Appendix A

Project Inventory

JOINT COMPATIBILITY TRANSPORTATION PLAN

Existing Conditions

Potential Projects Identified in Other Plans

CITY OF BREMERTON

City of Bremerton Urban Growth Boundary

City Limits

Naval Base Kitsap - Bremerton

Improvement Type

- Active Transportation
- Intersection
- Parking
- Policy
- Roadway
- Signal Systems
- Transit (Bus)
- Transit (Ferries)
- Urban Design

(Points correspond with Project Inventory Table.)

MAY ST
NE RIDDELL RD
PINE RD
WHEATON WAY (SR 303)
SYLVAN WAY
SHERIDAN RD
LEBO BLVD
WARREN AVE (SR 303)
KITSAP WAY (SR 310)
11TH ST
6TH ST
BURWELL ST (SR 304)
SR 3
CHARLESTON BLVD

NEAR SR 3 / SR 16
0 ½ 1 Miles

BREMERTON CORE
NEAR SR 3 / SR 16
CITY OF BREMERTON

N
0 ¼ ½ Miles

Joint Compatibility Transportation Plan - Project Inventory List

Number	Year	Study	Project Description	Type of Improvement
			Projects Shown on Map	
1	2007	Bremerton Non-Motorized Plan	11th St at Callow Ave - intersection improvements	Active Transportation
2	2007	Bremerton Non-Motorized Plan	SR 303/Warren Ave at 4th St - intersection improvements	Active Transportation
3	2007	Bremerton Non-Motorized Plan	SR 303/Warren Ave at 5th St - intersection improvements	Active Transportation
4	2007	Bremerton Non-Motorized Plan	SR 303/Warren Ave at 11th St - intersection improvements	Active Transportation
5	2007	Bremerton Non-Motorized Plan	SR 303/Warren Ave at 13th St - intersection improvements	Active Transportation
6	2007	Bremerton Non-Motorized Plan	SR 303/Warren Ave at 16th St - intersection improvements	Active Transportation
7	2007	Bremerton Non-Motorized Plan	SR 304/Burwell St at Callow Ave - intersection improvements	Active Transportation
8	2007	Bremerton Non-Motorized Plan	SR 304/Burwell St at Montgomery Ave - intersection improvements	Active Transportation
9	2007	Bremerton Non-Motorized Plan	SR 304/Burwell St at State Ave - intersection improvements	Active Transportation
10	2007	Bremerton Non-Motorized Plan	SR 310/Kitsap Way at 11th St - intersection improvements	Active Transportation
11	2007	Bremerton Non-Motorized Plan	11th St (SR 310/Kitsap Way to Callow Ave) - complete sidewalk gaps	Active Transportation
12	2007	Bremerton Non-Motorized Plan	Naval Ave (13th St to 15th St) - complete sidewalk gaps	Active Transportation
13	2007	Bremerton Non-Motorized Plan	Manette Br (Washington Ave to Old Wheaton Way) - replace bridge to include bicycle lanes and sidewalks and/or a shared use path	Active Transportation
14	2007	Bremerton Non-Motorized Plan	1st St (Montgomery Ave to Naval Ave) - stripe eastbound contraflow bicycle lane; westbund bicycle travel accommodated in shared vehicle/bicycle lane	Active Transportation
15	2007	Bremerton Non-Motorized Plan	6th St (Callow Ave to Park Ave) - bicycle lanes	Active Transportation
16	2007	Bremerton Non-Motorized Plan	6th St (Park Ave to Washington Ave) - bicycle lanes	Active Transportation
17	2007	Bremerton Non-Motorized Plan	11th St/Washington Ave (Park Ave to Manette Bridge) - bicycle lanes	Active Transportation
18	2007	Bremerton Non-Motorized Plan	Naval Ave (1st St to 15th St) - bicycle lanes	Active Transportation
19	2007	Bremerton Non-Motorized Plan	1st St (Hartford Ave to Naval Ave) - Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	Active Transportation
20	2007	Bremerton Non-Motorized Plan	4th St (Olympic Ave to Washington Ave) - Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	Active Transportation
21	2007	Bremerton Non-Motorized Plan	13th St (Naval Ave to Park Ave) - Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	Active Transportation
22	2007	Bremerton Non-Motorized Plan	15th St (Lafayette Ave to High Ave) - Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	Active Transportation
23	2007	Bremerton Non-Motorized Plan	16th St/Chester Ave (SR 303/Warren Ave to future Port Washing Narrows bike/pedestrian bridge) - Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	Active Transportation
24	2007	Bremerton Non-Motorized Plan	High Ave (5th St to 15th St) - Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	Active Transportation
25	2007	Bremerton Non-Motorized Plan	Montgomery Ave (1st St to 15th St) - Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	Active Transportation
26	2007	Bremerton Non-Motorized Plan	Olympic Ave/Whitney Ave (4th St to 15th St) - Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	Active Transportation
27	2007	Bremerton Non-Motorized Plan	Pacific Ave (1st St to 13th St) - Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	Active Transportation
28	2007	Bremerton Non-Motorized Plan	Park Ave (4th St to 17th St) - Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	Active Transportation
29	2007	Bremerton Non-Motorized Plan	Washington Ave (1st St to Manette Br) - Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	Active Transportation
30	2007	Bremerton Non-Motorized Plan	Naval Avenue Elem. School safe routes to school improvements - Inventory bicycle/pedestrian faciltiites in the Naval Avenue Elem. School walking catchment area, and identify specific deficiencies that complicate bicycylist and pedestrian travel. Design and construct infrastructure improvements, including shared use paths, neighborhood accessways, bicycle lanes, sidewalks, curb ramps, crosswalks, and other intersection improvements where necessary. Assign higher prioritization to projects along major bike- and walk-to-school routes.	Active Transportation

Joint Compatibility Transportation Plan - Project Inventory List

Number	Year	Study	Project Description	Type of Improvement
31	2007	Bremerton Non-Motorized Plan	West Hills Elem. School safe routes to school improvements - Inventory bicycle/pedestrian faciltiites in the West Hills Elem. School walking catchment area, and identify specific deficiencies that complicate bicycylist and pedestrian travel. Design and construct infrastructure improvements, including shared use paths, neighborhood accessways, bicycle lanes, sidewalks, curb ramps, crosswalks, and other intersection improvements where necessary. Assign higher prioritization to projects along major bike- and walk-to-school routes.	Active Transportation
32	2007	Bremerton Non-Motorized Plan	Bremerton High School safe routes to school improvements - Inventory bicycle/pedestrian faciltiites in the Bremerton High School walking catchment area, and identify specific deficiencies that complicate bicycylist and pedestrian travel. Design and construct infrastructure improvements, including shared use paths, neighborhood accessways, bicycle lanes, sidewalks, curb ramps, crosswalks, and other intersection improvements where necessary. Assign higher prioritization to projects along major bike- and walk-to-school routes.	Active Transportation
33	2020	Bremerton Strategic Road Safety Plan	13th St and Sylvan Way Corridors: Systemic Pedestrian Safety Treatments (Naval Ave to Park Ave)	Active Transportation
34	2020	Bremerton Strategic Road Safety Plan	13th St and Sylvan Way Corridors: Systemic Pedestrian Safety Treatments (Pine Rd NE to Olympus Dr NE)	Active Transportation
35	2020	Charleston Areawide Planning Report	Open Space and Recreation: Town to Forest Urban Trail along Burwell Street (Forest Ridge Park to Callow Ave)	Active Transportation
36	2020	Eastside Village Subarea Plan	Sheridan Road (Wheaton Way to Cherry Ave) segment improvements: pedestrian, bike, transit	Active Transportation
37	2020	Eastside Village Subarea Plan	Lower Wheaton Way (Lebo Blvd to Callahan Dr) segment improvements: pedestrian, bike, transit (signature)	Active Transportation
38	2020	Eastside Village Subarea Plan	Lower Wheaton Way (Callahan Dr to Sheridan Rd) segment improvements: pedestrian, bike, transit (signature)	Active Transportation
39	2020	Sheridan/Harris Center Final EIS	New multi-use path to connect bridge to bridge-to-bridge trail (Wheaton Way to Lebo Blvd)	Active Transportation
40	2020	Sheridan/Harris Center Final EIS	Short term: stripe climbing lane. Long term: construct protected shared use path. Other street sections may also be considered along Lower Wheaton Way (Lebo Blvd to Sheridan Rd)	Active Transportation
41	2020	Sheridan/Harris Center Final EIS	Pedestrian oriented street designated 100' north of Lebo Blvd	Active Transportation
42	2021	SR 303 Corridor Study	Widen Warren Avenue Bridge to include 10’ sidewalks on both sides. Manage lane widths on Warren Avenue Bridge with a minimum of 10.5'. Center barrier on Warren Avenue Bridge. Construct a 3' wide low-maintenance landscape or hardscape buffer between curb and sidewalk and widen sidewalks to 10’ on east side of SR 303 from north of 17th Street to the Warren Avenue Bridge. Update lighting on the structure for both roadway and active transportation users. Sidewalks at both north and south ends that are forward-compatible with long-term plan. Active transportation facility to connect to Lebo Boulevard on the north side of the bridge. Provide wayfinding for active transportation. Bicycle facilities south of the bridge between SR 303 and Park Avenue	Active Transportation
43	2021	SR 303 Corridor Study	Bicycle facilities on Almira Drive from Sylvan Way to NE Riddell Road, including roadway widening and stormwater improvements	Active Transportation
44	2021	SR 303 Corridor Study	Build a mid-block pedestrian crossing north of Dibb Street and provide a pedestrian hybrid beacon and pedestrian refuge island	Active Transportation
45	2021	SR 303 Corridor Study	Build a mid-block pedestrian crossing between 6th Street and 11th Street and provide a pedestrian hybrid beacon signal and pedestrian refuge island. Add bus stops near mid-block crossing	Active Transportation
46	2021	SR 303 Corridor Study	Build a mid-block pedestrian crossing north of Pearl Street and provide a pedestrian hybrid beacon and pedestrian refuge island. Relocate bus stops to be near mid-block crossing	Active Transportation
47	2021	SR 303 Corridor Study	Build a mid-block pedestrian crossing between Hollis Street and NE Riddell Road and provide a pedestrian hybrid beacon and pedestrian refuge island. Relocate bus stops to be near mid-block crossing	Active Transportation
48	2021	SR 303 Corridor Study	Update lane striping along SR 303 to delineate active transportation facilities. Provide wayfinding for active transportation users. Underground utilities that would otherwise be obstructions in the sidewalks. Improve striping along Callahan Drive tunnel to show active transportation facility	Active Transportation

Joint Compatibility Transportation Plan - Project Inventory List

Number	Year	Study	Project Description	Type of Improvement
49	2021	SR 303 Corridor Study	Bicycle facilities from Callahan Drive to Cherry Avenue using lower Wheaton Way, Spruce Avenue, and E 30th Street. Build a mid-block pedestrian crossing at Sheridan Road and Spruce Avenue. Bicycle facilities on Callahan Drive from SR 303 to lower Wheaton Way using existing tunnel under SR 303. Provide 10' wide sidewalks at the following locations: SR 303 to Almira Drive using NE 32nd Street through Old East Bremerton High School, connecting near Dibb Street, Wheaton Way Transit Center to Pine Road NE using NE Normandy Drive or NE Roswell Drive to access Clogston Avenue NE. Construct a paved active transportation facility from Cherry Avenue to Almira Drive. Bicycle facilities on Almira Drive from Cherry Avenue to Sylvan Way	Active Transportation
50	2021	SR 303 Corridor Study	Underground utilities that would otherwise be obstructions in the sidewalks	Active Transportation
51	2021	SR 303 Corridor Study	Construct a tunnel under SR 303 for an active transportation undercrossing, connecting Olympic College to east side of SR 303. Active transportation facilities on 18th Street through Olympic College to Broadway Avenue	Active Transportation
52	2021-2026	Bremerton TIP	Arsenal Way/Patten Ave Safety Improvements - sidewalks, close sidewalk gaps, bike boulevard (scope not defined)	Active Transportation
53	2021-2026	Bremerton TIP	Riddell Road Sidewalk Improvements - Gap project on south and north side of Riddell west of SR 303; new development to close gap on south side. East of SR 303 development will close sidewalk gap on south side of Riddell (Winco to Almira)	Active Transportation
54	2021-2026	Bremerton TIP	Anderson Cove Sidewalks; 19th & Naval to 15th - sidewalk gap connections	Active Transportation
55	2021-2026	Bremerton TIP	Matan & Lillian & James Sidewalk Connector; Bloomington & Olympic - sidewalk gap connections	Active Transportation
56	2021-2026	Bremerton TIP	Washington Avenue Lower Sidewalks - replace sidewalks on Washington north of Manette Bridge; scoped to be included in Washington/Manette RAB project	Active Transportation
57	2021-2026	Bremerton TIP	4th Street Landscaping Replacement/Sidewalk Repair (Quincy Square)	Active Transportation
58	2012	Bremerton Economic Development Study	SR 3/Imperial Way - intersection improvements; add additional channelization improvements	Intersection
59	2012	Bremerton Economic Development Study	SR 3/Sunnyslope Road - intersection improvements; install roundabout or traffic signal, based on detailed traffic study and warrants	Intersection
60	2012	Bremerton Economic Development Study	SR 3/Sam Christopherson Interchange - construct a new interchange to grade separating the SR 3/Sam Christopherson Road intersection and widen the SR 16 Spur	Intersection
61	2012	Bremerton Economic Development Study	SR 3/Imperial Way - Intersection improvements; additional channelization or grade seapration may be needed to meet 2030 LOS standards; Monitor traffic increases to determine when further improvements are needed	Intersection
62	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	Operational improvements at SR 304 and Charleston Beach Rd. intersection	Intersection
63	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	Optimize signal operations at SR 3 and SR 16/Sam Christopherson intersection	Intersection
64	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	Operational improvements at SR 304 and Farragut Ave intersection	Intersection
65	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	Construct roundabout at SR 3 and SR 16/Sam Christopherson intersection	Intersection
66	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	Approach widening at SR 304 and Farragut Ave. intersection	Intersection
67	2020	Bremerton Strategic Road Safety Plan	11th St & Callow Intersection Improvements	Intersection
68	2020	Citywide Transportation Concurrency	Signal timing Improvements will mitigate intersection LOS deficiencies at the following intersections: Kitsap Way (SR 310)/Marine Dr and Warren Ave (SR 303)/11th St	Intersection
69	2020	Citywide Transportation Concurrency	Signal timing Improvements will mitigate intersection LOS deficiencies at the following intersections: Kitsap Way (SR 310)/Marine Dr and Warren Ave (SR 303)/11th St	Intersection
70	2020	Citywide Transportation Concurrency	A new coordinated traffic signal or roundabout is recommended at the intersection of Loxie Eagans Blvd/SR 3 southbound ramps	Intersection
71	2020	Citywide Transportation Concurrency	Peak period left-turn restrictions are recommended on Chester Ave at the Burwell St (SR 304) intersection	Intersection
72	2020	Eastside Village Subarea Plan	Clare/Lebo new signal	Intersection
73	2021	SR 303 Corridor Study	Replace signal at 11th Street with a 2-lane roundabout including pedestrian crossings at all four quadrants	Intersection

Joint Compatibility Transportation Plan - Project Inventory List

Number	Year	Study	Project Description	Type of Improvement
74	2021	SR 303 Corridor Study	Construct a new roundabout intersection at Callahan Drive/Clare Avenue. Repurpose tunnel along Callahan Drive to be an active transportation undercrossing. Construct northbound business access and transit (BAT) lane from north of Warren Ave Bridge to connect with previously constructed BAT lane. Include northbound transit signal queue jump at Callahan Drive intersection. Construct 3' wide median. Provide curb and gutter, a 6' wide low-maintenance landscape or hardscape buffer, and 10' sidewalks on both sides of SR 303 from north of Warren Avenue Bridge to Sheridan Road. Underground utilities that would otherwise be obstructions in the sidewalks	Intersection
75	2021	SR 303 Corridor Study	Replace signal at NE Riddell Road with a roundabout including pedestrian crossings at all four quadrants	Intersection
76	2021-2026	Bremerton TIP	Oyster Bay Avenue Improvements - roadway reconstruction including multimodal, signal replacement at Kitsap way and Oyster Bay	Intersection
77	2021-2026	Bremerton TIP	15th and Corbet Intersection Improvements - safety improvements, may include all way stop and/or minor realignment (scope not defined)	Intersection
78	2021-2026	Bremerton TIP	Cross-SKIA Connector/Analysis Area B/SR 3 - New intersection at northern terminus of extension of Cross-PSIC Connector	Intersection
79	2020	Charleston Areawide Planning Report	Flexible Parking Standards	Parking
80	2020	Charleston Areawide Planning Report	Wycoff Artisan/Live-work Overlay District: designate the city blocks along Wycoff Avenue north of 6th Street/Kitsap Way as the "Wycoff Artisan/Live-work Overlay District"	Policy
81	2020	Charleston Areawide Planning Report	Opportunities Sites	Policy
82	2020	Charleston Areawide Planning Report	Interim Uses	Policy
83	2020	Charleston Areawide Planning Report	Community Stewardship and Governance	Policy
84	2020	Charleston Areawide Planning Report	District Rebranding	Policy
85	2020	Charleston Areawide Planning Report	Events and Traditions	Policy
86	2020	Charleston Areawide Planning Report	Site and Building Activation (interim uses/activities)	Policy
87	2020	Charleston Areawide Planning Report	Comprehensive Plan Additions	Policy
88	2020	Charleston Areawide Planning Report	Interim/Temporary Uses	Policy
89	2020	Charleston Areawide Planning Report	DCC Overlay (Wycoff Artisan/Live-Work Overlay District)	Policy
89	2020	Charleston Areawide Planning Report	Capital Improvement Plan Additions	Policy
90	2021-2026	Bremerton TIP	Downtown Circulation Study	Policy
91	2012	Bremerton Economic Development Study	SR 3 Widening - widen to 4 lanes from Imperial Way to Sunnyslope Rd	Roadway
92	2012	Bremerton Economic Development Study	SR 3 Widening - widen to 4 lanes from Sunnyslope Rd to Gorst	Roadway
93	2012	Bremerton Economic Development Study	SR 3 Widening - eliminate lane drop on SR 16 to northbound SR 3 by extending the lane north of the railroad bridge and extend the northbound SR 3 lane for longer merge area (interim)	Roadway
94	2012	Bremerton Economic Development Study	SR 3 Widening - widen to 6 lanes (creating one HOV lane in each direction) from Gorst to SR 304	Roadway
95	2012	Bremerton Economic Development Study	Extend SB SR 3 through SR 304 Interchange - extend SB SR 3 two-lanes through SR 304 interchanges and adjust SR 304 SB Ramp to merge instead of add lane	Roadway
96	2012	Bremerton Economic Development Study	SR 3 Widening - widen to 6 lanes (creating one HOV lane in each direction) from SR 304 to Loxie Eagans Boulevard; and maintain the northbound auxiliary lane	Roadway
97	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	SR 3 PUSL from SR 304 to railroad trestle	Roadway
98	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	Modify lane channelization for SR 16 WB at Gorst	Roadway
99	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	Consolidate driveways through SR 3/SR 16 interchange area	Roadway
100	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	SR 3 PUSL from railroad trestle to Gorst	Roadway
101	2020	Bremerton Strategic Road Safety Plan	6th St Rechannelization (N Callow Ave to Park Ave)	Roadway
102	2020	Charleston Areawide Planning Report	Callow Avenue Streetscape and Festival Street segment: design and complete a streetscape enhancement plan for Callow Avenue (1st Street to 13th Street)	Roadway
103	2020	Charleston Areawide Planning Report	Wycoff Avenue Streetscape: design and complete a streetscape enhancement plan for Wycoff Avenue (6th Street to 11th Street)	Roadway
104	2020	Eastside Village Subarea Plan	Juniper Street (Hemlock St to Cherry Ave) frontage improvements: new street	Roadway
105	2020	Sheridan/Harris Center Final EIS	Recommendations for all Neighborhood Streets	Roadway

Joint Compatibility Transportation Plan - Project Inventory List

Number	Year	Study	Project Description	Type of Improvement
106	2020	Sheridan/Harris Center Final EIS	Campbell (Clare Ave to Lower Wheaton Way) is to be a multi-modal right of way allowing only low speed vehicle access with additional green infrastructure	Roadway
107	2021	SR 303 Corridor Study	Replace two-way left-turn lane (TWLTL) with 3′ – 5′ wide median with breaks at intersections. Provide a median break for southbound left-turn at Old East Bremerton High School entrance. Provide southbound u-turn at Sheridan Road. Provide northbound and southbound u-turns at Sylvan Way. Provide low-maintenance landscape or hardscape buffer between curb and sidewalk at various locations	Roadway
108	2021	SR 303 Corridor Study	Replace two-way left-turn lane (TWLTL) with 3′ – 5′ wide median with breaks at intersections. Provide median break for northbound left-turn south of NE Riddell Road. Provide northbound and southbound u-turns at Hollis Street	Roadway
109	2021	SR 303 Corridor Study	Remove center median between Burwell Street and 5th Street and replace with c-curb. Install pedestrian crossing treatment at 4th Street and 5th Street. Extend northbound left-turn lane at 6th Street	Roadway
110	2021	SR 303 Corridor Study	Close 18th Street southbound ramp access. Extend northbound left-turn lane storage at 16th Street to 275 feet. Underground utilities that would otherwise be obstructions in the sidewalks. Complete sidewalk connection from south end of Warren Ave Bridge to existing sidewalk south of 18th Street. Widen sidewalk to 10′ on west side of SR 303 between 13th Street and Warren Avenue Bridge. Relocate northbound and southbound bus stops closer to 13th Street intersection	Roadway
111	2021-2026	Bremerton TIP	Werner Road - Signal Improvements and Widening	Roadway
112	2021-2026	Bremerton TIP	West Kitsap Way Reconstruction/Rechannelization - roadway reconstruction including multimodal, roundabout at Northlake Way, and potential park and ride at NAD park	Roadway
113	2021-2026	Bremerton TIP	Area B Collector Road - new roadway west of SR 3 at Cross PSCI-intersections	Roadway
114	2020	Bremerton Strategic Road Safety Plan	Burwell St Adaptive Signal System (Callow Ave to Washington Ave)	Signal Systems
115	2016	Kitsap Transit Long Range Transit Plan	West Bremerton Transit Center	Transit (Bus)
116	2016	Kitsap Transit Long Range Transit Plan	Bremerton Transportation Center upgrade/retrofit	Transit (Bus)
117	2016	Kitsap Transit Long Range Transit Plan	Bremerton Puget Sound Industrial Area park and ride	Transit (Bus)
118	2020	Eastside Village Subarea Plan	Callahan Drive (Wheaton Way to Cherry Ave) frontage improvements: transit (signature)	Transit (Bus)
119	2020	Eastside Village Subarea Plan	Cherry Avenue frontage improvements: transit (neighborhood)	Transit (Bus)
120	2021	SR 303 Corridor Study	Construct northbound business access and transit (BAT) lane from 500′ south of the Callahan Drive intersection to Sylvan Way (ultimately extends north to Hollis Street). Construct a 6' wide low-maintenance landscape or hardscape buffer between curb and sidewalk and widen sidewalks to 10′ on both sides of SR 303. Underground utilities that would otherwise be obstructions in the sidewalks	Transit (Bus)
121	2021	SR 303 Corridor Study	Construct northbound business and access transit (BAT) lane from Sylvan Way to Hollis Street where it terminates as a right-turn only lane. Construct a 6' wide low-maintenance landscape or hardscape buffer between curb and sidewalk and widen sidewalks to 10′ on both sides of SR 303. Underground utilities that would otherwise be obstructions in the sidewalks	Transit (Bus)
122	2040	WSF Long Range Plan	Terminal operational efficiency enhancements: the new Colman Dock Multimodal Terminal will include more bike and pedestrian connections. When preservation projects are completed, WSF should explore new ways to incorporate operational efficiencies and opportunities to encourage mode shift to transit, walking and biking at the Bremerton terminal.	Transit (Ferries)
123	2040	WSF Long Range Plan	this route has not reached Tier 1 Level of Service overall but experiences periods of high demand on summer and holiday weekends. WSF could consider offering reservations only for these high-demand periods. Focusing on weekends would also alleviate long lines with high volumes of recreational traffic.	Transit (Ferries)
124	2020	Charleston Areawide Planning Report	Open Space and Recreation: Forest Edge along Kitsap Way	Urban Design
125	2020	Charleston Areawide Planning Report	Open Space and Recreation: Charleston Triangle Pocket Park	Urban Design
126	2020	Charleston Areawide Planning Report	Open Space and Recreation: Bremerton Gateway Enhancements	Urban Design
127	2020	Charleston Areawide Planning Report	Open Space and Recreation: Artist Tunnel	Urban Design
128	2020	Charleston Areawide Planning Report	Signage and Wayfinding	Urban Design
129	2020	Eastside Village Subarea Plan	Hemlock Street frontage improvements (neighborhood)	Urban Design
130	2020	Eastside Village Subarea Plan	Hickory Street frontage improvements (neighborhood)	Urban Design

Joint Compatibility Transportation Plan - Project Inventory List

Number	Year	Study	Project Description	Type of Improvement
131	2020	Sheridan/Harris Center Final EIS	New park with ped/bike commercial amenities and stormwater treatment	Urban Design
132	2020	Sheridan/Harris Center Final EIS	Improve commercial frontage, public works access, and allow for shoreline viewing where feasible from ROW or park	Urban Design
133	2020	Sheridan/Harris Center Final EIS	Signature corners with highly visible pedestrian traffic	Urban Design
134	2020	Sheridan/Harris Center Final EIS	Signature corners with highly visible pedestrian traffic	Urban Design
135	2021-2026	Bremerton TIP	Bridge to Bridge Trail Wayfinding	Urban Design
136	2021-2026	Bremerton TIP	Repair Downtown Street Standard Banner Supports	Urban Design
Projects Not Shown on Map				
137	2017	Bremerton Parking Study	Improve opportunities for pedestrian and bicycle access to Downtown and major employment areas to alleviate parking demand.	Active Transportation
138	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	Add or enhance pedestrian and bicycle facilitites between Bremerton and Gorst	Active Transportation
139	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	Add or enhance pedestrian and bicycle facilitites between Bremerton and Port Orchard	Active Transportation
140	2021-2026	Bremerton TIP	Green Standard Pedestrian Improvements - placeholder for annual project (green = facilities on both sides of street)	Active Transportation
141	2021-2026	Bremerton TIP	Green Standard Bicycle Improvements - placeholder for annual project (green = facilities on both sides of street)	Active Transportation
142	2021-2026	Bremerton TIP	Yellow Standard Pedestrian Improvements - placeholder for annual project (yellow = facilities on one side of street)	Active Transportation
143	2021-2026	Bremerton TIP	Yellow Standard Bicycle Improvements - placeholder for annual project (yellow = facilities on one side of street)	Active Transportation
144	2021-2026	Bremerton TIP	North/South Corridor Bike/Ped Backbone Improvements	Active Transportation
145	2021-2026	Bremerton TIP	State Street Pedestrian Corridor Improvement - scope to be defined by JCTP	Active Transportation
146	2021-2026	Bremerton TIP	Trails-12 miles of trails	Active Transportation
147	2017	Bremerton Parking Study	Prioritize certain parking areas for residents, customers, and employees and manage accordingly	Parking
148	2017	Bremerton Parking Study	Reestablish the City parking committee and develop a working group with representatives from NBK, the Shipyard, Washington State Ferries, Kitsap Transit, and others.	Parking
149	2017	Bremerton Parking Study	Create a new position in the City of Bremerton to manage the parking system in Bremerton including monitoring, policy, maintenance, and operations.	Parking
150	2017	Bremerton Parking Study	Work with Kitsap Transit to ensure parking locations and transit routing work well with the Bremerton parking system and commuter needs.	Parking
151	2017	Bremerton Parking Study	Charge for on-street parking in parts of Downtown to discourage the "Bremerton Shuffle" and increase access for visitor parking (in addition to the 10-hour paid spaces).	Parking
152	2017	Bremerton Parking Study	Eliminate 10-hour parking Downtown and convert to short-term visitor parking.	Parking
153	2017	Bremerton Parking Study	Discourage new employee and commuter parking facilities in Downtown unless to serve businesses in the Downtown Subarea Planning Boundary.	Parking
154	2017	Bremerton Parking Study	Prohibit the re-parking of vehicles throughout specific areas of Downtown.	Parking
155	2017	Bremerton Parking Study	Require loading vehicle permits.	Parking
156	2017	Bremerton Parking Study	Encourage shared parking for off-street facilities to take advantage of any underutilized parking.	Parking
157	2017	Bremerton Parking Study	Work with the Naval Base and Shipyard to require more long-term on-site parking.	Parking
158	2017	Bremerton Parking Study	Purchase a License Plate Reader (LPR) unit for use by parking enforcement throughout the City.	Parking
159	2017	Bremerton Parking Study	Increase parking violation fines and consequences.	Parking
160	2017	Bremerton Parking Study	Establish defined residential parking zones and standardize the parking restrictions within each zone.	Parking
161	2017	Bremerton Parking Study	Implement a residential-only permit system in residential neighborhoods mostly heavily impacted by employee and commuter parking.	Parking
162	2017	Bremerton Parking Study	Allow employees to purchase on-street permits and invest a portion of the proceeds back into the residential neighborhood.	Parking
163	2017	Bremerton Parking Study	Develop an overflow parking plan for occasional special events.	Parking
164	2007	Bremerton Non-Motorized Plan	Citywide bicycle wayfinding signage plan - develop a citywide bicycle wayfinding signage plan identifying: appropriate locations for signs, destinations to be highlighted on each sign, and approximate distance and riding time to each destination	Policy

Joint Compatibility Transportation Plan - Project Inventory List

Number	Year	Study	Project Description	Type of Improvement
165	2007	Bremerton Non-Motorized Plan	Bremerton Transportation Center Bicycle/Pedestrian Sub-Area Plan - develop a sub-area plan addressing bicycle/pedestrian circulation needs in and around the Bremerton Transportation Center	Policy
166	2007	Bremerton Non-Motorized Plan	Municipal Code Bicycling Parking Requirements Update - update Bremerton Municipal Code to establish bicycle parking requirements for individual land uses, and establish bicycle parking facility design requirements	Policy
167	2018	SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study	Develop a plan to address resiliency and redundancy, including identifying gaps in the network	Policy
168	2020	Bremerton Strategic Road Safety Plan	Citywide: Systemic Roadway Departure Safety Treatments. Paved shoulders and rumble strips on Belfair Valley Rd, fixed object treatments, utility pole delineation, utility pole clear zone agreements	Roadway
169	2021	SR 303 Corridor Study	Develop a corridor schematic from Burwell Street to NE Riddell Road using updated survey data	Roadway
170	2021-2026	Bremerton TIP	Local Access Projects - 5.64 miles of local access road	Roadway
171	2021-2026	Bremerton TIP	East/West Corridor Diet (6th or 11th or Couplet) - scope to be defined by JCTP	Roadway
172	2021-2026	Bremerton TIP	PSNS Main Entrance - scope to be defined by JCTP	Roadway
173	2020	Citywide Transportation Concurrency	Additional operations and safety improvements may be achieved through implementation of adaptive signal control on one or more congested signalized corridors.	Signal Systems
174	2021-2026	Bremerton TIP	Intelligent Transportation Systems (ITS) Program - priority to be determined by JCTP	Signal Systems
175	2016	Kitsap Transit Long Range Transit Plan	Capitalized facilities including transit centers, park and rides, maintenance buildings, operations bases and administrative offices	Transit (Bus)
176	2016	Kitsap Transit Long Range Transit Plan	Bus Rapid Transit implementation	Transit (Bus)
177	2021	SR 303 Corridor Study	Convert northbound approach at Burwell Street to right-in right-out (RIRO). TSP and updated traffic signal equipment for active traffic management options at Burwell Street, 6th Street, 11th Street, 13th Street, 16th Street, Sheridan Road, Sylvan Way, E Broad Street, Hollis Street, and NE Riddell Road.	Transit (Bus)
178	2016	Kitsap Transit Long Range Transit Plan	Passenger Only Fast Ferry	Transit (Ferries)
179	2016	Kitsap Transit Long Range Transit Plan	Ferry dock improvements	Transit (Ferries)
180	2013	Kitsap County Non-Motorized Facility Plan		
181	2015	Joint Land Use Study		

Appendix B

Community Sounding Board Meeting Presentations

CITY OF BREMERTON

Joint Compatibility Transportation Plan

Community Sounding Board Meeting #1
01/28/21

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Agenda

- Welcome and introductions
- Project overview and goals
- Roles & Responsibilities
- Workplan
- Public Survey
- Closing

Introductions

- Name
- Jurisdiction, agency, affiliation, company
- What transportation improvement in Bremerton do you feel needs the most attention and what would you do if there were no constraints?

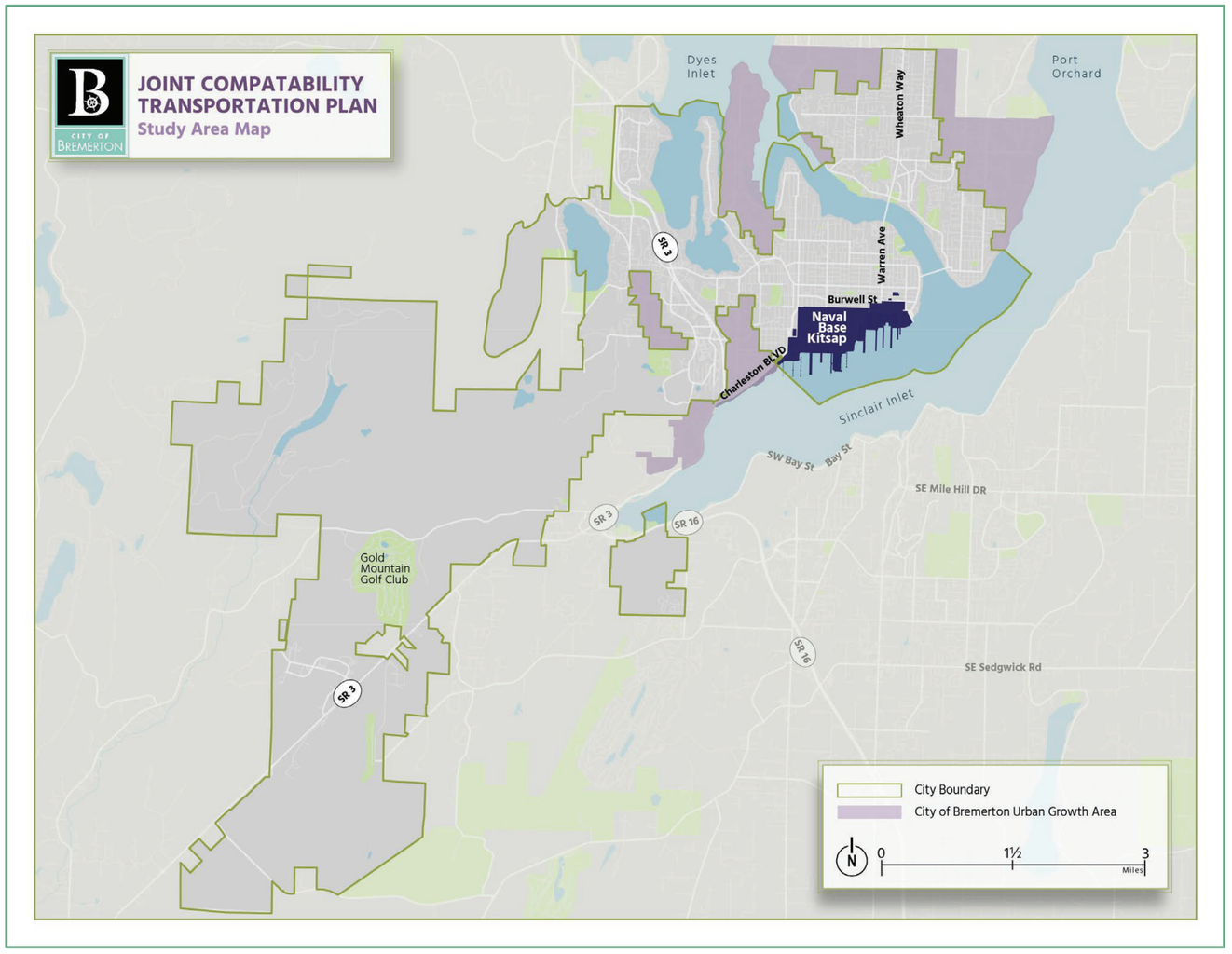
Project Overview

Bremerton has unique traffic and parking issues due to Naval Base Kitsap - Bremerton (NBK-BR), such as:

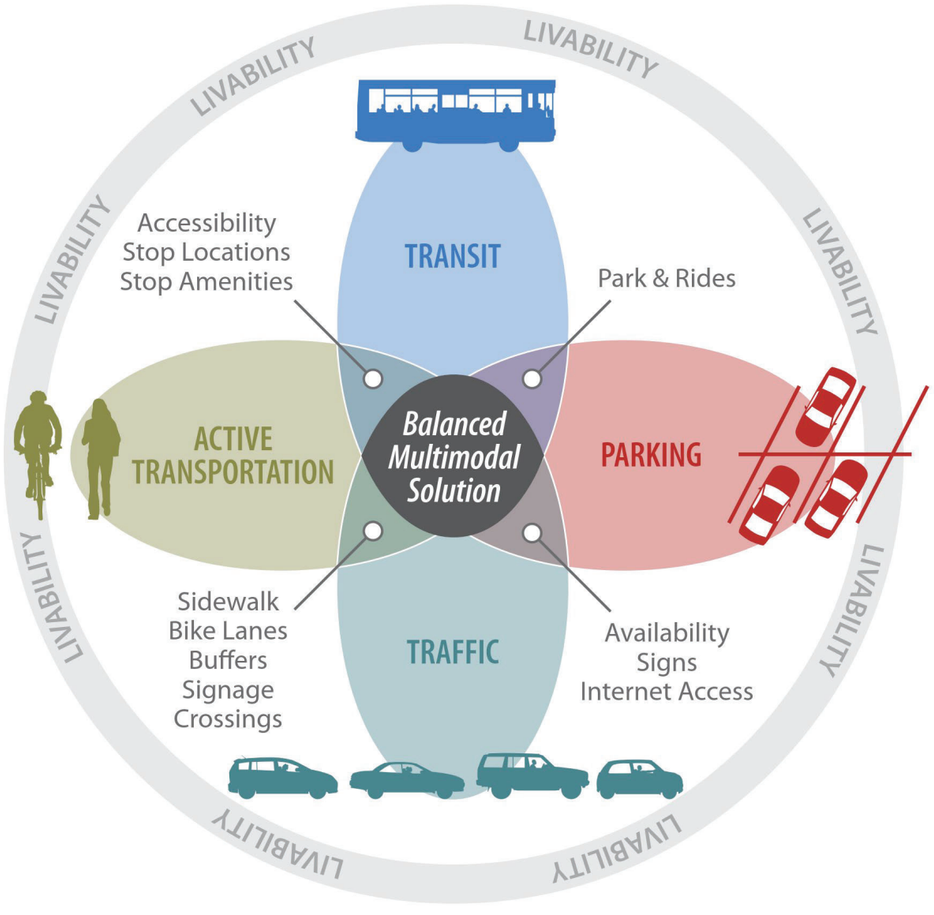
- traffic surges at shift changes
- limited parking both inside and outside fence line
- older infrastructure that is car focused
- forecasted population growth

City and NBK-BR are partnering through a DOD grant to create a plan that will address these challenges

- $750,000 grant
- 18 month study period



Project Goals



- Examine existing and future need 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

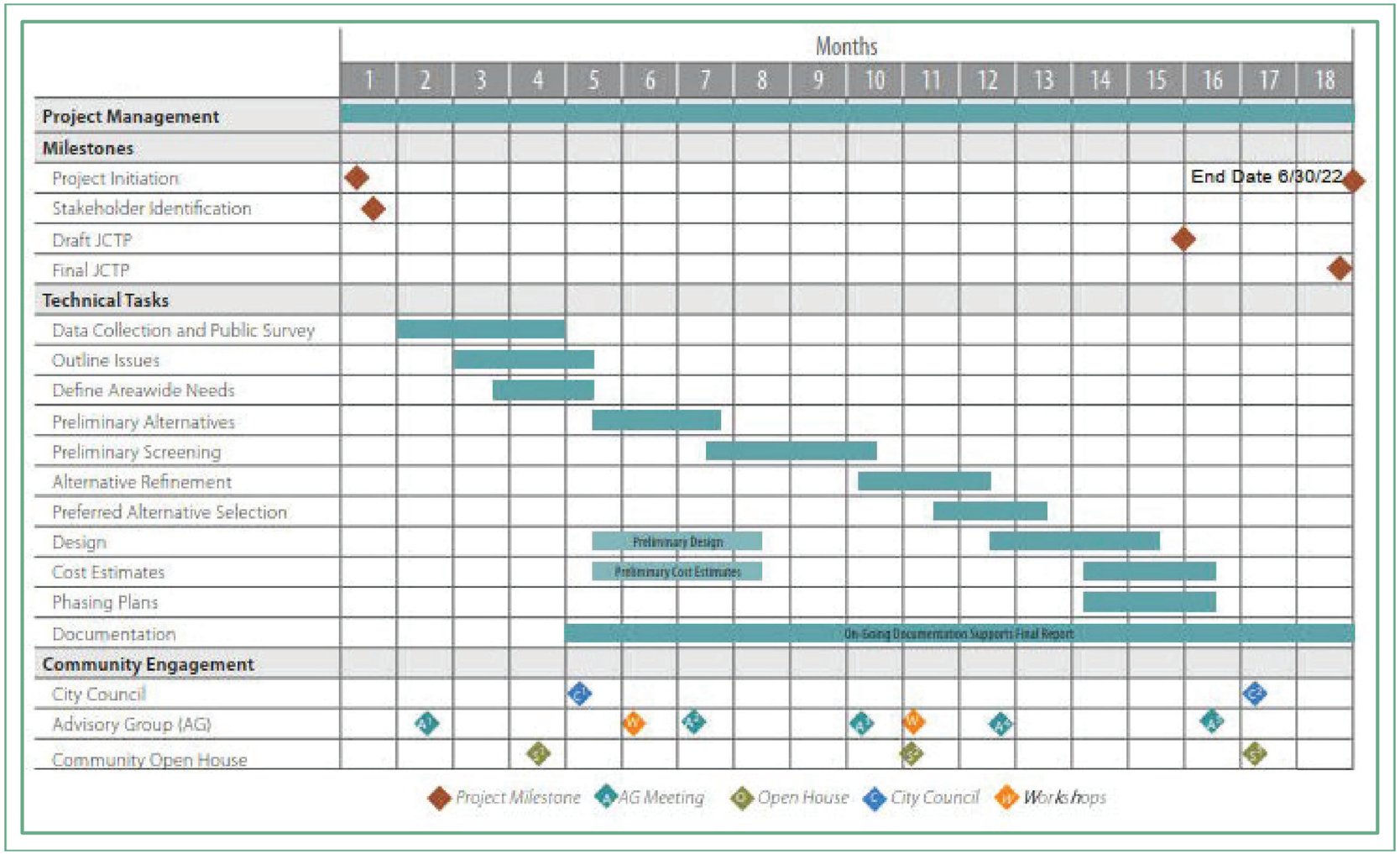
Project Team Roles and Responsibilities

- Provide background materials, data, and gather community input
- Facilitate discussion that leads to solutions for issues identified by the Community Sounding Board
- Provide the right staff at Community Sounding Board meetings to address questions and provide information
- Consider Community Sounding Board input when developing solutions
- Report back to Community Sounding Board on how the project team considered and addressed their input

CSB Member Roles and Responsibilities

- Represent the interests of the public through continued participation and attendance at the CSB meetings
- Reach out to constituency to express their opinions and to share project progress
- Respect all CSB team members and work toward overall consent on project direction
- Respect differing needs and priorities while seeking to find common ground
- Provide strategic advice on project needs, strategies, context, alternatives, and outcomes
- Represent your agency and keep your agency informed and engaged throughout study process

Workplan


Months
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
Project Management
Milestones
Project Initiation
End Date 6/30/22
Stakeholder Identification
Draft JCTP
Final JCTP
Technical Tasks
Data Collection and Public Survey
Outline Issues
Define Areawide Needs
Preliminary Alternatives
Preliminary Screening
Alternative Refinement
Preferred Alternative Selection
Design
Preliminary Design
Cost Estimates
Preliminary Cost Estimates
Phasing Plans
Documentation
On-Going Documentation Supports Final Report
Community Engagement
City Council
Advisory Group (AG)
Community Open House
Project Milestone
AG Meeting
Open House
City Council
Workshops

Community Engagement

Meeting	Date	Agenda
CSB 1	1/28/2021	Introductions, schedule, concurrence, survey
Open House	2/9/2021	Define project and request public input
Workshop #1	5/25/2021	Define preliminary projects
CSB 2	6/10/2021	Outline issues, discuss screening, draft needs, preliminary project list, survey results, open house comments
CSB 3	8/12/2021	Share screening results, discuss refinements, open to discuss additional projects
Open House 2	8/24/2021	Share potential alternatives and request input
Workshop #2	9/7/2021	Refine projects, phasing, prioritization
CSB 4	12/2/2021	Review findings, consider preferred projects
Open House 3	2/22/2022	Share recommended alternatives and discuss phasing opportunities dependent on funding
CSB 5	3/3/2022	Review preferred projects, cost, phasing

Virtual Open House



Virtual Open House February 9, 2021

Share the date and link

Goals for the open house:

- Inform the public about the project
- Request their thoughts about issues/solutions
- Share the schedule and future meeting times
- Share how they can comment at any time

Public Information Survey

Pre- and post-COVID travels questions

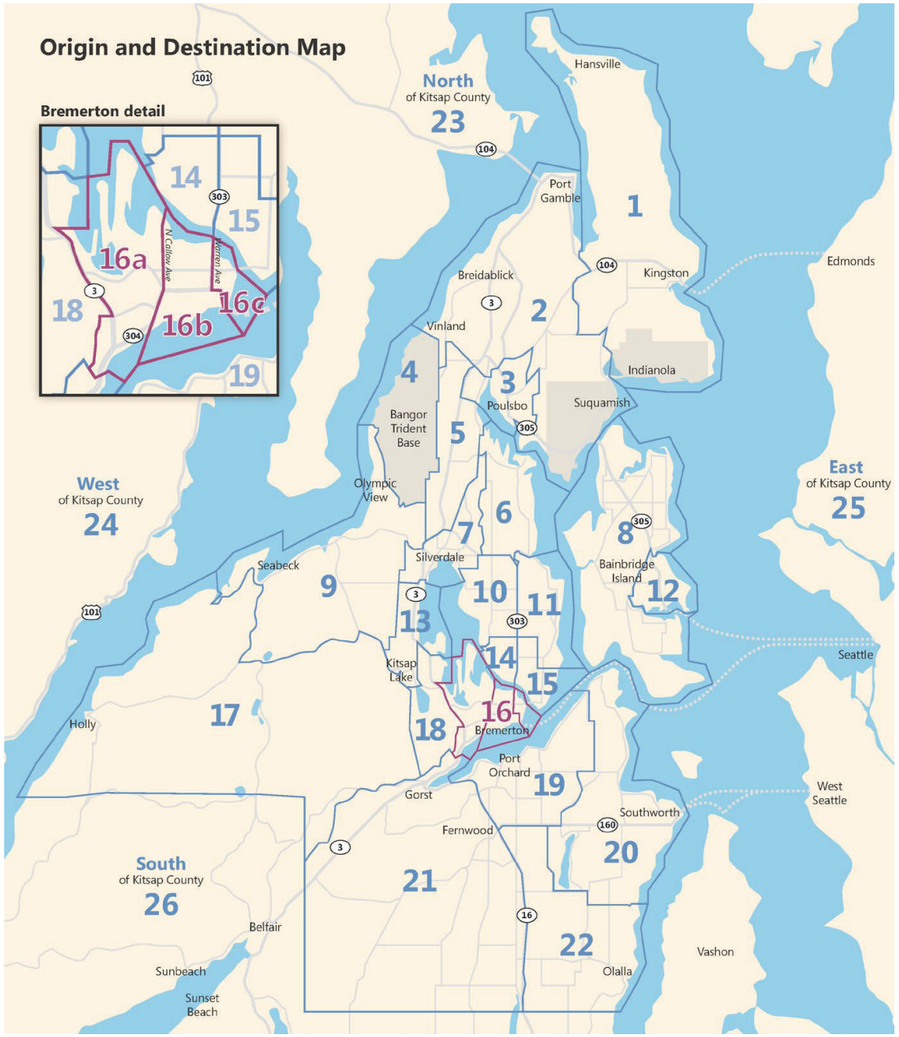
Origins and destinations for work trips

Modes of travel

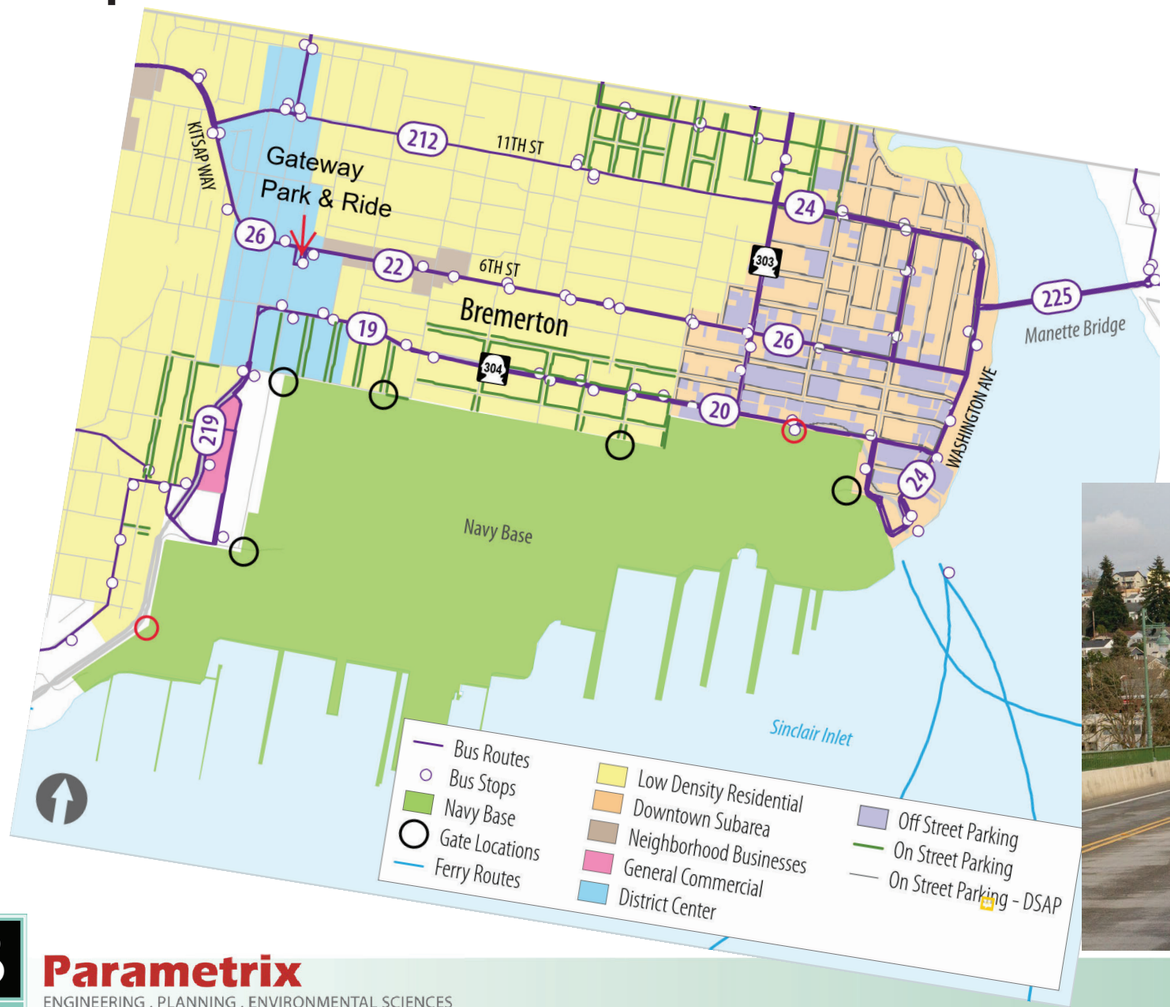
Travel issues

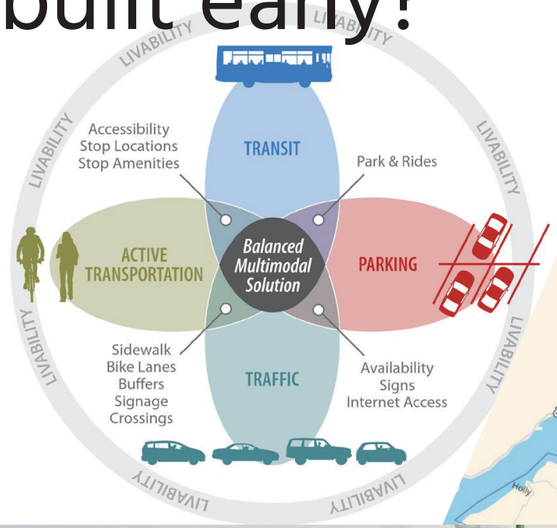
Travel solutions

Demographics



Given what we've shared and what you know: What transportation improvement(s) do you feel would provide the most benefit if built early?









CITY OF BREMERTON

Joint Compatibility Transportation Plan

Community Sounding Board Meeting #2
06/16/21

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Agenda

1. Project overview/schedule
2. Public information survey results
3. Project analysis and issues
    1. https://storymaps.arcgis.com/stories/2a7308bb204344f8acc99f94ced7556b
4. Workshop results
    1. Issues/Ideas
5. Screening approach
    1. Metrics/measures
    2. Pairwise comparison
6. Next steps

Joint Compatibility Transportation Plan - Workshop #1 Preliminary Ideas for Consideration

IDEAS	ISSUE	POSSIBLE ALTERNATIVE GROUPING	*NOTES*
New / Expanded Parking			
Add park-and-ride in West Bremerton and establish frequent shuttle service between P&R and NBK-BR			
Added parking outside of downtown with frequent shuttle service			
Add more parking in Port Orchard and increase foot-ferry frequency			
Add capacity to park-and-rides at Sedgewick, Treemont and Mile Hill			*Confirm names/locations with Ed Coviello*
Partner with Port of Bremerton to provide parking and run shuttles from PSIC			
Park-and-Ride near SR 3/Kitsap Way interchange			
Park-and-Ride near SR 3/Loxie Eagans interchange (West Hills)			
Add park-and-ride locations outside of Downtown	Congestion in Downtown		
Park-and-Ride near downtown similar to Gateway			
Park-and-Ride at Port			
Park-and-Ride in Port Orchard			
Expand parking through public/private partnerships. New downtown parking should be mixed-use with active street-level uses.	Street-level parking does not contribute to a vibrant and walkable Downtown		

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Joint Compatibility Transportation Plan - Workshop #1 Preliminary Ideas for Consideration

IDEAS	ISSUE	POSSIBLE ALTERNATIVE GROUPING	*NOTES*
Capacity Projects: changes in lanes, signals, intersection control, etc			
Fix the SR 3 / 310 interchange; update signals or replace with RABs		Kitsap Way alternative	
Improve SR 3/ Loxie Eagan interchange (poor pedestrian environment + signal/stops signs work poorly together)			
Design Washington Avenue/Manette Bridge RAB to accommodate/forward compatible 2050 growth	Congestion / queuing		
Replace signals with RABs in downtown	Congestion / queuing		
Access management on Kitsap Way between Corbett and Oyster Bay			*Parametrix idea*
Add westbound lane on Kitsap Way at Marine Drive, and drop into double left @ National			*Parametrix idea*
Add transit lane along Kitsap Way (westbound 11th to SR 3)			*Parametrix idea*
Improve intersection operations at Naval/Burwell, includes proposed Naval Ave road diet			*Parametrix idea*
Add a roundabout at Burwell/Naval Ave and other locations near the Base	Congestion / queuing		
Reconfigure Callow/Burwell intersection to better serve primary movements / reduce congestion	Congestion / queuing		*Look at ideas such as seperated movements (intersection of*
Build road/ramps directly from SR 3 to Charleston Gate	Congestion / queuing		
Add capacity on SR 3, especially in southbound direction			
Build a bypass to PSIC			
Add capacity at SR 3/SR 304 interchange			*Most recent improvements added lane to SR 3 and took lane away from SR 304; crashes at merges causing delays*
Reversible lane of SR 3			
HOV lane along SR 304			
Dedicated transit lane along Kitsap Way			
Dedicated transit lane through Gorst (must be paired with enforcement)			
BAT lanes or dedicated center lanes along future BRT corridors			
Pedestrian scrambles near the State St, Burwell, and Bremerton gates	Difficult crossing		
Add LPI to all signals	Difficult crossing		
Dedicated transit road from SR 3 to downtown			
Opticom at every signalized intersection to allow for transit to pre-empt			
Evaluate road diets on 6th St and 11th St to provide bike facilities.	Uncomfortable biking environment		
Ramp metering	Congestion / queuing	TSMO / ATM	
Traffic Management Center	Congestion / queuing	TSMO / ATM	
Variable message signs	Congestion / queuing	TSMO / ATM	
Incident response on SR 3			*Required already;*
Build projects proposed in SR 303 study			
Roadway improvements to get employees out of NBK and onto SR 3 SB			
Signalize intersections near potential Park-and-Rides			

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Joint Compatibility Transportation Plan - Workshop #1 Preliminary Ideas for Consideration

IDEAS	ISSUE	POSSIBLE ALTERNATIVE GROUPING	*NOTES*
Projects on Base			
Move some Naval operations (e.g. NEX) to Bangor	Congestion / queuing		
Stagger shipyard shifts, especially with ferry arrivals	Congestion / queuing	TDM	
Improve gate progression to decrease queuing in the AM peak	Congestion / queuing		
Move gates further into the Base to reduce queuing on City streets	Congestion / queuing		
Add commuter parking on Base			
More parking at NBK-BR			
Add parking at NBK	Demand for parking exceeds supply at NBK		
Enhance access to NBK from the West to reduce congestion in Downtown	Congestion in Downtown		

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Joint Compatibility Transportation Plan - Workshop #1 Preliminary Ideas for Consideration

IDEAS	ISSUE	POSSIBLE ALTERNATIVE GROUPING	*NOTES*
Transit Service / Frequency			
Run KT bus service into the Base			*This occurred prior to 9-11*
Concentrate Worker/Driver routes along main corridors			
Ferry service from West Seattle			
Change Worker/Driver to pick up and drop off at same point to accommodate non-NBK employees			
Dedicated transit for uniformed NBK employees			
More bus routes to the shipyard			
Microtransit to main corridors that have frequent/BRT routes			
Shuttle service between P&Rs and downtown Bremerton (regular bus route with high frequency)			
Downtown circulator bus			
Ferry to/from Gorst or Port Orchard			
Partner with Port Orchard to incentivize foot-ferry ridership			
Commuter boats to cross Port Washington Narrows (examples from Thailand or Chicago)			
Change to minimum usage for Worker/Driver program			
More driver for KT to increase frequency			
Cover more shift times with bus and/or Worker/Driver			
2 early morning buses			
Expand vanpool program			
Switch Worker/Driver buses to vans, change frequency to more than once each direction			
Worker/Driver late bus (similar to sports team buses) or on-call shuttle			
Larger ferries or more frequency for fast ferry routes (particularly Anapolis FF)			

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Joint Compatibility Transportation Plan - Workshop #1 Preliminary Ideas for Consideration

IDEAS	ISSUE	POSSIBLE ALTERNATIVE GROUPING	*NOTES*
Active Transportation			
Consider a mobility hub at the Gateway P&R for first/last mile connections.			
Pedestrian overpass to Charleston gate			
Active transportation improvements at existing Park-and-Rides (pedestrian/ADA improvements, convenient/safe/well lit facilites)			
Create more bike lanes; remove sharrows			
Improve pedestrian conditions in the downtown core	Pedestrian Safety		
Add reasonably spaced pedestrian crossings	Safety		*Similar to SDOT and other cities; need to consider complimentary actions*
Ped bridge from Port Orchard			
Grade separated crossing on Charleston Blvd. (Charleston Beach Rd? Ferragut St?)	Difficult crossing	Charleston Blvd	
At grade crossing enhancements at Charleston Blvd & Charleston Beach Rd	Difficult crossing and faded paint.	Charleston Blvd	
At grade crossing enhancements at Charleston Blvd & Farragut St (e.g. high visibility crosswalks and other safety updates)	Difficult crossing and faded paint.	Charleston Blvd	*F&P idea - not raised during Workshop 1*
Stripe the crosswalk at Charleston Blvd & Rodgers St by the bus stop.	Difficult crossing	Charleston Blvd	*F&P idea - not raised during Workshop 1*
Grade separated crossing on State St	Difficult crossing		
Gondola from Port Orchard to Bremerton.	Congestion		
Off-street trail from Gorst to downtown Bremerton.	Uncomfortable biking environment		
Establish a safe E/W walking route along the north perimeter of the base	Uncomfortable walking environment		*(Burwell St to Chester Ave to 1st St to Charleston Blvd), including wayfinding*
Upgrade pedestrian facilities in the vicinity of the State St gate to establish a safe, comfortable walking route to the Base.	Uncomfortable walking environment		*(e.g. widen and repair sidewalks, remove obstructions, etc.)*
Upgrade pedestrian facilities on Montgomery Ave from 6th St to 1st St to establish a safe, comfortable walking route from the Gateway P&R to the Base.	Obstacles in sidewalks (light poles, etc.)		*(e.g. widen and repair sidewalks, remove obstructions, etc.)*
Inventory sidewalk obstructions/disrepair/ADA issues throughout downtown and identify priority locations for upgrades.	Obstacles in sidewalks (light poles, etc.)		
Install bike locker parking outside (and/or inside) the State Street, Burwell, and Bremerton gates. Naval and Charleston would also benefit from bike parking, but are less of a priority due to lower pedestrian traffic.	Barrier to biking		
Explore pedestrian/bike upgrades near the Charleston gate to incentivize their use.	Uncomfortable walking and biking environment		*Need to know more to flesh out this idea*
Extend the planned bike facilities to provide bike access to the Charleston, Montgomery, Naval, and State gates.	Uncomfortable biking environment		*Planned facilities stop around Burwell*
Develop a biking map of downtown Bremerton, including how to access/navigate the Base by bike.	Barrier to biking		*F&P idea - not raised during Workshop 1*
Evaluate what planned bike facilities can be upgraded to provide more comfort (e.g. bike lane instead of sharrows, protected bike lane instead of bike lane, etc.). Do this with an eye for establishing continuous networks without gaps. (e.g. requests for providing more protection on Burwell, Warren, and 1st)	Uncomfortable biking environment		

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Joint Compatibility Transportation Plan - Workshop #1 Preliminary Ideas for Consideration

IDEAS	ISSUE	POSSIBLE ALTERNATIVE GROUPING	*NOTES*
Implement bike/ped improvements proposed for the SR 303 Study. Need better N/S connection for cyclists in the vicinity of Warren Ave.	Uncomfortable biking environment		
Upgrade Kitsap Way to be more comfortable for people walking and biking. This includes adding new crossings, upgrading existing crossings, and adding protected bike lanes.	Crossings are too far apart, which makes accessing bus stops challenging, bike facilities don't have enough protection, and there were		
Upgrade Charleston Blvd to be more comfortable for people walking and biking. This includes adding new crossings, upgrading existing crossings, and adding protected bike lanes.	Crossings are too far apart and bike facilities don't have enough protection. People walk to the base from the residential areas to the west	Charleston Blvd	
Add/upgrade sidewalks in the neighborhood west of Charleston Blvd.	Uncomfortable walking environment		*A lot of people are moving to this area and not many safe sidewalks.*
Evaluate safety enhancements at the site of the pedestrian fatality near the north side of the Base.	Pedestrian safety		
Remove the proposed sharrow west of Charleston Blvd - it is not feasible given terrain and cost.			
Provide safety enhancements at 1st & Callow, which is a dangerous crossing.	Difficult Crossing	Charleston Blvd	*People get stranded in the median. There have been some ped accidents.*
Add crossings west of State on Burwell - there are a few intersections where it's indicated that people are not allowed to cross.	Difficult crossing / long block lengths		

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Joint Compatibility Transportation Plan - Workshop #1 Preliminary Ideas for Consideration

IDEAS	ISSUE	POSSIBLE ALTERNATIVE GROUPING	*NOTES*
Education / Marketing			
Launch an education/marketing campaign to make sure people in Bremerton and on the Base know about what options are available to them already – where is bike storage, how do the worker-driver buses work, you can bike through the base, etc	Barrier to biking, walking, and taking transit	Education	
Increase communication and marketing for vanpools		Education	
Education on worker/driver program (guaranteed ride home, easy to change routes, real time tracking app)		Education	
Joint marketing campaign for City or KT - education on the fact that non-NBK employees can alos use the worker/driver program		Education	
Education to increase NBK worker base commuting from Seattle (reverse commute)		Education	
Parking education program about transportation and parking options		Education	

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Joint Compatibility Transportation Plan - Workshop #1 Preliminary Ideas for Consideration

