Joint Compatibility Transportation Plan

CITY OF BREMERTON

Community Sounding Board
Meeting #3
10/26/21

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

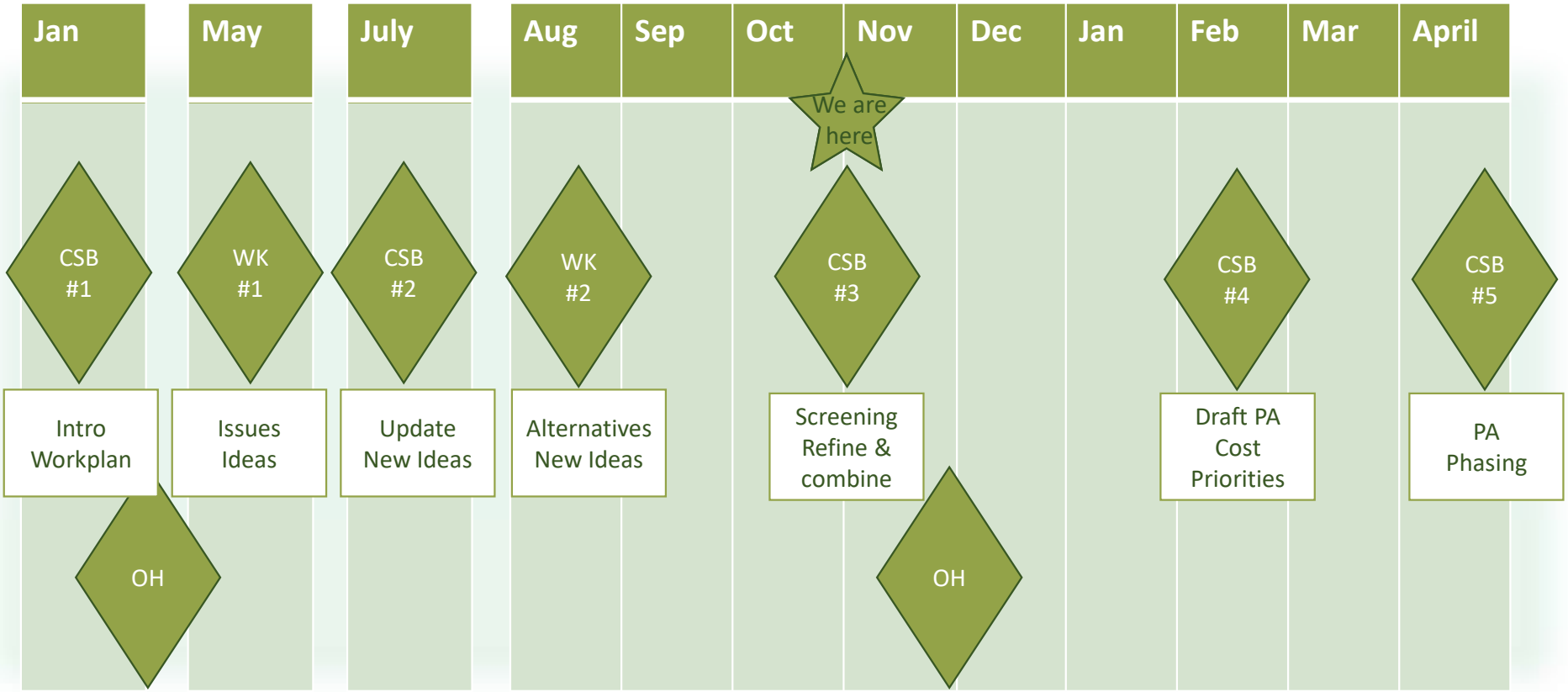
Agenda

Welcome
Project overview and goals
Schedule
Alternatives
Screening
Next steps
Closing

Project Goals

- Examine 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

Schedule


Jan
May
July
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
April
We are here
CSB #1
WK #1
CSB #2
WK #2
CSB #3
CSB #4
CSB #5
Intro Workplan
Issues Ideas
Update New Ideas
Alternatives New Ideas
Screening Refine & combine
Draft PA Cost Priorities
PA Phasing
OH
OH

