



# Joint Compatibility Transportation Plan

Prepared for  
CITY OF BREMERTON



## Acknowledgments

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The following agencies and organizations participated in the Joint Compatibility Transportation Plan. The study team would like to acknowledge and thank everyone involved.

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- Kitsap County
- Greater Kitsap Chamber of Commerce
- Kitsap Transit
- Naval Base Kitsap – Bremerton
- Puget Sound Naval Shipyard
- Port of Bremerton
- Washington State Department of Transportation

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## Acronyms and Abbreviations

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<b>ADA</b>	Americans with Disabilities Act
<b>AWSC</b>	all-way stop-controlled
<b>BAT</b>	business access transit
<b>BC</b>	Naval Base Kitsap – Bremerton capital project
<b>BMC</b>	Bremerton Municipal Code
<b>BP</b>	Naval Base Kitsap – Bremerton policy project
<b>CC</b>	City of Bremerton capital project
<b>CP</b>	City of Bremerton policy project
<b>City</b>	City of Bremerton
<b>County</b>	Kitsap County
<b>CSB</b>	Community Sounding Board
<b>CTR</b>	commute trip reduction
<b>DOD</b>	Department of Defense
<b>EIS</b>	Environmental Impact Statement
<b>GP</b>	general purpose
<b>HOV</b>	high-occupancy vehicle
<b>IMF</b>	Intermediate Maintenance Facility
<b>JCTP</b>	Joint Compatibility Transportation Plan
<b>KC</b>	Kitsap Transit capital project
<b>KP</b>	Kitsap Transit policy project
<b>LOS</b>	level of service
<b>NBK-BR</b>	Naval Base Kitsap – Bremerton
<b>P&amp;R</b>	park and ride
<b>PSNS</b>	Puget Sound Naval Shipyard
<b>PSRC</b>	Puget Sound Regional Council
<b>RAB</b>	roundabout
<b>SIOP</b>	Shipyard Infrastructure Optimization Program
<b>SR</b>	State Route
<b>TIP</b>	Transportation Improvement Program
<b>TMA</b>	transportation management association
<b>TSP</b>	transit signal priority
<b>TWSC</b>	two-way stop-controlled
<b>UGA</b>	urban growth area
<b>v/c</b>	volume-to-capacity ratio
<b>WC</b>	Washington State capital project
<b>WP</b>	Washington State policy project
<b>WSDOT</b>	Washington State Department of Transportation

## Executive Summary

The City of Bremerton (City) and Naval Base Kitsap Bremerton (NBK-BR) have partnered to conduct a comprehensive commuter traffic plan. The goal of the study, formally called the Joint Compatibility Transportation Plan (JCTP), is to create a responsive and actionable plan to examine existing and future needs for all transportation modes serving NBK-BR and ensure that Bremerton's growth will not impede NBK-BR missions, which are critical to our Nation's military readiness. The plan defines solutions to improve multimodal mobility, outline parking strategies, and enhance Bremerton's livability. Livability is a sum of factors that add up to a community's quality of life such as comfortable walking and bicycling, kids playing in the front yard, or simply sitting on the front porch enjoying home. Success of this plan will ensure NBK-BR meets its missions for national defense while supporting Bremerton's long-range growth needs.

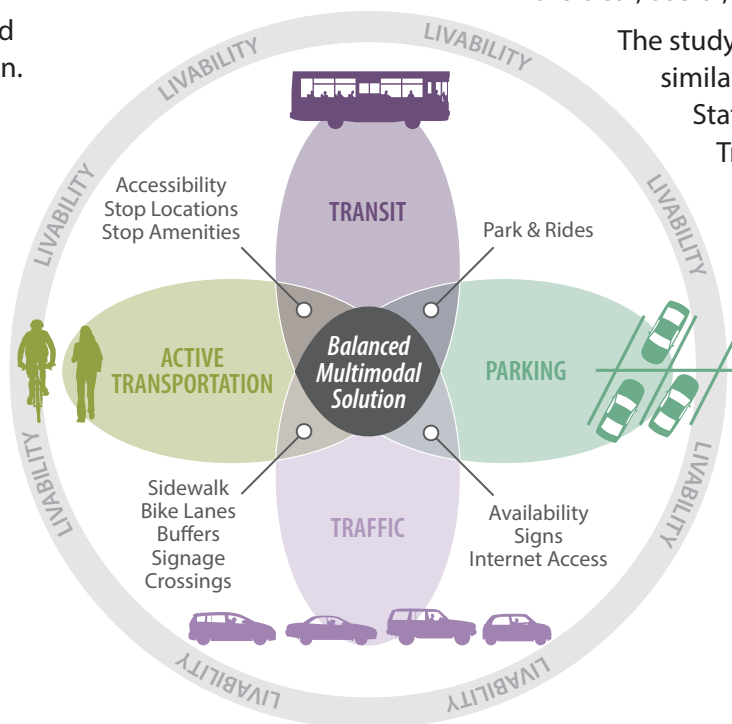
The goals of the study are as follows:

- Examine and define existing and future needs for all transportation modes serving NBK-BR.
- Develop solutions to resolve deficits.
- Evaluate options to mitigate transportation and parking demands.
- Develop a prioritized implementation plan.

### What is the Joint Compatibility Transportation Plan?

This plan documents the specific purpose and need for improvements, how alternatives were developed, how the range of reasonable alternatives were screened, how tension between NBK-BR base accessibility and City livability goals was considered, and how the Preferred Alternative was identified. It builds on background planning, studies, parking inventories, and other ongoing efforts, including those prepared by the City, Kitsap Transit, NBK-BR, Kitsap County, and other regional agencies, as well as supplemental data collected by the study team. Additionally, the region has assets such as a ferry system, a worker/driver bus program, a transportation center adjacent to the east end of NBK-BR, and a strong regional planning council (Kitsap Regional Coordinating Council) that, with a comprehensive cross-agency plan, can be leveraged to produce capital and operational improvements to the transportation network.

This final JCTP identifies short-, mid-, and long-term capital and operational improvements prioritized based on metrics determined during the study that are clear, useful, and actionable.



The study team used an approach similar to the Washington State Department of Transportation (WSDOT) Practical Solutions approach to develop solutions that meet the study goals at the right level while working toward a Preferred Alternative.

## Study Approach

### **IDENTIFY EXISTING AND FUTURE NEEDS FOR ALL TRANSPORTATION MODES SERVING NBK-BR**

The study team reviewed previous studies to outline key findings for each transportation mode, coordinated with City staff on the existing and future needs, conducted a workshop with a technical advisory group to refine and finalize existing and future needs, and hosted an open house to gather public comments and input on the existing and future needs. Significant findings included:

- During the peak period, 60% of traffic coming into Downtown Bremerton is attributed to NBK-BR and 80% of NBK-BR employees commute by driving alone or in a shared vehicle, with a total of 18,500 people traveling to NBK-BR by privately owned vehicles during the AM peak period.
- Over 6,300 NBK-BR commuter vehicles park outside of the gates during the peak period, and over 10,000 employees enter the NBK-BR pedestrian gates each day.
- NBK-BR has an on-installation parking deficit on the order of 7,075 vehicles, and there is insufficient parking in the City of Bremerton to address the deficit. A parking study conducted by the City (City of Bremerton 2017) confirmed that large numbers of commuter vehicles park illegally in Downtown and in neighborhoods.
- Vehicle queues at NBK-BR entry gates sometimes cause back-ups on City streets. Additionally, there are multiple locations where queues exceed available storage capacity. Long queues block business driveway access, increase travel times for both general-purpose (GP) traffic and transit, and can lead to cut-through traffic in neighborhoods.
- Buses use the same facilities as GP traffic and have limited frequency, which does not encourage transit use.
- Existing park and rides in West Bremerton and Silverdale do not have adequate capacity and are not able to meet the transit demand in these locations.
- Existing active transportation facilities and connectivity are poor, can contribute to perceived safety concerns, and do not encourage walking or bicycling to and within Downtown.

### **DEVELOP SOLUTIONS TO RESOLVE DEFICITS**

The study team reviewed the existing and future needs and developed a range of improvements to address the needs in a variety of ways. Over 200 solutions to resolve deficits were developed based on input from Community Sounding Board (CSB) meetings, the public, other defense communities that have similar traffic issues, staff, and subject matter experts. Solutions that passed an initial screening were organized into Build Alternatives for further evaluation.

### **EVALUATE OPTIONS TO MITIGATE TRANSPORTATION AND PARKING DEMANDS**

The study team conducted a workshop to develop and refine Build Alternatives to meet identified needs and developed screening and scoring metrics to evaluate alternative effectiveness. The team also developed conceptual layouts and preliminary cost estimates to determine feasibility and understand impacts and benefits. The three Build Alternatives evaluated were:

#### ***Support Parking Alternative***

This alternative assumes the City continues to pursue population and employment growth and supports the current parking system used today. This alternative would result in higher levels of traffic coming into Downtown, which would be accompanied by roadway capacity improvements needed to accommodate that growth.

#### ***Relocate Parking Alternative***

This alternative assumes a larger portion of commuters would use transit to access Downtown Bremerton and NBK-BR. This alternative includes new or expanded park and ride facilities, repurposing City parking areas to be mixed use, establishing new parking policies, and increasing parking enforcement. This alternative would result in lower levels of GP traffic coming into Downtown and would be accompanied by transit improvements and livability improvements that take advantage of the decreased traffic demand.

#### ***Add Base Parking Alternative***

This alternative assumes that all NBK-BR employees would have access to current or new parking on base. This alternative includes expanded parking, a

shuttle to transport employees from on-installation parking to their work areas, and increased parking enforcement Downtown to ensure the on-installation parking is used. This alternative would result in a change in travel patterns Downtown from current local parking to on-installation parking near the Charleston gate and would be accompanied by roadway capacity improvements in the City. Downtown surface parking owned by the City could be re-purposed to mixed-use development.

#### **SELECT A PREFERRED ALTERNATIVE**

Figure 6-1 summarizes the screening results of the three Build Alternatives. The analysis revealed that none of the Build Alternatives would provide benefit for all of the evaluation metrics, and that there was tension between base accessibility and livability. All three Build Alternatives would provide benefit for safety. The Add Base Parking Alternative would provide the most benefit for mobility and base accessibility but would only provide some benefit for livability and no benefit to parking. Meanwhile, the Relocate Parking Alternative would provide the most benefit to parking and livability but would only provide some benefit to mobility and base accessibility.

The study team sought guidance from the CSB and the City Council to establish a vision for the Preferred Alternative. Both the CSB and the City Council strongly favored outcomes that improve the livability of the City. The alternative with the best livability outcomes was the Relocate Parking Alternative, and this alternative served as the basis for the Preferred Alternative.

#### **DEVELOP A PRIORITIZED IMPLEMENTATION PLAN**

Using the Preferred Alternative as a long-range vision, the study team developed a list of projects and other actions to meet the program goals. The recommendations include several early actions that can be expedited to provide benefit to the public as soon as possible. More information on the detailed methods and outcome from these steps can be found in the body of this report.

## **Who shaped the Joint Compatibility Transportation Plan?**

The JCTP was led by the City and advised by a CSB composed of leadership representatives and subject matter experts from affected agencies and governments. This group was committed to a strong ongoing partnership and to fostering a regional perspective and approach to development of the JCTP. Community stakeholder engagement was solicited throughout the plan's development and through diverse communication channels. The study team conducted a public information survey and hosted several virtual open houses that offered accessible options to introduce the study to community members when in-person gatherings were restricted and discouraged due to COVID-19. Feedback from Bremerton residents was heavily considered when developing the vision of livability for Bremerton, while NBK-BR commuters provided valuable insight into commuter behavior and barriers to transit and active transportation use.






## The Plan

The plan recommends projects that are divided into phases based on the type of project (capital or policy-based) and the agency that has the ownership or ability to lead the project. Recommended projects and project phasing include:

- Ongoing and Early Actions includes efforts or projects that are already underway and should continue, including commuter education, NBK-BR gate management, teleworking, implementation of recommendations from the City of Bremerton Parking Study (City of Bremerton 2017), improved lighting, and policies to encourage density in Downtown.
- Short-Term Projects (0 to 6 years) includes capital projects that improve the livability of Bremerton, address immediate capacity and safety issues, and reduce barriers for residents and commuters accessing NBK-BR by active transportation modes. Also included are policy and operations projects that support and improve transit accessibility; these projects set the groundwork for large capital investments in transit infrastructure recommended in the mid-term years.

- Mid-Term Projects (6 to 20 years) includes major capital investments in transit infrastructure that support a mode shift from single occupancy vehicles to mass transit. These investments are consistent with Kitsap Transit's Long Range Plan and the region's plans for growth and land use (PSRC 2020). The benefit of these investments is to develop a reliable transit system that connects people within and between communities.
- Long-Term Projects (20+ years) includes projects with recognized benefits to Bremerton livability and to NBK-BR accessibility, but that may take longer to complete. For example, completing the implementation of the SR 303 Corridor Study is included as a long-term project. The SR 303 Corridor Study includes a suite of phased improvements that should be implemented as recommended by that study, however the full implementation of all recommendations will be completed over the long term.

A summary of the proposed projects and expected benefits of the Preferred Alternative are shown in Figure ES-1. More detailed information about the recommended projects and next steps can be found in sections 7 and 8 of this document. Additionally, one-page summaries of each project can be found in Appendix O.

PROJECT LEGEND	Roadway improvement, intersection improvement, Intelligent Transportation Systems (ITS), roundabout	
	NBK-BR improvement, NBK-BR gate improvement	
	Bus, ferry, carpool, park and ride, Transportation Management	
	Active transportation improvement, pedestrian improvement, bicycle improvement	
	Parking	

Legend for Figure ES-1

PREFERRED ALTERNATIVE PROJECT RECOMMENDATIONS			PROJECT BENEFITS			
			Safety	Multimodal	Livability	Base Accessibility
Short-Term Projects (0 to 6 years)						
C40		Naval Ave road re-channelization	✓	✓	✓	
C24		6th St road re-channelization	✓	✓	✓	
AT15		Shared-use path on 1st St	✓	✓	✓	✓
AT5		Sidewalk improvements near NBK-BR	✓	✓	✓	✓
C20		All-way pedestrian phases along Burwell St	✓	✓	✓	
C35		Adaptive signal timing				✓
C38		Bremerton Strategic Road Safety Plan projects	✓		✓	✓
AT48		Bicycle facilities on Shorewood Dr	✓	✓	✓	
C31		Pedestrian/bicycle improvements near park and rides	✓	✓	✓	✓
AT27		Sidewalk improvements west of Charleston Blvd	✓	✓	✓	
AT1		Support redevelopment of Gateway Park and Ride	✓	✓	✓	
AT19		Covered bike parking near NBK-BR		✓	✓	✓
B3		Decrease queuing at NBK-BR gates in the morning				✓
B18		Open Montgomery gate during both peak hours				✓
C14		Study new off-ramp from southbound SR 3 to eastbound SR 304				✓
CTR1		NBK-BR telework options			✓	✓
CTR3		Improve reimbursement for Worker/Driver Bus program		✓	✓	✓
CTR11		Improve technology for Worker/Driver Bus program		✓	✓	✓
CTR12		Study increased foot-ferry capacity for Port Orchard		✓	✓	✓
CTR4		Reduced bus fares		✓	✓	✓
O6		Enforcement of HOV lanes		✓		✓
AT14		Support planning efforts for SR 3 in Gorst	✓	✓		✓

Figure ES-1. Preferred Alternative Summary

Note: PC - New/Expanded Parking, C - Capacity Projects, B: Projects on Base, T - Transit Service/Frequency, AT - Active Transportation, PM - Parking Management/Policy, CTR - Programs/Technologies/Incentives to Encourage Mode Shift, O - Other

















PREFERRED ALTERNATIVE PROJECT RECOMMENDATIONS			PROJECT BENEFITS			
			Safety	Multimodal	Livability	Base Accessibility
<b>Mid-Term Projects (6 to 20 years)</b>						
AT2		Mobility hub at Park Ave/4th St	✓	✓	✓	✓
AT55		Bike lane on Park Ave	✓	✓	✓	✓
C26		Traffic Management Center	✓			✓
C41		Roundabout at Naval Ave/6th St	✓	✓	✓	
PM15		Paid on-street parking downtown			✓	
PM2		Permit-only parking in residential areas			✓	
PC6		Silverdale and West Bremerton Park and Rides		✓	✓	
PC4		Projects for reliable non-auto travel modes	✓	✓	✓	
PC3		PSIC and South Kitsap Park and Rides		✓	✓	
T8		Shuttle service to downtown		✓	✓	
T6		More and faster buses to NBK-BR		✓	✓	✓
PM3		Transportation Management Association		✓	✓	
C1		Improve SR 3/Kitsap Way interchange	✓			✓
C2		Roundabouts at SR 3/W Loxie Eagans Blvd interchange	✓	✓	✓	
<b>Long-Term Projects (20+ years)</b>						
C29		SR 303 Corridor Study projects	✓	✓	✓	✓
B7		New or improved parking on NBK-BR installation			✓	✓

Figure ES-1. Preferred Alternative Summary (continued)

Note: PC - New/Expanded Parking, C - Capacity Projects, B: Projects on Base, T - Transit Service/Frequency, AT - Active Transportation, PM - Parking Management/Policy, CTR - Programs/Technologies/Incentives to Encourage Mode Shift, O - Other



# 1. INTRODUCTION



# 1. Introduction

## Study Purpose and Background

The goal of this study is to create a responsive and actionable plan to examine existing and future needs for all transportation modes serving NBK-BR and ensure that Bremerton's growth will not impede NBK-BR missions, which are critical to our Nation's military readiness. The plan defines solutions to improve multimodal mobility, outline parking strategies, and enhance Bremerton's livability. Livability is a sum of factors that add up to a community's quality of life such as comfortable walking, bicycling, kids playing in the front yards, or simply sitting on the front porch enjoying home. Success of this plan will ensure NBK-BR meets its missions for national defense while supporting Bremerton's long-range growth needs.

This plan documents the specific purpose and need for improvements, how alternatives were developed, how the range of reasonable alternatives were screened, how tension between NBK-BR base accessibility and City livability goals was considered, and how a Preferred Alternative was identified. It builds on background planning, studies, parking inventories, and other ongoing efforts, including those prepared by the City, Kitsap Transit, NBK-BR, Kitsap County, and other regional agencies, as well as supplemental data collected by the study team.

This final JCTP identifies short-, mid-, and long-term capital and operational improvements prioritized based on metrics determined during the study that are clear, useful, and actionable.

## Study Funding

The City of Bremerton was awarded a Department of Defense (DOD) Office of Economic Adjustment grant to undertake a comprehensive commuter traffic plan. The award was the culmination of an effort, led by Mayor Wheeler, that demonstrates the Navy's common interest with the City to resolve traffic and parking conflicts. \$675,000 in Department of Defense funds and \$75,000 of City funds were committed to conduct this commuter transportation study.

## Schedule

The JCTP study was kicked off in November 2020. The schedule for the study process with the key milestones is shown in Figure 1-1. Community members were engaged as part of CSB meetings that were scheduled to ensure that public input was received at each of the study decision points.

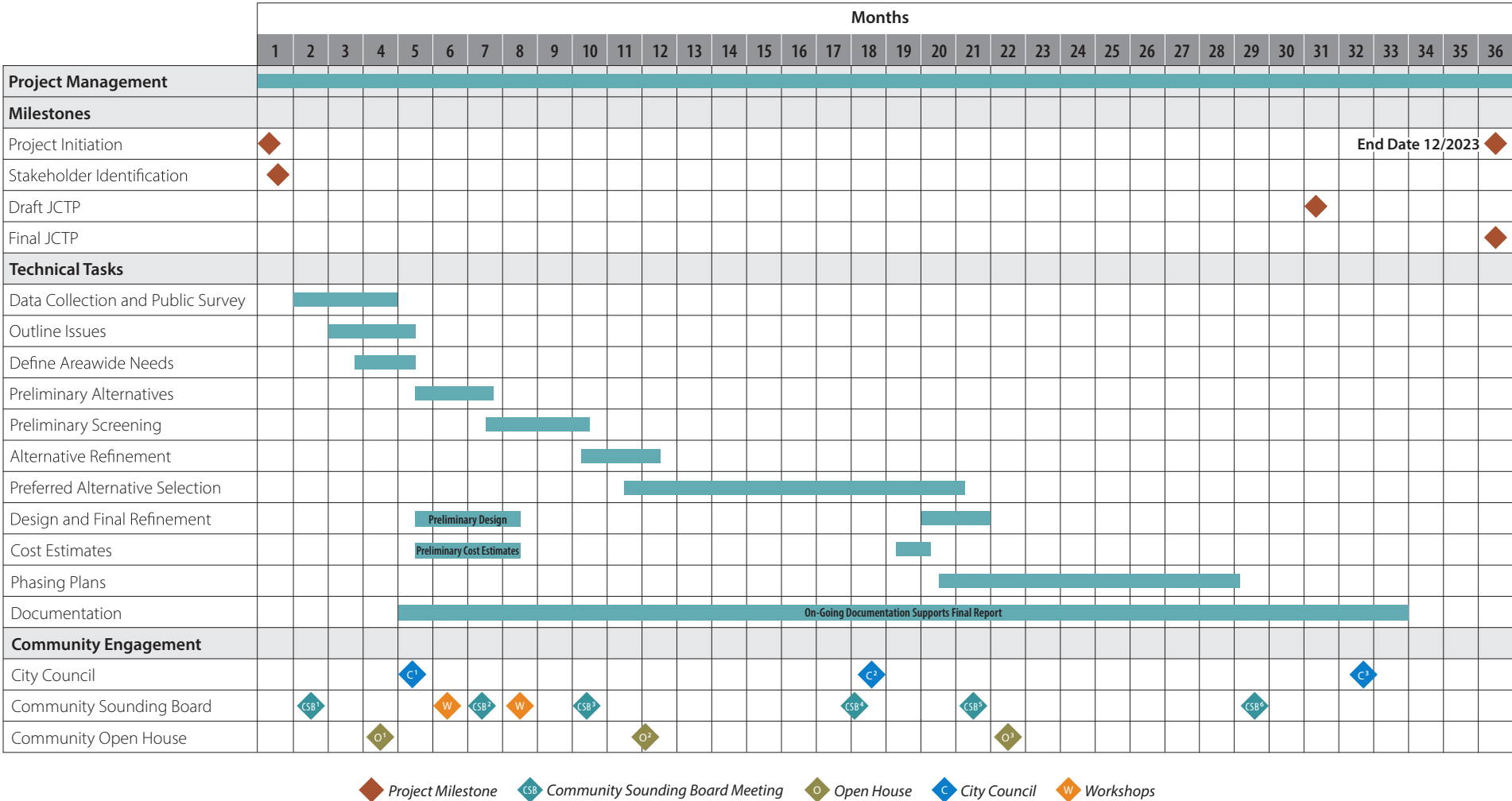


Figure 1-1. Project Schedule

# BURWELL TUNNEL



## 2. STUDY AREA PROFILE



## 2. Study Area Profile

### Study Area

The study area for this project is the area within the City of Bremerton limits as well as the City urban growth area (UGA). The study area is shown in Figure 2-1. Areas outside the City, such as Port Orchard, were included in some analyses as well. The key corridors that provide access to Downtown Bremerton and NBK-BR are State Route (SR) 303 and SR 3 to the north, Charleston Boulevard (SR 304) to the south, and Kitsap Way, 11th Street, 6th Street, and Burwell Street (SR 304) within Downtown.

### City of Bremerton

The City of Bremerton is located along Sinclair Inlet on the eastern half of central Kitsap County. With a land area of approximately 28 square miles and a population of 44,640, Bremerton is the largest city in Kitsap County. The City has a well-established urban character and good connections to the rest of the region, including ferry service to downtown Seattle. NBK-BR resides in the urban context of Downtown Bremerton. The Downtown core has experienced significant revitalization, guided by the City's Downtown Regional Center Subarea Plan and anchored by the ferry terminal and Bremerton Transportation Center.

The City has a variety of diverse residential and commercial neighborhoods near NBK-BR. The City is committed to targeted growth within this area, including increasing the number of housing units and improving livability. An example of improved livability is a location where people can feel comfortable walking, bicycling, playing with their kids in the front yard, or simply sitting on their front porch enjoying their home. This type of livability is at odds with the current parking situation that encourages people who commute from out of town to drive through neighborhoods and park in front of people's homes.

Downtown Bremerton is designated as a Regional Growth Center by the Puget Sound Regional Council (PSRC) VISION 2050, and the City has experienced increased development along the perimeter of NBK-BR. Data recently released by PSRC revealed

that Bremerton's population grows each day by over 17,000 due to the daily influx of workers. This daily increase of 44 percent results in traffic congestion and parking conflicts that negatively impact the City on a variety of levels, including economic viability, quality of life, and safety.

NBK-BR and the City grew together over the last century, with residential neighborhoods directly abutting NBK-BR's fence line. Much has been done over the past several decades to help ease the encroachment of urban development on NBK-BR, including a joint land use study, studies of SR 3 and SR 16, improvements to SR 304, various pedestrian safety improvements, planning and development policies that protect NBK-BR's mission, a security buffer on the east side of the installment that is maintained by the City as a park, and commuter trip reduction measures managed by Kitsap Transit and NBK-BR. However, traffic congestion and parking conflicts continue to put pressures on military operations and quality of life for civilians and military personnel.

Bremerton's economy and livelihood are heavily influenced by NBK-BR and the federal government's investment in operations at the facility. In 2018, nearly 60 percent of the jobs in Bremerton were categorized as government jobs. A substantial portion of private sector jobs are also related to, or dependent upon, NBK-BR. This highlights the importance of the strong cooperative relationship that has been developed between the City of Bremerton and NBK-BR to find ways to improve operations, connectivity, livability, and economic vitality for the people who live and work in the area.

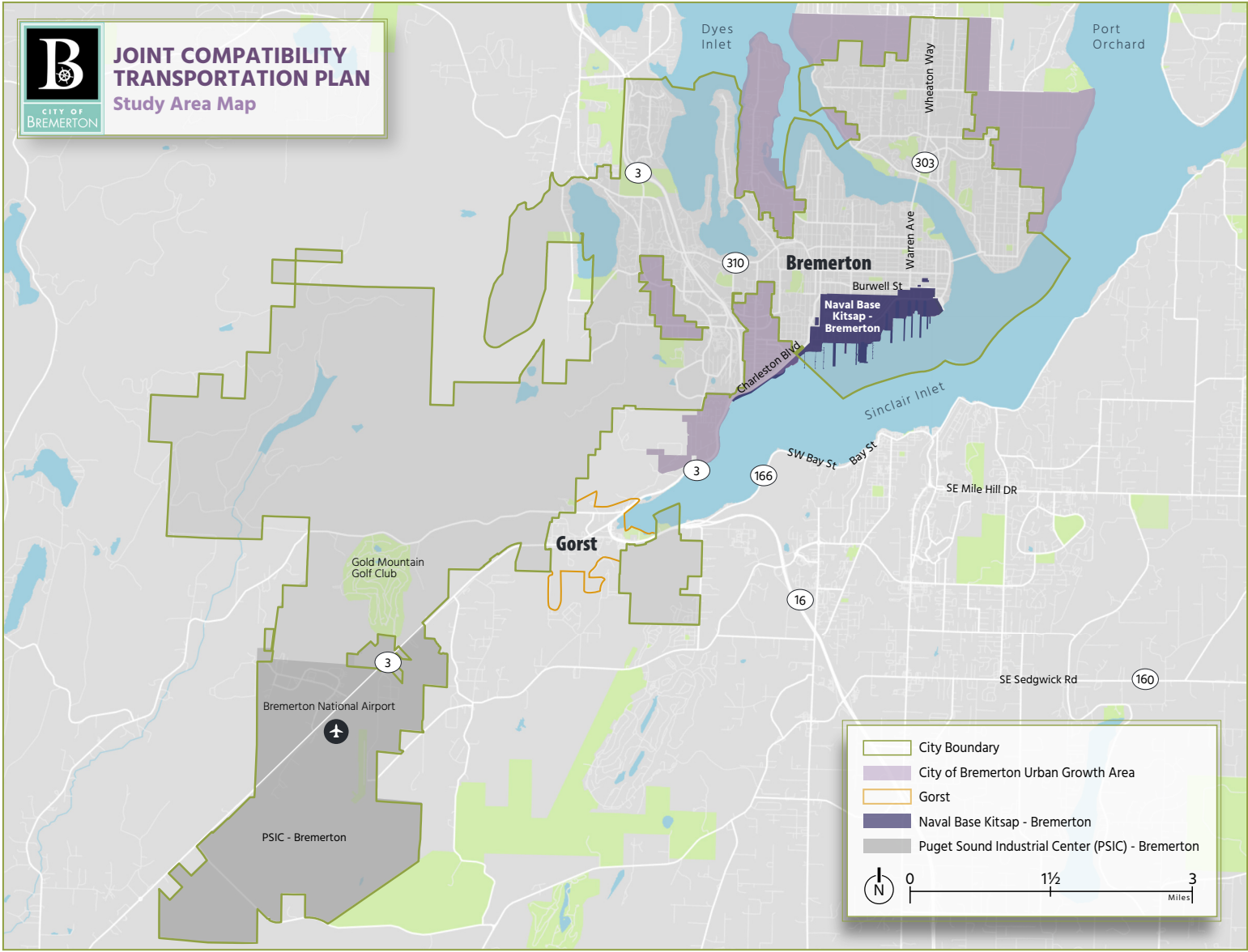


Figure 2-1. Study Area

### Naval Base Kitsap - Bremerton

NBK-BR is a Navy installation that can homeport aircraft carriers and submarines and its major tenant command is Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF). NBK-BR is located on the north side of the Sinclair Inlet within the incorporated boundaries of the City of Bremerton. NBK-BR encompasses approximately 400 acres of land, 400 acres of submerged marine Right to Use lands, 3.4 miles of shoreline, 382 buildings, and six dry docks for wet or dry berthing of all sizes and classes of vessels (Joint Land Use Study, Kitsap County 2015). NBK-BR is one of Washington State's largest industrial installations. The eastern portion of NBK-BR is a fenced, high-security area known as the Controlled Industrial Area. PSNS & IMF is the Navy's primary provider for the maintenance, repair, modernization, inactivation, and recycling of ships, submarines, and aircraft carriers in the Pacific Fleet. PSNS & IMF is the only Navy shipyard on the west coast with a dry dock that can accommodate the large size of nuclear-powered aircraft carriers for repair and maintenance.