IDEAS	ISSUE	POSSIBLE ALTERNATIVE GROUPING	*NOTES*
Parking Management / Policy			
Require contractors to park at a Park-and-Ride location outside of Downtown with frequent transit service to work	Contractors do not have access to parking at NBK		
Revisit on-street parking management strategies including permit programs and paid parking in Downtown	Bremerton Shuffle and commuter parking in residential neighborhoods		
Establish a transportation management association			
Restrict new parking in Downtown (i.e. commuter parking)	Commuter parking impacts on Downtown		
Identify priority users for parking (i.e. commuters vs. residents/businesses)	Commuter parking impacts in Downtown and residential neighborhoods		
Increase parking violation fines	Lack of compliance with parking management regulations impact Downtown and residential		
Parking cash-out for new development (including a policy change to reduce parking)			
Prioritize rideshare and vanpool stalls in existing facilities	Traffic congestion in Downtown		
Repurpose parking lots for other travel modes			
Commuter permits for City-owned facilities			

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Joint Compatibility Transportation Plan - Workshop #1 Preliminary Ideas for Consideration

IDEAS	ISSUE	POSSIBLE ALTERNATIVE GROUPING	*NOTES*
Programs/Technologies/Incentives to encourage mode shift			
Maintain Telework options currently available to Base	Congestion / queuing	TDM	
No payment for transit			
Incentives to ride transit			
Reduced fare and regular bus passes. Reduced fare based on income			
Provide incentives for mode shift away from SOV for residents of neighborhoods along SR 303			
Provide free parking for vanpools			
Operate City run rideshare program			
Co-locate worker/driver stops with origins (daycares, schools, etc)			
Affordable on-site daycare			
App similar to OneBusAway			
Improve technology to make the Worker/Driver program more efficient			

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Joint Compatibility Transportation Plan - Workshop #1 Preliminary Ideas for Consideration

IDEAS	ISSUE	POSSIBLE ALTERNATIVE GROUPING	*NOTES*
Other			
Align with other planned projects			
Identify who you're designing for (have solutions meet the needs)			
Keep in mind growth especially through Gorst	Congestion / queuing		
Use the Navy's rail line to move people	Pedestrian Safety		
Reduce posted speeds			
Better enforcement of HOV lanes			
Funnel drivers to desired arterials through design/traffic calming			
Separate truck traffic from GP traffic; provide load/unload zones and restrict time of day			
Enforcement at at-capacity or over-capacity P&Rs			
Make Callow area more liveable - get NBK employees with live near NBK			
Incentivize development with sidewalks and bike lane improvements near developable land			
Keep Worker/Driver system map more up-to-date			
More TOD at P&Rs			
Kayaking from Port Orchard			
Off-board payment for transit			
More shelters at transit stops with lighting			

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CITY OF BREMERTON

Joint Compatibility Transportation Plan

Community Sounding Board Meeting #3
10/26/21

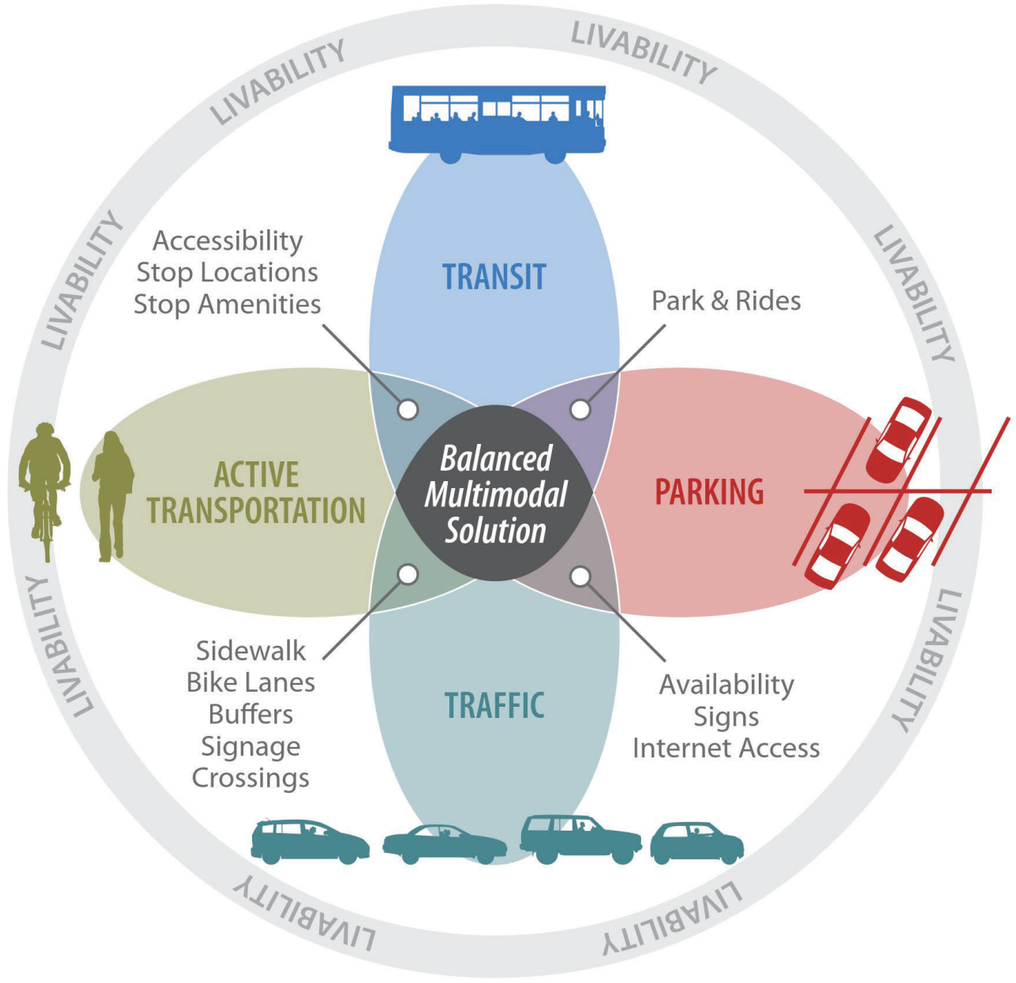
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Agenda

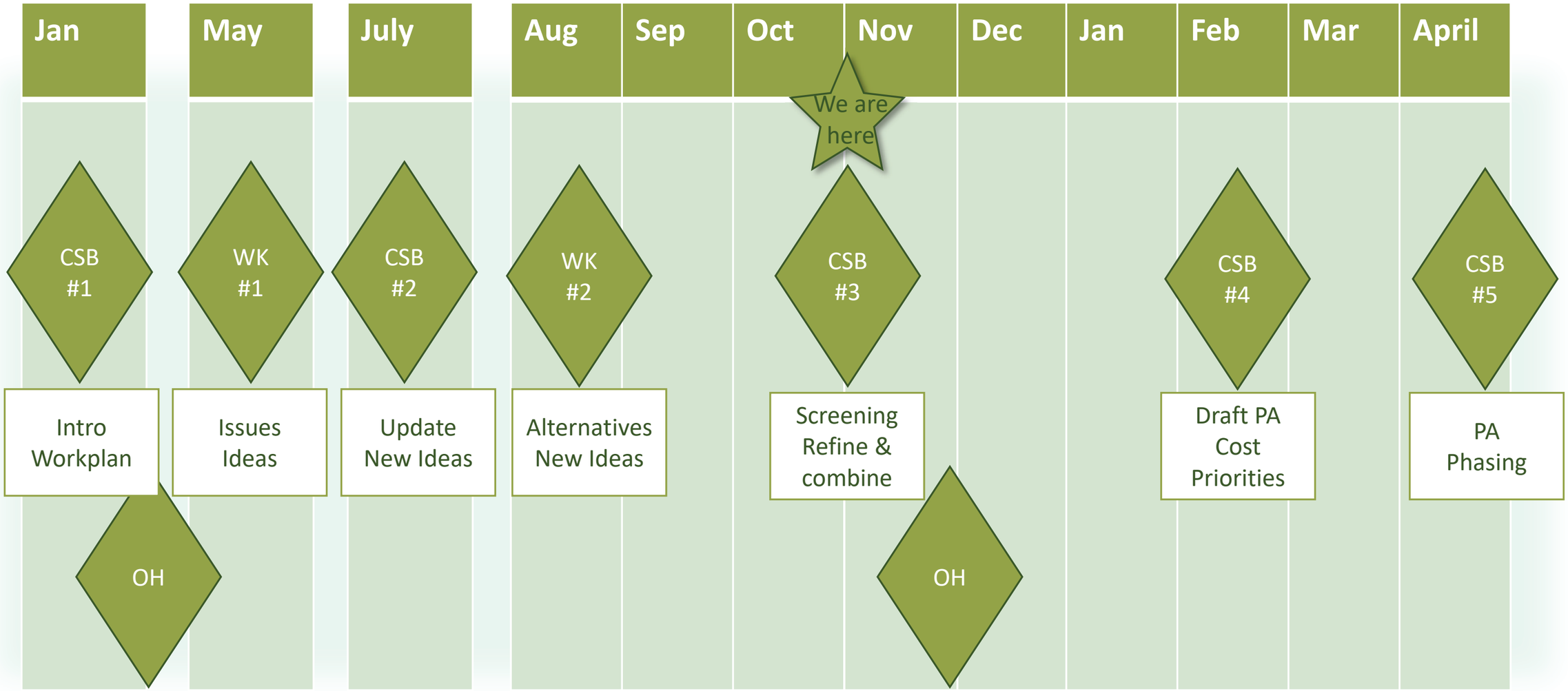
Welcome
Project overview and goals
Schedule
Alternatives
Screening
Next steps
Closing

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	Performance Measures	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 (GP and transit)	→	- 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 (GP and transit)	↓	Travel time reliability improves in AM peak hour; gets significantly worse in PM peak due to 6th/11th road diet
	Average Score	↓	**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.*	Person hours of delay - general purpose	→	With minimal changes to volumes in this alternative, impacts to general purpose and transit mobility are similar to those associated with travel time.
	Person hours of delay - Transit	→	
	Average Score	→	**Impacts in PM peak hour cancel out improvements in AM Peak hour**
Safety: *Improve safety and reduce serious injury and fatal crashes.*	Number of overall 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.
	Number of serious injury and fatal crashes	↑	
	Average Score	↑	**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	Performance Measures	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.*	Travel times (GP and transit)	→	* 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
	Travel Time Reliability (GP and transit)	→	
	Average Score	→	**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.*	Person hours of delay - general purpose	↗	General purpose mobility improves during the AM and PM peak hour due to reduced general purpose vehicle volumes.
	Person hours of delay - Transit	↓	Transit use expected to increase but bus service/number of stops assumed to remain the same
	Average Score	↓	**Without express service, transit mobility will decrease despite increased ridership**
Safety: *Improve safety and reduce serious injury and fatal crashes.*	Number of overall 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.
	Number of serious injury and fatal crashes	↑	
	Average Score	↑	**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	Performance Measures	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.*	Travel times (GP and transit)	↗	* 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 Reliability (GP and transit)	↗	
	Average Score	↗	**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.*	Person hours of delay - general purpose	↑	* Added WB capacity on Kitsap Way (11th to National) has large impact on mobility
	Person hours of delay - Transit	↗	* Full capacity on 6th/11th helps improve mobility
	Average Score	↑	**Full capacity on 6th/11th helps improves mobility**
Safety: *Improve safety and reduce serious injury and fatal crashes.*	Number of overall crashes	↗	* Roundabouts (SR 303) and adaptive signal timing result in a reduction of overall crashes and the number of serious injury and fatal crashes.
	Number of serious injury and fatal crashes	↑	
	Average Score	↗	**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.	↗	↗	↗

Economic Analysis

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

CITY OF BREMERTON

Joint Compatibility Transportation Plan

Community Sounding Board Meeting #4
06/01/22

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Presentation Goals

- Brief recap of the JCTP project and progress
- Review traffic and parking issues the project seeks to resolve
- Outline challenges in resolving issues
- Discuss potential visions for the final outcome

Project Overview

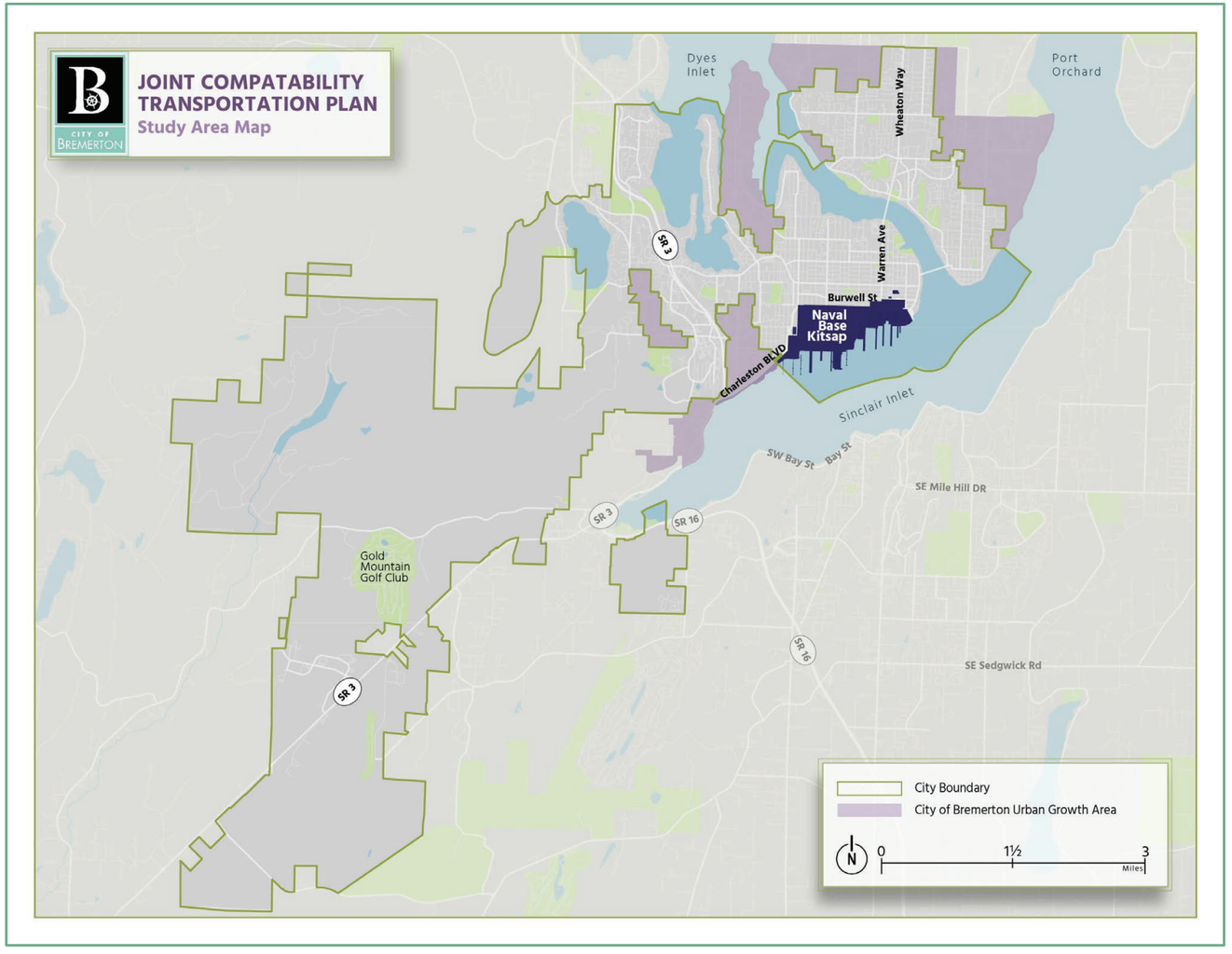
Bremerton has unique traffic and parking issues due to Naval Base Kitsap - Bremerton (NBK-BR), such as:

- traffic surges at shift changes
- limited parking both inside and outside fence line
- limited multimodal opportunities
- forecasted population growth

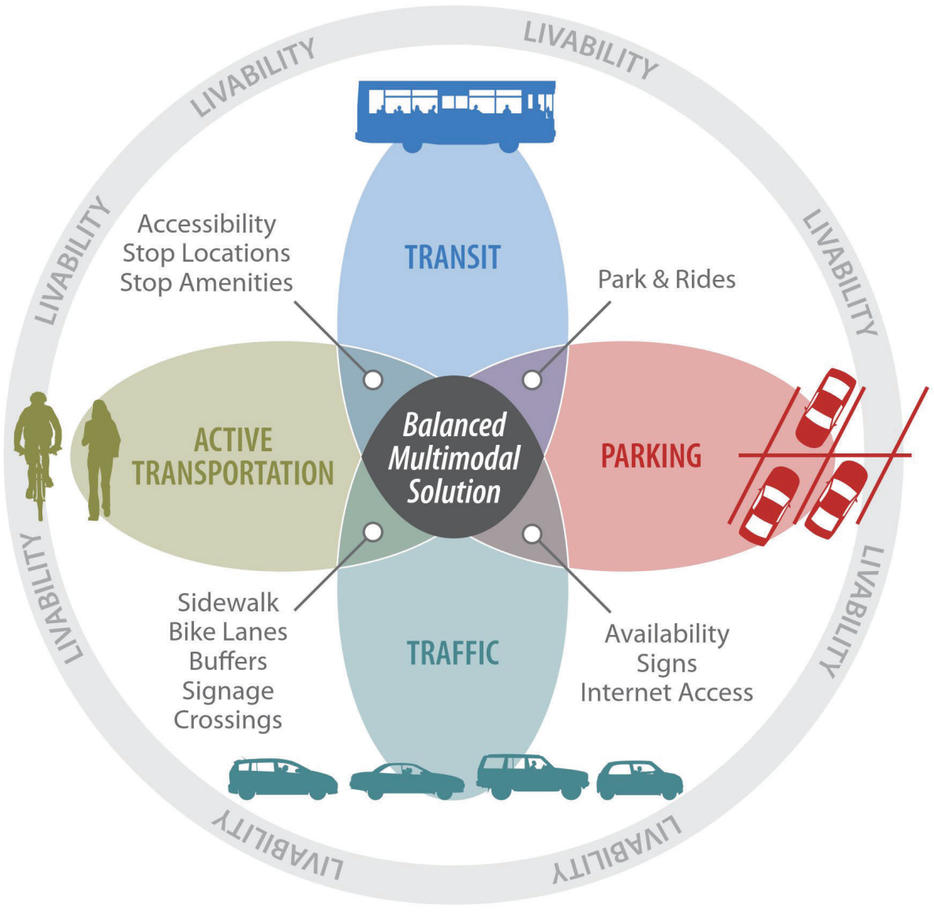
City and NBK-BR are partnering through a DOD grant to create a plan that will address these challenges

- $750,000 Project
- 18 month study period

Outyear for this study is 2050



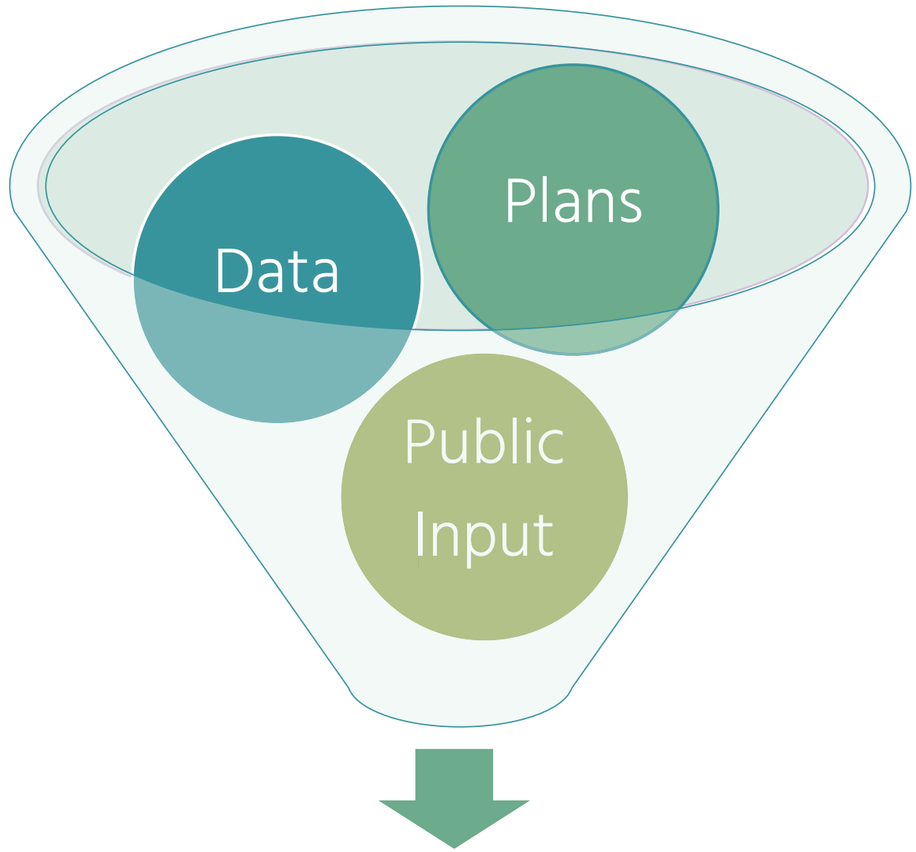
Project Goals



- Examine existing and future need 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

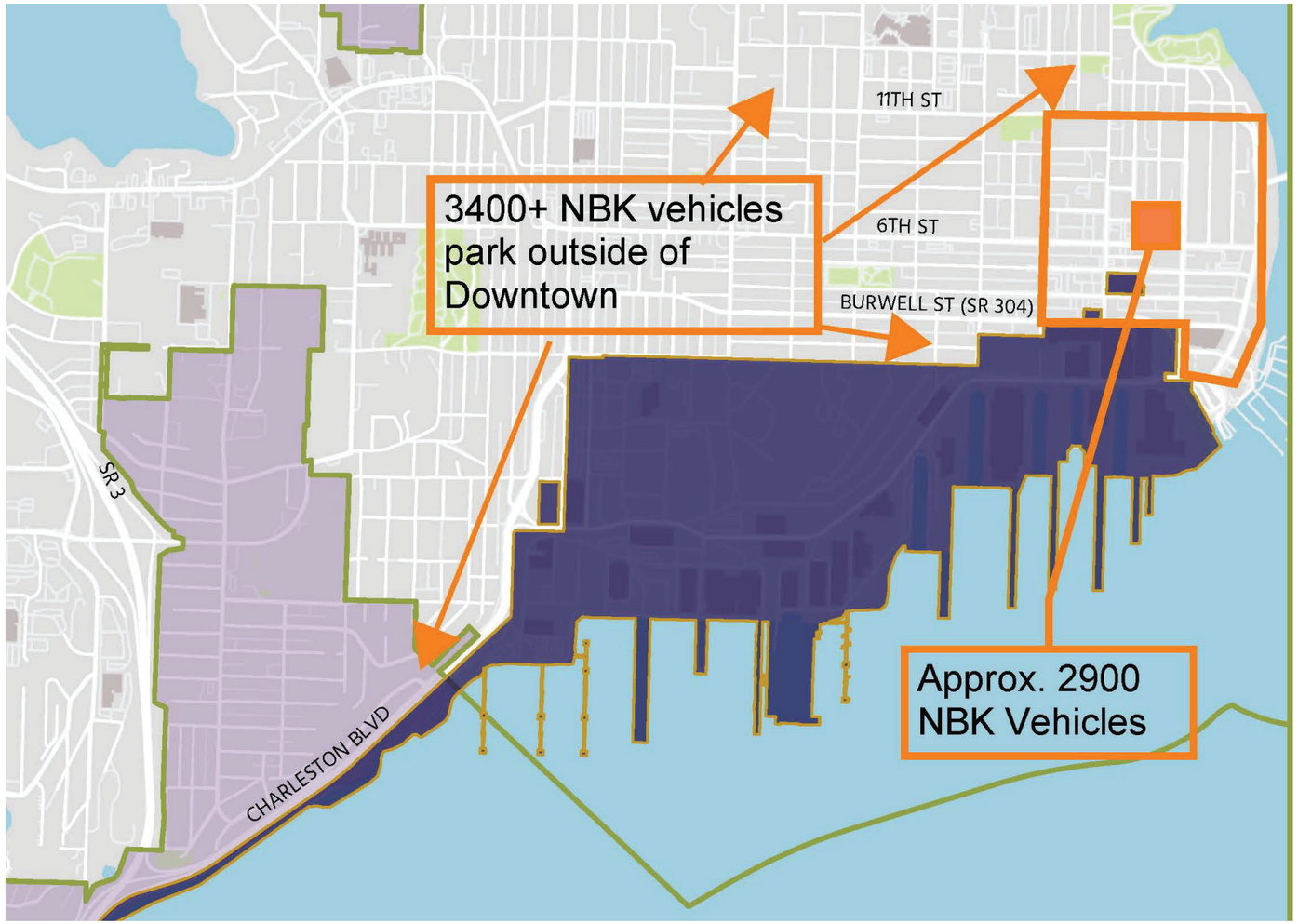
Issues Evaluation Criteria

- Crash History
- Current traffic conditions model
- Planned improvements
- Future job and population growth estimates
- Transit Routes & Park and Rides
- Worker Driver Routes
- Parking conditions
- Bike/ped conditions
- Survey regarding travel habits



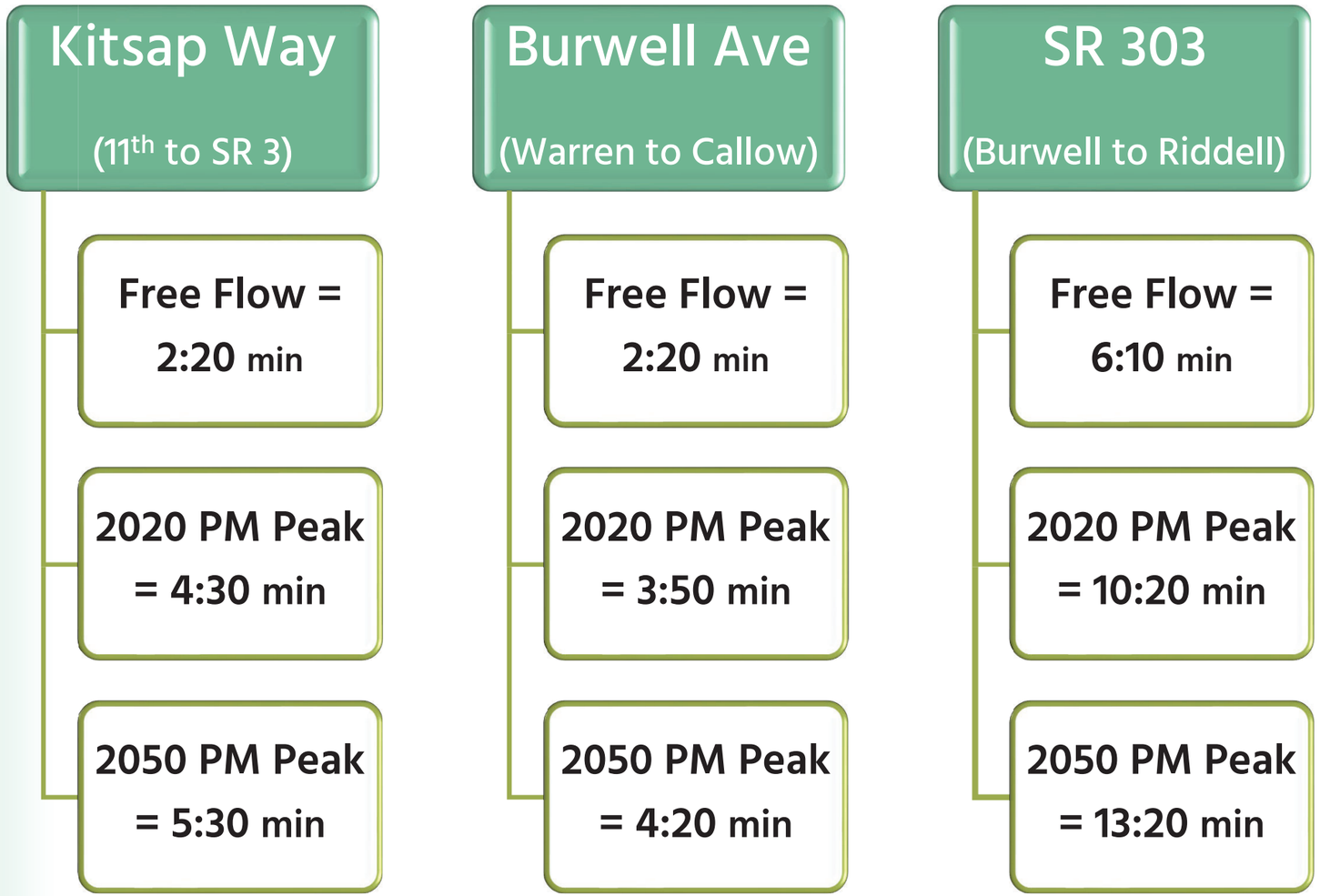
Existing Conditions – NBK-BR Impact

- 60% of traffic coming into Bremerton during the peak period is attributed to NBK-BR
- 6300+ NBK-BR commuter vehicles park outside of the gates during the peak period and over 10,000 pedestrians enter the shipyard gates each day
- 2017 Parking Study confirmed large numbers of commuter vehicles are parking illegally in Downtown and in neighborhoods.
- Parking behaviors are entrenched, and many people are willing to risk tickets
- Surface level parking lots in Downtown are not the highest and best use of the property
- Vehicle queues at base entry gates sometimes cause back-ups on City streets



Future Conditions

- By 2050 there will be significant congestion throughout Bremerton
- PSRC's *Vision 2050 Plan* forecasts substantial growth in Bremerton and Kitsap County through 2050
- As the City pursues their growth plan conflicts between residential parking and commuter parking will increase
- NBK-BR has plans for multi-billion-dollar shipyard modernizations



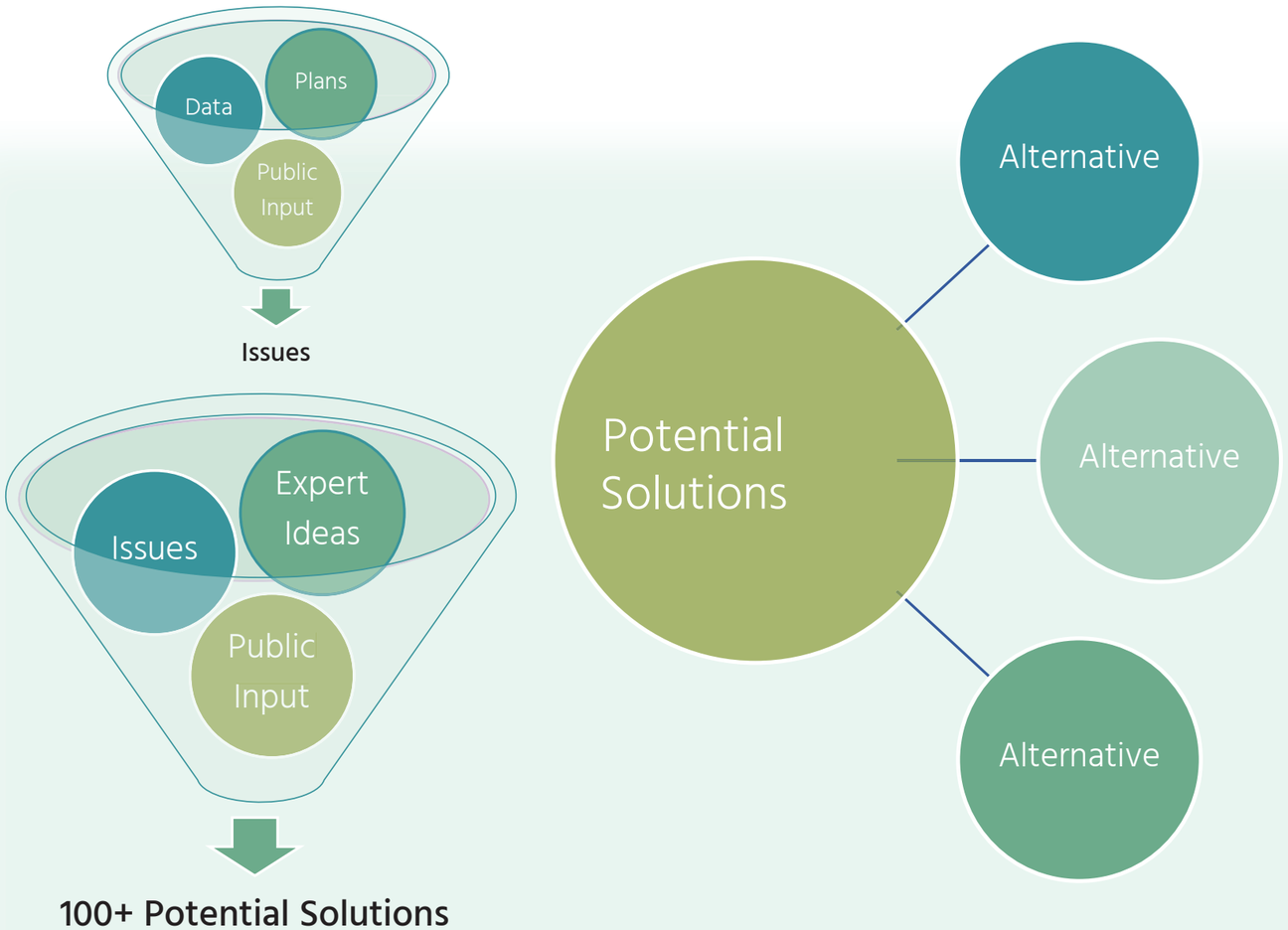
Travel time estimates (in minutes) for general purpose traffic on major corridors.

Issues Recap

- NBK-BR operations create traffic surges and congestion
- Continued growth will worsen traffic conditions in the future
- Neighborhood parking by commuters impacts livability and causes conflict between NBK-BR workers and residents
- NBK-BR worker parking in downtown suppresses economic vitality by limiting parking for business patrons
- Population growth will increase pressure on existing infrastructure decreasing Bremerton's livability and degrading base accessibility



Finding and Evaluating Solutions



To measure the efficacy of solutions three alternatives were evaluated against the 2050 no-build scenario.

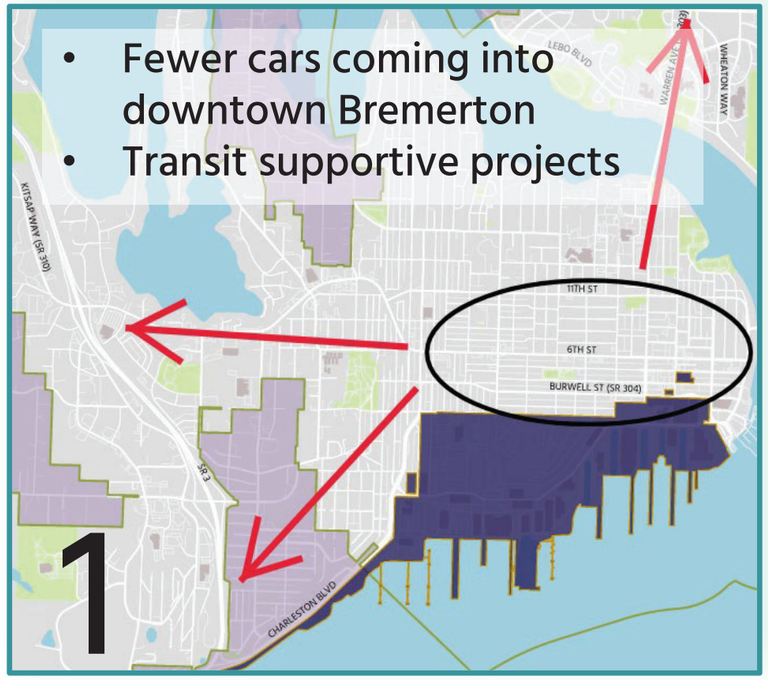
Evaluation Metrics

- Travel Time
- Travel Reliability
- Mobility
- Safety
- Active Transportation
- Economic Vitality
- Parking
- Base Accessibility
- Livability

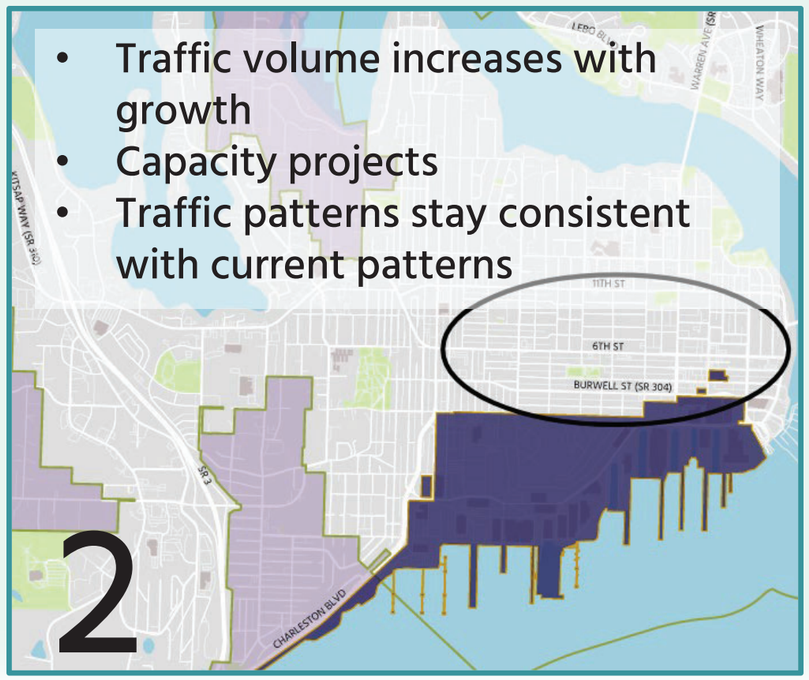
Alternative Evaluation

The alternatives were organized around parking strategies so that the project team could understand how traffic volume and parking patterns impact the potential solutions.

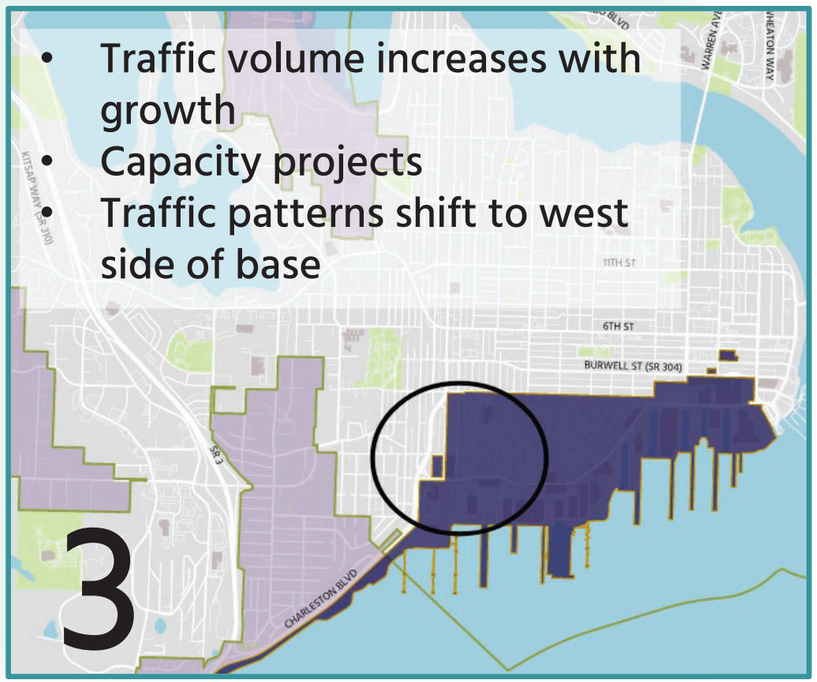
Alt 1 – Relocate Commuter Parking



Alt 2 – Support Commuter Parking



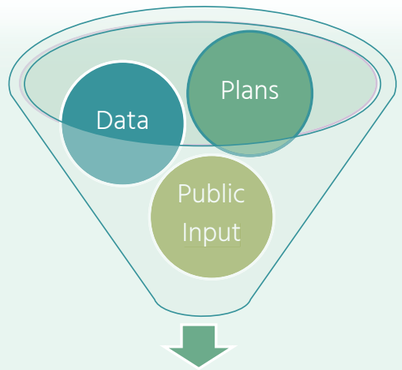
Alt 3 – Build Parking on Base (West Side)

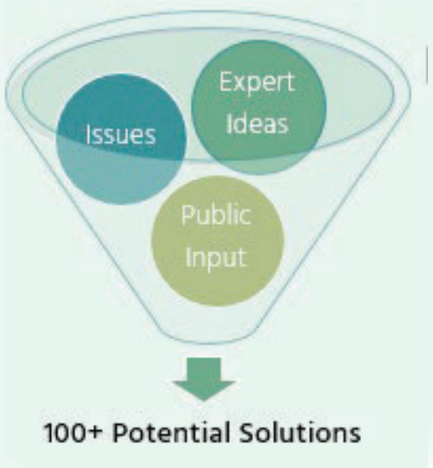


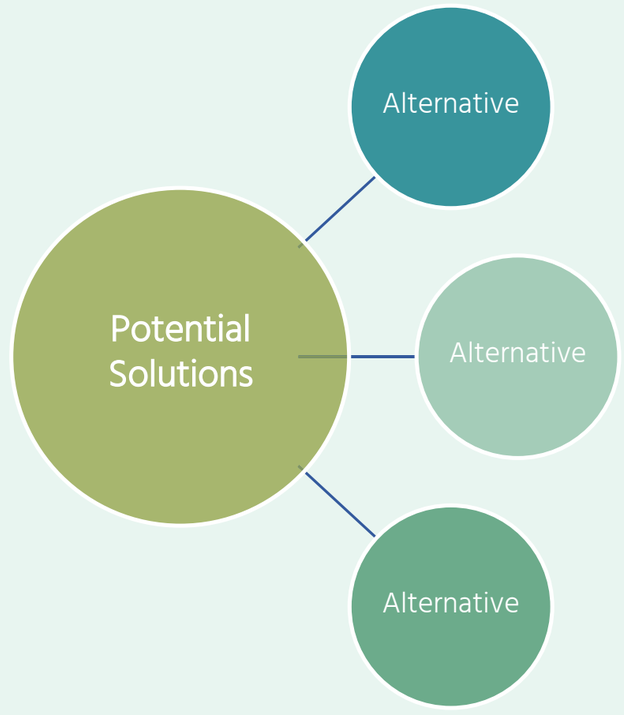
What did we learn from the evaluation of the alternatives?

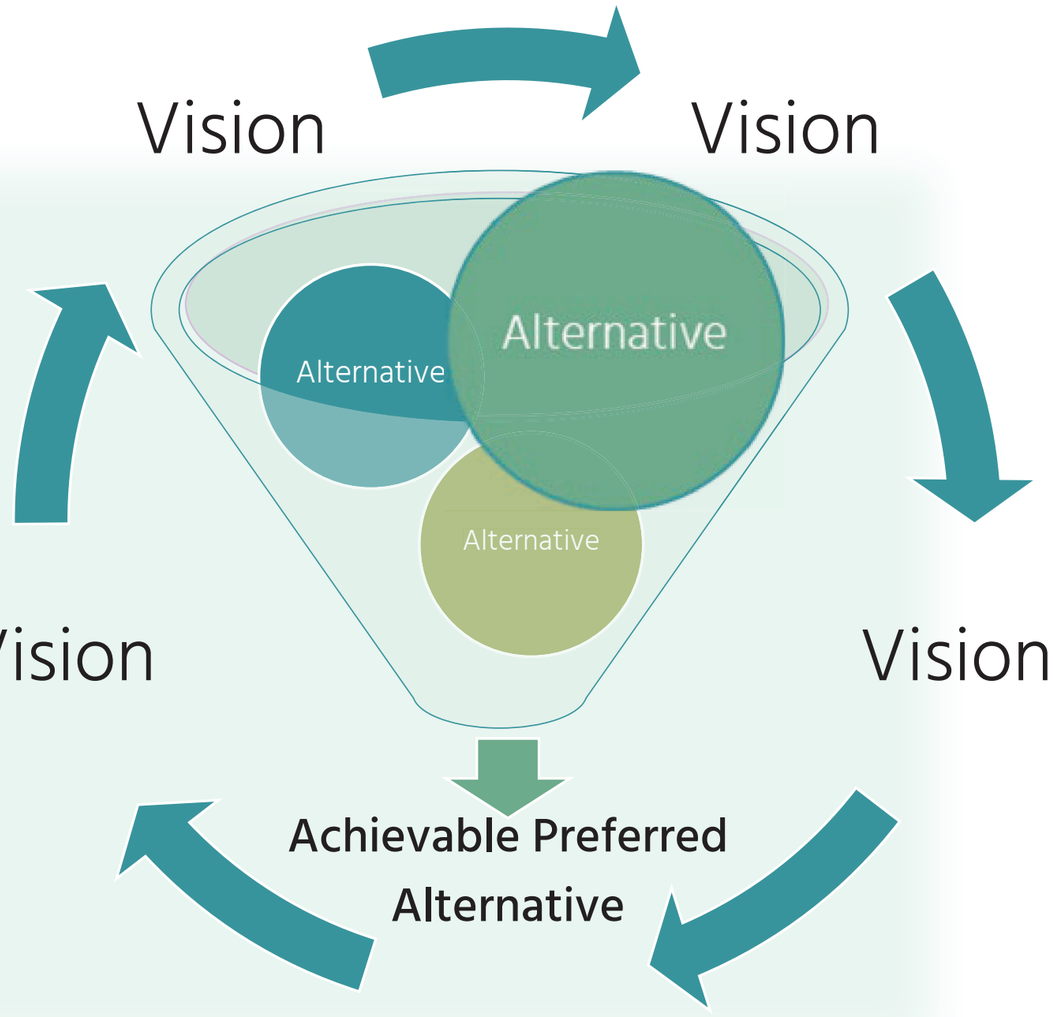
- Several projects showed a clear benefits and will be recommended including:
  - Intelligent signal systems for all major commuter corridors
  - Active transportation improvements targeted for commuters
  - Improvements proposed by the SR 303 Corridor Study
  - Safety improvements
- None of the alternatives showed improvements to all of the evaluation metrics. In particular there was tension between base accessibility and livability
- Projects that improve livability, such as road re-channelizations to accommodate bikes and pedestrians, were incompatible with alternatives that don't reduce vehicles coming into Bremerton
- To achieve reductions in congestion in the relocate parking alternative at least 2000 vehicles need to be removed from City streets in the peak hour.

Next Steps


Data
Plans
Public Input
Issues


Issues
Expert Ideas
Public Input
100+ Potential Solutions


Potential Solutions
Alternative
Alternative
Alternative

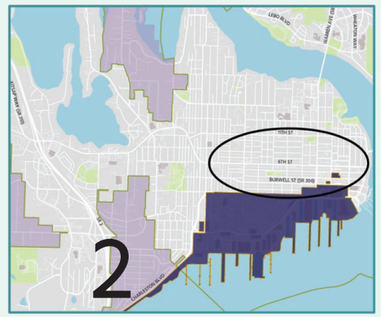

Vision
Vision
Alternative
Alternative
Alternative
Vision
Vision
Achievable Preferred Alternative

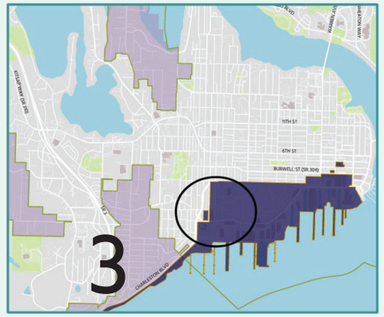
Next steps

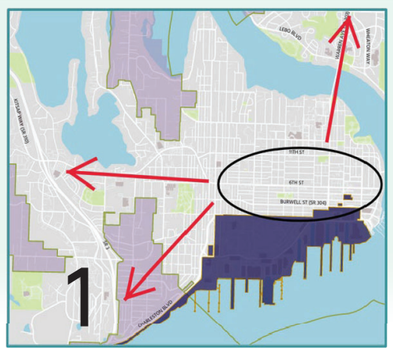
To assemble a preferred alternative the project team needs guidance on the vision. The vision informs the assumptions the project team will make about the outyear of 2050.

Capacity Vision

Assume more cars coming into downtown in 2050







Assume fewer cars coming into downtown in 2050

Livability Vision

Vision Comparison

Livability Centered Vision (assume fewer cars coming into Downtown Bremerton)	vs.	Capacity Centered Vision (assume more cars coming into Downtown Bremerton)
• Success measured by improvements to Bremerton's livability and economic vitality		• 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		• Growth addressed with road capacity projects
• Mode shift assumptions are more aggressive and are driven by transit and policy/operations projects		• Mode shift assumptions are conservative
• Requires inter-agency cooperation to be effective		• Most improvements are capital projects led by City of Bremerton

Capacity Centered
Achieving the Vision

Mode shift from single occupancy vehicles not expected - assume vehicle volume increases with population growth.

- Added travel or turn lanes on some arterials including on Burwell, Kitsap Way, and SR 304
- Significant ROW needed for road and active transportation improvements
  - Over 35 parcels could be impacted
  - Over 40 relocations (mostly on Burwell)
- Capacity improvements range between $80M and $160M not including parking or active transportation.
- Parking facilities in downtown or on the west side of NBK-BR could be considered to resolve neighborhood parking conflicts



Capacity Centered

Benefits & Challenges

- Outcome is less dependent on inter-agency cooperation
- Capacity projects likely only keep up with growth, not improve traffic conditions
- More cars = more conflicts = less safety
- Parking conflicts will remain and may worsen as growth increases density in Bremerton
- Large capacity projects are costly, disruptive, and will require more right-of-way
- Road capacity projects are hard to fund and may be infeasible due to environmental constraints (including social justice issues such as ROW impacts to disadvantaged areas)
- Road re-channelization on 6th Street would not be recommended due to capacity needs

Build Conditions

Kitsap Way

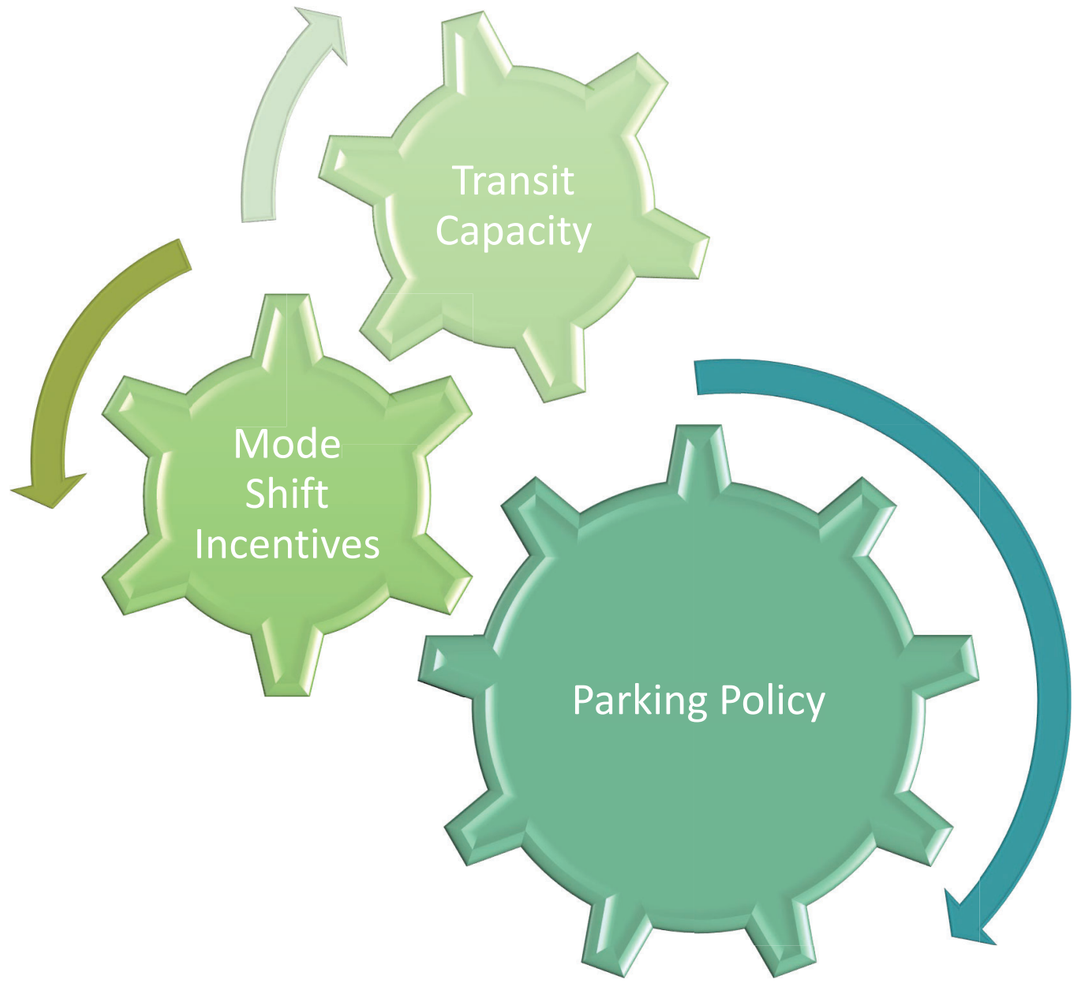
(11th to SR 3)

Alt 1 – Relocate Commuter Parking	**2050 PM Peak = 3:20 min (2:10 savings)**
Alt 2 – Support Commuter Parking	**2050 PM Peak = 5:40 min (no change)**
Alt 3 – Build Parking on Base (West Side)	**2050 PM Peak = 3:40 min (1:50 savings)**

Livability Centered

Achieving the Vision

- Shift people from commuting by car and towards using transit, active transportation, and carpool/vanpool (mode shift)
- Mode shift motivated by a multi-pronged approach
  - Build transit capacity
  - Improve active transportation infrastructure
  - Provide alternative mode incentives to workers
  - Implement policies that restrict commuter parking
  - Educate commuters about modal options
- Significant coordination between agencies



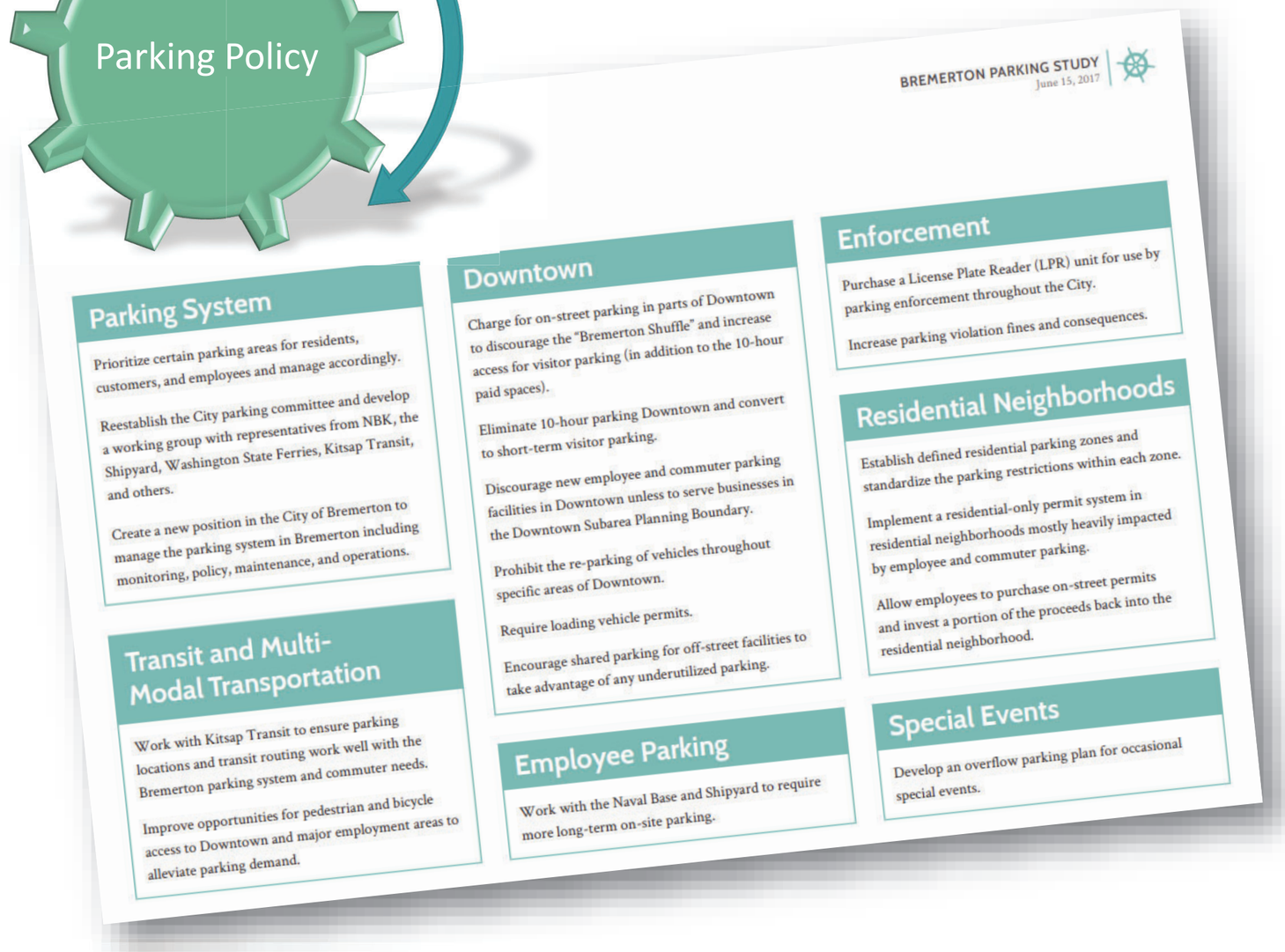
Livability Centered

Parking Policies

Parking policies consistent with the 2017 Parking Study could be recommended to help drive mode shift.

- Study team will recommend the phasing and implementation of parking strategies to coincide with transit projects
- An active management strategy is recommended so that parking policies are implemented as needed over the plan term (to 2050)
- Parking policies should be further developed before implementation, including public outreach, and should be vetted and adopted by policy makers





Livability Centered
Mode Shift Incentives

NBK-BR and other major employers will need to encourage their workforce to change modes. Some strategies supported by our survey data are:

- Educate commuters about modal options and emergency services
- Expand and support carpool/vanpool programs
- Incentivize alternative forms of transit
- Provide flexible options



Livability Centered

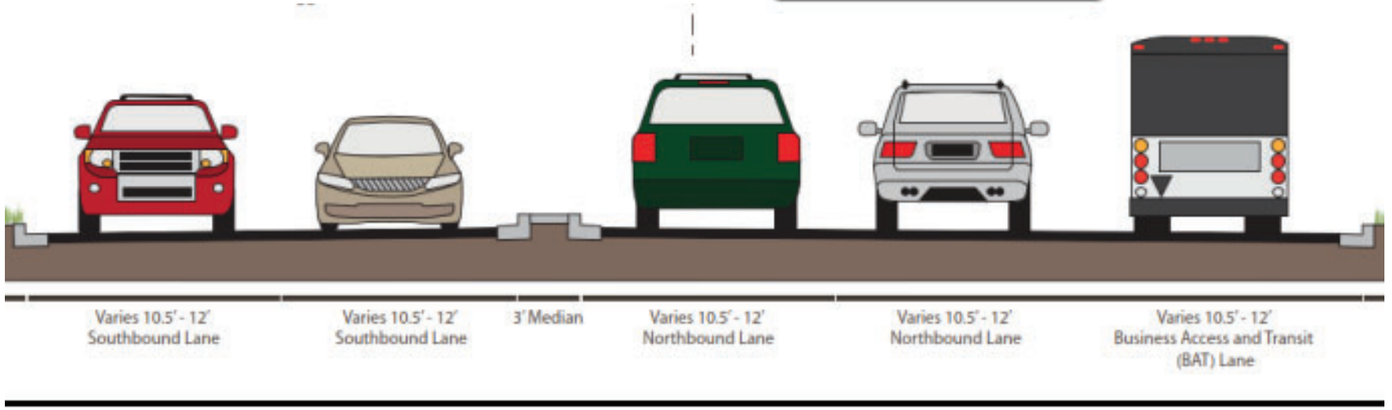
Transit Supportive Projects



Partnership with Kitsap Transit will be key to ensuring transit is available and convenient for commuters. Some goals for transit supportive projects are:

- Build up park and ride capacity
- Improve transit reliability through capital improvements such as a Business Access Transit lane on SR 303
- Improve transit frequency
- Expand on success of worker driver bus program





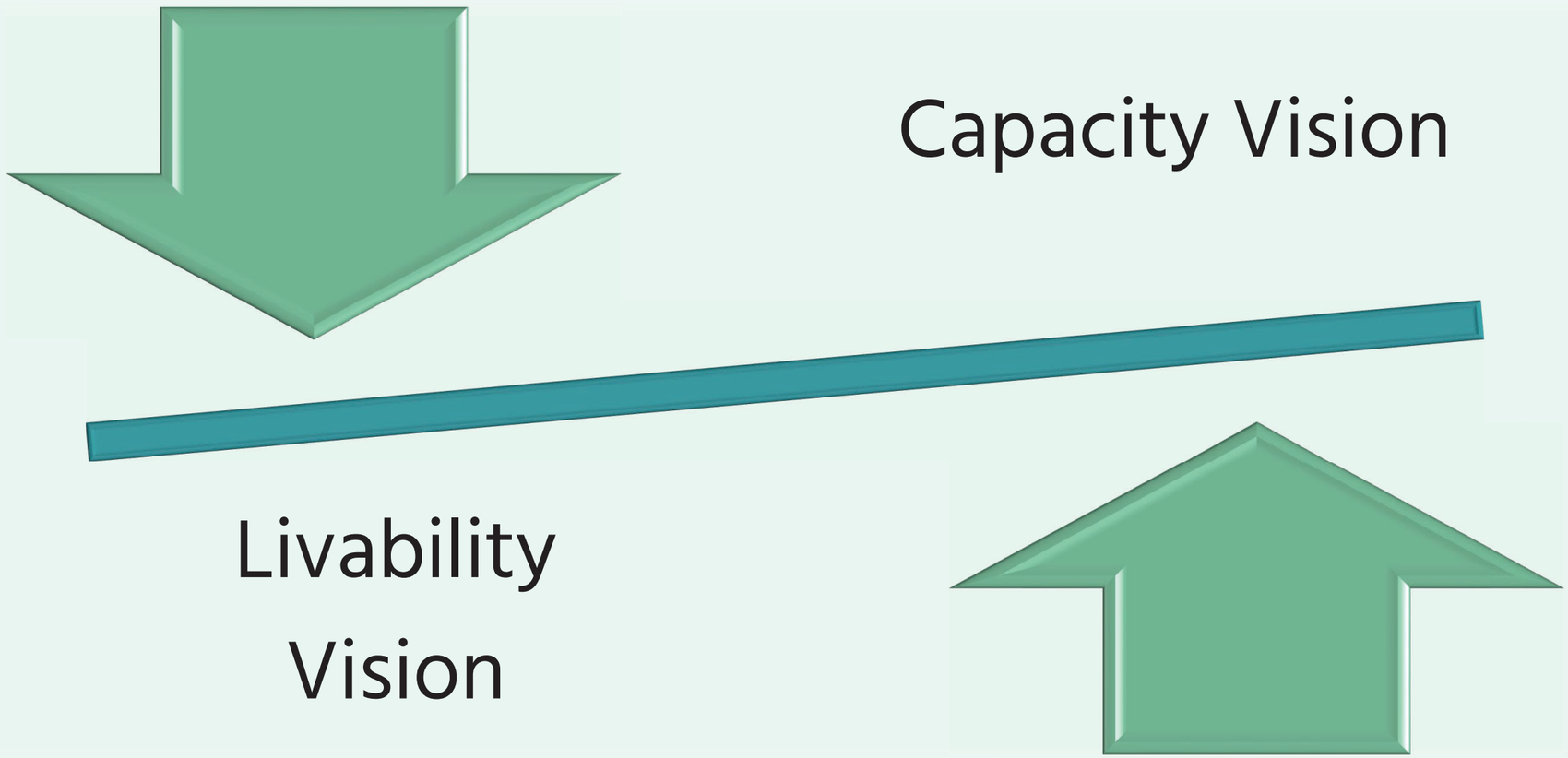
Livability Centered
Benefits & Challenges

- Reduces parking in the neighborhoods
- Improves walking and biking experiences
- Increases available parking for businesses
- Consistent with city plans to increase density and economic vitality
- Reduced commuter parking is unpopular with commuters
- Mode shift goals reduce congestion and improve travel time
- Parking costs dependent on partnerships with developers, Kitsap Transit, and NBK-BR
- 2,000 park and ride spaces could be between $50M and $100M



Preferred Alternative Vision

Which vision should the project team strive for with the preferred alternative?



Next Steps

- Draft a Preferred Alternative (PA) based on feedback
- Evaluate PA and present to Community Sounding Board and at a Public Open House
- Refine PA based on feedback
- Present PA to Council
- Finalize PA and draft the plan and report
- Bring the draft plan and report to Council for adoption
- Finalize plan and report

More Information

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Katie.Ketterer@ci.bremerton.wa.us

www.bremertonwa.gov/jctp

Build Conditions

	Kitsap Way (11th to SR 3)	Burwell Ave (Warren to Callow)	SR 303 (Burwell to Riddell)
Alt 1 – Relocate Commuter Parking	2050 PM Peak = 3:20 min (2:10 savings)	2050 PM Peak = 3:10 min (1:10 savings)	2050 PM Peak = 12:40 min (0:40 savings)
Alt 2 – Support Commuter Parking	2050 PM Peak = 5:40 min (no change)	2050 PM Peak = 4:20 min (no change)	2050 PM Peak = 12:00 min (1:20 savings)
Alt 3 – Build Parking on Base (West Side)	2050 PM Peak = 3:40 min (1:50 savings)	2050 PM Peak = 4:30 min (no change)	2050 PM Peak = 11:30 min (1:50 savings)

Travel time estimates (in minutes) for general purpose traffic on major corridors. If change is less than 30 seconds it is listed as no change.