Alternatives

- Support current parking
- Relocate parking onto Base
- Relocate parking outside of CBD

Parking Demand Assumptions

DAILY	# of people working on Base	Maximum Parking Demand (# of vehicles)	Parking Supply (# of stalls)	Additional Parking Needed (# of stalls)
#	23,000	14,535	7,460	7,075
Assumptions:	• All shifts + • Two ships	• Day + swing shift only • Based on mode split data from public surveys and WSDOT CTR	• 6,500 stalls on Base • 960 stalls at Building 1105	• Assumes spot for every vehicle

PM PEAK HOUR	# of people leaving Base	# of people walking off Base to parking downtown	# of vehicles parked downtown (for people working on Base)	Assumed # of vehicles relocated during Peak Hours
#	8,050	2,090	1,755	1,000
Assumptions:	Assume 35% of Daily # leaves during PM peak	Assumes those who use SOV, Carpool or vanpool only	Based on mode split data from public surveys and WSDOT CTR data for Base	# of vehicles relocated in Relocate Parking and Add Base Parking Alternatives

Traffic Redistribution Assumptions

- Graphic showing traffic redistribution

Alternative Diagrams

Second Level Screening

- Screening Criteria
- Rating
- Final scores

Second Level Screening Criteria

Study Goal Area	Performance Measures	Desired Outcome
Travel Times and Reliability: Improve travel times to/from downtown Bremerton and make them more predictable	• Travel times and travel time reliability along key corridors in/out of downtown (*Kitsap Way, 11th St, 6th St, Burwell St, SR 304 & SR 303)*	• Reduce travel times (GP and transit) • Improve reliability (GP and transit)
Mobility: Increase the transportation system's ability to efficiently move all people and goods	• Number of people moved during peak periods along key corridors	• Increase person throughput
Safety: Improve safety and reduce serious injury and fatal crashes	• Number of overall crashes • Number of serious injury and fatal crashes	• Reduce overall crash rates • Reduce number of serious injury and fatal crashes

Second Level Screening Criteria

Study Goal Area	Performance Measures	Desired Outcome
Active Transportation: Improve accessibility, connectivity and increase safe ped/bike options to decrease percent of trips made by driving alone	• Number of people who can walk/bike to NBK-BR or P&Rs under low stress conditions	• Increase the number of people who can walk/bike to NBK-BR or P&Rs
	• Number of high-quality travel choices in the study area.	• Improve the number of high-quality travel choices (e.g. additional transit service, multimodal network gap closure, connections between 2 or more modes)
	• Safe and comfortable walking and biking options	• Provide a right-of-way enhancement to improve the Bicycle Level of Traffic Stress (LTS) score (e.g. protected bike lane, multi-use path) or a pedestrian enhancement (e.g. sidewalk widening, new sidewalk, sidewalk buffer, more ADA compliant facilities) to improve the pedestrian realm.

Second Level Screening Criteria

Study Goal Area	Performance Measures	Desired Outcome
Parking: Parking system supports a vibrant, attractive and user-friendly Downtown with thriving neighborhood districts and attractive residential neighborhoods.	• Parking utilization	• Increase availability of parking or transit options or, • Increase consistency between parking regulations and parking turnover or duration
	• Number of parking violations in Downtown and adjacent neighborhoods	• Improve compliance with City parking regulations including time limits and permit zones
	• Amount of City parking revenue	• Adequate parking revenue to fund management of the parking system and ensure compliance
	• Use of parking enforcement technology	• Increase the use technology to enhance parking enforcement that results in improved access to Downtown and major employers while maintain quality of life in neighborhoods
	• Accessibility of parking for shipyard workers	• Increase parking available for shipyard workers in locations that do not increase congestion and impact livability
	• Number of vehicles doing the “Bremerton Shuffle" (i.e., the movement of vehicles)	• Decrease in number vehicles being moved to evade time limits

Second Level Screening - Rating

- For each performance measure, improvements scored on the range shown below

			
Make conditions worse compared to 2050 No Build	None/minimal change to conditions compared to 2050 No Build	Project improves conditions compared to 2050 No Build	Project creates even greater improvements compared to 2050 No Build

- Most study goals include more than one performance measure. Individual scores rolled up into one overall score for each study goal.