When two aircraft carriers are homeported, NBK-BR can have approximately 23,000 daily employees who travel to Downtown Bremerton, including civilians, active duty, sailors, and contractors. NBK-BR is accessed by seven external gates, as shown in Figure 2-2. The Missouri and Montgomery gates on the west side are open to both vehicles and pedestrians but are currently predominantly accessed by vehicles. The Charleston and Naval gates on the west side and Main (Bremerton) gate on the east side are accessed by both vehicles and pedestrians. The State Street and Burwell gates on the northeast side are accessed by pedestrians only. The Farragut and Wycoff gates provide access to the Controlled Industrial Area from inside NBK-BR.

During the SR 303 Corridor study (City of Bremerton 2021), it was determined that nearly 74 percent of the people who work in Bremerton live outside of the City limits. In 2019, over 52 percent of people working in the City, including many Bremerton residents, were employed in government jobs. Implementing livability improvements would benefit not only Bremerton residents who work at NBK-BR, but everyone who works in Bremerton.

### Previous Studies

The study team collected previous studies to help identify existing and future conditions for the study area. The following studies were previously completed in the study area and were considered by the study team:

- Bremerton Non-Motorized Transportation Plan (City of Bremerton 2007)
- Puget Sound Industrial Center – Bremerton Subarea Plan (City of Bremerton 2012)
- City of Bremerton Comprehensive Plan (City of Bremerton 2016a)
- City of Bremerton Americans with Disability Act (ADA) Transition Plan (City of Bremerton 2016b)
- City of Bremerton Parking Study (City of Bremerton 2017)
- Bremerton Citywide Transportation Concurrency Review (City of Bremerton 2020a)
- SR 303 Corridor Study (City of Bremerton 2021)
- Bremerton Strategic Road Safety Plan (City of Bremerton 2020b)
- Bremerton Strategic Road Safety Plan (City of Bremerton 2022)
- Kitsap County Non-Motorized Facility Plan (Kitsap County 2018)
- Joint Land Use Study Naval Base Kitsap and Naval Magazine Indian Island (Kitsap County 2015)
- Kitsap County Comprehensive Plan (Kitsap County 2016a)
- Kitsap Transit Long Range Transit Plan 2016–2036 (Kitsap Transit 2016b)
- Kitsap Transit Long Range Transit Plan 2022–2044 (Kitsap Transit 2022)
- Vehicle and Pedestrian Safety Study NBK Bremerton (Naval Facilities Engineering Command Northwest 2013)
- Bremerton Economic Development Study (WSDOT 2012)
- SR 16, Tacoma Narrows Bridge to SR 3, Congestion Study (WSDOT 2018)
- Washington State Ferries 2040 Long Range Plan (WSDOT 2019)

Additional studies or projects in the study area that were completed during the study timeframe or will be in the near future:

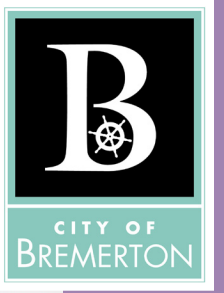
- City of Bremerton Comprehensive Plan 2024
- HSIP III – Kitsap Way and Warren Avenue Traffic Signal and Multimodal Safety Project
- East 11th and Perry Avenue Complete Streets Improvement Project
- Washington Avenue and 11th Roundabout

These studies helped the team organize data collection, identify existing and future needs, and develop possible solutions for the study area. These studies were reviewed for any identified issues and needs as well as proposed improvements within the study area. Many studies identified overall existing conditions and agency goals but did not identify specific issues or needs relevant to the JCTP planning effort. The proposed improvements identified in each study were documented, categorized, and mapped in a project inventory, which is included in Appendix A.



Figure 2-2. NBK-BR Gate Locations

Source: Joint Land Use Study (Kitsap County 2015)



# 3. PUBLIC AND AGENCY INVOLVEMENT PROCESS



## 3. Public and Agency Involvement Process

### Community Sounding Board

The JCTP was led by the City and advised by the CSB, composed of leadership representatives from affected agencies and governments. This group was committed to a strong ongoing partnership and fostering a regional perspective and approach to the development of the JCTP. The following study partners provided ongoing assistance to the study team and participated in six CSB meetings between January 2021 and May 2023. Additional agency representatives participated in one or both of the workshops in summer 2021 or in CSB meeting #4.

#### Project Management Team

- Katie Ketterer – City of Bremerton
- Tom Knuckey – City of Bremerton
- Shane Weber – City of Bremerton

#### Community Sounding Board

- Kevin Gorman – Bremerton City Council
- Michael Goodnow – Bremerton City Council
- David Emmons – Bremerton Chamber of Commerce
- Denise Frey – Greater Kitsap Chamber of Commerce
- Garrett Jackson – City of Bremerton
- Mayor Greg Wheeler – City of Bremerton
- Melinda Monroe – City of Bremerton
- Vicki Grover – City of Bremerton
- David Forte – Kitsap County
- Melissa Mohr – Kitsap County
- Ed Coviello – Kitsap Transit
- Allison Satter – NBK-BR
- Nicole Leaptrot-Figueras – NBK-BR
- Sara Oliveira – NBK-BR
- Fred Salisbury – Port of Bremerton
- George Mazur – WSDOT
- Matthew Pahs – WSDOT
- Pamela Vasudeva – WSDOT

#### Workshop Attendees

- Sara Felty – City of Bremerton Police
- Steffani Lillie – Kitsap Transit
- Michael Dabling – NBK-BR
- James Cook – PSNS
- Para Kan – PSNS

#### CSB Meeting #4 Special Attendees

- Kate Milward – City of Bremerton
- Ned Lever – City of Bremerton
- Charlotte Garrido – Kitsap County
- John Clauson – Kitsap Transit
- Captain Richard Massie – NBK-BR
- Rick Tift – PSNS
- James Cook – PSNS
- Para Kan – PSNS

The JCTP CSB was kicked off in January 2021. The schedule for the CSB meetings and the topics discussed are shown in Table 3-1. These meeting dates were scheduled to ensure that public input was received at each of the study decision points. CSB meetings were used to gather information from key representatives from various interested agencies, organizations, and jurisdictions. Input was used to guide decisions at key milestones. The presentations from each CSB meeting are included in Appendix B.

Table 3-1. Community Sounding Board Meeting Schedule

MEETING	DATE	MEETING TOPICS
CSB Meeting #1	January 28, 2021	Project overview and goals, community engagement, discuss early project ideas
Workshop #1	June 16, 2021	Public information survey results, baseline conditions analysis and identified needs, modal breakout rooms to brainstorm improvements
CSB Meeting #2	July 7, 2021	Public information survey results, baseline conditions analysis and identified needs, preliminary Build Alternatives, screening approach
Workshop #2	August 13, 2021	First Level Screening results and draft Build Alternatives
CSB Meeting #3	October 26, 2021	Build Alternatives and Second Level Screening results
CSB Meeting #4	June 1, 2022	Discussion of two future visions: Livability Centered Vision or Capacity Centered Vision <i>Note: This meeting included an expanded invitation list. The special attendees are listed above.</i>
CSB Meeting #5	September 21, 2022	Preferred Alternative projects and screening results
CSB Meeting #6	May 17, 2023	Updated Preferred Alternative projects and project phasing

## Community Engagement

JCTP involved community stakeholder engagement through several communications channels. Prior to the beginning of the study, a community engagement plan was developed to outline how public input through equitable outreach would support the study findings. The community engagement plan included a preliminary list of CSB members, a review of local demographics, a list of outreach strategies, and key communication milestones. More detailed information on the outcomes of the community engagement for this study is available in the Community Engagement Summary in Appendix C.

Community engagement was conducted through these open houses and events:

- Public Information Survey: February 3 to February 28, 2021
- Online Open House: February 9, 2021
- Online Open House: December 6, 2021
- Online Open House: October 11, 2022
- 6th Street Road Re-channelization Public Meeting: November 3, 2022

## Demographics and Accessibility

Demographic information, including data related to housing, vehicle access, veteran status, race and ethnicity, age, income, disabilities, language, and internet access was collected to determine how to appropriately engage the community. The total population of the study area is 51,100. Here are the key findings from the demographic evaluation:

- 57 percent of households in Bremerton rent, and 43 percent live in housing they own.
- 14 percent of Bremerton households do not have a vehicle and are likely transit-dependent—much higher than the 5 percent of households across the County without a vehicle.
- 6 percent identify as African American or Black, twice the percentage compared with all of Kitsap County. 11 percent identify as Hispanic or Latino.
- 37 percent of the population is at or below 200 percent of the poverty level, compared with 21 percent of the total Kitsap County population.
- 90 percent of the population of Bremerton speaks only English, 4 percent speak Spanish, and 3 percent speak Tagalog (including Filipino).

### Public Information Survey

The City is committed to serving the needs of everyone in the City and ensuring all community members have a meaningful opportunity to participate in City processes and decisions. The City has a Title VI plan that outlines when project materials should be translated. For this project, translation services for all materials and meetings were available upon request. In an effort to reach as many people as possible, the following strategies were used:

- Include a language block on project materials and a project website for all language groups that exceed 3 percent within the City, including Spanish and Tagalog. This language block will include a sentence to describe the project and the materials so that people who use the language understand what they are looking for.
- Upon request, provide interpretation for Spanish and Tagalog and offer interpretation services on request for other languages, including American Sign Language, for all public meetings, including virtual meetings.
- Upon request, provide real-time closed captioning for all virtual public meetings.
- Encourage broad participation in public meetings and outreach opportunities by advertising on social media pages and through collaboration with community-based organizations.
- Distribute flyers and electronic notices to public libraries, community centers, neighborhood service centers, and other community gathering places.

The public information survey was conducted from February 3 to February 28, 2021. Survey topics included trip origins and destinations, trip frequency, trip purposes, mode choice, impact of COVID-19 on travel behavior, barriers that would influence travel mode after COVID-19, ideas on ways to improve travel in Bremerton, and standard respondent demographics. Survey respondents represented a range of genders, ages, incomes, races, ethnicities, and locations in the Bremerton area.

A total of 557 people completed the survey. Key findings for travel pre-COVID, transit use, and recommended improvements included the following:

- Most respondents (85 percent) traveled for work, but many also traveled for non-commute trips, such as food or drink, errands, and social or recreational activities.
- Most respondents (88 percent) traveled to or within Bremerton, typically during peak hours.
- A majority (64 percent) drove alone. Few used transit, such as bus (8 percent) or ferry (7 percent to 8 percent), or other alternatives to single-occupancy vehicles, such as walking (5 percent from home to workplace, 11 percent as part of commute), carpooling (10 percent), Worker/Driver Bus program (10 percent), or bicycling (7 percent).
- According to respondents, the top barriers to using transit were “riding the bus is inconvenient or takes too long” (52 percent), “I like the convenience of having my car” (47 percent), and “I have to make stops on my way to/from work” (36 percent).
- According to respondents, the most important projects to improve travel in Bremerton were roadway capacity (adding lanes – 53 percent), NBK-BR access (get through the gates more quickly – 43 percent), active travel (bicycle and pedestrian improvements – 34 percent), and roadway efficiency (signal timing, signal coordination – 29 percent).

The study team used this information to start outlining various improvements that would address the barriers for improved travel. The study team needed to consider the public input while balancing the City goals to improve livability and NBK-BR’s need to maintain mission ready accessibility to the Base.

### Virtual Open Houses

The study team held three virtual open houses that offered an accessible way for the City to introduce the JCTP study to community members when in-person gatherings were restricted and discouraged due to COVID-19. The study team also held a public

meeting specifically for the 6th Street Road Re-channelization on November 3, 2022. The meetings were interactive, allowing attendees to view a presentation and leave comments through either the comment box or verbally during the question-and-answer portion of the meeting.

- Open House #1: The objectives were to introduce the study and gather input about the existing and future conditions and opportunities for improvements. Key themes from the participant questions and comments were concerns about pedestrian safety and traffic issues in the Gorst area, traffic congestion along SR 304 and SR 3, the impact of the pandemic on the study approach, and adding more affordable parking Downtown.
- Open House #2: The objectives were to share the project goals and scheduled updates, report findings from the public information survey, and share early findings of the project alternative analysis. Key themes from the participant questions were about bicycle facilities and storage near NBK-BR, private developers for parking garages Downtown, and shuttles in Downtown to transport people to NBK-BR.
- Open House #3: The objectives were to share the evaluation process that led to the preliminary Preferred Alternative and the projects included in the preliminary Preferred Alternative. Key themes from the participant questions were about the parking management zone, intersection capacity projects, project phasing, and support and input on bicycle facilities.
- 6th Street Road Re-channelization Public Meeting: The objectives were to share the proposed east-west bike corridor and roadway re-channelization project. The participants were in support of the project.



# 4. EXISTING CONDITIONS ANALYSIS



## 4. Existing Conditions Analysis

### Methods and Assumptions

A Methods and Assumptions Memo was drafted in March 2021 and periodically updated as the study progressed. The memo summarized data collection efforts, travel demand forecasting, methodology for baseline conditions analysis (traffic operations, safety, active transportation, and parking) and methodology for screening metrics (travel time, travel time reliability, and person mobility). The Methods and Assumptions Memo is included in Appendix D.

### Mode Share

Mode share is the share of people using a particular mode of transportation. Mode share was collected for NBK-BR and Kitsap County to understand existing travel habits in the study area and how they compare to the region.

The State Commute Trip Reduction (CTR) Law affects worksites with 100 or more full-time employees. Worksites conduct CTR surveys every other year to measure vehicle miles traveled and the mode choices of their employees. The Naval Supply Systems Command Fleet Logistics Center Puget Sound and the U.S. Navy completed CTR surveys in 2012, 2014, 2016, and 2018, and the data were used to estimate mode share for NBK-BR, as shown in Figure 4-1.

The Kitsap County (County) mode share from PSRC is shown in Figure 4-2. Compared to the rest of the County, there is a higher percentage people traveling to NBK-BR that use shared ride and transit and a lower percentage that walk, bicycle, or drive alone.

### Parking

The City of Bremerton Parking Study (City of Bremerton 2017) was conducted to better understand parking conditions in Downtown, including available parking facilities, occupancy, duration, turnover, and movement analysis showing where vehicles moved throughout the day.



In Downtown, there is both on-street parking and off-street parking. The “85 percent rule” is a common metric used to assess and manage demand for on-street parking. Parking occupancy of 85 percent or below ensures there is at least one stall available on each block. Occupancies above 85 percent indicate opportunities to further manage parking demand by decreasing time limits, increasing pricing, or using other strategies.

On average throughout the collection area, on-street parking occupancy was between about 50 percent and 70 percent, with two 68 percent peaks shown at midday and the end of the work day, as shown in Figure 4-3. Occupancy for on-street parking on many streets near NBK-BR exceeded 85 percent.

Occupancy for off-street facilities peaked at 65 percent, which indicates overall system capacity, even if certain locations are experiencing higher demand, as shown in Figure 4-4. The data collection indicated that high demand for off-street parking was scattered throughout the downtown core, near the ferry terminal, and near NBK-BR. Some additional off-street facilities showed high use, some of which were smaller lots serving local businesses. Parking for employees and commuters tended to have higher occupancy with less variation throughout the day.

Figure 4-1. NBK-BR Mode Share

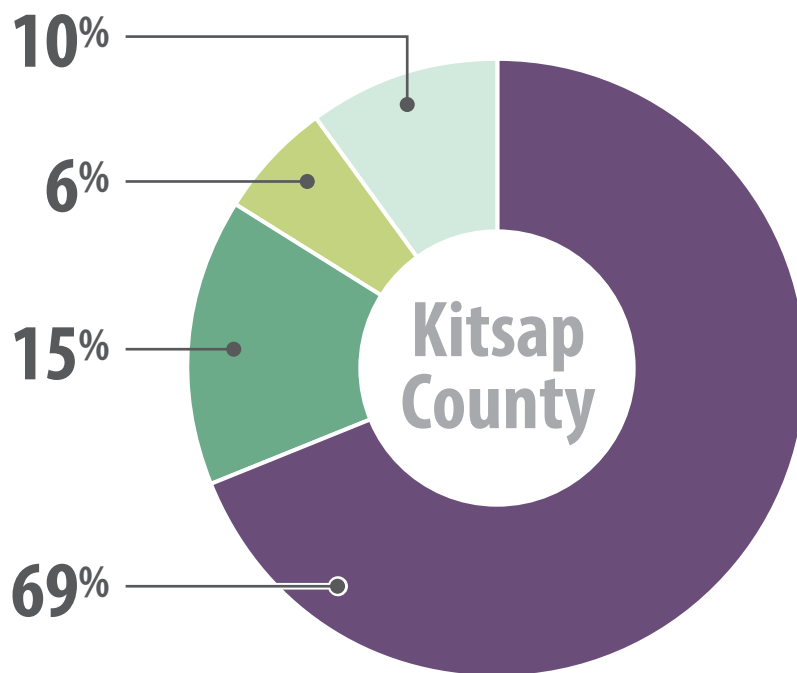
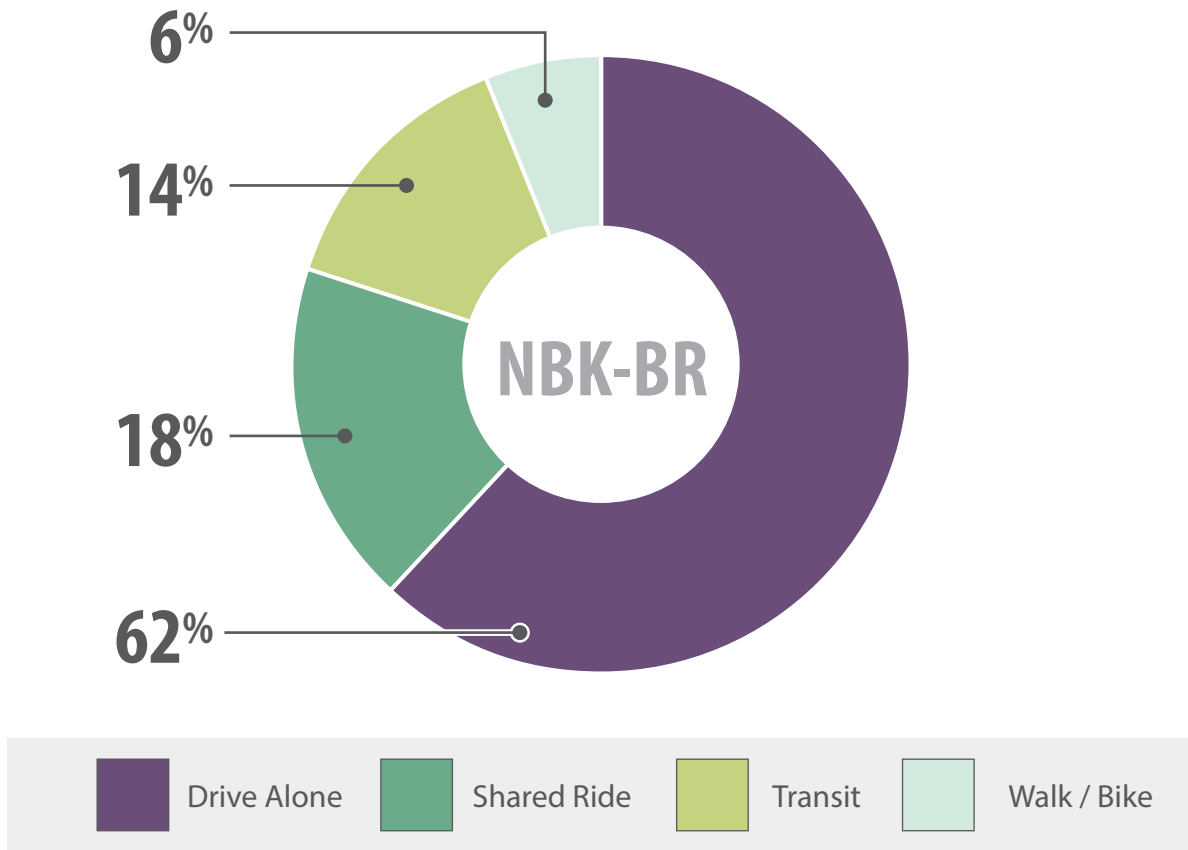


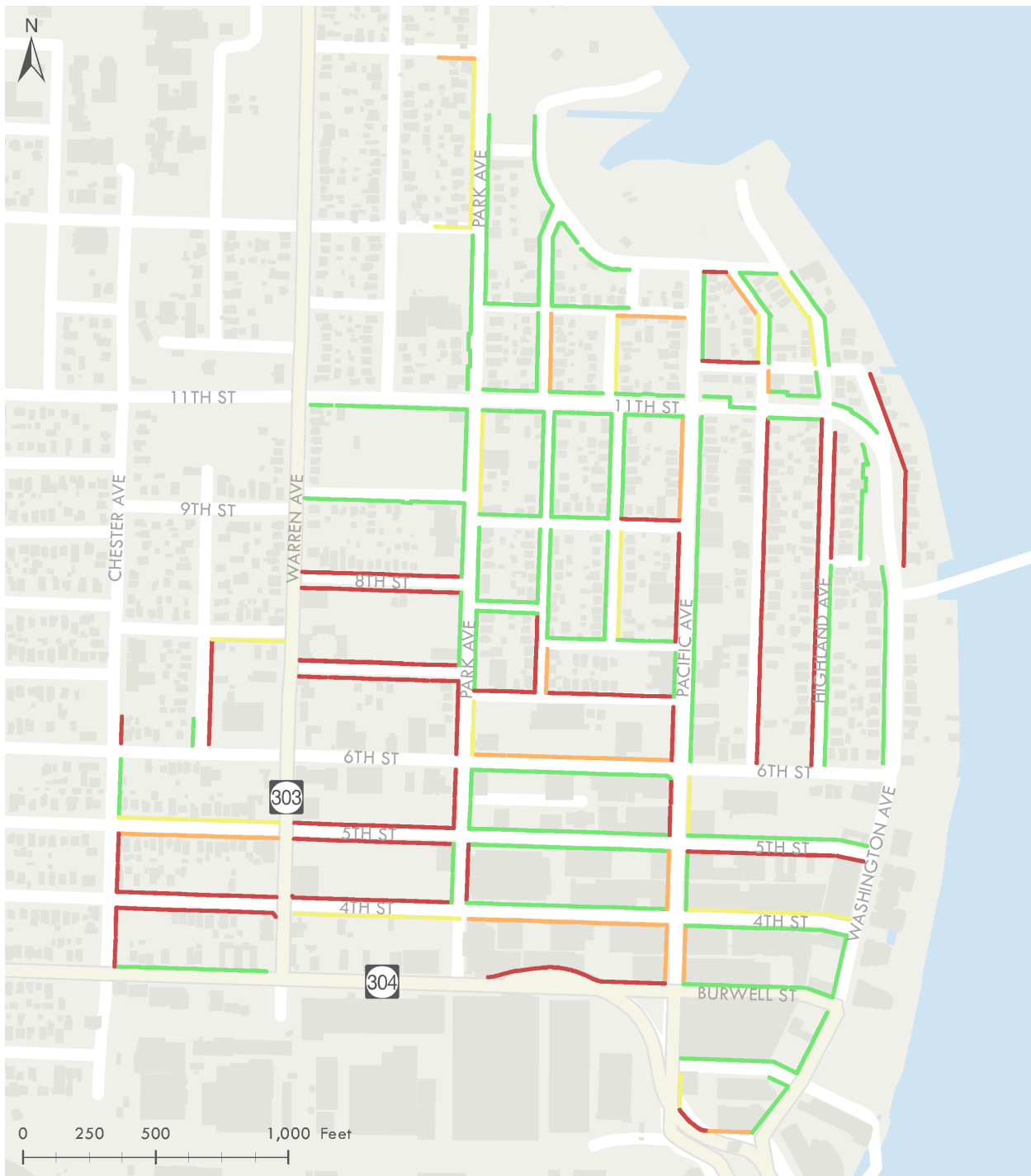
Figure 4-2. Kitsap County Mode Share

Within NBK-BR, there are about 8,200 parking stalls, half of which are available to civilians and half are available to active duty. This number includes the parking garage in Downtown located at 4th Street and Park Avenue that has approximately 960 parking stalls dedicated to NBK-BR civilians. Some of these spaces are restricted for carpool/vanpool and are ADA-accessible stalls. According to NBK-BR, the available parking on NBK-BR and at the off-installation parking garage in Downtown is fully utilized. On a typical day, over 6,300 NBK-BR commuter vehicles park outside of the gates during the peak period.

### Key Findings

The following summarizes the key findings of the parking evaluation.

- On-street blocks near NBK-BR that have an occupancy of 85 percent and above signal that parking demand exceeds parking supply. Much of the available off-street parking also has high occupancies in commuter parking areas.
- Parking duration is over 6 hours on many residential streets, despite time limits of 1 to 2 hours for non-permit holders. There is a significant vehicle movement during the day known as the “Bremerton Shuffle,” which is likely a result of long-term users seeking to avoid time limits. This means neighborhood residents are not able to park at or near their homes during the day.
- The City has increased parking enforcement in recent years, so commuters are now parking in neighborhoods further out and are willing to walk farther to access NBK-BR.
- The current parking in Downtown Bremerton is contrary to a user-friendly, convenient, and enforceable parking system. The presence and high occupancy of private Downtown surface parking lots prevents redevelopment of these surface lots for more active Downtown uses.
- There is limited parking on NBK-BR and the off-installation parking garage in Downtown that is fully utilized, according to NBK-BR. There are no plans to significantly increase parking on NBK-BR. Over 6,300 NBK-BR commuter vehicles park outside of the gates during the peak period and then the occupants walk into NBK-BR.



**Parking Utilization - Peak Hour**

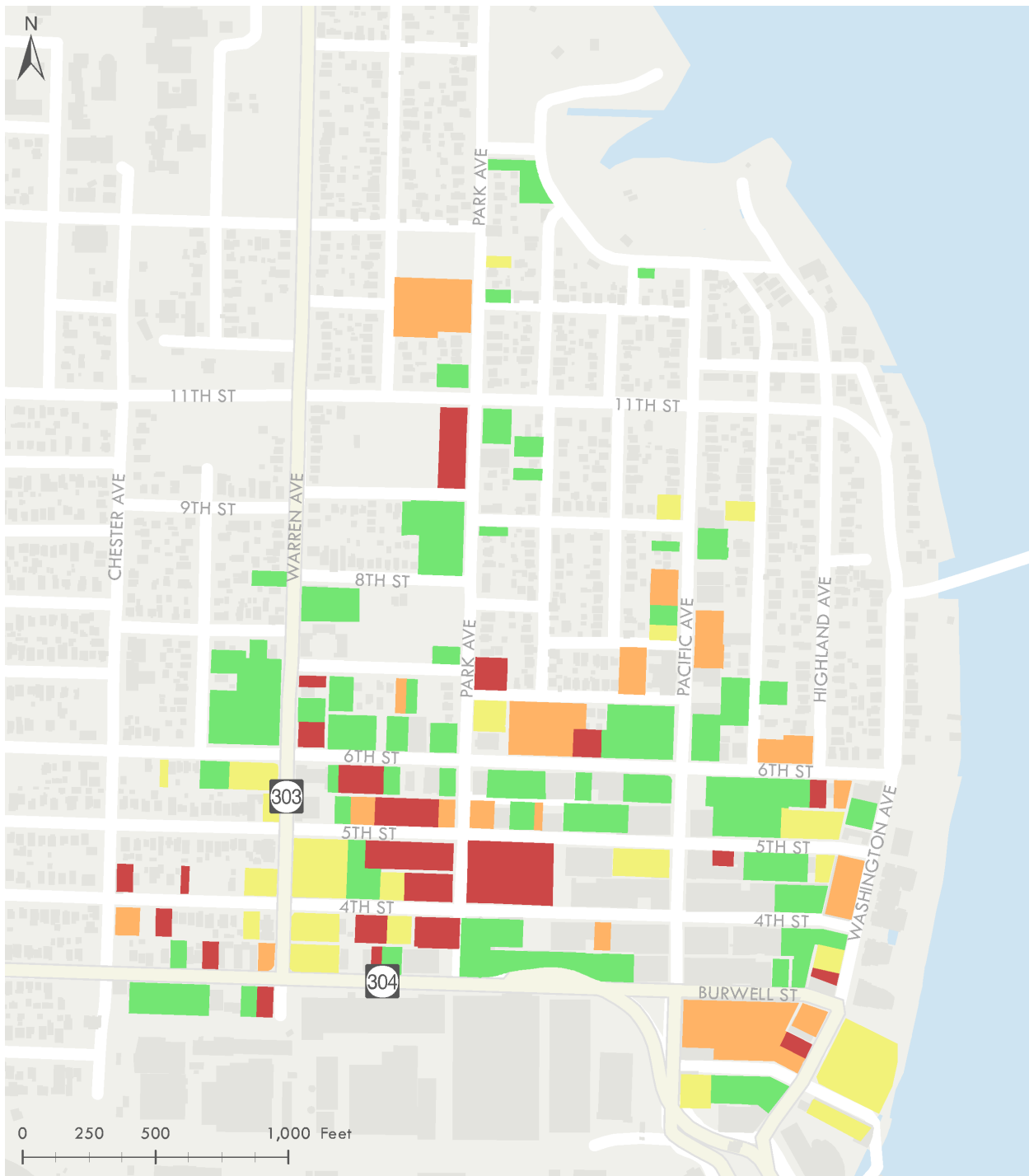
- < 55%
- 55 to 69%
- 70 to 84%
- > 85%

**CITY OF BREMERTON**  
 Map Date: June 2017



Figure 4-3. On-Street Parking Occupancy

Source: Kimley Horn, 2016



**Parking Utilization - Peak Hours**

- < 55%
- 55% to 69%
- 70% to 84%
- > 85%

**CITY OF BREMERTON**  
Map Date: June 2017



Figure 4-4. Off-Street Parking Occupancy

Source: Kimley Horn, 2016

## Traffic Operations



### Traffic Volumes

As discussed in the Methods and Assumptions Memo (Appendix D), AM and PM peak hour traffic volumes were collected for each of the study intersections from historic City counts, the SR 303 Corridor Study (City of Bremerton 2021), and new counts collected on January 26, 2021. In the morning, most of the intersections in Downtown have a peak hour of 6:15 to 7:15 a.m. due to shifts starting at NBK-BR, with the AM peak hour period occurring from 5 to 9 a.m. In the evening, the system peak hour is 4 to 5 p.m., with the PM peak period occurring from 2 to 6 p.m. The peak hour intersection traffic volumes were used to determine the distribution of traffic coming in and out of Downtown Bremerton. These distributions for the Existing Conditions AM and PM peak hours are shown in Figure 4-5.