CITY OF BREMERTON

Joint Compatibility Transportation Plan

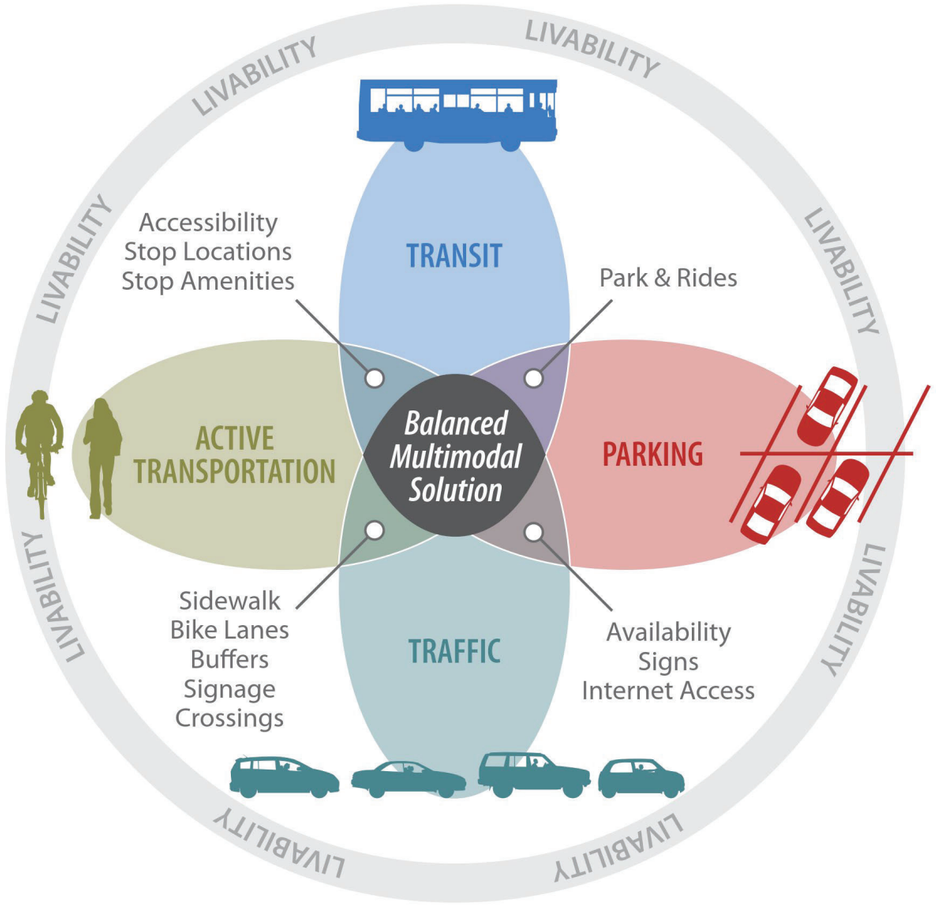
Community Sounding Board Meeting #5
09/21/22

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ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Agenda

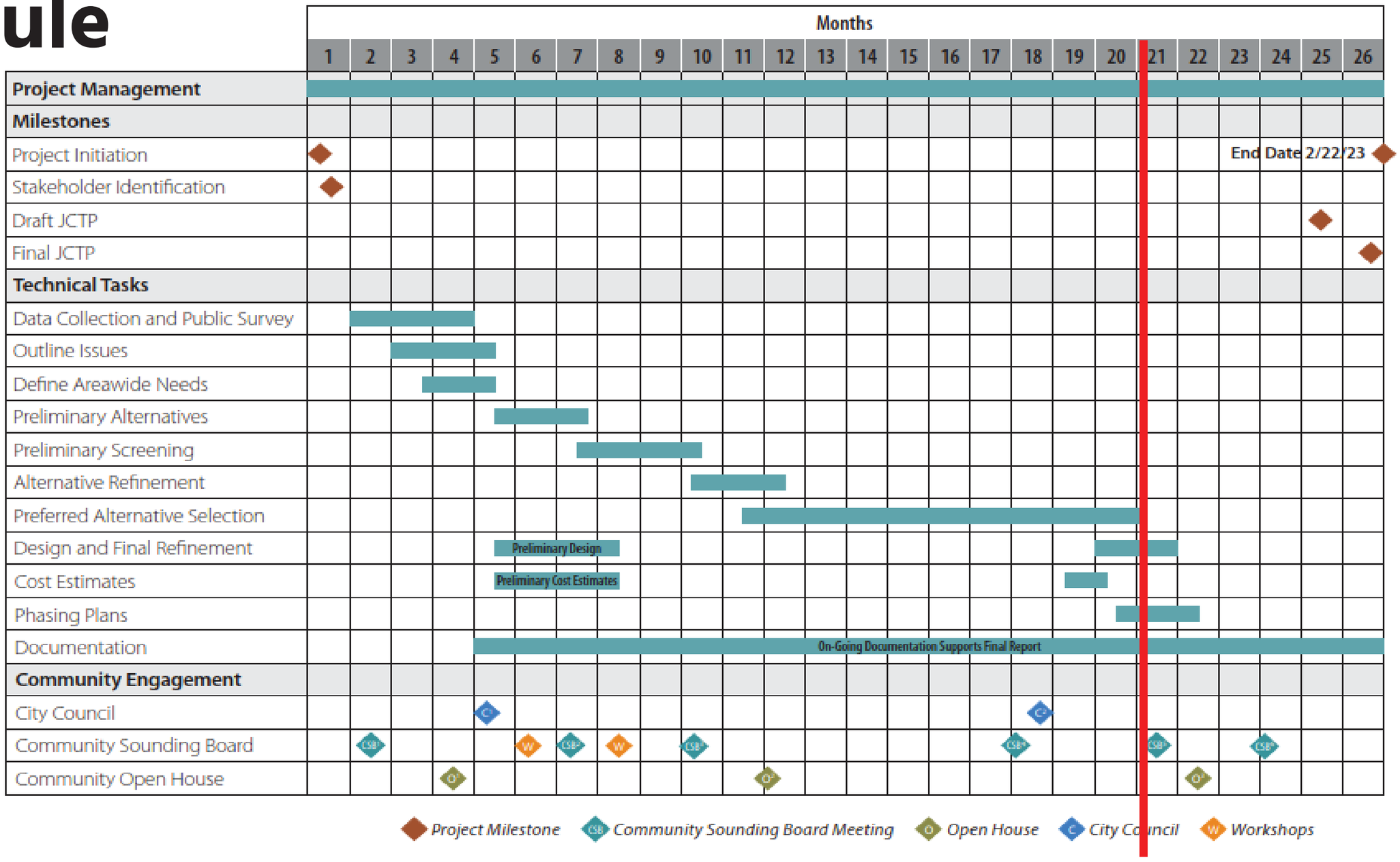
- Brief recap of the JCTP project and progress
- Review draft Preferred Alternative (PA)
- Review screening results
- Discuss potential constraints and/or barriers to projects

Project Goals



- Examine existing and future need 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



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Planning for Future Growth

- PSRC's *Vision 2050 Plan* forecasts substantial growth in Bremerton and Kitsap County through 2050
- City of Bremerton is a designated Regional Growth Center
- NBK-BR has plans for multi-billion-dollar shipyard modernizations
- As the City pursues their growth plan conflicts between residential parking and commuter parking will increase



Issues Recap

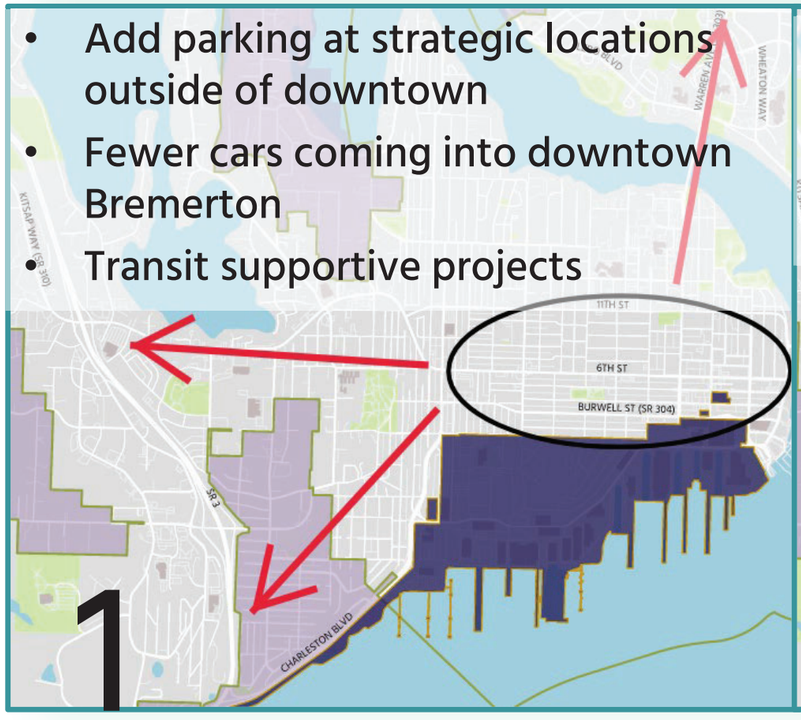
- Population growth will increase pressure on existing infrastructure decreasing Bremerton's livability and degrading base
  - By 2050, peak hour traffic volumes will increase by over 30%
- NBK-BR operations create traffic surges and congestion
  - 60% of traffic coming into Bremerton during the peak period is attributed to NBK-BR
  - By 2050 there will be significant congestion throughout Bremerton
    - Number of intersections operation at LOS F doubles
- 2017 Parking Study confirmed large numbers of commuter vehicles are parking illegally in Downtown and in neighborhoods.
  - As downtown redevelops, it is likely that parking will go away, pushing illegal parking further into outlying neighborhoods, if nothing changes

Recap: Alternative Evaluation

Alternatives were organized around parking strategies so that the project team could understand how traffic volume and parking patterns impact the potential solutions.

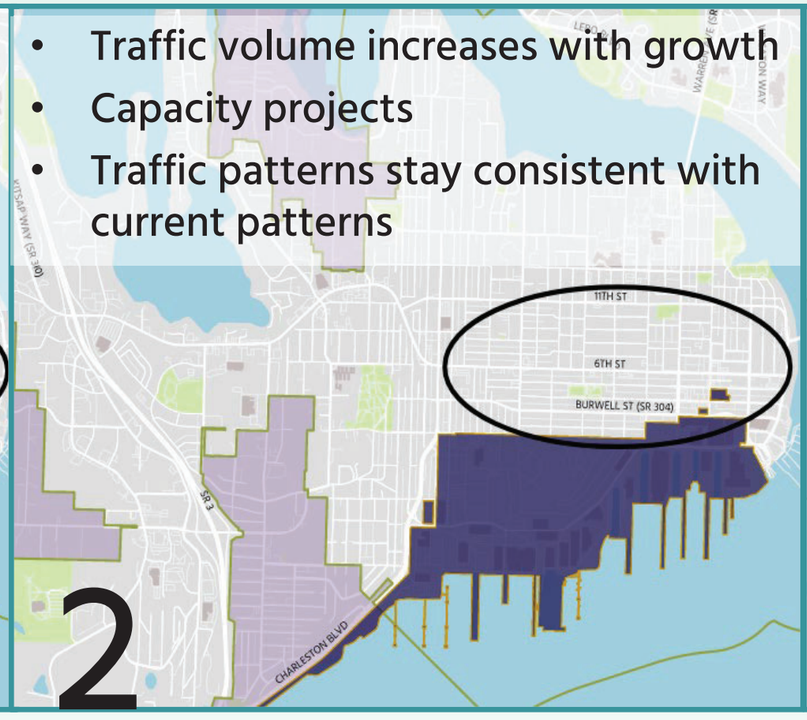
Alt 1 – Relocate Commuter Parking

- Add parking at strategic locations outside of downtown
- Fewer cars coming into downtown Bremerton
- Transit supportive projects



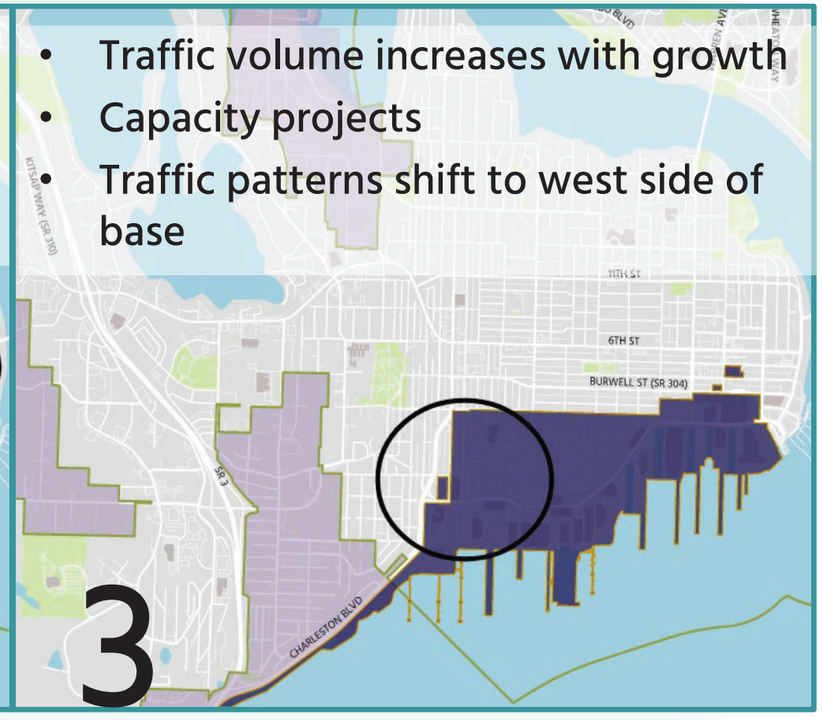
Alt 2 – Support Commuter Parking

- Traffic volume increases with growth
- Capacity projects
- Traffic patterns stay consistent with current patterns



Alt 3 – Build Parking on Base (West Side)

- Traffic volume increases with growth
- Capacity projects
- Traffic patterns shift to west side of base

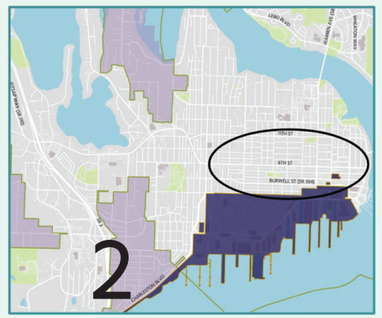


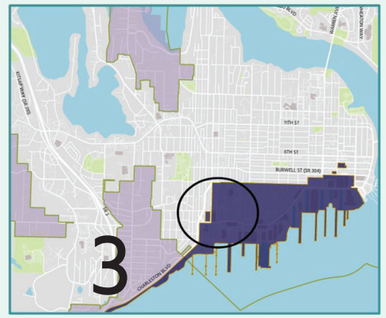
Recap: Visioning

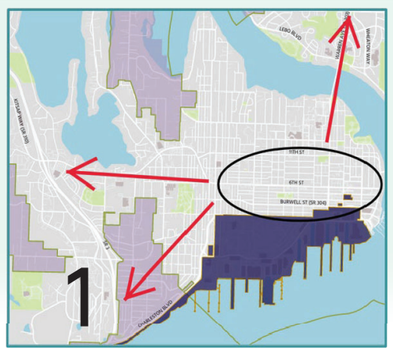
To assemble a preferred alternative the project team sought guidance on the vision from the CSB and the City Council. **A "Livability Vision" that addresses the need to maintain Base accessibility was selected to move forward.**

Capacity Vision

Assume more cars coming into downtown in 2050







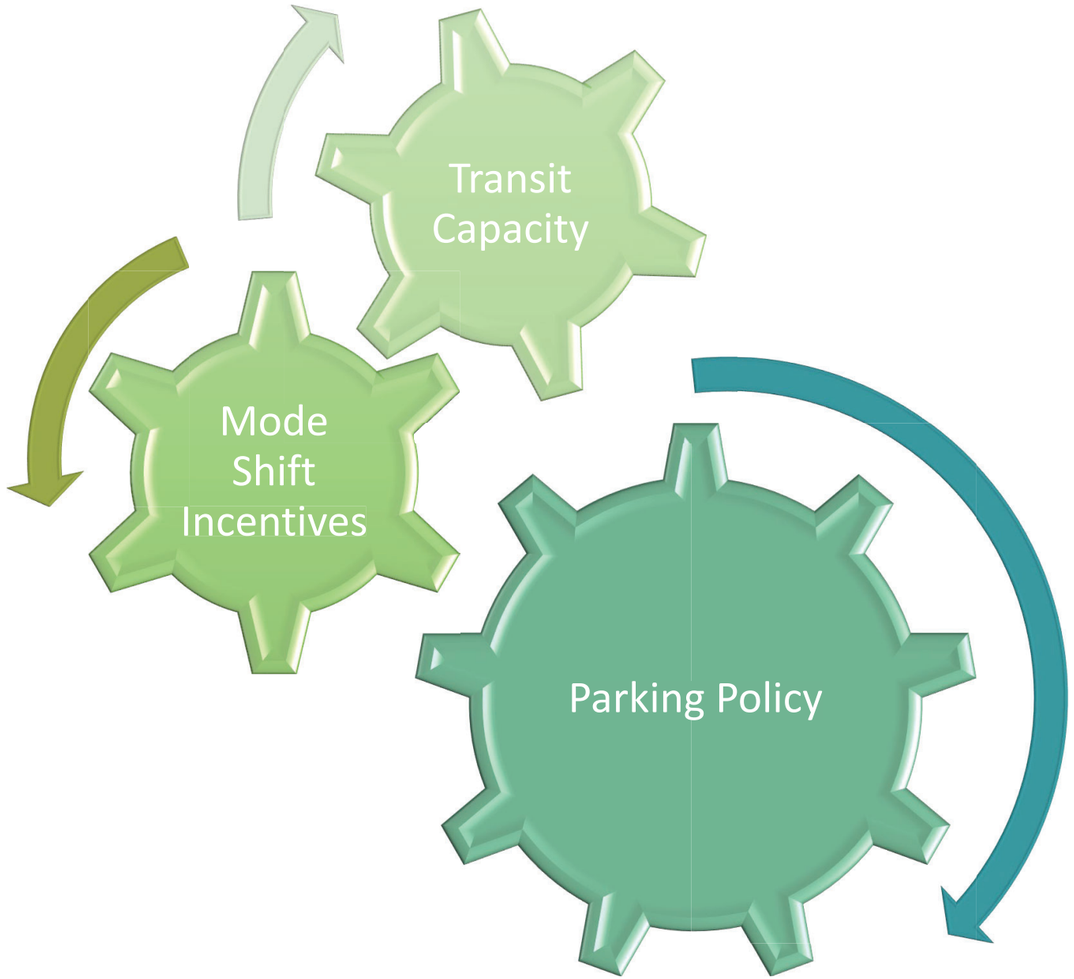
Assume fewer cars coming into downtown in 2050

Livability Vision

Livability Centered Preferred Alternative

Achieving the Vision

- Add parking in strategic locations outside downtown.
- Shift a percentage of people from commuting into downtown by car to towards other modes
- Provide infrastructure and incentives to motivate mode shift, including
- Significant coordination between agencies



Preferred Alternative

Preferred Alternative comprises elements of the 3 alternatives that will help create the vision of livability. Key elements include:

- ✓ Provide additional parking outside of downtown in strategic locations
- ✓ Build capacity projects that make it easier to get to this parking
- ✓ Provide shuttle service to get from additional parking to downtown quickly, efficiently and safely
- ✓ Focus on creating a safe, efficient network of sidewalks and bike lanes in downtown and neighborhoods surrounding the Base

Preferred Alternative Diagram

Preferred Alternative

- Add parking in strategic locations outside downtown and couple with capacity projects that make it easier to get to the additional parking
  - Roundabouts at SR 3/Kitsap Way
  - Roundabouts at SR 3/Loxie Eagen
  - Support capacity projects in SR 303 Corridor Study
  - Adaptive signal timing at all signalized intersections
  - Build and operate a Traffic Management Center
  - Support future improvements in Gorst
- Implement parking policies downtown and in neighborhoods surrounding NBK that will help drive mode shift
  - Actively manage on-street parking management strategies, and implement permits and paid parking as needed
  - Establish a transportation management association
  - Issue commuter parking permits for City owned facilities
  - Create parking zone with on-street paid parking permits

Preferred Alternative (continued)

- Build transit capacity and reliability
  - More bus routes to the shipyard
  - High frequency shuttle service between Park-and-Rides and downtown.
  - Support BAT lane on SR 303
- Build Active Transportation projects downtown and near NBK that will support/drive mode shift
  - 6th Street Road Diet
  - Naval Avenue Road Diet
  - Add bike facilities on 1st Street between Naval Ave and Calloway
  - Active transportation projects in SR 303 Study, south of Warren Ave Bridge
  - Support Mobility Hubs at Gateway Park-and-Ride
  - Build Mobility Hub on City owned property at 4th/Park
  - Bike lane between 4th/Park mobility HUB and 6th Street
  - Bike facility on Shorewood Drive, connecting to bike facilities on Kitsap Way
  - Bike lockers near State, Burwell and Bremerton gates
  - Improve sidewalks within 10-minute walkshed of all gates
  - Pedestrian improvements at strategic locations

Preferred Alternative (continued)

- Add inbound capacity at Base gates
- Encourage mode shift through education and incentives
  - Maintain telework options
  - Provide incentives to ride transit
  - Reduced fare and regular bus passes
  - Improve technology to make worker-driver program better
  - Partner with Port Orchard to explore additional parking options for foot-ferry
  - Support Kitsap Transit's future Port Orchard transit center

Second Level Screening

Changes since October 2021 Evaluation

- Transit Signal Priority (TSP) included in No Build and all Alternatives
- Naval Avenue road diet removed from No Build and now included in Preferred
- 11th Street Road diet removed from alternatives

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.

Preferred Alternative Screening

Study Goal Area	Performance Measures	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative	Preferred 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	↑	↑	↑	↑

Preferred Alternative Screening

Study Goal Area	Performance Measures	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative	Preferred 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	↗	↗	↗	↗

- **Reduction in cars in downtown improves travel times for both cars and buses**
- **Express bus service significantly improves transit travel times**
- **Roundabout at 6th/Naval helps offset delays from 6th Street Road Diet**

Preferred Alternative Screening

Study Goal Area	Performance Measures	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative	Preferred Alternative
predictable.	**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	↑	↑	↑	↑

- **Preferred Alt – mobility improves compared to No Build, but huge increase in transit ridership results in increase person hours of delay (transit)**

Preferred Alternative Screening

Study Goal Area	Performance Measures	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative	Preferred 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	↗	↗	↗	↗

- **Mobility hubs at 2 locations will increase high quality travel choices**
- **Improvements to sidewalks within 10-minute walkshed will increase low-street options for accessing NBK-BR by foot**
- **Added bike lanes will increase low-stress options for accessing NBK-BR by bike**

Preferred Alternative Screening

Study Goal Area	Performance Measures	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative	Preferred 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	↗	↑	→	↑

- **Preferred Alternative best meets the goals of balancing parking needs for commuters and not negatively impacting downtown.**

Livability & Base Accessibility

- Livability
  - Accommodate forecasted growth in a way that doesn't negatively impact downtown Bremerton

- Accessibility
  - Maintain or improve accessibility to NBK-BR and PSNS

Livability & Base Accessibility

	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	• Efficiency of mobility for all users • Safety • Ability to improve multi-modal connectivity • Parking for businesses & residents • Improvement to health • Increase in walkable housing options	• Travel times • Options for access (bus, bike, walk) • Access to parking • Efficiency of entry points (delay at entry) • Simplicity of access • Availability of transportation options for return trip • Increase in walkable housing options

Base Accessibility & Livability

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

Preferred Alternative scores well for Base Accessibility (improved travel times; improved access at Base gates with extra lanes) AND scores high for livability

Balancing Livability and Base Accessibility

- Projects proposed to create a Livable Downtown will also provide benefits to NBK-BR and PSNS:
  - Increase housing options near the Base
  - Easier, safer to access the Base by alternate modes
  - Building a more vibrant, safe and “livable” downtown that is attractive is a benefit to everyone and positive impact on workforce attraction and retention

Balancing Livability and Base Accessibility

- ✓ As downtown redevelops, it is likely that paid private parking will become scarce.
- ✓ Recognizing the need for more parking, City is committed to exploring partnership opportunities to build more parking in strategic locations outside of downtown
- ✓ Couple additional parking with strategic capacity projects that make it easier to get to this additional parking
- ✓ Provide shuttle service to get from additional parking to downtown quickly, efficiently and safely
- ✓ Mode shift will also help decrease volumes on the roads into downtown, providing a travel time benefit for both the shuttle service users and those commuters who still need to drive into downtown

Livability Centered

Mode Shift Incentives



NBK-BR and other major employers will need to encourage their workforce to change modes. Some strategies supported by our survey data are:

- Educate commuters about modal options and emergency services
- Expand and support carpool/vanpool programs
- Incentivize alternative forms of transit
- Provide flexible options



- DISCUSSION – what is feasible/not feasible for NBK-BR and PSNS?

Next Steps

- Refine PA based on feedback
- Present PA to Council
- Finalize PA and draft the plan and report
- Bring the draft plan and report to Council for adoption
- Finalize plan and report

CITY OF BREMERTON

Joint Compatibility Transportation Plan

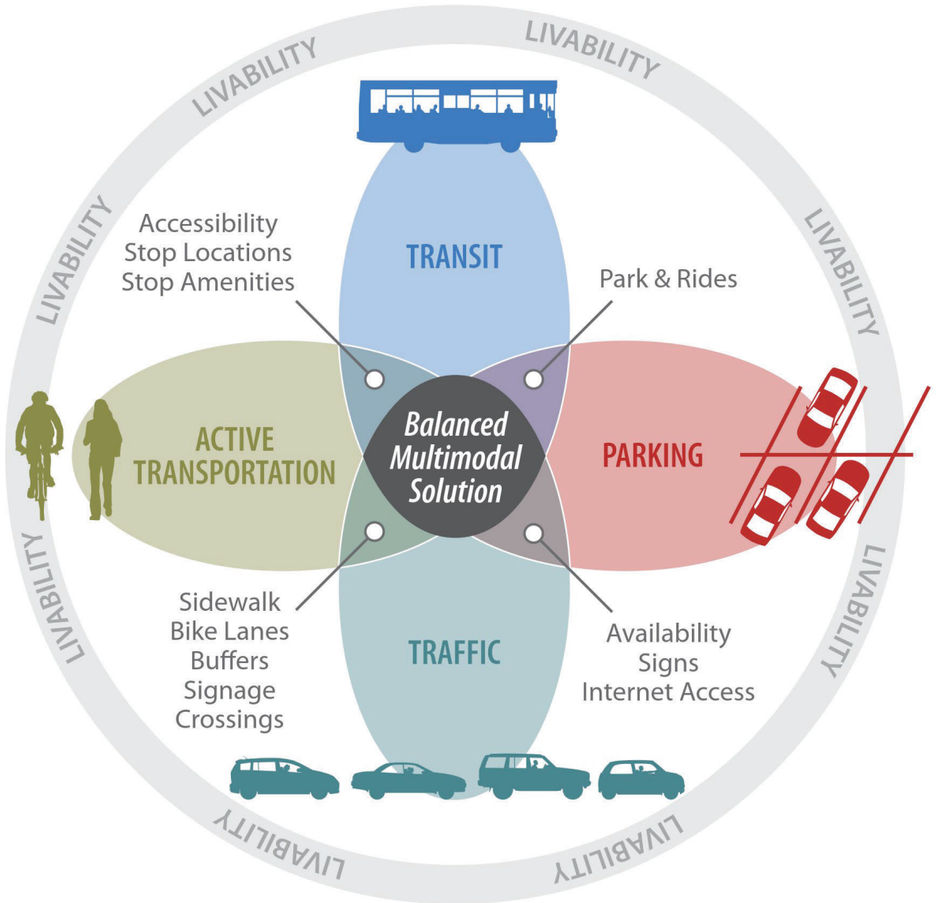
Community Sounding Board Meeting #6
05/17/23

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Agenda

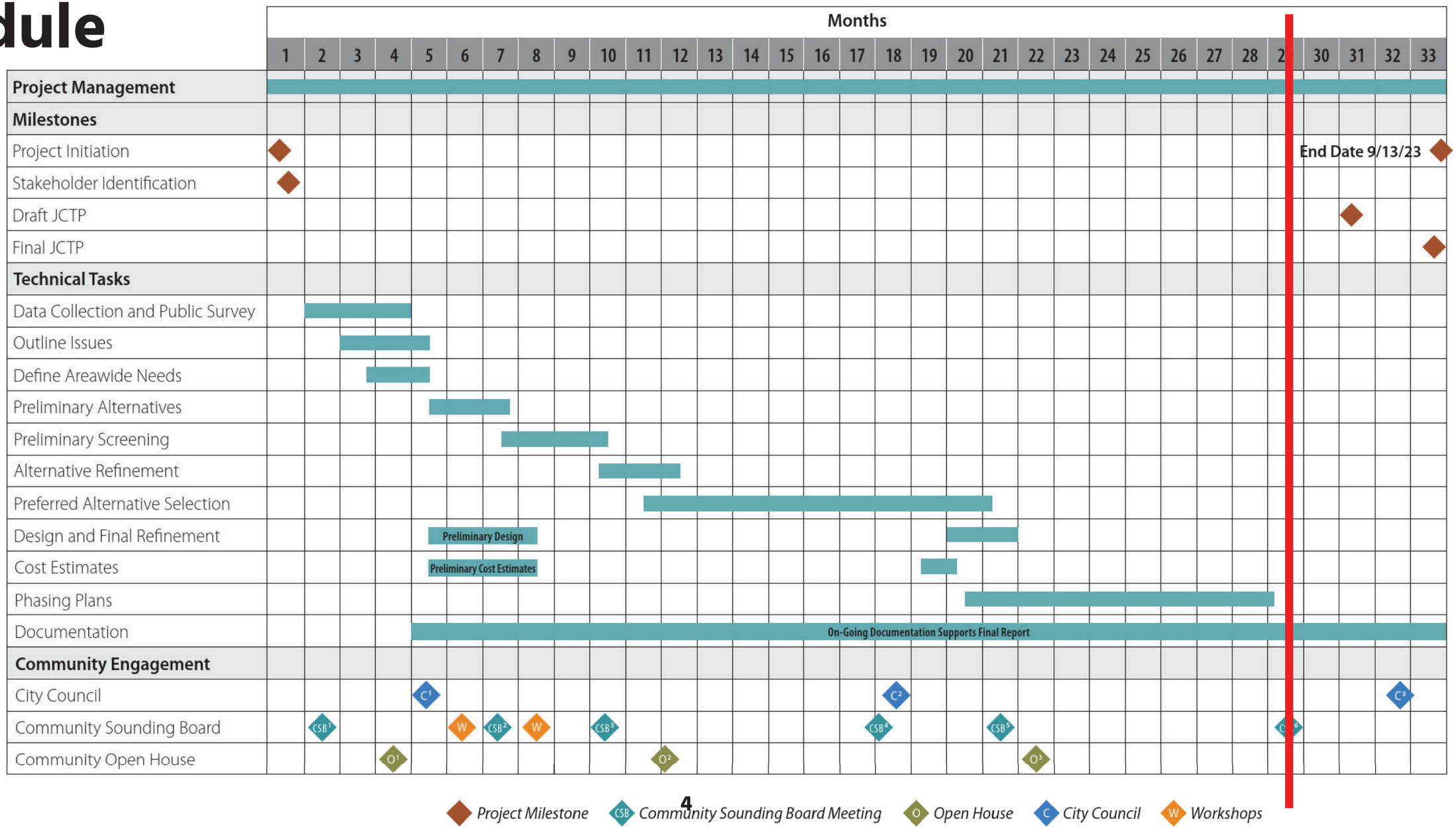
- Introductions
- Schedule check-in
- Summary of comments on draft preferred alternative
- Crosswalk to preferred alternative
- Phasing possibilities
- Discuss next steps

Project Goals



- Examine existing and future need 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


Months
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33
Project Management
Milestones
Project Initiation
Stakeholder Identification
Draft JCTP
Final JCTP
End Date 9/13/23
Technical Tasks
Data Collection and Public Survey
Outline Issues
Define Areawide Needs
Preliminary Alternatives
Preliminary Screening
Alternative Refinement
Preferred Alternative Selection
Design and Final Refinement
Preliminary Design
Cost Estimates
Preliminary Cost Estimates
Phasing Plans
Documentation
On-Going Documentation Supports Final Report
Community Engagement
City Council
Community Sounding Board
Community Open House
Project Milestone
Community Sounding Board Meeting
Open House
City Council
Workshops

Preferred Alternative

- Preferred Alternative comprises elements of the 3 alternatives that will help create the vision of livability. Key elements include:
  - ✓ Provide additional parking outside of downtown in strategic locations
  - ✓ Build capacity projects that make it easier to get to this parking
  - ✓ Provide shuttle service to get from additional parking to downtown quickly, efficiently and safely
  - ✓ Focus on creating a safe, efficient network of sidewalks and bike lanes in downtown and neighborhoods surrounding the Base

Input on Preferred Alternative

- Project team solicited input on the Preferred Alternative:
  - ✓ CSB presentation in September 2022
  - ✓ Held an Open House in October 2022 to get public input
  - ✓ Briefed the Public Works Committee in October 2022
  - ✓ Met with the Navy and Shipyard staff in February 2023 to discuss feedback
- Incorporated what we heard into a revised Preferred Alternative

Preferred Alternative – Key Input from Community Sounding Board

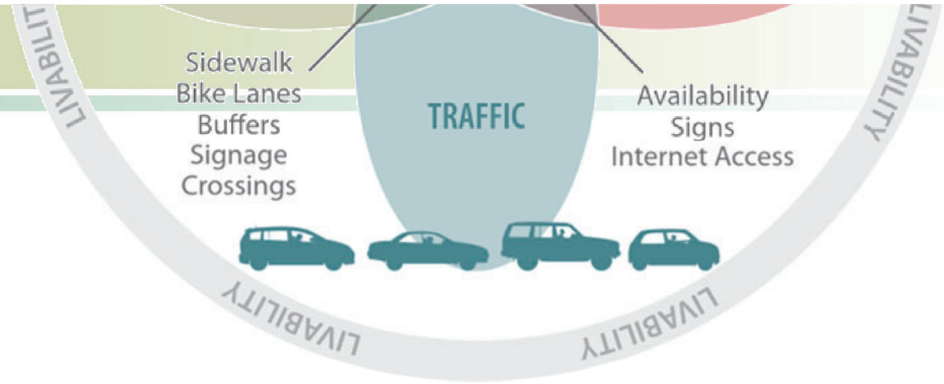
- Structured parking on base is difficult due to funding constraints
- Kitsap Transit moving toward smaller park and rides in mixed use centers instead of big lots. This will lower costs and address safety concerns
- Thoughts about how housing and housing affordability impact project
- Discussion about ways to incentivize transit and the issues with worker/driver busses

Preferred Alternative – Key input from Open House #3

- Hosted third and final virtual Open House on 10/6/22
- Shared the evaluation process that led to the preferred alternative
- Shared the preferred alternative
- Comments were generally in support of the plan, especially related to pedestrian and bicycle improvements
- Some concerns about how Shipyard Infrastructure Optimization Program (SIOP) will impact traffic in the short/mid term

Preferred Alternative – Key input from NBK-BR

- Include lighting upgrades as part of any design project
  - Most of the workforce arrives between 4:00-7:30 am
  - Would help improve visibility and safety for active transportation users
- Further coordination needed on the Jackson Park bike route
- Consider a flyover ramp from SR 3 SB to SR 304 (Charleston Blvd)
- Concerns over road diets
  - Reduced capacity could lead to congestion in the AM peak
  - Requested additional data and analysis of those projects



Preferred Alternative Changes

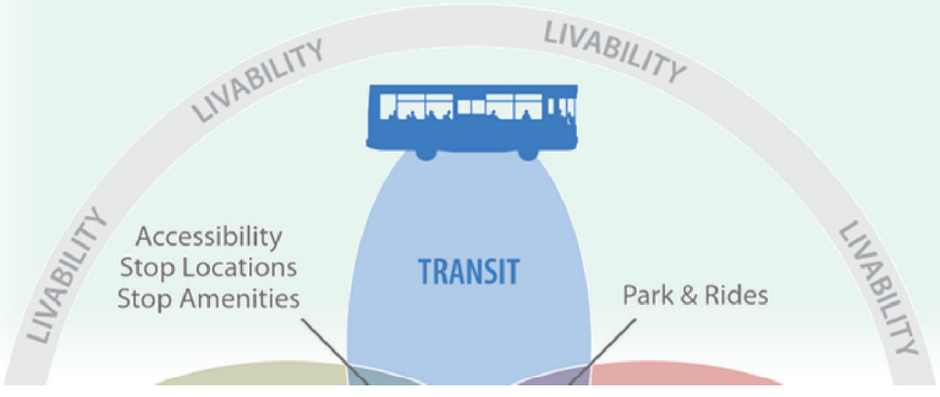


- Adjusted parking strategies to highlight active management and implement permits and paid parking as needed
- Establish a transportation management association
- Re-evaluated and confirmed the feasibility of road diet projects
- Added all-way walk at Pacific Ave/Burwell St
- Recommend NBK-BR review need for ramp from southbound SR 3 to eastbound SR 304 (Charleston Blvd) as part of upcoming EIS for Bremerton Waterfront Infrastructure Improvements at PSNS and IMF*

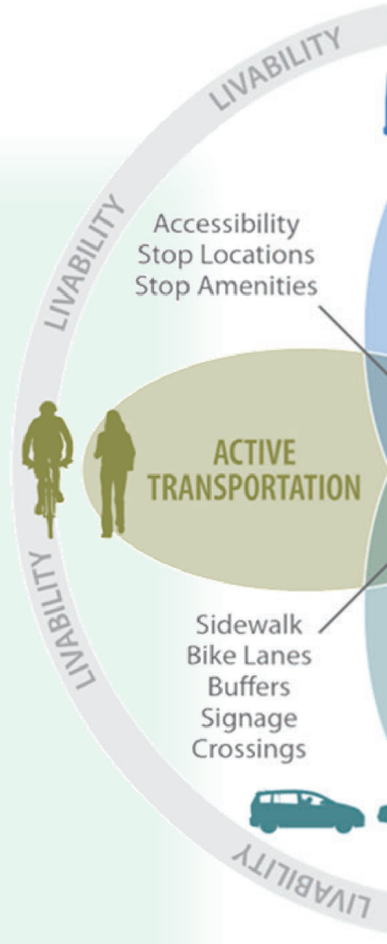
* Suggested language from WSDOT; need discussion with NBK-Bremerton

Preferred Alternative Changes

- Align projects and language with Kitsap Transit's plan
- Reflect plans for smaller park and ride lots
- Support development of Gateway property



- Highlight active transportation improvements on 1st St from Callow Ave to Naval Ave
- Revise language for Shorewood Dr bike facilities project to reflect need to further coordinate with Navy
- Include need to improve ped/bike facilities near transit stops and park and rides



Preferred Alternative – Implementation

- Refined project descriptions to add clarity and more detail, based on feedback from CSB, Open House, and NBK-BR comments
- Separated projects into two categories: 1) capital improvements and 2) policies
- Identified "owner agency" for each project
- Identified relationships to other projects including necessary predecessors

Preferred Alternative – Project Phasing

- Four categories used to help prioritize projects:
  - JCTP goals
  - Cost level
  - Ease of implementation
  - Funding
- Project with highest scores recommended for early phasing
- Final phasing reflects relationship between projects

Preferred Alternative – Ongoing & Early Actions

Highlights of some actions that are underway

- Education – survey responses indicated that there is a big opportunity to increase knowledge about commuting options
- NBK-BR Gate Management– recent gate management at Naval and Montgomery gates meets needs for the project
- Teleworking – most NBK-BR workforce cannot telework, however for those that can the impact is significant
- Parking Study Implementation – since 2017 study, many of the recommendations have been put in place including increased enforcement and a license plate reader
- Improved lighting – Bremerton has invested over $500k to upgrade downtown area to brighter led fixtures in ‘22 & ’23
- Density – Comprehensive plan update will address ways to encourage growth and density in ways that support City and regional goals

Preferred Alternative

Short-Term Capacity Projects (0-6 yrs)

- Funding for Naval and 6th Street Road Diets is currently being pursued by City and the Naval Avenue Project has funding for design and ROW acquisition.

Project Code	Project Description	Owner Agency	Partner Agencies
C40	Naval Avenue Road Diet	City of Bremerton	
C24	6th Street Road Diet	City of Bremerton	
AT15	Add a shared-use path on south side of 1st St between Naval Ave and Callow Ave	City of Bremerton	
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	
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	
C35	Adaptive signal timing at 19 signalized intersections along Kitsap Way, 6th St, and 11th St	City of Bremerton	
C38	Build projects proposed in Bremerton Strategic Road Safety Plan, per updated plan (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	
AT48	Add bike facilities on Shorewood Dr to connect to Kitsap Way and to downtown Bremerton. Navy should consider improving path from Grays Harbor Court to Shorewood Drive to provide connection for Jackson Park to city facilities.	City of Bremerton	NBK-BR
C31	Pedestrian/bike improvements within 5 minute walkshed of park and rides or transit hubs (existing and proposed)	City of Bremerton	Kitsap Transit
AT27	Improve the sidewalk conditions in the neighborhood west of Charleston Blvd	City of Bremerton/ Kitsap County	
AT55	Construct bike lanes on Park Ave from 4th St to 6th St	City of Bremerton	
AT19	Install secure covered bike parking inside NBK-BR, PSNS, and outside gates	NBK-BR	
B3	Improve or manage vehicle input at NBK-BR gates in the AM peak to decrease queuing on City streets	NBK-BR	
B18	Allow input at Montgomery gate during AM peak hours and allow output during PM peak hours	NBK-BR	
C14	Study need for a new off-ramp from southbound SR 3 to eastbound SR 304 as part of the Navy's EIS for Bremerton Waterfront Infrastructure Improvements at PSNS and IMF* **suggested language from WSDOT, needs discussion with NBK-Bremerton*	NBK-BR	WSDOT, City of Bremerton

Preferred Alternative

Short-Term Policy Projects (0-6 yrs)

- Parking, transit, enforcement, and NBK-BR policy changes can be implemented

Project Code	Project Description	Owner Agency	Partner Agencies
AT1	Support Kitsap Transit's redevelopment of the Gateway Park and Ride property located at 6th St and Montgomery Ave	City of Bremerton	Kitsap Transit
CTR1	Maintain telework options currently available to DOD employees	NBK-BR	
CTR3	Improve NBK-BR/Kitsap Transit Worker Driver Bus program by making changes to reimbursement process and easing use requirements	NBK-BR	City of Bremerton, Kitsap Transit
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	NBR-BR
CTR12	Study increased foot-ferry capacity between Bremerton and Port Orchard to align with Kitsap Transit's Long Range Transit Plan	Kitsap Transit	City of Bremerton, City of Port Orchard
CTR4	Reduced fare and regular bus passes. Reduced fare based on income	Kitsap Transit	
O6	Better enforcement of HOV lanes	Washington State Patrol	City of Bremerton
AT14	Support planning efforts for SR 3 in Gorst.	WSDOT	City of Bremerton, NBK-BR, Kitsap County, Port of Bremerton, Port Orchard

Preferred Alternative
Mid-Term Projects (6-20 yrs)

- Added parking outside of downtown is high cost and requires implementation of other projects (e.g. increased transit service)

Project Code	Project Description	Owner Agency	Partner Agencies
AT2	Construct a mobility hub at the southwest corner of Park Ave and 4th St for first/last mile connections	City of Bremerton	Kitsap Transit
C26	Traffic Management Center that includes IT infrastructure to support adaptive signals (e.g. Cloud based technology)	City of Bremerton	
C41	Convert signal at Naval Ave/6th St to a roundabout	City of Bremerton	
PM15	Implement paid on-street parking in the downtown subarea	City of Bremerton	
PM2	Implement permit only parking in residential neighborhoods adjacent to and surrounding NBK-BR	City of Bremerton	
PC6	Add approximately 700 stalls north and west of SR 3; planned Kitsap Transit park and ride near Auto Center Way is a potential location for some of the parking stalls.	Kitsap Transit	
PC4	Add approximately 225 stalls north of NE McWilliams Rd on SR 303	Kitsap Transit	
PC3	Add approximately 1,150 new parking stalls south of Gorst (e.g. PSIA airport)	Kitsap Transit	City of Bremerton
T8	Shuttle service between Park and Rides and downtown Bremerton (regular bus route with high frequency)	Kitsap Transit	NBK-BR
T6	More bus routes and greater frequency (10-15 minute headways) to NBK-BR, including early moring and late evening routes	Kitsap Transit	NBK-BR
PM3	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.	Kitsap Transit	City of Bremerton, NBK-BR, Port of Bremerton, WSDOT
C1	Convert signals at SR 3/Kitsap Way interchange to roundabouts	WSDOT	City of Bremerton
C2	Convert stop sign and signals at SR 3/W Loxie Eagans Blvd interchange to roundabouts	WSDOT	City of Bremerton

Preferred Alternative

Long-Term Projects (20+ yrs)

- Additional parking at NBK-BR is high cost and requires federal approval

Project Code	Project Description	Owner Agency	Partner Agencies
C29	Build projects proposed in SR 303 Corridor Study - prioritize capacity projects including RABs and BAT lane	City of Bremerton	Kitsap County Kitsap Transit
B7	Maximize the efficient use of parking stalls on NBK-BR installation and construct additional parking	NBK-BR	

Next Steps

- Draft the plan and report
- Bring the draft plan and report to Council for adoption
- Finalize plan and report

Appendix C

Community Engagement Summary

Joint Compatibility Transportation Plan

Final Community Engagement Summary

October 2023

Overview

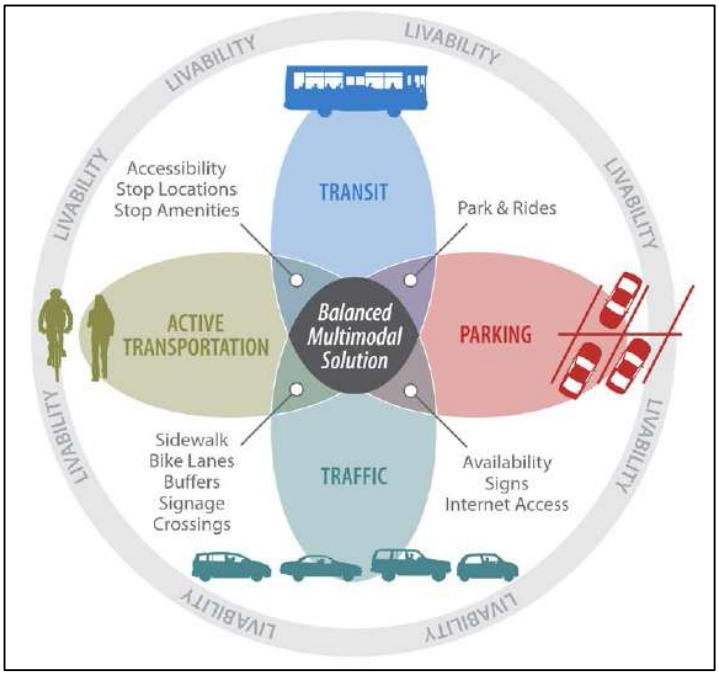
Compared to other Washington cities of its size, Bremerton has unique traffic and parking issues. These are largely thanks to its proximity to a major military employer - Naval Base Kitsap - Bremerton (NBK-BR). People living and working in Bremerton experience traffic surges at shift changes, limited parking, and older, car-focused infrastructure can exacerbate problems.

The City of Bremerton projects more people will move to the area in coming years, placing even greater demand on transportation infrastructure. By 2050, peak hour traffic volumes will increase by 30%, with two-thirds of traffic going to and from NBK-BR.

The City and NBK-BR are partnering to create a plan to address transportation issues and ensure the City's growth will not impede NBK-BR military missions. The US Department of Defense granted the City and NBK-BR $750,000 to create a transportation plan that:

- Examined existing and future need for all transportation modes serving NBK-BR
- Developed solutions to resolve deficits
- Evaluated options to mitigate transportation and parking demands
- Developed a prioritized implementation plan

Over two years, the City and NBK-BR examined needs for all transportation modes in the city. The study evaluated options to mitigate transportation and parking demands and recommended a preferred alternative.



From the final presentation to the Community Sounding Board

The Preferred Alternative reflects input from community and partner audiences and includes additional parking outside of Downtown, roadway capacity improvements, parking policies that improve and reduce NBK-BR commuter parking in Downtown, additional transit capacity and reliability, and active transportation improvements in Downtown and near NBK-BR.

Community Engagement

The City and NBK-BR led an open community engagement process with opportunities to inform and engage community members and key partners. As part of their effort to reach as many people as possible, the study team convened a Community Sounding Board (CSB) representing key partners and held an online survey and virtual public meetings at key study milestones.

The study team outlined the following engagement goals (see the Community Engagement Plan in Attachment A):

- Provide an open and transparent decision-making process through constructive two-way communication between the study team and the public.
- Provide early and ongoing opportunities for community members to raise issues and concerns and to provide input that the study team will consider.
- Proactively inform and engage all community members regardless of race, ethnicity, age, disability, income, or primary language.
- Build community understanding of findings and recommendations.

The study team engaged the public early in the process to create three draft Build Alternatives. Later, the study team collected feedback on these alternatives. Once the City Council selected the Preferred Alternative, the study team used community feedback to further refine the plan.

The City involved community partners, including neighbors, roadway users, community-based organizations, active and retired military members, regulatory agencies, elected officials, businesses, property owners, and interested individuals.

The study team helped community members to understand what decisions they can influence, how the City will use their input, and how to contact the City for further information. A variety of accessible opportunities and easy-to-understand materials helped to explain key aspects of the study. The study team heard from a range of community members throughout the study process and documented the influence of community input and priorities.

Key themes

Several themes emerged from the community feedback collected over the course of the study.

- Safe routes to bike and walk are important to residents and workers. The City should prioritize gaps in sidewalk and bike lane networks and provide safe walking and biking for commuters and near the ferry terminal.
- Respondents want better transit options, including more and frequent transit stops, and would like to see if a shuttle service could help improve connections.
- Parking, especially Downtown, is a headache. Many would like the City to explore solutions to relieve parking demand, including providing incentives to use alternative travel, implementing residential parking permits or adding parking garages.
- Traffic flow is a problem, especially during shift changes.

Community Sounding Board Meetings

Input from the CSB was critical to the plan development and refinement.

The CSB represented organizations with common interest in the study goals and provided guidance and oversight to the study team. The City convened the CSB in collaboration with the Mayor's office and included staff and council members from the City of Bremerton, representatives from the Bremerton Chamber of Commerce, Puget Sound Naval Shipyard, WSDOT, Suquamish Tribe, Port of Bremerton, Kitsap County and Kitsap Transit.

The CSB reviewed data collected at public open houses and surveys. Later in the process, the CSB reviewed and provided feedback on plan alternatives. The CSB met six times between 2021 and 2023. Additional agency representatives not included in the CSB 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 – Bremerton 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 Dobling – 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 the table below. 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. This information was then used to create materials for public input on the direction, findings, and recommendations of the study. Meeting summaries for the six CSB meetings are included in Attachment B.

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 *Note: This meeting included an expanded invitation list. The special attendees are listed above.*
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

Themes we heard from the Community Sounding Board

Active transportation

The CSB noted the area has poor sidewalks and sidewalk connectivity and difficult street crossings – despite the fact that 10,000 pedestrians walk onto NBK-BR every day. The CSB advocated for improved access for people walking and biking.

Transit

The CSB identified barriers to using transit including infrequent bus service and poor active transportation facilities near bus stops. Planned increases in housing density will help increase ridership.

General purpose traffic

The CSB cited traffic surges and delays especially during NBK-BR shift changes, and problems at intersections. The CSB reviewed crash and lighting data and emphasized the importance of pedestrian safety. CSB members asked that the plan recommend alternatives to driving such as buses, carpools, vanpools and biking and free or reduced bus passes and incentives for telework. These options would help to reduce traffic issues caused by car trips.

Parking

In Downtown Bremerton, demand for parking exceeds supply. The City is looking into private/public partnerships to address parking shortages. During their meetings, CSB members learned that a structure for parking on NBK-BR is now on the list of funding priorities and that the City is unlikely to reduce the minimum residential parking requirements.

Additional comments from the CSB

When reviewing the livability- and capacity-centered visions proposed by the study team, the CSB observed that the two visions were not mutually exclusive and that elements from each could be included in the final plan.

CSB members reviewed the Preferred Alternative's draft implementation plan and requested greater consistency between regional planning documents like the Kitsap Transit Long Range Plan, lighting improvements, and additional study of the SR 3 southbound flyover ramp.

Complete Streets Committee

The City of Bremerton's Complete Streets Committee was formed in 2021 to provide advice to Public Works to implement the complete streets vision as outlined in Bremerton Municipal Code 11.10. The Committee is comprised of appointed community members. The study team gave presentation regarding the Joint Compatibility Transportation Plan to the Complete Streets Committee on November 4, 2021 and May 17, 2022. Meeting summaries for the two Complete Streets Committee meetings are included in Attachment C.

Themes we heard from the Complete Streets Committee

Feedback from the Complete Streets Committee helped the study team to identify community needs and priorities, refine and create draft Build Alternatives, and finally, to select the Preferred Alternative. At the November 4, 2021 meeting, the Committee participated in a poll that helped prioritize needs to be addressed in the survey. Safety, Active Transportation, and Livability were among the highest priorities of the Committee.

Quantifiable effects

Participants were interested in how the study would balance easily measurable effects, like the cost of parking garages, with less measurable effects like home prices.

Transit incentives

Participants suggested incentive programs to encourage NBK-BR workers to choose transit over single-occupancy vehicles.

Pedestrian and bicycle connectivity

Participants noted that it is important to consider the needs of pedestrians and bicycles separately as they have different needs.

Virtual Open Houses

The study team held three virtual open houses to provide a convenient and accessible way for Bremerton residents to provide input to the plan and for the City to share project updates and study results while limiting in-person gatherings due to COVID-19. During the first virtual open house (February 9, 2021), the City introduced the study, explained why the City and NBK-BR are studying ways to improve travel options in the City, and encouraged input on community priorities to inform the plan. During the second virtual open house on December 2, 2021 the study team presented and gathered input on the baseline conditions findings and draft concepts. The third virtual open house (October 11, 2022) shared how community input shaped the Preferred Alternative. Each virtual open house included an opportunity for community members to ask questions and make comments on the project. Meeting summaries for the three virtual open houses are included in Attachment D.

Additionally, the City hosted a topic specific virtual open house regarding the proposed east-west bike corridor and roadway re-channelization projects on 6th Street. This meeting was held on November 3, 2022 and shared the plan to improve bicycle and pedestrian facilities on the 6th Street corridor from Washington Avenue to Callow Avenue.

Notifications

The study team promoted the virtual open house through a variety of channels, including:

- Email invitations sent to community members who completed or expressed interest in the study.
- Email invitations sent from CSB members to their constituencies.
- Social media posts advertised on the City's Facebook page.
- Announcements at City Council meetings.
- Flyers to local businesses and community-based organizations.
- Announcements on project partner websites including the NBK-BR website.

- Advertisements on message boards located on SR 3 and on SR 303.
- Postcard invitations to residents and businesses along 6th Street (for the 6th Street meeting only).

Themes we heard at the virtual open houses

Community feedback from the virtual open houses helped the study team to identify community needs and priorities, refine and create draft Build Alternatives, and finally, to select the Preferred Alternative. Attendees were especially interested in improving pedestrian and cyclist safety in Downtown and finding ways to incentivize moving away from car travel. Attendees wanted infrastructure investments, better parking, access to transit, and connections for people walking and biking.

Safety and accessibility

In each meeting, participants noted safety and accessibility as key priorities. Participants encouraged the study team to include bike lanes and wider sidewalks and also supported roadway changes to encourage slower vehicle speeds.

Parking

Participants expressed concern about lack of available parking, especially during the busiest times of day and near NBK-BR. Some suggested building parking garages and considering alternative transportation options such as carpooling, shuttles, cycling or shared electric scooters and transit to relieve parking pressure.

Transit connections

Participants supported providing more transit options to help relieve traffic, including more frequent buses, added bus stops and financial incentives to use transit. Participants also asked about adding shuttles to parking and transit.

Pedestrian and bicycle connectivity

Participants noted connections for people walking and biking as one of the most important corridor needs. Participants support more bike lanes and pedestrian walkways, especially through Downtown and over the Warren Avenue Bridge.

Online comments

During the study, residents emailed comments to City staff. The requests included better bus connections between Bangor and Bremerton, more bike racks at the ferry terminal and Downtown, additional parking solutions for workers and residents, increased safety for pedestrians (including people with disabilities) along Burwell Street and elsewhere in the area and streamlining the process for vanpools serving NBK-BR.

The West Sound Cycling Club Advocacy Committee submitted a study and several sets of illustrations, diagrams and comments showing their plan for improved bicycle safety and storage in the city. The group advocated for prioritizing a safe bike network, including an east-west corridor and two north-south corridors, along with other improvements such as safer crossings at busy streets like Warren Avenue and a road diet on 6th Street.

Public Information Survey

The City of Bremerton also invited community input through a public information survey that was open from February 3 to 28, 2021. The survey asked participants about their travel habits both before and during the COVID-19 pandemic and invited them to share input on how to improve transportation in Bremerton and NBK-BR. A total of 557 people completed the survey. Survey topics included trip origins and destinations, trip frequency, trip purposes, mode choice, impact of COVID-19 on travel behavior, issues that would influence travel mode after COVID-19, and ways to improve travel in Bremerton.

The City promoted the survey to Bremerton residents through the City's JCTP website, a billboard, social media, email, email updates and flyers and during the February 9, 2021 virtual open house. Survey respondents represented people with a range of genders, ages, incomes, races, ethnicities, and locations in the Bremerton area.

Respondents said investments in parking, traffic flow, and non-drive alone travel modes would improve travel in Bremerton. Respondents wanted to see more parking options, better traffic flow, more infrastructure for walking and biking, and a more reliable transit system, including the ferry system. Respondents wanted to see changes in shipyard policies to encourage telecommuting and staggering shifts and shuttle services.

About half of survey respondents reported that they live in Bremerton, with 21% in Port Orchard and the rest a mix of nearby communities. 85% of respondents identified as white and 53% as male.

The public information survey summary is included in Attachment E.

Themes we heard from survey respondents

Convenience is a top reason that people drive alone.

Top three reasons respondents would drive alone instead of using an alternative travel mode for trips to and in Bremerton include:

- Riding the bus is inconvenient or takes too long
- Respondents like the convenience of having their car
- Respondents have to make stops on their way to/from work

More convenient service (faster trips, longer operating hours) would motivate respondents to use transit more often.

Top three features that would motivate respondents to use (or use more often) public transit for trips to or in Bremerton include:

- More frequent transit services
- Extending transit operation time
- Express service with fewer stops

Increased shift flexibility and extended operating hours would improve the worker/driver bus program.

Top three things that would improve the Worker/Driver bus program for trips to the shipyard include:

- Increased shift flexibility
- Extended transit operation time
- Changes to minimum usage requirements

Free services (parking, ride home) and reserved parking near workplace would motivate respondents to use vanpool more often.

Top three things that would motivate respondents to use a vanpool (or vanpool more often) for trips to or in Bremerton include:

- Free parking for vanpoolers
- Free ride home in case of emergencies
- Reserved parking for vanpoolers near workplace

Free or reserved parking and reserved parking near workplace would motivate respondents to carpool more often.

Top three things that would motivate respondents to carpool (or carpool more often) for trips to or in Bremerton include:

- Free parking for carpoolers

- Reserved parking for carpoolers near workplace
- Free ride home in case of emergencies

About one-third of respondents thought having "protected or separated bike lanes" would motivate them to bike.

Top three things that would motivate respondents to bike (or bike more often) for trips to or in Bremerton include:

- Protected/separated bicycle lanes/trails
- New bike lanes
- Improved existing bike lanes

Respondents said roadway and shipyard access improvements were among the most important projects to improve travel in Bremerton.

According to respondents, the three most important projects to improve travel include:

- Roadway capacity projects
- Shipyard access improvements
- Roadway efficiency projects

Respondents suggested investments in parking, traffic flow, and non-drive along travel modes would improve travel in Bremerton.

Next Steps

In response to community feedback, the City updated the Preferred Alternative and will present a final report to City Council in Fall 2023. The City will incorporate Council feedback and continue to update the community and provide opportunities for public input as they advance through the design, environment, and construction phases of this project.

Attachment A. Community Engagement Plan

Joint Compatibility Transportation Plan
Community Engagement Plan

Prepared for

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TABLE OF CONTENTS

1. OVERVIEW 1

2. STUDY AREA 1

3. PLAN GOALS AND OBJECTIVES 2

4. COMMUNITY ENGAGEMENT GOALS AND OUTCOMES 2

4.1 Goals 2

4.2 Desired Outcomes 2

5. DEMOGRAPHICS 3

5.1 Race and Ethnicity 3

5.2 Age 3

5.3 Income 3

5.4 Disability 3

5.5 Languages 3

5.6 Internet Access 4

6. AUDIENCES 4

6.1 Electeds 4

6.2 Agencies 5

6.3 Schools 5

6.4 Government Entities 6

6.5 Emergency Services 6

6.6 Medical Centers 6

6.7 Neighborhood and Community Groups 6

6.8 Businesses and Business Groups 7

6.9 Parks 7

6.10 Tribes 7

6.11 Property Owners and Community Members 7

TABLE OF CONTENTS (CONTINUED)

7. MILESTONES 7

8. COMMUNITY ENGAGEMENT APPROACH 8

9. COMMUNITY ENGAGEMENT TOOLS AND TACTICS 8

9.1 Plan Webpage 8
9.2 Public Information Survey 9
9.3 Information Materials 9
9.4 Strategies for Reaching Underserved Communities 9
9.5 Community Sounding Board Meetings 11
9.6 Virtual Open Houses 11
9.7 Council Briefings 11

10. RISKS AND OPPORTUNITIES 12

11. STUDY CONTACTS 12

LIST OF FIGURES

Figure 1. Joint Compatibility Transportation Plan Study Area Map 1

LIST OF TABLES

Table 1. Tactics for Reaching Underserved Communities 10

ACRONYMS AND ABBREVIATIONS

CBOs	community-based organizations
City	City of Bremerton
CTR	Commute Trip Reduction
KCR	Kitsap Community Resources
NBK-BR	Naval Base Kitsap-Bremerton
PSNS	Puget Sound Naval Shipyard
PSRC	Puget Sound Regional Council
WSDOT	Washington State Department of Transportation
WSU	Washington State University

1. OVERVIEW

The City of Bremerton (City) is experiencing significant change as more people discover all this vibrant maritime community has to offer. Naval Base Kitsap – Bremerton (NBK-BR) and the Puget Sound Naval Shipyard (PSNS) help sustain Bremerton's economy, employing 20,000 to 30,000 military, civilian employees, and defense contractors, making it the largest employer in Kitsap County. NBK-BR provides critical services, programs, and facilities that meet the needs of both enlisted and civilian personnel across the Kitsap Peninsula.

NBK-BR is located near the City's downtown core and close to a variety of residential and commercial neighborhoods. The City recognizes that growth in this area must be compatible with NBK-BR's military missions while meeting other goals of Bremerton's comprehensive plans such as: fostering growth, protecting the environment, encouraging economic development, and promoting community health and equity

The City and NBK-BR are developing the Joint Compatibility Transportation Plan to define solutions to improve mobility, outline parking strategies, and help create a vibrant community that invites people to live, work, and play. This community engagement plan outlines the City's goals and strategies to engage community members and partners in the planning process.

2. STUDY AREA

The study area is located primarily within the City (see Figure 1), with particular focus on the area surrounding NBK-BR. The study team will also collect data on where people are coming from as they travel to Bremerton and NBK-BR.