Second Level Screening Results – Travel Time/Mobility/Safety

Study Goal Area	Performance Measures	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative
		Performance compared to 2050 No Build Alternative		
Travel Times and Reliability: *Improve travel times to/from downtown Bremerton and make travel times to/from downtown Bremerton more predictable.*	Travel times (GP and transit)	→	→	↗
	Travel Time Reliability (GP and transit)	↓	→	↗
	Average Score	↓	→	↗
Mobility: *Increase the transportation system's ability to efficiently move all people and goods.*	Person hours of delay - general purpose	→	↗	↑
	Person hours of delay - Transit	→	↓	↗
	Average Score	→	↓	↑
Safety: *Improve safety and reduce serious injury and fatal crashes.*	Number of overall crashes	↑	↑	↗
	Number of serious injury and fatal crashes	↑	↑	↑
	Average Score	↑	↑	↗

Support Parking – Travel Time/Mobility/Safety Results

Study Goal Area	Support Parking Alternative	Impacts of Proposed Improvements *Performance compared to 2050 No Build Alternative*
Travel Times and Reliability: *Improve travel times to/from downtown Bremerton and make travel times to/from downtown Bremerton more predictable.*	→	- Travel times in AM peak improve due to RABs on Kitsap Way; NB HOV lane on Charleston; - Travel times in PM peak hour get worse due to 6th/11th road diet
	↓	Travel time reliability improves in AM peak hour; gets significantly worse in PM peak due to 6th/11th road diet
	↓	**Road diet on 6th/11th causes signficant impacts during PM peak hour**
Mobility: *Increase the transportation system's ability to efficiently move all people and goods.*	→	With minimal changes to volumes in this alternative, impacts to general purpose and transit mobility are similar to those associated with travel time.
	→	
	→	**Impacts in PM peak hour cancel out improvements in AM Peak hour**
Safety: *Improve safety and reduce serious injury and fatal crashes.*	↑	Road diet on 6th Street and 11th Street provide the largest reduction in overall crashes, and serious injury/fatal crashes. Roundabouts (SR 303, Burwell and Kitsap Way) and adaptive signal timing provide additional crash reductions.
	↑	
	↑	**Proposed improvements expected to significantly improve safety**

Support Parking Alternative: Scores the worst for Travel Times & Reliability / best for Safety

Relocate Parking – Travel Time/Mobility/Safety Results

Study Goal Area	Relocate Parking Alternative	Impacts of Proposed Improvements
		Performance compared to 2050 No Build Alternative
Travel Times and Reliability: *Improve travel times to/from downtown Bremerton and make travel times to/from downtown Bremerton more predictable.*	→	* Assumes ~1,000 vehicles park outside downtown and take transit inbound in AM peak / outbound in PM peak * GP and Transit travel times improve on most corridors due to reduced volumes * However, improvements to system travel times outweighed by reduced capacity from 6th/11th road diet in PM peak hour * Improvements to transit system travel time associated with BAT lanes along Kitsap Way and SR 303 are outweighed by impacts from 6th/11th road diet in PM peak hour
	→	**Improvements to system travel times outweighed by reduced capacity from 6th/11th road diet in PM peak hour**
Mobility: *Increase the transportation system's ability to efficiently move all people and goods.*	↗	General purpose mobility improves during the AM and PM peak hour due to reduced general purpose vehicle volumes.
	↓	Transit use expected to increase but bus service/number of stops assumed to remain the same
	↓	**Without express service, transit mobility will decrease despite increased ridership**
Safety: *Improve safety and reduce serious injury and fatal crashes.*	↑	Road diet on 6th Street and 11th Street provide the largest reduction in overall crashes, and serious injury/fatal crashes. Roundabouts (SR 303) and adaptive signal timing provide additional crash reductions.
	↑	**Proposed improvements expected to significantly improve safety**