As can be seen in Figure 4-5, the highest single percentage (30 percent) of people coming into the City of Bremerton come from the south using Charleston Boulevard. People coming from SR 3 and Kitsap Way add up to 22 percent, and another 23 percent come from SR 303 north of the Warren Avenue Bridge. These three primary access locations account for 75 percent of the people destined to various locations within the City. This data helped the study team understand where to focus attention to improve the transportation network.

During the AM peak period, 60 percent of traffic coming into Bremerton is attributed to NBK-BR. According to NBK-BR employee numbers and mode share, 80 percent of NBK-BR employees commute by driving alone or in a shared ride, with a total of 18,500 people traveling to NBK-BR by privately owned vehicle during the AM peak period.

It should be noted that outside of Downtown Bremerton, there is traffic congestion through Gorst and through the SR 3/SR 304 interchange. If the Gorst bottleneck is removed, more traffic would reach Downtown Bremerton faster during the AM peak, resulting in higher levels of congestion in Downtown Bremerton. In the PM Peak hour, traffic

traveling through Gorst would exit the City more quickly bringing congestion relief and air quality benefits.

### Operations Analysis

The study team evaluated 58 intersections to understand traffic patterns and operations and consider solutions. The intersections were analyzed for level of service (LOS), volume-to-capacity (v/c) ratio, queueing, and travel times. The v/c ratio is primarily used as a measure of the effectiveness of roundabouts, which are absent in Existing Conditions. Additional information on the software and measures of effectiveness used in the traffic operations analysis is discussed in the Methods and Assumptions Memo (Appendix D).

More detailed information on the traffic operations results is included in Appendix E, and the key findings are summarized in Section 4.

### Level of Service

LOS is a common method for measuring traffic operations, defined in terms of average intersection delay on a scale ranging from A to F. The Existing Conditions AM and PM peak hour LOS for the study intersections are shown in Figure 4-6 and Figure 4-7. According to the Transportation Appendix of the City of Bremerton 2016 Comprehensive Plan (City of Bremerton 2016), the City has a LOS standard of LOS E or better, except along routes that are a WSDOT Highway of Statewide Significance. Three routes within the City are Highways of Statewide Significance: SR 3, SR 304, and SR 310. For intersections along the mainline of these routes, the LOS standard is LOS D. SR 303 is classified as a Highway of Regional Significance, with a level of service standard of LOS E.

Table 4-1 shows the intersections that are exceeding LOS standards during the Existing Conditions peak hours. Additional LOS information is included in Appendix E. These intersections are mostly exceeding LOS standards due to large volumes traveling towards Downtown during the AM peak hour and away from Downtown during the PM peak hour and insufficient roadway capacity to accommodate these volumes. At the two-way stop-controlled intersections, vehicles on minor streets are delayed by the large volumes on major streets.

Table 4-1. Existing Conditions Traffic Operations Results – Exceeding LOS Standards

ID	INTERSECTION	CONTROL TYPE	LOS STANDARD	EXISTING CONDITIONS 2020			
				AM PEAK		PM PEAK HOUR	
				LOS	Delay (s)	LOS	Delay (s)
2	Auto Center Way/SR 3 SB Off-Ramp at Kitsap Way (SR 310)	Signal	D	D	46	E	69
8	Marine Dr at Kitsap Way (SR 310)	Signal	D	F	80	E	75
22	Warren Ave (SR 303) at 11th St	Signal	E	E	50	F	88
34	Washington Ave at Manette Bridge	Signal	E	F	214	E	64
48	National Ave at Loxie Eagans Blvd	Signal	E	B	20	F	83
104	SR 3 SB Ramps at Loxie Eagans Blvd	TWSC	D	F	82	F	508
135	Chester Ave at Burwell St (SR 304)	TWSC	D	D	29	E	43

LOS = level of service; SB = southbound; TWSC = two-way stop-controlled  
Note: Orange shading indicates LOS E and red shading indicates LOS F

### Queueing

Another measure of effectiveness is intersection queue lengths. Queues that are exceeded only 5 percent of the time are 95th percentile queue lengths. Multiple intersections have queue lengths that exceed the available storage capacity during the AM and PM peak hour. These queues lengths spill back into adjacent intersections and contribute to congestion. Vehicle queues at NBK-BR entry gates sometimes cause back-ups on City streets. Additionally, there are multiple locations where queues exceed available storage capacity, including intersections that operate within City standards. Long queues block business driveway access, increase travel times for both GP traffic and transit, and can lead to cut-through traffic in neighborhoods.

Queue lengths are included in Appendix E.

### Travel Time

Another method of measuring traffic operations is travel time. GP traffic travel times for key routes were calculated using intersection delay and travel speeds between intersections and calibrated using existing Wi-Fi travel time data collected by the City in January 2018. Transit travel times were calculated by adding estimated dwell time at bus stops and time to access park and rides as applicable.

The travel times for inbound traffic in the Existing Conditions AM peak hour are shown in Figure 4-8 and the travel times for outbound traffic in the Existing Conditions PM peak hour are shown in Figure 4-9. During the AM peak hour, GP traffic travel times range from 3 to 7 minutes, and during the PM peak hour, GP traffic travel times range from 3 to 10 minutes.

### Key Findings

The following summarizes the key findings of the peak hour traffic operations analysis.

- During the peak period, 60 percent of traffic coming into Bremerton is attributed to NBK-BR and 80 percent of NBK-BR employees commute by driving alone or in a shared ride, with a total of 18,500 people traveling to NBK-BR by privately owned vehicle during the AM peak period.
- Several study intersections are exceeding LOS standards during either the AM peak hour, the PM peak hour, or both. This is mostly due to large volumes traveling to and from Downtown along the major corridors.
- Vehicle queues at NBK-BR entry gates sometimes cause back-ups on City streets. Additionally, there are multiple locations where queues exceed available storage capacity, including intersections that operate within City standards. Long queues block business driveway access, increase travel times for both GP traffic and transit, and can lead to cut-through traffic in neighborhoods.
- Outside of Downtown Bremerton, there is traffic congestion through Gorst and through the SR 3/SR 304 interchange. If the Gorst bottleneck is removed, more traffic would reach Downtown Bremerton faster, resulting in higher levels of congestion in Downtown Bremerton.

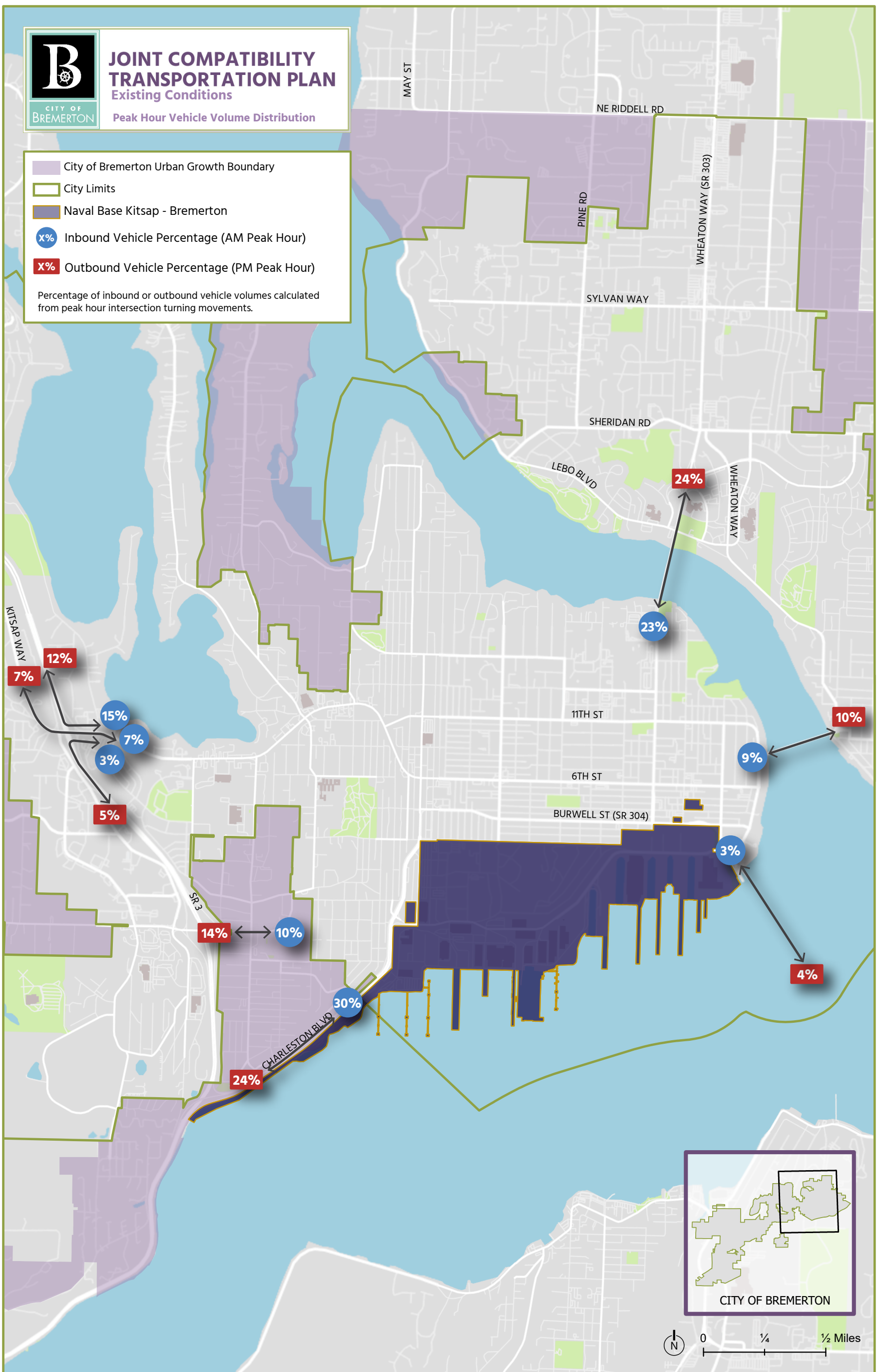


Figure 4-5. Existing Vehicle Volume Distribution

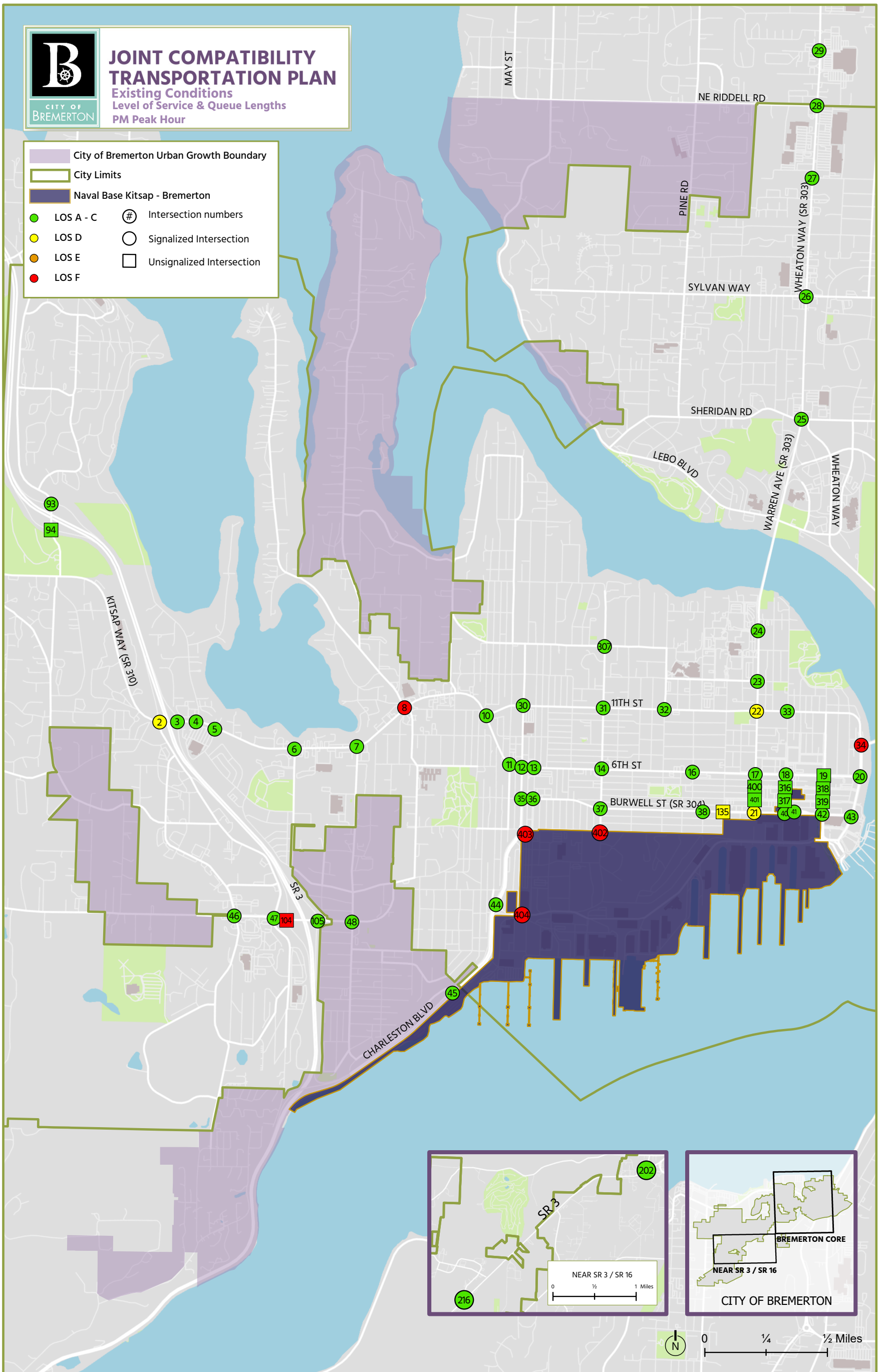


Figure 4-6. Existing Level of Service – AM Peak Hour

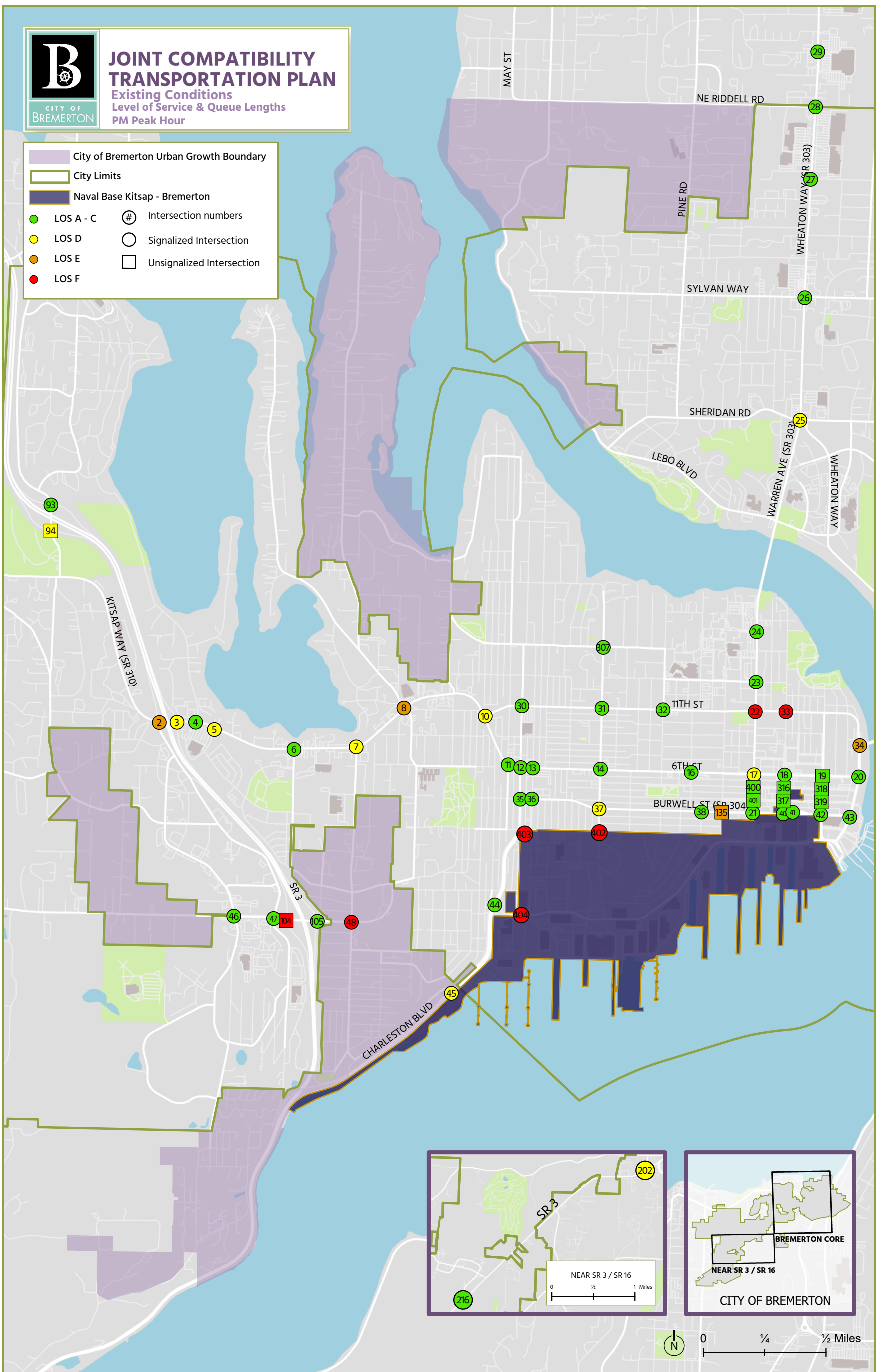


Figure 4-7. Existing Level of Service – PM Peak Hour

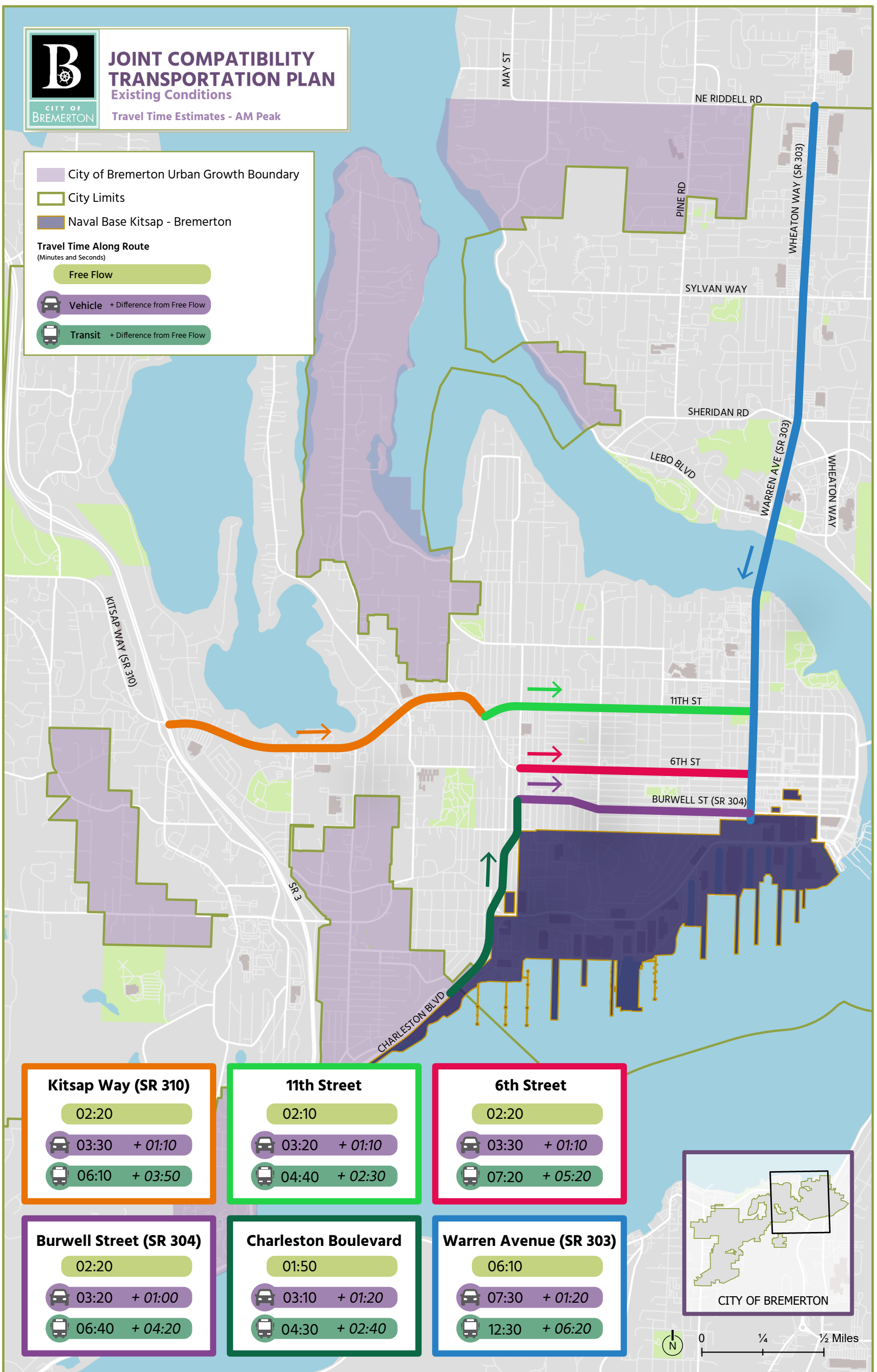


Figure 4-8. Existing Travel Times – AM Peak Hour

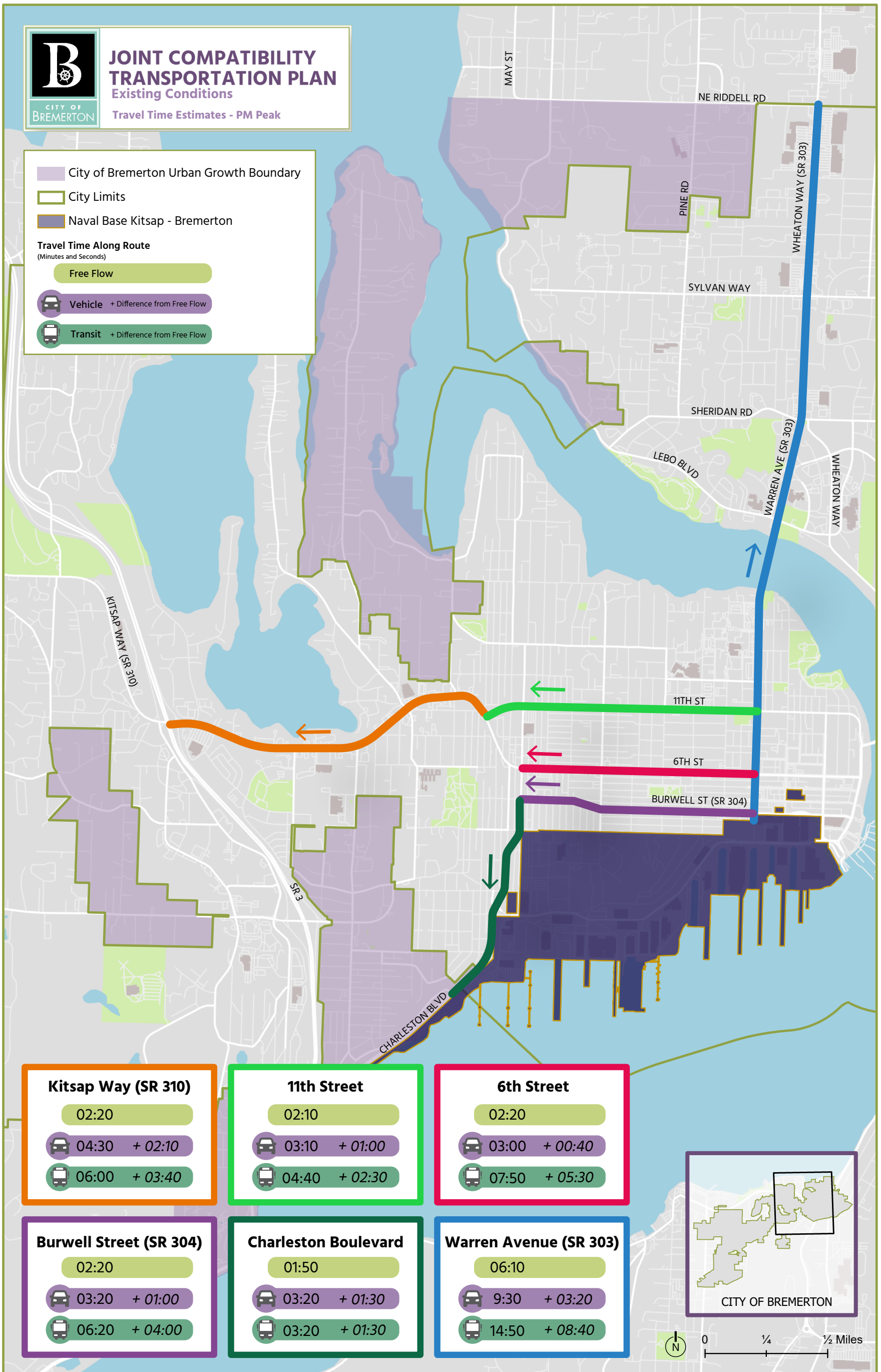


Figure 4-9. Existing Travel Times – PM Peak Hour

## Transit

Public transit in Bremerton consists of fixed-route bus, worker/driver bus, and ferry service provided by Kitsap Transit, Mason Transit, and Washington State Ferries. According to NBK-BR employee numbers and mode share, 14 percent of NBK-BR employees commute by fixed-route bus, worker/driver bus, or ferry, with a total of 3,000 people traveling to NBK-BR by transit during the AM peak period.



### Transit Facilities

The Bremerton Ferry Terminal is a major transportation hub for Kitsap County, with the Bremerton to Seattle ferry carrying almost 2.9 million riders in 2018. The ferry terminal also provides passenger-only connections to Seattle, Port Orchard, and Annapolis through the Kitsap Transit fast ferry and local ferry routes. The Bremerton Transportation Center is adjacent to the Bremerton Ferry Terminal and provides connections to key local and regional destinations through 12 Kitsap Transit bus routes and 2 Mason Transit bus routes.

Kitsap Transit operates several park and ride (P&R) lots within City limits: Gateway P&R at 6th Street and N Montgomery Avenue, Bremerton United Methodist Church at Marine Drive and Dora Avenue, and Wheaton Way Transit Center at E Broad Street and Wheaton Way (SR 303). There are also several P&Rs outside of the City limits that provide service to commuters. These P&Rs are accessed by both fixed-route buses and worker/driver buses.

There are no dedicated transit lanes along roadways in Bremerton. There is a southbound high-occupancy vehicle (HOV) lane along Charleston Boulevard (SR 304) that can be used by privately-owned vehicles and transit.

### Fixed-Route Buses

Kitsap Transit operates several bus routes, mostly along the main travel corridors in Downtown Bremerton: Warren Avenue (SR 303), Burwell Avenue (SR 304), 6th Street, 11th Street, and Kitsap Way. During peak periods, headways range from 30 to 75 minutes. According to the National Association of City Transportation Officials, moderate-volume transit systems generally have 5- to 10-minute

headways during peak periods, and high-volume transit systems generally have 2- to 6-minute headways (NACTO 2016). Even for a low-volume transit system like Kitsap Transit, headways would be expected to be closer to 15 minutes during peak periods.

The fixed-route bus network is shown in Figure 4-10. This figure also shows the capacity and occupancy for the three P&Rs located within City limits. The transit service shown in Figure 4-10 provides good coverage for travel in and around the City. For people who live south of the City, there are no fixed transit routes that provide direct access to the City or NBK-BR. With 30 percent of the people driving to Bremerton from the south, this highlights an opportunity to consider new fixed-route service to and from the south.

### Worker/Driver Buses

Kitsap Transit also operates a Worker/Driver Bus program for employees traveling to and from NBK-BR. Buses serve both NBK-BR and NBK-Bangor north of the City limits and are open to the general public outside of the military bases. The buses operate like a large vanpool, with the driver boarding a bus near their home and picking up coworkers on the way to work. For each worker/driver route, there is one trip to work during the morning commute and one trip from work during the evening commute. Kitsap Transit has 32 worker/driver routes and about 1,500 NBK-BR employees use it to commute to NBK-BR.

Eligible federal employees can ride any of Kitsap Transit's services for free through the Federal Transportation Incentive Program. Employees must purchase a pass through the incentive program and load it onto an ORCA card<sup>1</sup> for use on worker/driver buses and other public transit services, and then submit for reimbursement. Previously, eligible federal employees were automatically given free access to the worker/driver program.

<sup>1</sup> An ORCA card is an electronic fare payment system accepted on Kitsap Transit, Pierce Transit, King County Metro Transit, Community Transit, Sound Transit, Everett Transit, and the Washington State Ferries. It allows riders to load fare product, like a monthly pass, onto their card and tap their card aboard a bus, train, or ferry to pay their fare. Instead of carrying different passes for different transit systems, riders carry just one card.

The worker/driver bus network is shown in Figure 4-11. This figure also shows the capacity and occupancy for the three P&Rs located within City limits. It can be seen in Figure 4-11 that the worker/driver bus provides service to areas south of Bremerton using SR 3 through Gorst to get north to NBK-BR using the Charleston Boulevard (SR 304) exit.