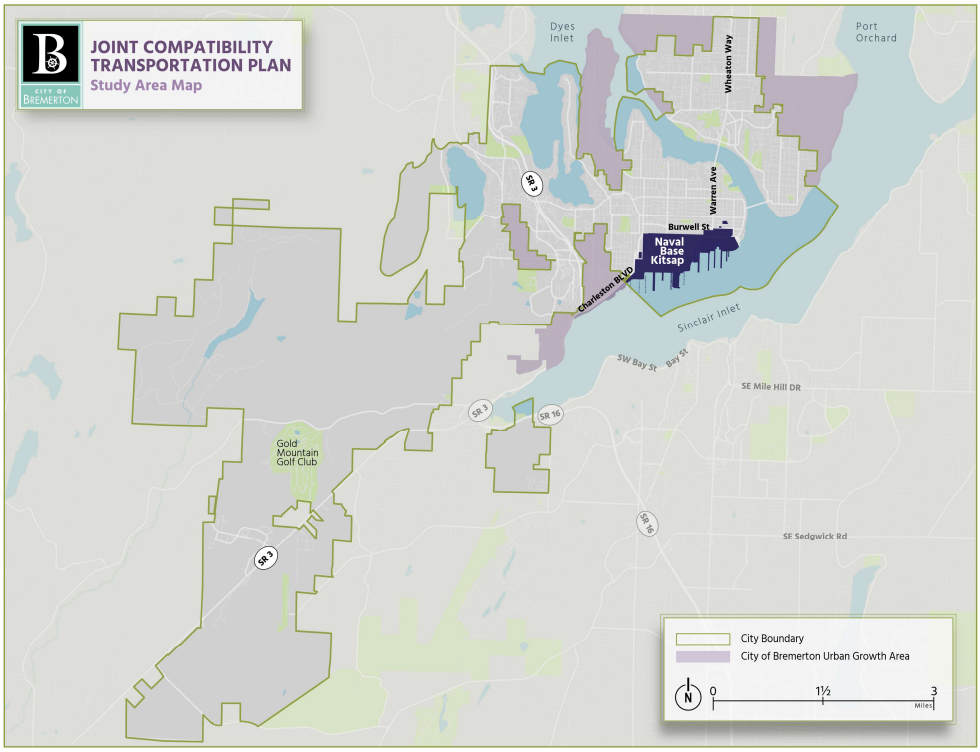


Figure 1. Joint Compatibility Transportation Plan Study Area Map

3. PLAN GOALS AND OBJECTIVES

The Joint Compatibility Transportation Plan will outline regional transportation network improvements necessary to provide transportation resilience and maintain NBK-BR accessibility and critical mobility, NBK-BR personnel quality of life, and economic vitality for the City. Study recommendations will guide the City and NBK-BR in identifying and developing future solutions.

The City and NBK-BR will engage project partners and the community to develop a plan that will:

- Recommend transportation solutions that improve livability, mobility, and operational effectiveness for NBK-BR.
- Ensure that the strategies are compatible with existing land use and transportation plans.
- Clearly outline short-term, mid-term, and long-term actionable projects with a possible implementation plan and funding sources.

4. COMMUNITY ENGAGEMENT GOALS AND OUTCOMES

The City and NBK-BR are committed to providing an open community engagement process with opportunities to inform and engage the community and key partners. We will invite community members to interact with study team members and ask questions on issues of interest or concern throughout the study process.

The following goals and desired outcomes will guide our community engagement efforts.

4.1 Goals

- Provide an open and transparent decision-making process through constructive two-way communication between the study team and the public.
- Provide early and ongoing opportunities for community members to raise issues and concerns and to provide input that the study team will consider.
- Proactively inform and engage all community members regardless of race, ethnicity, age, disability, income, or primary language.
- Build community understanding of findings and recommendations.

4.2 Desired Outcomes

- Community members understand what decisions they can influence, how the City will use their input, and how to contact the City for further information.
- The City develops accessible opportunities and easy-to-understand materials to explain key aspects of the study.
- The City hears from a range of community members throughout the study process.
- Clear documentation of how community input and priorities influenced the study.

5. DEMOGRAPHICS

The total population of the City is just over 40,600, living in almost 16,800 households. Of those households, 57 percent rent and 43 percent live in housing they own or pay a mortgage for. Fourteen percent of Bremerton households do not have a vehicle and, we assume, are transit-dependent—much higher than the 5 percent of households across the county without a vehicle.

Bremerton has a high percentage of people who are veterans: 17 percent of the total population in the City compared with 7 percent in the entire United States.

5.1 Race and Ethnicity

- Six percent identify as African American or Black, twice the percentage compared with all of Kitsap County.
- Eleven percent identify as Hispanic or Latino.

5.2 Age

On average, Bremerton residents are slightly younger than Kitsap County residents. The median age of people living in Bremerton is 33 compared with an average age of 39 in Kitsap County. Thirty-one percent of Bremerton residents are between 25 and 44 years old.

- Fourteen percent of the population is over the age of 64.
- Seventeen percent of the population is under the age of 18.

5.3 Income

- Thirty-seven percent of the population is at or below 200 percent of the poverty level compared with 21 percent of the total Kitsap County population.
- The median household income is $52,716, which is $22,695 less than the Kitsap County median of $75,411.

5.4 Disability

- Nineteen percent of the population self-identifies as disabled, including:
  - 5% with a hearing difficulty,
  - 4% with a vision difficulty,
  - 10% with an ambulatory difficulty, and
  - 7% with an independent living difficulty.

5.5 Languages

While 90 percent of the population of Bremerton speaks only English, 4 percent speak Spanish and 3 percent speak Tagalog (including Filipino).

5.6 Internet Access

Given the emphasis on virtual meetings and online engagement, it is important to note that only 84 percent of Bremerton subscribes to internet access at home, including people with cellular data. Of those, 2 percent have satellite service. Ten percent of Bremerton households do not have a computer or a smartphone at home. Of the 90 percent with some sort of computing device at home, 5 percent have only a cell phone to access the internet.

6. AUDIENCES

Audiences will consist of groups and individuals within or near the study area that may be affected by, have an interest in, or have the authority to act upon the study. The City and NBK-BR will reach out to and involve community partners, including neighbors, roadway users, community-based organizations (CBOs), active and retired military members, regulatory agencies, elected officials, businesses, property owners, and interested individuals. The City will develop engagement strategies and key messages for all project partners. The study team will confirm community expectations and preferred communication methods to provide early, open, ongoing, and meaningful opportunities for input through a Community Sounding Board. We will update the following audience list at key milestones throughout the study process.

6.1 Electeds

- State Senator
  - Senator Emily Randall, District 26
  - Senator Christine Rolfes, District 23
- State Representative
  - Representative Jesse Young, District 26
  - Representative Michelle Caldier, District 26
  - Representative Sherry Appleton, District 23
  - Representative Drew Hansen, District 23
- Federal Representative
  - Derek Kilmer, 6th District
- City of Bremerton
  - Greg Wheeler, Mayor
- City Council members
  - Pat Sullivan, District 1
  - Leslie Daugs, District 2
  - Kevin Gorman, District 3
  - Lori Wheat, District 4

- Michael Goodnow, District 5
- Mike Simpson, District 6
- Eric Younger, District 7

6.2 Agencies

- City of Bremerton Public Works
  - Tom Knuckey, Director
  - Ned Lever, City Engineer
  - Shane Weber, Managing Engineer
- Kitsap County
  - David Forte, Transportation Planning
- Kitsap County Health District
  - Megan Moore, Community Health Liaison
- Kitsap Transit
  - Steffani Lillie, Service and Capital Development Director
- Port of Bremerton
  - Jim Rothlin, Chief Executive Officer
  - Axel Strakeljahn, Port Commissioner
  - Cary Bozeman, Port Commissioner
  - Gary Anderson, Port Commissioner
- Washington State Department of Transportation (WSDOT)
  - Dennis Engel, Olympic Region, Multimodal Planning Manager
- Washington State Ferries
  - Ray Deardorf, Senior Planning Manager

6.3 Schools

- Bremerton School District
- Central Kitsap School District
- Olympic College
- Washington State University (WSU) Bremerton – School of Electrical Engineering and Computer Science

6.4 Government Entities

- Naval Base Kitsap-Bremerton
  - Anna Whalen, Community Planning Liaison
- Puget Sound Naval Shipyard

6.5 Emergency Services

- Bremerton Fire Department
- Bremerton Police Department
- Central Kitsap Fire and Rescue
- Kitsap County Sherriff's Office
- South Kitsap Fire and Rescue

6.6 Medical Centers

- Bremerton VA Clinic
- Naval Hospital
- Peninsula Community Health Services

6.7 Neighborhood and Community Groups

- Arc of the Peninsulas
- Boys and Girls Club of South Puget Sound – Bremerton Branch
- Bremerton ADA Committee
  - Shane Weber, ADA Coordinator
- Bremerton Backpack Brigade
- Bremerton Family YMCA
- Bremerton Hispanic Group
- Filipino-American Community Center
- Kitsap Community Resources (KCR)
- Kitsap Immigrant Assistance Center
- Manette Neighborhood Coalition
- NAACP Bremerton
- Peninsula Services
- Puget Sound Regional Council (PSRC) Bicycle Pedestrian Advisory Committee
  - Sarah Gutschow, Senior Planner

- Union Hill Neighborhood Association
- Society of St. Vincent de Paul Bremerton
- West Sound Cycling Club

6.8 Businesses and Business Groups

- Bremerton Chamber of Commerce
- Downtown Bremerton Association
- Kitsap Economic Development Association

6.9 Parks

- City of Bremerton Parks
  - Jeff Elevado, Director

6.10 Tribes

- Port Gamble S'Klallam Tribe
- Suquamish Tribe

6.11 Property Owners and Community Members

- All residents and property owners in the study area

7. MILESTONES

Date	Milestone	Description
January 2021	Community Sounding Board kickoff meeting	Introduce Joint Compatibility Transportation Plan, provide overview of key plan milestones, and confirm group charter.
January 2021	Survey	Conduct online to better understand where and how people are traveling within the City.
February 2021	Virtual open house	Introduce project and explain why the City and NBK-BR are studying ways to improve travel options in the City. Gather input on community priorities to inform the plan.
June 2021	Community Sounding Board meeting	Share community survey results and provide overview of existing traffic patterns.
August 2021	Community Sounding Board meeting	Share community feedback and gather input on draft elements and concepts.
August 2021	Virtual open house	Report back on what we've heard and share draft study concepts. Gather community input to inform plan development.
November 2021	Community Sounding Board meeting	Share community feedback and gather input on draft plan, including refined concepts and proposed solutions.

Date	Milestone	Description
February 2022	Community Sounding Board meeting	Share preferred concept and final study results.
February 2022	Virtual open house	Present preferred concept and final study results.
TBD	City council briefing	Present community input, preferred concept, and final study results.
March 2022	Final engagement report	Publish community and Community Sounding Board engagement report.

The study team will meet regularly with Bremerton City Council members at key milestones throughout the study process.

8. COMMUNITY ENGAGEMENT APPROACH

The following principles will guide the City's community engagement activities throughout the study process.

- **Engage a wide variety of audiences**, with an emphasis on underrepresented and underserved community members.
- **Engage local elected officials** throughout the study process to share study updates and community feedback and prevent surprises.
- **Ensure all audiences know who to contact** for information, questions, and concerns, and respond to them within one business day.
- **Explain the study in a way that people can easily understand.** This means using graphics and accessible text to help explain complex concepts, avoiding jargon, and using active voice and plain talk.
- **Provide multiple, accessible opportunities for input** at key milestones, such as an online survey, virtual meeting, email, mail, and a phone contact number.
- **Track public comments** by maintaining a contact list, and report back on how input helps shape the study development.
- **Strive for transparent, interactive conversation** that includes diverse people, opinions, ideas, and information throughout the decision-making process.

9. COMMUNITY ENGAGEMENT TOOLS AND TACTICS

The City will use a variety of online and in-person engagement tactics throughout the study process. We will select from the following list of tactics to engage and inform community members in developing the plan. We will follow the most current COVID-19 regulations and guidelines and update this plan at key study milestones.

9.1 Plan Webpage

The City will maintain a website to provide up-to-date information and announcements about upcoming milestones and community engagement opportunities. The website will also include contact information for key staff.

9.2 Public Information Survey

The study management team will develop a survey to understand where and how people are traveling within the City. Community feedback will help inform potential solutions to improve safety and mobility throughout the study area. The City will promote the survey to the audiences outlined in this plan using a wide range of tactics to encourage participation:

- **Social media** posts in Facebook groups and other platforms (e.g., WeChat).
- **Partnership with NBK-BR** to send electronic updates and poster flyers to promote the survey.
- **Partnerships with multifamily properties** to send information about the survey.
- **Partnerships with CBOs** to help distribute the survey to the people they serve.
- **Flyers or posters** posted on Washington State Ferries, on buses, and at key community gathering locations (grocery stores, libraries, etc.).
- **Press release** to local news outlets announcing the survey.

9.3 Information Materials

The study management team will develop and, upon City approval, request written and visual materials translated into Spanish and Tagalog to convey study information and encourage participation in virtual outreach events. The study team will develop clear, easy-to-understand materials, such as:

- Fact sheet or folio.
- Flyers displayed at key gathering locations.
- Electronic content to distribute at key milestones (e.g., virtual open houses and study conclusion).

9.4 Strategies for Reaching Underserved Communities

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. To accomplish this, the City will place a special emphasis on reaching communities that have historically been underrepresented in the public process.

For the purposes of this study, the City is defining underserved communities as populations that have historically experienced bias and have been historically underrepresented in government planning. These populations are sometimes harder to reach, such as people with low incomes; people with disabilities; and people who are minority, limited-English proficient, immigrant, Hispanic, or communities of color.

The City assumes that the people who are members of these historically underserved communities are disproportionately represented in the population without internet access at home. Thus, we will supplement the digital engagement strategies with some hard-copy materials.

The City follows all legal requirements for populations with special protections, such as Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act, Executive Order 12898 on Environmental Justice, and other anti-discrimination policies. Where needed to effectively engage underserved populations, we strive to exceed those requirements and provide robust opportunities to groups that

have historically had limited access to the public process. All outreach materials will include Title VI and ADA language blocks to comply with the Civil Rights Act of 1964.

The City will communicate project milestones to traditionally underserved communities by sending updates to CBOs and other groups (e.g., churches, libraries, YMCA, Kitsap Health District). We will also use a variety of engagement tactics, including:

- 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 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 CBOs.
- Distribute flyers and electronic notices to public libraries, community centers, neighborhood service centers, and other community gathering places.

Table 1 summarizes recommended tactics for reaching underserved communities.

Table 1. Tactics for Reaching Underserved Communities

Tactic	Location	Audience	Additional considerations
Tabling (TBD-once COVID-19 restrictions are lifted)	Olympic Community College	People who are under 25 People who are immigrants People with low incomes People who rent	We recommend the tables be staffed by multilingual staff who can communicate with students who are English language learners.
	Wheaton Way Transit Center	People with low incomes People who are transit-dependent People without internet access People with disabilities	
Post flyers at businesses, community locations	Businesses along SR 303, including Goodwill, SAARS, Wilco, Fred Meyer, and small businesses, Bremerton Food Line, Washington State Ferries Fast ferries Kitsap Transit buses	People with low incomes People without internet access People with disabilities People who rent	Outreach staff will follow appropriate COVID-19 social distance guidelines, including wearing masks and delivering materials following social distancing protocols.
Distribute electronic notifications	Advocacy groups and other social service providers	People with disabilities People with low incomes	

Tactic	Location	Audience	Additional considerations
Offer information	Organizations serving underrepresented populations	People with disabilities People with low incomes People who use languages other than English People without internet access	

9.5 Community Sounding Board Meetings

The City will establish a Community Sounding Board to provide input on the plan and outcomes. The City will collaborate with the Community Sounding Board to establish an area purpose and needs statement and a vision statement. Roles and responsibilities will outline the processes for reaching agreement, resolving disputes, and determining final decisions.

The Community Sounding Board will include representatives from:

- City of Bremerton
- City of Bremerton City Council
- Bremerton Chamber of Commerce
- Puget Sound Naval Shipyard
- WSDOT
- Suquamish Tribe
- Port of Bremerton
- Kitsap County
- Kitsap Transit

9.6 Virtual Open Houses

The study team will hold three virtual open houses to provide a convenient and accessible way for Bremerton residents to provide input to inform the study and potential solutions and use a wide range of tactics to encourage participation. During the first virtual open house, the City will introduce the study, explain why the City and NBK-BR are studying ways to improve travel options in the City, and encourage input on community priorities to inform the plan. The study team will host a second virtual open house to present and gather input on study findings and draft concepts. During the third virtual open house, we will share how community input shaped the final plan and share the preferred concept.

9.7 Council Briefings

The study team will present to Bremerton City Council at key project milestones to share information, report on community feedback, and gather input to inform plan development.

10. RISKS AND OPPORTUNITIES

- **Risk:** Community members and partners may favor improvement options that the City and NBK-BR are not able to include as part of the list of improvements.
  - Opportunity: Communicate often with community members and key partners about project goals, evaluation criteria, and timeline in all project materials and events.
  - Opportunity: Clearly communicate the decision-making criteria and how the public may influence decisions.
  - Opportunity: Report back to project partners to explain how their input helped influence the final outcomes.
- **Risk:** The City and NBK-BR may decide not to pursue any of the proposed improvements.
  - Opportunity: Communicate with community members and project partners early on about the purpose of the study, the value of their comments, and the possible study outcomes, including a no-build alternative.
  - Opportunity: Report back to community members and project partners to explain how their feedback set the foundation for improving the corridor and explain the decision-making process.
- **Risk:** The COVID-19 pandemic has significantly impacted community members and disproportionately burdens people who are traditionally underserved. As a result, people may be less likely to engage in the planning process.
  - Opportunity: Use a variety of tactics to get the word out and invite community members to participate in the planning process.
  - Opportunity: Offer virtual and socially distanced in-person opportunities for community members to engage in the study process and provide feedback.

11. STUDY CONTACTS

- Katie Ketterer, City of Bremerton, Project Manager, 360-473-5334
- Dennis Engel, WSDOT, Multimodal Planning Manager, 360-357-2651
- Thomas Knuckey, City of Bremerton, Director of Public Works, 360-473-5920
- Michael Horntvedt, Parametrix, Consultant Project Manager, 206-838-3992
- Alex Atchison, Parametrix, Senior Consultant, 206-512-5140
- Laura LaBissoniere, PRR, Communications Lead, 206-734-940
- Artie Nelson, PRR, Deputy Communications Lead, 843-468-6152

Attachment B. CSB Meeting Summaries

Joint Compatibility Transportation Plan
Community Sounding Board
January 28, 2021
Virtual Teams Meeting
1 p.m. – 3 p.m.

MEETING SUMMARY

Welcome

Katie Ketterer, City of Bremerton Public Works and Study Project Manager welcomed the group to the first Joint Compatibility Transportation Plan Community Sounding Board (CSB) meeting. Katie facilitated introductions and thanked participants for their involvement, highlighting the important role of the group in developing a plan to improve the economic vitality and mobility of the area near Naval Base Kitsap-Bremerton (NBK-BR).

Michael Horntvedt, Consultant team project manager, reviewed the meeting agenda which included reviewing the project goals, study schedule, and opportunities to collect feedback from the public about proposed solutions; gathering input from meeting attendees about key areas of interest and priorities for the study; and confirming group roles and responsibilities.

Project Overview and Goals

Michael gave an overview of unique traffic and parking challenges in the project area and explained the City, along with NBK-BR, plans to use a $750,000 Department of Defense grant to find solutions to those challenges. Michael highlighted the City and NBK-BR's shared goals to evaluate and develop solutions that help people travel around Bremerton more easily, whether they are walking, biking, or driving. As part of this study, the project team will develop a prioritized implementation plan.

NBK-BR needs to meet its national security objectives and military readiness and the City is working to create a place where people want to live and work as Bremerton continues to grow.

Roles and Responsibilities

Michael reviewed roles and responsibilities for the CSB and project team. The role of the CSB is to attend and participate in all meetings; identify a substitute member when necessary; keep others in their organization informed and gather feedback when possible; respect differing needs while looking for solutions that help the City and NBK-BR achieve their goals; and review and consider background materials prior to meetings.

The project team will provide study updates and gather community feedback; provide the right staff at each meeting depending on the discussion topic; and listen closely to CSB members' contributions to discussions and report back to the CSB on how their input is reflected in the study to maintain transparent communications between the project team and the City. The group did not have any comments and agreed to the roles and responsibilities.

Project Workplan

Michael provided an overview of the CSB schedule and community engagement timeline, highlighting the multiple opportunities for engagement and diverse range of audiences. He also outlined the technical

work elements and key project milestones. The study team plans to host all events virtually until further notice (tentatively through March 2022).

Community Engagement

Virtual Open House #1

Katie reminded meeting attendees about the first virtual open house on Feb. 9, 2021, from 5 – 6:15 p.m. via Zoom. The City plans to post announcements on their social media channels Feb.3-9 so CSB members can share with their constituencies. The City will send the virtual open house link to CSB members so they can send to their constituencies directly as well.

Public Information Survey

Katie confirmed the City is posting the online survey on Feb. 1. The goal of the survey is to gather feedback on travel behavior before and after the COVID-19 pandemic. The project team wants to learn about the community's current travel behavior and the patterns people may continue as the pandemic ends (or a vaccine is widely available). The project team is also interested in collecting additional information, including:

- Origin and destination of trips.
- Travel modes–specifically, buses vs. traveling alone. The City is focusing mostly on Zone 16 in the downtown corridor.
- Review to see if people are proposing solutions to travel issues–the project team will look to see if there is a predominant theme or solutions that are evenly applied across all modes of transit as respondents answer questions about the challenges they experience on their trips.
- Demographics–the project team will evaluate differences based on income level and socio-economic factors.

Michael explained how the study team plans to use the survey results. The origin/destination data will help the project team understand 1.) the modes of transportation people are using and possible improvements to those modes, and 2.) what it will take to help people change their travel behavior or determine other solutions while evaluating why people are not willing to use other modes.

Michael emphasized that in addition to survey responses, pre-COVID-19 data will still serve as a baseline for evaluations. The project team will combine data collected from survey responses along with data from:

- Washington State Ferries.
- Other transit agencies.
- NBK-BR which has information about how their members travel to and from the base.
- Previous origin and destination data collected in 2017.

Pamela Vasudeva, WSDOT, is willing to share raw data from WSDOT's commute trip survey. The project team will review to see if that information is applicable to the study.

Discussion

Katie asked meeting attendees what early projects would provide the most benefits to the study area. Overall themes from their responses include:

- Additional park and rides.
- Better transit connections between park and rides.
- Finding solutions to fix the traffic funnels in Gorst (a priority for Mayor Wheeler and several others).
- Improve transit frequency in the area.

- Increase multimodal uses at the lots along NBK-BR (e.g., electric charging stations, locker stations).
- Improve pedestrian and bicycle connections to the Naval Base.
- Prioritize vanpool/carpool parking to incentivize less vehicle use.
- Remove/consolidate parking along streets in the downtown subarea.

Next Steps

Michael and Katie thanked CSB members for attending and mentioned the project team will send out meeting invites for the next meeting scheduled for June 10. Katie encouraged CSB members to send data or other resources that may be helpful for this project such as information about projects happening at Kitsap Transit or Port of Bremerton.

Attendance:

Meeting Attendees:

- Allison Satter, City of Bremerton
- David Forte, Kitsap County
- Edward Coviello, Kitsap Transit
- Fred Salisbury, Port of Bremerton
- Greg Wheeler, Mayor, City of Bremerton
- Kevin Gorman, Bremerton City Council
- Matthew Pahs, WSDOT Olympic Region
- Melinda Monroe, City of Bremerton
- Pamela Vasudeva, WSDOT
- Thomas Knuckey, City of Bremerton
- Sara Oliveira, Naval Base Kitsap - Bremerton
- Shane Weber, City of Bremerton

Project Team:

- Katie Ketterer, City of Bremerton
- Alex Atchison, Parametrix
- Michael Horntvedt, Parametrix
- Emily Welter, Parametrix
- Artie Nelson, PRR

Joint Compatibility Transportation Plan
Community Sounding Board
July 7, 2021
Virtual Teams Meeting
8:30 a.m. – 10:30 a.m.

MEETING SUMMARY

Welcome

Katie Ketterer, City of Bremerton Public Works and Study Project Manager, welcomed the group to the second Joint Compatibility Transportation Plan Community Sounding Board (CSB) meeting. Katie reviewed the meeting agenda, which included the results of the public information survey, the project analysis and issues, the results of the first workshop, and the screening approach. Katie also reviewed the project goals that were discussed in the first CSB meeting, which included a multi-modal approach that includes general purpose traffic, active transportation, transit, and parking.

Michael Horntvedt, Consultant team project manager, discussed the work plan and schedule for the rest of the project.

Public Information Survey

Katie reviewed the results of the public information survey that was conducted in February. The goal of the survey was to gather feedback on travel behavior before and after the COVID-19 pandemic and supplement the data collected by the project team. The survey was advertised through several different platforms and resulted in 557 people completing the survey.

Key findings from the public information survey included information on why and where from people are travelling to the City, reasons for why people use some modes over others, and recommended improvements. Some key findings that were highlighted during the meeting included:

- 85% of respondents travel to the City for work
- 40% of respondents start their trip to the City from the south
- The most common barriers to using transit instead of driving is that riding the bus is inconvenient or takes too long and respondents like the convenience and flexibility of using a car
- The most important projects to improve travel in Bremerton were roadway capacity, shipyard access, and roadway efficiency.

Katie clarified that roadway efficiency projects include improvements like signal timing and optimization and that shipyard access projects include improvements like kiss and rides or drop-off locations.

Project Analysis and Issues

Alex Atchison, Consultant transportation lead, reviewed the analysis and issues identified by the project team and requested feedback from the CSB on the issues presented. The modes covered included active transportation, transit, general purpose traffic, and parking. Alex also presented the inventory of projects that had been suggested by previous studies.

Active Transportation

The main issues for active transportation include poor sidewalk conditions, difficult pedestrian crossings and limited connectivity. Alex highlighted that 10,000 pedestrians walk onto NBK-BR every day. The CSB had the following questions and suggestions on active transportation:

- CSB participants requested that the NBK-BR pedestrian map be updated to indicate that volumes are for inbound only.
- Tom Knuckey (City) requested to see origin/destination data for pedestrians entering the gates and the correlation of pedestrians entering different gates to parking. Shane Weber and Melinda Monroe (City) both noted that there is data available on parking movements, permits, and enforcement that can be used. Shane suggested that pedestrians and bicyclists entering the gates could be surveyed or that Wi-Fi data from personal devices could be collected.
- David Forte (Kitsap County) suggested that the project team analyze value of time to measure how far commuters are willing to park and then walk or bike to NBK-BR. He noted that this may be a more accurate measure than 1/4-mile walksheds.

Transit

The main issues for transit include infrequent bus service and poor active transportation facilities near bus stops. The CSB had the following questions and suggestions on transit:

- Melinda requested that the transit coverage of the City of Bremerton be compared to other similar cities.
- Fred Salisbury (Port of Bremerton) asked if the worker/driver buses drop off inside the NBK-BR gates and both Katie and Shane confirmed that they do.
- Matthew Pahs (WSDOT) requested that the project team look at origin/destinations for ferry riders and suggested picking up ferry riders at the terminal to shift riders from single-occupancy vehicles to walking on.

General Purpose (GP) Traffic

The main issues for GP traffic include traffic surges and delays during NBK-BR shift changes, level of service (LOS) E or worse at several intersections, and queues exceeding storage lengths throughout the City, including at the new Washington Avenue/Manette Bridge roundabout. There are also safety concerns, with the most comment collision type in fatal and serious injury crashes being a hit pedestrian. The CSB had the following questions and suggestions on GP traffic:

- Pamela Vasudeva (WSDOT) requested that the crash data for crashes involving pedestrians be broken out by cause, time of day, and lighting.
- Tom requested that the queue lengths be shown graphically on the queueing maps.
- Shane noted that the LOS standard for the City is LOS E and for State routes is LOS D.
- Shane requested that the growth between 2020 and 2050 be quantified as growth associated with NBK-BR or growth associated with the City and noted that this would help identify how NBK-BR impacts the City or how the City impacts NBK-BR.
- Shane asked how the impacts of the NBK-BR remodel will be measured.

Parking

The main issues for parking include demand exceeding supply and the significant midday vehicle movement known as the “Bremerton Shuffle.” Tom requested to see the number of parking spaces that NBK-BR would have to provide if it were a private employer compared to the parking that is currently supplied. He noted that it might be helpful to compare this to the amount of parking available at similar locations such as the Port of Tacoma.

Workshop Results

Michael presented the results of the first workshop, which was held in June and focused on identifying improvements to address the various issues. Nearly 150 different improvements were proposed during the workshop and a few additional improvements were added by the Consultant team following the workshop. The project team organized these improvements into groups: new or expanded parking, roadway capacity and signals, NBK-BR projects, transit, active transportation, education and marketing, parking management, and programs to encourage mode shift.

Michael requested that the CSB review the list of improvements and submit any additional ideas to the project team. David asked why the capacity improvements were concentrated on the south end when only 40% of public information survey respondents traveled to the City from the south. CSB participants also discussed shifting some NBK-BR activities north to Bangor as a potential improvement.

Screening Approach

Alex presented the approach for screening improvements and alternatives. The improvements will be screened through First Level Screening, which will determine if an improvement is consistent with the goals of the study and with City and NBK-BR plans. Improvements will then be packaged into alternatives and screened through Second Level Screening. Second Level Screening will evaluate alternative packages based on qualitative and quantitative performance measures for each of the study goals: travel time reliability, mobility, safety, active transportation, economic vitality, parking, and base accessibility. The CSB will prioritize these study goals through a forced-choice pair comparison, the results of which will be used to develop weighted scores for each of the alternatives.

Additional comments from NBK

Continued coordination with NBK occurred to get additional input on some of the concepts considered at the CSB meeting. Below is additional input from NBK.

Regarding relocating some operations/codes from NBK Bremerton to the Bangor location, NBK Bremerton indicated that the Navy is already planning to move some operations to Bangor, however not all operations could be relocated, so it is okay to list it as an option but some of those actions are already. The team would also assume that relocated functions might be backfilled with additional staff at the NBK Bremerton location, so that there would be no net change in traffic and parking demand at the NBK Bremerton location.

The team discussed the possibility of staggering shifts to reduce peak demand on the roadway and parking system. NBK recommends including shift staggering as an ongoing strategy however, the Navy (and its tenants) are already staggering its shifts in Bremerton.

The NBK-Bremerton population include many different teams required for operations. Those teams include supporting military and civilian personnel, PSNS&IMF, aircraft carriers that are ported, contractors and more. Shift staggering between some different tenants is already used to reduce impacts on the city and improve accessibility to the base. An example is the USS NIMITZ and USS Theodore Roosevelt workers have different shifts than PSNS&IMF.

Furthermore, the Shipyard (PSNS&IMF) utilizes alternate shifts and compressed work schedules for many of their employees. However, any interruption to the standard shift for primary Transit riders is difficult because it would impact the ridership of the Worker Driver buses and the need for those assets to be at capacity to support a successful program.

Another concept that was proposed would allow Kitsap Transit (KT) to run bus routes onto the base in an effort to reduce impacts to traffic operations and provide a more direct walking route for the workers. NBK would consider allowing KT to run bus routes onto the base however, it would need to exclude the PSNS&IMF. There may be details that are hard/unfeasible to make this a possibility, but it could be an

option to consider. There would be a security concern to have Kitsap Transit buses running through PSNS&IMF (with the exception of the Worker/Driver buses as they have security clearance and protocols in place).

Next Steps

Katie and Michael concluded the meeting by reviewing the next steps for the project, including receiving new improvement ideas from the CSB participants, scheduling the second workshop, and scheduling the third CSB meeting. Michael noted that an updated schedule will be sent to the CSB following the meeting.

Attendance

Meeting Attendees:

- Allison Satter, Naval Base Kitsap - Bremerton
- David Forte, Kitsap County
- Denis Frey, Bremerton Chamber of Commerce
- Fred Salisbury, Port of Bremerton
- Garrett Jackson, City of Bremerton
- Kevin Gorman, Bremerton City Council
- Matthew Pahs, WSDOT Olympic Region
- Melinda Monroe, City of Bremerton
- Pamela Vasudeva, WSDOT
- Thomas Knuckey, City of Bremerton
- Shane Weber, City of Bremerton

Project Team:

- Katie Ketterer, City of Bremerton
- Alex Atchison, Parametrix
- Michael Horntvedt, Parametrix
- Emily Welter, Parametrix

Joint Compatibility Transportation Plan
Community Sounding Board
October 26, 2021
Virtual Teams Meeting
1:00 p.m. – 4:00 p.m.

MEETING SUMMARY

Welcome

Katie Ketterer, City of Bremerton Public Works and Study Project Manager, welcomed the group to the third Joint Compatibility Transportation Plan Community Sounding Board (CSB) meeting. Katie reviewed the meeting agenda, the project goals, and the schedule for the rest of the project.

Alternatives

Alex Atchison, Consultant transportation lead, described the three Alternatives that were analyzed as part of the Second Level Screening: Support Parking, Relocate Parking, and Add Base Parking. She discussed how the NBK-BR parking numbers were estimated as well as the methodology for estimating traffic diversion associated with the Relocate Parking and Add Base Parking alternatives.

The CSB had the following questions:

- Allison Satter (NBK-BR) asked if the estimate for 1,000 relocated vehicles was for one hour during the peak or the full day.
    - *Answer: 1,000 is the number of relocated vehicles during the peak hour period.*
- Shane Weber (City of Bremerton) asked if the parking in the neighborhood west of Charleston/Burwell had been considered in parking relocation.
    - *Answer: No. Pedestrian volumes into the Charleston and Naval gates account for less than 5% of overall pedestrian gate volumes during the PM peak hour. The parking relocation was focused on the downtown area.*
- David Forte (Kitsap County) asked why the Loxie Eagans Blvd interchange had not been included in the traffic distribution.
    - *Answer: The Loxie Eagans Blvd interchange provides access to NBK-BR most directly through the Charleston Blvd/S Cambrian Ave intersection. 80-90% of the traffic to/from S Cambrian Ave travel through the Charleston gate; therefore, the assumption is that a small percentage of traffic from the Loxie Eagans Blvd interchange is not already parking on Base. The Relocate Parking and Add Base Parking alternative focus on relocating people that currently park downtown and then walk onto Base, so traffic to/from Loxie Eagans Blvd was not included in these relocations.*

Emily Welter, Consultant transportation team, showed the maps that were prepared for each of the three Alternatives as well as the active transportation improvements.

The CSB had the following questions:

- Melinda Monroe (City of Bremerton) asked what the budget is for each improvement and when cost estimates are being developed.
    - *Answer: Cost estimates are currently being developed for the roadway capacity improvements.*

- Tom Knuckey (City of Bremerton) asked if the travel delay had been quantified for each improvement.
    - *Answer: Yes, travel delay was quantified for each Build Alternative for Second Level Screening.*
- Shane asked if some active transportation projects had been taken from the City's Comp Plan and Non-motorized Plan.
    - *Answer: Yes, light green lines are consistent with City plans and dark green lines are improvements that are being recommended as part of this project.*

Screening

Alex discussed the screening process for this study, including developing improvements, First Level Screening, packaging the improvements into Alternatives, and Second Level Screening. She discussed the metrics used in the Second Level Screening and the final scores for each.

The CSB had the following questions and suggestions:

- Tom asked what bike level of traffic stress (LTS) is.
    - *Answer: Traffic stress is defined as how comfortable a roadway feels for a person biking.*
- Melinda mentioned that she has recommendations for case study locations for turning parking into mixed use development as part of the economic analysis.
- Tom mentioned that the City has a need for a major east-west bike corridor and supports including at least one road diet project.
- Ed Coviello (Kitsap Transit) mentioned that if one or two large park and rides are built, then Kitsap Transit supports developing a shuttle service for NBK-BR only.
- Melinda asked if there are specific City lots or private lots that the study team will be analyzing.
    - *Answer: Two locations have been identified for additional parking downtown: angled parking along 4th and 5th Street between Park Ave and SR 303 (PC13) and a parking garage between Burwell St and 4th St and Park Ave and SR 303 (PC14).*

What Did We Learn?

Alex discussed the key takeaways from the Second Level Screening analysis.

The CSB had the following questions and suggestions:

- Shane mentioned that the City is putting bike lanes and bike boxes on Kitsap Way and that putting in roundabouts would make it more difficult for bikes to get through the corridor.
- Tom wants to understand the cost-benefit of each improvement to help put together the Preferred Alternative.
- Shane asked what the process will be for putting together the Preferred Alternative. Will the study team select 1 parking alternative, or will it be a mix and match?
    - *Answer: The Preferred Alternative will be a mix and match of improvements from different alternatives.*
- Shane emphasized the need for an overarching parking policy to be selected by the City.
- Shane also mentioned that livability and Base accessibility are competing forces and that the City council members are interested in livability.
- Tom asked if the Base cannot build 7,000 parking stalls on Base, then how many can be built? Could the Preferred Alternative include a mix of parking downtown and parking on the west side of the Base?
    - *Answer: The study team will hope to address this with the Preferred Alternative.*
- Allison mentioned that the Base has identified the daily parking need to be 6,000 to 7,000.

- Melinda requested that the study team provide a dollar value for each policy change. She mentioned that there are street signs needed to enforce certain parking policies and that policy changes have a cost associated with them such as new signs or enforcement.
- Allison asked if the study team was able to capture how Bremerton is growing and changing (i.e. adding 3,000 housing units downtown). Are those units going to be utilized by the Base?
    - *Answer: The travel demand modeling for the No Build condition included growth for the City and shifts in traffic for new employment and population centers. Mode shifts were not included.*
- Shane asked if the parking demand is for Existing or Year 2050?
    - *Answer: Both. Forecasted growth for NBK-BR is less than 2% between 2020 and 2050, so the parking demand would likely remain the same.*
- Shane emphasized that there is a parking demand due to the Base. He asked if this study is looking at Base-specific parking needs and the effects on the City, or is this study looking at other parking generators in the City as well.
    - *Answer: This study is focused on parking demand from the Base. The No Build condition does include growth from other parking generators, though.*
- Allison mentioned that the City is growing and there is more of a trend of people living near or on Base. She is optimistic that the parking demand will decrease over time because of this trend.

Next Steps

Alex discussed the next steps for the project, including identifying and analyzing a Preferred Alternative, developing preliminary cost ranges, and prioritizing modal projects.

Alex asked the CSB if it is fair to assume that one of the recommendations is to build additional parking somewhere. The CSB agreed that additional parking is needed but was not in agreement on where it should be.

The CSB had the following questions and suggestions:

- Shane mentioned that it would be helpful to see how well each improvement is hitting the goals and metrics, as well as the cost of each.
- Tom requested a metric to compare costs and benefits of different types of improvements.
- Allison asked what the schedule is for putting together a Preferred Alternative?
    - *Answer: Current schedule is to have Preferred Alternative evaluated by end of January. That may change depending on when the Preferred Alternative is clearly defined.*
- Tom and Shane requested more detailed data on how each improvement improves travel time, delay, safety, etc.
- Allison mentioned that it will be challenging for the Base to get funding to build more parking on Base and that they need a robust explanation as to why any new parking is potentially part of the Preferred Alternative.
- Katie suggested that it would be helpful to add a score for feasibility (i.e. the Add Base Parking alternative performs well but it's not feasible to build a 7,000 stall garage).
- Allison said that improvements such as daycare space would more likely be funded by DoD than parking.
- David mentioned that adding parking at the McWilliams P&R has implications. The County is not interested in adding parking in urbanized areas, similar to the City.
- Garrett asked what the public outreach process has been.
    - *Answer: A public information survey conducted in February, an online open house was held in February, and a second online open house is scheduled in December.*
- Shane asked if there has been any public feedback on parking.

    - *Answer: Yes, but the response has been split between voices of commuters who want low-cost parking near where they want to go versus the people who live in Bremerton and want more active transportation improvements and want to improve livability.*
- Tom pointed out that the Support Parking and Relocate Parking alternatives look bad for travel time and mobility. He requested the results for both with just 1 road diet.
- Shane asked about the impacts of the improvements on level of service. What are the magnitude of the impacts and what are the safety benefits? Shane would like to see the magnitude of benefit, not just the summary arrows.
- Shane asked if the study team ran a travel demand model for improvements like road diets. He would like to see the traffic assumptions.
    - *Answer: No, travel demand modeling was not performed for any of the Build Alternatives. The study team diverted traffic for the road diet projects based on the assumptions from the 6th and 11th Street road diet study.*
- Tom requested the results of just a road diet on either 6th or 11th Street.
- Shane asked if the study team looked at extra lanes in the eastbound and westbound directions along Burwell St.
    - *Answer: No, the add capacity improvement only included an additional westbound lane for a portion of Burwell St.*

Attendance

Meeting Attendees:

- Allison Satter, Naval Base Kitsap - Bremerton
- David Forte, Kitsap County
- Ed Coviello, Kitsap Transit
- Fred Salisbury, Port of Bremerton
- Garrett Jackson, City of Bremerton
- Greg Wheeler, City of Bremerton
- Kevin Gorman, Bremerton City Council
- Matthew Pahs, WSDOT Olympic Region
- Melinda Monroe, City of Bremerton
- Thomas Knuckey, City of Bremerton
- Shane Weber, City of Bremerton
- Vicki Grover, City of Bremerton

Project Team:

- Katie Ketterer, City of Bremerton
- Alex Atchison, Parametrix
- Emily Welter, Parametrix
- Mallory Wilde, Parametrix
- Jeff Arango, Framework
- Madalina Calen, Community Attributes
- Sarah Saviskas, Fehr and Peers

Joint Compatibility Transportation Plan
Community Sounding Board
June 1, 2022
Virtual Teams Meeting
1:00 p.m. – 3:00 p.m.

MEETING SUMMARY

Welcome

Katie Ketterer, City of Bremerton Public Works and Study Project Manager, welcomed the group to the fourth Joint Compatibility Transportation Plan Community Sounding Board (CSB) meeting. Since it had been several months since the last CSB meeting, Katie reviewed the purpose and goals of the project. There are unique traffic and parking issues due to Naval Base Kitsap – Bremerton (NBK-BR) such as traffic surges at shift changes and limited parking and multimodal options. The goal of the project is to develop a prioritized implementation plan that addresses these issues.

The CSB had the following input:

- Rick Tift (PSNS) mentioned that there are 8,000 parking spaces on Base.

Existing Issues and Alternatives

Katie reviewed the existing issues that were identified through the early stages of the project. The project team looked at data on multiple modes of transportation and determined that 60 percent of traffic coming into Bremerton during the peak period is attributed to NBK-BR, parking habits are entrenched and involve parking illegally outside of the Base, and that by 2050, there will be significant congestion and travel times will increase along key corridors.

The CSB had the following questions:

- Mayor Greg Wheeler (City of Bremerton) asked for a simplified version of the corridor travel times.

The project team developed over 100 potential solutions to address these issues and divided them into three different alternatives that were evaluated according to different metrics. No one alternative showed improvements to all of the metrics and two metrics were often at odds: base accessibility and livability.

Visions for Final Outcome

Alex Atchison, Consultant transportation lead, outlined the two main visions to be discussed by the CSB: the Livability Centered Vision and the Capacity Centered Vision.

The Capacity Centered Vision would add roadway capacity, which would require significant right-of-way and could cost between from $80 million to $160 million, not including parking or active transportation improvements. Capacity projects would likely only keep up with growth instead of improving traffic or parking and may be infeasible due to environmental constraints and funding.

The Livability Centered Vision would shift people from commuting by car towards commuting by transit, active transportation, and carpool/vanpool. This vision would require increased transit capacity, improved active transportation infrastructure, incentives for workers to shift modes, and parking policies, all of which would require significant coordination across different agencies.

The CSB had the following input:

- James Cook (PSNS) asked how the time it takes to transfer from car to bus factors into the travel times and mentioned that there are barriers to hiring staff such as allowing people to access to daycare after work.
- Mayor Wheeler mentioned that in the Downtown area east of Warren Ave, there is an anticipated growth of 3,000 people living in this area.
- John Clauson (Kitsap Transit) stated his vote for the Livability Centered Vision because it could provide benefits to all travelers, even outside Bremerton. He mentioned that there are other options outside of buses such as ferries, carpool, and vanpool and that now seems like a good time to implement this vision since Congress has made funds available for these types of projects. He also mentioned that the project team should look into capacity improvements that can be made available to buses, carpools, vanpools, and bicyclists.
- Captain Richard Massie (NBK-BR) mentioned that they are looking at a third carrier on Base within the next 10 years. He would like to see a combination of solutions to support both visions and also look at internal solutions such as daycare within the same building. He mentioned that he is confused by statement that surface parking is not the best use of the space since these are private land owners.
    - Katie responded that the City recently did an economic analysis of City-owned surface parking lots and the revenue they generate compared to other possible uses.
- Rick mentioned that there have been many studies that focus on Downtown Bremerton and not on the other areas that could be developed. He believes that Downtown today is a destination for employment, either in Bremerton or though commuting to Seattle. He mentioned that PSNS is making improvements, such as returning to regular shifts that align with buses.
    - Katie responded that the study is intended to plan ahead to manage the expected future growth Downtown.
    - Mayor Wheeler mentioned that the City is trying to keep Bremerton livable and keep up with the housing demand.
- James asked why the City is not considering capital projects like additional private parking lots?
    - Katie responded that the City is in fact looking at private partnerships with developers and businesses.
    - Mayor Wheeler mentioned that the City has been strategically upzoning to increase density and allow duplexes and triplexes and increase housing supply.
    - Michael Horntvedt (Parametrix) asked if incentivizing people to drive into downtown and park at private parking lots is in alignment with the City's goals.
- Garrett Jackson (City of Bremerton) mentioned that denser housing Downtown could encourage Base employees to live downtown and shorten their commute.
- Melissa Mohr (Kitsap County) mentioned the difficulties that commuters have with lower transit frequency. She also encouraged the group to consider the impacts of impervious pavement and greenhouse gases from general-purpose traffic.
    - John responded that transit frequency is a major factor in people's decision to take transit and that Kitsap Transit can only increase frequency if there are more riders.
- Allison Satter (NBK-BR) asked if one vision is chosen over the other, does that mean that there cannot be any improvements towards the other vision. For example, if the Livability Centered Vision is selected, that does not mean there will not be any capacity improvements.
    - Kite responded that capacity improvements may be needed in certain places, but they may have to be balanced with livability
- Rick mentioned that changes in shipyard operations will bring more density to a smaller area within shipyard boundaries.
- Allison Satter (NBK-BR) asked the City to discuss the timing for the improvements and outline which improvements are dependent on other improvements to be successful.

- Melinda Monroe (City of Bremerton) mentioned it would great to have the plan broken into 5 year chunks so that the City can plan budgets.
- Tom Knuckey (City of Bremerton) mentioned that here are some improvements for the Livability Centered Vision that would conflict with the Capacity Centered Vision. For example, re-channelizing 6th Street to be a road diet is important for active transportation and livability but would diminish roadway capacity.
- Mayor Wheeler asked if the City is working on any signal synchronization for Kitsap Way.
    - Shane Weber (City of Bremerton) responded that the City is currently retiming all of the signals on Kitsap Way from SR 3 to N Callow Ave. The last time this was done was in the early 2000s.
- Katie – We heard a lot of support for Livability with some reservations from the Base and concern that we can maintain accessibility to the Base.

Next Steps

Katie summarized the discussion by stating that there was a lot of support for the Livability Centered Vision with some reservations from the Base and concerns that accessibility to the Base be maintained.

The CSB had the following input:

- Allison mentioned there did seem to be interest in some capacity improvements.

Attendance

Meeting Attendees:

- Allison Satter, Naval Base Kitsap – Bremerton
- Charlotte Garrido, Kitsap County
- David Emmons, Bremerton Chamber of Commerce
- Ed Coviello, Kitsap Transit
- Garrett Jackson, City of Bremerton
- Greg Wheeler, City of Bremerton
- James Cook, PSNS
- John Clauson, Kitsap Transit
- Kate Millward, City of Bremerton
- Melinda Monroe, City of Bremerton
- Melissa Mohr, Kitsap County
- Michael Goodnow, Bremerton City Council
- Ned Lever, City of Bremerton
- Para Kan, PSNS
- Captain Richard Massie, Naval Base Kitsap – Bremerton
- Rick Tift, PSNS
- Thomas Knuckey, City of Bremerton
- Shane Weber, City of Bremerton
- Vicki Grover, City of Bremerton

Project Team:

- Katie Ketterer, City of Bremerton
- Michael Horntvedt, Parametrix
- Alex Atchison, Parametrix
- Emily Welter, Parametrix

Joint Compatibility Transportation Plan
Community Sounding Board
September 21, 2022
Virtual Teams Meeting
1:00 p.m. – 3:00 p.m.

MEETING SUMMARY

Welcome

Katie Ketterer, City of Bremerton Public Works and Study Project Manager, welcomed the group to the fifth Joint Compatibility Transportation Plan Community Sounding Board (CSB) meeting. Katie reminded the CSB of the project goals to develop solutions to resolve deficits across traffic, transit, parking, and active transportation and develop a prioritized implementation plan.

Existing Issues and Alternatives

Alex Atchison, Consultant project manager, walked through the project schedule and gave some context on the project. The City of Bremerton is a designated Regional Growth Center and Naval Base Kitsap – Bremerton (NBK-BR) has plans for multi-billion-dollar shipyard modernizations.

Alex reviewed the existing issues that were identified through the early stages of the project. The project team looked at data on multiple modes of transportation and determined that 60 percent of traffic coming into Bremerton during the peak period is attributed to NBK-BR, parking habits are entrenched and involve parking illegally outside of the Base, and that by 2050, there will be significant congestion and travel times will increase along key corridors.

The CSB had the following questions:

- Para Kan (PSNS) asked for clarification on what classifies as illegal parking.
    - Melinda Monroe (City of Bremerton) explained that it is illegal to park for the allowed amount of time and then re-park on the same named street. This is common practice in Bremerton, often called the “Bremerton Shuffle.”

Draft Preferred Alternative

Alex Atchison explained that 3 Build Alternatives were previously analyzed: Relocate Parking, Support Parking, and Add Base Parking. Following this analysis, the CSB discussed the two main visions for the study: Livability Centered Vision and the Capacity Centered Vision. With the input from this discussion, the study team created a draft Preferred Alternative and analyzed it according to the screening metrics. Emily Welter, Consultant transportation lead, and Alex walked through the improvements included in this draft Preferred Alternative.

The CSB had the following input:

- Para asked for more detail on project B7 “Add structured parking on Base” and explained that additional parking on the Base is low on the list of funding priorities.
- Ed Coviello (Kitsap Transit) asked about the inclusion of a park and ride in Gorst and explained that Kitsap Transit is planning for 500 parking spaces near Port Orchard.
    - Para had a conversation with Mason Transit and they are willing to stop at a Gorst park and ride if it is built.

- Ed mentioned that pedestrian improvements should be considered along 1st Street in addition to bicycle improvements.
- Para asked about considerations for safety issues (theft, gas siphoning) at park and rides.
    - Ed responded that Kitsap Transit is interested in creating more mixed-use centers instead of standalone parking lots which would improve safety.
- Ed mentioned that a traffic management association (TMA) may be required to be formed if population density is larger than 200k and that Bremerton may have reached this number.

Emily presented the second level screening results of the 3 Build Alternatives and the draft Preferred Alternative. Alex discussed the balance between the goals for livability and base accessibility. The CSB had the following input:

- Para asked about plans to build more housing downtown and the affordability. Para mentioned that about 37% of NBK-BR employees already live in Bremerton and about 80% live in Kitsap County. Para also asked about plans to address mental health issues for the homeless population downtown.
    - Garrett Jackson (City of Bremerton) responded that the City will be considering these issues through their Comp Plan update.
- Alex asked if the City is considering uncoupling housing and parking.
    - Garrett responded that the lowest parking requirement for new development is currently 0.5 spaces per unit and that the City would not likely reduce this.
- Allison Satter (NBK-BR) asked if the Preferred Alternative modeling assumed that a portion of the vehicles that were removed from downtown were for people living downtown.
    - Alex responded that the vehicles that were removed as part of the Preferred Alternative modeling were for people taking transit from outside of downtown into downtown.

Discussion

Alex opened the floor for discussion on the draft Preferred Alternative and implementation. The CSB had the following input:

- Para mentioned that there is a driver shortage for the worker/driver program, in part due to lower pay for this job. Driving the bus is essentially a second job for many and the pay is less than what they make working on Base. He also mentioned that the shift times on Base are changing.
- Ed mentioned that Kitsap Transit is looking to flatten service and run more frequently for more of the day.
- Para asked about the possibly of free bus fares for NBK-BR and mentioned that Mason Transit has free fares.
    - Ed responded that Kitsap Transit has studied this in the past and that free fares work better for a rural system like Mason Transit.
- Para and Ed discussed the challenges of the current bus fare reimbursement system for NBK-BR workers. Ed mentioned that Kitsap Transit noted an immediate drop in ridership when the worker/driver program switched from issuing monthly transit passes to a reimbursement system.
- Allison asked for more information on incentives to shift modes or telework.
- Allison also asked what the final report will look like.
    - Katie responded that the City wants something between the JLUS and the SR 303 Corridor Study.

Next Steps (Alex Atchison)

Alex ended the meeting by discussing the next steps, which include providing more specificity on incentives to shift modes, hosting an open house on October 11th from 6-7:30 pm, presenting the draft Preferred Alternative to City Council, and drafting the implementation plan and study report.

Attendance

Meeting Attendees:

- Allison Satter, Naval Base Kitsap – Bremerton
- David Emmons, Bremerton Chamber of Commerce
- Ed Coviello, Kitsap Transit
- Garrett Jackson, City of Bremerton
- Greg Wheeler, City of Bremerton
- Melinda Monroe, City of Bremerton
- Melissa Mohr, Kitsap County
- Para Kan, PSNS
- Shane Weber, City of Bremerton
- Thomas Knuckey, City of Bremerton

Project Team:

- Katie Ketterer, City of Bremerton
- Alex Atchison, Parametrix
- Emily Welter, Parametrix

Joint Compatibility Transportation Plan
Community Sounding Board
May 17, 2023
Virtual Teams Meeting
9:00 a.m. – 11:00 a.m.

MEETING SUMMARY

Welcome

Katie Ketterer, City of Bremerton Public Works and Study Project Manager, welcomed the group to the fifth Joint Compatibility Transportation Plan Community Sounding Board (CSB) meeting. Katie reminded the CSB of the project goals to develop solutions to resolve deficits across traffic, transit, parking, and active transportation and develop a prioritized implementation plan. Kate walked through the project schedule and gave some context on the project.

Draft Preferred Alternative

Kate recapped how the draft Preferred Alternative was developed by pulling elements from the 3 Build Alternatives that were previously analyzed, including additional parking outside of downtown, capacity projects to support this parking, shuttle service to downtown, and active transportation improvements in downtown and near NBK-BR. The City sought input on the draft Preferred Alternative from the CSB, the City Public Works Committee, and Navy and Shipyard staff. Alex Atchison, Consultant project manager, discussed the changes that were made to the Preferred Alternative based on this input.

The CSB had the following input:

- Allison Satter (NBK-BR) responded that she has not talked to an official SEPA rep yet, but that the Shipyard Infrastructure Optimization Program (SIOP) will change one dry dock to another. It's unclear if this will change the number of people travelling to Base.
- Mayor Wheeler (City of Bremerton) talked about the balance between the neighborhoods and NBK-BR operations and mentioned that road diets make neighborhoods safer and more livable.
- Shane Weber (City of Bremerton) mentioned that more traffic evaluation would need to be done for the proposed SR 3 southbound flyover ramp.
    - Allison mentioned that NBK-BR wants to alleviate traffic congestion for people that are driving from the north and currently use Kitsap Way to access NBK-BR. She recommended looking at it as part of the SIOP and potentially partnering with the City.
    - George Mazur (WSDOT) responded that WSDOT has not indicated a need for that particular traffic movement, which suggests that this is a local development-driven need. If it is just a local need, then it would be appropriate to look at that through an EIS. WSDOT is not opposed to additional study.
    - Ed Coviello (Kitsap Transit) mentioned that there could be utility for transit that could support a SR 3 southbound flyover ramp and that Kitsap Transit is looking at a west Bremerton park and ride as part of the Long-Range Plan.
- Ed suggested using "mixed-use parking lots" instead of "smaller parking lots."

Implementation

Alex discussed the phasing and implementation for the draft Preferred Alternative. Projects were separated into capital improvements and policies and assigned an owner agency. Projects were prioritized based on the goals of this study, cost level, ease of implementation, and available funding. Based on these criteria, projects were separated into short-term (less than 6 years), mid-term (6-20 years), and long-term (more than 20 years) projects.

The CSB had the following input:

- Garrett Jackson (City of Bremerton) mentioned that the City working on updating their Comprehensive Plan and that there is an ongoing effort in considering ways to encourage growth and density, which would positively impact NBK-BR.
- Allison asked about reduced fares and if that is already available through Kitsap Transit.
    - Ed responded that there is currently a program.
- David Forte (Kitsap County) cited a County policy that does not support building parking lots.
    - Alex asked if that just applies to new parking lots.
    - David responded that the goal is to connect communities.
    - Ed responded that the County's model for park and rides in the future is more mixed-use development like the one being built in Port Orchard. Ed also mentioned that the McWilliams park and ride is owned by WSDOT and maintained by the County.
    - PC3 is part of Kitsap Transit's Long-Range Plan park and ride facility. The project description should be updated.
- Shane mentioned that the West Kitsap Way study is showing that roundabouts at the SR 3 Ramps/Kitsap Way intersections (C1) may not be the preferred option.
    - *Will change language related to this strategy to "Build intersection improvements at SR 3/Kitsap Way as recommended by the West Kitsap Way study"*
- Shane suggested that the traffic management center will be needed in the short-term for the planned adaptive signal improvements. Consider moving this project to the near-term instead of mid-term.
- Katie asked if projects C1 and C2 should still be considered mid-term?
    - Ed responded that project C2 may be near-term because Loxie Eagans Blvd is not up to standards.
- David asked if the trigger for making improvements along Loxie Eagans Blvd will likely be the maintenance life cycle of the signal system.
    - George responded that there would likely be a signal upgrade and that Complete Streets would also be triggered.
    - Shane mentioned that WSDOT is ultimately the owner agency for the capacity projects at the SR 3 ramp terminals. He mentioned that there is a lot of development on the west end which is generating trips through that area.
- Katie clarified that the goal is that all projects from SR 303 Corridor Study are finished in the long term. The package includes near-, mid-, and long-terms projects and some are already being implemented.

Discussion

Alex opened the floor for discussion on the draft Preferred Alternative and implementation. The CSB had the following input:

- Allison asked if, separate from this study, the City is considering improvements to the electric grid to accommodate electric cars and buses. Allison also suggested that lighting may be needed for any new or improved active transportation facilities. Lastly, she asked for more clarification or an alternate term for road diets in the documentation for this project.
- There was additional discussion on the proposed SR 3 southbound flyover ramp.
    - George mentioned that the Gorst planning study will end at Kitsap Way on the north end.
    - Katie asked about timing for both the Gorst planning study and the Navy's EIS/SIOP.
    - Allison emphasized that the need for the SR 3 southbound flyover ramp is that people travelling to NBK-BR have to travel through the Kitsap Way or Loxie Eagans Blvd interchanges.
    - Katie will follow up on a potential SR 3 southbound flyover ramp study in a couple weeks.

Next Steps (Alex Atchison)

Alex ended the meeting by discussing the next steps, which include drafting the study plan and report, bringing the draft plan and report to Council for adoption, and finalizing the plan and report.

Attendance

Meeting Attendees:

- Allison Satter, Naval Base Kitsap – Bremerton
- David Forte, Kitsap County
- Ed Coviello, Kitsap Transit
- Garrett Jackson, City of Bremerton
- George Mazur, WSDOT
- Greg Wheeler, City of Bremerton
- James Cook, PSNS
- Nicole Leaptrot-Figueras, Naval Base Kitsap – Bremerton
- Shane Weber, City of Bremerton
- Thomas Knuckey, City of Bremerton

Project Team:

- Katie Ketterer, City of Bremerton
- Alex Atchison, Parametrix
- Emily Welter, Parametrix

City of Bremerton Complete Streets Committee

Meeting Minutes for November 4, 2021 10:00 am

Attendees:
Diane Iverson, Resident
John Larson, Resident
JR Kinnison, Resident
Dana Bierman, Kitsap Public Health
Allison Satter, Naval Base Kitsap
Marco DiCicco, Bremerton School District
Dan Penrose, SCJ Alliance
Aaron Knight, SCJ Alliance
Shane Weber, City of Bremerton
Jeff Elevado, City of Bremerton
Katie Ketterer, City of Bremerton
Tom Knuckey, City of Bremerton
Ned Lever, City of Bremerton
Vicki Grover, City of Bremerton
Cathy Bonsell, City of Bremerton

Presentation, Poll and Discussion: Joint Compatibility Transportation Plan

City of Bremerton Project Manager Katie Ketterer

Committee Comments to alternatives presented:

- Support parking alternatives with capacity alternatives, expand parking, HOV lanes
    - Marco: would school busses be permitted to use HOV lanes? Shane did not know why not
- Relocate parking to away from downtown core (Policies to encourage alternate transportation modes / discourage single occupant commuter vehicles)
- Add Parking on base; HOV lane into City, Burwell Capacity improvements, discourage downtown parking, alterations to Navy gates to add capacity
    - John: if on base parking allowed would it really affect off base parking?
    - Dianne: Would outside base parking be eliminated with this option? (No, it would be additional)
    - Dianne asks about incentive programs to encourage other options- Katie discussed successful worker driver partnership, but it is restrictive; one solution might be to find ways to make more successful. Dianne also suggests option for NBK to offer incentives to park outside the City (Park & Rides)

General presentation comments

- Tom & John: Is there a way to quantify effects of study (cost pf parking garage spaces per car, cost of lost of potential revenue to businesses), and less quantifiable (are home sales affected with parking restrictions?)
- John: believes walking and bicycling should be treated separately (within active transportation) when the usage requirements are different

- Poll to be resent to committee members with definitions

Presentation and Discussion: Warren Avenue Bridge Pedestrian Improvements

City of Bremerton Project Manager Vicki Grover, SCJ Alliance

Committee Comments following Presentation:

- Provide definitions for language used in questionnaires.

Dianne

- Provide a cost analysis for each alternative. Safety is very important.
- Would prefer a 12' facility on each side but concerned about costs.
- Existing north side undercrossing at Lebo improves the value of west side only option
- Tunnels can be a big asset if constructed properly. Incl lights, surfacing, bike police/security. More users = more safety.
- Improve Olympic College connectivity
- Tunnel may be better than widening both sides of the bridge
- Two-way traffic on the shared use path options can be user friendly.
- Please explain total width of the sidewalk vs shared use path with shoulders.
- Provide option of high-speed bikes to use the travel lane
- Project should be fundable at a reasonable cost
- Full access in all directions
- Will send photos of a tunnel example

Tom

- prefers shared use path on the east side because it avoids additional road crossings. Unused side of the bridge on the 1-sided widening alternatives shouldn't remain open; could become unsightly (collect trash or encourage loitering). It would be preferred to remove them.
- Could a minimum sidewalk width with an opposing shared use path be feasible? Could the shoulders be narrowed to accommodate this?
- Crossing alternatives on each end should be included with each bridge alternative
- Presentation summary slide should clarify that the one-sided options are 16' total width.
- Could the unused space opposite of the one-sided options be a bike facility?
- Asked the group if an at-grade crossing at the future roundabout north of the bridge would be a viable option for the north end crossing.

Shane

- WSDOT Olympic Region traffic, meeting forthcoming to confirm roadway section and lane widths.
- Timing of the two projects will not overlap
- High speed downhill bikes should be considered for their impact on bi-directional options.
- Asked the group "What is Connectivity" to them

John

- What is the lifespan of the bridge and how long does this project extend the life?
- Connectivity to adjacent sections of Warren should be considered

- There are a lot of people walking on the bridge at nighttime
- East side of the bridge is where most volume is.
- Alternate 4 needs connectivity to Olympic College
- Prefers both 3 & 4, separate shared use paths.
- Would like to know if the alternatives accommodate bike usage for 30 years (remaining life)
- West side options should have ability to stop to enjoy the view

Marco

- City should avoid construction on the Manette roundabout at the same time as Warren Ave Bridge work.