Relocate Parking Alternative: Scores the worst for Mobility / best for Safety

Add Base Parking – Travel Time/Mobility/Safety Results

Study Goal Area	Add Base Parking Alternative	Impacts of Proposed Improvements *Performance compared to 2050 No Build Alternative*
Travel Times and Reliability: *Improve travel times to/from downtown Bremerton and make travel times to/from downtown Bremerton more predictable.*	 	* Assumes ~1,000 vehicles park currently parking downtown instead park at Base garage near Charleston Gate * Reduction in approximately 700 vehicles from downtown core during peak hours improves travel times * Maintaining capacity on 6th/11th and adding capacity on Burwell + reductions in volumes improves travel times * Travel time and reliablity improvements seen in both AM and PM peak hours
		**Travel time and reliablity improvements seen in both AM and PM peak hours**
Mobility: *Increase the transportation system's ability to efficiently move all people and goods.*	 	* Added WB capacity on Kitsap Way (11th to National) has large impact on mobility * Full capacity on 6th/11th helps improve mobility
		**Full capacity on 6th/11th helps improves mobility**
Safety: *Improve safety and reduce serious injury and fatal crashes.*	 	* Roundabouts (SR 303) and adaptive signal timing result in a reduction of overall crashes and the number of serious injury and fatal crashes.
		**Improvements in serious injury/fatal crashes**

Add Base Parking Alternative: Scores the best for Travel Time *AND* for Mobility

Results –Travel time/mobility summary

Alternative	Positive	Negative
Support Parking	↑ Roundabouts on Kitsap Way ↑ Roundabouts on Burwell St ↑ NB HOV lane on Charleston Blvd ↑ Added lane on Burwell St ↑ Projects in SR 303 study	↓ Capacity reductions from 6th/11th St road diet cancels out system wide travel time improvements in PM peak hour ↓ Grade-separated intersection at Callow Ave/Burwell likely not feasible
Relocate Parking	↑ Reduction in downtown volumes ↑ Most signal timing changes ↑ WB BAT lane on Kitsap Way ↑ TSP at signalized intersections ↑ Projects in SR 303 study	↓ Capacity reductions from 6th/11th St road diet cancels out system wide travel time improvements in PM peak hour
Add Base Parking	↑ Reduction in downtown volumes ↑ WB GP lane on Kitsap Way ↑ Most signal timing changes ↑ NB HOV lane on Charleston Blvd ↑ Added lane on Burwell St ↑ Projects in SR 303 study	↓ Not feasible to build all parking demand on Base

Second Level Screening Results – Active Transportation

Study Goal Area	Performance Measures	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative
Active Transportation: *Improve accessibility, connectivity and increase safe ped/bike options to decrease percent of trips made by driving alone.*	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	↑	↑	↑
	Average Score	↗	↗	↗

- **Active transportation projects are essential for safe and efficient connectivity between where people are parking and their final destinations.**
- Active transportation is not a differentiator between alternatives.
- Active transportation projects will be prioritized for the Preferred Alternative.

Second Level Screening Results - Parking

Study Goal Area	Performance Measures	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative
Parking: *Parking system supports a vibrant, attractive and user-friendly Downtown with thriving neighborhood districts and attractive residential neighborhoods.*	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	↓	↑	→
	Average Score	↗	↑	→

Second Level Screening Results - Parking

- Criteria focused on commuter parking
- Parking policies are:
  - Driven by City leadership
  - Influence livability
  - Very interchangeable
- Need to consider the desired outcome