### **Transit Operations**

The travel times for inbound traffic in the Existing Conditions AM peak hour are shown in Figure 4-8 and the travel times for outbound traffic in the Existing Conditions PM peak hour are shown in Figure 4-9. Transit travel times are up to 160 percent longer than GP traffic travel times due to dwell times for unloading and loading passengers and time spent decelerating and accelerating at transit stops. Travel times between transit stops are the same as GP traffic due to a lack of dedicated transit facilities such as a business access transit (BAT) lane or transit signal priority (TSP).

### **Key Findings**

The following summarizes the key findings of the transit evaluation.

- 14 percent of NBK-BR employees commute by fixed-route bus, worker/driver bus, or ferry, with a total of 3,000 people traveling to NBK-BR by transit during the AM peak period.
- Buses use the same facilities as GP traffic and have limited frequency, which does not encourage transit use.
- Existing P&Rs in West Bremerton and Silverdale do not have adequate capacity and are not able to meet the transit demand in these locations.
- The current Federal reimbursement system for transit passes to NBK-BR employees has a negative impact on enrollment in the worker/driver bus program.

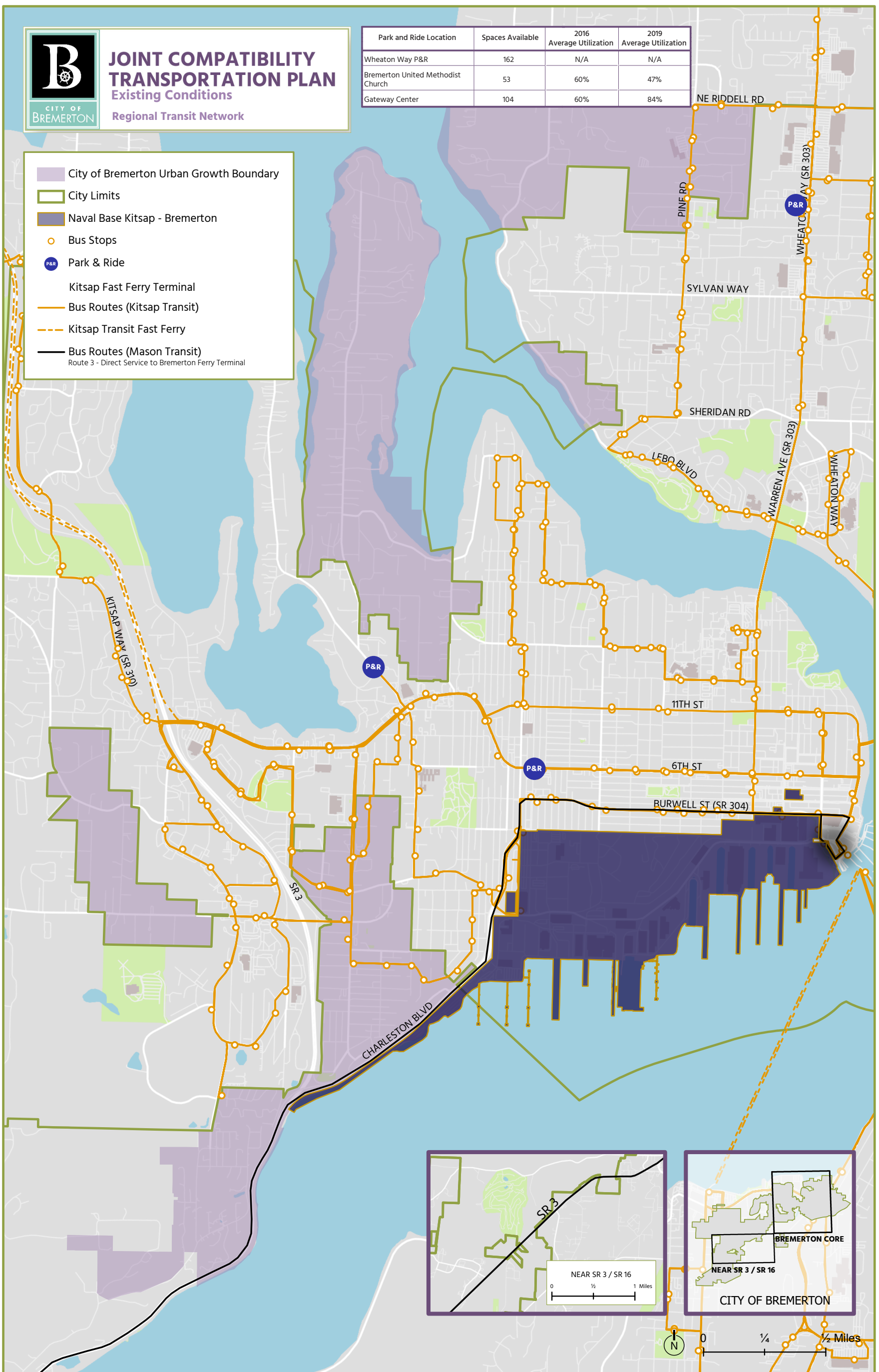


Figure 4-10. Fixed-Route Bus Network

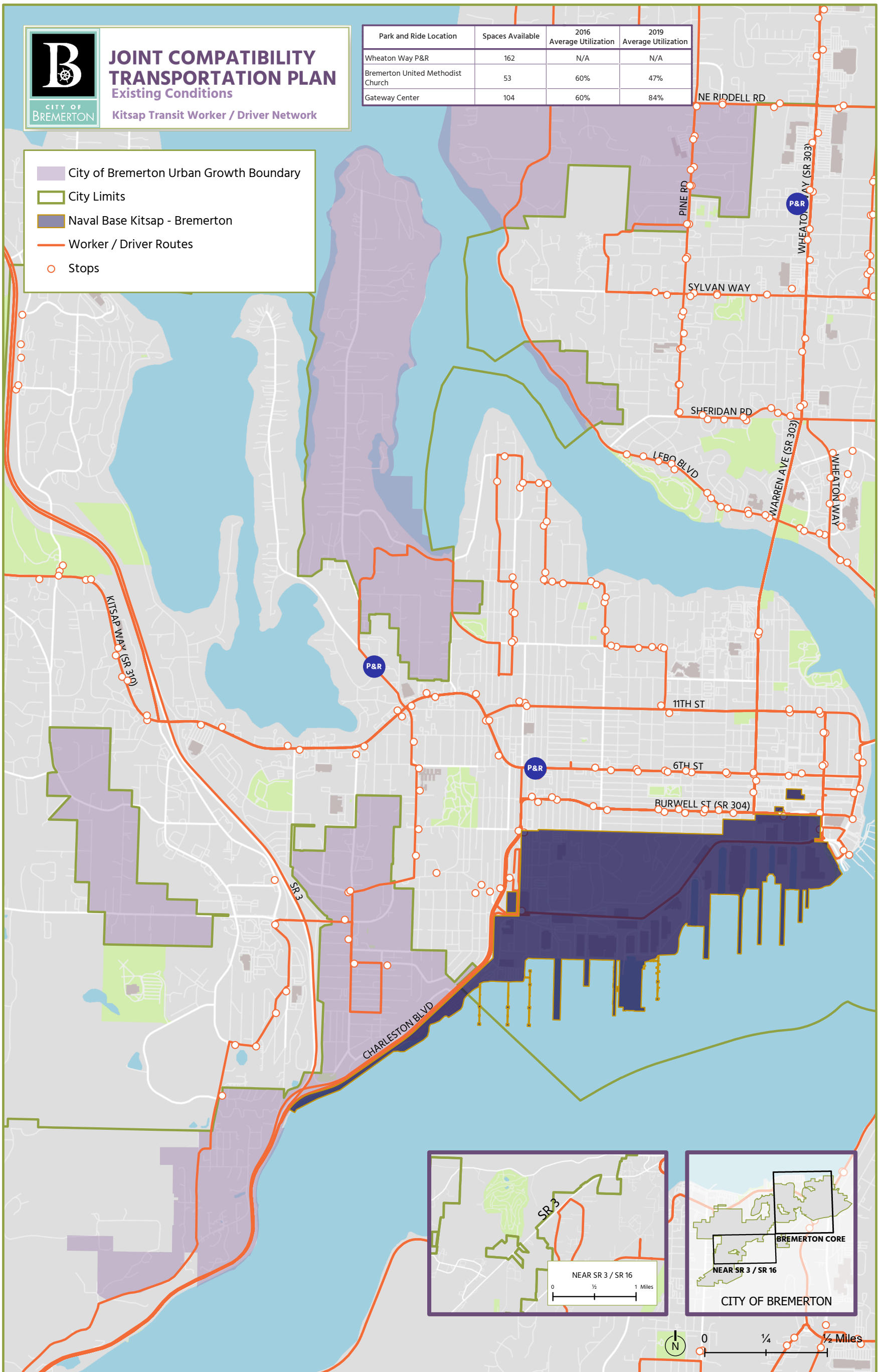


Figure 4-11. Worker/Driver Bus Network

## Active Transportation

Active transportation is defined as using a human-scale and often human-powered means of travel to get from one place to another and includes walking; bicycling; using a mobility assistive or adaptive device, such as a wheelchair or walker; using micromobility devices, such as skateboards or foot scooters; and using electric-assist devices, such as e-bikes and e-foot scooters.



### Active Transportation Facilities

The existing pedestrian facilities are shown in Figure 4-12, and the existing bicycle facilities are shown in Figure 4-13.

The existing bicycle facilities, sidewalks, and crossings in the study area were evaluated to determine the existing active transportation network. Data for the existing sidewalk gaps and obstructions were documented using a geographic information system provided by the City. Sidewalks are classified as one of three levels: poor or very poor; fair or marginal; and good, very good, or excellent. Many of the sidewalks near NBK-BR are classified as marginal or worse. Additionally, many sidewalks are narrow and have obstructions such as utility poles and fire hydrants. There is also a lack of buffers between sidewalks and travel lanes.

Within Downtown Bremerton, there are very few bicycle facilities, with bike lanes along Kitsap Way, Charleston Boulevard (SR 304), and Washington Avenue. The existing bicycle facilities are located on high-speed and high-volume roadways that lack a buffer between cyclists and vehicles. There is a lack of wayfinding to help cyclists find marked routes and a lack of commuter cyclist amenities, like bike racks and storage. There are no regional bicycle facilities that provide opportunities for people to cycle into Downtown Bremerton or NBK-BR. Additionally, the existing bicycle corridors shown in Figure 4-13 are fragments that do not provide direct access to key destinations or origins.

Generally, there are gaps in the sidewalk and bicycle network, limited street connectivity in West Bremerton and Manette, difficult roadway crossings, and barriers, such as surrounding water, fences around NBK-BR, and busy arterials, like SR 303 and Kitsap Way. The poor existing facilities and poor

network connectivity can contribute to perceived safety issues for active transportation users and do not encourage walking or bicycling to and within Downtown Bremerton.

Many large employers provide easy access for people to drive onto the site and either park or get dropped off by another person. NBK-BR is a controlled facility that does not facilitate easy drop-offs or pick-ups, and there are no designated drop-off or pick-up locations adjacent to the NBKBR gates. Dropoff or pick-up must occur on City streets or using one of the surface parking lots.

### Active Transportation Volumes

Data for the number of bicyclists and pedestrians during the Existing Conditions AM and PM peak hours was collected at the same time as the intersection turning-movement counts. It should be noted that low active transportation use does not equate to low demand when active transportation networks are incomplete or are high stress. In other words, many more people might want to use active transportation modes like walking, bicycling, boarding, or other rolling methods to reach their destinations, but because adequate facilities are not available, they choose to drive or ride transit instead.

Based on counts at the NBK-BR entry gates, there are 10,000 incoming daily pedestrians that travel through the NBK-BR gates to access NBKBR. 8,500 of these pedestrians are assumed to be NBK-BR employees that park Downtown and walk into NBK-BR, while the remaining 1,500 are NBK-BR employees that travel by active transportation, bus, or ferry to NBK-BR. This is a mix of NBK-BR commuters who travel to Bremerton by transit, walking, or bicycling as well as commuters who park in Downtown Bremerton and walk into NBK-BR. Bicycling is not allowed within the Controlled Industrial Area, so bicycling commuters must dismount and walk their bicycles through the gates. The number of daily inbound pedestrians that travel through each NBK-BR gate is shown in Figure 4-14.

According to NBK-BR employee numbers and mode share, 14 percent of NBK-BR employees commute by walking or bicycling, with a total of 1,400 people traveling to NBK-BR via active transportation during the AM peak period of 5 to 9 a.m.

### Key Findings

The following summarizes the key findings of the active transportation evaluation.

- 14 percent of NBK-BR employees commute by walking or bicycling, with a total of 1,400 people traveling to NBK-BR via active transportation during the AM peak period.
- Many sidewalks are in poor condition, are narrow, and have obstructions such as utility poles and fire hydrants. There is a lack of buffers between sidewalks and travel lanes.
- The existing bicycle facilities are located on high-speed and high-volume roadways that lack a buffer between cyclists and vehicles. There is a lack of wayfinding to help cyclists find marked routes and a lack of commuter cyclist amenities like bike racks and storage.
- There are gaps in the sidewalk and bicycle network, limited street connectivity in West Bremerton and Manette, difficult roadway crossings, and barriers, such as surrounding water, fences around NBK-BR, and busy arterials, like SR 303 and Kitsap Way.
- The poor existing facilities and poor network connectivity can contribute to perceived safety issues for active transportation users and do not encourage walking or bicycling to and within Downtown Bremerton.

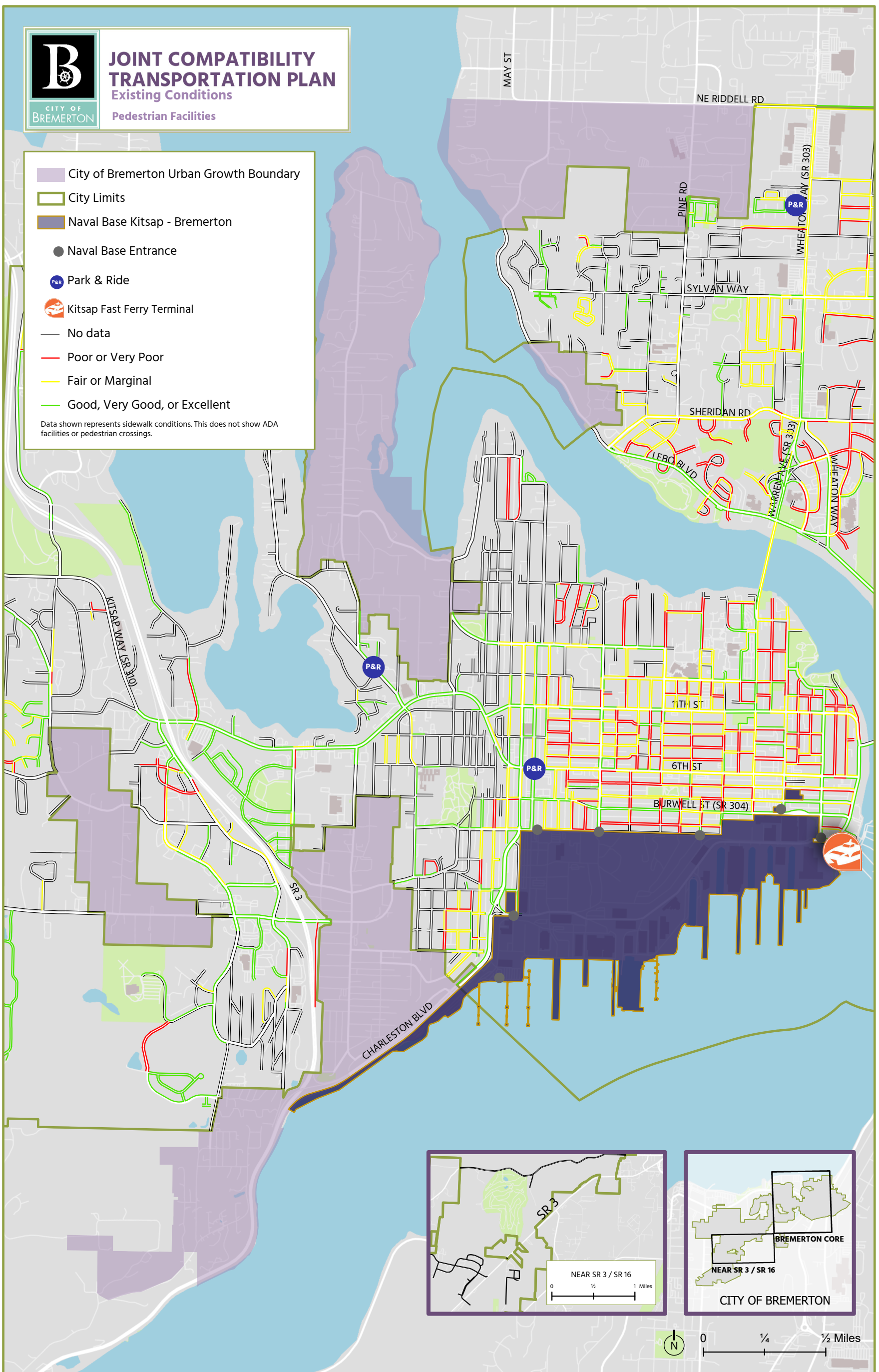


Figure 4-12. Existing Pedestrian Facilities

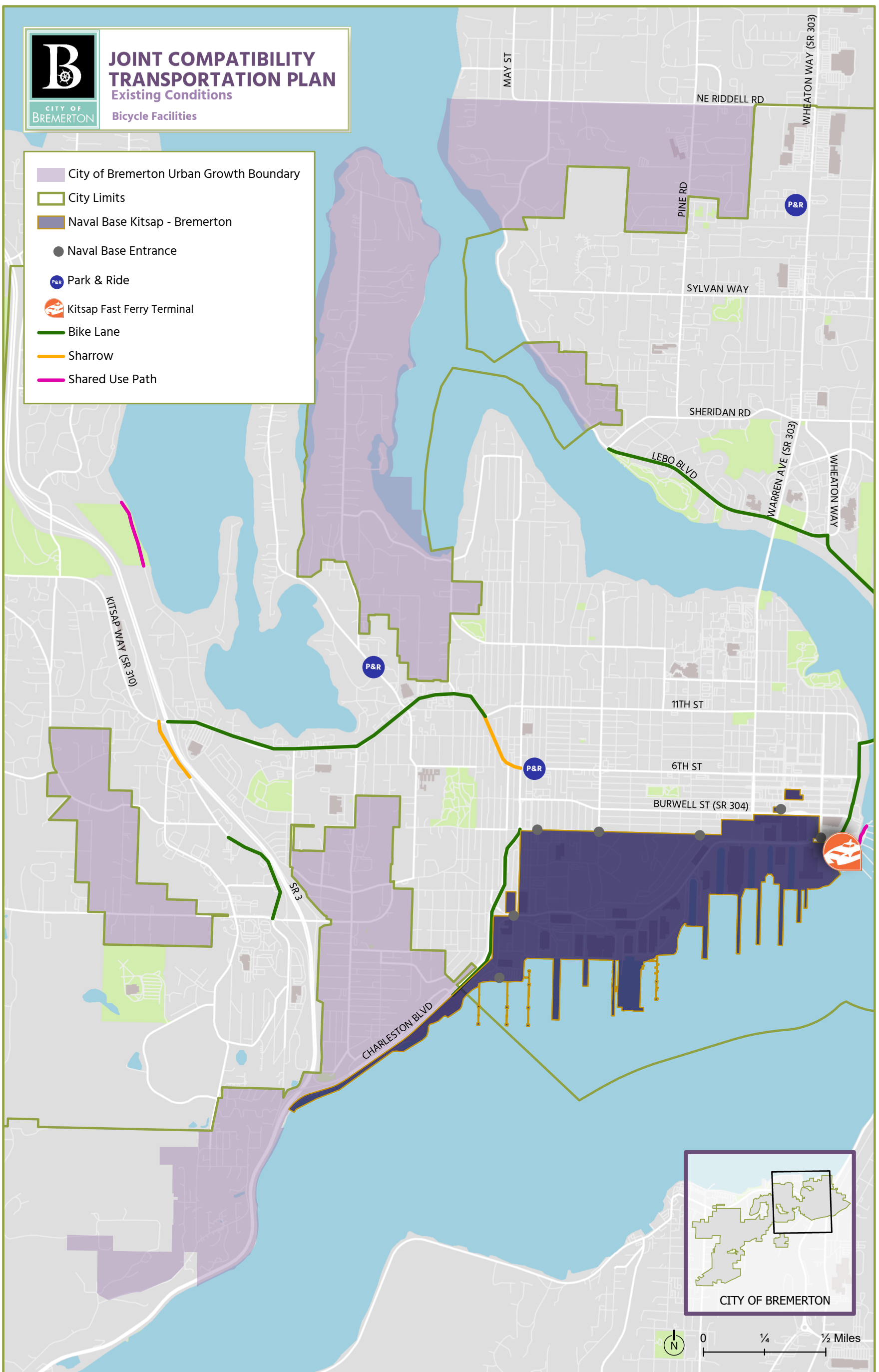


Figure 4-13. Existing Bicycle Facilities

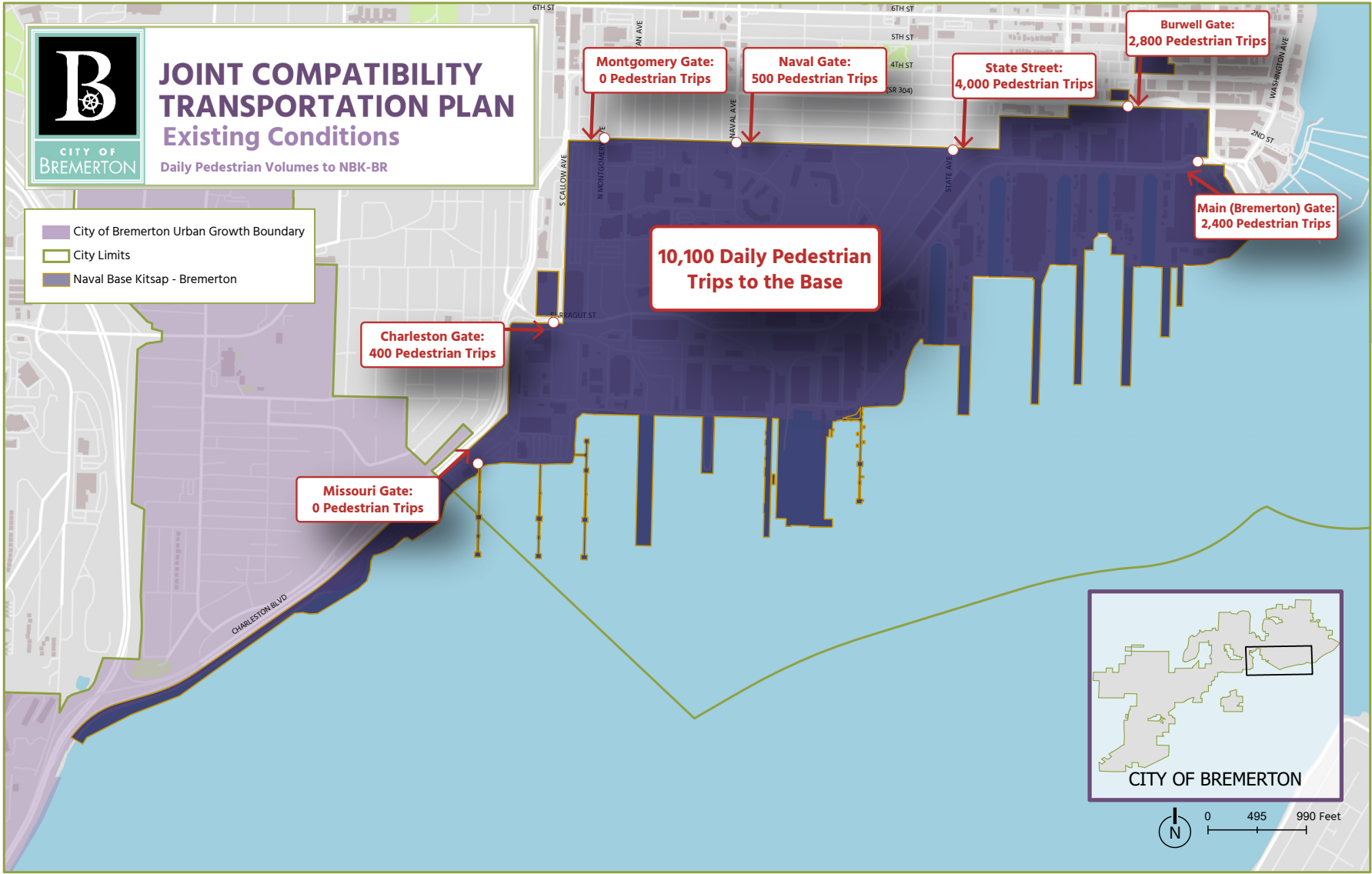


Figure 4-14. Existing Pedestrian Volumes at NBK-BR

## Safety

***Under 23 United States Code §148 and 23 United States Code §409, safety data, reports, surveys, schedules, list compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.***

Citywide crash data collected and used in the 2020 Bremerton Strategic Road Safety Plan (City of Bremerton 2020b) was used to highlight crash locations and identify locations that require additional attention. The Bremerton Strategic Road Safety Plan (City of Bremerton 2020b) included analysis of crash data for the years 2014 to 2018. The study team also evaluated 2019 crash data provided by WSDOT. The 2014–2019 reported crash data for the study area are shown in Figure 4-15 and Figure 4-16.

The Bremerton Strategic Road Safety Plan was updated in 2022 (City of Bremerton 2022) and was referenced during project development and screening.

## Key Findings

The following summarizes the key findings of the crash analysis.

- The most common collision type in fatal and serious injury crashes was a hit pedestrian.
- Several collision attributes of fatal and serious injury crashes in Bremerton occur at a higher rate in Bremerton than in other western Washington crashes, such as pedestrian walking along or crossing a road, angle collisions, dark/no streetlights, and utility poles.
- Rear-end crashes made up for 30 percent of all crashes. Rear-end crashes are often related to higher levels of congestion.





# JOINT COMPATIBILITY TRANSPORTATION PLAN

Existing Conditions

Crash Severity (2014 - 2019)

Under 23 United States Code §148 and 23 United States Code §409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

- City of Bremerton Urban Growth Boundary
  - City Limits
  - Naval Base Kitsap - Bremerton
- Crash Severity**
- Fatality
  - Serious Injury
  - Minor Injury
  - Property Damage Only
  - Unknown
- Crashes Involving Pedestrians / Pedal Cyclists**
- Fatality
  - Serious Injury

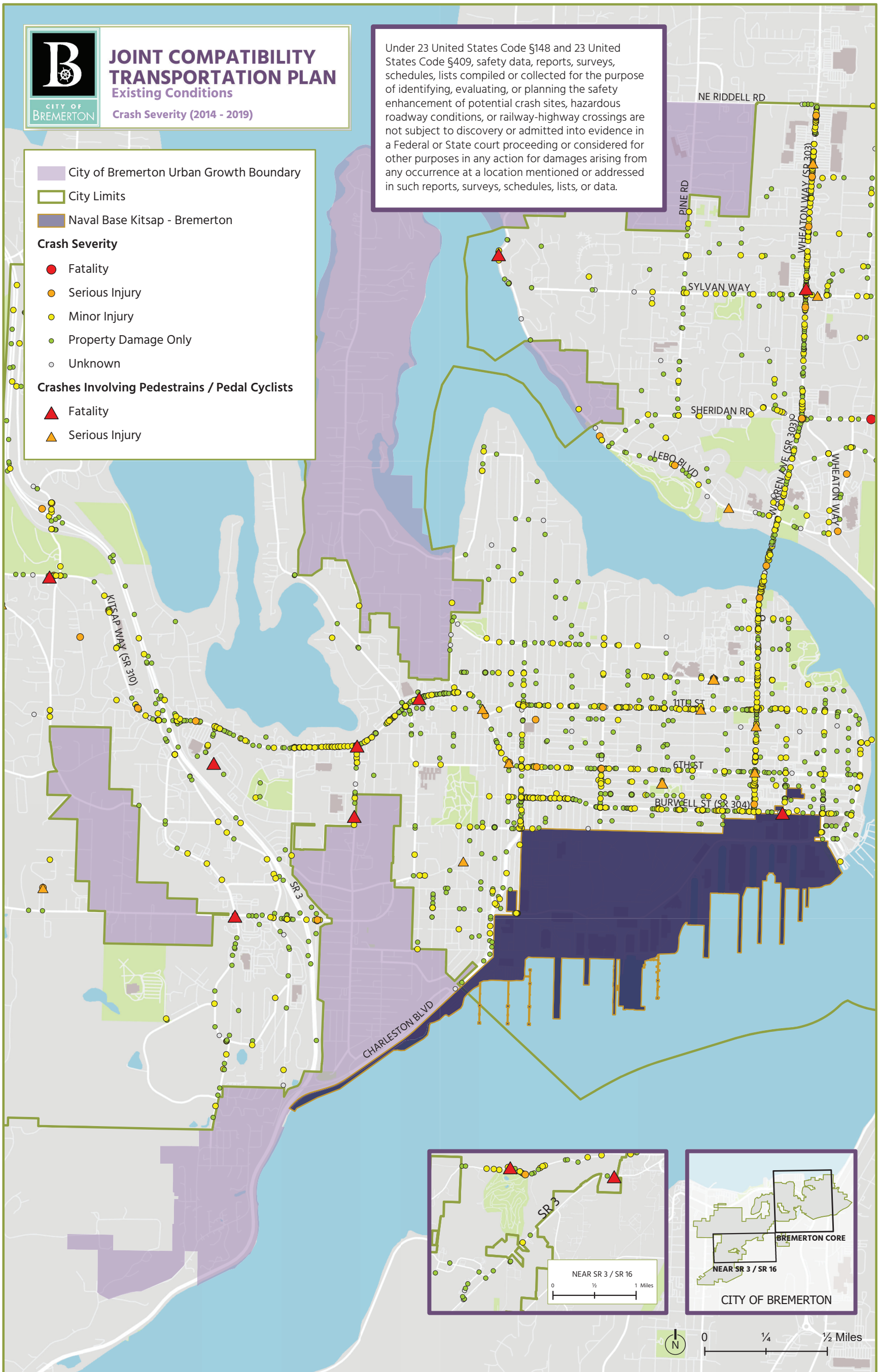


Figure 4-16. Crash Severity (2014–2019)

## Economics

The study team conducted an economic assessment that documented current economic conditions, historic growth trends, and economic drivers in the study area. Data used in this report are drawn from several sources: existing studies and analysis completed by Community Attributes for the SR 303 Corridor Study (City of Bremerton 2021) and the Joint Land Use Study (Kitsap County 2015) and public data sources, including City of Bremerton, PSRC, Washington State Office of Financial Management, Kitsap Economic Development Alliance, Kitsap County Assessor's office, and CoStar.