Aaron

- Define goals. One could be "All ages and abilities"
- Discussion about if the presented alternatives are the proper alternatives. 16' path options should be combined into an A/B option 4
- Replace Option 3 with a 12' facility on each side

ACTION ITEMS

- Provide City Parking Enforcement Contact to JR Kinnison
- Ensure both presentations are available on the City's Complete Streets webpage
- Re-send JCTP poll to committee members with definitions
- Dianne Iverson to label and send photos

NEXT MEETING End of February/Beginning of March 2022

Committee will be briefed on the Naval Avenue Pedestrian & Bicycle Improvements Project

Attachment C. Complete Streets Committee Meeting Summaries

MEETING MINUTES

LOCATION:	Zoom	MEETING DATE:	05/17/2022	TIME:	10:00 AM

SUBJECT: Bremerton Complete Streets Committee – 2022 Q2
Project Discussion
RESIDENTS: John Larson, Dianne Iverson

ATTENDEES:
COB: Vicki Grover, Shane Weber, Katie Ketterer, Jeff Elevado, Ned Lever, Tom Knuckey, Vicki Johnson
BSD: Marco DiCicco
KPHD: Karen Boysen-Knapp
KITSAP TRANSIT: Stephanie Lillie
USN: Allison Satter

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1. Introductions
   Dianne Iverson thanked everyone for all of their hard work.
2. 2022 Grants – PSRC 11th Street Preservation Project and SR 303 Adaptive Signal Technology Project
3. View Ridge Elementary School Project - Safe Routes to Schools Grant
   - *Originally, the City was not selected for a Grant, but recently received the "Go Ahead" from WSDOT. Two years ago, WSDOT had no additional funding but now the State of Washington has put up $4.1 million with the City contributing $1.4 million to move forward.*
     - *The need was identified for Sylvan Way to Ivy Road; bike lanes were not solidified to get children to View Ridge Elementary.*
   - *The City is still in the planning stages and would like feedback from the group.*
     - *Feedback is requested for the children to connect with bike path to the non-motorized path.*
     - *A north/south connection is needed.*
   - *Phase I – Three times the amount of funding is now available.*
     - *Phase I had 6-foot sidewalks between Sylvan Way and Ivy Road; bike lanes; 2 RFBs, road reconstruction; and a ditch for stormwater.*
   - *Phase II is the grant for View Ridge Elementary.*
     - *Almira Drive/Ivy Road to NE Riddell Road.*
     - *There's a new housing development on Riddell Road.*
   - *Some background – Coordinate closely with Bremerton School District as the City did with sidewalks to Kitsap Lake; sidewalks on Almira; and a no bus zone on Ivy Road.*
   - *How do we get the sidewalks on Almira Drive to View Ridge Elementary? Do we want sidewalks and bike lanes on the west side of Almira or on both sides?*
   - *Speeds on Sylvan Road with children and bicycles are a concern.*
   - *There is a need for a shared-use path across Sylvan Way to E. 33rd Street.*
     - *There is an alleyway through the library property and Ts onto E. 33rd St.*
   - *The long-range vision would be a shared use path from Sheridan Road to Sylvan Way, and a shared use path onto E. 33rd Street.*
   - *There are bike lanes planned on Almira Drive with a path on E. 32nd Street and a bike path down the alley.*

- *We need a shared use path from Sheridan Road to Sylvan Way.*
- *Dianne Iverson stated she is excited about the WSDOT Grant.*
  - *She is in favor of a path west of the alleyway.*
  - *She cited a 2016 letter from Kitsap Regional Library where they said they would be excited to have children on the property.*
  - *E. 33rd Street has less traffic and is safer for the children.*
  - *Eighty-eight homes went in on Almira Drive in 2016, all of the children are driven the four blocks to school due to safety concerns.*
- *John Larson stated that a path is needed to connect further.*
  - *Sylvan Way to Spruce Avenue, it's a bad crossing for children, assistance is needed for crossing.*
  - *Tom Knuckey stated there are RFBs at the crossing.*
  - *Shane Weber stated there is an RFB at Spruce in the current plan as part of a separate project.*
  - *John commented that Almira has two crossing points where the young children need assistance; and asked if guard are needed?*
- *Marco DiCicco of Bremerton School District stated there are very few educators for guards, and that Sylvan and Spruce are designated crossings.*
  - *He mentioned there is a large transient population living in the woods behind the school.*
  - *He likes connecting the roads; there's security at the school.*
  - *He likes RFBs and the idea of E. 33rd Street and the library.*
    - *They can redeploy crossing guards.*
    - *They have 12 substitute paraeducators for the whole district, so they would have to redeploy the staff that they have.*
    - *The child-related jobs are paraeducators, which are drawn from staffing and adults when off school grounds.*
  - *Shane Weber inquired about security and a shared-use path on the south side of E. 33rd Street.*
    - *Marco stated approximately 1.5 years ago, the district put up security fencing and gates to keep out people who don't belong on school grounds.*
    - *The path must fit in the Security Plan. Outside of the fencing is fine, but along the back of the fencing needs to be approved by Security.*
    - *Outside of the path, more lighting is needed and a wide area to walk through.*
    - *The school has K-5th grade children, the safety of them is most-important.*
    - *Possibly remove some trees for security.*
- *Ned Lever there is a new requirement from WSDOT for bike lanes to school.*
  - *Grant money has been offered, but the new requirement is for the bike lane, so we are trying to solve that.*
  - *The path to Sheridan has two parts: the north end to Almira Drive and the path to Sheridan Road.*
- *We could use help strategizing to get a shared-use path.*
  - *The long-range vision is for a north/south route for bicyclists.*
    - *Almira Drive*
    - *South from Almira Drive to the Manette Bridge and into West Bremerton.*

- *Phase II – Ivy Road to NE Riddell Road*
  - *The project includes: curb ramps, crossings, traffic calming, six-foot sidewalks, a bike lane, and pipe for stormwater.*
  - *New sidewalks or a bike lane for most of the road.*
    - *What makes sense for crossings?*
- *Dianne Iverson agreed with comments about security and the path behind the school.*
  - *She stated that Boise Police Department patrols in areas where there are paths.*
  - *She said that Hollis Street is a major corridor with a traffic light; there is a lot of traffic making a left turn on Almira Drive from Hollis. Traffic calming at Hollis/Amira is needed, possibly a small roundabout? Speed is the number one issue as the road encourages speed.*
  - *Shane Weber commented that there are complaints about speed there, it's a popular cut-through.*
- *Marco DiCicco said that sidewalks are needed, there are bus stops on Almira and Ivy.*
  - *They need a set walk zone for the Elementary kids; wide sidewalks are better.*
  - *The buses try to stop 1.5 bus lengths from the intersections so there is a place for kids to gather and be seen.*
  - *There's a stop on Clemens Street and Worrall Drive; Hollis Street may be better.*
  - *He is concerned about the buses and a roundabout but wants traffic calming for 40-foot buses.*
- *Diane Iverson commented that some children are let out at the ditches due to the intersections.*
- *Shane Weber asked Marco DiCicco about widening the sidewalks where the buses stop?*
  - *Marco stated they need six-foot sidewalks for congregating and to get on and off the bus.*
- *Diane Iverson asked about mountable sidewalks, and what were the downsides of them; the curb acts as a barrier and a six-inch curb feels safer.*
  - *Fourteen-foot sidewalks for pedestrians and bicycles makes it easy for bikes get in and out of the path.*
  - *Shane Weber said a lot of pedestrians are for that, but a trip hazard exists.*
- *Katie Ketterer commented that if you have a mountable curb, people will park on the sidewalk.*
  - *John Larson suggested angel street parking or parallel parking.*
  - *Shane Weber commented that people don't like angled parking, regardless if it's front or back angled in.*
- *There's parallel parking on Almira currently, but you have to make sure the bike lane doesn't get impacted by the door swing.*
- *Put a bike lane in the drive lane side as a through-route for bicyclists; similar to Lebo Blvd. west of the Warren Avenue Bridge.*
- *John Larson said it would be helpful to show the lane and how it would work; Shane Weber said that we need to look at it in the Design phase.*
- *Dianne Iverson said there's a Kitsap Transit stop, senior living area, a bike lane and a bus stop.*
  - *Stephane Lillie said the buses run infrequently, every half hour, and it would be best to route the bike lane behind the bus stop.*

4. 6th Street Re-channelization Project – WSDOT Pedestrian and Bike Grant
   - *Has been in the works for a couple of years.*

- *The plan is for bicycles on 6th Street.*
- *Feasibility Study*
  - *Burwell, 6th and 11th Streets.*
  - *Recommendation is for 6th Street, turn four lanes into three lanes with a bike lane.*
  - *Install a center turn lane.*
  - *From 11th Street/Kitsap Way intersection to Washington Avenue.*
  - *The consultant is preparing the concept; it's not far enough along to show.*
- *Feedback on the project is appreciated; Katie Ketterer is working on it.*
- *Applied for a grant from WSDOT in June 2022.*
- *Tom Knuckey stated that it's a significant decision for the City, it will be discussed with the City Council and there will be public input.*
  - *The Joint Compatibility Transportation Plan (JCTP) will be the best place for comments.*
- *The grant process was discussed – We applied for the grant, then present it before the Finance Committee and City Council to move everything forward.*

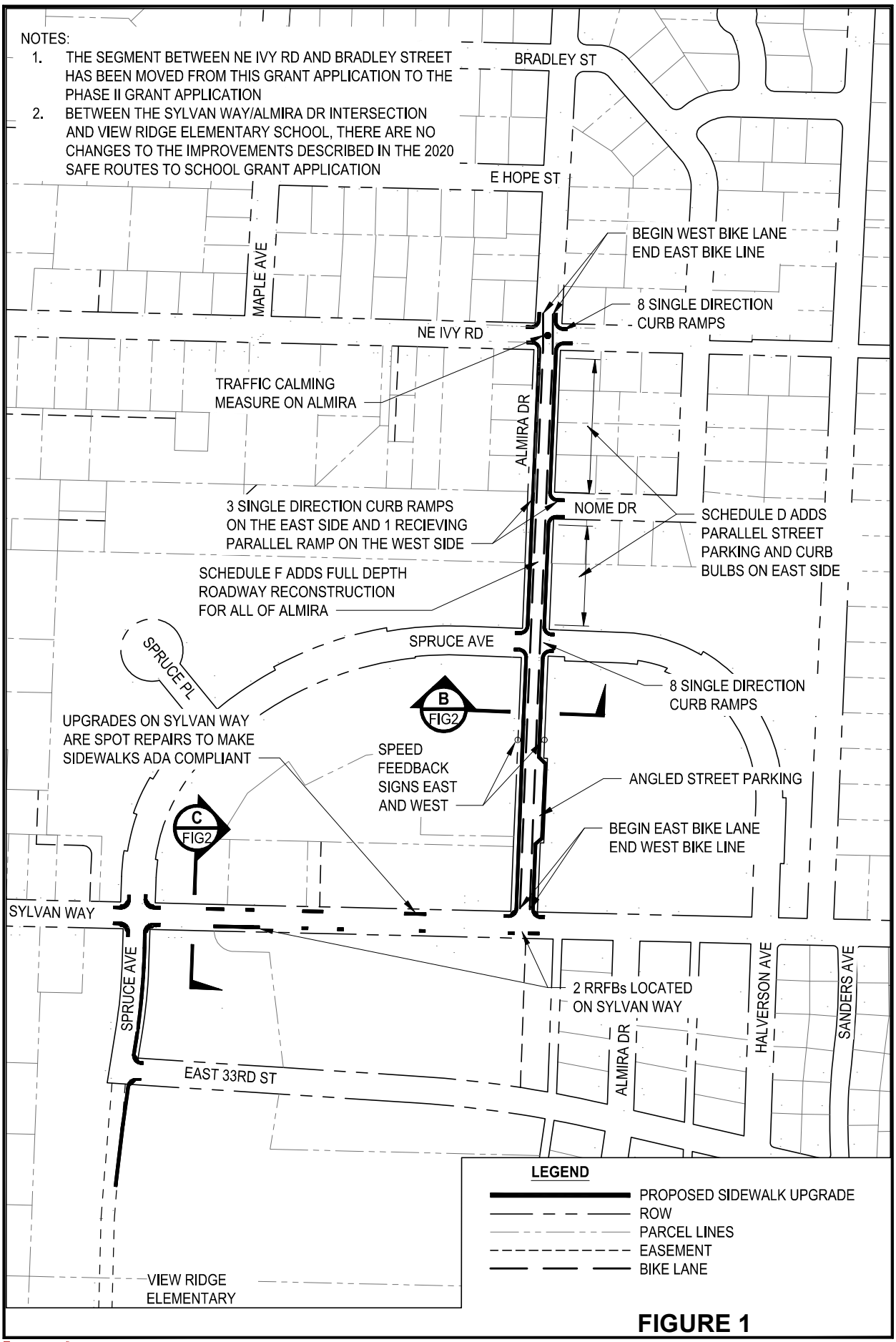
5. *Joint Compatibility Transportation Plan* (JCTP)- Public Outreach
   - *Katie Ketterer presented.*
   - *The big presentation was at a November 2021 meeting.*
   - *There will be a community sounding board in June and at City Council.*
   - *Early- to mid-July, there will be a public Open House to share preliminary preferred alternative.*
   - *In October 2022, we will be doing the final refinement of preferred alternative after getting more feedback from a September 2022 Open House.*
   - *The Final Report should be done by December 31, 2023.*
   - *Next steps:*
     - *Prioritize goals based on feedback.*
     - *Identify and analyze preferred alternatives.*
     - *Solicit feedback.*
     - *Dates yet? At least four to six weeks out; we can send them when they're known.*

Attachment: Safe Routes to School (SRTS) Phase 1 Grant, Figures 1 & 2

NEXT REGULAR COMMITTEE MEETINGS:

Q3 - Tuesday, August 16, 2022 10am-12pm on ZOOM

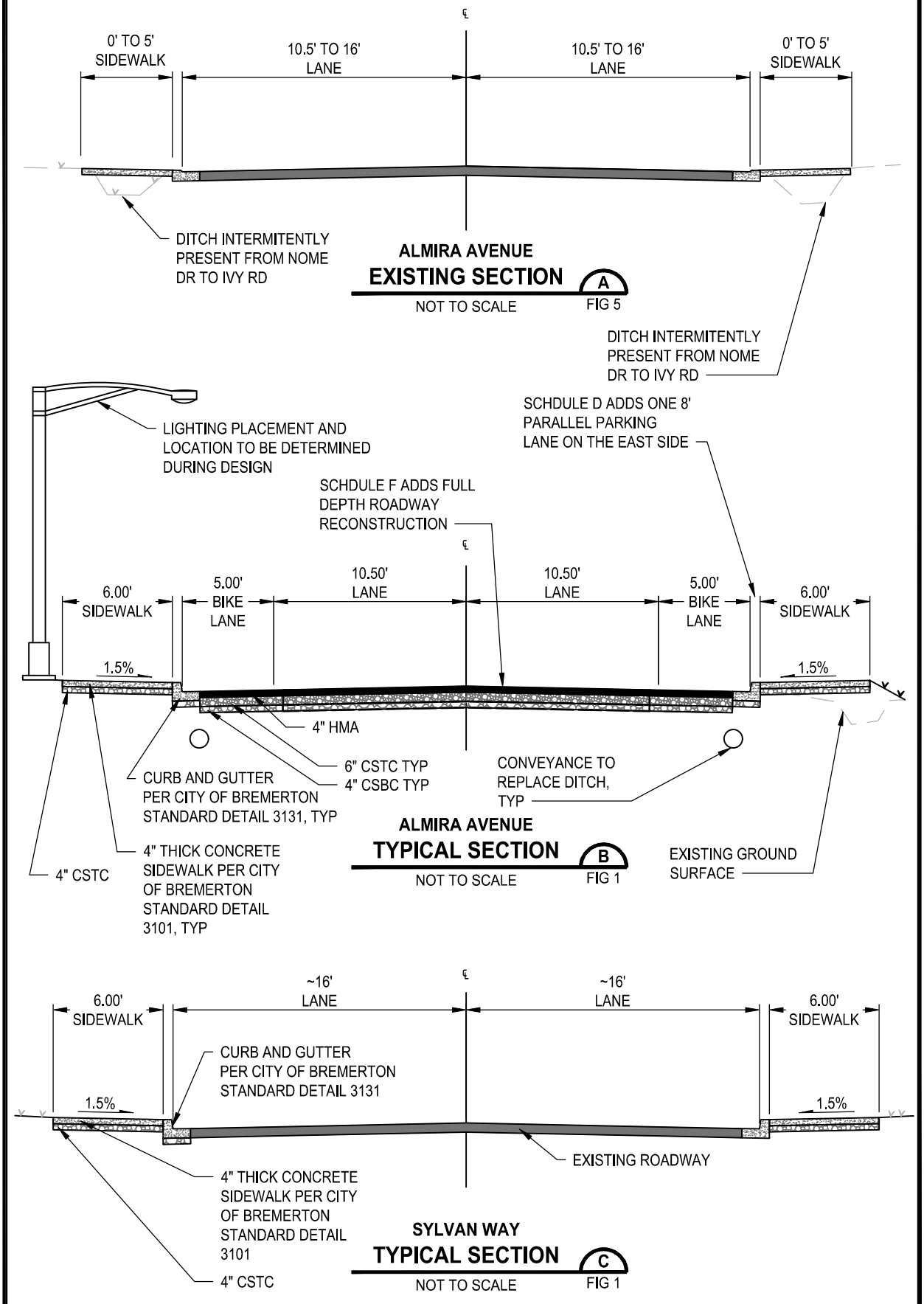
Q4 - Tuesday, November 8, 2022 10am-12pm on ZOOM



Parametrix DATE: April 21, 2022 FILE: XPS1896185-DE

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1 INCH = 200 FT.

FIGURE 1
VIEW RIDGE ELEMENTARY
SAFE ROUTES TO SCHOOL



Parametrix DATE: April 20, 2022 FILE: XPS1896185-DE

FIGURE 2
VIEW RIDGE ELEMENTARY
SAFE ROUTES TO SCHOOL

Attachment D. Open House Summaries

Joint Compatibility Transportation Plan
Virtual Open House
February 9, 2021
Via Zoom Meeting
5 – 6:15 p.m.

MEETING SUMMARY

Overview

On Feb. 9, 2021, the City of Bremerton hosted a virtual open house to introduce the Joint Compatibility Transportation Plan, which aims to address traffic and parking concerns to support Naval Base Kitsap-Bremerton (NBK-BR) and community growth. The project team explained why the City is planning transportation improvements and shared the study timeline, including future outreach milestones. The project team encouraged attendees to participate in the public information survey and visit the project website for updates.

Notifications

The team promoted the virtual open house through a variety of channels, including:

- Email invitations sent to community members who expressed prior interest in the study.
- Email invitations sent from Community Sounding board members to their constituencies.
- Social media posts advertised on the City's Facebook page from Feb. 1-9.
- Flyers to local businesses and community-based organizations.
- Announcements on project partner websites including NBK-BR website.

Objectives

The virtual open house offered an accessible way for the City of Bremerton to introduce the study to community members when in-person gatherings are restricted due to COVID-19. The meeting was 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. The City's main objectives included:

- Introducing the study and explaining why the City and NBK-BR are working to improve transportation in the Bremerton area.
- Gathering input about the corridor issues, needs and opportunities for improvements.
- Notifying community members about future opportunities to provide feedback to help inform the project.

Meeting Overview

The City hosted the virtual open house using Zoom from 5 – 6:15 p.m. A total of 31 community members participated in the meeting.

The virtual open house team included:

- Katie Ketterer, Project Manager, City of Bremerton
- Greg Wheeler, Mayor, City of Bremerton
- Tom Knuckey, Director of Public Works and Utilities, City of Bremerton
- Michael Horntvedt, Consultant Project Manager, Parametrix
- Emily Welter, Facilitator, Parametrix
- Artie Nelson, Note taker, PRR

Katie Ketterer, project manager, welcomed attendees to the virtual open house and introduced the panelists. Mayor Greg Wheeler provided additional opening remarks and Katie gave an overview of the study and presentation topics. She highlighted several key issues the City is working to resolve, including congestion in and around NBK-BR, parking constraints, lack of options for people walking and biking, and projected growth. The City and NBK-BR are partnering to address these challenges.

Michael Horntvedt, consultant project manager, discussed the process of selecting and implementing a preferred alternative to address the issues and needs related to the study area. He described how the City will work with project partners and the community to inform possible solutions and highlighted upcoming opportunities for input. Michael encouraged participants to take the survey and to ask their neighbors and friends to take the survey. He let them know it would be important to learn more from the public about how they travel in and around Bremerton.

Comment Summary

The project team invited participants to share questions and comments after the presentation by "raising their hand" to speak or typing comments into the chat box. Emily Welter, facilitator, and the project team responded to 21 questions and comments from community members. Below is a summary of key themes:

- A couple of participants asked about Community Sounding Board (CSB) representation and offered suggestions for additional members, including the Non-motorized Citizens Advisory Committee, West Sound Bicycling Club, and a resident who lives in the neighborhood near NBK-BR.
- A few participants shared comments about the pedestrian safety and traffic issues in the Gorst Corridor and asked the project team to focus on solutions in that area as well.
- A couple of participants shared comments about traffic congestion along SR 304 and SR 3 and shared potential solutions, for example:
    - Signage along the routes to educate motorists about merging.
    - Building a bridge that connects SR 3 to SR 16.
- A couple of participants asked about how the pandemic affect's the study teams' approach and projections for the future of travel throughout the City.
- A couple of participants shared that the City should make sure current projects related to pedestrian improvements throughout the area move forward as planned during the Joint Compatibility Transportation Study.
- A few participants asked what transit models the City plans to use to evaluate different options.
    - A couple of people also asked if the City is looking at other cities outside of the U.S. for examples on how to address transit issues, i.e., how Dutch cities configure bicycle and pedestrian connections.
- A couple of participants shared comments about adding more affordable parking downtown.

- One participant asked about long-term funding to build the project.

Next Steps

The project team will continue to gather input from the Community Sounding Board and project partners to ensure study meets the needs of the community. The City will host another virtual open house in August to report back and share screening results, design refinements, and other new information. All virtual open house materials are available on the project website.

Appendix: Meeting Transcript

00:43:25 Katie Ketterer: Some helpful links:

00:43:34 Katie Ketterer: Project webpage link: www.BremertonWa.gov/JCTP

Project survey link: http://bit.ly/CommuteBremerton

00:44:58 Phil Babcock: Thanks Katie!

00:49:22 Rick Feeney: West Sound Cycling Club would be a "valuable" formal member of the CSB.

00:58:28 Charles Michel: Should not a rep from the Complete Streets committee be in the community focus group?

00:58:39 Paul Nelson: Is a Gorst bypass an option?

01:00:34 Paul Dutky: Local businesses are on the sounding board; I think someone who lives in the closest neighborhood to the base would add tremendous value to the committee.

01:02:13 Rick Feeney: The Non-Motorized Citizens Advisory Committee can also give good information on linking up to Kitsap County.

01:02:24 Edward Coviello - Kitsap Transit:We are looking for transit ideas as well. Ed

01:02:42 Paul Dutky: This is Dianne. How does an agency project the future LOS when the pandemic has affected our new normal and we have young professionals who are not so car centric?

01:02:46 Galaxy S9+: sorry if I missed it but did you cover schedule of the study?

01:05:43 Luke Price: it is on the shipyard homepage.

01:09:48 Jake Parks mobile: is the goal to accommodate all modes of transportation equally, or will there be considerations to push in a certain direction that may negatively impact some modes? how will those decisions be made?

01:12:41 Galaxy S9+: what is the plan for balancing policy driven initiatives versus the need to address concurrency issues. population will grow and mobility will continue to increase in demand. Are we discussing accepting worse LOS for passenger vehicles to promote transit and active transportation modes?

01:12:48 Luke Price: are alternative options being investigated in good faith? Many car capacity issues would be solved by fewer cars, that are not solved by adding extra lanes

01:13:07 Rick Feeney: Remember the in-depth plan for a shared use path from Gorst to Bremerton.

01:13:51 Rick Feeney: ...to go along with the 3-lane expansion.

01:14:30 Paul Dutky: This is Dianne. How is active transportation being addressed in the Gorst corridor? Currently it is very unsafe to cycle the highway.

01:17:52 Phil Babcock: I would like to feel safe riding my bike on errands around the city. Will there be plans for expanding bike parking and safe bike and pedestrian corridors on the major east/west and north/south corridors through the city?

01:20:39 Britany Ashley: Are there plans for increased affordable parking downtown? Maybe more garages?

01:21:10 Luke Price: yes!

01:23:56 Luke Price: thanks, Charles.

01:25:03 Jake Parks mobile: are you looking at example cities for different modes? I know like the Dutch have cycling figured out, maybe other cities are great at walkability, and others may have dealt with huge commuter stress like the shipyard. are we looking to existing proven solutions?

01:28:09 Rick Feeney: WSCC appreciates the direction the City of Bremerton is taking with multi-modal transportation.

01:28:49 Tom Knuckey: Here is the link to the 2021 Construction Map.

01:28:59 Tom Knuckey: https://www.bremertonwa.gov/DocumentCenter/View/7809/2020-Construction-Map-PDF?bidId= .

01:29:26 Phil Babcock: Are there plans to look at expanding and increasing the frequency of bus routes around the city and county?

01:33:31 Edward Coviello - Kitsap Transit:Yes, there is a long-range planning study now that will look at this, it will display what the costs will be to implement more frequent transit

01:33:59 Edward Coviello - Kitsap Transit:There will be a public outreach process this spring and summer.

01:34:40 Jake Parks mobile: as a ferry commuter, I appreciate what Bremerton has done in the last few years for that mode. As a bicycle commuter, I appreciate your upcoming work!

01:35:16 Luke Price: are you looking into long-term funding? i.e., after federal grants dry up is new infrastructure sustainable at projected tax levels.

01:36:34 Edward Coviello - Kitsap Transit:For transit, our Long-Range Plan will identify the funding gaps to implement transit improvements.

01:37:18 Phil Babcock: Thanks all!

Joint Compatibility Transportation Plan
Virtual Open House
December 2, 2021
Via Zoom Meeting
5:30 – 7:30 p.m.

MEETING SUMMARY

Overview

On December 2, 2021, the City of Bremerton hosted a virtual open house to share updates on the Joint Compatibility Transportation Plan, which aims to address traffic and parking concerns to support Naval Base Kitsap-Bremerton (NBK-BR) and community growth. The project team explained why the City is planning transportation improvements, and shared project goals, study results, and a handful of project alternatives the City has begun to evaluate. The project team encouraged attendees to ask questions following the presentation and visit the project website for more information and updates.

Notifications

The team promoted the virtual open house through a variety of channels, including:

- Email invitations sent to community members who completed or expressed interest in the study.
- Email invitations sent from Community Sounding board members to their constituencies.
- Social media posts advertised on the City's Facebook page on November 19th.
- Advertisement on roadway billboard on SR 303 and SR 3 from November 19 – 29th.
- Announcements on project partner websites including NBK-BR website.

Objectives

The virtual open house offered an accessible way for the City of Bremerton to share project updates and study results with community members, while limiting in-person gatherings due to COVID-19. The meeting was 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. The City's objectives included:

- Reintroducing the study and explaining why the City and NBK-BR are working to improve transportation in the Bremerton area
- Sharing project goals and schedule updates, as well as project milestones and accomplishments
- Reporting back on what we heard in the survey and describing how the project team uses feedback to consider project alternatives
- Sharing early findings of project alternative analysis
- Notifying community members about future opportunities to provide feedback to help inform the project.

Meeting Overview

The City hosted the virtual open house using Zoom from 5:30 – 6:45 p.m.

The virtual open house team included:

- Katie Ketterer, Project Manager, City of Bremerton
- Greg Wheeler, Mayor, City of Bremerton
- Michael Horntvedt, Consultant Project Manager, Parametrix
- Alex Atchison, Transportation Lead, Parametrix
- Lizzy Buechel, Notetaker, PRR

Katie Ketterer, project manager, welcomed attendees to the virtual open house and introduced Mayor Greg Wheeler who shared additional opening remarks. Katie gave an overview of the project and presentation topics. She described key issues the City is working to resolve, including congestion in and around NBK-BR, parking constraints, lack of options for people walking and biking, and projected growth. Katie described how the City and NBK-BR are partnering to address these challenges.

Katie described the project goals, including studying existing and future transportation issues and developing solutions to resolve them. Katie explained that the project team will evaluate options to mitigate transportation and parking demands and develop a prioritized implementation plan to solve challenges in a balanced, integrated way. Katie emphasized the project team's focus to develop multimodal solutions that consider both the livability of downtown Bremerton and access to NBK-BR.

Katie provided an overview of the project schedule and shared recent milestones since the last public meeting. The project team has convened several community sounding board meetings; launched and completed a public survey; considered issues, needs, and existing conditions in the project area; developed a project list and evaluation screening method; and began evaluating potential projects.

Michael Horntvedt, consultant project manager, shared a summary of community survey results and explained how those findings helped the project team develop and begin evaluating project alternatives. Michael shared that around 600 people responded to the survey. Of those people, about 85% traveled to Bremerton for work. Most respondents shared that they travel into Bremerton, while the remainder travel through the city to get to final destinations. Over 60% of respondents declared they travel to downtown Bremerton to access the naval base area.

Michael described survey questions and results, including respondents preferred travel method. Over 50% of survey respondents shared they drive alone. When asked what they need to use transit, survey respondents shared they would like more frequent, and direct service as well as extended operation times for transit. People shared that they would use a van pool or carpool services if parking were convenient, but don't know where to begin to establish them. Respondents would like the assurance of free rides home in the case of emergencies. Respondents also favored increased shift flexibility and extended operating times for the Worker Driver Bus. Overall, people want convenient and flexible transportation options.

The survey asked what people need to feel safer while biking. Respondents support protected bike lanes, separated from the road with bumpers or painted markers. They also suggested new and improved bike lanes throughout the corridor.

Michael explained how the project team used survey results to consider project alternatives. This community input helped the team prioritize needs and develop categories including projects focused on roadway capacity improvements, shipyard access, roadway efficiency and safety (which involves signal timing/intersection control), active travel improvements, and parking solutions.

Michael shared some examples of specific projects under consideration in each category. Some of these projects included:

- Adding lanes on critical corridors (specifically adding a second lane throughout Burwell Street)
- Placing roundabouts at key locations
- Modifying gates to improve access to the shipyard and reduce congestion on local roadways
- Increasing transit accessibility by increasing the frequency of Kitsap Transit and Worker Driver Buses and expanding parking availability at park and ride lots
- Expanding access to active transportation by constructing ramps and more bike lanes throughout the city
- Road diets that use roadway space more efficiently
- Incentives for mode shifts including partnerships with employers and updated parking policies.

Michael shared early findings from evaluations of these considerations. Michael explained that reconfiguring 11th and 6th streets would likely impact mobility in the city, and reconfiguring 6th street only may be more feasible. He also explained that City may update traffic signal technology early in the implementation phase to benefit mobility throughout the city. Michael concluded that building parking alone for all of the base demand would be cost prohibitive.

Comment Summary

The project team invited participants to share questions and comments after the presentation by "raising their hand" to speak or typing comments into the chat box. Katie and Michael responded to questions and comments from community members including:

- Has Puget Sound Naval Shipyard (PSNS) and Kitsap Transit considered a shipyard worker ferry stop for South Kitsap Shipyard workers to the end of a pier into Shipyard (e.g., near DD5)?
- Is the ferry rider parking lot on Montgomery and Callow open to PSNS employees who carpool?
- Does PSNS offer benefits to employees who carpool or use other alternatives to driving alone?
- Will the decision around reconfiguring 6th street happen prior to the third phase of paving?
- Will the City survey people who live next to the base?
- Are there considerations for a covered bike structure near PSNS?
- Have you engaged a community developer for alternative options and financing for parking garages? The developer could build a structure that compliments the city and surroundings, with options to add housing.
- When can we expect changes to address big concerns?
- There were a few questions about the Sherwood Drive bicycle access project, including how to provide input and get more information.
- Is there a fee for PSNS employees to park cars on base?
- Have you considered how folks would get to work from Gorst in emergency situations?
- It seems like we have enough space for two ten story parking garages. Can you expand and explain why that's not an option?

- We need a 1st street contra flow bike lane to get from Callow bike lane to Naval Ave to 4th street to complete a route to downtown Bremerton and the ferry system. Burwell is not wide enough to accommodate bike and vehicle traffic.
- Has the city considered adding electric scooters and bikes to make it easier for employees to park farther away and then commute to the ferry or shipyard?
- Will the study consider zoning changes near transit stops or the shipyard to reduce reliance on longer-distance transit?
- Are there any other programs or grants to support implementing this project?
- Could the City place parking garages further away in West Bremerton and provide buses into NBK-BR?
- There were a few comments expressing support for covered bike parking and cycling facilities, as well as road diets for 6th street
- Suggestions for a sky tram.
- Could the City and NBK-BR work with local developers to create parking options?

Next Steps

After summarizing early findings from the project team's evaluations, Michael shared the team's next steps to complete the plan. Michael shared the project team will:

1. Continue to collaborate with the community sounding board members and public for feedback
2. Continue evaluating preliminary alternatives to understand the benefits of various projects
3. Refine the preferred project list to ensure a balanced, integrated set of solutions
4. Estimate costs and potential implementation schedules
5. Share results at the next public open house, around May 2021

Michael and Katie encouraged participants to visit the project web page for more information.

Joint Compatibility Transportation Plan
Virtual Open House
October 11, 2022
Via Zoom Meeting
6:00 – 7:30 p.m.

MEETING SUMMARY

Overview

On October 22, 2022, the City of Bremerton hosted a virtual open house to share updates o the Joint Compatibility Transportation Plan, which aims to address traffic and parking concerns to support Naval Base Kitsap-Bremerton (NBK-BR) and community growth. The project team reviewed the purpose of the study, the work to date and presented the preferred alternative. The project team encouraged attendees to ask questions following the presentation and visit the project website for more information and updates.

Notifications

The team promoted the virtual open house through a variety of channels, including:

- Email invitations sent to community members who completed or expressed interest in the study.
- Email invitations sent from Community Sounding board members to their constituencies.
- Social media posts advertised on the City's Facebook page from October 3, 2022.
- Flyers to local businesses and community-based organizations.
- Announcements on project partner websites including NBK-BR website.

Objectives

The virtual open house offered an accessible way for the City of Bremerton to share project updates and study results with community members, while limiting in-person gatherings due to COVID-19. The meeting was 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. The City's objectives included:

- Review the purpose of the study and explaining why the City and NBK-BR are working to improve transportation in the Bremerton area
- Sharing project goals
- Sharing the evaluation process that led to the preferred alternative
- Sharing the preferred alternative
- Notifying community members about future opportunities to provide feedback to help inform the project.

Meeting Overview

The City hosted the virtual open house using Zoom from 6:00 – 7:30 p.m.

The virtual open house team included:

- Katie Ketterer, Project Manager, City of Bremerton
- Greg Wheeler, Mayor, City of Bremerton
- Alex Atchison, Consultant Project Manager, Parametrix

Katie Ketterer, project manager, welcomed attendees to the virtual open house and introduced Mayor Greg Wheeler who shared additional opening remarks. Katie gave an overview of the project and presentation topics. She described key issues the City is working to resolve, including congestion in and around NBK-BR, parking constraints, lack of options for people walking and biking, and projected growth. Katie described how the City and NBK-BR are partnering to address these challenges.

Katie described the project goals, including studying existing and future transportation issues and developing solutions to resolve them. Katie explained that the project team is evaluating options to mitigate transportation and parking demands and develop a prioritized implementation plan to solve challenges in a balanced, integrated way. Katie emphasized the project team's focus to develop multimodal solutions that consider both the livability of downtown Bremerton and access to NBK-BR.

Alex Atchison, consultant project manager, shared a summary how the team put together the preferred alternative. The project team identified the issues through several sources, including analyzing existing data, reviewing previous plans in the area, and incorporating public input. The issues identified included congestion, parking frustrations, poor sidewalks, difficulty biking to work, transit frustrations, and the need to accommodate growth in the City. The list of solutions was complied from public input, ideas from the project team and results of analyzing the existing issues.

Using the issues identified, the project team explored multiple solutions including adding travel lanes on City arterials, adding dedicated bus lanes, improvements to inflow at the Base gates, adding bike lanes, mass transit options, including rail, replacing traffic signals with roundabouts, adding parking downtown and/or on Base and safety projects. Alex then explained that the solutions were evaluated, considering high level elements such as were the solutions feasible and were they consistent with the project's vision. Solutions were also evaluated for effectiveness using metrics including travel times, mobility, safety, parking, improvements to active transportation, economic viability, base accessibility, and livability.

Alex explained the key elements of the preferred alternative included:

- Provide additional parking outside of downtown in strategic locations
- Build roadway improvement projects that make roads more efficient and support all users
- Provide shuttle service to get from additional parking to downtown quickly, efficiently, and safely
- Implement policies to encourage mode shift
- Focus on creating a safe, efficient network of sidewalks and bike lanes in downtown and neighborhoods surrounding the Base

Alex explained that 38 solutions were included in the Preferred Alternative. The solutions included signal improvements, roundabouts, bicycle Improvements, pedestrian Improvements, base gate improvements, new parking, parking management and policies, transit service improvements, Park & Ride improvements, and programs to encourage mode shift. The approximate cost, without including new parking, is approximately $131 million. Four new parking structures are proposed in the preferred alternative, with costs ranging from $23 to $103 million dollars. The total estimated cost of the parking structures was $200 million.

Alex then walked through graphics depicting the elements of the Preferred Alternative. The graphic can be found on the project website.

Alex explained the benefits of the solutions included in the Preferred Alternative. The sidewalk and bike lane projects will help create a walkable/bikeable community that is attractive to live and work. Project examples include improving all sidewalks within a 10-minute walk of the Base gates to make it easier for all users to walk / roll. The new bike facilities on Shorewood Drive, 6th Street, Naval Ave and 1st Street will connect with existing bike facilities to help create a connected bike system across the city.

Alex explained that project will make it easier and safer to access the Base by alternate modes. Examples include protected bike lanes, express shuttle service from park-and-rides and incentives to use transit and other modes. The project will help reduce the number of people using single occupancy vehicles, helping to reduce congestion. Examples include incentivizing mode shifts, providing parking outside of downtown coupled with shuttles, and allowing teleworking options. Another benefit of the project is the use of technology to improve roadway efficiency. Examples include adaptive signal technology to help reduce delays and adding a Traffic Management Center to help the city monitor traffic and direct and support incident response to keep roads clear and traffic moving safely

Katie brought the presentation to a close, sharing the team's next steps. The project team will:

1. Refine the preferred alternative based on feedback. Katie encouraged participants to fill out an online comment form found at www.bremertonwa.gov/jctp
2. Present the preferred alternative to the City Council
3. Finalize the preferred alternative and draft the plan and report
4. Bring the draft plan and report to the Council for adoption
5. Finalize the plan and report

Katie encouraged participants to visit the project web page for more information. Mayor Wheeler noted that the city would like as much feedback as possible from the project, a key to the project's success.

Comment Summary

The project team invited participants to share questions and comments after the presentation by "raising their hand" to speak or typing comments into the chat box. Katie and Alex responded to questions and comments from community members including:

- Comment: what is a parking management zone? And does it involve metering?
    - Answer: This involves several strategies to meet the goal of providing a better balance between commuter parking and business parking. Could include metered parking, validated parking, vouchers, etc.

- Commentor noted that the plan seems strategic and detailed.
- Comment: Is the roundabout proposed at Naval / 6th was multi-lane.
    - Answer: the roundabout is proposed as a single lane roundabout. It is not part of the current Naval Ave project. It is one of the longer-term improvements proposed.
- Comment: Will the "all-walk" timing on Park Street cause queuing?
    - Answer: The City will double check on if the project causes any unintended queues.
- Comment: This project looks excellent! Will there be a phased implementation? Would like to see the bike lane on First Street come first and suggested it be implemented with blocks and markers.
    - Answer: The study report will include an implementation plan.
- Comment: How many cars need to be removed from the downtown area? And how many family housing units will be built in the future between Warren Avenue and the waterfront?
    - Answer: the analysis looked the year 2050 and the project team estimated approximately 1,000 single occupancy vehicles in the PM peak hour shifted to another mode. This a fairly conservative assumption considering the number of vehicles overall in the PM peak. It was also based on survey results from the people who said they were willing to change their mode if other options were available. The study estimated that the number of households between Washington(east), Naval (west), 13th Street (north) and Burwell (south) was approximately ~1,700 households. The city will be updating their Comprehensive Plan soon and more details regarding growth in housing will be included in that plan.
- Comment: Has there been discussion with the shipyard about their plans to optimize their infrastructure and what does that look like when moves internally are made – how does that impact the roadways outside the shipyard?
    - Answer: The City has been working closely with the shipyard on this project as well as efforts through their environmental permitting for their upcoming changes. The City will be commenting on their environmental work and they are working with us on this study; contact Allison Setter allison.satter@navy.mil

Comments received via City website after the meeting

- Question if the project included any curb painting
- Question if "create commercial parking zones" means proposing parking meters; also a comment that downtown Bremerton needs more housing and basic retail services. With these, more people could live downtown or nearby and not need to drive.
- Comment that suggested implementation of non-motorized facilities include a wide shared use path across the Warren Avenue Bridge and include a shared us path under Warren Ave via tunnel at Olympic College as part of the future bridge improvements. Almira Drive improvements should include a safe crossing of Sylvan at Almira Drive. 6th Street road diet should include bike boxes. Naval Ave bike-ped improvements should include bike boxes. Share use path from Jackson Park neighborhood to Sylvan Way should include lighting and other safety features. Bike parking should be expanded in downtown Bremerton. A shared use path from Bremerton to Gorst is essential to biking in Kitsap Conty and finally, safe bike and pedestrian facilities to the Naval Shipyard from all future park-and-rides.
- Commentor supported the draft plan as presented. Encouraged Council to go "all-in" on 6th Street.
- Commentor is supportive of the plan. Noted the left-turn signal onto 11th from Naval is short.

- Commentor was supportive of the bike improvements. Would like to see protected bike lanes. Does not support replacement of traffic signals with traffic circles. Feels they are difficult to navigate for pedestrians.

Attachment E. Public Information Survey



CITY OF BREMERTON

Joint Compatibility Transportation Plan

Survey Report
May 2021

PRR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Table of Contents

3 Introduction

4 Study overview

5 Methodology

6 Key findings and recommendations

9 How to read this report

10 Detailed Findings

10 Pre-COVID travel behavior

17 During-COVID travel behavior

19 Post-COVID roadway improvements

29 Appendices

30 Appendix A: Survey instrument

40 Appendix B: Recruitment materials

42 Appendix C: Demographic profile

Introduction

Study Overview
Purpose and Approach

Purpose

- The City of Bremerton is experiencing significant change as more people discover all this vibrant maritime community has to offer. The City and Naval Base Kitsap-Bremerton are developing the Joint Compatibility Transportation Plan to define solutions to improve mobility, outline parking strategies, and help create a vibrant community that invites people to live, work, and play.
- The City of Bremerton hired a Parametrix led consultant team including PRR. PRR is an independent research firm, to conduct a public opinion survey to learn more about where and people are traveling within the City.
- This report summarizes key survey findings. The City will use the survey results to inform potential solutions to improve safety and mobility throughout the study area.

Approach

- The survey was conducted from February 3 to 28, 2021. A total 557 people completed the survey, with +/- 4% margin of error.
- Survey topics included trip origins and destinations, trip frequency, trip purposes, mode choice, impact of COVID-19 on travel behavior, issues that would influence travel mode after COVID-19, ideas on ways to improve travel in Bremerton, and standard respondent demographics.
- The City promoted the survey to Bremerton residents through the following channels (See Appendix B for recruitment materials examples):
    - The City's Joint Compatibility Transportation Plan website
    - Billboard announcement
    - City of Bremerton Social media
    - Email
    - Partnership with NBK-BR and NBK-SR (electronic updates and flyers)
    - Open house
    - The survey link was also shared to several community-based Facebook groups including: NBK-BR, Secret Bremerton, Manette Group, Downtown Business Association, Union Hill Neighborhood,
- Survey respondents represented a range of genders, ages, incomes, races, ethnicities, and locations in the Bremerton area. See Appendix C (p. 40-41) for a demographic profile of survey respondents.

Methods
In-depth analysis

- Correlation analysis was used to see if there were associations between demographic characteristics of respondents (age, gender, income, etc.), their travel behavior (i.e., mode choice, travel frequency, change in work commute since the statewide stay-at-home order), and their perceptions on post-COVID travel improvements (e.g., most important projects to improve travel in Bremerton).
- To achieve the cut-off for statistical significance, estimates must have a 0.05 significance level (a 95 percent confidence level) and a correlation coefficient above 0.15 or below -0.15. This indicates a relatively strong relationship between two variables.
- Only statistically significant relationships are discussed throughout the report. When something is statistically significant, it means it is highly unlikely to be the result of random chance.

This report summarizes survey results using charts. The totals in some charts may add up to somewhat more or less than 100% due to rounding or where respondents could select multiple responses. In addition, the total number of respondents varies from chart to chart based on how many people answered the question.

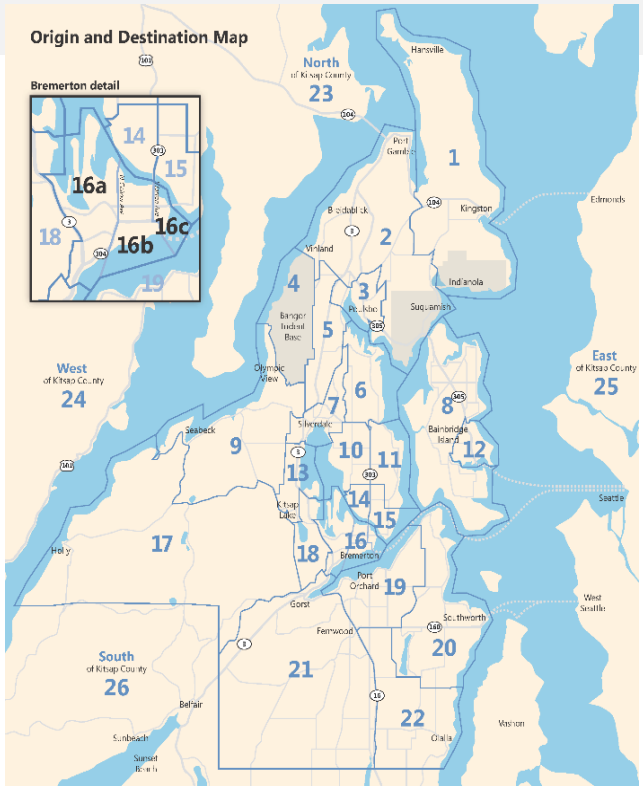
Key Findings
Travel patterns

Before the March 2020 stay-at-home order

- Most respondents (85%) traveled for work, but many also traveled for non-commute trips, such as food or drink (50%), errands (46%), and social or recreational activities (41%).
- Most respondents (88%) traveled to or in Bremerton; typically during peak hours (87% between 5 and 9 am; 90% between 2 and 7 pm).
  - Respondents began their work commute trips in places around the Kitsap Peninsula (top origins: districts 19 at 11% and 26 at 10% of respondents), whereas most (81%) had work-commute destinations in one place: district 16 (60% in district 16b).
- A majority (64%) drove alone. Few used transit, such as bus (8%) or ferry (7-8%), or other alternatives to single-occupancy vehicles such as walking (5% from home to workplace, 11% as part of commute), carpooling (10%), worker/ driver bus program (10%), or biking (7%).

After the March 2020 stay-at-home order

- Almost half (47%) of respondents said their work commute changed since March 2020, and mostly (72%) because they now worked more from home.
- Mode choices have changed too, shifting towards more driving alone (26%) or less public transit use (18%).



Key Findings
Encouraging mode shift

Encouraging people to use alternatives to driving alone comes down to convenience.

Transit Use (top barriers and motivators)

Barriers:

- Riding the bus is inconvenient or takes too long (52%)
- I like the convenience of having my car (47%)
- I have to make stops on my way to/from work (36%)

Motivators:

- More frequent service (25%)
- Extended operation time (20%)
- Express service (18%)
- Direct service (18%)

Alternative options (top motivators or improvements)

Vanpool:

- Free (17%) or reserved (17%) parking for vanpoolers
- Free ride home for emergencies (17%)
- Help establishing a vanpool (15%)

Carpool:

- Free (34%), reserved (33%), or reduced-fee (17%) parking for carpoolers
- Free ride home for emergencies (20%)
- Help establishing a carpool (19%)

Biking:

- Protected (36%), new (29%), or improved (22%) bike lanes

Worker/driver bus program

- Increased shift flexibility (33%)
- Extended transit operation time (29%)

Key Findings
Recommended improvements and communications

Top improvements

Most important projects to improve travel in Bremerton:

- Roadway capacity (53%)
- Shipyard access (43%)
- Roadway efficiency (29%)
- Active travel (34%)

Communications preferences

- Many (37%) respondents wanted to receive updates about Bremerton's transportation plan.
- Top ways to send updates:
  - Email (71%)
  - Facebook (41%)
  - The project website (32%)

How to read this report

Correlation results: indicates whether there's a relationship between specific survey responses and respondent's characteristics. For example, respondents who have selected "increased shift flexibility" tend to be younger and travel to/in Bremerton to work.

Note: We are only calling out findings that are statistically significant.

Descriptive title, main takeaway

Survey question

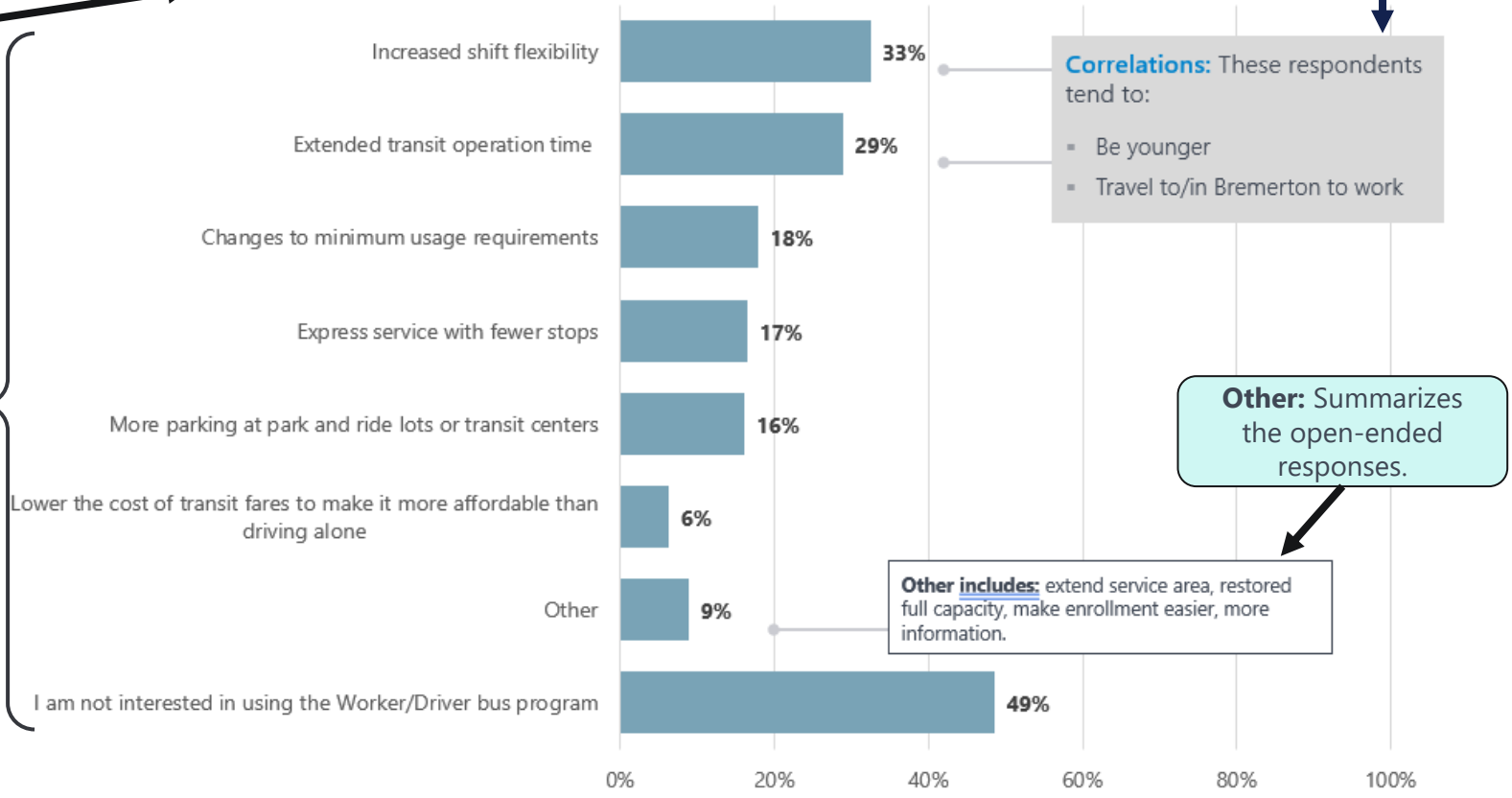
Base: people who saw the question

Items & Results: Some questions have multiple parts; this one asks about things that would improve the Worker/Drive bus program.

Increased shift flexibility and extended operating hours would improve the worker/driver bus program

What are the top 3 things that would improve the Worker/Driver bus program for trips to the shipyard when things return to normal after COVID?

Base: all respondents (n = 492). Multiple responses allowed. Percentages sum to more than 100%.



Other: Summarizes the open-ended responses.

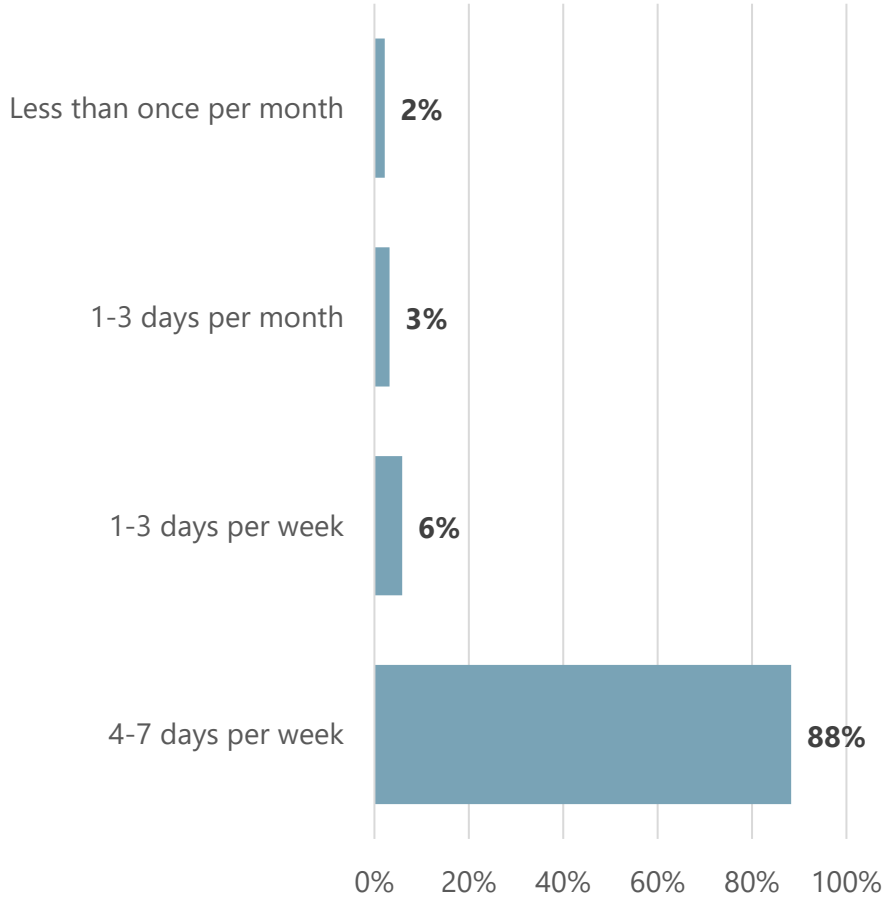
Detailed Findings:
Pre-COVID Travel Behavior

Most respondents (85%) travelled to or in Bremerton 4-7 days per week before COVID restrictions, and most traveled for work.

Before the stay-at-home order in March 2020…

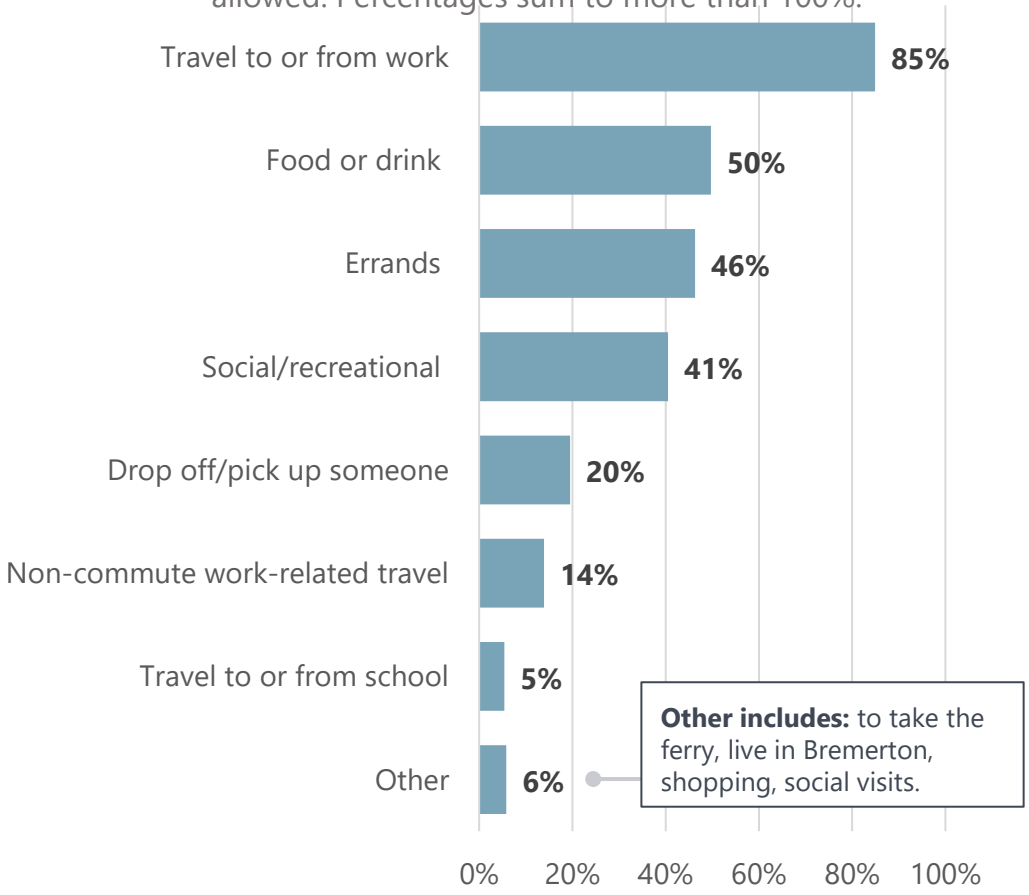
how often did you usually travel to or in Bremerton?

Base: all respondents (n = 555).



what was the purpose of your trips to or in Bremerton on weekdays? Please select all that apply.

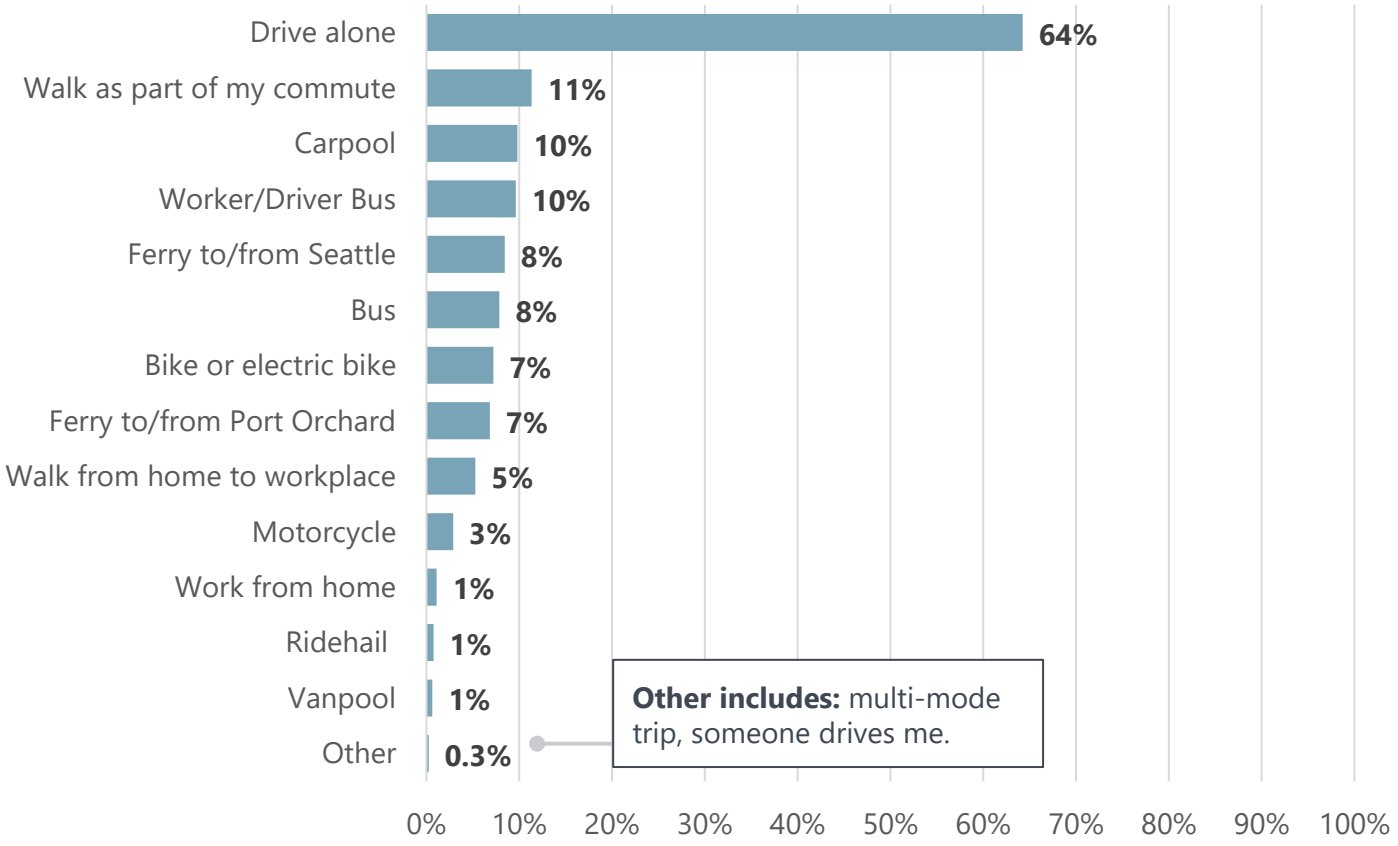
Base: all respondents (n = 555). Multiple responses allowed. Percentages sum to more than 100%.



A majority of respondents (64%) drove alone for weekday trips to or in Bremerton before the pandemic.

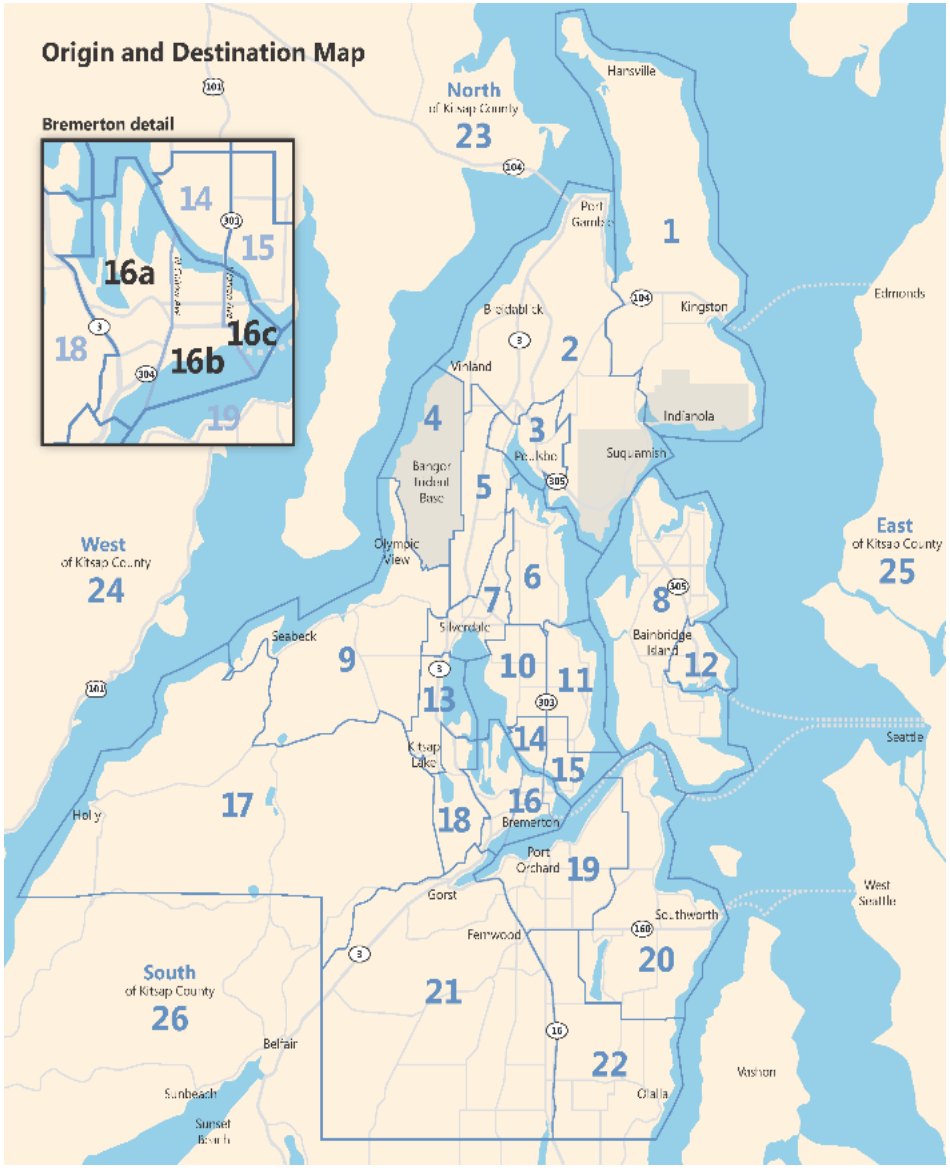
Please indicate the ways you typically commuted to work before COVID during weekdays? Please select all that apply.

Base: all respondents (n = 471). Multiple responses allowed. Percentages sum to more than 100%.



Note: The chart above averages across all weekdays. There are no substantive differences across weekdays.

Most respondents commuted to district 16. Two-thirds began their commute less than 10 miles from district 16.



Top work-commute origins:

Base: all respondents (n = 444). All other districts selected by less than 5% of respondents.

