experience Improvements at High Volume Intersections	Improve the pedestrian experience at high-pedestrian-volume intersections by providing ample waiting space, weather protection, accessible curb ramps, and default walk signal phases. Intersections for evaluation include: Mercer St/Dexter Ave N, Denny Way/Queen Anne Ave N, Denny Way/1st Ave N, Denny Way/Dexter Ave N/7th Ave, Mercer St/Queen Anne Ave N, and Mercer St/1st Ave N.	\$\$
17	Transit Stop Amenities along Key Corridors	Provide transit shelters and benches along key routes to and through North Downtown.	\$\$
18	Neighborhood Partnerships to Connect People Experiencing Homelessness with Resources	Develop neighborhood partnerships to connect people experiencing homelessness with resources and solutions.	\$
19	Find It, Fix It Neighborhood Walks	Educate and encourage people in North Downtown to organize and participate in neighborhood walks and request spot improvements through the Find It, Fix It mobile app.	\$

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