The Economic and Market Profile is included in Appendix F.

## Demographics

The total population in the study area, which includes the City and the Unincorporated UGA, was 51,100 people in 2020, with 82 percent of the population within the City of Bremerton. This represents almost 19 percent of the total population in Kitsap County. Between 2000 and 2020, population in the study area grew at an average annual rate of 0.5 percent, which is an insignificant increase given the regular fluctuations in the military population of 2,000 to 3,000 people, due to arrival and departure of NBK-BR personnel. Bremerton's growth has not kept pace with surrounding County and regional areas where unprecedented growth has occurred in the past decade. One possible reason for the area's stagnant population is revealed in the Housing Element of the City of Bremerton's Comprehensive Plan, which mentions that current conditions in the housing market are in large part responsible for the City's lack of growth.

In 2019, median household income in the study area was mostly below the Countywide median household income of roughly \$75,400, except for a block group on the north side of Belfair Valley Road, as shown in Figure 4-17. The City of Bremerton household income in the same period was \$52,700, which is almost \$23,000 below the Kitsap County median. Around 16.5 percent of the population for whom poverty status is determined in the City of Bremerton live below the poverty line, compared to 7.5 percent for Kitsap County.

## Industry and Employment

Limited employment data availability for the study area restricts the industry and employment analysis to the City of Bremerton (not including the Unincorporated UGA). Total employment in the City of Bremerton was 32,400 in 2019, an increase from 28,000 in 2006. Employment was relatively steady between 2006 and 2013 but grew by 4,000 jobs between 2013 and 2019, as shown in Figure 4-18. Over this period, the share of Kitsap County employment in Bremerton remained stable—between 35 percent and 36 percent of total County jobs.

In 2019, over 52 percent of total employment in the study area was concentrated in the government sector. The share of government jobs as a percentage of total employment in the study area has increased since 2006, as shown in Figure 4-19. Most of the jobs in this sector are associated with NBK-BR. Other public agencies that contribute to this employment include the Bremerton Transportation Center and state and County government services facilities. Although Bremerton's growth patterns remain heavily dependent on military and other government expenditures, this provides a buffer in the local and regional economy during periods of economic volatility.

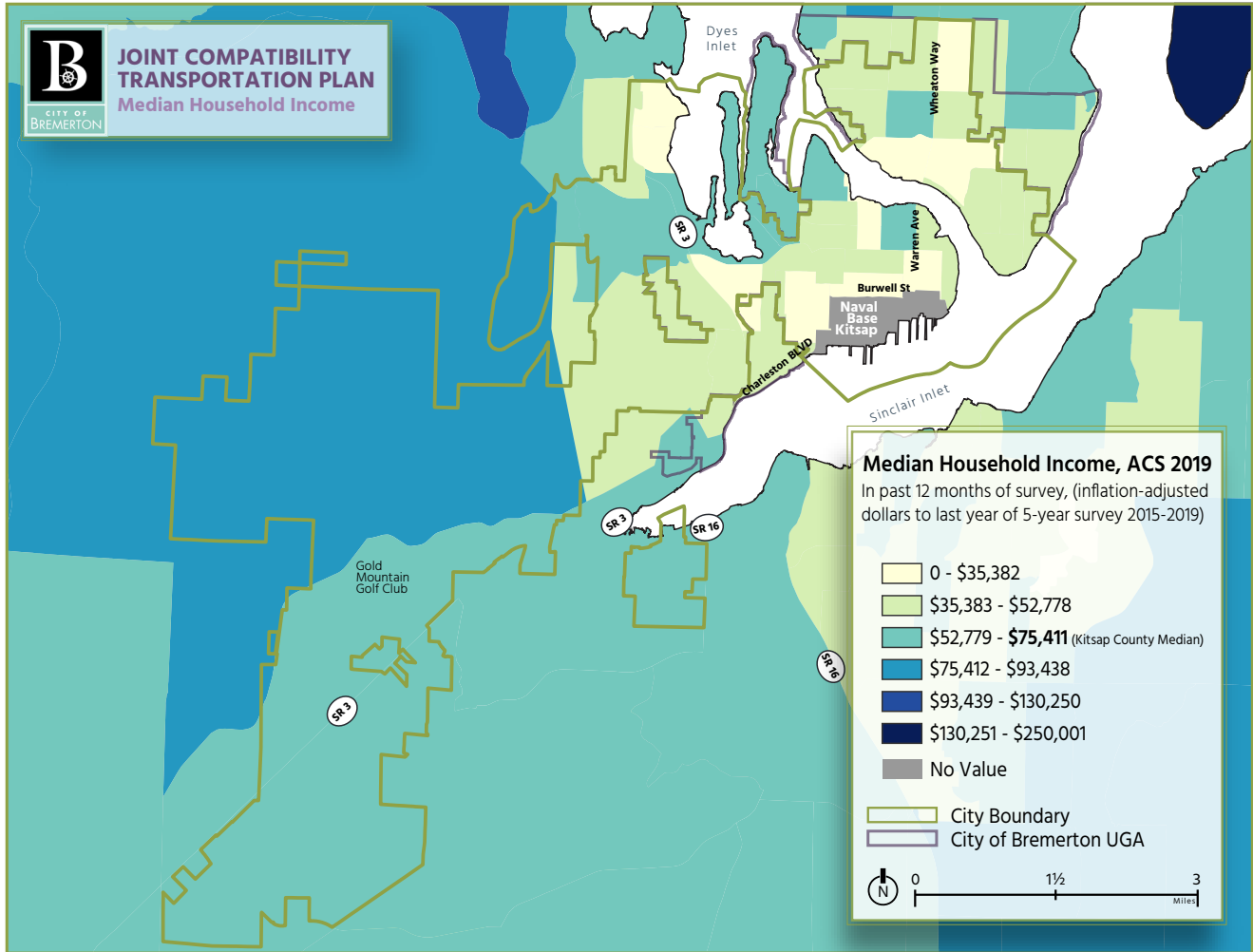


Figure 4-17. Study Area Median Household Income (2015–2019)

Sources: United States Census Bureau, 2021; Community Attributes, 2021

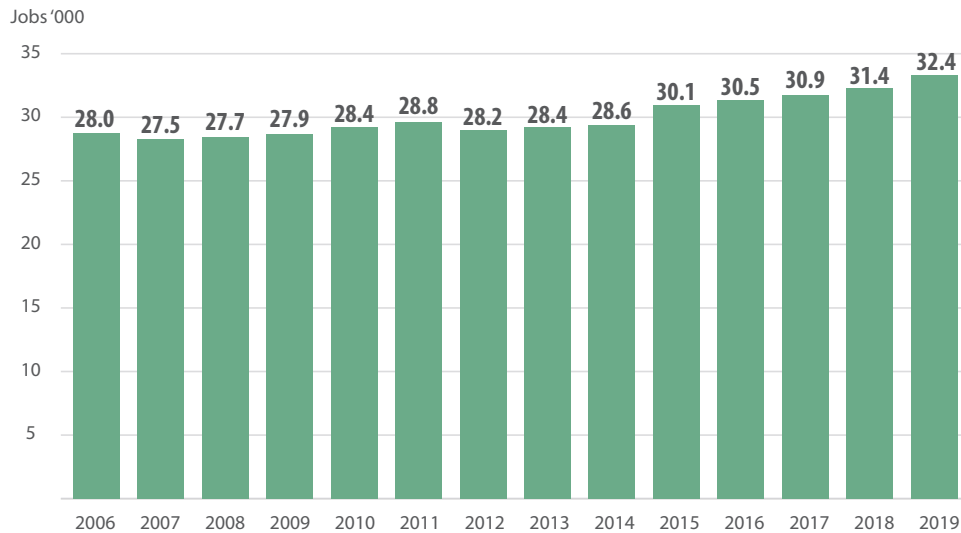


Figure 4-18. City of Bremerton Employment (2006–2019)

Sources: Puget Sound Regional Council, 2021; Community Attributes, 2021

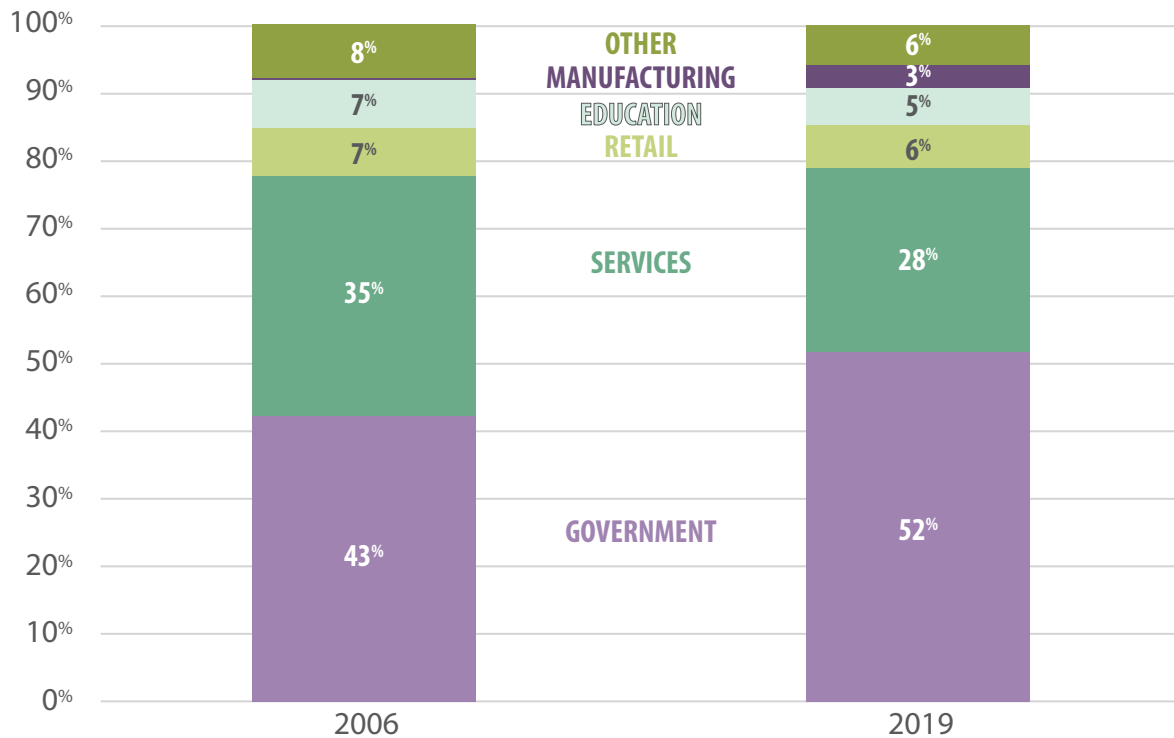


Figure 4-19. Study Area Employment Share by Industry (2006, 2019)

Source: Community Attributes, 2021 Includes Construction/Resources, Finance, Insurance and Real Estate, Wholesale, Transportation and Utilities.

### Land Use and Real Estate

The City of Bremerton's 2016 Comprehensive Plan outlines the future land use policy direction to accommodate the City's projected population and employment growth for a 20-year planning time horizon with sufficient areas for housing, businesses, and industry. The Land Use Element maps the entire City into a series of land use districts intended to guide the character and intensity of development based on these and other goals and policies.

To ascertain how successfully the City of Bremerton has implemented its land use vision, the study team mapped the most current snapshot available of the current land uses found on parcels in the City and UGA, based on the Kitsap County Assessor's parcel-specific land use coding system, shown in Figure 4-20. These codes are updated on a rolling basis, as much as possible, and do not always reflect an accurate representation of actual land uses. In comparing planned land use and zoning with actual land uses, the following themes emerge:

- Bremerton has not achieved the level of industrial development that it has thus far planned for outside of NBK-BR, especially within the Puget Sound Industrial Center-Bremerton Subarea, but also in the industrially zoned Werner Road area of the City.
- Much of the City's high-density residential development has occurred in planned for zones along SR 303 north of the Warren Ave Bridge. These areas lie along the primary northern commuter route to and from NBK-BR and Downtown Bremerton.
- To date, the mix of land uses along the SR 303 corridor include significant tracts of vacant land located in areas currently designated District Center. District Center zones are intended as "small downtowns" with moderate- to high-density mixed uses at their core, transitioning out to singlefamily areas.

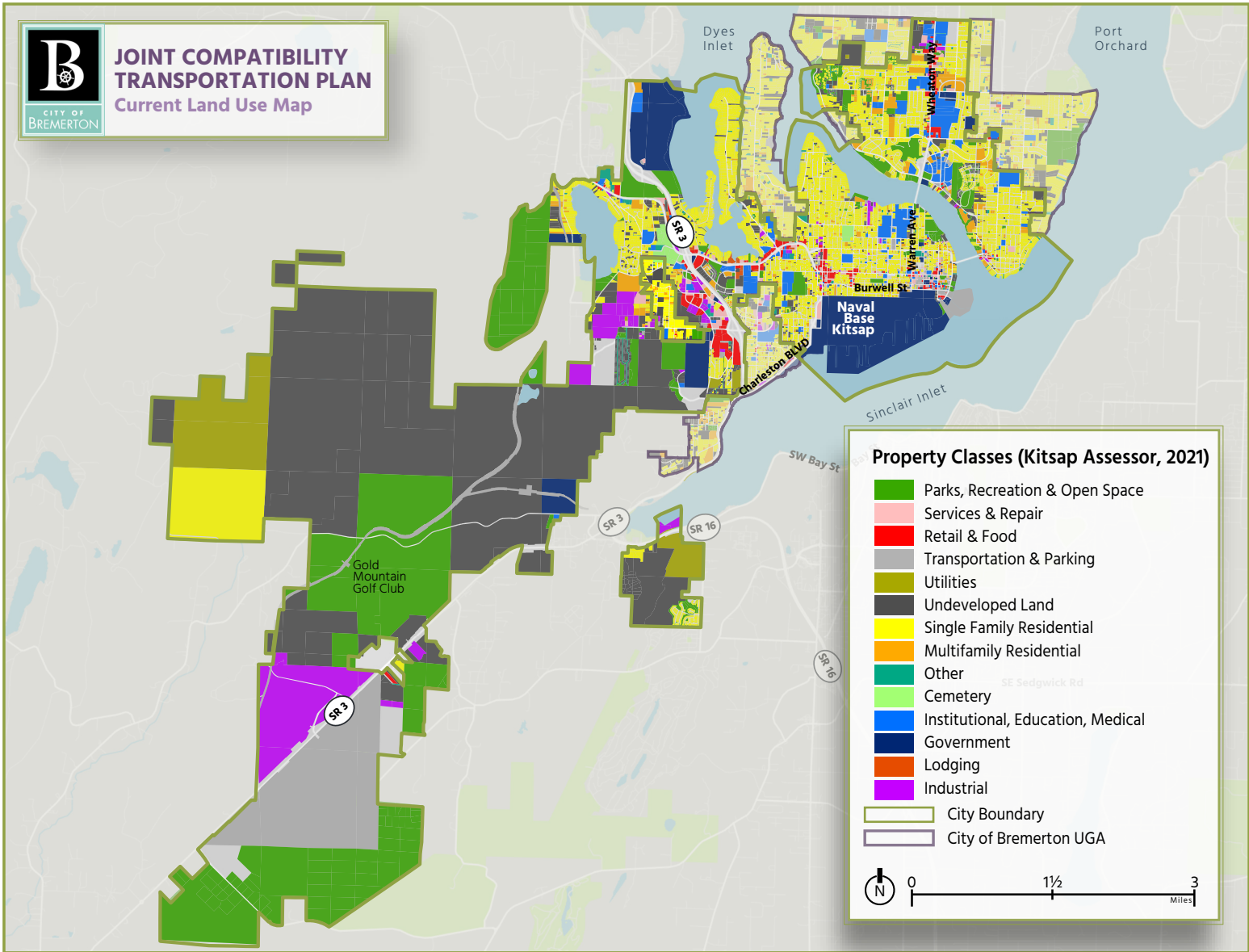


Figure 4-20. Study Area Current Property Classes (2019)

Sources: Kitsap County, 2021; City of Bremerton, 2021; Community Attributes, 2021



**SPEED  
LIMIT  
25**

**2 HR  
PARKING  
24 HRS A DAY  
7 DAYS A WEEK  
EXCEPT  
CITY HOLIDAYS**

**PAY  
HERE**

**ROAD  
NARROW**

**PAY  
HERE**



**5. FUTURE NO BUILD CONDITIONS**

## 5. Future No Build Conditions

The Year 2050 Future No Build Condition was evaluated to understand how conditions will change over the next 30 years for parking, traffic operations, transit, active transportation, and safety.

The City travel demand forecasting model was used to understand future year 2050 travel patterns and develop peak hour volumes for the traffic analysis. There are 125 traffic analysis zones within the travel demand model area and eight external gateways. Each of the transportation analysis zones includes an estimated level of population (housing) and employment (jobs) that the model then uses to estimate how people will travel from their homes to their jobs or other non-work related trips. PSRC provided draft year 2050 growth targets for the City of Bremerton and Kitsap County, as shown in Table 5-1.

Employment in the City is shown to grow by 1.1 percent annually, with a total of 55,500 jobs by year 2050 and many of those jobs being located Downtown. City leadership is planning for key housing development locations just west of SR 3 and in Downtown. Even with these new developments, it is anticipated that most employees will be traveling to and from Downtown using the various transportation modes available. At this time, there is no growth forecasted for NBK-BR in the foreseeable future. Additional details on the travel demand forecasting are available in the Future No Build Forecasting Memo in Appendix G.

Table 5-1. Study Area Household and Employment Forecasts

AREA	HOUSEHOLD FORECASTS			EMPLOYMENT FORECASTS		
	Year 2019	Year 2050	Annual Growth Rate	Year 2019	Year 2050	Annual Growth Rate
City of Bremerton	17,300	27,500	1.9 percent	41,000	55,500	1.1 percent
Unincorporated UGA	6,200	9,400	1.7 percent	3,600	6,200	2.3 percent
Total	23,500	36,900	1.8 percent	44,600	61,700	1.2 percent

In developing VISION 2050, PSRC developed future year growth patterns consistent with the policies of the final Regional Growth Strategy. This initial representation will be refined as jurisdictions begin the next round of growth target and comprehensive plan updates as required under the Growth Management Act, a process that will continue through mid-2024. PSRC is choosing not to publish an updated version of its land use forecast product, the Land Use Vision, until after the first major round of implementation work, the GMA growth target updates, are complete. This forecast is an initial, and one possible, version of a growth pattern that meet's VISION 2050's policy objectives. It was used for analysis of the Regional Growth Strategy. It is not reflective of adopted GMA growth targets as these are currently under development. (PSRC, February 2021)

### Future No Build Parking

NBK-BR continually seeks opportunities to improve on-base parking including recent conversions of a carwash and parade grounds to new surface parking lots (~160 additional parking spaces), but underutilized space on-base is very low. In addition, NBK-BR has plans for multibillion-dollar shipyard modernizations, and through the review process, on-base parking needs are being considered. Review is still pending, but initial analysis indicates that there is no planned increase to employment growth forecasted for NBK-BR for the shipyard



modernizations. Other than small area conversions to surface parking lots, and shipyard modernization considering if additional parking is triggered, NBK-BR has no further capital plans to increase on-base parking.

No increases in parking capacity are anticipated by the City. As the City pursues their growth plan, conflicts between residential parking and commuter parking will increase.

## Future No Build Traffic Operations



For the Year 2050 No Build analysis, the traffic models were updated to include any relevant planned roadway improvement projects that impacted roadway channelization or signal timing. Planning projects were pulled from the City of Bremerton 2021–2026 Transportation Improvement Program (TIP) (City of Bremerton 2020c) and the Kitsap County 2021–2026 TIP (Kitsap County 2020). These projects included:

- Washington Avenue
- Burwell Street Adaptive Signals
- 11th Street/Callow Avenue Intersection Improvements
- HSIP III Kitsap Way Bike Lanes and Warren Avenue Traffic Signal Safety

Signal timing was optimized for the intersections along Burwell Street, 11th Street, and SR 303 to account for the projects along these corridors. Other assumptions for the Year 2050 No Build analysis, including additional background projects that were included in the travel demand modeling, are discussed in the Methods and Assumptions Memo (Appendix D).

### Traffic Volumes

Based on the travel demand modeling, the estimated growth rates for the individual study intersections range from –4 percent to +85 percent between 2019 and 2050. The growth rates for individual study intersections were averaged to determine an overall average growth rate for several different corridors and subareas. It should be noted that while the study intersections in Downtown were forecasted to grow by 20 percent by 2050, the growth for the traffic analysis zone where NBK-BR is located was 0 percent.

These growth rates were used to develop intersection traffic volumes for the Year 2050 AM and PM peak hours. The forecasted 2050 traffic volumes were used to determine the distribution of traffic coming in and out of Downtown Bremerton, as shown in Figure 5-1. Generally, more volume is coming to/from the north along SR 303 during Year

2050 No Build Conditions compared to Existing Conditions, and less volume is coming to/from the south along Charleston Boulevard (SR 304).

### Operations Analysis

#### Level of Service and Volume-to-Capacity Ratio

The Year 2050 No Build AM and PM peak hour LOS for the study intersections are shown in Figure 5-2 and Figure 5-3. Table 5-2 shows the intersections that are exceeding LOS standards. Additional LOS information is included in Appendix E.

Similar to Existing Conditions, these intersections are mostly exceeding LOS standards due to large volumes traveling towards Downtown during the AM peak hour and away from Downtown during the PM peak hour and insufficient roadway capacity to accommodate these volumes. At the two-way stop-controlled intersections, vehicles on minor streets are delayed by the large volumes on major streets.

Some intersections, such as Warren Avenue (SR 303) and 11th Street (Intersection #22), slightly improve compared to Existing Conditions due to the optimization of signal timing. Signal timing was optimized along Burwell Street, 11th Street, and SR 303 to account for the No Build roadway projects.

Table 5-2. Year 2050 No Build Traffic Operations Results – Exceeding LOS Standards

ID	INTERSECTION	CONTROL TYPE	LOS STANDARD	EXISTING 2020				NO BUILD 2050			
				AM PEAK		PM PEAK		AM PEAK		PM PEAK	
				LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)
2	Auto Center Way/SR 3 SB Off-Ramp at Kitsap Way (SR 310)	Signal	D	D	46	E	69	D	51	E	70
7	National Ave at Kitsap Way (SR 310)	Signal	D	-	-	-	-	F	80	D	53
8	Marine Dr at Kitsap Way (SR 310)	Signal	D	F	80	E	75	F	110	E	88
10	11th St at Kitsap Way (SR 310)	Signal	D	-	-	-	-	A	8	E	61
17	Warren Ave (SR 303) at 6th St	Signal	E	-	-	-	-	D	51	E	73
19	Pacific Ave at 6th St	AWSC	E	-	-	-	-	C	20	F	58
22	Warren Ave (SR 303) at 11th St	Signal	E	E	50	F	88	D	44	F	78
25	Wheaton Way (SR 303) at Sheridan Rd	Signal	E	-	-	-	-	D	41	F	93
34	Washington Ave at Manette Bridge	RAB <sup>1</sup>	-	F	214	E	64	-	-	-	-
37	Naval Ave at Burwell St (SR 304)	Signal	D	-	-	-	-	D	41	E	55
48	National Ave at Loxie Eagans Blvd	Signal	E	B	20	F	83	C	22	F	105
94	Austin Dr at SR 3 SB Ramps	TWSC	D	-	-	-	-	C	19	F	178
104	SR 3 SB Ramps at W Loxie Eagans Blvd	TWSC	D	F	82	F	508	F	179	F	1537
135	Chester Ave at Burwell St (SR 304)	TWSC	D	D	29	E	43	E	44	F	110
202	SR 16 Spur/Sam Christopherson Dr at SR 3	Signal	D	-	-	-	-	F	142	F	173
216	SR 3 at Imperial Way	Signal	D	-	-	-	-	F	365	F	246

AWSC = all-way stop-controlled; LOS = level of service; RAB = roundabout; SB = southbound; TWSC = two-way stop-controlled

Note: Orange shading indicates LOS E and red shading indicates LOS F

<sup>1</sup> A roundabout is planned to be constructed at Washington Avenue and Manette Bridge (intersection #34). Unlike other intersection control types, the primary measure of effectiveness for roundabouts is volume-to-capacity (v/c) ratio. The v/c ratio measures the amount of traffic on a given roadway relative to the amount of traffic the roadway was designed to accommodate. The goal for roundabouts is for the v/c ratio to be between 0.85 and 0.90. During the Year 2050 No Build PM peak hour, intersection #34 is expected to have a v/c ratio of 1.34.

### Queueing

Another measure of effectiveness is intersection queue lengths. 95th percentile queue lengths are defined as queues that are only exceeded 5 percent of the time. Multiple intersections have queue lengths that exceed the available storage capacity during the AM and PM peak hour. These queues lengths spill back into adjacent intersections and contribute to congestion.

Multiple locations experience queues that exceed available storage capacity, including intersections that operate at LOS D or better. Peak hour queues along Kitsap Way are particularly long, with some over 1,000 feet long. The new roundabout at Washington Avenue/Manette Bridge is forecast to have northbound queues longer than 3,000 feet during the Year 2050 No Build PM peak hour. Similar to Existing Conditions, long queues block business driveway access, increase travel times for both GP traffic and transit, and can lead to cut-through traffic in neighborhoods.

Queue lengths are included in Appendix E.

### Travel Time

Future year travel times were calculated using a combination of existing travel times and changes to intersection delay and speeds in the traffic operations models. The Year 2050 No Build travel times for inbound traffic in the AM peak hour are shown in Figure 5-4, and the travel times for outbound traffic in the PM peak hour are shown in Figure 5-5 Figure 4-9. During the AM peak hour, GP traffic travel times range from 4 to 10 minutes, and during the PM peak hour, GP traffic travel times range from 3 to 12 minutes.

### Key Findings

The following summarizes the additional key findings of the Year 2050 No Build peak hour traffic operations analysis.

- Traffic in the City is estimated to grow by 20 percent by year 2050. Without opportunities for alternative modes of travel to driving alone, congestion will increase proportionately with the increase in traffic volumes, resulting in significant congestion throughout Bremerton.
- There are multiple locations where queues exceed available storage capacity, including intersections that operate at LOS D or better. Peak hour queues along Kitsap Way are particularly long, with some over 1,000 feet long.
- The new roundabout at Washington Avenue/Manette Bridge is forecasted to have northbound queues longer than 3,000 feet during the Year 2050 No Build PM peak hour.
- Long queues block business driveway access, increase travel times for both GP traffic and transit, and can lead to cut-through traffic in neighborhoods.
- GP traffic travel times are expected to increase by up to 40 percent in the Year 2050 No Build Condition compared to Existing Conditions.