- District 19 (11%)
- District 26 (10%)
- Districts 15, 16a, 16b 21 (8%)
- District 10 (7%)
- District 20 (6%)

Top work-commute destinations:

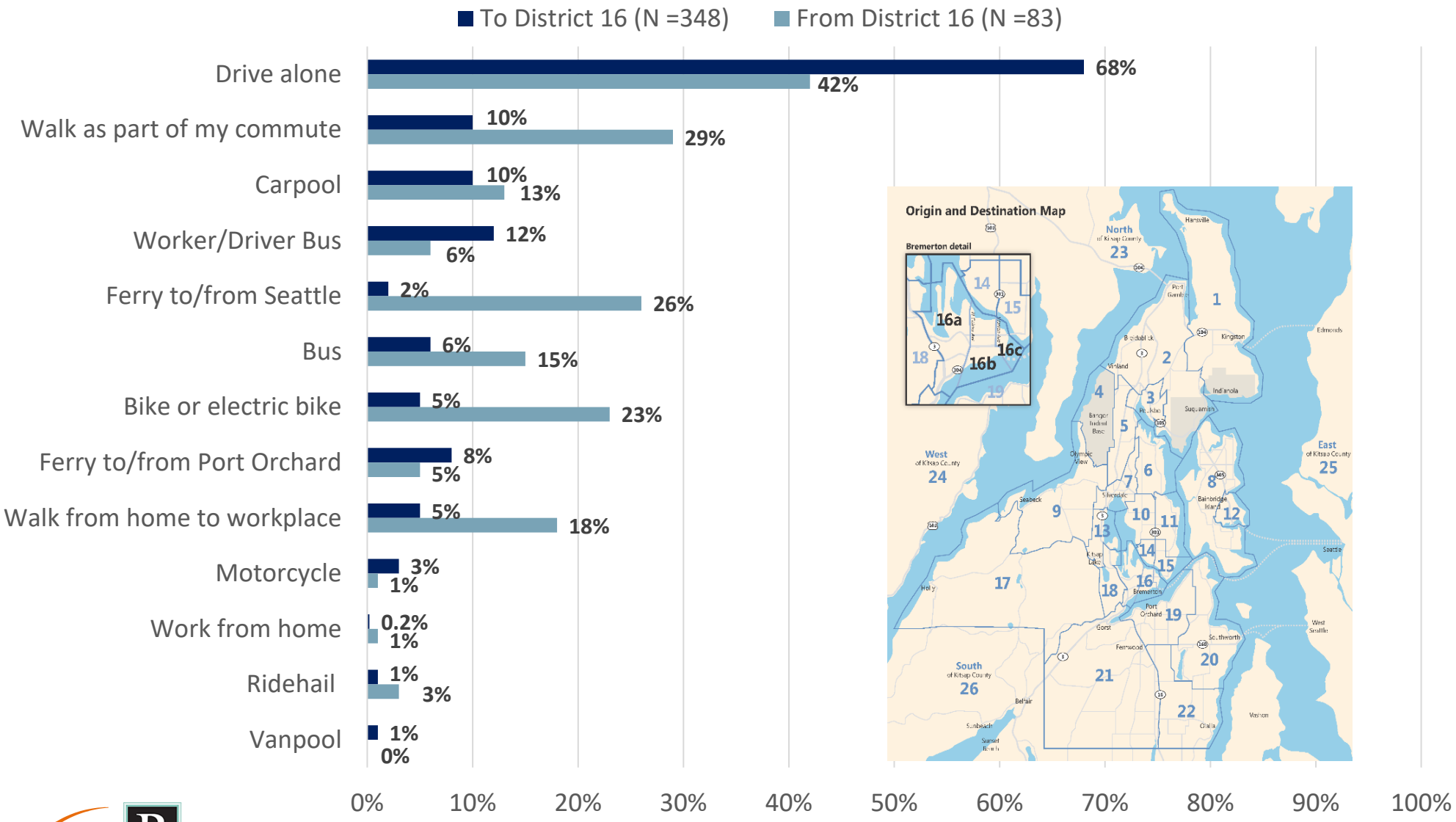
Base: all respondents (n = 429). All other districts selected by less than 5% of respondents.

- District 16b (60%)
- District 16a (11%)
- District 16c (10%)
- District 25 East of Kitsap County (7%)

Travel mode for work commute trip to/from district 16

- Respondents who work at district 16 were more likely to drive or take worker-driver bus for their commute trips
- Respondents who live in district 16 were more likely to walk, bike, and take ferry for their commute trips.

Travel mode: Respondents who travel **to** vs. **from** district 16



Work commute trip origins to district 16

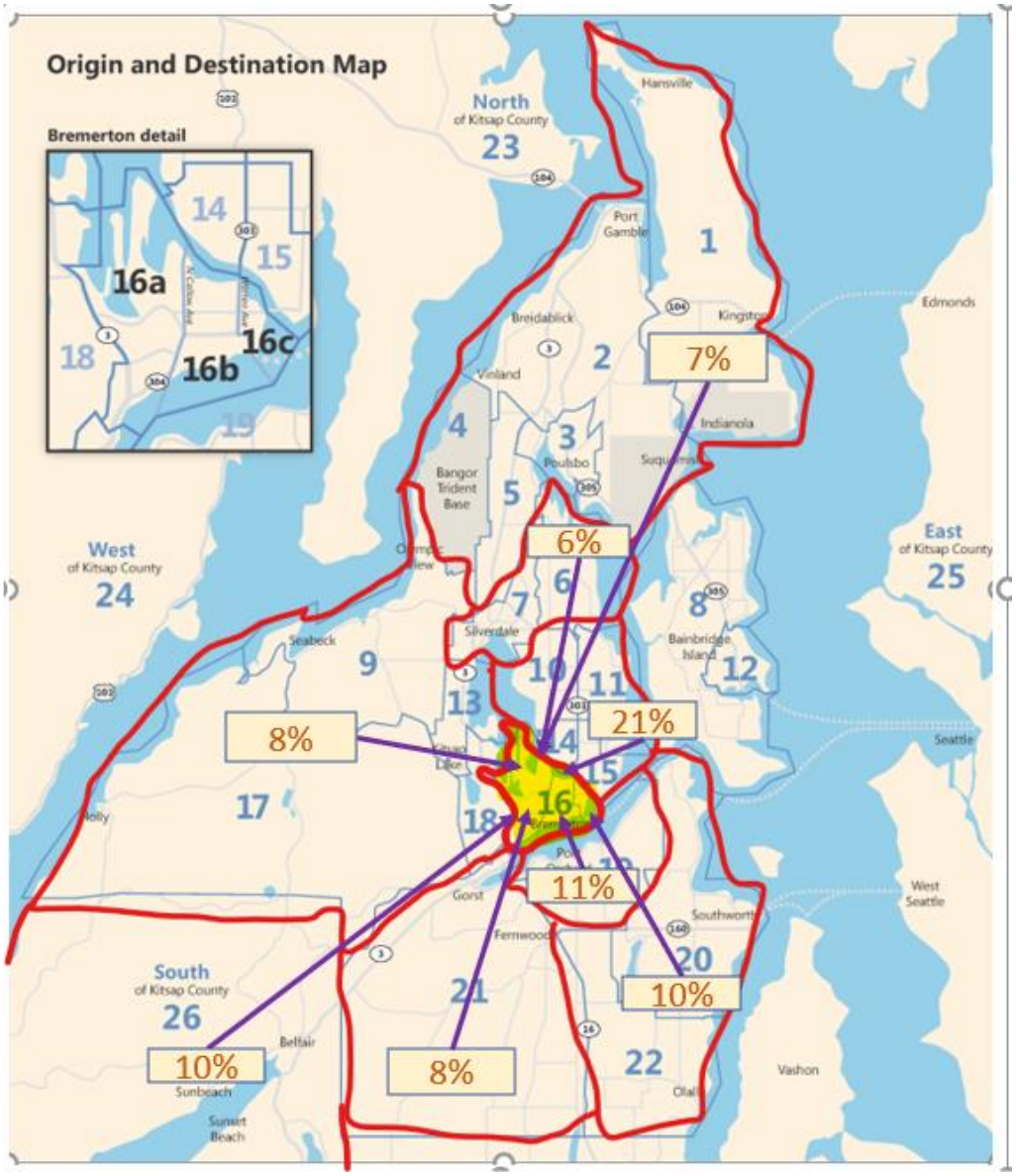
The image to the right shows traffic flow from larger Freight Analysis Zones (FAZs, the red boundary) to district 16.

Most (81%) of respondents reported they worked in district 16. For respondents who work in district 16:

- 39% travel from south of district 16 (districts 19-22, and 26).
- 21% travel from northeast of district 16 (districts 10, 11, 14, and 15).
- 13% travel from north of district 16 (districts 1-7).
- 10% travel from South of Kitsap County.
- 8% travel from west of district 16 (districts 9, 13, 17, and 18).

Traffic flow from larger FAZs to district 16.

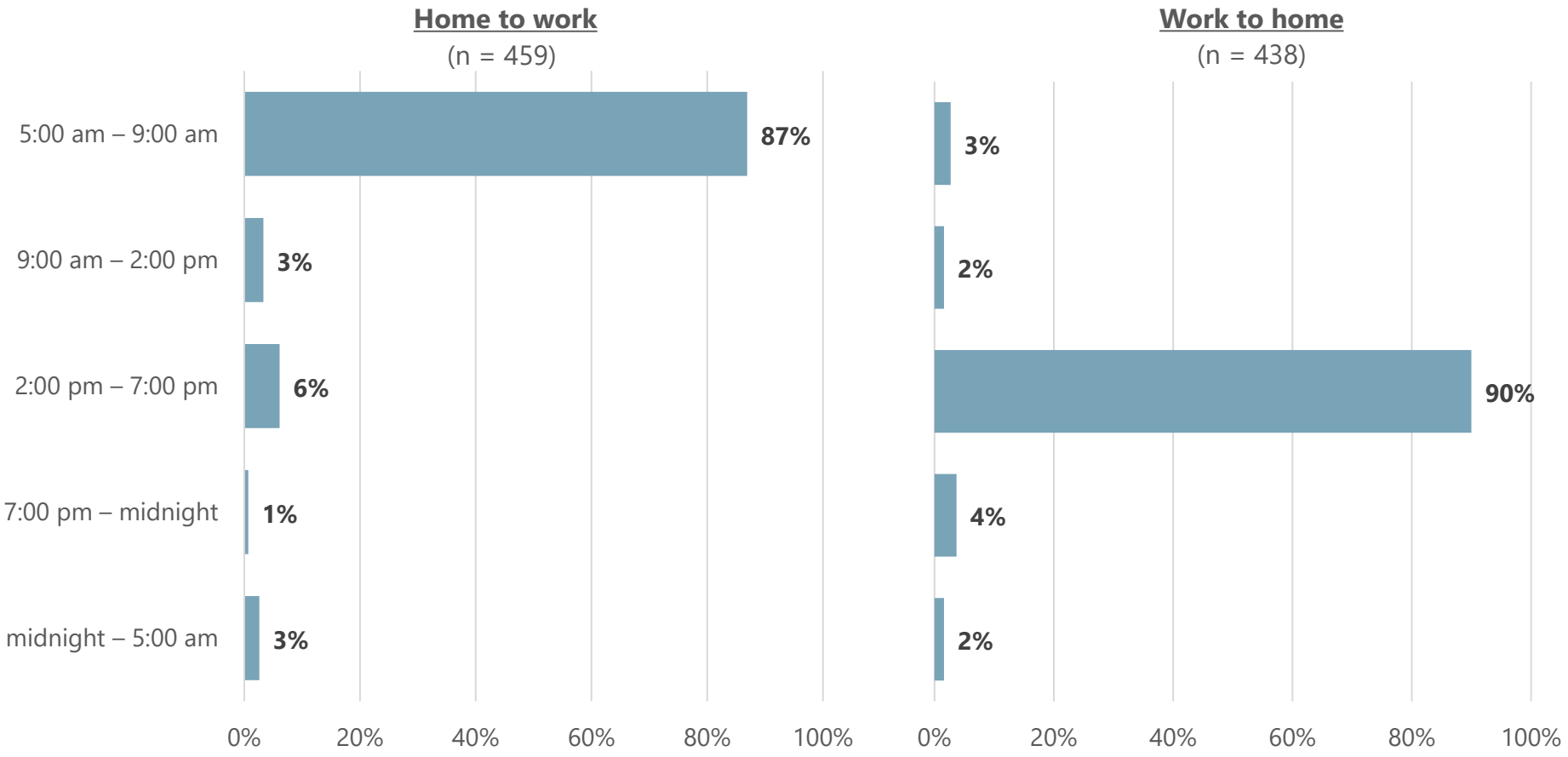
Base: Respondents who work in district 16 (n = 348).



Most of respondents (87%) traveled between home and work during peak commute hours.

Before COVID, thinking about the weekday work commute trips you made what time of day did you usually go from:

Base: all respondents who travel to/in Bremerton for work.

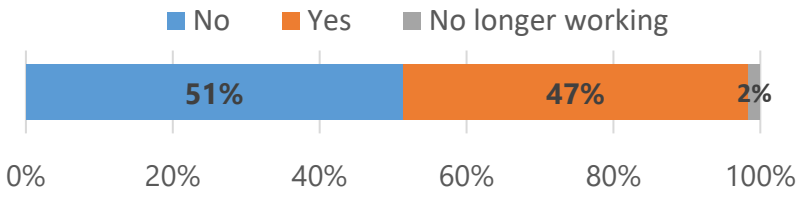


Detailed Findings:
During-COVID Travel Behavior

Respondents reported working from home and driving alone more since the pandemic, and using transit less.

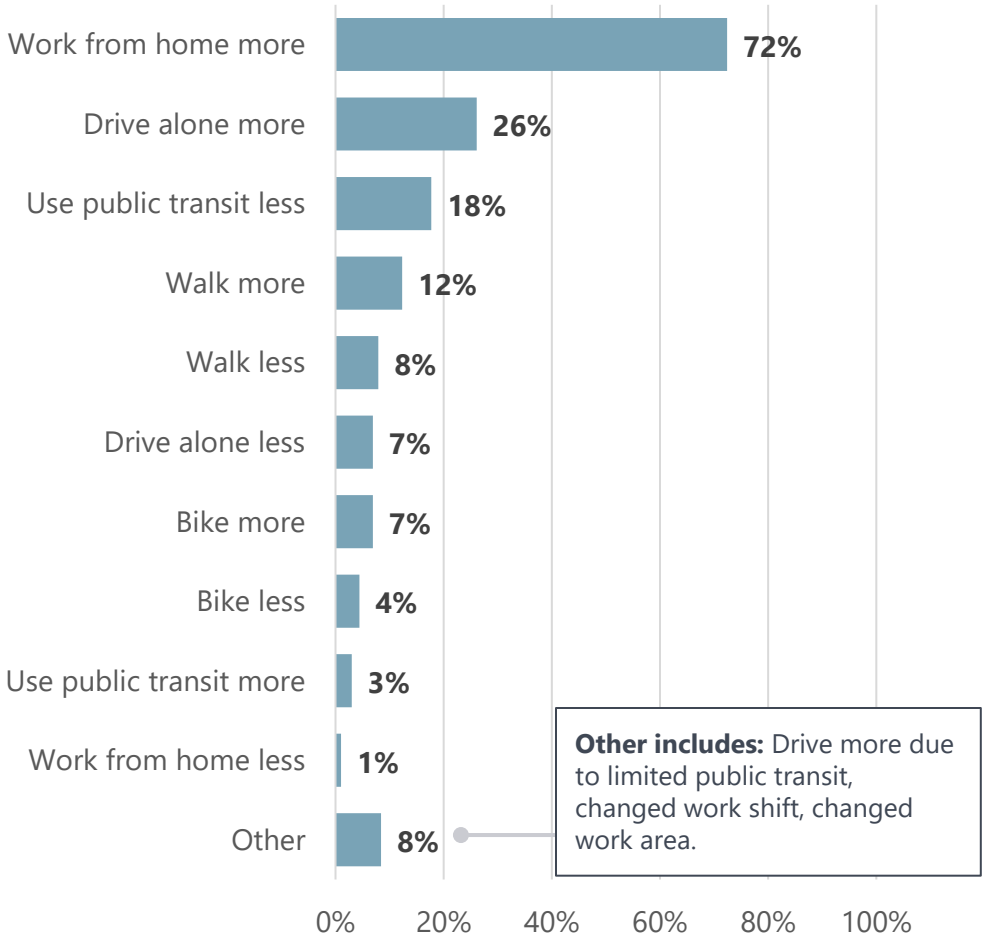
Has your work commute changed since March 2020 and the statewide stay-at-home order?

Base: all respondents who travel to or from work in Bremerton (n = 433).



How has your work commute changed?

Base: all respondents who travel to or from work in Bremerton and whose work commute changed since March 2020 (n = 203). Multiple responses allowed. Percentages ~~add~~ may sum to more than 100%.



Correlations

Respondents who have experienced a change in their work commute since COVID tend to:

- Have higher incomes
- Travel to/in Bremerton to run errands

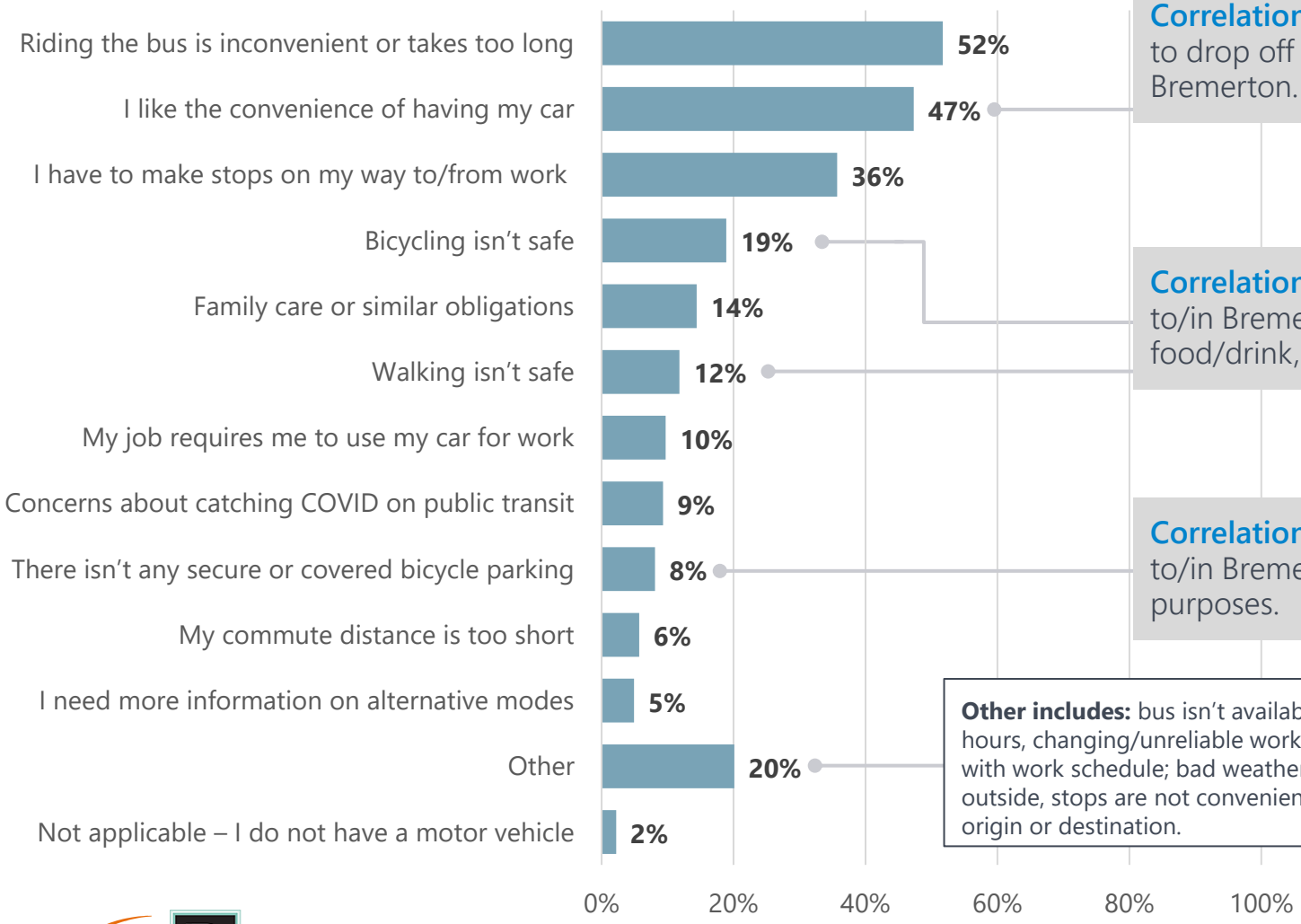
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Detailed Findings:
Post-COVID Travel Improvements

Convenience is a top reason respondents chose to drive alone.

After COVID, what would be the three top reasons you would drive alone instead of using an alternative travel mode for your trips to or in Bremerton?

Base: all respondents (n = 507). Multiple responses allowed. Percentages sum to more than 100%.



Correlations: These respondents are less likely to drop off or pick up someone to/in Bremerton.

Correlations: These respondents tend to travel to/in Bremerton to run errands, buy food/drink, or for social/recreational purposes.

Correlations: These respondents tend to travel to/in Bremerton for social/recreational purposes.

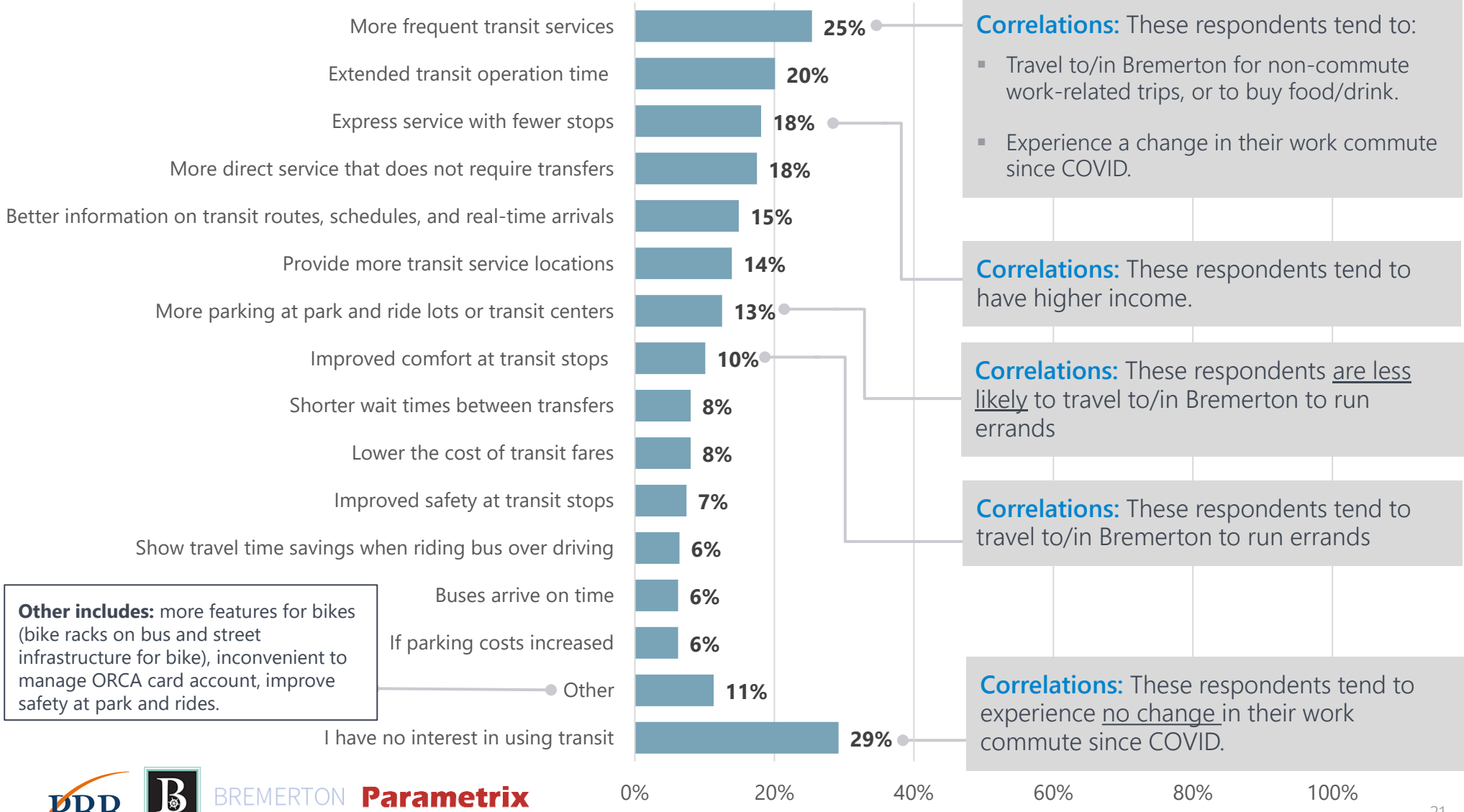
Other includes: bus isn't available during work hours, changing/unreliable work hours, incompatible with work schedule; bad weather for waiting/walking outside, stops are not conveniently located near origin or destination.

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More convenient service (faster trips, longer operating hours) would motivate respondents to use transit more often.

What are the top three features that would motivate you to use (or use more often) public transit for trips to or in Bremerton <u>after COVID</u>?

Base: all respondents (n = 497). Multiple responses allowed. Percentages sum to more than 100%.



Other includes: more features for bikes (bike racks on bus and street infrastructure for bike), inconvenient to manage ORCA card account, improve safety at park and rides.

Correlations: These respondents tend to:

- Travel to/in Bremerton for non-commute work-related trips, or to buy food/drink.
- Experience a change in their work commute since COVID.

Correlations: These respondents tend to have higher income.

Correlations: These respondents <u>are less likely</u> to travel to/in Bremerton to run errands

Correlations: These respondents tend to travel to/in Bremerton to run errands

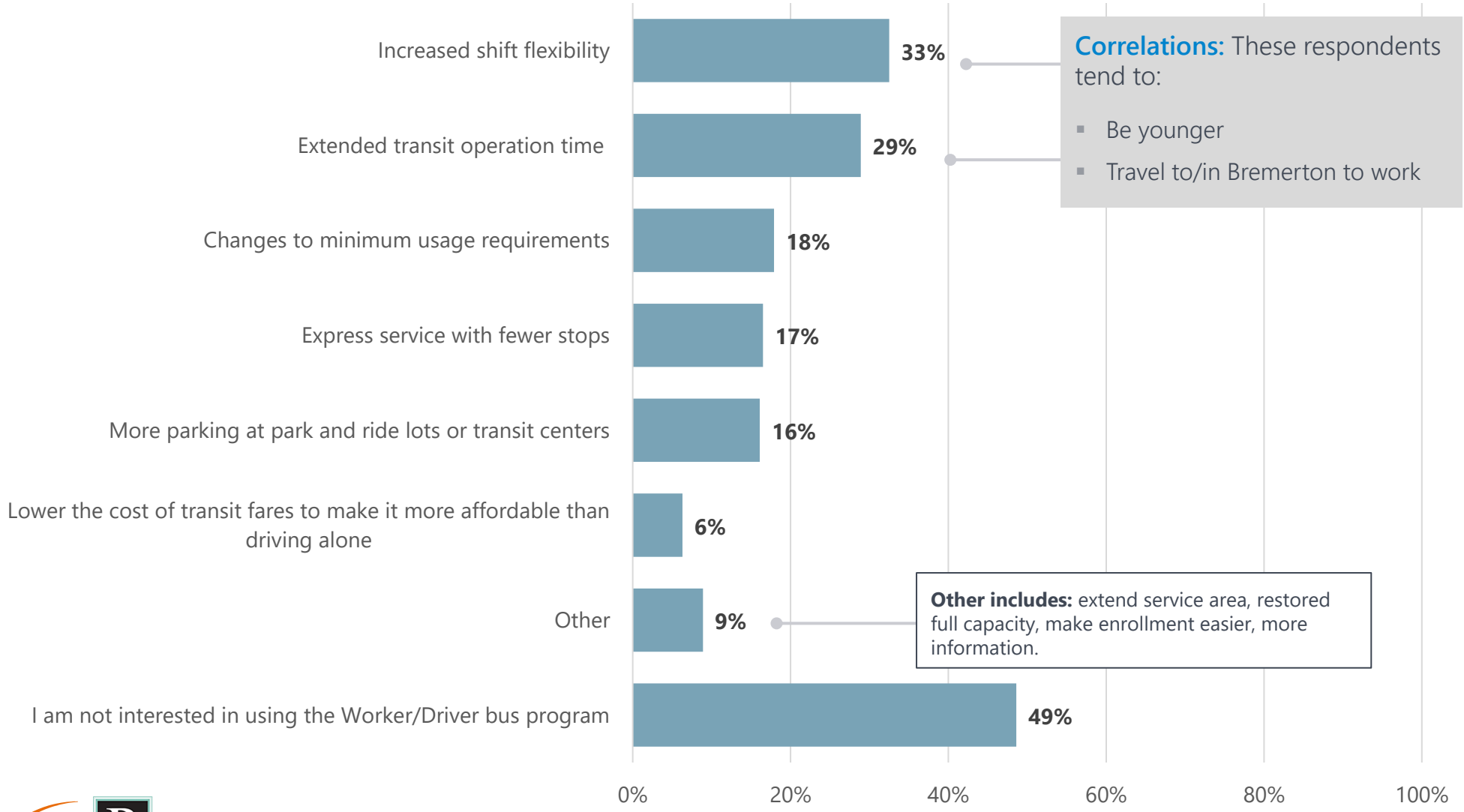
Correlations: These respondents tend to experience <u>no change</u> in their work commute since COVID.

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Increased shift flexibility and extended operating hours would improve the worker/driver bus program

What are the top 3 things that would improve the Worker/Driver bus program for trips to the shipyard when things return to normal after COVID?

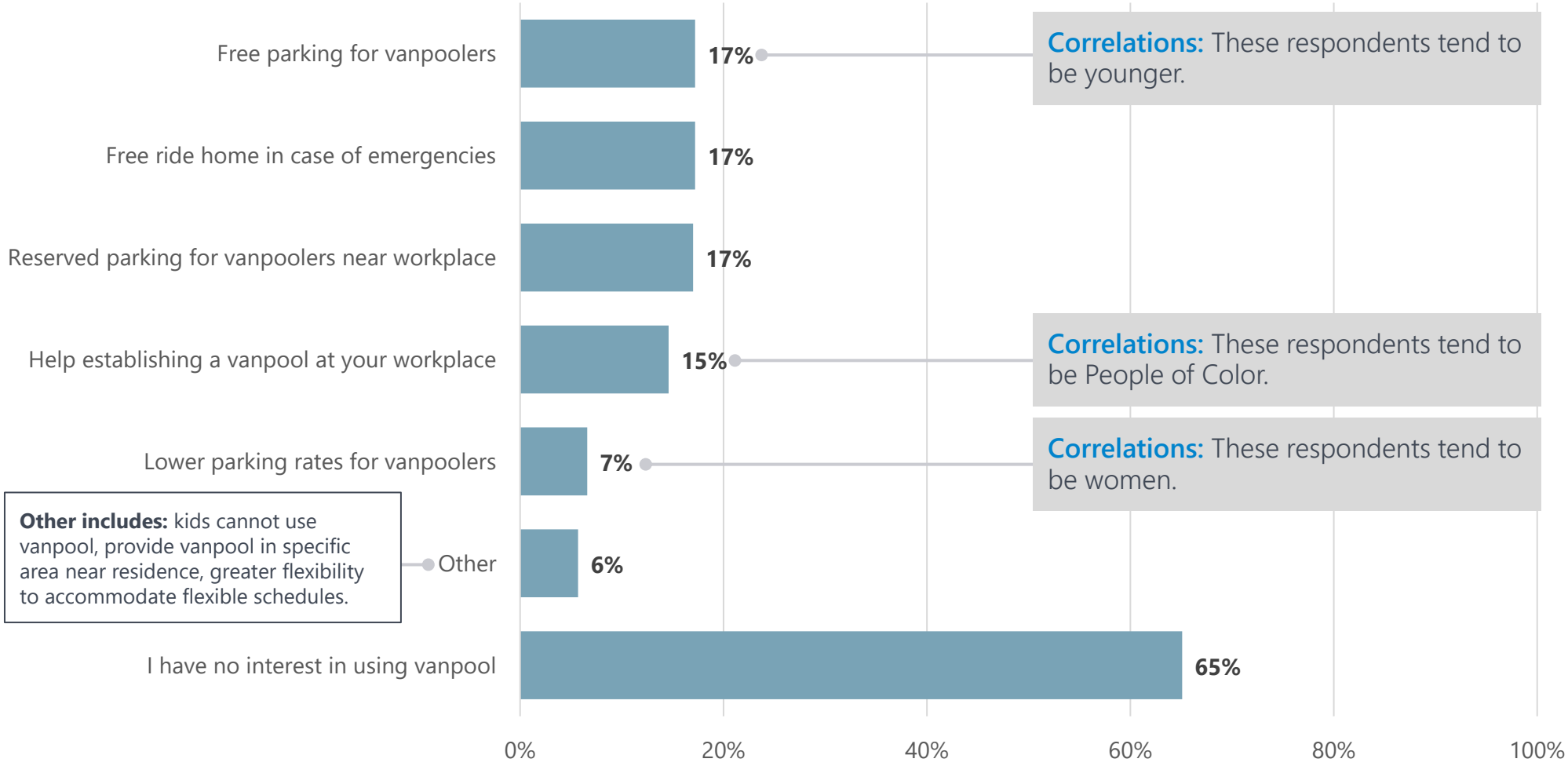
Base: all respondents (n = 492). Multiple responses allowed. Percentages sum to more than 100%.



Free services (parking, ride home) and reserved parking near workplace would motivate respondents to use vanpool more often.

What are the top 3 things that would motivate you to use a vanpool (or vanpool more often) for your trips to or in Bremerton when things return to normal after COVID?

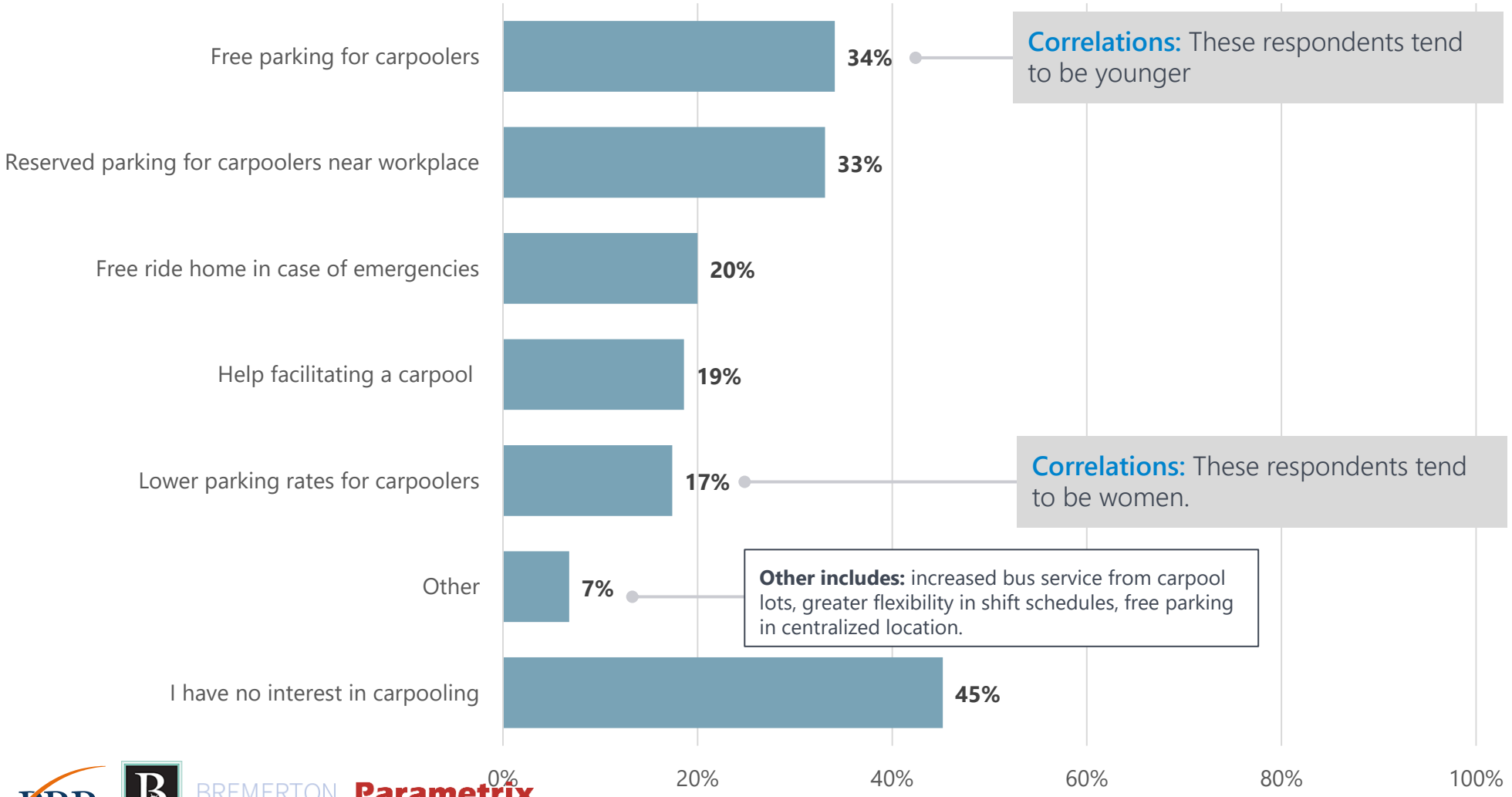
Base: all respondents (n = 487). Multiple responses allowed. Percentages sum to more than 100%.



Free or reserved parking and reserved parking near workplace would motivate respondents to carpool more often.

What are the top 3 things that would motivate you to carpool (or carpool more often) for your trips to or in Bremerton when things return to normal after COVID?

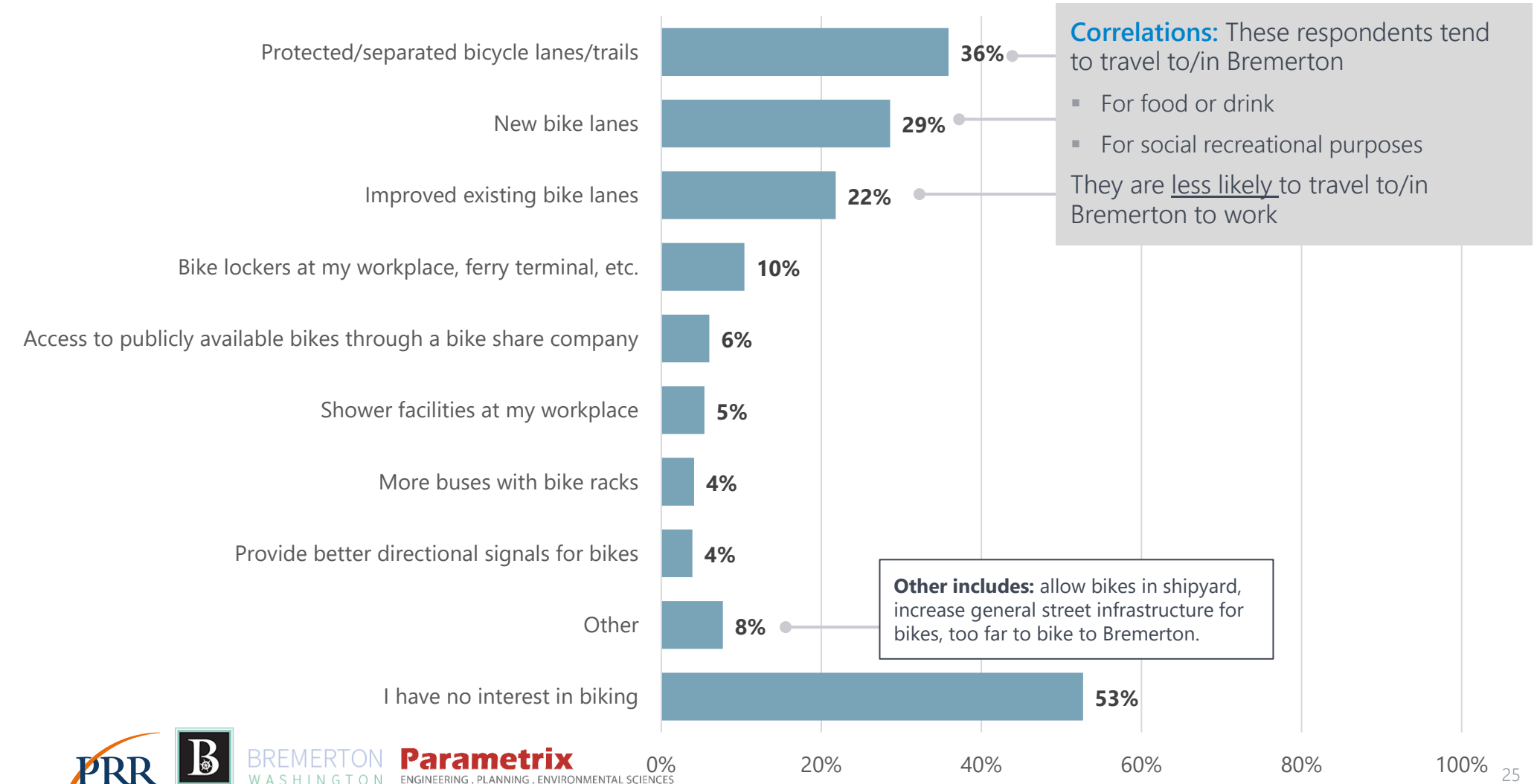
Base: all respondents (n = 484). Multiple responses allowed. Percentages sum to more than 100%.



About one-third of respondents thought having "protected or separated bike lanes" would motivate them to bike.

What are the top 3 things that would motivate you to bike (or bike more often) for your trips to or in Bremerton when things return to normal after COVID?

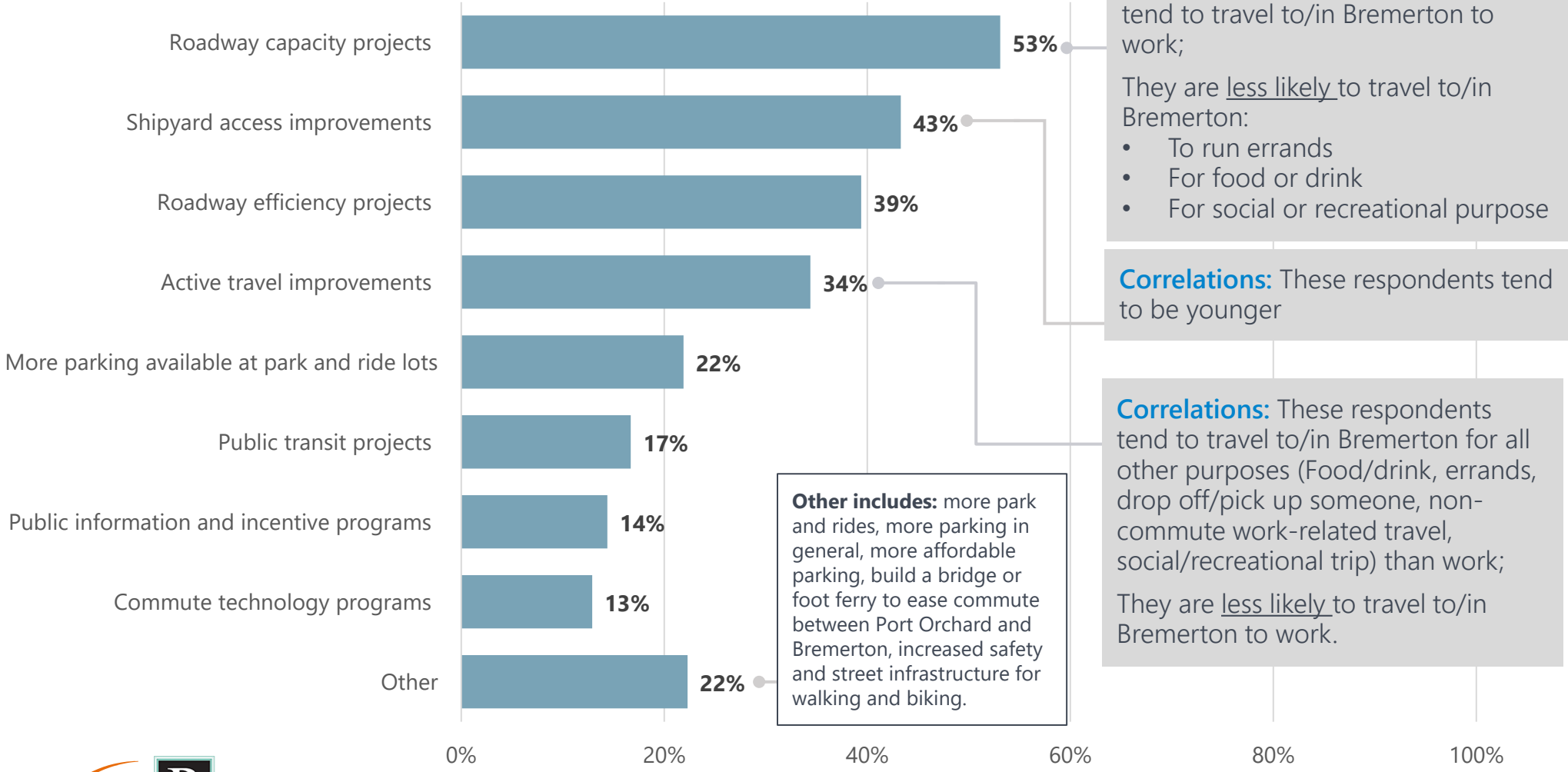
Base: all respondents (n = 482). Multiple responses allowed. Percentages sum to more than 100%.



Respondents said roadway and shipyard access improvements were among the most important projects to improve travel in Bremerton.

In your opinion, what are the three most important projects to improve travel in Bremerton?

Base: all respondents (n = 480). Multiple responses allowed. Percentages sum to more than 100%.



Other includes: more park and rides, more parking in general, more affordable parking, build a bridge or foot ferry to ease commute between Port Orchard and Bremerton, increased safety and street infrastructure for walking and biking.

Correlations: These respondents tend to travel to/in Bremerton to work;

They are less likely to travel to/in Bremerton:

- To run errands
- For food or drink
- For social or recreational purpose

Correlations: These respondents tend to be younger

Correlations: These respondents tend to travel to/in Bremerton for all other purposes (Food/drink, errands, drop off/pick up someone, non-commute work-related travel, social/recreational trip) than work;

They are less likely to travel to/in Bremerton to work.

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Respondents suggested investments in parking, traffic flow, and non-drive alone travel modes would improve travel in Bremerton.

Parking

- Increase the number of multi-level parking structures (not single-level lots)
- Increase parking for shipyard employees specifically
- Lower/remove fees for employees
- Provide safe parking options
- De-monopolize Diamond parking

Traffic flow

- Widen or add road through Gorst
- Build bridge to Port Orchard
- Reduce number of traffic lights and/or better time lights
- Improve traffic flow outside shipyard

Non-drive alone travel modes

- Build more infrastructure for walking and biking
  - More protected bike lanes and storage
  - Safety for pedestrians (streetlights, intersection crossings, improve/add sidewalks, Infrastructure to support slower speeds in residential areas)
  - Improve pedestrian infrastructure to Shipyard
- More reliable bus system
  - Tracking system (like Onebusaway)
  - Expanded area for bus service (both origin and destination)
  - Address confusing and changing bus routes
- Incentive system for using alternative transportation modes (ex: by-passing traffic lights, bus only lanes)
- Improve ferry system (increase capacity, more reliable schedule, increase area service)

Shipyard Policies

- Encourage employees to telecommute
- Stagger employee shifts to reduce traffic congestion
- Expand service area of shuttle buses (Gorst, Port Orchard, etc.)
- Allow bikes in shipyard

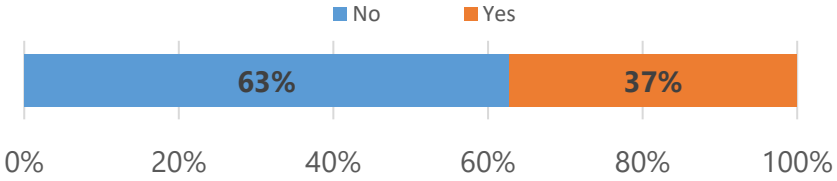
The original question read "Did we miss anything? are there any other ideas you have for improving travel in Bremerton when things return to normal after covid?"

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About 40% of respondents wanted to received updates about Bremerton's Transportation Plan (71% via email, 41% via Facebook).

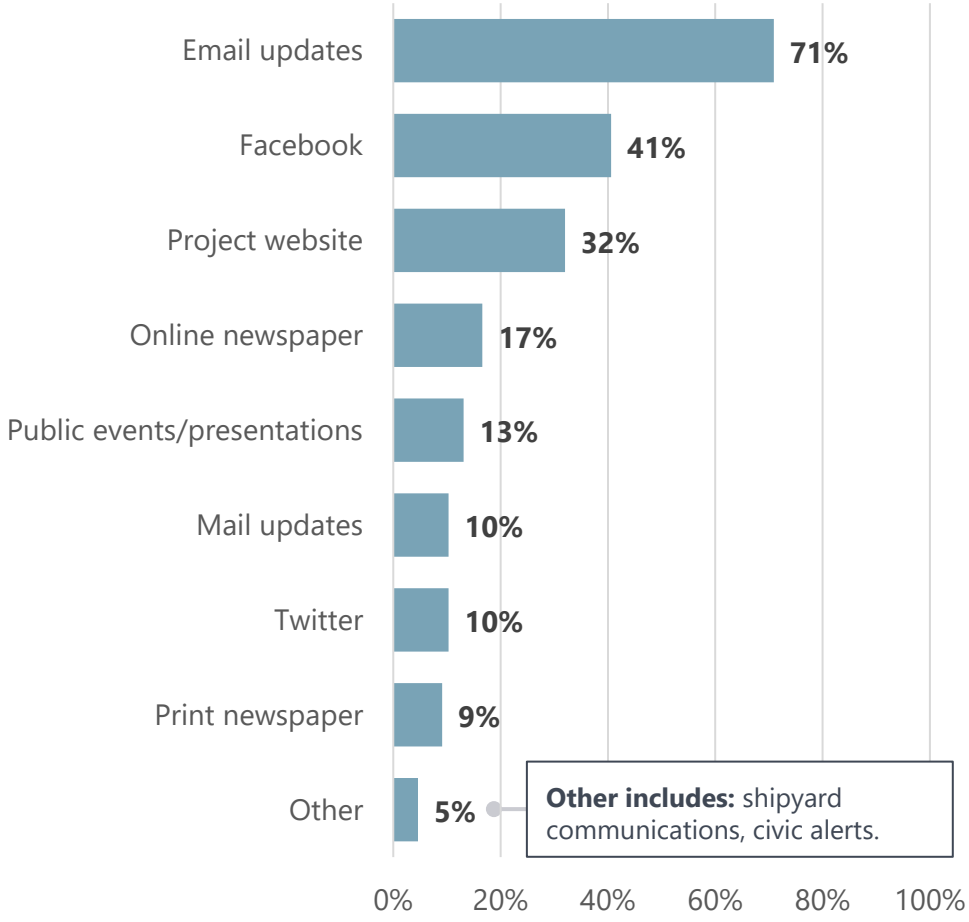
Do you want to receive updates about Bremerton's Transportation Plan?

Base: all respondents (n = 476).



As plans continue to develop, what are the top 3 best ways to keep you updated?

Base: all respondents who want to receive updates about Bremerton's Transportation Plan (n = 175). Multiple responses allowed. Percentages sum to more than 100%.



Appendices

Appendix A: Survey instrument

BREMERTON TRANSPORTATION PLAN SURVEY

The City of Bremerton is working with Naval Base Kitsap - Bremerton to outline what transportation improvements are needed to maintain base readiness and City livability. By sharing how you get around Bremerton you will make your voice heard and help improve travel for you and others in the Bremerton area. What we hear from you will help inform our transportation plan which aims to:

- Improve travel in the Bremerton area
- Maintain Naval Base Kitsap accessibility and mobility
- Support economic vitality in the City of Bremerton

The survey takes about 10 minutes to complete. Your responses are anonymous and confidential.

The last day to complete the survey is February 28, 2021.

Tips for taking the survey:

- Use the "Back" icon ← at the bottom of each page to return to a previous page.
- If you are using a smartphone or tablet, please scroll all the way to the bottom to complete the full survey.
- Do not exit the survey until you are done.

If you have any technical difficulties with the survey, please contact research@prrbiz.com

Thank you for participating!

→

COVID-19 has changed so much about how we move around. For the next few questions, please think about how you got around **before the pandemic.**

Before the stay-at-home order in March 2020, how often did you usually travel to or in Bremerton?

- ◯ Less than once per month
- ◯ 1-3 days per month
- ◯ 1-3 days per week
- ◯ 4-7 days per week
- ◯ I have not traveled to or in Bremerton in the past year
- ◯ I have never traveled to or in Bremerton

Before COVID, what was the purpose of your trips to or in Bremerton during weekdays? Please select all that apply.

- ☐ Errands (bank, post office, medical visit, etc.)
- ☐ Drop off/pick up someone
- ☐ Travel to or from school
- ☐ Non-commute work-related travel
- ☐ Food or drink (restaurant, take-out, bar, etc.)
- ☐ Travel to or from work
- ☐ Social/recreational (park, friends or family, exercise, volunteer, religious activity, etc.)
- ☐ Other (please tell us more):

Appendix A: Survey instrument, continued

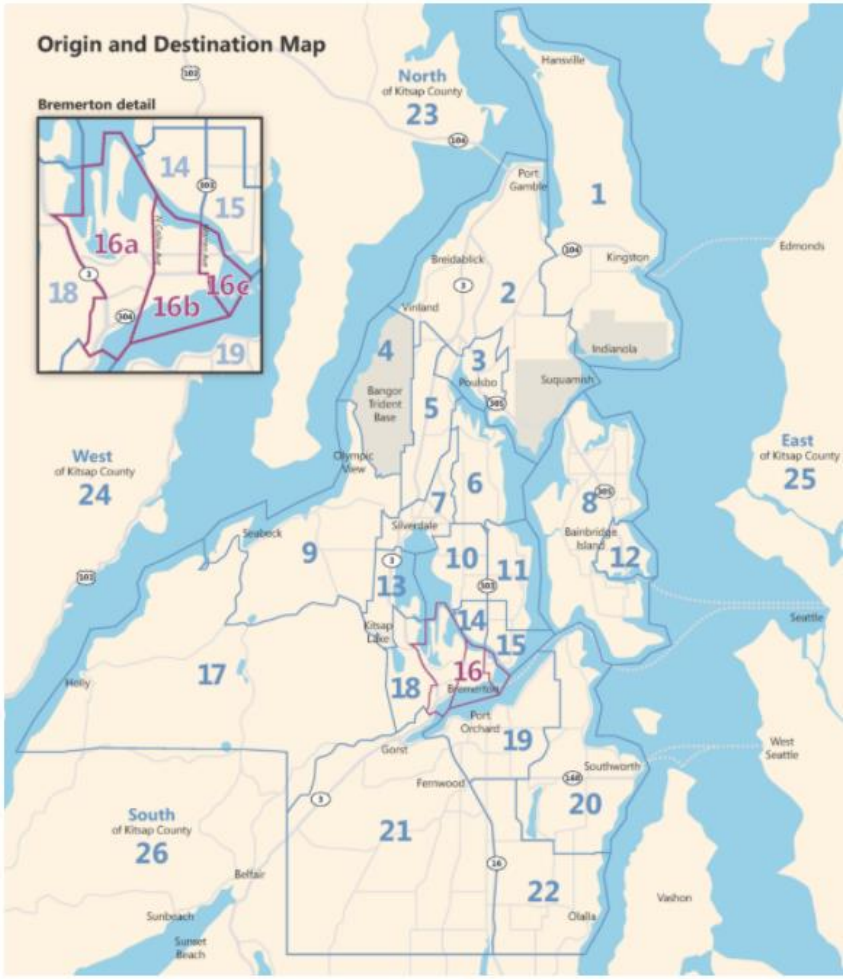
Please indicate the ways you **typically** commuted to work each weekday **before COVID**. For each travel method that you typically used, indicate which days you used that method. For example, you might drive to a Park and Ride lot and then take the bus.

	Monday	Tuesday	Wednesday	Thursday	Friday
Drive alone	☐	☐	☐	☐	☐
Carpool	☐	☐	☐	☐	☐
Bus	☐	☐	☐	☐	☐
Worker/Driver Bus	☐	☐	☐	☐	☐
Motorcycle	☐	☐	☐	☐	☐
Vanpool	☐	☐	☐	☐	☐
Ferry to/from Seattle	☐	☐	☐	☐	☐
Ferry to/from Port Orchard	☐	☐	☐	☐	☐
Ridehail (Uber, Lyft, Taxi, etc.)	☐	☐	☐	☐	☐
Bike or electric bike	☐	☐	☐	☐	☐
Walk from home to workplace	☐	☐	☐	☐	☐
Walk as part of my commute	☐	☐	☐	☐	☐
Work from home	☐	☐	☐	☐	☐
Other (please specify):	☐	☐	☐	☐	☐

Before COVID, thinking about the weekday work commute trips you made, what time of day did you usually go from home to your work destination?

- ◯ 5:00 am – 9:00 am
- ◯ 9:00 am – 2:00 pm
- ◯ 2:00 pm – 7:00 pm
- ◯ 7:00 pm – midnight
- ◯ midnight –5:00 am

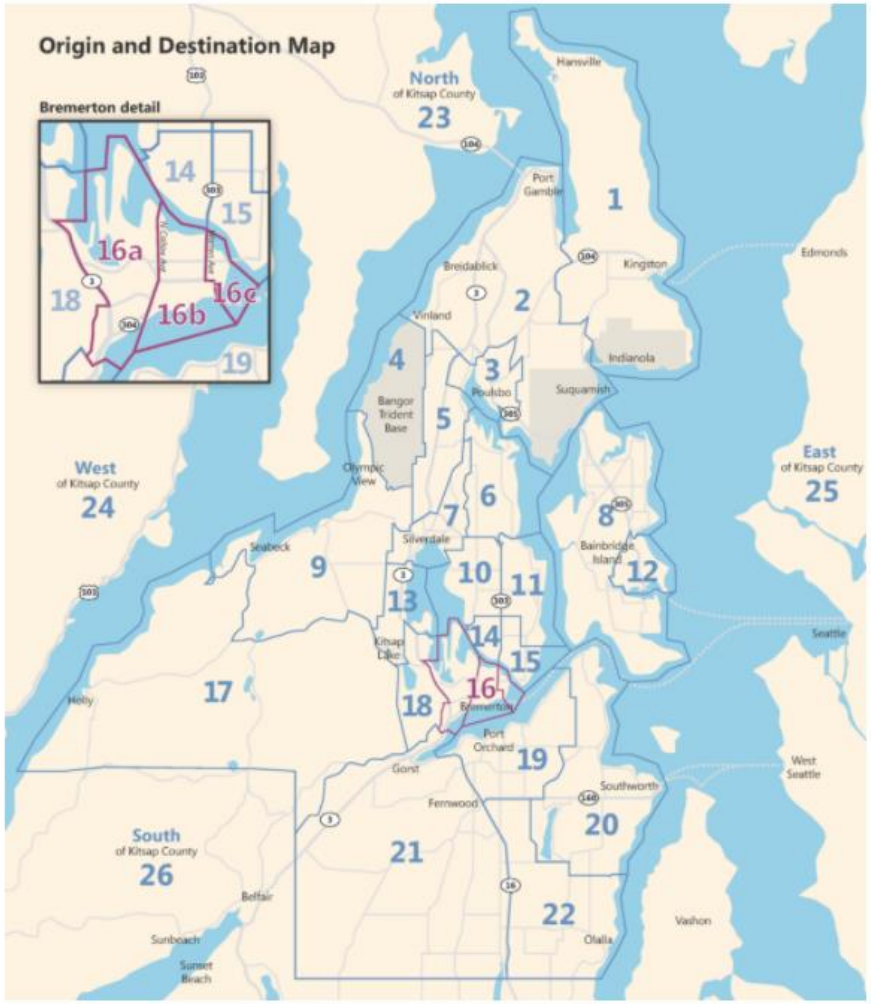
Using the map below, please indicate the district number where you usually **started** your work commute trip.



What town/city?

Appendix A: Survey instrument, continued

Using that same map, please indicate the district number where your work is located.



What town/city?

Appendix A: Survey instrument, continued

Before COVID, thinking about the weekday work commute trips you made, what time of day did you usually leave your work location?

- ◯ 5:00 am – 9:00 am
- ◯ 9:00 am – 2:00 pm
- ◯ 2:00 pm – 7:00 pm
- ◯ 7:00 pm – midnight
- ◯ midnight –5:00 am

Now, we would like to learn more about **how COVID has changed your work commute travel behavior**. For these questions, please think about your work commute trips to or in Bremerton **during COVID (since March 2020 and the Washington State stay-at-home order).**

Has your work commute changed since March 2020 and the statewide stay-at-home order?

- ◯ No
- ◯ Yes
- ◯ No longer working

How has your work commute changed? (select all that apply)

- ☐ Work from home more
- ☐ Work from home less
- ☐ Drive alone more
- ☐ Drive alone less
- ☐ Use public transit more
- ☐ Use public transit less
- ☐ Bike more
- ☐ Bike less
- ☐ Walk more
- ☐ Walk less
- ☐ Other (please tell us more):

Do you expect your work commute to return to normal post COVID?

- ◯ No
- ◯ Not sure
- ◯ Yes

Appendix A: Survey instrument, continued

Now, we would like to learn your thoughts on different ways to improve travel to or in Bremerton **after COVID when the vaccine is widely available**.

After COVID, what would be the three top reasons you would drive alone instead of using an alternative travel mode for your trips to or in Bremerton? (Please only select up to 3)

- [ ] Concerns about catching COVID on public transit
- [ ] I have to make stops on my way to/from work (such as drop children at day care/school, run errands, etc.)
- [ ] Bicycling isn't safe
- [ ] Family care or similar obligations
- [ ] Walking isn't safe
- [ ] Riding the bus is inconvenient or takes too long
- [ ] My job requires me to use my car for work
- [ ] I like the convenience of having my car
- [ ] I need more information on alternative modes
- [ ] My commute distance is too short
- [ ] There isn't any secure or covered bicycle parking
- [ ] Other (please tells us more):

- [ ] Not applicable – I do not have a motor vehicle

What are the top three features that would motivate you to use (or use more often) public transit for trips to or in Bremerton when things return to normal **after COVID**? (Please only select up to 3)

- [ ] Extended transit operation time (e.g., earlier and/or later)
- [ ] Lower the cost of transit fares
- [ ] More direct service that does not require transfers
- [ ] Shorter wait times between transfers
- [ ] Better information on transit routes, schedules, and real-time arrivals
- [ ] More parking at park and ride lots or transit centers
- [ ] Express service with fewer stops
- [ ] Improved safety at transit stops
- [ ] Provide more transit service locations
- [ ] If parking costs increased
- [ ] Show travel time savings when riding bus over driving
- [ ] More frequent transit services
- [ ] Buses arrive on time
- [ ] Improved comfort at transit stops (such as shelters and lighting)
- [ ] Other (please tell us more):

- [ ] I have no interest in using transit

Appendix A: Survey instrument, continued

What are the top 3 things that would improve the Worker/Driver bus program for trips to the shipyard when things return to normal **after COVID**? Worker/Driver buses are a unique Kitsap Transit program, which carry employees to the Puget Sound Naval Shipyard (PSNS).

- ☐ Express service with fewer stops
- ☐ Increased shift flexibility
- ☐ Extended transit operation time (e.g., earlier and/or later)
- ☐ More parking at park and ride lots or transit centers
- ☐ Lower the cost of transit fares to make it more affordable than driving alone
- ☐ Changes to minimum usage requirements
- ☐ Other (please tell us more):

[ ]

- ☐ I am not interested in using the Worker/Driver bus program

What are the top 3 things that would motivate you to use a vanpool (or vanpool more often) for your trips to or in Bremerton when things return to normal **after COVID**?

Vanpool is a group of 5-15 commuters who ride to work together in a van provided by a transit agency or employer. (Please only select up to 3)

- ☐ Reserved parking for vanpoolers near workplace
- ☐ Free parking for vanpoolers
- ☐ Lower parking rates for vanpoolers
- ☐ Free ride home in case of emergencies
- ☐ Help establishing a vanpool at your workplace
- ☐ Other (please tell us more):

[ ]

- ☐ I have no interest in using vanpool

Appendix A: Survey instrument, continued

What are the top 3 things that would motivate you to carpool (or carpool more often) for your trips to or in Bremerton when things return to normal **after COVID**? (Please only select up to 3)

- [ ] Help facilitating a carpool (such as a carpool matching service)
- [ ] Free ride home in case of emergencies
- [ ] Reserved parking for carpoolers near workplace
- [ ] Lower parking rates for carpoolers
- [ ] Free parking for carpoolers
- [ ] Other (please tell us more):
- [ ] I have no interest in carpooling

What are the top 3 things that would motivate you to bike (or bike more often) for your trips to or in Bremerton when things return to normal **after COVID**? (Please only select up to 3)

- [ ] Access to publicly available bikes through a bike share company
- [ ] Improved existing bike lanes
- [ ] Shower facilities at my workplace
- [ ] New bike lanes
- [ ] More buses with bike racks
- [ ] Provide better directional signals for bikes
- [ ] Bike lockers at my workplace, ferry terminal, etc.
- [ ] Protected/separated bicycle lanes/trails
- [ ] Other (please tell us more):
- [ ] I have no interest in biking

Appendix A: Survey instrument, continued

In your opinion, what are the three most important projects to improve travel in Bremerton (please select only 3)?