Base Accessibility & Livability

	Downtown Livability	Base Accessibility
Goal	Focus is area most affected by operations of NBK-BR and PSNS (*south of 11th Street between Charleston Blvd and the Port of Washington Narrows*)	For continued NBK-BR and PSNS operations, accessibility to the base and PSNS must be maintained or improved as part of this project
Metrics	• Transit mobility • Safety • Active Transportation • Parking • Ability to improve multi-modal connectivity • Efficiency of mobility • Improvement to health	• Travel times • Options for access (bus, bike, walk) • Efficiency of entry points • Simplicity of access • Availability of transportation options for return trip • Efficiency during national emergency

Base Accessibility & Livability

Study Goal Area	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative
Base Accessibility: Improve Base accessibility for NBK-BR workers.	→	↓	→
Livability: Improve overall livability for Bremerton residents.	↗	↗	↗

What did we learn?

- Roundabouts along Kitsap Way significantly reduce delays and queueing
- Signal timing optimization reduces delay and queues throughout the system
- Road diets on 6th and 11th Street impact mobility even if parking is relocated outside of downtown
- Roundabout at Callow/Burwell likely more feasible than grade separated intersection

What did we learn?

- Building enough parking to meet Base demand isn't feasible
  - 7,100 stall garage = 17 story building
  - For reference: Building 1105 (4th/Park) has 960 parking stalls
- Building more parking in multiple locations outside of downtown is a benefit.

What did we learn?

To be effective, any relocation in parking requires the following:

- Parking policies that strongly encourage change in behavior
- Express Bus service between relocated parking and Base to see benefits
- Safe and connected active transportation system

Reasonable Combinations Whiteboard

- Additional parking outside downtown at multiple locations
- Express bus service / shuttle service
- Capacity improvements on Kitsap Way and Burwell Street
- Road diet on 6th Street only
- Projects recommended from SR 303 Corridor Study
- NB HOV lane on Charleston Blvd
- Active transportation projects

Next Steps

- Identify and analyze a Preferred Alternative
- Develop preliminary cost ranges
- Prioritize modal projects

JOINT COMPATIBILITY TRANSPORTATION PLAN

Build Alternative Traffic Distribution

DRAFT

For discussion purposes only

LEGEND

Parking Section

Parking Diversion

least relocation
25 stalls
(AM and PM peak hours)

most relocation
600 stalls
(AM and PM peak hours)

Existing GP Route (Inbound)

Proposed GP Route (Inbound)

Relocate Parking Alternative

Vehicles relocated from parking Downtown to parking at park and rides to the north, west, and south.
Traffic modeling assumed 1,000 vehicles relocated in both the AM and PM peak hours.

30%
(McWilliams P&R)

25%
(Auto Center P&R)

45%
(park and rides in Gorst and Port Orchard)

RIDDELL RD
PINE RD
SYLVAN WAY
WHEATON WAY (SR 303)
SHERIDAN RD
LEBO BLVD
WHEATON WAY
11TH ST
6TH ST
BURWELL ST (SR 304)
KITSAP WAY (SR 310)
SR 3
CHARLESTON BLVD
BAY ST (SR 166)
PORT ORCHARD BLVD
SR 16

N
0 ¼ ½ Miles

JOINT COMPATIBILITY TRANSPORTATION PLAN

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LEGEND

Parking Section

Parking Diversion

least relocation
25 stalls
(AM and PM peak hours)

most relocation
600 stalls
(AM and PM peak hours)

Existing GP Route (Inbound)

Proposed GP Route (Inbound)

Add Base Parking Alternative

Vehicles relocated from parking Downtown to parking on the west side of NBK-BR.
Traffic modeling assumed 1,000 vehicles relocated in both the AM and PM peak hours.
Assumed NBK-BR parking garage at Park/4th remains.

30%

25%

100%

45%

RIDDELL RD
PINE RD
SYLVAN WAY
WHEATON WAY (SR 303)
SHERIDAN RD
LEBO BLVD
WHEATON WAY
KITSAP WAY (SR 310)
11TH ST
6TH ST
SR 3
CHARLESTON BLVD
BAY ST (SR 166)
PORT ORCHARD BLVD
SR 16

N 0 ¼ ½ Miles