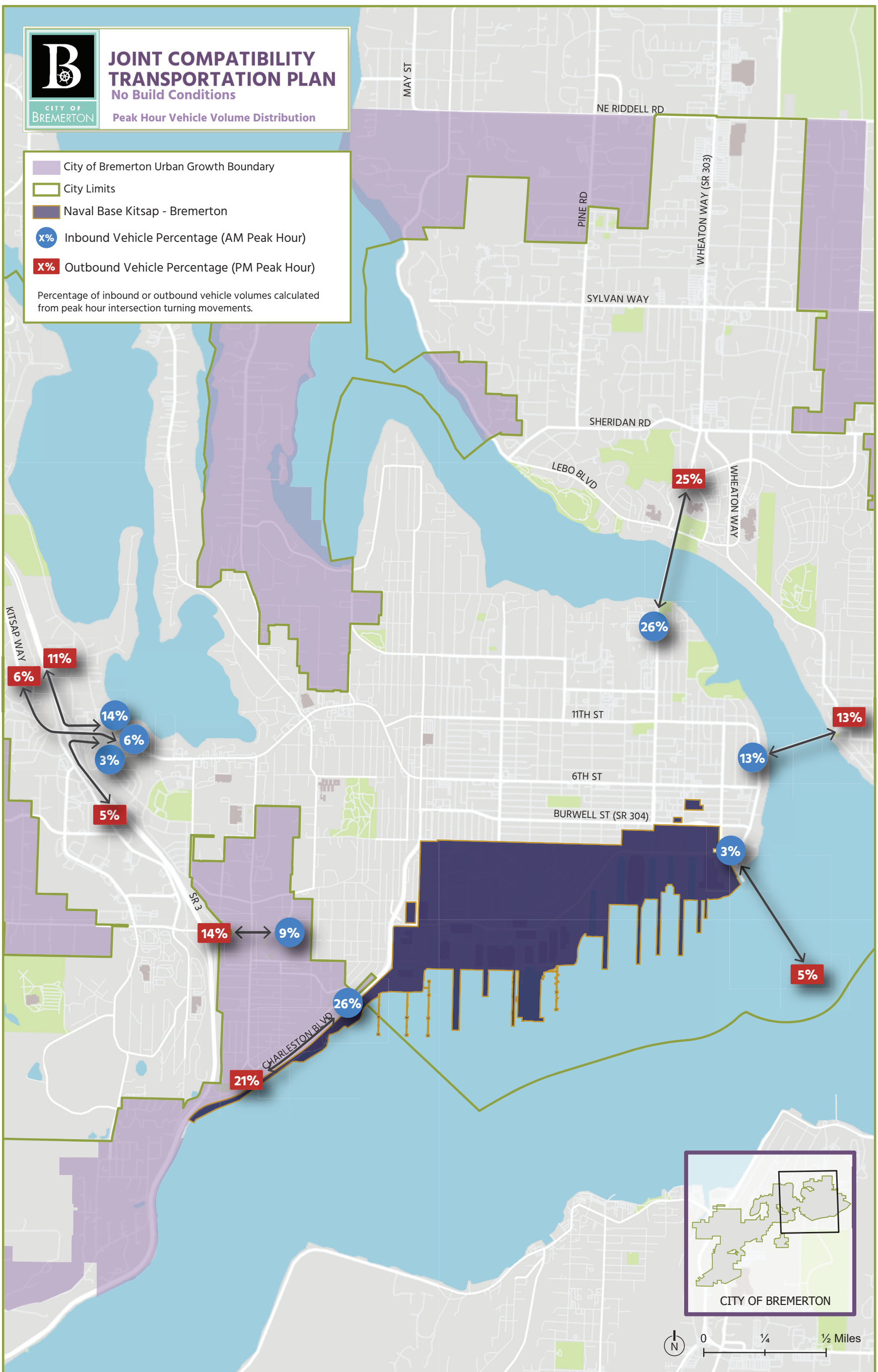


Figure 5-1. Year 2050 No Build Vehicle Volume Distribution

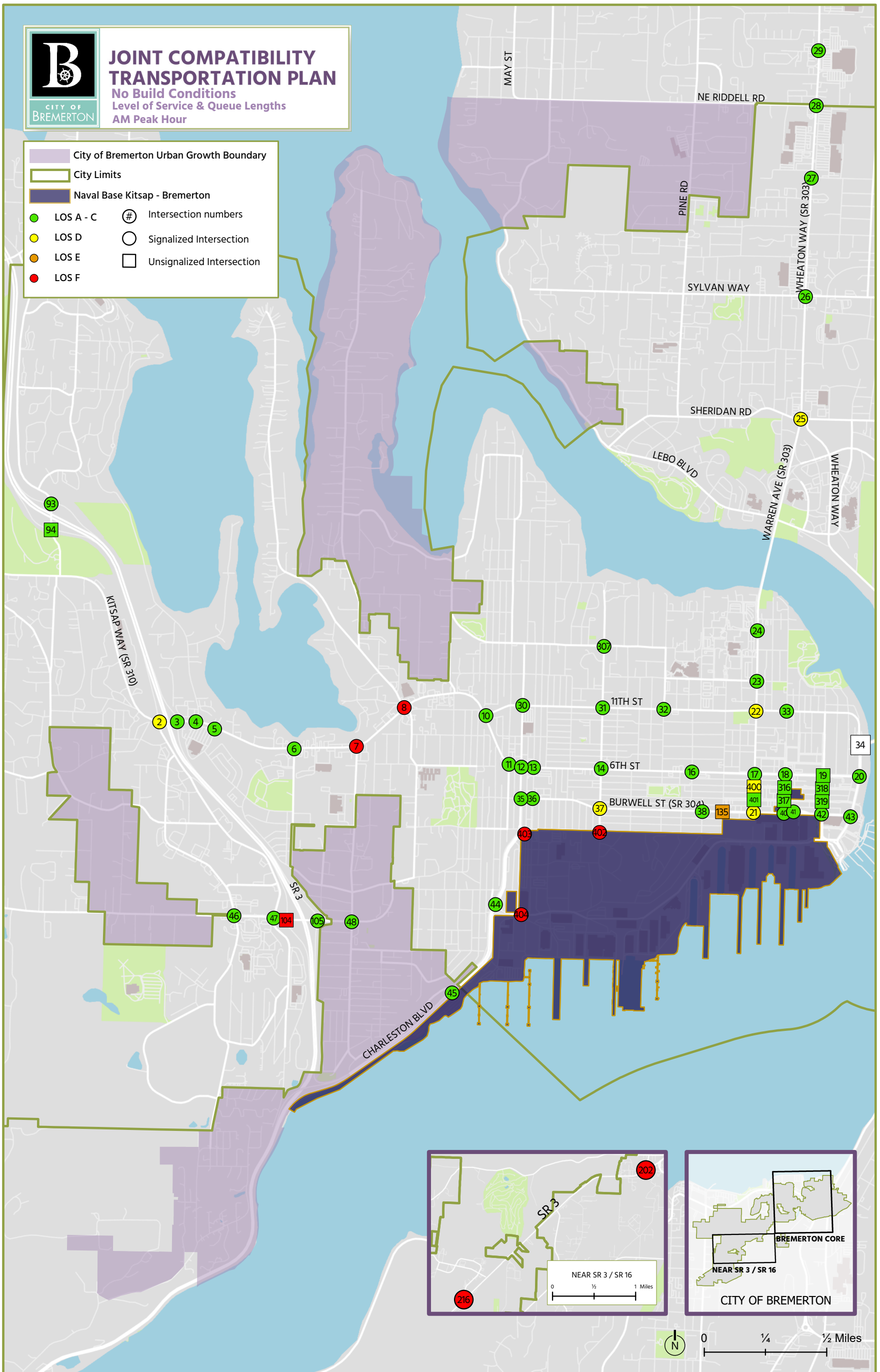


Figure 5-2. Year 2050 No Build Level of Service – AM Peak Hour

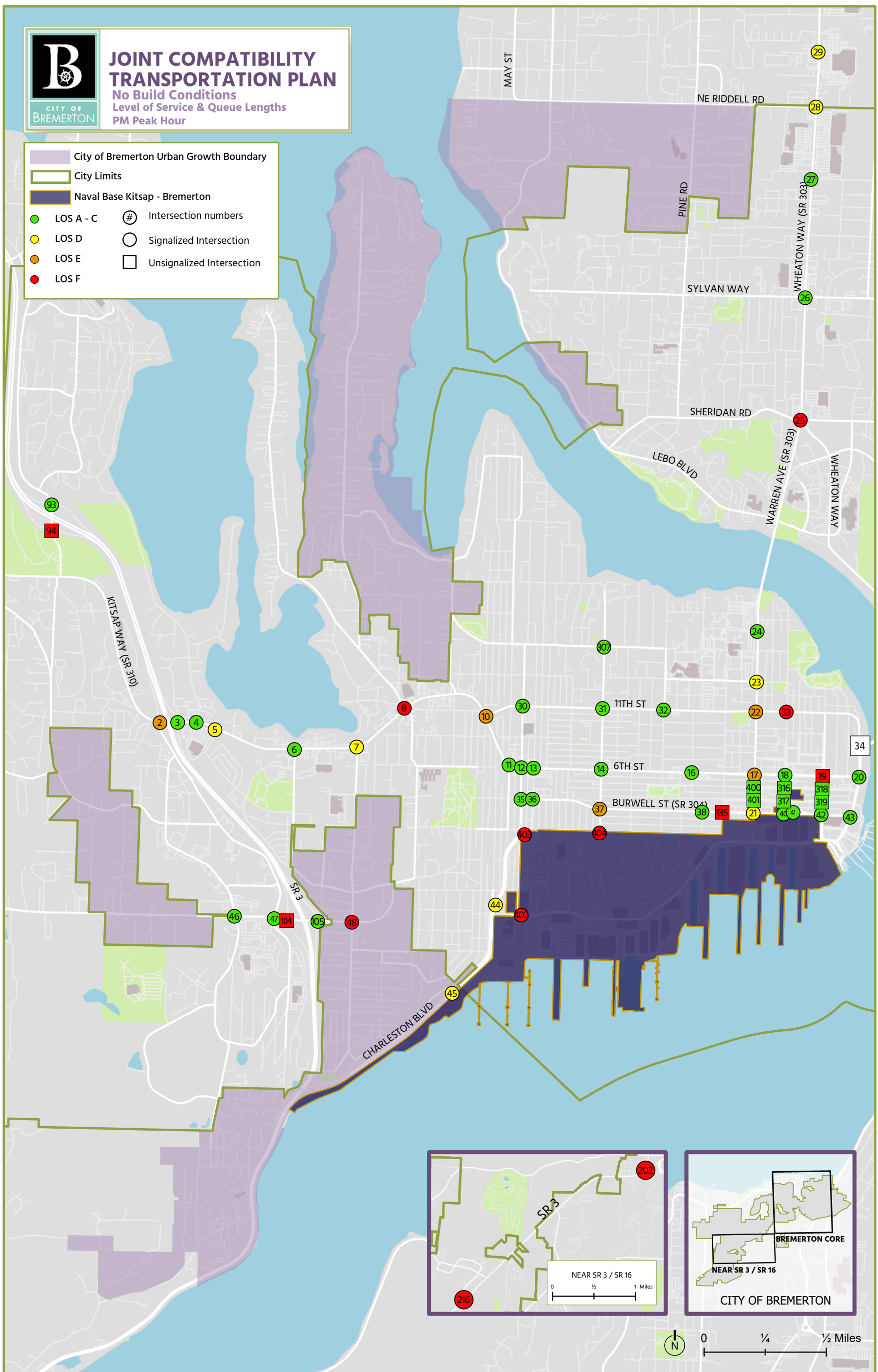


Figure 5-3. Year 2050 No Build Level of Service – PM Peak Hour

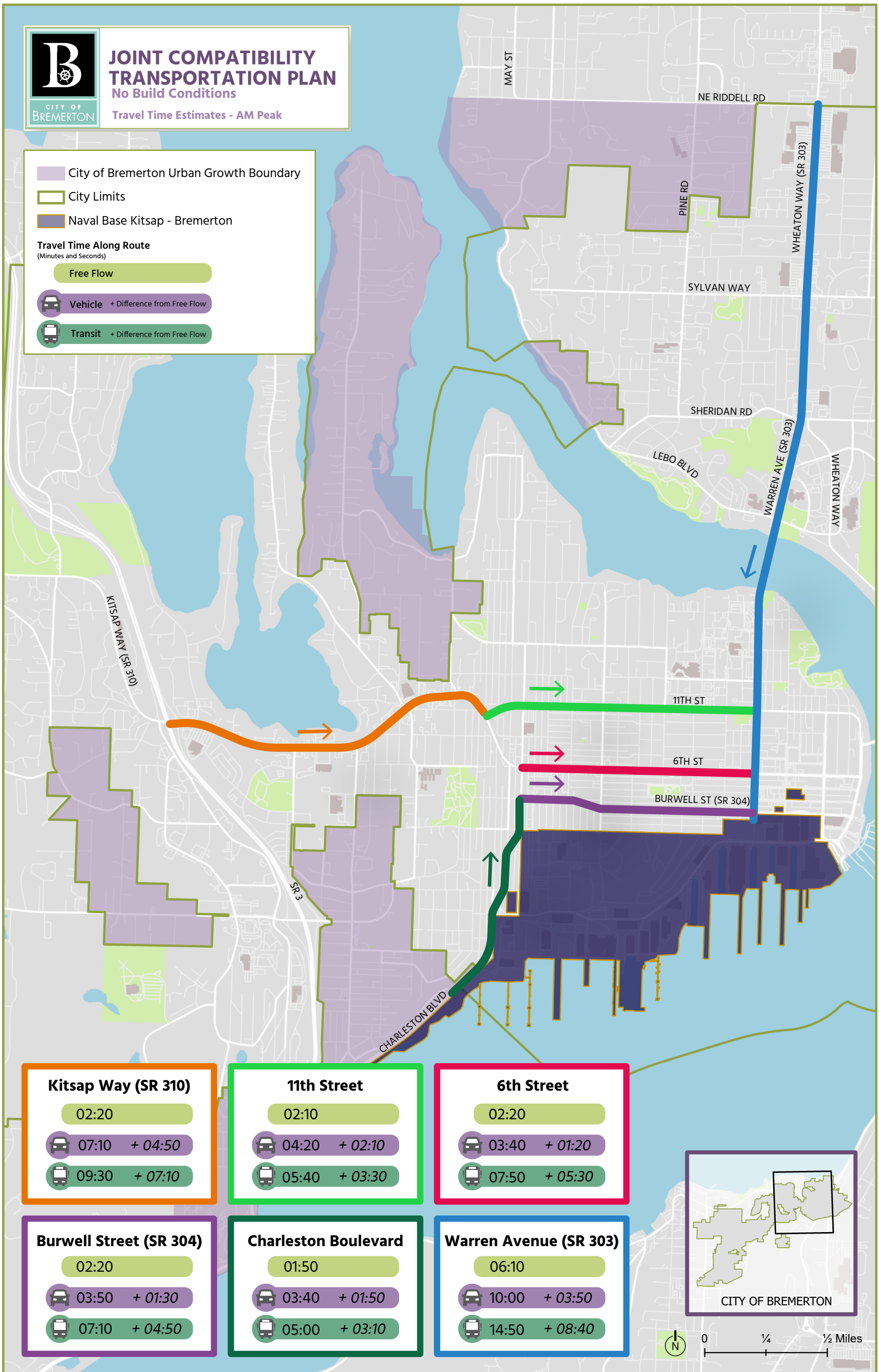


Figure 5-4. Year 2050 No Build Travel Times – AM Peak Hour

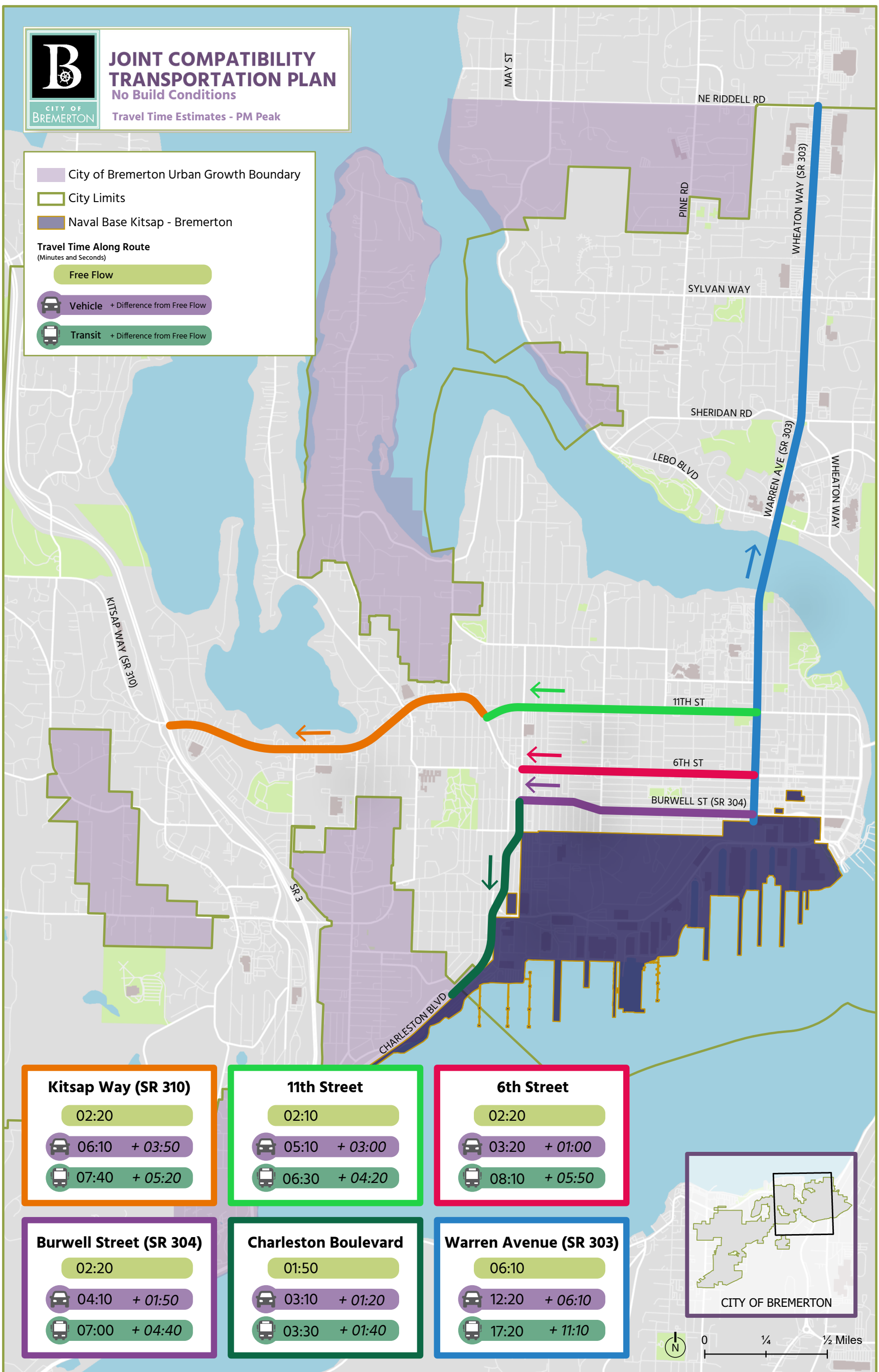


Figure 5-5. Year 2050 No Build Travel Times – PM Peak Hour

## Future No Build Transit



The Kitsap Transit Long Range Plan (Kitsap Transit 2016b) was reviewed during the Year 2050 No Build Condition analysis. The Long Range Plan was updated in 2022 (Kitsap Transit 2022) and was referenced during project development and screening.

The study team discussed potential changes to routes, route frequency, and ridership between now and the year 2050 with Kitsap Transit. Though it is too early to anticipate specific changes in routes or types of services, Kitsap Transit was able to provide these estimates for transit service in the year 2050:

- 14 hours per day of service
- 10- to 15-minute headways
- 20 percent growth in ridership from Existing Conditions

Overall traffic volumes are also expected to grow by 20 percent by year 2050, suggesting that the percentage of people who are using transit to commute to Downtown is expected to be the same in year 2050 as it is today.

The Year 2050 No Build travel times for inbound traffic in the AM peak hour are shown in Figure 5-4, and the travel times for outbound traffic in the PM peak hour are shown in Figure 5-5. Similar to Existing Conditions, transit travel times are longer than GP traffic travel times due to dwell times for unloading and loading passengers and time spent decelerating and accelerating at transit stops. Travel times between transit stops are the same as GP traffic due a lack of dedicated transit facilities, such as a BAT lane or TSP. There is no additional time for transit stops in the Year 2050 No Build Condition compared to Existing Conditions.

## Future No Build Active Transportation



The City has published plans that outline the City's vision for their active transportation facilities in the future.

The City released the Non-Motorized Transportation Plan in December 2007, which presented a vision of a fully developed bicycle/pedestrian system over the next 20 years that would serve residents, commuters, shoppers, and visitors alike. A complete bikeway and walkway network would increase connections within the community, increase the number of children walking and bicycling to school, and promote the health of Bremerton residents by making walking and bicycling safe, comfortable, and attractive travel modes.

The City released the ADA Transition Plan in March 2016, which was intended to guide the City's efforts to provide an accessible transportation system. The purpose of the ADA Transition Plan was to identify deficiencies in City policies, procedures, and physical assets and to provide a path to correction of those deficiencies. This plan also provides guidance for removal of accessibility barriers. The minimum requirement for the scope of the ADA Transition Plan is accessibility of all curb ramps and ancillary facilities (pedestrian push buttons and pedestrian signals) within the right-of-way.

## Future No Build Safety

Under the Year 2050 No Build Condition, safety conditions are likely to remain similar to or worse than Existing Conditions. Overall, background volume growth and increased congestion are likely to contribute to an increase in crashes by Year 2050. Some background projects, as included in the Methods and Assumptions Memo (Appendix D), are likely to improve safety conditions for all users.



# 6. ALTERNATIVE DEVELOPMENT AND SCREENING PROCESS



## 6. Alternative Development and Screening Process

The study team used a stepwise approach to develop alternatives for analysis and screening. After developing the list of existing and future needs, the study team outlined various improvements to specifically address the study area needs. This approach allowed the team to address agency, public, and jurisdiction needs at certain locations within the City. After the First Level Screening was complete, the team combined various improvements that had similar themes to create Build Alternatives for analysis. Those Build Alternatives were then evaluated using a quantitative approach that would allow a databased comparison of Build Alternatives as to their effectiveness at meeting the project metrics. More information about the approach is described in the following sections.

### Screening Process

A multistep screening process was used to identify, screen, evaluate, and rank potential improvements. This process included these steps, which are discussed in the sections below:

1. Develop improvements
2. Evaluate improvements through First Level Screening
3. Combine passing improvements into three Build Alternatives
4. Evaluate Build Alternatives through Second Level Screening
5. Develop a preliminary Preferred Alternative and evaluate using Second Level Screening metrics
6. Establish a Preferred Alternative

The methodology for the screening process is documented in the Screening and Evaluation Methodology Memo in Appendix H.

### Develop Improvements

The first step in the screening process was to generate improvements with the potential to address the key findings and needs identified through the Existing Conditions and Future No Build Conditions analysis. Improvements were generated based on input from previous studies, the CSB, the study team, and the public. A workshop to develop

these improvements was held in June 2021 with the project management team and key partners. The CSB was then asked to provide comments on the proposed improvements as well as additional suggestions. The proposed improvements were then divided into the following categories:

- PC: New/Expanded Parking
- C: Capacity Projects (e.g., changes in lanes, signals, intersection control)
- B: Projects on Base
- T: Transit Service/Frequency
- AT: Active Transportation
- E: Education
- PM: Parking Management/Policy
- CTR: Programs/Technologies/Incentives to Encourage Mode Shift
- O: Other

A full list of the proposed improvements is included in the First Level Screening Results in Appendix I.

### First Level Screening

#### *First Level Screening Metrics*

The First Level Screening was a mostly qualitative evaluation that measured each improvement's ability to meet the study goals. Each improvement was measured according to the following three metrics.

- Is the improvement consistent with the goals of the study? The study goal is to define solutions to improve multimodal mobility, outline parking strategies, and enhance Bremerton's livability. If the improvement would not meet the study goal or was not within the scope of the study, it was screened out.
- Is the improvement feasible? Feasibility was measured by determining whether the improvement would be reasonable based on City management support, neighborhood support, support of NBKBR operations, and cost effectiveness. If the improvement was determined to be infeasible, it was screened out.
- Has the improvement been found to be ineffective by a previous study or plan? If the

improvement had been studied as part of a previous planning effort and was determined to not provide a benefit, then the improvement was screened out.

### ***First Level Screening Results***

Each improvement was evaluated according to the three metrics described above. If the improvement passed all three metrics, then it passed the First Level Screening. Most improvements were able to be evaluated qualitatively, but a few improvements required planning-level traffic modeling to determine whether the improvement was feasible. Below is a summary of the results of the First Level Screening:

- 212 improvements were evaluated.
- 71 improvements did not meet criteria and were screened out. 38 of the 71 improvements were repeats of other improvements.
- 141 improvements met criteria and passed First Level Screening. 37 of the 141 improvements were not analyzed as part of the Second Level Screening. These improvements were identified as already being incorporated into other efforts, such as Kitsap Transit's Long Range Plan, or were similar to other improvements and therefore evaluated together. After further discussions with the CSB, it was determined the remaining improvements, such as adding additional entry points to NBK-BR, were infeasible.

Descriptions of the individual improvements as well as detailed First Level Screening results are included in Appendix I.

## **Proposed Alternatives**

### ***No Build Alternative***

The No Build Alternative represents the Future No Build Conditions for the year 2050 and serves as a baseline for the comparison of potential improvements.

### ***Build Alternatives***

The 141 improvements that passed First Level Screening were divided into three different Build Alternatives: the Support Parking Alternative, the Relocate Parking Alternative, and the Add Base Parking Alternative. Each alternative was driven by a unique vision for parking for NBK-BR commuters. The alternatives were organized around parking strategies so that the study team could understand how traffic volumes and parking patterns impacted the potential solutions.

Fifty-five improvements were aligned with all three visions and were assigned to all three Build Alternatives. Thirty-one of these improvements were specifically active transportation improvements, which are discussed separately below. The 24 non-active transportation improvements that were included in all three Build Alternatives are shown in Table 6-1.

Table 6-1. Improvements Included in All Alternatives

PROJECT CODE	PROJECT DESCRIPTION	EXPECTED BENEFITS
C1	Improve SR 3/Kitsap Way interchange: update signals or replace with roundabouts at ramp terminals	Intersection improvements would improve vehicle mobility and safety.
C26	Traffic Management Center	This improvement would improve vehicle mobility and safety by providing the City with additional flexibility to modify notification signs about closures, dynamic speed signs if used, and provide travel time information.
C27	Variable message signs	This information would improve parking by installing signs to indicate parking availability in Downtown or at new remote parking.
C29	Build projects proposed in SR 303 Corridor Study	Projects along SR 303 would improve GP and transit mobility, safety, and active transportation, which would encourage mode shift from driving alone and improve congestion in Downtown.
C35	Adaptive signal timing at all signalized intersections	Intersection improvements would improve vehicle mobility and safety.
C38	Build projects proposed in Bremerton Strategic Road Safety Plan (City of Bremerton 2022)	Improvements would improve vehicle and pedestrian and bicycle safety.
T6	More bus routes to NBK-BR	Increased transit frequency would improve transit mobility and encourage mode shift from driving alone and improve congestion in Downtown.
E1	Education/marketing campaign for Bremerton residents and NBK-BR employees about transportation options, including bicycle storage and routes, vanpools, Worker/Driver Bus program (guaranteed ride home, easy to change routes, real-time tracking app, can be used by non-NBK-BR employees), and parking options.	Improvements would encourage mode shift from driving alone and improve congestion in Downtown.
E5	Education/marketing campaign to increase number of NBK-BR employees commuting from Seattle (reverse commute)	Improvements would encourage NBK-BR employees to travel from Seattle, improving congestion in Downtown
E7	Transportation Liaison at NBK-BR to help new hires and staff find best commuter option for them	Improvements would encourage mode shift from driving alone and improve congestion in Downtown.
PM2	Revisit on-street parking management strategies, including permit programs and paid parking in Downtown	Permit-only zones would improve parking by limiting parking to only those that have a permit and would make enforcement easier.
PM3	Establish a transportation management association	A transportation management association is typically a nonprofit established as a public/private partnership with funding primarily from major employers. Funding is used to support expansion of commuter transportation options as alternatives to single-occupancy vehicles through education, programs, and incentives.
CTR1	Maintain telework options currently available to NBK-BR	Telework allows people to work from home and use the internet or phone for their meetings, which would reduce the number of people traveling to Downtown and improve congestion.
CTR3	Incentives to ride transit	Incentives like citation forgiveness for smart commuter registration and 1 month of activity would encourage mode shift from driving alone and improve congestion in Downtown.
CTR4	Reduced fare and regular bus passes. Reduced fare based on income	Reduced fare would encourage mode shift from driving alone and improve congestion in Downtown.

PROJECT CODE	PROJECT DESCRIPTION	EXPECTED BENEFITS
CTR5	Provide incentives for mode shift away from single-occupancy vehicles for residents of neighborhoods along SR 303	Incentives could include subsidized bus passes, free bus zones, or incentives such as shower facilities for bicyclists and childcare options from employers that do not provide free parking.
CTR8	Collocate worker/driver stops with origins (daycares, schools, etc.)	Improvements to transit would encourage mode shift from driving alone and improve congestion in Downtown.
CTR11	Improve technology to make the worker/driver program more efficient	Improvements to transit would encourage mode shift from driving alone and improve congestion in Downtown.
CTR12	Partner with Port Orchard to incentivize foot-ferry ridership	Improvements to transit would encourage mode shift from driving alone and improve congestion in Downtown.
O6	Better enforcement of HOV lanes	Improvements would encourage mode shift from driving alone and improve congestion in Downtown.
O9	Enforcement at at-capacity or over-capacity park and rides	Maintaining park and ride parking spaces for people using transit would encourage mode shift from driving alone and improve congestion in Downtown.
O10	Make Callow area more livable – get NBK-BR employees to live near NBK	Improving a neighborhood adjacent to NBK-BR would encourage NBK-BR employees to live next to NBK-BR and commute by walking.
O12	Keep worker/driver system map more up to date	Improvements to transit would encourage mode shift from driving alone and improve congestion in Downtown.
O16	More shelters at transit stops with lighting	Improvements to transit would encourage mode shift from driving alone and improve congestion in Downtown.

The three Build Alternatives are described below and are shown in detail in Appendix J. The proposed active transportation improvements were evaluated separately from the three Build Alternatives and are also shown in Appendix J.

### *Support Parking Alternative*

This alternative assumes the City continues to pursue population and employment growth and supports the current parking system used today. This alternative would result in higher levels of traffic coming into Downtown, which would be accompanied by roadway capacity improvements needed to accommodate that growth. The key projects included in the Support Parking Alternative are as follows:

- Capacity improvements along Kitsap Way and Burwell Street (C1, C32, C39)
- 6th Street and 11th Street Road Diets (C24)
- Expand parking at strategic locations Downtown (PC13, PC14, PC16)
- HOV lane along northbound SR 304 (C16)
- NBK-BR gate improvements to decrease queuing on City streets (B4)

### *Relocate Parking Alternative*

This alternative assumes a larger portion of commuters would use transit to access Downtown and NBKBR. This alternative includes new or expanded park and ride facilities, repurposing City parking areas to be mixed use, new parking policies, and increased parking enforcement. This alternative would result in lower levels of GP traffic coming into Downtown and would be accompanied by transit improvements and livability improvements that take advantage of the decreased traffic demand. The key projects included in the Relocate Parking Alternative are as follows:

- Park and rides to encourage mode shift to transit (PC3, PC4, PC5, PC6, PC17)
- 6th Street and 11th Street Road Diets (C24)
- NBK-BR gate improvements for better multimodal access (T22)
- Transit lane along westbound Kitsap Way (C7)
- Parking policies to discourage commuter vehicles in Downtown (PM4, PM14)

### *Add Base Parking Alternative*

This alternative assumes that all NBK-BR employees would have access to current or new parking on Base. This alternative includes expanded parking, a shuttle to transport employees from on-installation parking, and increased parking enforcement Downtown to ensure the on-installation parking would be used. This alternative would result in a change in travel patterns Downtown from current local parking to on-installation parking on the west end of NBK-BR and would be accompanied by roadway capacity improvements. Downtown surface parking owned by the City may be repurposed to mixed use development. The key projects included in the Add Base Parking Alternative are as follows:

- Parking within base gates (B7)
- NBK-BR gate improvements to add capacity (B3)
- Capacity improvements along Kitsap Way and Burwell Street (C6, C8, C10, C32)
- Base transit improvements to move people from parking areas to work areas (T17, T19)
- HOV lane along northbound SR 304 (C16)
- Parking policies to discourage parking in Downtown (PM4, PM7, PM9, PM10)

## Second Level Screening

### *Second Level Screening Metrics*

The Second Level Screening was a more quantitative analysis that measured each alternative's performance. Each alternative was measured according to the following metrics and compared to the other alternatives. For Second Level Screening, alternatives were evaluated for Year 2050.