- ☐ Roadway capacity projects (added lanes, new roads, turn lanes, etc.)
- ☐ Roadway efficiency projects (traffic signal improvements, roundabouts)
- ☐ Active travel improvements (bike lanes, sidewalks, crosswalks, etc.)
- ☐ Commute technology programs (real-time traffic, transit, or parking information; increased cost to park during high-demand times, etc.)
- ☐ Public information and incentive programs (support finding/creating rideshare options, transit fare incentives, etc.)
- ☐ More parking available at park and ride lots
- ☐ Shipyard access improvements (vehicle queue lanes, kiss and ride drop-off areas, bike accessibility)
- ☐ Public transit projects (HOV/Bus-Only lanes)
- ☐ Other (please tell us more):

Did we miss anything? Are there any other ideas you have for improving travel in Bremerton when things return to normal **after COVID**? Please describe them briefly here.

Do you want to receive updates about Bremerton's Transportation Plan?

- ◯ No
- ◯ Yes

As plans continue to develop, what are the top 3 best ways to keep you updated? (Please only select up to 3)

- ☐ Facebook
- ☐ Mail updates
- ☐ Twitter
- ☐ Print newspaper
- ☐ Email updates (please provide email address):
- ☐ Online newspaper
- ☐ Public events/presentations
- ☐ Project website
- ☐ Other (please tell us more):

Appendix A: Survey instrument, continued

Finally, we have a few demographic questions about you. Your answers are anonymous and will be combined with those of other respondents for analysis purposes.

What is your home zip code?

In what city or town do you live?

How do you identify?

- ◯ Female
- ◯ Male
- ◯ Not listed here
- ◯ Prefer not to answer

How old are you?

- ◯ 17 or younger
- ◯ 18-24
- ◯ 25-34
- ◯ 35-44
- ◯ 45-54
- ◯ 55-64
- ◯ 65-74
- ◯ 75 or older

Primary language(s) spoken at home (check all that apply)

- ☐ English
- ☐ Spanish
- ☐ Tagalog
- ☐ German
- ☐ Chinese (e.g., Mandarin, Cantonese, Fuzhounese)
- ☐ French
- ☐ Korean
- ☐ Vietnamese
- ☐ Russian, Polish, or other Slavic languages
- ☐ Other (please tell us more):

Appendix A: Survey instrument, continued

How do you identify? Please select all that apply.

- [ ] American Indian or Alaska Native
- [ ] Asian or Asian-American
- [ ] Black or African American
- [ ] Hispanic or Latino/a/x
- [ ] Native Hawaiian or Other Pacific Islander
- [ ] White
- [ ] Not listed here (please tell us more):

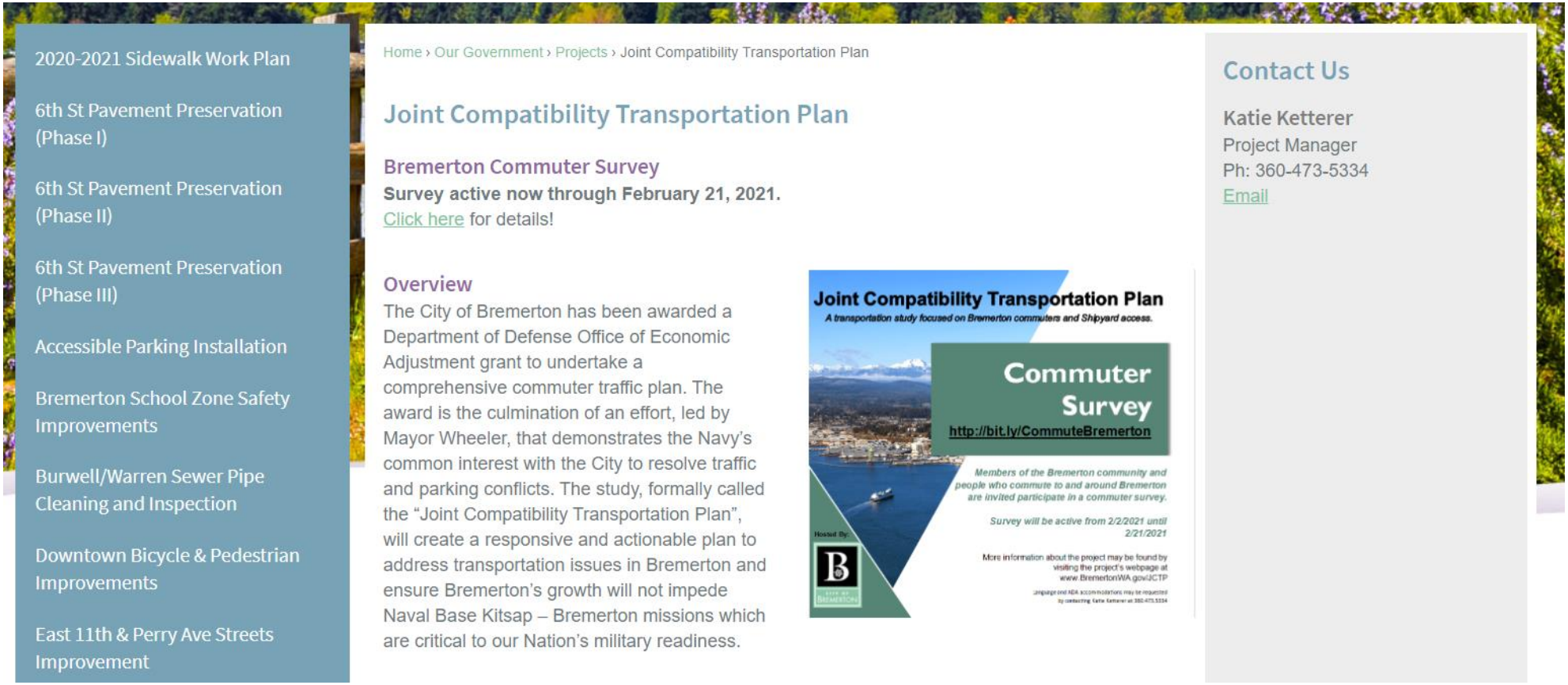
What was your total household income (before taxes) for 2020?

- ◯ Less than $25,000
- ◯ $25,000 to $49,999
- ◯ $50,000 to $74,999
- ◯ $75,000 to $99,999
- ◯ $100,000 to $149,99
- ◯ $150,000 to $199,999
- ◯ $200,000 or more
- ◯ Don't know

Appendix B: Recruitment materials – Social media post

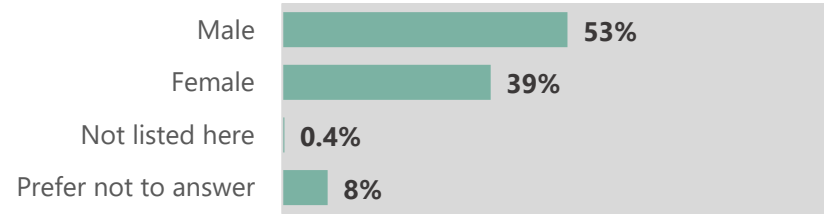


Appendix B: Recruitment materials – Website

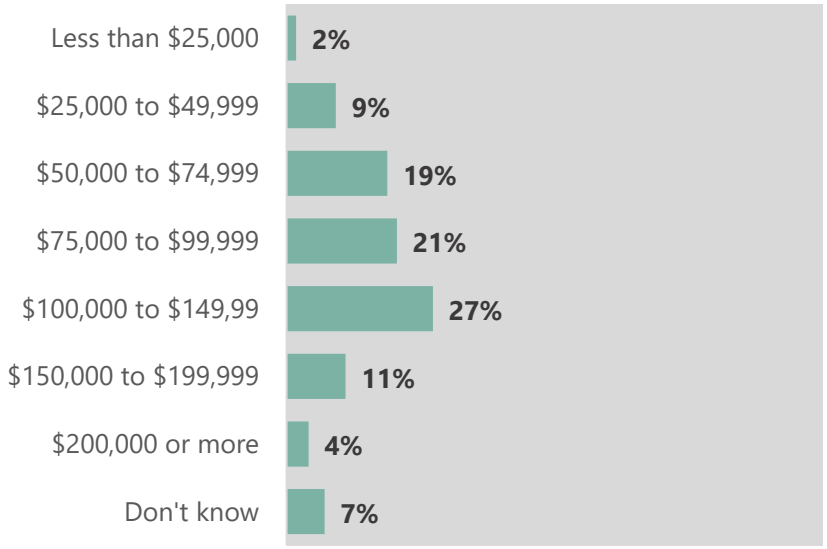


Appendix C: Demographic Profile – Part 1

Gender (n = 455)

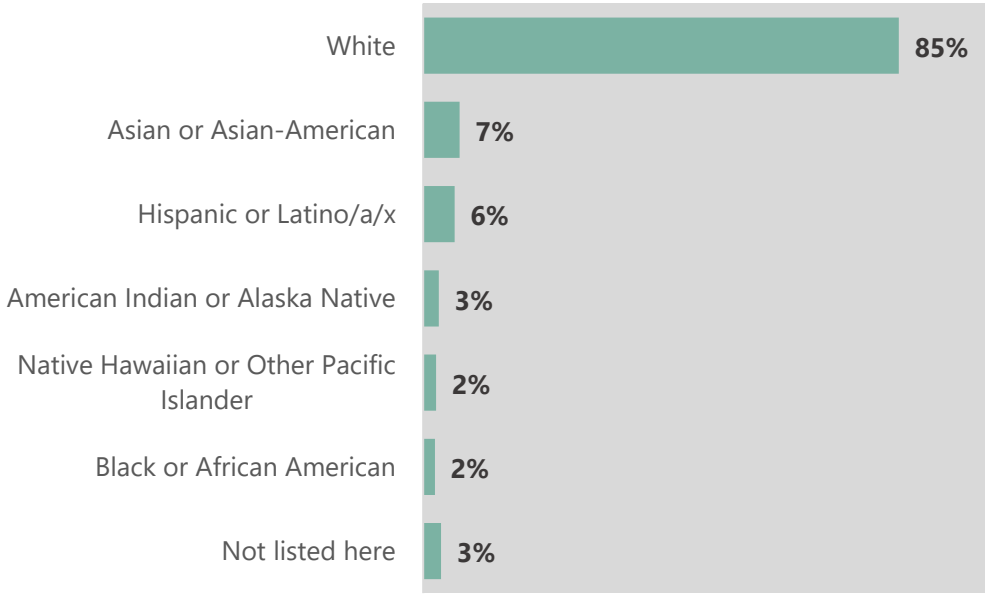


Income (n = 436)

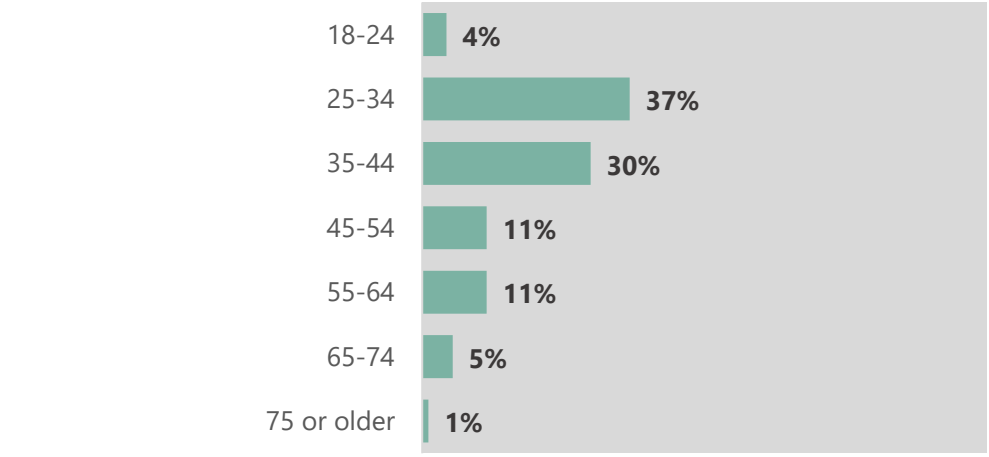


Due to rounding, or options where participants could select multiple answers, percentages may not sum to 100%. Rounding occurs on all demographic slides.

Race (n = 431)

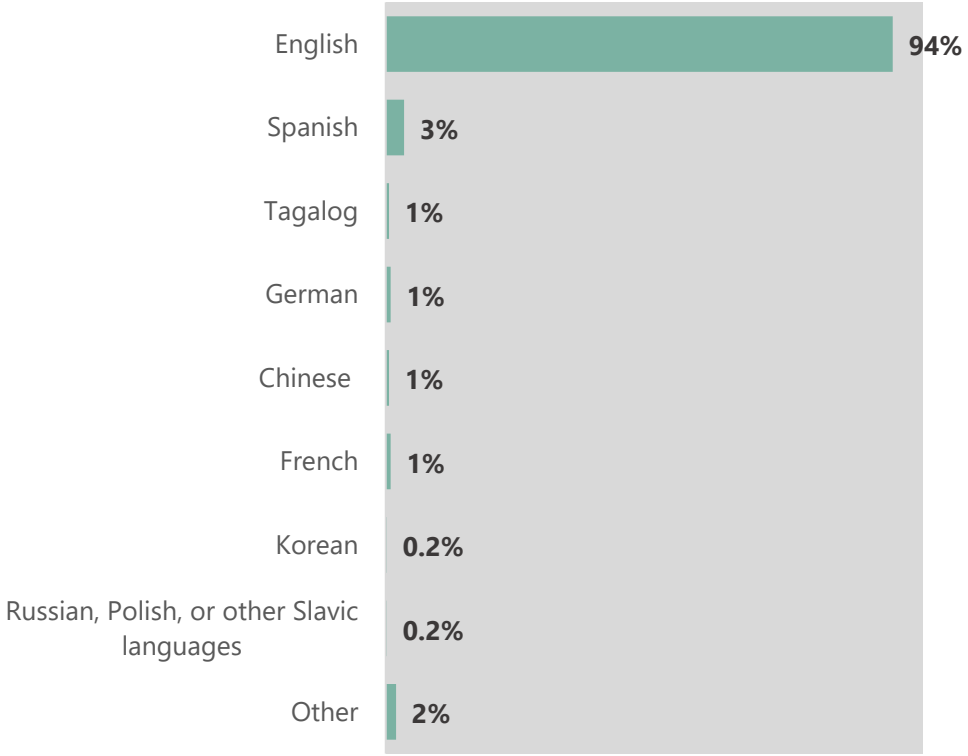


Age (n = 477)



Appendix C: Demographic Profile – Part 2

Language (n = 467)



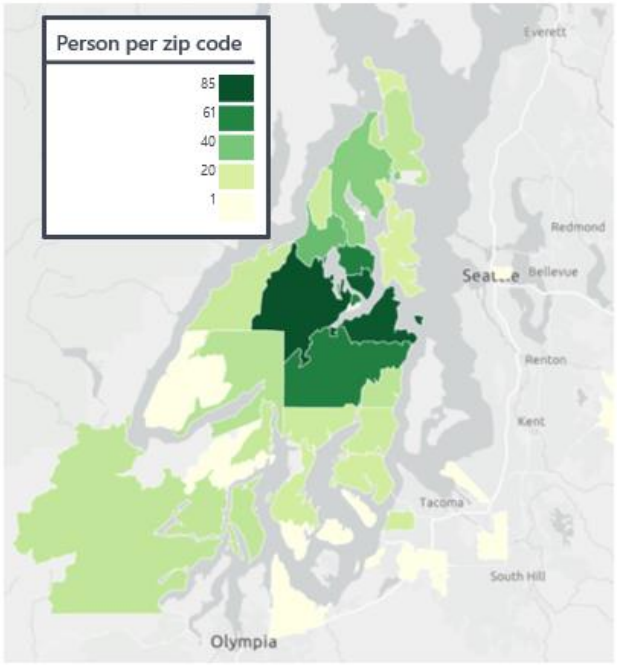
Due to rounding, or options where participants could select multiple answers, percentages may not sum to 100%. Rounding occurs on all demographic slides.

Residency (n = 446)

City	Percentage
Bremerton	50%
Port Orchard	21%
Silverdale	5%
Poulsbo	4%
Gig Harbor	3%
Belfair	2%
Olalla	2%

Note: Areas with 1% or fewer respondents not shown.

Residency distribution (N=449)



Appendix D

Methods and Assumptions Memo

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TECHNICAL MEMORANDUM

DATE:	October 4, 2021
TO:	Katie Ketterer
FROM:	Michael Horntvedt
SUBJECT:	Methods and Assumptions
CC:	Alex Atchison, PE, PTOE Emily Welter, PE
PROJECT NUMBER:	554-1896-176
PROJECT NAME:	Joint Compatibility Transportation Plan

INTRODUCTION

The Joint Compatibility Transportation Plan is intended to outline regional transportation network improvements necessary to improve or maintain accessibility, mobility, quality of life, and economic vitality for the City of Bremerton and Naval Base Kitsap – Bremerton (NBK-BR). Success of this plan will ensure NBK-BR meets its missions for national defense while supporting Bremerton's long-range growth needs.

The plan will document the specific purpose and need for improvements, develop and screen a range of reasonable alternatives, and identify preferred alternatives for transportation improvements and parking solutions in the study area. It will build 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 project team.

The final Joint Compatibility Transportation Plan will identify short, mid, and long-term capital and operational improvements prioritized based on metrics determined during the study that are clear, useful, and actionable. Improvements may be located within the study area or outside of it, for example, a park-and-ride facility that would be served by transit service to NBK-BR could be sited in a location outside of the study area. The plan will develop conceptual planning level cost estimates for select preferred alternatives for ROW, design, and construction.

This memorandum describes the proposed methods and assumptions that will be used to complete the technical analysis for this study.

Study Area

The study area for this project is the area within the City limits as well as City of Bremerton Urban Growth Area. The study area is shown in Figure 1 below. Areas outside the city, such as Port Orchard, will be included in some analysis as well.

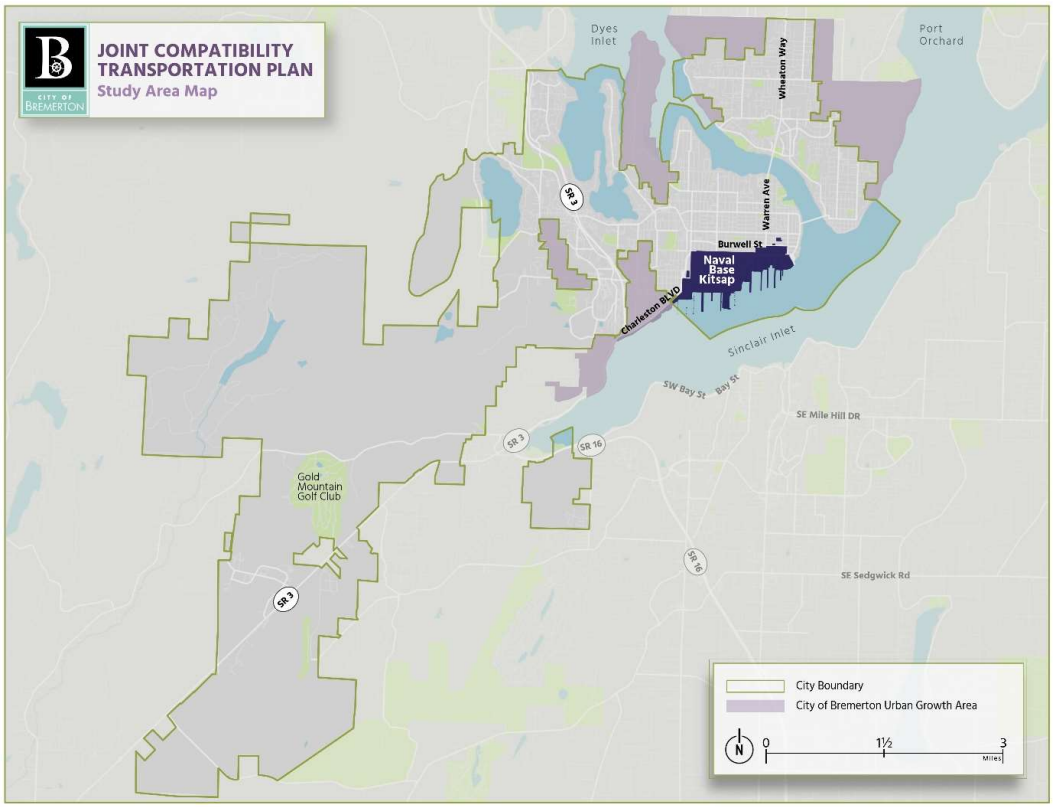


Figure 1. Study Area

DATA COLLECTION

Intersection Turning Movement Counts

58 intersections were identified as significant intersections in the study area. Most of the study intersections are signalized intersections, but unsignalized intersections along major corridors or provide access to and from NBK-BR will also be included in the analysis. AM and PM peak hour turning movement counts (TMCs) collected in March 2017, January 2018, and May 2019 were provided by the City and WSDOT. PM peak hour volumes were also provided in the City's 2019 Synchro model; these will be used for the Existing Conditions traffic analysis.

Table 1 below notes intersections where recent AM and PM peak hour TMCs are available and intersections where counts are needed. TMCs will be collected in 15-minute increments and include heavy vehicle percentage and pedestrian and bicycle volumes. AM peak hour TMCs will be collected between 6-8 am during the week of January 25, 2021.

Table 1. Study Intersections

#	Intersection	Intersection Control	AM Peak Hour Data Date
2	Auto Center Way/SR 3 SB Off-Ramp at Kitsap Way/Kitsap Way (SR 310)	Signalized	Tues Jan 9, 2018
3	SR 3 NB Off-Ramp/SR 3 NB On-Ramp at Kitsap Way (SR 310)	Signalized	Tues Jan 9, 2018
4	Shorewood Dr at Kitsap Way (SR 310)	Signalized	Tues Jan 9, 2018
5	Ostrich Bay Ave/Private Dwy at Kitsap Way (SR 310)	Signalized	Tues Jan 9, 2018

#	Intersection	Intersection Control	AM Peak Hour Data Date
6	Oyster Bay Ave at Kitsap Way (SR 310)	Signalized	Tues Jan 9, 2018
7	National Ave/Private Dwy at Kitsap Way (SR 310)	Signalized	Tues Jan 9, 2018
8	Marine Dr at Kitsap Way (SR 310)	Signalized	Tues Jan 9, 2018
10	11th St at Kitsap Way (SR 310)	Signalized	Tues Jan 9, 2018
11	Wycoff Ave at Kitsap Way (SR 310)	Signalized	Tues Jan 9, 2018
12	N Callow Ave at Kitsap Way (SR 310)/6th St (SR 310)	Signalized	Tues Jan 9, 2018
13	N Montgomery Ave at 6th St (SR 310)/6th St	Signalized	Tues Jan 9, 2018
14	Naval Ave at 6th St	Signalized	Tues Jan 9, 2018
16	Veneta Ave at 6th St	Signalized	Tues Jan 9, 2018
17	Warren Ave (SR 303) at 6th St	Signalized	Tues Jan 9, 2018
18	Park Ave at 6th St	Signalized	Tues Jan 9, 2018
19	Pacific Ave at 6th Street	Unsignalized	Tues Jan 9, 2018
20	Washington Ave at 6th St	Signalized	Tues Jan 9, 2018
21	Warren Ave/Warren Ave (SR 303) at Burwell St (SR 304)	Signalized	Tues Jan 9, 2018
22	Warren Ave (SR 303) at 11th St	Signalized	Tues Jan 9, 2018
23	Warren Ave (SR 303) at 13th St	Signalized	Wed Jan 10, 2018
24	Warren Ave (SR 303) at 16th St	Signalized	Wed Jan 10, 2018
25	Wheaton Way (SR 303) at Sheridan Rd	Signalized	Wed Jan 10, 2018
26	Wheaton Way (SR 303) at Sylvan Way	Signalized	Wed Jan 10, 2018
27	Wheaton Way (SR 303) at Private Dwy/Hollis St	Signalized	Wed Jan 10, 2018
28	Wheaton Way (SR 303) at Riddell Rd	Signalized	Wed Jan 10, 2018
29	Wheaton Way (SR 303) at Furneys Ln/Fred Meyer Dwy	Signalized	Wed Jan 10, 2018
30	N Callow Ave at 11th St	Signalized	Tues Jan 9, 2018
31	Naval Ave at 11th St	Signalized	Tues Jan 9, 2018
32	High Ave at 11th St	Signalized	Tues Jan 9, 2018
33	Park Ave at 11th St	Signalized	Tues Jan 9, 2018
34	Washington Ave at Manette Bridge	Signalized	Tues Jan 9, 2018
35	N Callow Ave at Burwell St (SR 304)	Signalized	Tues Jan 9, 2018
36	N Montgomery Ave at Burwell St (SR 304)	Signalized	Tues Jan 9, 2018
37	Naval Ave at Burwell St (SR 304)	Signalized	Tues Jan 9, 2018
38	State Ave at Burwell St (SR 304)	Signalized	Tues Jan 9, 2018
40	Park Ave at Burwell St (SR 304)	Signalized	Tues Jan 9, 2018
41	Burwell St (SR 304)	Signalized	Tues Jan 9, 2018
42	Pacific Ave at Burwell St (SR 304)	Signalized	Tues Jan 9, 2018
43	Washington Ave at Burwell St (SR 304)	Signalized	Tues Jan 9, 2018
44	Charleston Blvd (SR 304) at S Cambrian Ave/Farragut Ave	Signalized	Wed Jan 10, 2018
45	Charleston Blvd (SR 304) at Charleston Beach Rd	Signalized	Wed Jan 10, 2018
46	Union Ave/Auto Center Blvd at Werner Rd	Signalized	Wed Jan 10, 2018
47	Oyster Bay Ave/Auto Center Way at Werner Rd/Loxie Eagans Blvd	Signalized	Wed Jan 10, 2018
48	National Ave at Loxie Eagans Blvd	Signalized	Wed Jan 10, 2018
93	*Austin Dr at SR 3 NB On Ramp/SR 3 NB Off Ramp*	*Unsignalized*	*Tues Jan 26, 2021*

#	Intersection	Intersection Control	AM Peak Hour Data Date
94	*Austin Dr at SR 3 SB Off Ramp/SR 3 SB On Ramp*	*Unsignalized*	*Tues Jan 26, 2021*
104	SR 3 SB On Ramp/SR 3 SB Off Ramp at Loxie Eagans Blvd	Unsignalized	Tues Mar 14, 2017
105	SR 3 NB Off Ramp/SR 3 NB On Ramp at Loxie Eagans Blvd	Signalized	Tues Mar 14, 2017
135	*Chester Ave at Burwell St (SR 304)*	*Ped Signal*	*Tues Jan 26, 2021*
202	SR 16 Spur/Sam Christopherson Dr at SR 3	Signalized	Wed Mar 8, 2017
216	SR 3 at Imperial Way	Signalized	Wed Mar 8, 2017
307	*Naval St at 15th St*	*Signalized*	*Tues Jan 26, 2021*
316	*Park at 5th St*	*Unsignalized*	*Tues Jan 26, 2021*
317	*Park at 4th St*	*Unsignalized*	*Tues Jan 26, 2021*
318	*Pacific Avenue at 5th St*	*Unsignalized*	*Tues Jan 26, 2021*
319	*Pacific Avenue at 4th St*	*Unsignalized*	*Tues Jan 26, 2021*
400	Warren Ave (SR 303) at 5th	Unsignalized	Tues, May 7, 2019
401	Warrant Ave (SR 303) at 4th	Unsignalized	Tues, May 7, 2019

Average Daily Traffic

Average daily traffic (ADT) at seven screenlines will be used to validate the travel demand model. The screenlines have been reviewed and approved by City staff. The locations of the screenlines are shown in Figure 2 below. Specific locations along each screenline are shown in Table 2 below. ADT volumes for some of these screenlines were collected from the WSDOT Traffic GeoPortal, City intersection counts, data provided by Washington State Ferries (WSF), and data provided by Kitsap Transit. Additional ADT volumes were collected by the City and by the Consultant (IDAX) for 72 hours during the week of January 25, 2021.



Figure 2. Screenline Locations

Table 2. Screenline Locations

#	Screenline Description	Location along Screenline	Data Source
1	SR 3, north of Austin	SR 3, MP 39.75	2019 WSDOT ADT
		Kitsap Way, between Lyle Ave and Wilmont St	*2021 Tube Count*
2	Port Washington Narrows	Warren Ave (SR 303)	2019 WSDOT ADT
		Manette Bridge	*2021 Tube Count*
3	north-south, west of Warren Ave (SR 303)	Burwell St (SR 304)	2019 WSDOT ADT
		6th St	2018 Intersection Count
		11th St	*2021 Tube Count*
4	north-south, east of Warren Ave	Burwell St (SR 304)	2019 WSDOT ADT
		6th St	2018 Intersection Count
		11th Street	*2021 Tube Count*
5	SR 3, south of Werner Rd	SR 3, south of Werner Rd	2018 Intersection Count
		Charleston Blvd, south of Farragut St	2017 Intersection Count
6	north-south, east of ferry terminal	Seattle-Bremerton Ferry (SR 304)	WSF
		Port Orchard-Bremerton Foot Ferry	Kitsap Transit
		Bremerton-Annapolis Foot Ferry	Kitsap Transit
7	east-west, north of NE Riddell Rd	*Pine Rd*	*2021 Tube Count*
		Wheaton Way (SR 303)	2019 Tube Count
		Ilahee Rd, south of Oceanview Blvd NE	*2021 Tube Count*

Parking Data

While this study will not be collecting parking data in the field, it will look at trends or indicators that relate to parking demand. The following data will be reviewed and analyzed with a focus on data from the completion of the parking study through pre-COVID conditions:

- Traffic counts in study area (2016-2020)
- Parking citation data (2016-2020)
- Ferry ridership (2016-2020)
- NBK-BR (including Puget Sound Naval Shipyard – PSNS) employment (2016-2020)
- Transit ridership data from Kitsap Transit (2016-2021)
- Park and Ride parking data (2016-2020)

Origin-Destination

A public information survey is being conducted to collect information on trip origins and destinations. The survey asks participants to identify the district where they start and end their commute trip to or from Bremerton, based on Figure 3 below.

In addition to the public survey, data collected during 2017-2018 for the WSDOT Commute Trip Reduction (CTR) project will be used. The data is aggregated by transportation analysis zones (TAZ) and shows mode choice to major employment sites, including NBK-BR, during the morning commute.

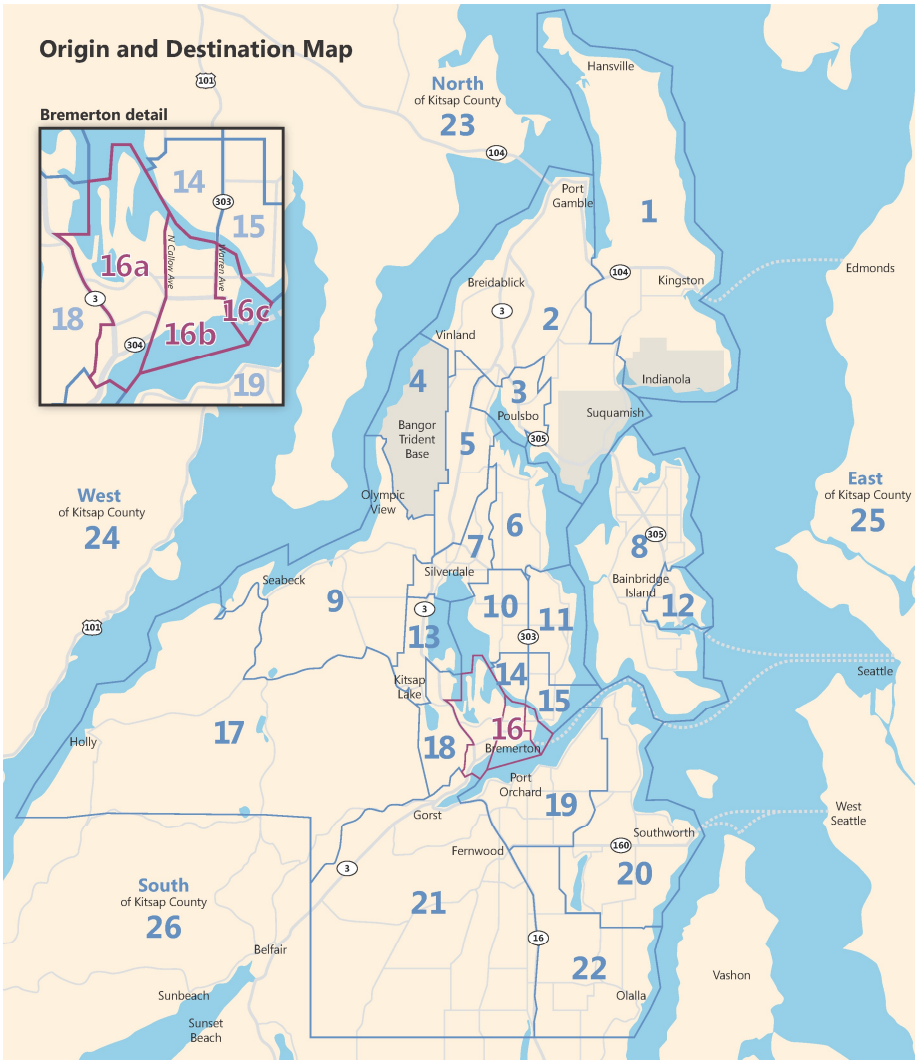


Figure 3. Origin and Destination Map included in Public Survey

TRAVEL DEMAND FORECASTING

The City of Bremerton provided its travel demand forecasting model for use on this project. The model runs in the Visum software version 18.02-12. The City's model is a three-step model (trip generation, trip distribution, and vehicle assignment) and estimates PM peak hour vehicle trips. The boundaries of the model area are generally consistent with the City's boundaries. There are 125 traffic analysis zones (TAZs) within the model area and eight external gateways. The land use inputs include households (single-family and multi-family) and employment (retail, office, government, education, warehousing, manufacturing, and construction). There are separate input categories for military bases and park and rides within the model area. A 2019 Existing Conditions and 2040 Future Baseline were provided.

Validation

The base year model will be validated using PM peak hour vehicle counts at 7 screenlines. These are imaginary boundaries drawn across the street network to determine whether the model's depiction of volumes moving across the City are consistent with the observed volumes. The locations of the screenlines are shown in Figure 2 above.

The validation target is that the two-way model volume estimates are within 10% of observed counts. In order to improve the model's performance, the following adjustments may be necessary:

- Updating the quantity and location of household and population estimates within the model area by zone.
- Adjusting PM peak hour vehicle trip generation rates by comparing with ITE trip generation rates, local traffic studies, or vehicle driveway counts.
- Modifying the assumptions around Naval Base Kitsap – Bremerton related to PM peak hour vehicle trip generation, gate distribution, and mode of access.
- Calibrating the roadway network parameters (speeds, capacities, and functional class) to better reflect the routes that people use throughout the model area.
- Adjusting the number of the trips that enter or exit the model area based on observed vehicle counts.

If the project team is unable to meet the validation criteria, the deficiencies in the model will be discussed and post-processing procedures will be developed to correct for the model's errors. This will allow the model to still be used to develop growth rates for the future year scenarios.

As discussed in the Data Collection section above, the count data along the screenlines was collected from several different sources: WSDOT daily traffic volumes, intersection counts from previous traffic studies, and 24-hour tube counts collected in January 2021. The PM peak hour volume for locations where only daily volumes were available will be estimated using peak hour percentages from the recently collected tube counts. Based on the observed count data, the PM peak hour occurs between 3:30 and 4:30 PM. The count data from this time period at each location will be used to validate the model. An adjustment factor will be applied to the 2021 count data to reflect pre-COVID conditions. The volumes will be adjusted to 2019 pre-COVID conditions using a factor that will be calculated using data from nearby WSDOT permanent traffic recorders (PTR) and other available data from the City.

Forecasting

The primary purpose of the City's model will be to estimate growth percentages for vehicle trips between the base year and future year that can be applied to the existing intersection counts to estimate future intersection volumes. Since an AM peak hour model is not available, the growth percentages that are developed for the PM peak hour will also be used for the morning peak. Growth percentages will be developed by subarea. The model will not be used to directly forecast changes in demand for other modes (transit, walking, and biking).

Before running the future year model, the land use estimates and other model inputs will be updated to reflect 2050 conditions. The future year is being extended to be consistent with Puget Sound Regional Council's (PSRC) regional planning document "Vision 2050" and to provide a modeling basis for the City for future planning efforts. The project team will determine 2050 citywide land use control totals by coordinating with PSRC and will work with the City to redistribute the growth at the TAZ level. The project team will update other model inputs as necessary to reflect 2050 conditions.

Future Build Alternatives

The three Build Alternatives are based on maintaining or changing where NBK-BR employees park. The following methodology will be used to develop volume forecasts for each of the three Build Alternatives. The three Build Alternatives include:

- Support Parking: adds downtown parking to meet parking demand
- Relocate Parking: relocates a portion of NBK-BR employees outside of downtown
- Add Base Parking: adds parking on NBK-BR to meet parking demand for NBK-BR

Estimating NBK-BR Employee Travel Patterns

First, the parking diversion for the Relocate Parking and Add Base Parking alternatives will be determined based on the number of NBK-BR employees and their current travel patterns. The total number of NBK-BR employees and the percent of the daily total that arrives or departs during the traffic peak hour will be estimated consistent with the travel demand modeling. The current mode split for drive alone, carpool, transit, and biking or walking will be estimated based on the public information survey as well as the WSDOT CTR surveys. The vehicle and pedestrian volumes at the NBK-BR gates that were developed during the travel demand model validation will be used to determine the number of NBK-BR employees parking downtown and then walking into NBK-BR. The total number of people walking into NBK-BR after parking downtown will then be converted to a total number of vehicles using the AVO estimated from the WSDOT CTR surveys.

Volume Redistribution

For the Relocate Parking alternative, it is assumed that a portion of NBK-BR employee vehicles will no longer park downtown and instead will park at a Kitsap Transit park and ride and travel to NBK-BR on a fixed-route or worker/driver bus. To develop traffic volumes for this alternative, the downtown area will be divided into six parking sections (section A through F). The total number of occupied parking stalls in each section will be estimated based on inventory and occupancy data from the 2017 Parking Study and an estimated number of stalls per residential block for those areas outside of the 2017 Parking Study limits. Next, the number of NBK-BR employee vehicles parking in each section will then be estimated based on pedestrian volumes at the NBK-BR gates. The NBK-BR employee vehicles will be removed from each section and then removed from the study roadway network based on existing turning movement counts and the major routes. The portion of total traffic getting diverted along the three major routes in and out of the City is as follows:

- 45% along Charleston Blvd to the south
- 30% along SR 303 to the north
- 25% along Kitsap Way to the northwest

For the Add Base Parking alternative, it is assumed that a portion of NBK-BR employee vehicles will no longer park downtown and instead will park at NBK-BR. The NBK-BR employee vehicles will be diverted based on the same parking sections as the Relocate Parking alternative, but instead of removing the vehicles from the study roadway network, all vehicles will be diverted to enter NBK-BR through three gates: Charleston, Montgomery, and Naval. Traffic patterns for the Support Base Parking alternative were assumed to be the same as the No Build condition.

Lastly, there a few proposed improvements that will require additional assumptions about traffic volume diversion. These include:

- **Road diets along 6th Street and 11th Street:** The improvement proposes to rechannelize 6th Street and 11th Street from two lanes in each direction to one lane in each direction with a two-way-left-turn lane. The analysis assumes 200 vehicles per hour (vph) will divert from 6th Street to Burwell Street with 75% in the peak direction and 25% in the off-peak direction. 150 vph were assumed to divert from 11th Street to 13th Street and 150 vph were assumed to divert from 11th Street to Burwell Street, with 55% in the peak direction and 45% in the off-peak direction. This is consistent with the 6th Street and 11th Street Corridor Feasibility Study and existing traffic volumes.
- **Build projects in SR 303 Corridor Study:** The SR 303 Corridor Study proposes several improvements that will cause traffic diversions compared to the No Build condition. Volume diversion for converting the northbound approach at Burwell Street/SR 303 to a right-in-right-out (RIRO) and for installing medians and requiring u-turns north of the Warren Avenue Bridge will be consistent with assumptions from the SR 303 Corridor Study.
- **Open Montgomery Gate in both directions:** The Montgomery Gate is currently open to traffic inbound to NBK-BR during the AM peak hour and outbound traffic from NBK-BR during the PM peak hour. For this analysis, one of the proposed improvements is to open the Montgomery gate in both directions during both AM and PM peak hours. The analysis assumed that 85 vph would divert from the Charleston gate and 65 vph the Naval gate to the Montgomery gate.

TRAFFIC OPERATIONS ANALYSIS

Traffic operations analysis for this project will include weekday AM and PM peak hours for the following years:

- Existing Conditions – 2020 (pre-Covid conditions)
- Future Baseline – 2050

Analysis of No Build and Build alternatives will be performed for the year 2050.

Intersections will be analyzed based on WSDOT's analysis policies and protocols as of the date of this report using the following software packages:

- Synchro 10 software will be used to analyze the operation of signalized and stop-controlled intersections.
- SIDRA 8 software will be used to analyze roundabout-controlled intersections.

Existing Conditions

Traffic Volumes

As discussed in the Data Collection section above, intersection volumes for most of the study intersections were collected by the City in January 2018 during the AM and PM peak hours. The City also provided a Synchro model that was developed in 2019 using 2018 traffic volumes. This model will be the base for existing PM conditions analysis. The intersections volumes included in this model were assumed to have been adjusted from the January 2018 counts for seasonality and annual growth and balanced between intersections. Given the change in traffic patterns during the 2020-2021 COVID pandemic, these 2019 PM peak hour model volumes will be used as is for this study and will not be adjusted for annual growth for the year 2020.

Two intersections were not included in the 2019 PM peak hour Synchro model: Warren Ave (SR 303) at 4th Street and Warren Ave (SR 303) at 5th Ave. These intersections were studied during the SR 303 Corridor Study and intersections volumes were collected for these intersections in May 2019. These volumes will be used as is for this study as well. AM peak hour traffic volumes will be developed using existing traffic volumes and new count data. Traffic volumes will be baselined using the following approach and balanced to the highest input volume for the network.

- January 2018: These volumes will be grown to 2019 conditions using an annual background growth of +2%.
- March 2017: These volumes will be grown to 2019 conditions using an annual background growth of +2%.
- May 2019: No adjustments needed.
- January 2021: Since these volumes are being collected during the COVID pandemic, these volumes will need to be adjusted to pre-COVID conditions. The volumes will be adjusted to 2019 pre-COVID conditions using a factor that will be calculated using data from nearby WSDOT permanent traffic recorders (PTR) and other available data from the City.

Traffic Models

For the PM peak hour, the Synchro model provided by the City will be used for geometric configurations and signal timing. The intersections in the citywide model that will not be analyzed for this project will be removed from the model and two intersections will be added: Warren Ave (SR 303) at 4th Street and 5th Street. The team will perform a high-level check of the channelization and signal timing to confirm the model is up-to-date and make adjustments as needed.

For the AM peak hour, the 2019 PM peak hour model will be used as a baseline for geometric configurations. The signal timing will be changed using the signal timing cards provided by the City, WSDOT and Kitsap County. If signal timing cards for any intersections are not provided, the cycle lengths, offsets, and splits will be optimized for those intersections.

Future Baseline

For the 2050 Future Baseline analysis, the Synchro model will be updated to include the planned roadway improvement projects shown in Table 3 below. These roadway projects are included in the City of Bremerton 2021-2026 Transportation Improvement Program (TIP) and the Kitsap County Six-Year TIP Resolution 2021-2026.

Table 3. Planned Roadway Improvements

Source	Project	Description
City TIP	Washington Avenue Roundabouts	New roundabout at Washington Ave/Manette Bridge
City TIP	Naval Avenue Road Diet	Road diet on Naval from the Navy Gate to 15th. Evaluating converting 8th and 10th Streets to one-way streets.
City TIP	Burwell Street Adaptive Signals	Installs adaptive signals at all signalized intersections on SR 304 between Charleston Beach Road and Pacific Ave and Burwell Street at Washington Ave
City TIP	11th Street / Callow Ave Intersection Improvements	Constructs EB-NB left turn pocket.
City TIP	HSIP III Kitsap Way Bike Lanes and Warren Ave Traffic Signal Safety	Bike lanes along Kitsap Way and channelization improvements at SR 303/6th Street and SR 303/Sheridan Road

Several improvement projects in the study area have been proposed in the *SR 167 Tacoma Narrows Bridge to SR 3 Congestion Study*, WSDOT (2018). None of these projects are currently funded. The modeling study area and modeling process for this project assumes that the demand along SR 3 reaches the intersection, regardless of any changes to SR 3, therefore there wouldn't be any changes in the results from the Synchro model. Specific capacity related projects at intersections will be considered as part of this study's proposed improvements.

The cycle lengths, offsets, and splits will be not be optimized for the No Build Synchro models, except at the following locations where the City has current projects planned:

- SR 303 (Burwell Street to NE Furneys Road), consistent with HSIP project
- 11th Street (High Street to Callow Avenue) for the HSIP project
- Naval Avenue (Burwell Street to 15th Street) for the Naval Ave Road Diet project
- Washington/6th Street for the Washington Avenue roundabouts projects
- Burwell Street (Callow Avenue to SR 303) for the Burwell Street Adaptive Signals project

Future Build Alternatives

The cycle lengths, offsets, and splits will be optimized for the Build Alternative Synchro models. Roundabouts are proposed at several intersections under the Build Alternatives. All roundabouts not included in the SR 303 Corridor Study will be modeled with a 60-foot island diameter to minimize right-of-way impacts.

SAFETY ANALYSIS

Citywide crash data collected and used in the recent Bremerton Strategic Road Safety Plan will be used to highlight crash locations and identify locations that require additional attention. The study team will use the Bremerton Strategic Road Safety Plan (2020) to recommend where potential alternatives might provide benefits for improved safety for all modes of travel. Bremerton Strategic Road Safety Plan included analysis of crash data for the years 2014 to 2018. The study team will also evaluate 2019 crash data, to be provided by WSDOT. Safety hot spots will be outlined using the safety data from the Bremerton Strategic Road Safety Plan and locations that warrant further consideration for improvements will be identified.

ACTIVE TRANSPORTATION ANALYSIS

The project team will analyze existing conditions, challenges, and opportunities for people walking and biking in the study area. The project team will summarize existing plans and policies (e.g., Bremerton Non-Motorized Plan (2007) and the Transportation Element of the Comprehensive Plan (2016), results for the survey, origin-destination data, existing facilities (e.g. sidewalks and bike lanes), and sidewalk condition, gaps in connectivity, and safety trends.

To support this analysis, walksheds and a bikeshed will be mapped to help identify opportunities, challenges, and areas where improvements would be most beneficial. The walkshed and bikeshed maps will be developed separately from topographic maps but solutions will be developed considering topography. Specifically, one bikeshed map will be developed that shows 5-minute, 15-minute, and 30-minute sheds from one point of origin (the Naval Avenue NBK-BR entrance), as the sheds would only change slightly if additional points of origin were analyzed. Multiple walkshed maps will be developed that show 5-minute, 15-minute (roughly a half-mile walk), and 30-minute (roughly a mile walk) sheds from up to 10 points of origin to be confirmed with City staff, including:

- Gateway park and ride (P&R)

- Naval Avenue NBK-BR entrance
- Farragut NBK-BR entrance
- Upper State NBK-BR entrance
- Bremerton NBK-BR entrance
- a new transit facility in West Bremerton
- up to 4 additional points of origin

One topography map will be developed showing roadway segments in the study area with slopes steeper than 5 percent and slopes steeper than 10 percent. The 5 percent threshold correlates with areas where curb ramps are required by the Americans With Disabilities Act (ADA), and the WSDOT Pedestrian Facilities Guidebook identifies this threshold as impacting mobility for most pedestrians.[1] 10 percent is the maximum preferred slope for bicycle facilities according to the Design Manual for Bicycle Traffic (CROW, NL), and it also applies for pedestrians because the WSDOT Pedestrian Facilities Guidebook notes that slopes greater than 12.5 percent are not usable by most pedestrians.[2] This map will be used alongside the other existing conditions data when identifying potential projects, as it will help identify constraints.

One bicycle level of traffic stress (LTS) map will be developed using Open Street Map data to measure cyclist comfort on every street in the study area.

The project team will analyze existing and baseline multimodal level of service as defined by Bremerton's current Comprehensive Plan, taking into consideration a layered network facility and pedestrian/bike priority area level of service definitions. Modal performance issues for existing and future baseline conditions will be identified to support development of future alternatives to be evaluated in the study. As noted in the travel demand forecasting section, future bicycle and pedestrian demand will not be estimated using the travel demand model, but the project team will qualitatively describe how land use factors such as population, employment, and parking are changing in Bremerton and how this is anticipated to affect bicycle and pedestrian demand.

The project team will review the Bremerton Strategic Road Safety Plan and the public information survey comments to summarize existing safety hot spots and locations with safety challenges. The study team will also review data provided by the City centering around customer complaints centered around bike/ped safety and mobility. This will be used to recommend potential projects to improve safety for all modes of travel.

PARKING ANALYSIS

Due to the convergence of Naval Base Kitsap – Bremerton (NBK-BR), Downtown Bremerton, and the Ferry Terminal, there is a high demand for access and parking in the core of Bremerton. The high demand for access has created challenges such as traffic and parking congestion, including spillover impacts in residential neighborhoods and the downtown business district that ultimately impact the quality of life in Bremerton. There have been long-standing community concerns around parking in Bremerton both in downtown and residential neighborhoods due in part to the high demand for commuter parking.

[1] https://wsdot.wa.gov/publications/manuals/fulltext/M0000/PedFacGB.pdf

[2] https://cyclehighways.eu/design-and-build/design-principles/slopes-and-gradients.html

The City of Bremerton completed an extensive study of parking conditions in downtown and adjacent neighborhoods in 2017 that was the first major effort to collect data and study parking conditions (see Figure 4). This JCTP study will rely extensively on the data, findings, public input, and strategies from the 2017 Parking Study. Detailed data was collected on- and off-street in the study area to understand parking demand and behavior such as vehicles being moved to avoid time limits. The data results demonstrated significant parking and mobility challenges and verified many of the long-standing community concerns around parking. Parking challenges include non-residents parking in residential neighborhoods without permits and in violation of time limits, the moving of vehicles in downtown to avoid time limits, significant land area in downtown and adjacent neighborhoods is dedicated to surface and structured parking, and heavy traffic congestion at rush hour. Improved parking management has the potential to enhance access to downtown and major employers while reducing impacts to residents and businesses. As part of the public outreach process, this study will explore new and existing parking strategies, seek additional input, and refine the strategies for the final JCTP.

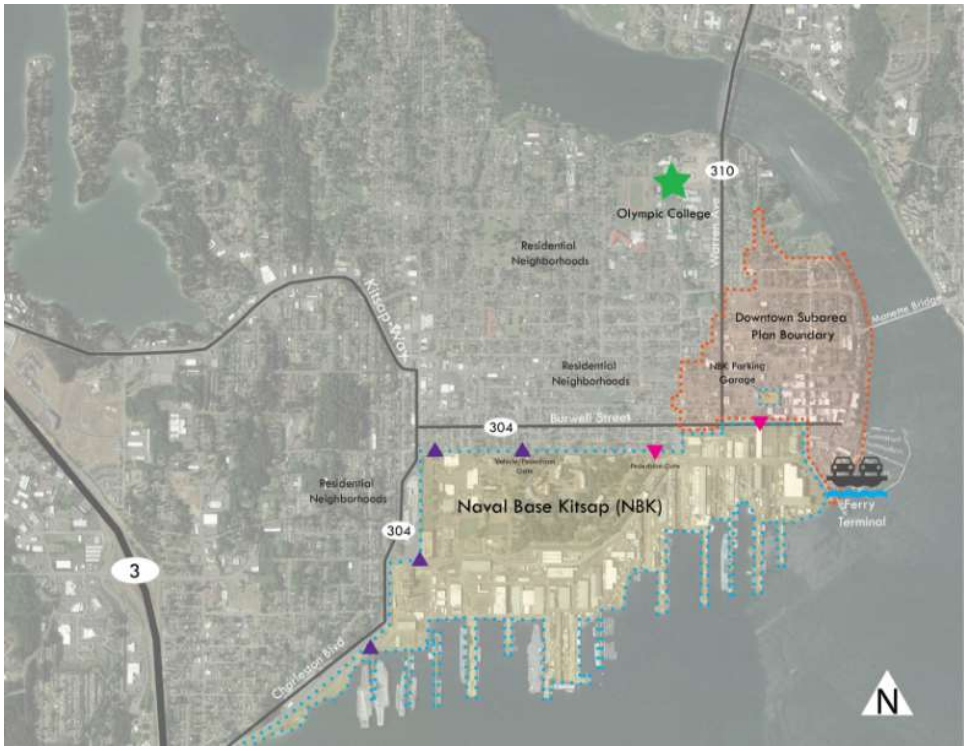


Figure 4. 2017 Parking Study Area

source: City of Bremerton, 2017

Assumptions

While COVID has impacted demand for parking in the near term, it is expected that the pre-COVID 2020 conditions were similar to those observed during data collection in 2016-17 for the Parking Study. The 2017 Parking Study involved extensive data collection both in downtown and adjacent residential neighborhoods over multiple days. The data was mapped and analyzed showing results for each collection hour with key findings for each of the study areas. The data results indicated that both downtown and adjacent residential neighborhoods were being negatively impacted by parking. The following summarize the key data findings for each study area:

Downtown Study Area

- Confirmation of significant vehicle movements known as the “Bremerton Shuffle.”

- The average on-street block occupancy is 68%, but many on-street blocks have occupancy at 85% and above.
- Off-street parking has high occupancies in commuter parking areas.
- Park and ride facilities have available parking.

Residential Neighborhoods

- Parking utilization was high on many streets in residential neighborhoods (average of 83%.
- Peak occupancy occurred at 10 AM and is not typical of a residential neighborhood.
- Parking duration is over six hours on many residential streets, despite time limits for non-permit holders.
- Many observed vehicles are registered to addresses outside the City of Bremerton.

Methods

The following methods will be used to analyze parking conditions, hear from stakeholders about parking challenges and solutions, and develop updated parking management recommendations and an implementation plan.

Data Trends

This analysis will be used to establish baseline conditions for the JCTP study as it relates to parking conditions. Data identified in the assumptions section will be analyzed to understand how conditions both pre- and post-COVID may have changed since the 2017 Parking Study to understand how it may have impacted parking demand and utilization over the last five years.

Public Engagement

Public input during the 2017 Parking Study demonstrated a strong understanding of the parking challenges by the community and particularly those most impacted. The JCTP study will be another opportunity to hear from the community about parking challenges and opportunities to improve parking management and access without negatively impacting the quality of life. During the 2017 Parking Study a new vision for the parking system was developed with input from the community (see **Figure 5**). The JCTP study will confirm the community's vision and seek input on how parking conditions may or may not have changed since 2017.



Figure 5. Community's Vision for the Parking System

source: City of Bremerton, 2017

The community also informed a set of guiding principles for decision-making around parking issues and solutions during the 2017 Parking Study (see **Figure 6**).



Figure 6. Parking System Guiding Principles

source: City of Bremerton, 2017

Parking Strategies and Implementation

The 2017 Parking Study included several recommended strategies for improving parking management and access to the downtown area (see **Figure 7**). A review and summary of the recommendations from the 2017 Parking Study will be completed early in the project to inform discussions with stakeholders about potential solutions. The Strategies Report from the 2017 Parking Study identifies potential revenue and expenditures for implementation which will be reviewed and updated as part of the JCTP.



Figure 7. Parking Strategies from the 2017 Parking Study

source: City of Bremerton, 2017

TRAVEL TIME ANALYSIS

Travel Time (General Purpose Traffic)

Existing travel time for general purpose traffic will be calculated using a combination of model data (existing intersection delay and travel speeds between intersections), data from Google maps, and existing Wi-Fi travel time data for several routes collected by the City in January 2018. Given the change in traffic patterns during the 2020-2021 COVID pandemic, 2019 travel time data from Google will be used.

Future travel times will be calculated using a combination of existing travel times and changes to intersection delay and speeds in the Synchro and SIDRA models. SimTraffic software is not anticipated to be used during the travel time analysis for existing or future conditions.

Travel Time (Transit)

Travel time for transit can be calculated from intersection delay, travel speeds between intersections, dwell time at stops, and average on-time performance data. Intersection delay will be pulled from Synchro and will be dependent on if a bus is using a general-purpose travel lane or a dedicated lane, such as a business access and transit (BAT) or HOV lane. Any proposed BAT lanes or HOV lanes will be modeled in Synchro using a lane utilization factor that will be calculated based on estimated transit and/or HOV volumes. Any proposed queue jumps will also be modeled in Synchro as a separate signal phase. Dwell time, for both in-lane stops and pullouts, and average on-time performance data (or estimates) will be provided by Kitsap Transit.

Travel Time Reliability

Travel time reliability is a significant aspect of transportation system performance. Because of the extra time required in planning trips—and the uncertainty about what travel times will actually be for a trip—reliability influences decisions about where, when, and how travel is made. Travel time reliability is influenced by fluctuations in demand, physical capacity of the roadways system, traffic control device operations, traffic incidents, inclement weather and work zones.

Travel time reliability will be calculated by estimating the average Travel Time Index (TTI_{mean}). TTI_{mean} is the ratio of the average travel time in peak period vs free flow travel time. (e.g., TTI of 1.2 = average congestion is 20% higher than free flow trip).

The calculations will follow the methodology laid out in *Incorporating Reliability Performance Measures into the Transportation Planning and Programming Processes: Technical Reference (2014)* The National Academies Press. The methodology is based on free-flow speeds, average travel time data, and an estimate of delay (both recurring and nonrecurring delay). Recurring delay is a function of free flow speed and actual speed. Non-recurring (or incident) delay was estimated using lookup tables from the ITS Deployment Analysis System (IDAS) tool developed by the FHWA. The IDAS look up tables containing the anticipated amount of incident-related delay that would be encountered per vehicle-miles traveled (VMT) on the link. The data are stratified by volume to capacity (V/C) ratio (the higher the V/C ratio, the higher the anticipated amount of incident-related delay per VMT) and by the number of lanes on the facility (increases in the number of lanes generally brings about lower anticipated amounts of incident-related delay).

PERSON MOBILITY

Person mobility will be calculated for both GP traffic and transit. For this study, person mobility will be represented by person hours of delay, or the number of persons multiplied by the difference between the free flow travel time and the alternative travel time, along the travel time corridors. Recent fixed-route bus and worker/driver bus ridership data provided by Kitsap Transit will be used to estimate person mobility for existing conditions. Forecasted ridership data for Kitsap Transit will be used to estimate future person mobility for transit. Future transit ridership will be provided by Kitsap Transit and based on their long-range plan.

For the Build alternatives, future transit ridership will be estimated based on the estimated parking diversion discussed above. For the Support Parking and Add Base Parking alternatives, the transit ridership will match No Build conditions. For the Relocate Parking alternative, the total number of diverted NBK-BR employees will be assigned to various fixed-route and worker/driver bus routes along the three major corridors in/out of downtown: Charleston Blvd, SR 303, and Kitsap Way.

Person mobility of vehicles will assume an average vehicle occupancy (AVO) of 1.12 passengers per car on each segment to determine the total number of people traveling. PSRC's Transportation 2040 FEIS shows the AVO in the region was 1.6 in 2006 and is estimated to remain stable out to 2040. Data from the public survey and WSDOT CTR was used to modify the AVO to 1.12 to be used in the No Build and Build Alternative analysis.

PARK-AND-RIDE USAGE

Park-and-ride utilization rates will be based on data received from Kitsap Transit for 2017-2019.