- **Travel Times:** Alternatives were evaluated for AM and PM peak direction travel times along seven major corridors. Travel times were taken from the Synchro and Sidra models for both GP traffic and transit.
- **Travel Time Reliability:** Alternatives were evaluated for reliability of the peak direction travel times based on Federal Highway Administration travel time reliability equations.
- **Mobility:** Alternatives were evaluated for AM and PM peak direction person-hours of delay along seven major corridors. Mobility was measured by travel speed, traffic volumes, and vehicle occupancy for both GP traffic and transit.
- **Safety:** Alternatives were evaluated for number of overall crashes and serious injury and fatal crashes based on crash modification factors.
- **Active Transportation:** Alternatives were evaluated for size of walk/bike sheds, number of high quality travel choices, and improvement to bicycle level of traffic stress or pedestrian enhancement.

- **Economic Vitality:** Alternatives were evaluated for benefits to economic investment of each individual project.
- **Parking:** Alternatives were evaluated for parking utilization, parking violations in Downtown and adjacent neighborhoods, City parking revenue, City parking enforcement technology, accessibility to parking for NBK-BR workers, and impacts to the "Bremerton Shuffle."
- **Base Accessibility:** Alternatives were qualitatively evaluated for their ability to improve efficiency of entry points, walkable housing options, multimodal access, and simplicity of access.
- **Livability:** Alternatives were qualitatively evaluated for their ability to improve multimodal connectivity, parking for businesses, walkable housing options, and health (improving physical health and reducing carbon emission by providing additional options to safely use active transportation modes).





Additional information on the Second Level Screening metrics is available in the Screening and Evaluation Methodology Memo in Appendix H.

### Second Level Screening Results

The No Build Alternative and each Build Alternative were evaluated according to the performance metrics and assigned a score between -1 and 3, with -1 generally being worse than Future No Build Conditions and 3 being the largest improvement compared to Future No Build Conditions. A summary of the scoring is shown in Figure 6-1, the legend for which is shown in the right.

For Second Level Screening, each Build Alternative was evaluated as a package of improvements. It was intended that, following Second Level Screening, individual improvements that performed well according to the performance metrics could be incorporated into the Preferred Alternative, regardless of which Build Alternative it was originally assigned to.

Results of the Build Alternative analysis indicated that no one alternative showed improvements to all the metrics and two metrics were often at odds: base accessibility and livability. Projects that would improve base accessibility, such as added roadway capacity, were often incompatible with projects that would improve pedestrian and bicycle accessibility and safety. Projects that would improve livability, such as road re-channelization to accommodate bikes and pedestrians, were incompatible with projects that do not reduce vehicles coming into Bremerton.

Symbol	Score	Description
	-1	Makes conditions worse compared to Future No Build Conditions
	1	Makes no or minimal change to conditions compared to Future No Build Conditions
	2	Improves conditions compared to Future No Build Conditions
	3	Creates even greater improvement compared to Future No Build Conditions

However, several projects showed clear benefits under all Build Alternatives, including:

- Intelligent signal systems for all major commuter corridors.
- Active transportation improvements that will encourage more active transportation trips to/from work.
- Improvements proposed by the SR 303 Corridor Study.
- Safety improvements.

The Support Parking Alternative and Build Parking Alternative both included roadway capacity projects and assumed traffic volumes increase into Downtown Bremerton along with forecasted increases in future population and employment growth. The Relocate Parking Alternative included more transit and active transportation supportive projects and assumed fewer cars coming into Downtown Bremerton as growth occurs.

As shown in Figure 6-1, the Support Parking Alternative would provide the most benefit to safety while having some negative impact on surface parking and land use impacts. The Relocate Parking Alternative would provide the most benefit to safety, parking, and livability. The Add Base Parking Alternative would provide the most benefit to mobility and safety while having some negative impacts on City parking revenue.

Detailed Second Level Screening results are included in Appendix K.

Because all three Build Alternatives would provide benefits in different ways, the individual improvements were further evaluated through a cost-benefit analysis. A parking analysis was also completed to help in the development of a preliminary Preferred Alternative. These are discussed in the following sections.

Study Goal Area	Performance Measures	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative
<b>Travel Times and Reliability:</b> <i>Improve travel times to/from downtown Bremerton and make travel times to/from downtown Bremerton more predictable.</i>	Travel times (GP and transit)	↗	↗	↗
	Travel Time Reliability (GP and transit)	↗	↗	↗
	<b>Average Score</b>	↗	↗	↗
<b>Mobility:</b> <i>Increase the transportation system's ability to efficiently move all people and goods.</i>	Person hours of delay - general purpose	↗	↑	↑
	Person hours of delay - Transit	↗	→	↑
	<b>Average Score</b>	↗	↗	↑
<b>Safety:</b> <i>Improve safety and reduce serious injury and fatal crashes.</i>	Number of overall crashes	↑	↑	↑
	Number of serious injury and fatal crashes	↑	↑	↑
	<b>Average Score</b>	↑	↑	↑
<b>Active Transportation:</b> <i>Improve accessibility, connectivity and increase safe ped/bike options to decrease percent of trips made by driving alone.</i>	Number of people who can walk/bike to NBK-BR or P&Rs under low stress conditions	↗	↗	↗
	Number of high-quality travel choices in the study area	↑	↑	↑
	Safe and Comfortable Walking and Biking Options	↑	↑	↑
	<b>Average Score</b>	↗	↗	↗
<b>Parking:</b> <i>Parking system supports a vibrant, attractive and user-friendly Downtown with thriving neighborhood districts and attractive residential neighborhoods.</i>	Parking utilization	↑	↑	↑
	Parking violations	↑	↑	↑
	City parking revenue	↑	↗	↓
	City parking enforcement	↑	↑	→
	Accessibility to parking for Base workers	↑	↗	↑
	Tracking the "Bremerton Shuffle"	↑	↑	→
	Surface parking/land use impacts	↓	↑	→
	<b>Average Score</b>	↗	↑	→
<b>Base Accessibility:</b> <i>Improve Base accessibility for NBK-BR workers.</i>		↗	→	↗
<b>Livability:</b> <i>Improve overall livability for Bremerton residents.</i>		↗	↑	↗

Figure 6-1. Second Level Screening Results Summary

## Cost-Benefit Analysis

A cost-benefit analysis was completed to further evaluate the proposed roadway capacity improvements. For each improvement, a benefit cost was compared to the project cost to calculate the benefit-cost ratio. A positive benefit-cost ratio means that the benefits of the improvement outweigh the cost to implement it, while a negative benefit-cost ratio means that the project cost outweighs the benefits of the improvement. The planning-level project cost estimates for Year 2021 were created using the methodology discussed in Section 7. Benefit cost was calculated based on the following:

- Change in annual cost of person-delay: Additional travel time along each travel time corridor was converted from PM peak hour to annual by applying a daily factor for an approximate 250 working days a year. The monetized value of “all purpose” travel time savings used in this benefit-cost analysis was obtained from the 2021 USDOT Benefit-Cost Analysis Guidance for Discretionary Grant Programs.
- Change in annual cost of crashes: The change in crashes for each level of crash severity was estimated using crash modification factors. The monetized values attributed to the reduction of each crash severity were obtained from the 2021 USDOT Benefit-Cost Analysis Guidance for Discretionary Grant Programs.

Some improvements that had a negative benefit-cost ratio had a positive change in annual cost of crashes but a negative change in annual cost of person-delay. Improvements like road diets, installing medians, and installing roundabouts on high-volume roads would have a positive impact on safety while worsening traffic operations. The improvements with the highest benefit-cost ratios were projects that would have a positive impact on both safety and traffic operations with a low project cost, like adaptive signal timing and transit signal priority.

The cost-benefit analysis is available in Appendix L.

## Parking Strategy

Through Second Level Screening and the cost-benefit analysis, the following conclusions were made in relation to parking strategies:

- A single parking garage (as evaluated in the Add Base Parking Alternative) on NBK-BR to accommodate all of the NBK-BR employees who currently drive to work is not feasible.
- Building multiple off-site parking lots to accommodate all of the NBK-BR employees who currently drive to work is not desirable.
- A combination of parking strategies from all three Build Alternatives is needed to balance livability and accessibility to NBK-BR.

### *Parking Analysis*

The mode splits, origins of commuter trips, distribution of NBK-BR employees work locations within NBK-BR, and existing parking within Downtown and NBK-BR were evaluated to develop assumptions about current parking habits and future ability to relocate parking and switch modes. Based on this evaluation, it is assumed that 8,500 total NBK-BR employees currently park Downtown and walk into NBK-BR. This equates to approximately 6,300 vehicles that park outside the gate, as some employees carpool or use vanpools. Of those 8,500 employees, it is assumed that 3,630 total NBK-BR vehicles would relocate to parking lots outside of Downtown and travel into Downtown via transit or active transportation. This assumption is based on expected vehicle relocation that could occur with implementation of parking management strategies proposed as part of the Relocate Parking Alternative. The breakdown of where these 3,630 vehicles would relocate from is as follows:

- 380 vehicles from Downtown on-street parking
- 1,500 vehicles from residential on-street parking
- 1,500 vehicles from Downtown surface lots
- 250 from residential garages and lots

The existing P&R capacity and occupancy were evaluated to develop assumptions about where additional parking may be needed. Of the vehicles that would relocate to parking lots outside of Downtown, it is estimated that 45 percent are

traveling from the south via Charleston Boulevard (SR 304), 30 percent are traveling from the north via SR 303, and 25 percent are traveling from the west via Kitsap Way. Based on this estimated demand and existing occupancy at the park and rides, 1,240 stalls would be needed south of Downtown, 800 stalls would be needed north of Downtown, and 680 stalls would be needed west of Downtown.



# 7. PREFERRED ALTERNATIVE



## 7. Preferred Alternative

The preliminary Preferred Alternative was developed by processing the findings of the Second Level Screening analysis, defining a broad vision for the City, and selecting projects based on this vision and the cost-benefit analysis and parking analysis discussed in Section 6. The study team analyzed the preliminary Preferred Alternative using the same evaluation metrics as Second Level Screening then sought feedback on the preliminary Preferred Alternative from the public, the CSB, City Council, and NBK-BR before identifying a final Preferred Alternative.

### Preliminary Preferred Alternative

The study team presented the findings of the Second Level Screening analysis to City Council in June 2022. The study team shared that none of the three Build Alternatives showed improvements for all the evaluation metrics used in the analysis and that, in particular, there was tension between base accessibility and livability. Defining a vision for the City, with guidance from the City Council, was important to establish because the vision determined what recommended projects and strategies would make up the Preferred Alternative. The three Build Alternatives can be grouped into two broad visions for the City. A comparison of the two visions is shown below.

<i>LIVABILITY CENTERED VISION (ASSUMES FEWER CARS COMING INTO DOWNTOWN BREMERTON)</i>	vs.	<i>CAPACITY CENTERED VISION (ASSUMES MORE CARS COMING INTO DOWNTOWN BREMERTON)</i>
Success measured by improvements to Bremerton’s livability and economic vitality	vs.	Success measured by improvements to travel time for commuters during peak hours
Growth addressed by strategies that reduce the number of cars on the roads	vs.	Growth addressed with road capacity projects
Mode shift assumptions are more aggressive and are driven by transit and policy/operations projects	vs.	Mode shift assumptions are conservative
Requires interagency cooperation to be effective	vs.	Most improvements are capital projects led by City of Bremerton

A benefit of a capacity-centered vision would be less dependence on interagency cooperations. However, large road capacity projects are costly, disruptive, and will require more right-of-way. Additionally, roadway capacity projects can be hard to fund and may be infeasible due to environmental constraints. Parking constraints under a capacity-centered vision will remain and may worsen as growth increases density in downtown Bremerton.

Benefits of a livability-centered vision include improved walking and bicycling experiences, reduced commuter parking in neighborhoods, increased available parking for businesses, a greater likelihood of achieving mode shift goals that thereby reduce congestion and improving travel times, and finally, consistency with City plans to increase density downtown and improve economic vitality. Challenges of a livability centered vision include the need for significant coordination between agencies, and costs for building more parking (such as multilevel park and rides) could be high.

The City Council voiced strong support for a livability-centered vision for the JCTP project. Additionally, community leaders from the Community Sounding Board supported the livability centered vision. NBK-BR voiced concerns about base accessibility and asked that a livability centered vision balance accessibility needs. The study team moved forward with creating a preliminary preferred alternative based on all feedback gathered.

### ***Preliminary Preferred Alternative Analysis Results***

To ensure the preliminary Preferred Alternative would meet the study goals and provide benefits, it was analyzed according to the same performance metrics that were used in Second Level Screening. The results are summarized in Figure 7-1. The preliminary Preferred Alternative would provide the most benefit to GP and transit travel times, GP mobility, safety, parking, and livability. The preliminary Preferred Alternative would also provide some benefit to travel time reliability, active transportation, and base accessibility. Detailed Preferred Alternative analysis results are included in Appendix M.

### ***Planning-Level Cost Estimates***

Cost ranges were estimated for each capital project. These cost ranges were estimated based on preliminary design layouts and planning-level cost estimates. These cost ranges were not used in the Second Level Screening process but were developed to facilitate the development of the Preferred Alternative and support the City in their pursuit of funding to construct the Preferred Alternative at various stages. Cost estimates for each project are shown in Appendix O.

Study Goal Area	Performance Measures	Preferred Alternative
<b>Travel Times and Reliability:</b> <i>Improve travel times to/from downtown Bremerton and make travel times to/from downtown Bremerton more predictable.</i>	Travel times (GP and transit)	↑
	Travel Time Reliability (GP and transit)	↗
	<b>Average Score</b>	↗
<b>Mobility:</b> <i>Increase the transportation system's ability to efficiently move all people and goods.</i>	Person hours of delay - general purpose	↑
	Person hours of delay - Transit	→
	<b>Average Score</b>	↗
<b>Safety:</b> <i>Improve safety and reduce serious injury and fatal crashes.</i>	Number of overall crashes	↑
	Number of serious injury and fatal crashes	↑
	<b>Average Score</b>	↑
<b>Active Transportation:</b> <i>Improve accessibility, connectivity and increase safe ped/bike options to decrease percent of trips made by driving alone.</i>	Number of people who can walk/bike to NBK-BR or P&Rs under low stress conditions	↗
	Number of high-quality travel choices in the study area	↑
	Safe and Comfortable Walking and Biking Options	↑
	<b>Average Score</b>	↗
<b>Parking:</b> <i>Parking system supports a vibrant, attractive and user-friendly Downtown with thriving neighborhood districts and attractive residential neighborhoods.</i>	Parking utilization	↑
	Parking violations	↑
	City parking revenue	↗
	City parking enforcement	↑
	Accessibility to parking for Base workers	↗
	Tracking the "Bremerton Shuffle"	↑
	Surface parking/land use impacts	↑
	<b>Average Score</b>	↑
<b>Base Accessibility:</b> <i>Improve Base accessibility for NBK-BR workers.</i>		↗
<b>Livability:</b> <i>Improve overall livability for Bremerton residents.</i>		↑

Figure 7-1. Preferred Alternative Analysis Results Summary

### Feedback on Preliminary Preferred Alternative

The study team solicited input on the preliminary Preferred Alternative through several events in the fall of 2022.

#### CSB Presentation

At the presentation of the preliminary Preferred Alternative to the CSB in September 2022, the study team heard the following key feedback:

- Building more structured parking on NBK-BR will be difficult due to DOD funding constraints.
- Kitsap Transit is moving toward smaller P&Rs in mixed-use centers instead of big lots, and building new P&Rs with structured parking are not consistent with Kitsap Transit's long-range plans and goals.
- New structured parking is also not consistent with Kitsap County's land use plans.
- Housing and housing affordability may impact the project.
- More incentives are needed to increase transit and worker/driver ridership. In an effort to reduce the number of vehicle trips, increased housing density surrounding NBK-BR could be a potential strategy to promote transit, bicycle transportation, and walkability in addition to addressing housing affordability in Downtown Bremerton.
- NBK-BR is concerned about potential traffic impacts from the proposed 6th Street and Naval Avenue road diets and the existing queue spillback from the Naval gate during the morning commute.

#### Online Open House

Following the Online Open House in October 2022, the study team received feedback that was in support of the plan, especially related to pedestrian and bicycle improvements. Also, concerns about how the Shipyard Infrastructure Optimization Program (SIOP) will impact traffic in the near term were expressed.

#### Public Works Committee presentation

The study team presented on the status of the JCTP to the City Public Works Committee in October 2022. The presentation included information on key

elements of the preliminary Preferred Alternative and the feedback received from the CSB and online open house.

#### Meeting with Navy and Shipyard

Finally, prior to finalizing the Preferred Alternative, the study team met with Navy and Shipyard staff in February 2023. The key feedback from NBK-BR was that lighting upgrades are desired as part of design projects, further coordination is needed on the Jackson Park bicycle route, a flyover ramp from SR 3 southbound to Charleston Boulevard (SR 304) should be considered, and there are concerns over the 6th Street and Naval Avenue road diets.

The input collected at these four events led to the following additional analysis and refinements to the Preferred Alternative:

- Additional analysis of the existing queue spillback from the Naval gate paired with the proposed 6th Street and Naval Avenue road diets was conducted to confirm the feasibility of the road diet. The term "road diet" was also changed to "re-channelization" based on feedback from the CSB.
- It was recommended that NBK-BR review the need for a new ramp from southbound SR 3 to eastbound SR 304 (Charleston Blvd) as part of upcoming planning efforts for Bremerton Waterfront Infrastructure Improvements at PSNS and IMF.
- A new active transportation project on 1st Street between Callow Avenue and Naval Avenue was added to highlight active transportation improvements near NBK-BR.
- Several park and ride projects were revised to align with the Kitsap Transit Long Range Plan and feedback from Kitsap County about not building new structured parking.
- Language for several project descriptions was revised based on CSB and NBK-BR input.

The Preferred Alternative is shown in Figure 7-2 below and described in the next section in Table 8-1.

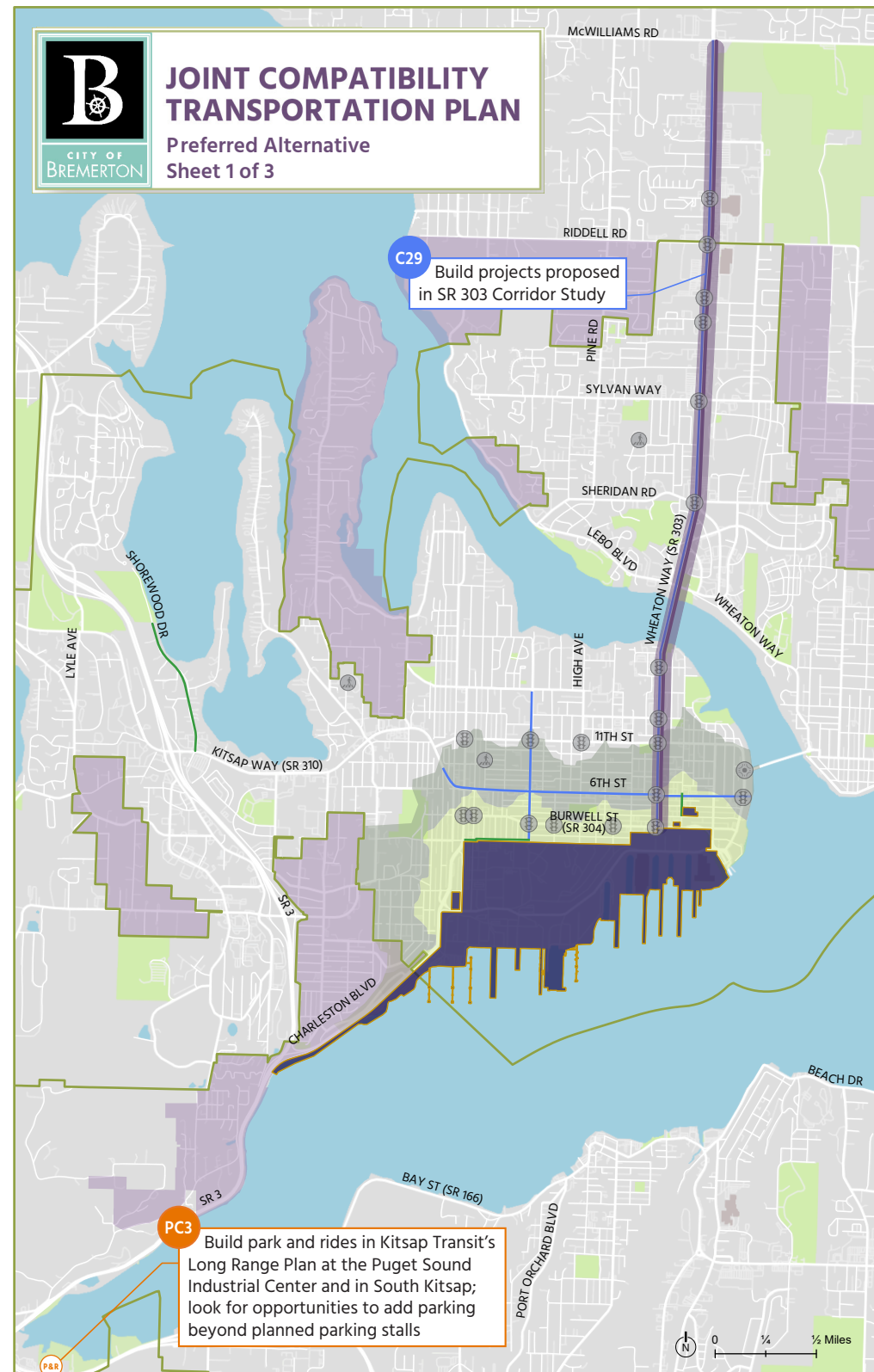
## Final Preferred Alternative

The Preferred Alternative was chosen through a collaborative process that included the public, the CSB, City Council, NBK-BR, and the study team. The final outcome is the result of an alternatives analysis approach that outlines performance-based needs and reasonable solutions that meet the needs at the right time.

The Preferred Alternative is made up of several improvements that address the study goals and the existing and future needs. The themes of the Preferred Alternative include the following:

- Build active transportation projects that facilitate modal shift for commute trips to Downtown and NBK-BR.
- Add parking in strategic locations outside Downtown.
- Develop and implement parking policies that improve and reduce NBK-BR commuter parking in Downtown and adjacent neighborhoods.
- Build transit capacity and reliability.
- Encourage mode shift using Downtown parking strategies, education, and employer incentives.
- Improve inbound capacity at NBK-BR gates to minimize local roadway congestion and improve air quality.

The Preferred Alternative is shown in Figure 7-2.



- City of Bremerton Urban Growth Boundary
- City Limits
- Naval Base Kitsap - Bremerton
- 5-Minute Walkshed
- 10-Minute Walkshed
- Active Transportation Projects in Improvement C29 (projects proposed in SR 303 study)
- NBK-BR Gates
- No Build Projects
- Roadway Improvement
- Proposed Bicycle Improvements

PC - New / Expanded Parking, C - Capacity Projects, B - Projects on Base, T - Transit Service/ Frequency, PM - Parking Management / Policy, CTR - Programs to encourage mode shift, AT - Active Transportation, O - Other

Source: City of Bremerton, Bremerton Non-Motorized Transportation Plan, USGS

ID	Description	Improvement Type

**System-Level Improvements (Not Depicted in Map Set)**

<b>C14</b>	Study need for a new off-ramp from southbound SR 3 to eastbound SR 304 as part of the Navy's planning for any future Base modifications that triggers this project	<b>PC4</b>	Build projects in Kitsap Transit's Long Range Plan that provide a reliable non-auto travel mode such as new circulator route in Bremerton, new express bus service between Tacoma and Bremerton, high capacity transit on SR 303, new on-demand ride zones in Bremerton, multimodal hubs, and additional park and ride lots.
<b>C26</b>	Traffic Management Center that includes IT infrastructure to support adaptive signals (e.g. Cloud based technology)	<b>AT5</b>	Within the 10-minute walksheds of base gates, upgrade and/or add sidewalks; upgrade marked and unmarked crossings to be ADA compliant.
<b>C31</b>	Pedestrian/bike improvements within 5 minute walkshed of park and rides or transit hubs	<b>AT14</b>	Support planning efforts for SR 3 in Gorst
<b>C35</b>	Adaptive signal timing at 19 signalized intersections along Kitsap Way, 6th St, and 11th St	<b>PM2</b>	Implement permit only parking in residential neighborhoods adjacent to and surrounding NBK-BR
<b>C38</b>	Support Burwell Street adaptive signal system (project part of 2022 Strategic Road Safety Plan)	<b>PM3</b>	Establish a transportation management association. This is typically a non-profit established as a public/private partnership with funding primarily from major employers. Funding is used to support expansion of commuter transportation options as alternatives to single-occupancy vehicles through education, programs, and incentives.
<b>T6</b>	More bus routes and greater frequency (10-15 minute headways) to NBK-BR	<b>CTR1</b>	Maintain telework options currently available to Base
<b>T8</b>	Shuttle service between Park & Rides and downtown Bremerton (regular bus route with high frequency)		
<b>CTR3</b>	Improve NBK-BR/Kitsap Transit Worker Driver Bus program by making changes to reimbursement process and easing use requirements		
<b>CTR4</b>	Reduced fare and regular bus passes. Reduced fare based on income		
<b>CTR11</b>	Improve technology to make the NBK-BR/Kitsap Transit Worker Driver Bus program more efficient		
<b>CTR12</b>	Study increased foot-ferry capacity between Bremerton and Port Orchard to align with Kitsap Transit's Long Range Transit Plan		
<b>O6</b>	Better enforcement of HOV lanes		

Figure 7-2. Preferred Alternative

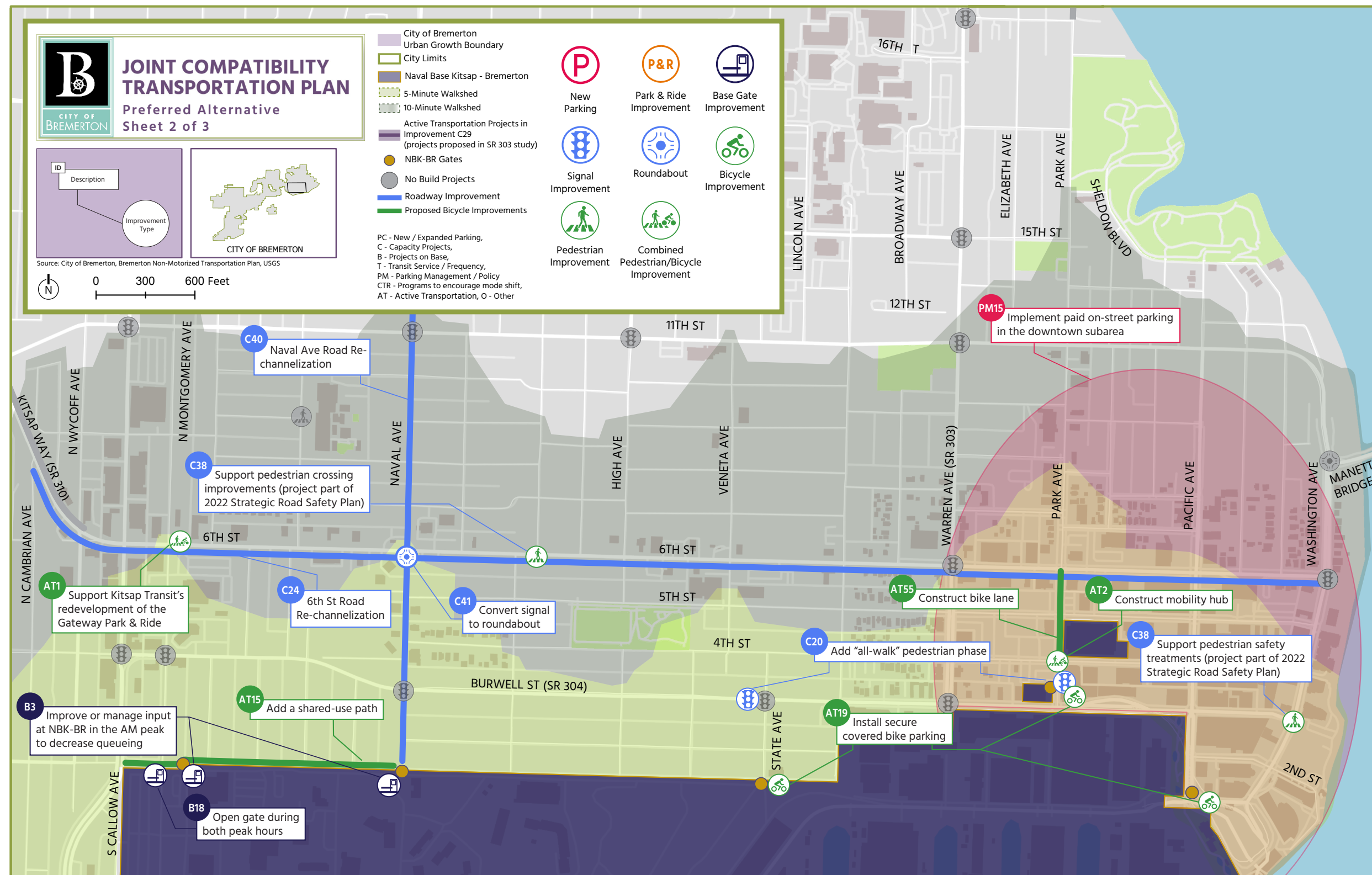
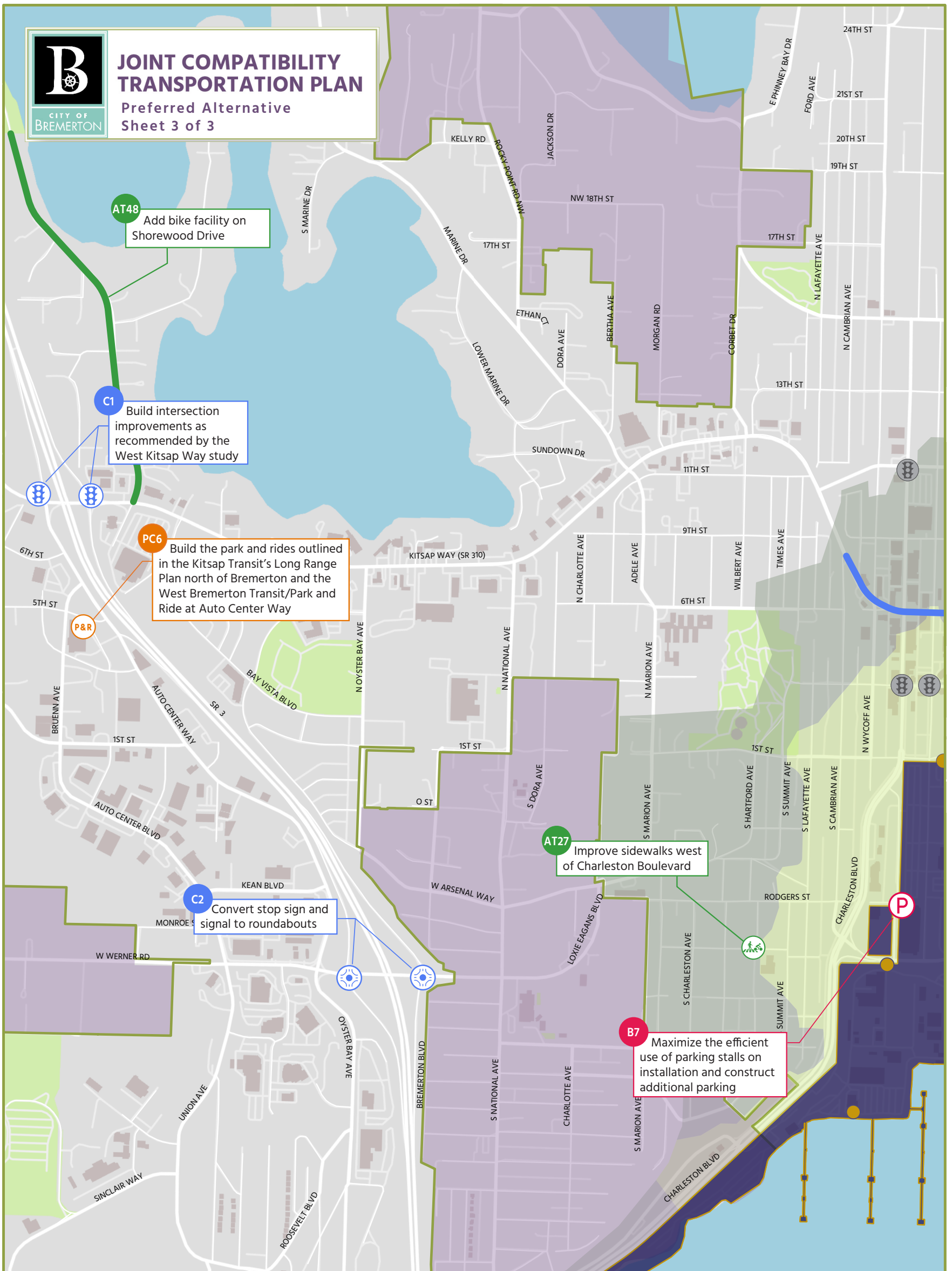


Figure 7-2. Preferred Alternative (continued)



<ul style="list-style-type: none"> <li> City of Bremerton Urban Growth Boundary</li> <li> City Limits</li> <li> Naval Base Kitsap - Bremerton</li> <li> 5-Minute Walkshed</li> <li> 10-Minute Walkshed</li> <li> Active Transportation Projects in Improvement C29 (projects proposed in SR 303 study)</li> <li> NBK-BR Gates</li> <li> No Build Projects</li> <li> Roadway Improvement</li> <li> Proposed Bicycle Improvements</li> </ul>	<ul style="list-style-type: none"> <li> New Parking</li> <li> Park &amp; Ride Improvement</li> <li> Base Gate Improvement</li> <li> Signal Improvement</li> <li> Roundabout</li> <li> Pedestrian Improvement</li> <li> Bicycle Improvement</li> <li> Combined Pedestrian/Bicycle Improvement</li> </ul>	<table border="1"> <thead> <tr> <th>ID</th> <th>Description</th> <th>Improvement Type</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	ID	Description	Improvement Type				<p>CITY OF BREMERTON</p>
ID	Description	Improvement Type							

PC - New / Expanded Parking, C - Capacity Projects, B - Projects on Base, T - Transit Service / Frequency, PM - Parking Management / Policy, CTR - Programs to encourage mode shift, AT - Active Transportation, O - Other

0 0.1 0.2 Miles

Source: City of Bremerton, Bremerton Non-Motorized Transportation Plan, USGS

Figure 7-2. Preferred Alternative (continued)

### ***Ongoing and Early Actions***

The projects identified in the Preferred Alternative will follow and build upon projects that are already underway and should continue. These projects include the following:

- Education for the general public and NBK-BR on the non-auto commuting options available, including vanpool, carpool, transit, Worker/Driver Bus program, and active transportation.
- Maintain and improve management of incoming traffic at the NBK-BR gates, including additional officers to check credentials.
- Maintain and expand teleworking options for NBK-BR and other employees commuting to Downtown Bremerton.
- Implementation of recommendations from the City of Bremerton Parking Study (City of Bremerton 2017), including prioritizing certain parking areas, discouraging the “Bremerton Shuffle,” and increasing enforcement.
- Improve street lighting in Downtown Bremerton to provide a more comfortable environment for active transportation users.
- Increase density in Downtown Bremerton through land use changes.

### ***Recommended Parking Policies***

The City of Bremerton Parking Study (City of Bremerton 2017) and this study identified the need for the City to actively manage parking Downtown to meet the City goals and vision of increased livability in Downtown. The City should focus on enforcement and management of the parking system, including increasing options for drivers to switch to other modes, such as walking, biking, or transit as they travel to and from Downtown. In addition, updates are recommended for some of the current City parking regulations contained in the Bremerton Municipal Code (BMC).

The recommended parking policies are described below. More information on the projects, including implementation steps, is included in the project one-pagers in Appendix O.

### ***Implement permit-only parking in residential neighborhoods adjacent to and surrounding NBK-BR (PM2)***

Bremerton currently maintains a residential permit parking program in neighborhoods near Downtown that have a high demand for commuter parking. Permits are available to residents at no cost, and parking for non-permit holders is typically restricted to 2 hours, although time limits vary. The regulations for the permit parking program are contained in BMC 10.10.040. Enforcement has improved significantly in recent years due to technology investments by the City, but it remains challenging, and commuter parking impacts still exist and, in some cases, have shifted to other parts of the City. Permit only zones would limit parking to only those who have a residential permit and their guests and would make enforcement easier because it would not require verifying compliance with time limits. Permit only zones are currently authorized by BMC 10.10.040(e) but may not be authorized by petition. Permit only zones may only be created, deleted, or modified by the City Council. The parking code should be modified to allow for permit-only zones by petition and require input from the neighborhood residents regarding the desirability of a permit-only zone prior to enactment.

Nonresidential zone permits limit parking to only permit holders and, in some cases, short-term parking by non-permit holders. Nonresidential zones are typically in areas that are primarily business oriented. Nonresidential permit zones are authorized in BMC 10.10.30 and may be established by the Director of Public Works following a finding that the “change is in the best interest of the community and will improve the health, safety, and welfare of the community” or by the City Council. The current code lacks details about the conditions that would warrant the establishment of a nonresidential zone or the type of nonresidential zone where permits may be appropriate. The City should specifically prohibit nonresidential zones in the Downtown subarea, where customer and visitor access should be prioritized so that long-term parking by employees, commuters, and businesses occurs elsewhere, such as in off-street facilities. Time limits and/or paid parking are better solutions in commercial areas to

restrict commuter parking unless there is a need and desire for employees to park on the street for longer periods of time (e.g., 4 hours or more).

***Establish a transportation management association (PM3)***

A transportation management association (TMA) is typically a collaborative effort among some combination of cities, public agencies, major institutions, and major employers to collectively address transportation issues in a localized area. TMAs can also be primarily employer driven, either by a single major employer or a group of employers. TMAs are listed in the BMC in the CTR regulations in BMC 10.20, but there is not much detail on how TMAs are encouraged as a CTR strategy. Compared to other parking strategies, the establishment of a TMA will require a higher level of coordination and interest from organizations outside of the City. TMAs are often nonprofits that are controlled by their members and function as public-private partnerships. TMAs provide transportation demand management services within their boundary and can provide a wide range of services, such as marketing, commuter incentives, parking management, transit enhancements, and micromobility. Once established, TMAs can generate revenue beyond member contributions and through their programs.

***Implement paid on-street parking in the Downtown subarea (PM15)***

Downtown Bremerton has been impacted by commuter parking for many years. Downtown Bremerton has many assets, including local retail and restaurants, a connection to the waterfront, residences, cultural uses, and parks and open spaces. Access to Downtown and, in particular, use of on-street parking should be prioritized for customers and visitors, with longer-term parking, such as for employees and residents, occurring off-street. To minimize the impacts of long-term parking and enhance access to Downtown for customers and visitors, the City should move forward with paid on-street parking using an asset-lite strategy, mobile payment, and demand-based pricing.

Modern technology, such as mobile payment, has revolutionized the parking industry and allows cities to implement paid parking at relatively minimal cost and without the use of expensive hardware. Mobile payment companies will provide the up-front technology, setup, and parking signs to the City at relatively little cost. The City is typically responsible for installing the signage through the Public Works Department. A license plate-based payment system will allow for integration with the City's existing enforcement technology and the use of license plate readers for real-time enforcement against violations (i.e., it does not require virtual chalking). The mobile payment systems also provide other ways to pay, such as calling an 800 number, using a website, or paying at a local business if they do not have a mobile phone. The City could consider installing a few parking kiosks for payments, but it is likely not necessary if partnerships with local businesses can be developed.

The parking technology system allows for integration and management of the City’s permit programs for both on- and off-street parking as well as the collection of routine parking data to inform pricing. The City should implement a demand-based pricing program that varies rates by periods of demand. Demand-based pricing can vary by season, monthly, daily, or hourly. Under demand-based pricing, rates are set higher at periods of peak demand and lower or potentially free at times of low demand. Rates can be preprogrammed to adjust and can easily be modified over time as demand changes. Rates are ultimately set to manage parking demand and ensure access to Downtown and not to achieve a certain revenue target. Demand-based pricing gives parking users options for when they choose to travel to Downtown, such as to take advantage of free parking or, at high-demand times, to be able to find parking at a reasonable cost.

Parking revenue generated should first pay for management and maintenance of the parking system. However, if revenues exceed the management and maintenance costs, the City should consider investing the revenue back into the Downtown. This strategy is known as a parking benefit district and can significantly improve the Downtown, such as supporting capital projects, marketing, the maintenance of streets and public spaces, lighting, and public art. Parking benefit districts can transform downtowns by providing a consistent revenue stream for improvements and maintenance while creating visible benefits from parking management.

### ***Other Considerations***

Per the Coordination with Military Installations section of VISION 2050 (PSRC 2020), “while military installations are not subject to local, regional, or state plans and regulations, PSRC recognizes the relationship between regional growth patterns and military installations, and the importance of military employment and personnel in all aspects of regional planning.” In an effort to reduce the number of vehicle trips, the JCTP effort has identified increased housing density surrounding NBK-BR as a potential strategy to promote transit, bicycle transportation, and walkability. Future

transit, bicycle, and pedestrian improvements should be prioritized in areas that provide linkages between high-density housing in Bremerton and NBK-BR access points. With the 2024 Comprehensive Plan update, when evaluating how to achieve population growth targets identified in VISION 2050 (PSRC 2020), the City should consider strategies to increase housing density in areas surrounding NBK-BR. Further coordination with NBK-BR and local stakeholders should take place at that time to ensure any such proposal is consistent with City planning policies, NBK-BR security objectives, Kitsap Transit services, neighborhood compatibility, and outcomes identified in the JCTP.

There is a parking garage in Downtown located at 4th Street and Park Avenue that has approximately 960 parking stalls dedicated to NBK-BR civilians. Zoning in Downtown allows this exclusive use of the parking garage by NBK-BR. While this plan does not recommend new publicly owned parking structures in Downtown it does not preclude a private structure where zoning allows such.

The DOD is in the process of completing the SIOP for PSNS. SIOP’s mission is “to execute the Navy’s once-in-a-century investment to reconfigure, modernize and optimize our four aging Naval Shipyards into new modern facilities that will serve this Nation into the future.” The Navy’s four public shipyards, which include PSNS, “need substantial recapitalization and reconfiguration in order to improve the timely return of ships and submarines back to the fleet following maintenance and modernization” (NAVSEA 2023). As part of SIOP, the Navy is currently preparing an Environmental Impact Statement (EIS) to evaluate the potential environmental impacts of constructing a new dry dock and associated waterfront infrastructure improvements at PSNS & IMF (see Section 9.3)

Per PSRC MultiCounty Planning Policy (MPP-T-19), the City must design transportation programs and projects to support the Downtown Regional Growth Center and High-Capacity Transit Station Areas. This includes areas within 1/2 mile of the ferry terminal property, and within 1/4 mile of future High-Capacity Transit Station Areas (specific sites Downtown TBD).



# 8. IMPLEMENTATION PLAN



## 8. Implementation Plan

The Preferred Alternative includes a mix of capital projects and policy-based projects that address existing and future needs related to GP traffic, transit, active transportation, and parking. These projects were evaluated to determine the project phasing and implementation order. The Preferred Alternative improvements were first divided into groups based on the type of project (capital or policy-based) and the agency that has the ownership or ability to lead the project. These groups include the following:

- City of Bremerton capital projects (CC)
- City of Bremerton policy projects (CP)
- NBK-BR capital projects (BC)
- NBK-BR policy projects (BP)
- Kitsap Transit capital projects (KC)
- Kitsap Transit policy projects (KP)
- Washington State capital projects (WC)
- Washington State policy projects (WP)

Each project was scored based on the following four criteria. For each criterion, a score of 1, 2, or 3 was assigned. These scores were added up for a maximum score of 12. The criteria are described below.

- **City Goals:** This criterion assessed how well the project met the City's goals for improving livability in Bremerton and improving accessibility to NBK-BR. A score of 3 was assigned to projects that would improve both Livability and Base Accessibility, a score of 2 was assigned to projects that would only improve Livability, and a score of 1 was assigned to projects that would only improve Base Accessibility. To be consistent with the City's overall vision of the Preferred Alternative being "Livability Centered" versus "Capacity Centered," a higher score was given to projects within the Preferred Alternative that will improve livability.
- **Cost Level:** This criterion assessed the cost level of the project. These cost levels were estimated based on preliminary design layouts and planning-level cost estimates. A score of 3 was assigned to a project that would be a low cost (less than \$500,000), a score of 2 was assigned to

a project that would be medium cost (between \$500,000 and \$5 million), and a score of 1 was assigned to a project that would be high cost (greater than \$5 million).

- **Ease of Implementation:** This criterion assessed how difficult it would be to construct the project based on limitations such as other City project timelines and acquiring right-of-way. A score of 3 was assigned to projects that could be implemented within 6 years, a score of 2 was assigned to projects that could be implemented in 6 to 20 years, and a score of 1 was assigned to projects that could be implemented in 20 to 30 years. Six years correlates to the timeline for the City TIP, and 20 years correlates to the to the timeline for the City Comprehensive Plan. The horizon year for this planning study is 30 years.
- **Funding:** This criterion assessed how easily funding would be acquired. A score of 3 was assigned to projects for which funding is already available, a score of 2 was assigned to projects for which funding sources could be identified and easily secured, and a score of 1 was assigned to projects for which funding sources could not be easily identified.

The total scores assigned to each project were used as a baseline for grouping projects into phases. Early phases include projects that will provide much-needed benefits at lower costs, such as signal timing changes, or projects that can be easily implemented because they are "shovel ready," such as the Naval Avenue re-channelization.

These projects were prioritized based on how well the project met the study goals, the estimated cost level, the ease of implementation, and potential funding. The horizon year for the JCTP traffic analysis was 2050. The Preferred Alternative project phases are not scheduled for specific years, but it is anticipated that all projects will be constructed over the next 30 years. The proposed project phases for this study are suggestions and may be updated as the projects move towards design and implementation stages. Additionally, the order of the project phases may be altered during coordination with other jurisdictions, as conditions change in

the study area, or as new funding sources become available. A summary of the proposed project phasing is shown in Table 8-1 and the phasing matrix is available in Appendix N.

The proposed project phases are also documented in project one-pagers that provide detailed information on the included improvements, benefits, issues, risks, and estimated cost ranges. The project one-pagers are included in Appendix O. The table is organized by project time frame and owner, with the projects listed in order of priority for completion for each owner. This does not represent an exact timeline for implementation because each project will be dependent on many other actions, including funding and permitting, and some might require additional analysis, design, and environmental review. Because there are four different owners included in this Preferred Alternative, continued coordination and collaboration between the agencies will be necessary for successful delivery of the Preferred Alternative.

Table 8-1. Preferred Alternative Project Phasing

PHASE	PROJECT ID <sup>1</sup>	PROJECT DESCRIPTION	OWNER AGENCY
Short-Term Projects (0 to 6 years)			
CC-1	C40	Naval Ave Road Re-channelization – revises lane configuration on Naval Ave to include a 2-way center turn lane and bike lanes	City of Bremerton
CC-2	C24	6th St Road Re-channelization – revises lane configuration on 6th St to include a 2-way center turn lane and bike lanes	City of Bremerton
CC-3	AT15	Add a shared-use path on south side of 1st St between Naval Ave and Callow Ave	City of Bremerton
CC-4	AT5	Within the 10-minute walksheds of base gates, upgrade and/or add sidewalks; upgrade marked and unmarked crossings to be ADA compliant	City of Bremerton
CC-5	C20	Change signal timing to include all-way pedestrian phase at State St/Burwell St, Park Ave/Burwell St, and Pacific Ave/Burwell St intersections	City of Bremerton
CC-5	C35	Adaptive signal timing at 19 signalized intersections along Kitsap Way, 6th St, and 11th St	City of Bremerton
CC-6	C38	Build projects proposed in Bremerton Strategic Road Safety Plan (City of Bremerton 2022). Includes adaptive signal timing along Burwell St and pedestrian crossing treatments at 6th St/Hewitt Ave and Burwell St/Washington Ave	City of Bremerton
CC-7	AT48	Add bicycle facilities on Shorewood Dr to connect to Kitsap Way and to downtown Bremerton. Navy should consider improving path from Grays Harbor Court to Shorewood Dr to provide connection for Jackson Park to City facilities	City of Bremerton
CC-8	C31	Pedestrian/bicycle improvements within 5-minute walkshed of park and rides or transit hubs (existing and proposed)	City of Bremerton
CC-9	AT27	Improve the sidewalk conditions in the neighborhood west of Charleston Blvd	City of Bremerton
CP-1	AT1	Support Kitsap Transit’s redevelopment of the Gateway Park and Ride property located at 6th St and Montgomery Ave in a manner consistent with the Comprehensive Plan, Zoning Code, and Charleston Area-wide Planning Study	City of Bremerton
BC-1	AT19	Install secure covered bicycle parking inside NBK-BR, PSNS, and outside gates	NBK-BR
BC-2	B3	Improve or manage vehicle input at NBK-BR gates in the AM peak to decrease queuing on City streets	NBK-BR
BC-3	B18	Allow input at Montgomery gate during AM peak hours and allow output during PM peak hours	NBK-BR
BC-4	C14	Study the need for a new off-ramp from southbound SR 3 to eastbound SR 304 as part of the Navy’s planning for any future NBK-BR modifications that triggers this project	NBK-BR
BP-1	CTR1	Maintain telework options currently available to DOD employees	NBK-BR
BP-2	CTR3	Improve NBK-BR/Kitsap Transit Worker/Driver Bus program by making changes to improve reimbursement process that ease use requirements	NBK-BR
KP-1	CTR11	Improve NBK-BR/Kitsap Transit Worker/Driver Bus program by using technology and active management to optimize routes and by adding “late” routes and/or alternative shift routes	Kitsap Transit
KP-2	CTR12	Study increased foot-ferry capacity between Bremerton and Port Orchard to align with the Kitsap Transit Long Range Plan	Kitsap Transit
KP-3	CTR4	Reduced fare and regular bus passes. Reduced fare based on income	Kitsap Transit
WP-1	O6	Better enforcement of HOV lanes	Washington State Patrol
WP-2	AT14	Support planning efforts for SR 3 in Gorst	Washington State Patrol
Mid-Term Projects (6 to 20 years)			
CC-10	AT2	Construct a mobility hub at the southwest corner of Park Ave and 4th St for first/last mile connections	City of Bremerton
CC-10	AT55	Construct bike lanes on Park Ave from 4th St to 6th St	City of Bremerton

PHASE	PROJECT ID <sup>1</sup>	PROJECT DESCRIPTION	OWNER AGENCY
CC-11	C26	Traffic Management Center that includes IT infrastructure to support adaptive signals (e.g., cloud-based technology)	City of Bremerton
CC-12	C41	Convert signal at Naval Ave/6th St to a roundabout	City of Bremerton
CP-2	PM15	Implement paid on-street parking in the downtown subarea	City of Bremerton
CP-3	PM2	Implement permit-only parking in residential neighborhoods adjacent to and surrounding NBK-BR	City of Bremerton
KC-1	PC6	Build the park and rides, outlined in the Kitsap Transit Long Range Plan, including the Silverdale Park and Ride north of Bremerton and the West Bremerton Transit Center/ Park and Ride at Auto Center Way	Kitsap Transit
KC-2	PC4	Build projects in the Kitsap Transit Long Range Plan that provide a reliable non-auto travel mode, such as new circulator route in Bremerton, new express bus service between Tacoma and Bremerton, high-capacity transit on SR 303, new on-demand ride zones in Bremerton, multimodal hubs, and additional park and ride lots	Kitsap Transit
KC-3	PC3	Build park and rides in the Kitsap Transit Long Range Plan at the Puget Sound Industrial Center and in South Kitsap; look for opportunities to add parking beyond planned 520 parking stalls	City of Bremerton
KP-4	T8	Shuttle service between park and rides and downtown Bremerton (regular bus route with high frequency)	Kitsap Transit
KP-5	T6	More bus routes and greater frequency (10–15 minute headways) to NBK-BR, including early morning and late evening routes	Kitsap Transit
KP-6	PM3	Establish a transportation management association. This is typically a nonprofit established as a public-private partnership with funding primarily from major employers. Funding is used to support expansion of commuter transportation options as alternatives to single-occupancy vehicles through education, programs, and incentives.	Kitsap Transit
WC-1	C1	Build intersection improvements at SR 3/Kitsap Way as recommended by the West Kitsap Way study	WSDOT
WC-2	C2	Convert stop sign and signals at SR 3/W Loxie Eagans Blvd interchange to roundabouts	WSDOT
Long-Term Projects (20+ years)			
CC-13	C29	Build projects proposed in SR 303 Corridor Study (City of Bremerton 2021)	City of Bremerton
BC-5	B7	Maximize the efficient use of parking stalls on NBK-BR installation and construct additional parking	NBK-BR

<sup>1</sup> PC - New/Expanded Parking, C - Capacity Projects, B: Projects on Base, T - Transit Service/Frequency, AT - Active Transportation, PM - Parking Management/Policy, CTR - Programs/Technologies/Incentives to Encourage Mode Shift, O - Other

## Potential Funding

The projects identified in the Preferred Alternative will require funding. There are multiple funding options available, depending on the type of project. Table 8-2 includes list of potential funding sources for JCTP projects.

Table 8-2. Potential Funding Sources for JCTP Projects

GRANT SOURCE	PROJECT ELIGIBILITY
Rebuild America Infrastructure with Sustainability and Equity Grants	Many types including road projects and public transportation projects
Safe Streets and Roads for All – Implementation Grants	Projects identified in a Safety Action Plan to address roadway safety problems
Transportation Alternatives Program	Community-based transportation improvements, such as bicycle and pedestrian facilities
PSRC Regional and Kitsap Countywide Competitive grants	Projects that support development of centers and the transportation corridors that serve them
Surface Transportation Block Grant Program	Variety of transportation projects and programs, including roadways, bridges, pedestrian and bicycle infrastructure, transit and other investments
Highway Safety Improvement Program	Projects that reduce fatal and serious injury crashes, following Washington state's Strategic Highway Safety Plan and the City's local road safety plan.
WSDOT's Safe Routes to School and Pedestrian/Bicyclist programs	Projects for bicycle facilities, pedestrian facilities, crossing improvements for people who walk and bicycle, speed management, and education and encouragement about walking and bicycling.
Defense Access Roads program, jointly administered by DOD's Military Surface Deployment and Distribution Command Transportation Engineering Agency and the Federal Highway Administration	Defense Access Roads program allows the Secretary of Transportation to provide for the construction and maintenance of roads that give access to military installations and other defense-related properties and for the replacement of highways that are closed to the public due to closures or restrictions at military installations and defense industry sites. It is the only federal mechanism that allows for the military to fund improvements to roads outside of an installation.
DOD's Defense Community Infrastructure Pilot Program	Infrastructure projects located on a military installation; projects must support military installations, be owned by state or local government, be endorsed by local installation commander, and be construction-ready.
Washington State's Defense Community Compatibility Account	Projects that promote land use compatibility between communities and military installations, such as projects that improve or enhance aspects of the local economy, environment, or quality of life impacted by the presence of military activities.



## 9. NEXT STEPS

## 9. Next Steps

The goal of the JCTP study is to create a responsive and actionable plan to examine existing and future needs for all transportation modes serving NBK-BR and ensure Bremerton's growth will not impede NBK-BR missions, which are critical to our Nation's military readiness. The plan defines solutions to improve multimodal mobility, outline parking strategies, and enhance Bremerton's livability. Success of this plan will ensure NBK-BR meets its missions for national defense while supporting Bremerton's long-range growth needs.

The Preferred Alternative provides a prioritized set of projects to address the needs identified in the Existing Conditions and Future No Build Conditions analysis. The proposed phasing plan includes short-term, mid-term, and longterm improvements that will provide benefits to both the City and NBK-BR. Using the JCTP, the City, NBK-BR, the County, and WSDOT will:

- Work with Kitsap Transit to plan for transit accessibility improvements, transit service improvements, and transit infrastructure improvements within the study area.
- Continue to monitor needs in the study area to ensure each proposed project meets those needs.
- Continue to engage the public to refine and improve the proposed projects.
- Identify and apply for various funding sources for each project.
- Continue to consider construction phasing packages based on needs and funding availability.
- Include and prioritize the recommended projects in the City's Comprehensive Plan and Transportation Improvement Program

### Ongoing Study Roles and Responsibilities

It is anticipated that the CSB members for this study will continue to coordinate during the design and implementation stages for the proposed improvements. Coordination between the City of Bremerton, NBK-BR, Kitsap Transit, Kitsap County, and WSDOT will continue as funding sources are identified and pursued.

### Ongoing Public Involvement

Just as public involvement helped shape the outcome of the JCTP, ongoing public involvement will be critical to future planning, design, and development. Consistent with the community engagement for this study, future phases of study will need to actively provide opportunities for the public and study area community members to provide comments and input. All community engagement during the design and implementation stages will need to closely follow National Environmental Policy Act and Washington State Environmental Policy Act procedures related to public involvement.

## Future Upcoming Studies

Additional studies in the study area are being completed now or in the near future.

### West Kitsap Way Planning Study

The City was awarded a federal Surface Transportation Program grant via PSRC to conduct a transportation planning study for Kitsap Way from SR 3 to Chico Way. West Kitsap Way has concrete pavement in poor condition and lacks pedestrian and bicycle infrastructure. The study will determine, through a public process, updated cross sections and 5-10 percent level of design for the future reconstruction of the roadway.

### City of Bremerton Comprehensive Plan 2024

The City of Bremerton is currently in the process of updating their Comprehensive Plan. Bremerton's Comprehensive Plan provides guidance for how the City will grow and develop over the next 20 years. The Comprehensive Plan is the centerpiece of local planning efforts and relays the goals and policies that will guide the day-to-day decisions of elected officials and local government staff. The City Comprehensive Plan update is scheduled to be completed by December 2024. The Preferred Alternative projects included in the JCTP will be reviewed to included and prioritized in the Comprehensive Plan and integrated into the Transportation Improvement Program.

## Bremerton Waterfront Infrastructure Improvements Environmental Impact Statement

The Navy is preparing an EIS to evaluate the potential environmental impacts associated with construction of a new dry dock and associated waterfront infrastructure improvements at PSNS & IMF at NBK-BR. Much of the infrastructure at PSNS & IMF dates back to the late 1800s and early 1900s, and it was designed primarily for building and maintaining ship classes that are no longer part of the modern naval fleet. Other than construction of Dry Dock 6 in the early 1960s, the shipyard has had few major infrastructure updates since the mid-1900s, which has led to significant production inefficiencies for maintaining current ships. The shipyard lacks the necessary capability to accommodate new and future classes of ships.

The Proposed Action includes construction of new dry dock, seismic upgrades, demolition of Hammerhead Crane, and modification, demolition and/or replacement of other piers, wharves, quay walls, buildings, and utilities at shipyard. The draft EIS is currently being prepared and the Final EIS is expected in the spring of 2024.

### SR 3/Gorst Area – Widening Project

As part of the \$16.8 billion Move Ahead Washington Transportation Package passed by the Washington State Legislature in 2021, \$74.3 million was allocated to the SR 3/Gorst Area widening project to fund the initial design and environmental work. The planning efforts for this project are expected to get under way in late 2023 or early 2024.



# 10. REFERENCES



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