Appendix E

Existing and Future No Build Traffic Analysis Results

Joint Compatibility Transportation Plan
Traffic Operations Results

ID	Intersection Name	Intersection Control	Standard	Existing 2020 Level of Service				No Build 2050 Level of Service				
				AM Peak		PM Peak		AM Peak			PM Peak		
				LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	v/c ratio	LOS	Delay (s)	v/c ratio
2	Auto Center Way/SR 3 SB Off-Ramp at Kitsap Way (SR 310)	Signalized	D	D	46	E	69	D	51		E	70	
3	SR 3 NB Ramps at Kitsap Way (SR 310)	Signalized	D	A	9	D	36	A	9		C	35	
4	Shorewood Dr at Kitsap Way (SR 310)	Signalized	D	A	5	B	10	A	6		B	12	
5	Ostrich Bay Ave at Kitsap Way (SR 310)	Signalized	D	B	13	D	47	B	13		D	45	
6	Oyster Bay Ave at Kitsap Way (SR 310)	Signalized	D	A	2	A	4	A	2		A	3	
7	National Ave at Kitsap Way (SR 310)	Signalized	D	C	22	D	54	F	80		D	53	
8	Marine Dr at Kitsap Way (SR 310)	Signalized	D	F	80	E	75	F	110		F	88	
10	11th St at Kitsap Way (SR 310)	Signalized	D	A	8	D	38	A	8		E	61	
11	Wycoff Ave at Kitsap Way (SR 310)	Signalized	D	A	7	A	6	A	8		A	6	
12	N Callow Ave at Kitsap Way (SR 310)/6th St (SR 310)	Signalized	D	B	10	B	16	B	11		B	14	
13	N Montgomery Ave at 6th St (SR 310)	Signalized	D	A	2	B	16	A	3		B	17	
14	Naval Ave at 6th St	Signalized	E	B	18	C	24	C	21		C	28	
16	Veneta Ave at 6th St	Signalized	E	A	5	A	8	A	6		A	9	
17	Warren Ave (SR 303) at 6th St	Signalized	E	c	35	D	50	D	51		E	73	
18	Park Ave at 6th St	Signalized	E	B	11	B	13	B	12		C	29	
19	Pacific Ave at 6th Street	Unsignalized	E	B	13	C	20	C	20		F	58	
20	Washington Ave at 6th St	Signalized	E	A	10	B	20	C	32		C	25	
21	Warren Ave (SR 303) at Burwell St (SR 304)	Signalized	D	D	39	C	27	D	46		D	44	
22	Warren Ave (SR 303) at 11th St	Signalized	E	D	50	F	88	D	44		E	78	
23	Warren Ave (SR 303) at 13th St	Signalized	E	A	7	B	19	A	5		D	36	
24	Warren Ave (SR 303) at 16th St	Signalized	E	B	13	B	13	B	17		B	17	
25	Wheaton Way (SR 303) at Sheridan Rd	Signalized	E	C	30	D	46	D	41		F	93	
26	Wheaton Way (SR 303) at Sylvan Way	Signalized	E	B	17	C	32	C	22		C	31	
27	Wheaton Way (SR 303) at Hollis St	Signalized	E	A	4	A	10	A	4		B	12	
28	Wheaton Way (SR 303) at NE Riddell Rd	Signalized	E	C	30	C	34	C	25		D	41	
29	Wheaton Way (SR 303) at NE Furneys Ln	Signalized	E	B	14	C	28	B	14		D	46	
30	N Callow Ave at 11th St	Signalized	E	A	9	B	14	C	25		C	24	
31	Naval Ave at 11th St	Signalized	E	A	9	C	21	C	21		C	26	
32	High Ave at 11th St	Signalized	E	B	18	B	12	C	21		B	19	
33	Park Ave at 11th St	Signalized	E	A	8	C	21	A	9		D	43	
34	Washington Ave at Manette Bridge	Signalized	E	F	214	E	64			0.86			1.34
35	N Callow Ave at Burwell St (SR 304)	Signalized	D	B	19	C	23	B	19		C	25	
36	N Montgomery Ave at Burwell St (SR 304)	Signalized	D	B	12	B	20	A	9		B	20	
37	Naval Ave at Burwell St (SR 304)	Signalized	D	C	31	D	37	D	41		E	55	
38	State Ave at Burwell St (SR 304)	Signalized	D	A	10	B	11	A	5		A	7	
40	Park Ave at Burwell St (SR 304)	Signalized	D	A	3	A	6	A	4		A	9	
41	Burwell St (SR 304) Tunnel	Signalized	D	A	6	A	7	A	6		A	9	
42	Pacific Ave at Burwell St (SR 304)	Signalized	D	B	12	A	9	C	23		B	10	
43	Washington Ave at Burwell St (SR 304)	Signalized	D	A	10	B	12	B	19		C	26	
44	Charleston Blvd (SR 304) at S Cambrian Ave/Farragut Ave	Signalized	D	C	29	C	35	C	29		D	38	
45	Charleston Blvd (SR 304) at Charleston Beach Rd	Signalized	D	C	28	D	45	C	29		D	47	
46	Union Ave/Auto Center Blvd at Werner Rd	Signalized	E	B	11	B	18	B	12		B	20	
47	Oyster Bay Ave/Auto Center Way at Werner Rd/Loxie Eagans Blvd	Signalized	E	A	9	B	14	A	9		B	15	
48	National Ave at Loxie Eagans Blvd	Signalized	E	B	20	F	83	C	22		F	105	
93	Austin Dr at SR 3 NB Ramps	Signalized	D	A	7	A	8	A	7		B	12	
94	Austin Dr at SR 3 SB Ramps	Unsignalized	D	B	14	D	28	C	19		F	178	
104	SR 3 SB Ramps at Loxie Eagans Blvd	Unsignalized	D	F	82	F	508	F	179		F	1537	
105	SR 3 NB Ramps at Loxie Eagans Blvd	Signalized	D	A	8	A	8	A	8		A	9	
135	Chester Ave at Burwell St (SR 304)	Unsignalized	D	D	29	E	43	E	44		F	110	
202	SR 16 Spur/Sam Christopherson Dr at SR 3	Signalized	D	C	26	D	41	F	142		F	173	
216	SR 3 at Imperial Way	Signalized	D	A	9	B	11	F	365		F	246	
307	Naval St at 15th St	Signalized	E	A	6	A	6	C	20		B	19	
316	Park Ave at 5th St	Unsignalized	E	B	12	B	10	C	16		B	13	
317	Park Ave at 4th St	Unsignalized	E	A	8	A	9	A	8		B	10	
318	Pacific Avenue at 5th St	Unsignalized	E	A	10	B	11	B	12		B	14	
319	Pacific Avenue at 4th St	Unsignalized	E	A	9	A	8	B	11		A	9	
400	Warren Ave (SR 303) at 5th St	Unsignalized	E	B	11	B	14	B	12		B	11	
401	Warren Ave (SR 303) at 4th St	Unsignalized	E	B	11	B	13	B	13		C	16	
402	Naval Gate	Signalized		F	153	F	584	F	153		F	584	
403	Montgomery Gate	Signalized		F	414	F	414	F	414		F	414	
404	Charleston Gate	Signalized		F	204	F	204	F	204		F	204	

Joint Compatibility Transportation Plan
Traffic Operations Results

ID	Intersection Name	Intersection Control	Existing 2020 95th Percentile Queue Rounded (ft) AM Peak											
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2	Auto Center Way/SR 3 SB Off-Ramp at Kitsap Way (SR 310)	Signalized		# 275	75	100	75		50		75	475	500	
3	SR 3 NB Ramps at Kitsap Way (SR 310)	Signalized	m 25	m 300			75	225		50	150			
4	Shorewood Dr at Kitsap Way (SR 310)	Signalized	m 25	250	m 25	m 25	25	m 25					75	
5	Ostrich Bay Ave at Kitsap Way (SR 310)	Signalized	m 25	425	m 25	50	300			75			50	
6	Oyster Bay Ave at Kitsap Way (SR 310)	Signalized		200	m 25	25	75		50		50			
7	National Ave at Kitsap Way (SR 310)	Signalized	m 25	# 750	m 25	150	50			100	100		25	
8	Marine Dr at Kitsap Way (SR 310)	Signalized	m 50	# 900	m 25	50	275		50	50		100	75	
10	11th St at Kitsap Way (SR 310)	Signalized	150	125			100							125
11	Wycoff Ave at Kitsap Way (SR 310)	Signalized	25	225		m 25	25			50			50	
12	N Callow Ave at Kitsap Way (SR 310)/6th St (SR 310)	Signalized	m 25	350		25	50		75	125		50	175	
13	N Montgomery Ave at 6th St (SR 310)	Signalized	m 25	125		25	50			50			50	
14	Naval Ave at 6th St	Signalized	25	300		75	75		75	50		50	100	
16	Veneta Ave at 6th St	Signalized		75			50			25			25	
17	Warren Ave (SR 303) at 6th St	Signalized	225	# 425		75	125		50	200		75	200	
18	Park Ave at 6th St	Signalized		150	50		75			25			150	
19	Pacific Ave at 6th Street	Unsignalized												
20	Washington Ave at 6th St	Signalized	75						25	50			225	
21	Warren Ave (SR 303) at Burwell St (SR 304)	Signalized		# 475			200	25		50			225	50
22	Warren Ave (SR 303) at 11th St	Signalized	275	175			150		m 25	m 225		m 25	275	25
23	Warren Ave (SR 303) at 13th St	Signalized		200			50			100				
24	Warren Ave (SR 303) at 16th St	Signalized	50						250	75			450	50
25	Wheaton Way (SR 303) at Sheridan Rd	Signalized	75	75	75	150	150	25	125	375	50	# 325	500	
26	Wheaton Way (SR 303) at Sylvan Way	Signalized	125	125	75	150	100	50	m 25	400	m 25	25	75	
27	Wheaton Way (SR 303) at Hollis St	Signalized				50			m 25	425		m 25	250	
28	Wheaton Way (SR 303) at NE Riddell Rd	Signalized	175	75	75	75	75	50	125	325		50	200	25
29	Wheaton Way (SR 303) at NE Furneys Ln	Signalized		50			100		m 50	150	m 25	75	325	
30	N Callow Ave at 11th St	Signalized		275		25	25		25	25	50	50	75	
31	Naval Ave at 11th St	Signalized	m 25	50		75	50		50	50			100	
32	High Ave at 11th St	Signalized	25	150		25	175		25	25		50	50	
33	Park Ave at 11th St	Signalized	25	75	25	25	100			25			75	
34	Washington Ave at Manette Bridge	Signalized				# 600		125		150		100	50	
35	N Callow Ave at Burwell St (SR 304)	Signalized		175		225	175			150	250		175	
36	N Montgomery Ave at Burwell St (SR 304)	Signalized		300			100			25			250	
37	Naval Ave at Burwell St (SR 304)	Signalized	200	750		325	200		150	125		150	350	
38	State Ave at Burwell St (SR 304)	Signalized		150			175			100			100	
40	Park Ave at Burwell St (SR 304)	Signalized		75			50					50		
41	Burwell St (SR 304) Tunnel	Signalized					25							
42	Pacific Ave at Burwell St (SR 304)	Signalized		150	200		175						225	
43	Washington Ave at Burwell St (SR 304)	Signalized		100			25			75			25	
44	Charleston Blvd (SR 304) at S Cambrian Ave/Farragut Ave	Signalized	75	# 350		150	100	50	50	600		175	225	
45	Charleston Blvd (SR 304) at Charleston Beach Rd	Signalized		# 400		25	50		25	750	125	175	125	
46	Union Ave/Auto Center Blvd at Werner Rd	Signalized	25	50		50	100		25	50	25	50	25	
47	Oyster Bay Ave/Auto Center Way at Werner Rd/Loxie Eagans Blvd	Signalized	25	75		100	75	50	25	50		50	25	
48	National Ave at Loxie Eagans Blvd	Signalized	# 250	100		25	75			100			50	75
93	Austin Dr at SR 3 NB Ramps	Signalized					50	50		50			75	
94	Austin Dr at SR 3 SB Ramps	Unsignalized												
104	SR 3 SB Ramps at Loxie Eagans Blvd	Unsignalized												
105	SR 3 NB Ramps at Loxie Eagans Blvd	Signalized		125			75			175	50			
135	Chester Ave at Burwell St (SR 304)	Unsignalized												
202	SR 16 Spur/Sam Christopherson Dr at SR 3	Signalized	25	# 1,075	150	25	275		275	150		175	150	
216	SR 3 at Imperial Way	Signalized		75			25		50	# 600		25	150	
307	Naval St at 15th St	Signalized		25			25			25			25	
316	Park Ave at 5th St	Unsignalized												
317	Park Ave at 4th St	Unsignalized												
318	Pacific Avenue at 5th St	Unsignalized												
319	Pacific Avenue at 4th St	Unsignalized												
400	Warren Ave (SR 303) at 5th St	Unsignalized												
401	Warren Ave (SR 303) at 4th St	Unsignalized												
402	Naval Gate	Signalized								# 50			# 80	
403	Montgomery Gate	Signalized											# 150	
404	Charleston Gate	Signalized		# 100			25							

Joint Compatibility Transportation Plan
Traffic Operations Results

ID	Intersection Name	Intersection Control	Existing 2020 95th Percentile Queue Rounded (ft) PM Peak											
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2	Auto Center Way/SR 3 SB Off-Ramp at Kitsap Way (SR 310)	Signalized		300	250	300	225		175		125	# 825	# 825	
3	SR 3 NB Ramps at Kitsap Way (SR 310)	Signalized	m 75	275			100	550		150	150			
4	Shorewood Dr at Kitsap Way (SR 310)	Signalized	75	325	75	m 25	m 900	m 25					150	25
5	Ostrich Bay Ave at Kitsap Way (SR 310)	Signalized	m 25	575	25	m 50	875			# 575	75		50	
6	Oyster Bay Ave at Kitsap Way (SR 310)	Signalized		325	25	m 25	725		125		50			
7	National Ave at Kitsap Way (SR 310)	Signalized	m 25	425	50	m 400	m 1,475			# 275	125		50	
8	Marine Dr at Kitsap Way (SR 310)	Signalized	# 425	400	m 50	100	# 1,750	50	225	125	75	200	# 225	
10	11th St at Kitsap Way (SR 310)	Signalized	# 450	125			# 500							100
11	Wycoff Ave at Kitsap Way (SR 310)	Signalized	25	100		m 75	200			100			75	
12	N Callow Ave at Kitsap Way (SR 310)/6th St (SR 310)	Signalized	25	200		m 50	525		# 175	250		75	200	
13	N Montgomery Ave at 6th St (SR 310)	Signalized	m 25	75		50	425			# 450			25	
14	Naval Ave at 6th St	Signalized	50	200		125	425		275	# 325		50	75	
16	Veneta Ave at 6th St	Signalized		100			225			100			50	
17	Warren Ave (SR 303) at 6th St	Signalized	350	300		125	# 500		# 375	375		m 25	25	
18	Park Ave at 6th St	Signalized		125	25		225			# 400			75	
19	Pacific Ave at 6th Street	Unsignalized												
20	Washington Ave at 6th St	Signalized	275						100	300			150	
21	Warren Ave (SR 303) at Burwell St (SR 304)	Signalized		450			375	50		50			125	50
22	Warren Ave (SR 303) at 11th St	Signalized	# 675	250			# 550		m 100	# 800		m 100	m 375	m 75
23	Warren Ave (SR 303) at 13th St	Signalized		# 450			75			m 325			100	
24	Warren Ave (SR 303) at 16th St	Signalized	125						m 150	450			475	50
25	Wheaton Way (SR 303) at Sheridan Rd	Signalized	125	100	100	250	250	100	# 425	1,250	125	325	375	
26	Wheaton Way (SR 303) at Sylvan Way	Signalized	200	175	75	# 250	# 225	100	m 75	500	m 75	75	525	
27	Wheaton Way (SR 303) at Hollis St	Signalized				150		50	m 25	150		m 75	375	
28	Wheaton Way (SR 303) at NE Riddell Rd	Signalized	# 300	175	75	# 250	250	75	75	950		m 175	425	m 75
29	Wheaton Way (SR 303) at NE Furneys Ln	Signalized		100	25		275	25	m 75	400	m 50	# 400	500	25
30	N Callow Ave at 11th St	Signalized		m 75		m 25	25		# 125	125	50	50	125	
31	Naval Ave at 11th St	Signalized	m 50	150		m 75	425		# 150	125	100		125	
32	High Ave at 11th St	Signalized	m 25	175		25	400		50	75		75	75	
33	Park Ave at 11th St	Signalized	50	150	25	25	350			# 375	25		75	25
34	Washington Ave at Manette Bridge	Signalized				275		125		# 875		# 475	25	
35	N Callow Ave at Burwell St (SR 304)	Signalized		75		# 700	# 675			275	100		150	
36	N Montgomery Ave at Burwell St (SR 304)	Signalized		300			# 425			# 425			50	
37	Naval Ave at Burwell St (SR 304)	Signalized	# 500	375		125	600		300	450		125	200	
38	State Ave at Burwell St (SR 304)	Signalized		150			400			150			75	
40	Park Ave at Burwell St (SR 304)	Signalized		75			75					75		
41	Burwell St (SR 304) Tunnel	Signalized					25							25
42	Pacific Ave at Burwell St (SR 304)	Signalized		100	50		150						100	
43	Washington Ave at Burwell St (SR 304)	Signalized		175			50			125			50	
44	Charleston Blvd (SR 304) at S Cambrian Ave/Farragut Ave	Signalized	100	125	25	# 375	225	75	50	275		# 275	450	
45	Charleston Blvd (SR 304) at Charleston Beach Rd	Signalized		# 250		575	550		75	450		50	925	
46	Union Ave/Auto Center Blvd at Werner Rd	Signalized	25	100		# 450	75		25	50	50	125	175	
47	Oyster Bay Ave/Auto Center Way at Werner Rd/Loxie Eagans Blvd	Signalized	50	175		175	225	75	50	100		175	75	
48	National Ave at Loxie Eagans Blvd	Signalized	# 375	75		50	300			# 300			125	# 300
93	Austin Dr at SR 3 NB Ramps	Signalized					75	50		75			175	
94	Austin Dr at SR 3 SB Ramps	Unsignalized												
104	SR 3 SB Ramps at Loxie Eagans Blvd	Unsignalized												
105	SR 3 NB Ramps at Loxie Eagans Blvd	Signalized		125			250			150	50			
135	Chester Ave at Burwell St (SR 304)	Unsignalized												
202	SR 16 Spur/Sam Christopherson Dr at SR 3	Signalized	25	# 750	200	75	725		# 475	200		200	# 625	
216	SR 3 at Imperial Way	Signalized		125			50		25	275		25	# 425	
307	Naval St at 15th St	Signalized		50			50			50			25	
316	Park Ave at 5th St	Unsignalized												
317	Park Ave at 4th St	Unsignalized												
318	Pacific Avenue at 5th St	Unsignalized												
319	Pacific Avenue at 4th St	Unsignalized												
400	Warren Ave (SR 303) at 5th St	Unsignalized												
401	Warren Ave (SR 303) at 4th St	Unsignalized												
402	Naval Gate	Signalized								# 200			25	
403	Montgomery Gate	Signalized								# 150				
404	Charleston Gate	Signalized		25			# 100							

Joint Compatibility Transportation Plan
Traffic Operations Results

ID	Intersection Name	Intersection Control	No Build 2050 95th Percentile Queue Rounded (ft) AM Peak											
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2	Auto Center Way/SR 3 SB Off-Ramp at Kitsap Way (SR 310)	Signalized		# 300	75	100	100		50		75	# 575	# 550	
3	SR 3 NB Ramps at Kitsap Way (SR 310)	Signalized	m 0	m 225			75	175		50	# 250			
4	Shorewood Dr at Kitsap Way (SR 310)	Signalized	m 25	350	m 25	m 25	25						75	
5	Ostrich Bay Ave at Kitsap Way (SR 310)	Signalized	m 25	375	m 0	50	325			75			50	
6	Oyster Bay Ave at Kitsap Way (SR 310)	Signalized		250	m 25	25	100		50		50			
7	National Ave at Kitsap Way (SR 310)	Signalized	m 25	# 875	m 25	150	50			100	125		25	
8	Marine Dr at Kitsap Way (SR 310)	Signalized	m 50	# 1,050	m 0	50	275		50	50		100	75	
10	11th St at Kitsap Way (SR 310)	Signalized	175	150			100							25
11	Wycoff Ave at Kitsap Way (SR 310)	Signalized	25	275		m 25	25			75			50	
12	N Callow Ave at Kitsap Way (SR 310)/6th St (SR 310)	Signalized	m 25	# 625		75	50		75	150		50	175	
13	N Montgomery Ave at 6th St (SR 310)	Signalized	m 0	50		25	50			75			25	
14	Naval Ave at 6th St	Signalized	25	475		150	100		125	100	75	50	225	
16	Veneta Ave at 6th St	Signalized		100			50			50			50	
17	Warren Ave (SR 303) at 6th St	Signalized	225	# 425		75	150		m 25	m 225		50	425	
18	Park Ave at 6th St	Signalized		225	100		100			25			175	
19	Pacific Ave at 6th Street	Unsignalized												
20	Washington Ave at 6th St	Signalized	75						25	75			525	
21	Warren Ave (SR 303) at Burwell St (SR 304)	Signalized		# 575			# 325	25		50			m# 425	200
22	Warren Ave (SR 303) at 11th St	Signalized	350	225			200		m 25	m 225		m 25	300	400
23	Warren Ave (SR 303) at 13th St	Signalized		225			50			50			25	
24	Warren Ave (SR 303) at 16th St	Signalized	75						# 425	175			575	100
25	Wheaton Way (SR 303) at Sheridan Rd	Signalized	100	100	125	# 225	# 250	75	# 200	650	100	# 400	300	
26	Wheaton Way (SR 303) at Sylvan Way	Signalized	175	175	125	225	150	75	m 75	175	m 25	50	475	
27	Wheaton Way (SR 303) at Hollis St	Signalized				75			m 25	100		m 25	125	
28	Wheaton Way (SR 303) at NE Riddell Rd	Signalized	250	125	100	100	125	75	75	100		25	175	25
29	Wheaton Way (SR 303) at NE Furneys Ln	Signalized		75			125		m 50	175	m 25	125	525	
30	N Callow Ave at 11th St	Signalized	25	225		25	25		25	50	50	50	75	
31	Naval Ave at 11th St	Signalized	m 25	75		# 100	100		50	50			125	
32	High Ave at 11th St	Signalized	25	50		25	225		25	25		75	75	
33	Park Ave at 11th St	Signalized	25	100	25	25	125			50			75	
34	Washington Ave at Manette Bridge	Signalized				375		375		75	75	75	75	
35	N Callow Ave at Burwell St (SR 304)	Signalized		200		250	225			150	275		175	
36	N Montgomery Ave at Burwell St (SR 304)	Signalized		375			125			25			275	
37	Naval Ave at Burwell St (SR 304)	Signalized	250	1,050		400	275		175	300		m 200	650	m 75
38	State Ave at Burwell St (SR 304)	Signalized		200			225			100			125	
40	Park Ave at Burwell St (SR 304)	Signalized		125			50					50		
41	Burwell St (SR 304) Tunnel	Signalized					25							
42	Pacific Ave at Burwell St (SR 304)	Signalized		200	375		# 400						350	
43	Washington Ave at Burwell St (SR 304)	Signalized		250			75			125			75	
44	Charleston Blvd (SR 304) at S Cambrian Ave/Farragut Ave	Signalized	75	# 375		150	100	50	50	625		175	225	
45	Charleston Blvd (SR 304) at Charleston Beach Rd	Signalized		# 400		25	50		25	775	125	175	125	
46	Union Ave/Auto Center Blvd at Werner Rd	Signalized	25	50		50	100		25	50	50	50	25	
47	Oyster Bay Ave/Auto Center Way at Werner Rd/Loxie Eagans Blvd	Signalized	25	75		125	100	50	25	50		50	25	
48	National Ave at Loxie Eagans Blvd	Signalized	# 300	100		25	75			125			50	75
93	Austin Dr at SR 3 NB Ramps	Signalized					50	50		75			125	
94	Austin Dr at SR 3 SB Ramps	Unsignalized												
104	SR 3 SB Ramps at Loxie Eagans Blvd	Unsignalized												
105	SR 3 NB Ramps at Loxie Eagans Blvd	Signalized		150			100			200	50			
135	Chester Ave at Burwell St (SR 304)	Unsignalized												
202	SR 16 Spur/Sam Christopherson Dr at SR 3	Signalized	25	# 1,075	150	25	275		275	150		175	150	
216	SR 3 at Imperial Way	Signalized		125			50		100	# 2,075		50	# 675	
307	Naval St at 15th St	Signalized		100			75			25			25	
316	Park Ave at 5th St	Unsignalized												
317	Park Ave at 4th St	Unsignalized												
318	Pacific Avenue at 5th St	Unsignalized												
319	Pacific Avenue at 4th St	Unsignalized												
400	Warren Ave (SR 303) at 5th St	Unsignalized												
401	Warren Ave (SR 303) at 4th St	Unsignalized												
402	Naval Gate	Signalized								# 50			# 100	
403	Montgomery Gate	Signalized											# 150	
404	Charleston Gate	Signalized		# 100			25							

Joint Compatibility Transportation Plan
Traffic Operations Results

ID	Intersection Name	Intersection Control	No Build 2050 95th Percentile Queue Rounded (ft) PM Peak											
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2	Auto Center Way/SR 3 SB Off-Ramp at Kitsap Way (SR 310)	Signalized		325	275	275	225		175		125	# 875	# 900	
3	SR 3 NB Ramps at Kitsap Way (SR 310)	Signalized	m 75	275			125	# 450		150	175			
4	Shorewood Dr at Kitsap Way (SR 310)	Signalized	m 100	350	75	m 25	m 1,150	m 25					150	25
5	Ostrich Bay Ave at Kitsap Way (SR 310)	Signalized	m 25	625	25	m 75	# 350			# 600	100		50	
6	Oyster Bay Ave at Kitsap Way (SR 310)	Signalized		200	m 25	m 25	575		125		75			
7	National Ave at Kitsap Way (SR 310)	Signalized	m 25	475	50	m 400	m 1,475			# 275	125		50	
8	Marine Dr at Kitsap Way (SR 310)	Signalized	# 450	450	m 50	100	# 1,975	50	225	125	75	200	# 225	
10	11th St at Kitsap Way (SR 310)	Signalized	# 475	150			# 600							525
11	Wycoff Ave at Kitsap Way (SR 310)	Signalized	25	125		m 25	125			100			75	
12	N Callow Ave at Kitsap Way (SR 310)/6th St (SR 310)	Signalized	25	250		m 50	# 825		# 175	275		75	225	
13	N Montgomery Ave at 6th St (SR 310)	Signalized	m 25	100		50	525			# 525			25	
14	Naval Ave at 6th St	Signalized	m 75	m 300		150	# 625		m 275	m 450	m 50	50	175	
16	Veneta Ave at 6th St	Signalized		125			300			125			50	
17	Warren Ave (SR 303) at 6th St	Signalized	# 575	# 475		150	# 675		m# 500	325		m 150	# 500	
18	Park Ave at 6th St	Signalized		175	50		# 325			# 600			100	
19	Pacific Ave at 6th Street	Unsignalized												
20	Washington Ave at 6th St	Signalized	# 475						125	675			250	
21	Warren Ave (SR 303) at Burwell St (SR 304)	Signalized		625			525	75		50			m 125	m 125
22	Warren Ave (SR 303) at 11th St	Signalized	# 875	300			# 725		m 50	m# 875		m# 100	m 400	m# 375
23	Warren Ave (SR 303) at 13th St	Signalized		# 600			100			m 150			75	
24	Warren Ave (SR 303) at 16th St	Signalized	150						m 125	m 325			700	75
25	Wheaton Way (SR 303) at Sheridan Rd	Signalized	150	125	100	# 375	# 375	100	# 425	# 1,900	175	m# 525	850	
26	Wheaton Way (SR 303) at Sylvan Way	Signalized	# 300	# 225	100	# 375	# 275	175	m 75	m 100	m 25	m 350	825	
27	Wheaton Way (SR 303) at Hollis St	Signalized				175		50	m 25	150		m 75	750	
28	Wheaton Way (SR 303) at NE Riddell Rd	Signalized	# 450	250	100	# 275	# 375	100	m 200	# 1,650		m 225	825	25
29	Wheaton Way (SR 303) at NE Furneys Ln	Signalized		125	50		# 375	75	m 75	m# 1,400	m 25	# 525	800	25
30	N Callow Ave at 11th St	Signalized	50	375		m 25	100		125	150	50	75	150	
31	Naval Ave at 11th St	Signalized	m 50	100		m 75	m 425		# 175	150	125		150	
32	High Ave at 11th St	Signalized	m 25	225		25	525		50	75		75	75	
33	Park Ave at 11th St	Signalized	75	175	25	50	450			# 575	25		100	25
34	Washington Ave at Manette Bridge	Signalized				125		125		3,025	3,025	100	100	
35	N Callow Ave at Burwell St (SR 304)	Signalized		75		# 825	# 825			# 325	125		175	
36	N Montgomery Ave at Burwell St (SR 304)	Signalized		# 425			# 575			# 425			75	
37	Naval Ave at Burwell St (SR 304)	Signalized	# 650	600		150	# 1,025		350	# 1,175		m# 200	300	175
38	State Ave at Burwell St (SR 304)	Signalized		200			600			150			75	
40	Park Ave at Burwell St (SR 304)	Signalized		100			125					125		
41	Burwell St (SR 304) Tunnel	Signalized					50							50
42	Pacific Ave at Burwell St (SR 304)	Signalized		200	75		350						200	
43	Washington Ave at Burwell St (SR 304)	Signalized		# 475			75			225			50	
44	Charleston Blvd (SR 304) at S Cambrian Ave/Farragut Ave	Signalized	100	125	25	# 400	# 250	75	50	300		# 300	500	
45	Charleston Blvd (SR 304) at Charleston Beach Rd	Signalized		# 275		575	550		75	475		50	# 1,025	
46	Union Ave/Auto Center Blvd at Werner Rd	Signalized	25	100		# 525	75		25	50	50	125	175	
47	Oyster Bay Ave/Auto Center Way at Werner Rd/Loxie Eagans Blvd	Signalized	50	175		200	250	75	50	100		200	75	
48	National Ave at Loxie Eagans Blvd	Signalized	# 400	100		50	325			# 325			125	# 375
93	Austin Dr at SR 3 NB Ramps	Signalized					75	50		100			# 375	
94	Austin Dr at SR 3 SB Ramps	Unsignalized												
104	SR 3 SB Ramps at Loxie Eagans Blvd	Unsignalized												
105	SR 3 NB Ramps at Loxie Eagans Blvd	Signalized		150			325			150	50			
135	Chester Ave at Burwell St (SR 304)	Unsignalized												
202	SR 16 Spur/Sam Christopherson Dr at SR 3	Signalized	50	# 1,550	575	# 125	# 1,525		# 875	325		# 325	# 1,125	25
216	SR 3 at Imperial Way	Signalized		# 300	25		75		50	# 1,100		50	# 1,600	25
307	Naval St at 15th St	Signalized		125			150			75			25	
316	Park Ave at 5th St	Unsignalized												
317	Park Ave at 4th St	Unsignalized												
318	Pacific Avenue at 5th St	Unsignalized												
319	Pacific Avenue at 4th St	Unsignalized												
400	Warren Ave (SR 303) at 5th St	Unsignalized												
401	Warren Ave (SR 303) at 4th St	Unsignalized												
402	Naval Gate	Signalized								# 200			25	
403	Montgomery Gate	Signalized								# 150				
404	Charleston Gate	Signalized		25			# 100							

Appendix F

Existing Economic Assessment

City of Bremerton Joint Compatibility Transportation Plan: Economic and Market Profile

DISCUSSION DRAFT

May 3, 2021

SUMMARY OF FINDINGS

Socioeconomic Profile

Demographics

- The population of the study area has been relatively constant over the past two decades and has remained below growth forecasts, despite land use capacity to accommodate significant numbers of new people.
- Bremerton's growth has not kept pace with surrounding county and regional areas where unprecedented growth has occurred in the past decade. One of the reasons the study area is not reaching its full growth potential is because the housing market has proven to be uncompetitive with surrounding areas.
- The study area has a more diverse population than Kitsap County, but less diverse than the Central Puget Sound Region.
- Residents in the study area are slightly younger than Kitsap County residents. The median age in the City of Bremerton is 33, compared to 39 in Kitsap County, 38 in Snohomish County, and 37 in King County.
- Most study area residents were high school graduates but a smaller share of residents than in Kitsap County and the Central Puget Sound Region have a bachelor's degree or higher.

Industry and Employment

- The study area's economy is heavily dependent on government employment, mostly associated with the presence of NBK-BR. Although this is a high level of dependence on a single sector, military activities related to NBK-BR represent a stable source of employment that has been more resistant to economic downturns.
- Despite government making up the highest share of total employment in Bremerton and experiencing significant growth, there are limitations to accommodating the growth within the study area, for example in the Eastside Village Center. Security requirements limit the amount of office space and other real estate that can be for military activities off-base. This restricts the ability for the private market to take advantage of growth opportunities in this sector.
- Bremerton has seen less employment growth than other urban areas in the county (Port Orchard, Bainbridge Island, and Poulsbo) over the past

several years. Although the City of Bremerton has experienced notable increases in manufacturing employment mostly related to PSIC, employment in other sectors has generally declined in the past decade.

Land Use and Real Estate

Land Use Patterns

- Bremerton has not achieved the level of industrial development that it has thus far planned for outside of Naval Base Kitsap, especially within the PSIC-B, 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 Avenue 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 single-family areas.

Real Estate Market

- The study area has a current inventory of 2.1 million square feet (sf) of office space, 3.5 million square feet of retail space, and 5,266 units of multifamily residential as of Q2, 2021. No new construction is currently underway in the office and retail segments, but 176 units of multifamily are under construction in the study area (representing almost two-thirds of all units being built countywide at this moment).
- **Office:** The shift to remote work driven by the Covid-19 pandemic has had less of a negative impact on office segment in Bremerton than in other places in the region. Nevertheless, lease rates and sale prices per square foot for office space remain far below those of the region, and below the average for Kitsap County, indicating continued softness and stagnant demand in this segment.
- **Retail:** The retail submarket has fared somewhat worse. With market rents and sale prices at around half the regional average, this segment also underperforms both the region and the County. The 6.3% vacancy rate is more than double that of the region, and almost double the County rate. This reflects the profound challenges that businesses relying on in-person transactions, including bars, restaurants, gyms, and brick and mortar retailers, have faced throughout this pandemic.
- **Multifamily:** The study area contains 64% of the County's multifamily residential inventory, with 5,266 units in 126 buildings. Most of these buildings are older, with prewar construction in the downtown area, and 70s-80's development elsewhere in the city. Unlike the commercial segments, this segment is delivering new inventory even during the

pandemic period with 176 new units under construction and 238 delivered in the last 12 months.

- Many Bremerton properties, both commercial and residential, suffer from weak "curb appeal" due to several factors including building age and deferred maintenance. Where desirable sites exist, many businesses find it challenging to obtain financing for new construction, expansion, or capital costs.
- Many investors find that new development is often easier and less expensive in unincorporated areas that also have urban services, or where public sewer and water systems are not required, and road and other standards are considerably lower than in urban areas. Those areas are also more likely to have larger vacant parcels available, less expensive land, and occasionally urban services to further stimulate growth.
- While the multifamily residential submarket is one brighter spot for Bremerton, many potential infill sites that could represent opportunities for increased density and newer, more desirable inventory are often stymied by a lack of willingness to convert on the part of property owners. Many of Bremerton's oversized lots and other vacant infill sites are being enjoyed by their owners for yard areas, additional off-street parking, RV storage, or to protect views, for instance.

INTRODUCTION

Background and Purpose

The City of Bremerton and the Naval Base Kitsap-Bremerton (NBK-BR) are partnering through a Department of Defense Office of Economic Adjustment grant to create a comprehensive commuter traffic plan. The Joint Compatibility Transportation Plan will aim to address transportation issues impacting the Bremerton area and ensure NBK-BR meets its missions for national defense while supporting the City's long-range growth needs. The plan will document the specific purpose and need for improvements, develop and screen a range of reasonable alternatives, and identify preferred alternatives for transportation improvements and parking solutions in the study area.

Community Attributes was commissioned to provide an analysis of existing conditions in the study area, assess development suitability and potential and the economic benefits of various land use types with related transportation improvements as defined in the proposed alternatives. The objective of this report is to provide an understanding of current economic conditions, historic growth trends, and real estate market conditions in the study area. Furthermore, the analysis aims to outline the role of NBK-BR in supporting economic activity and competitiveness in the City of Bremerton and region.

Methods

The economic and market profile analysis includes an analysis of current and future land use and analysis of economic and real estate market indicators. Data used in this report are drawn from several sources: existing studies and analysis completed by Community Attributes for the SR 303 Corridor Study and the Joint Land Use Study, and public data sources including City of Bremerton, Puget Sound Regional Council (PSRC), Washington State Office of Financial Management (OFM), Kitsap Economic Development Alliance (KEDA), Kitsap County Assessor's office and CoStar.

Organization of Report

The remainder of this report is organized as follows:

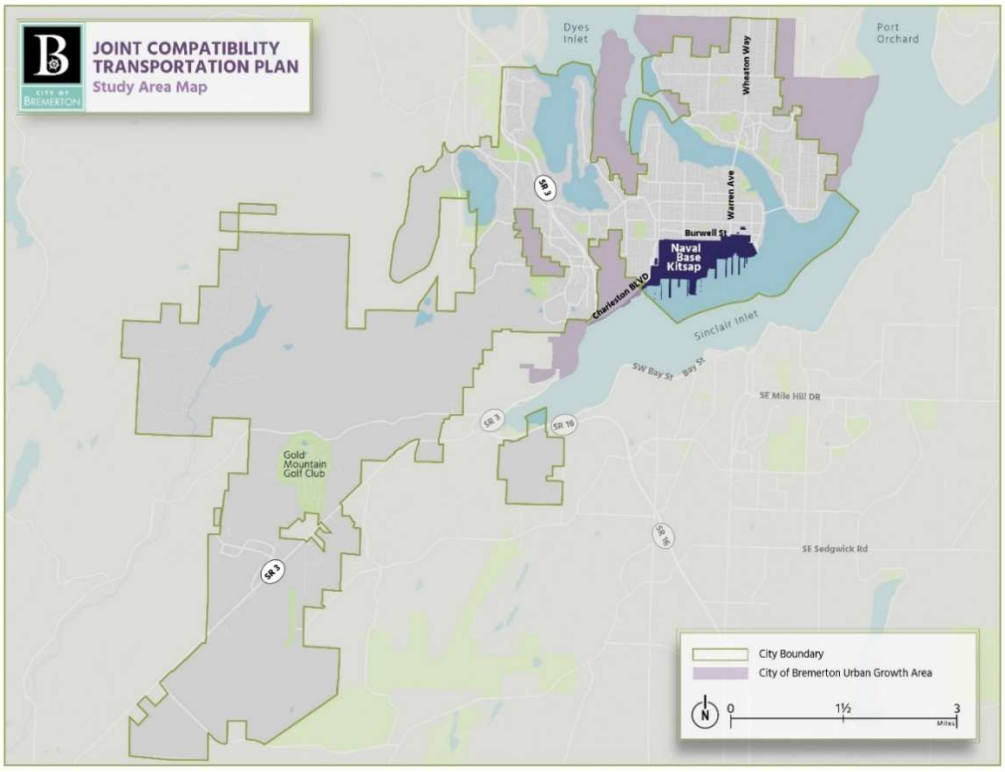
- **Socioeconomic Profile.** Describes the study area current and historic population, including a breakdown by race, age, education and income, and industry and employment. Provides an overview of the importance of NBK to the study area and the region.
- **Land Use and Real Estate.** Provides a summary of land use and real estate metrics for the study area, including vacancy rates, absorption, sales, and lease rates.

SOCIOECONOMIC PROFILE

Study Area

The study area is the City of Bremerton Urban Growth Area (UGA) which includes the City and the City's unincorporated UGAs located outside of current city limits. NBK-BR is located within the study area on the south side of the city of Bremerton, bounded by 1st Street to the north, SR 304 (Charleston Boulevard) to the west, the Bremerton Ferry terminal to the east, and Sinclair Inlet to the south. (**Exhibit 1**).

Exhibit 1. Study Area



Source: Parametrix, 2021.

Naval Base Kitsap-Bremerton

Naval Base Kitsap (NBK) is the largest installation in the Northwest, and the third largest in the U.S. NBK's primary areas of operation include Bangor, Bremerton, and Keyport. A Fiscal Year (FY) 2017 Economic Impact Assessment (EIA) of Naval Base Kitsap found that the Navy contributed $4 billion in industry output and payroll expenditures to the Kitsap County region, employed more than 45,500 workers, and generated $129 million in state and local tax revenues.

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. The eastern portion of the naval base is a fenced, high-security area known as the Controlled Industrial Area. The Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS and IMF) is the major tenant command on NBK-BR.

NBK-BR contributes to the local and regional economy through significant military expenditures, providing good-paying jobs and job training and education opportunities for people in specialized trades, as well as demand for housing and consumer products. According to a study on the economic impact of military and defense contract spending[1] completed by Community Attributes for Washington State Department of Commerce, the total statewide economic impact of defense contracts associated with NBK-BR was $278.6 million in output, $92.9 million in wages and approximately 1,500 jobs (2017 to 2019 annual average). Roughly 75% of the impact occurs in Kitsap.

Navy spending in the region has been a stable source of economic stimulus and has served as an economic "shock absorber" which has minimized the impacts of economic downturns. The City of Bremerton's 2019 Market Analysis[2] commissioned to study the Eastside Village Employment Center highlights other long-term economic development considerations of NBK-BR:

- As the Puget Sound Naval Shipyard is being modernized through a 20-year, $21 billion plan covering all four public major shipyards, space constraints remain for NBK-BR. Directives from the Department of Defense restrict the use of leased office space and other real estate for military use outside of government facilities. This limits the ability for the private market to take advantage of NBK's growth opportunities.
- While NBK-BR require private contractors for key functions and expertise, the technical and professional workers employed but these contractors may not live or work in Bremerton. Contracts are awarded on a performance basis nationwide and the office and facility needs of contractors may be fulfilled on NBK-BR or in other locations. Attracting these workers to the city in the future would require a long-term effort and investment in building local quality of life.

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[1] This includes all contracts and grants with the Department of Defense contracts and Department of Homeland Security contracts and grants for Coast Guard activities.

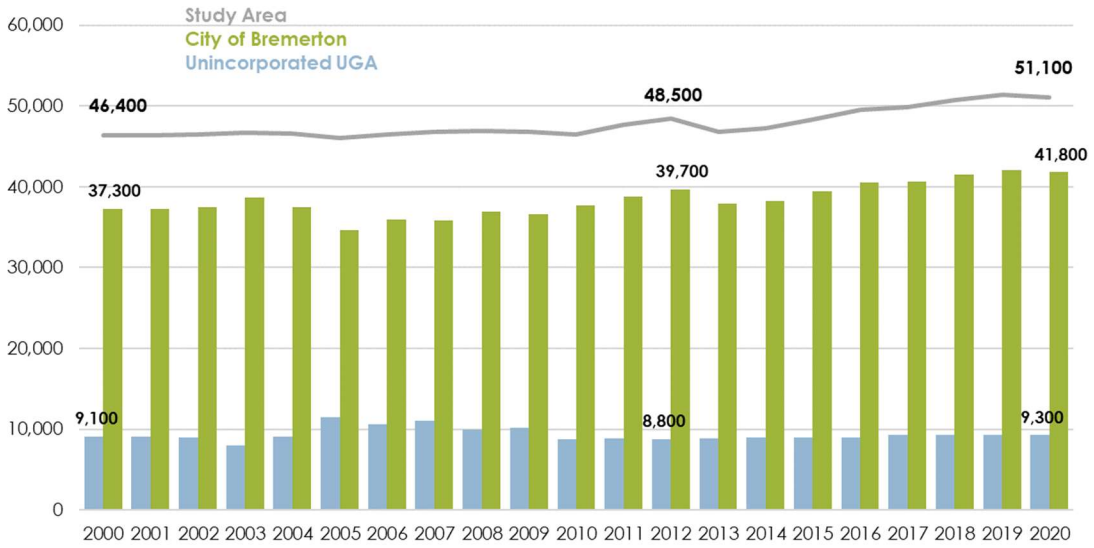
[2] *Bremerton Eastside Employment Center Economic and Market Analysis Report*, City of Bremerton, November 2019. https://www.bremertonwa.gov/DocumentCenter/View/8477/Eastside-Village-Market-Study-PDF

Demographics

Population

The total population in the study area was 51,100 people in 2020, with 82% of the population within the City of Bremerton (**Exhibit 2**). This represents almost 19% 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%, which is an insignificant increase given the regular fluctuations in the military population of two to three thousand people, due to arrival and departure of NBK-BR personnel. This is consistent with the trend observed even before 2000 – the City's decennial census reports from 1970 to 2010 show a negligible increase of less than 2,500 people[3].

Exhibit 2. Study Area Population, 2000 – 2020



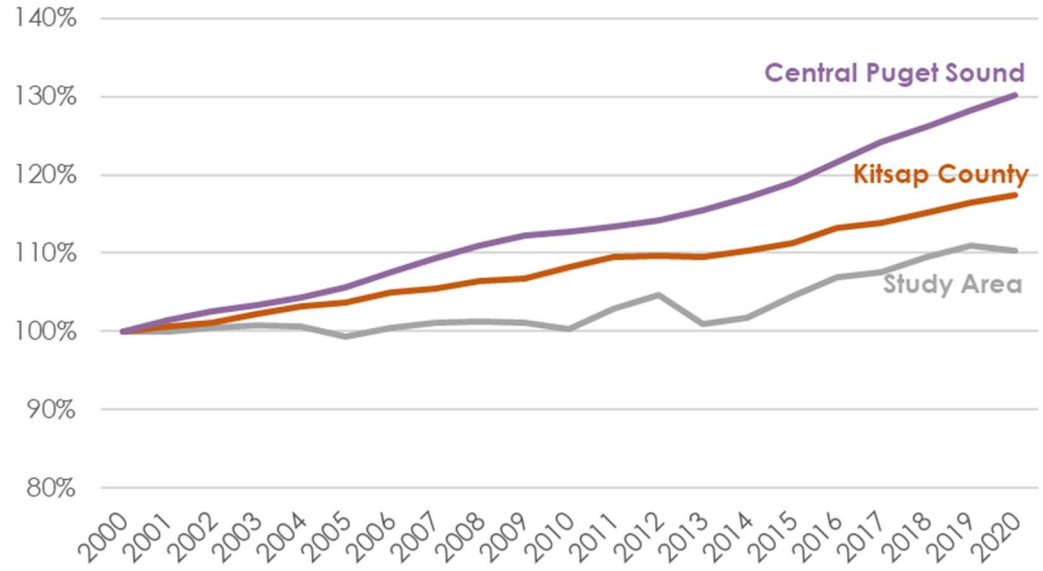
Sources: Office of Financial Management, 20201; Community Attributes, 2021.

Bremerton's growth has not kept pace with surrounding county and regional areas where unprecedented growth has occurred in the past decade. The City of Bremerton's share of the County's total population has also decreased overtime, from 25% in 1980 to 15% in 2020. Comparatively, the County and the Central Puget Sound Region (King, Snohomish, Pierce, and Kitsap County) have experienced significant population growth since 2000. During the past twenty years, Kitsap County population increased from 232,000 in 2000 to more than 272,000 in 2020, an increase of 17%. The region's

[3] *City of Bremerton Comprehensive Plan, Housing Appendix*, 2016. https://www.bremertonwa.gov/DocumentCenter/View/169/Housing-Appendix-PDF?bidId=

population went from 3.3 million to 4.3 million in the same period, representing an increase of 30%. (**Exhibit 3**)

Exhibit 3. Study Area and Regional Population Growth, 2000 – 2020



Sources: Office of Financial Management, 2021; Community Attributes, 2021.

Over the past 40 years, the study area's lack of population growth despite land use capacity eludes both past and current growth forecasts for the City. The City's 2016 Comprehensive Plan suggests that the study area population will grow to 66,900 by 2036, which indicates a need to accommodate an additional 15,800 people over the 2020-2036 period. This would be an increase of roughly 31%, which is much higher than the historic rate of 10% over the 2004-2020 period. (**Exhibit 4**)

Exhibit 4. Study Area Historic and Projected Population

Year	City of Bremerton	Unincorporated UGA	Total Study Area
2012	39,700	9,100	48,800
2015	39,400	9,600	49,000
2021	43,000	10,600	53,600
2036	53,400	13,500	66,900

Sources: City of Kirkland, 2016; Community Attributes, 2021.

Alternate population projections from PSRC's VISION 2050 suggest that growth in the study area, which is designated as a "Metropolitan City", would add 33,000 new residents by 2050. This would be a 66% increase over the 2017 population of the study area and would represent significant growth rivalling the population increase seen in Bremerton and surrounding UGA in the post-war era.

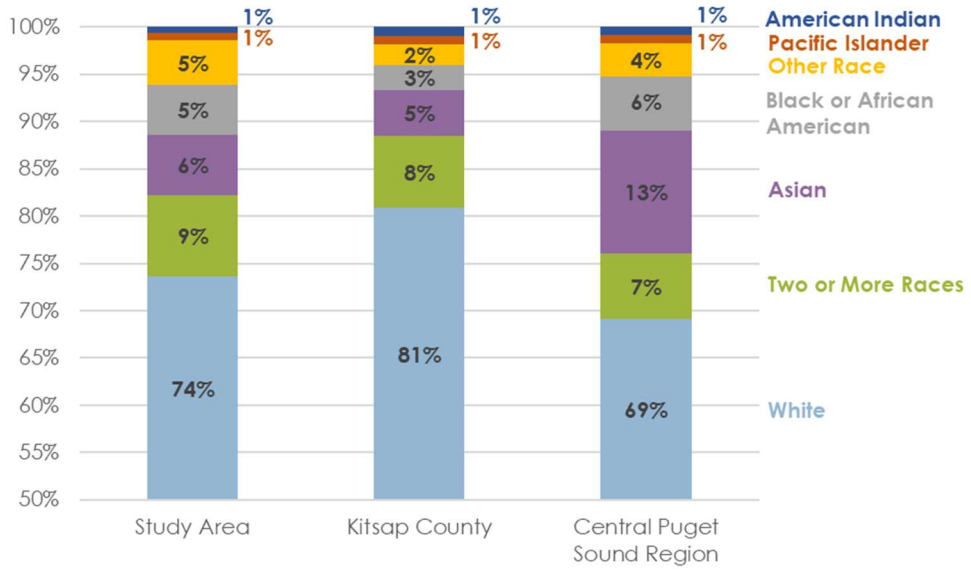
One possible reason for the area's stagnant population is revealed in the Housing Element of the City of Bremerton's Comprehensive Plan. The Plan mentions that current conditions in the housing market are in large part responsible for the City's lack of growth:

- Supply side factors include the high cost of redeveloping existing city lots compared to the abundance of undeveloped parcels or new development opportunities in Kitsap County; Bremerton does not have as many green field or empty canvas opportunities as are available in other parts of the County which often represent a less complicated site development than infill typically requires.
- In terms of demand, Bremerton's existing housing stock, dating back to the previous growth periods of the 1940s and 1960s, fails to address the local needs for housing types. The City has experienced substantial growth in senior citizens, singles (non-Married, no children), and single parent households, which puts pressure on the housing market to provide a variety of housing types.

Race and Ethnicity

In 2019, there were 2.8 more White residents in the study area than any other race or ethnicity. Roughly 9% of the total population in the study area have two or more races. The study area has a more diverse population than Kitsap County, with higher shares of people of two or more races, Asians, Black or African Americans, and people of another race. However, the study area has less diversity than the region. White people constitute 74% of the population in Bremerton UGA, compared to 69% of the population in the Central Puget Sound Region. (**Exhibit 5**)

Exhibit 5. Study Area and Regional Population by Race

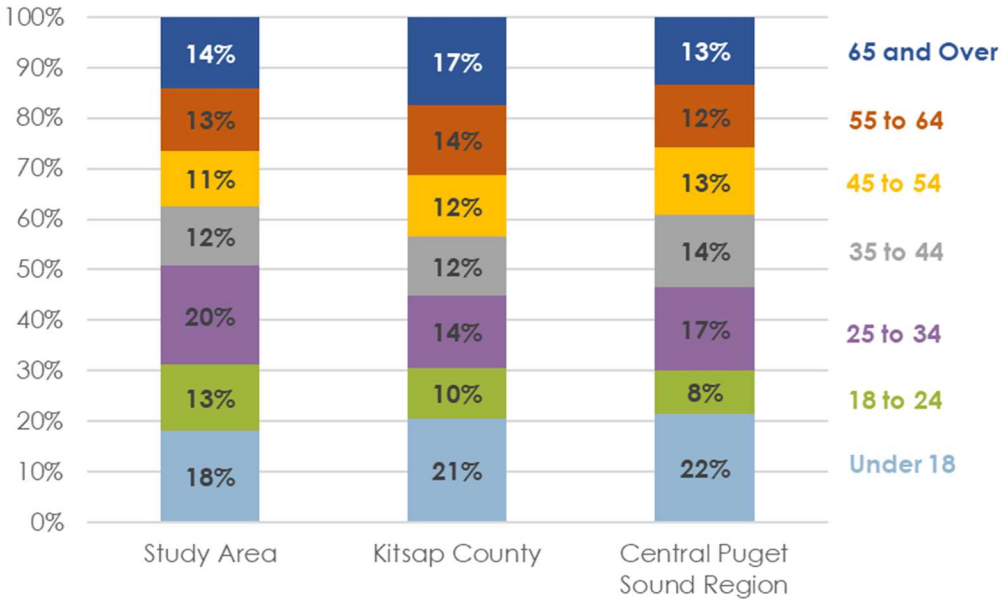


Sources: United States Census Bureau, 2021; Community Attributes, 2021.

Age

The study area has a younger population than Kitsap County, with more residents in the 18 to 34 age range. The median age in the City of Bremerton is 33 according to U.S. Census Bureau American Community Survey data for 2019 (5-Year Estimates), compared to 39 in Kitsap County, 38 in Snohomish County, and 37 in King County. (**Exhibit 6**)

Exhibit 6. Study Area and Regional Population by Age



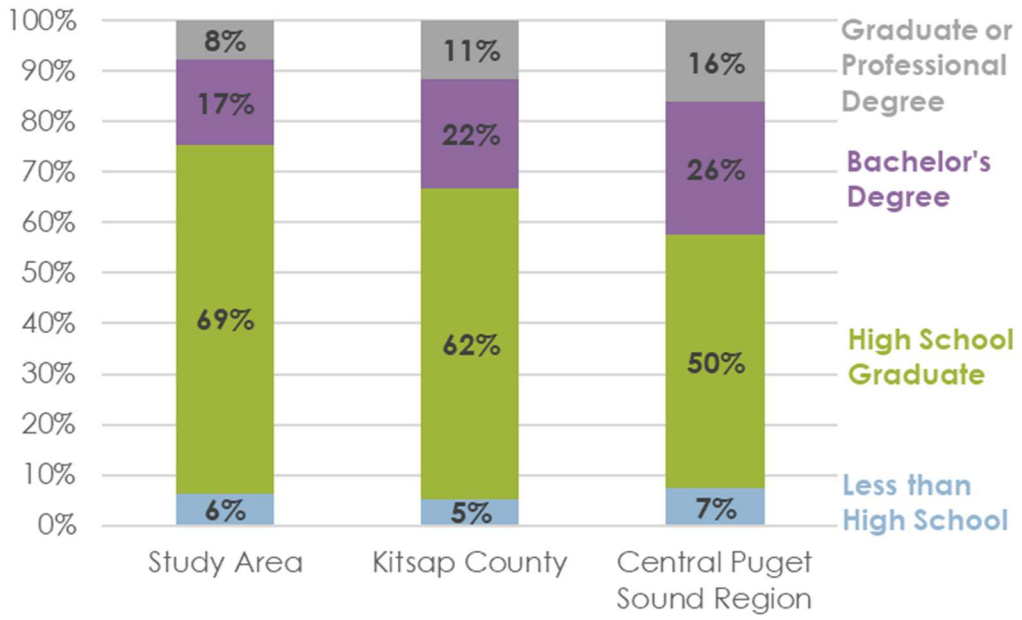
Sources: United States Census Bureau, 2021; Community Attributes, 2021.

Education

Roughly 69% of study area residents age 25 and older were high school graduates, compared to 62% for Kitsap County and 50% for the region. Residents with a bachelor's degree or higher made up 25% of study area residents age 25 and older, significantly less than Kitsap County's 33% and 42% in the Central Puget Sound Region. (**Exhibit 7**)

Olympic College in Bremerton has contributed to the increasing number of individuals obtaining Associate and bachelor's degrees in the study area as well as accessibility to workforce development and technical training. The College offers associate degrees and certificates, as well as four-year degrees from both Western Washington University and Washington State University. The College has been growing and one of the most recent investments into the Campus was the Olympic College Instruction Center (CIC) which hosts the college's health occupations programs and the Fine Arts, Music and Theater programs.

Exhibit 7. Study Area and Regional Educational Attainment

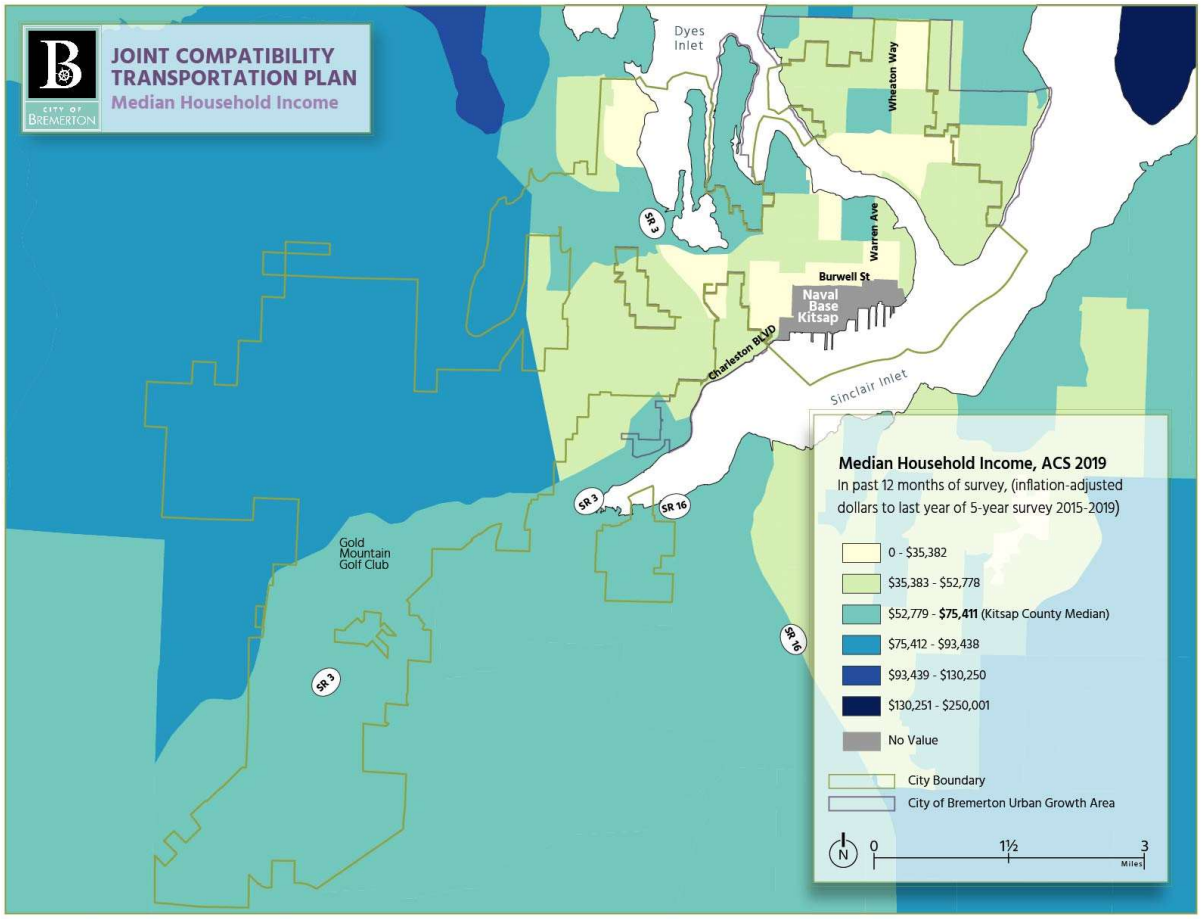


Sources: United States Census Bureau, 2021; Community Attributes, 2021.

Income

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. 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% of the population for who poverty status is determined in the City of Bremerton live below the poverty line, compared to 7.5% for Kitsap County.

Exhibit 8. Study Area Median Household Income



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

Industry and Employment

The most recent available data on study area employment from the City's Comprehensive Plan indicates that in 2015 there were 33,000 jobs in the study area. The plan projects that employment in the study area will increase to 50,700 jobs by 2036. This would represent a total increase of 17,700 jobs, or about 2.1% per year on average. Alternate population projections from PSRC's VISION 2050 suggest that growth in the study area would add 20,000 new jobs between 2017 and 2050. (**Exhibit 9)**

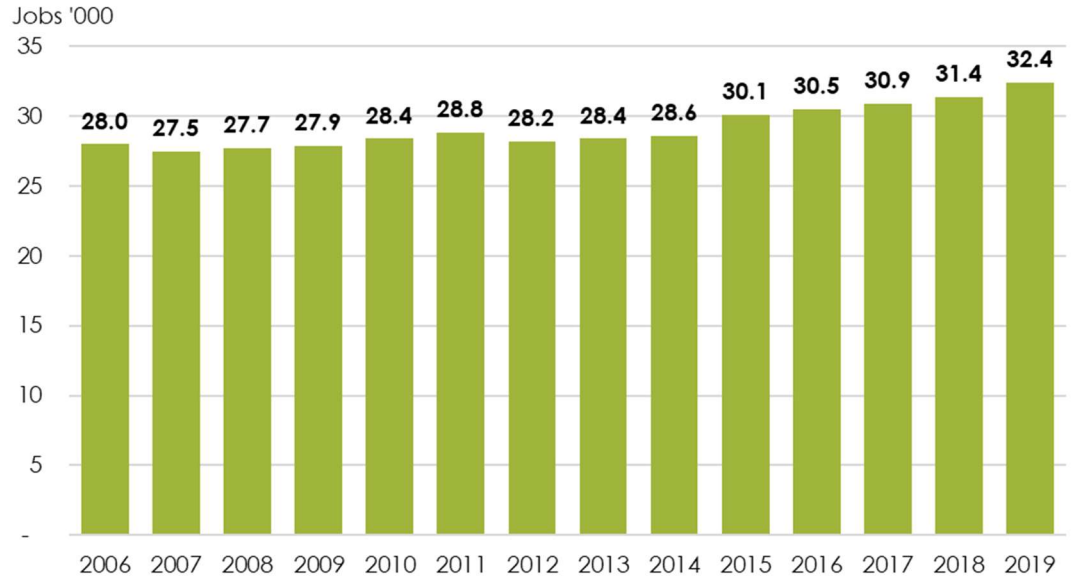
Exhibit 9. Study Area Historic and Projected Employment

Year	City of Bremerton	Unincorporated UGA	Total Study Area
2012	28,200	2,300	30,500
2015	30,500	2,500	33,000
2021	35,200	2,900	38,100
2036	46,900	3,800	50,700

Sources: City of Kirkland, 2016; Community Attributes, 2021.

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. (**Exhibit 10**) Over this period, the share of Kitsap County employment in Bremerton remained stable – between 35% and 36% of total County jobs.

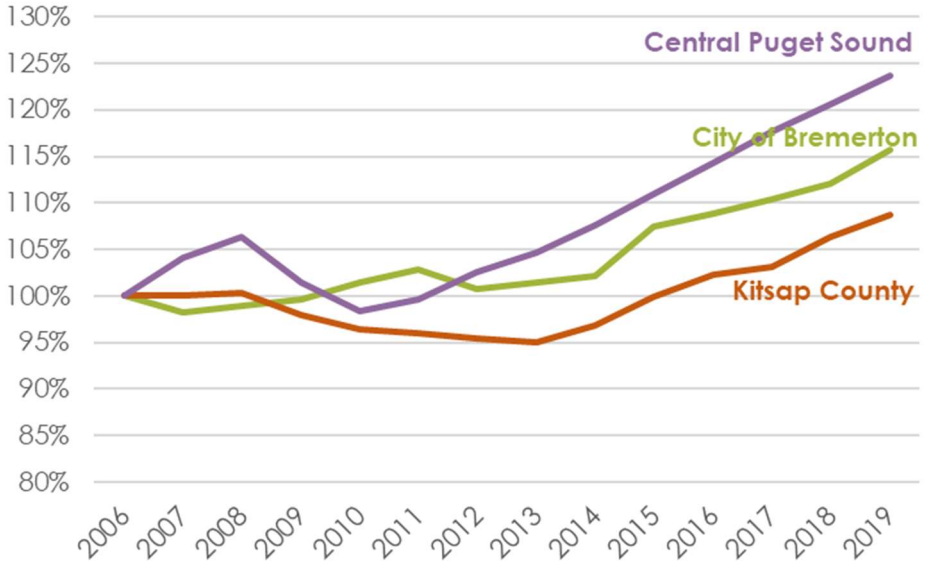
Exhibit 10. City of Bremerton Employment, 2006 – 2019



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

Employment in the City of Bremerton increased at a compound annual average rate (CAGR) of 1.1% from 2006 to 2018, compared to 0.6% county wide and 1.6% regionally. The growth in employment in the study area accounted for 61% of the total employment growth in Kitsap County during this time. (**Exhibit 11**)

Exhibit 11. City of Bremerton and Regional Employment Growth, 2006 – 2019

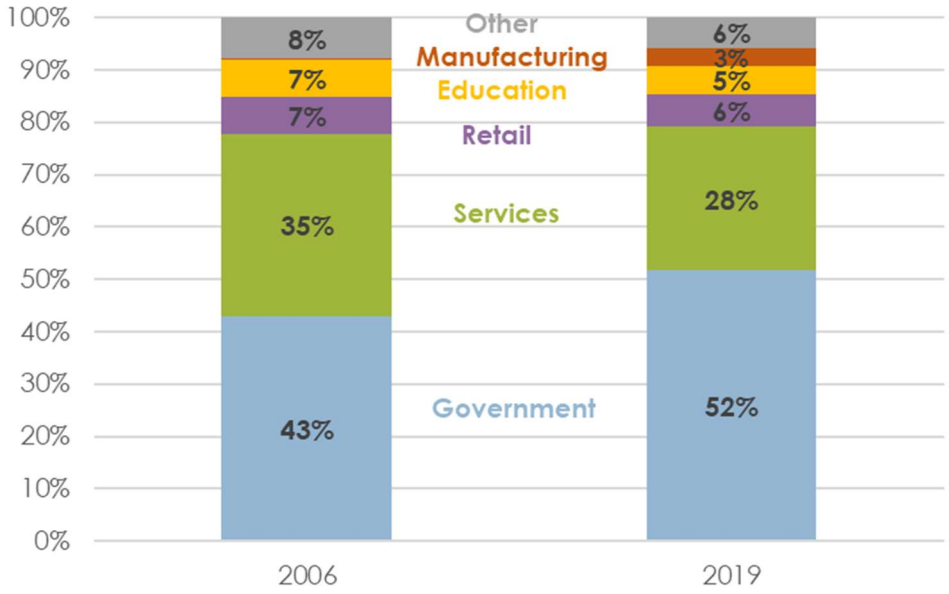


Sources: Puget Sound Regional Council, 2021; Community Attributes, 2021.

In 2019, over 52% 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 **(Exhibit 12)**. Most of the jobs in this sector are associated with NBK-BR, including the Puget Sound Naval Shipyard and Intermediate Maintenance Facility. 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.

The services sector employs the next greatest number of workers in the City, with an estimated 28% in 2019. The most significant industries within this sector are health care and social services, with approximately 4,700 jobs (53% of total services employment) in 2019, followed by accommodation and food services with 1,800 jobs (20%). The healthcare sector has seen strong growth between 2006 and 2011 but has declined since 2014. The Eastside Employment Center (EEC), a long-standing employment center in the City, has been home to Harrison Medical Center and other healthcare companies. The Medical Center is relocating to Silverdale, with the full departure of the hospital expected to be completed by 2023. Many of the related businesses supporting the hospital are also relocating.

Exhibit 12. City of Bremerton Employment by Industry, 2006 and 2019

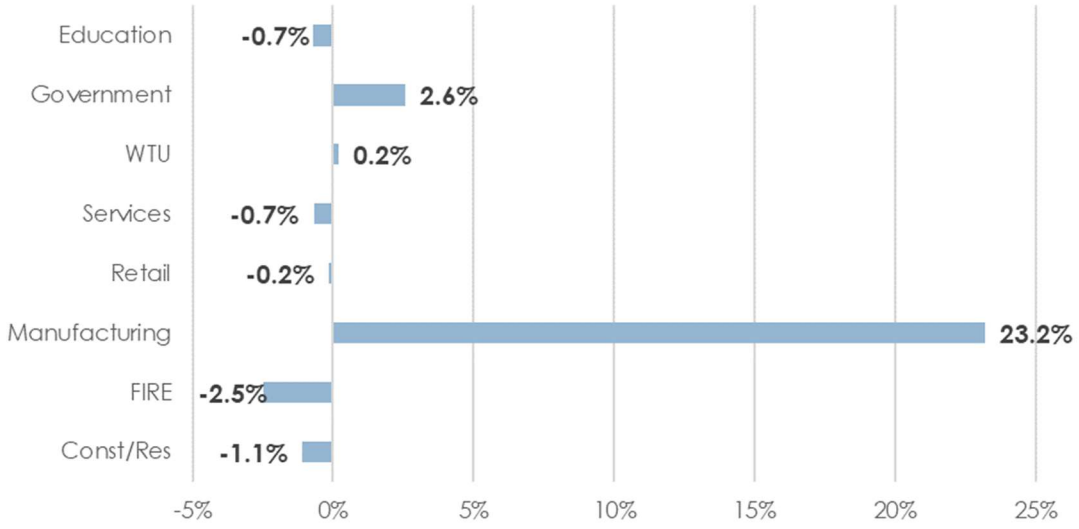


Sources: Puget Sound Regional Council, 2021; Community Attributes, 2021.

Note: Other includes Construction/Resources, Finance, Insurance and Real Estate, and Wholesale, Transportation and Utilities.

Although manufacturing represents only 3% of total employment in the City, the sector has experienced a significant increase since 2006. Since 2006, manufacturing employment in Bremerton has increased by 23% per year on average. As of 2019, the City includes about 41% of the County's total employment in manufacturing. The growth is related to the annexation of the Puget Sound Industrial Center (PSIC). All other industries except government, and wholesale, transportation and utilities (WTU) have experienced a decline in the number of jobs from 2006 to 2019, with the most significant decrease in finance, insurance, and real estate at around 2.5% per year on average. (**Exhibit 13**)

Exhibit 13. Average Annual Change in Study Area Employment by Industry, 2006 – 2019



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

Note: WTU stands for to Wholesale, Transportation and Utilities; FIRE stands for Finance, Insurance and Real Estate; Const/Res stands for Construction/Resources.

Land Use and Real Estate

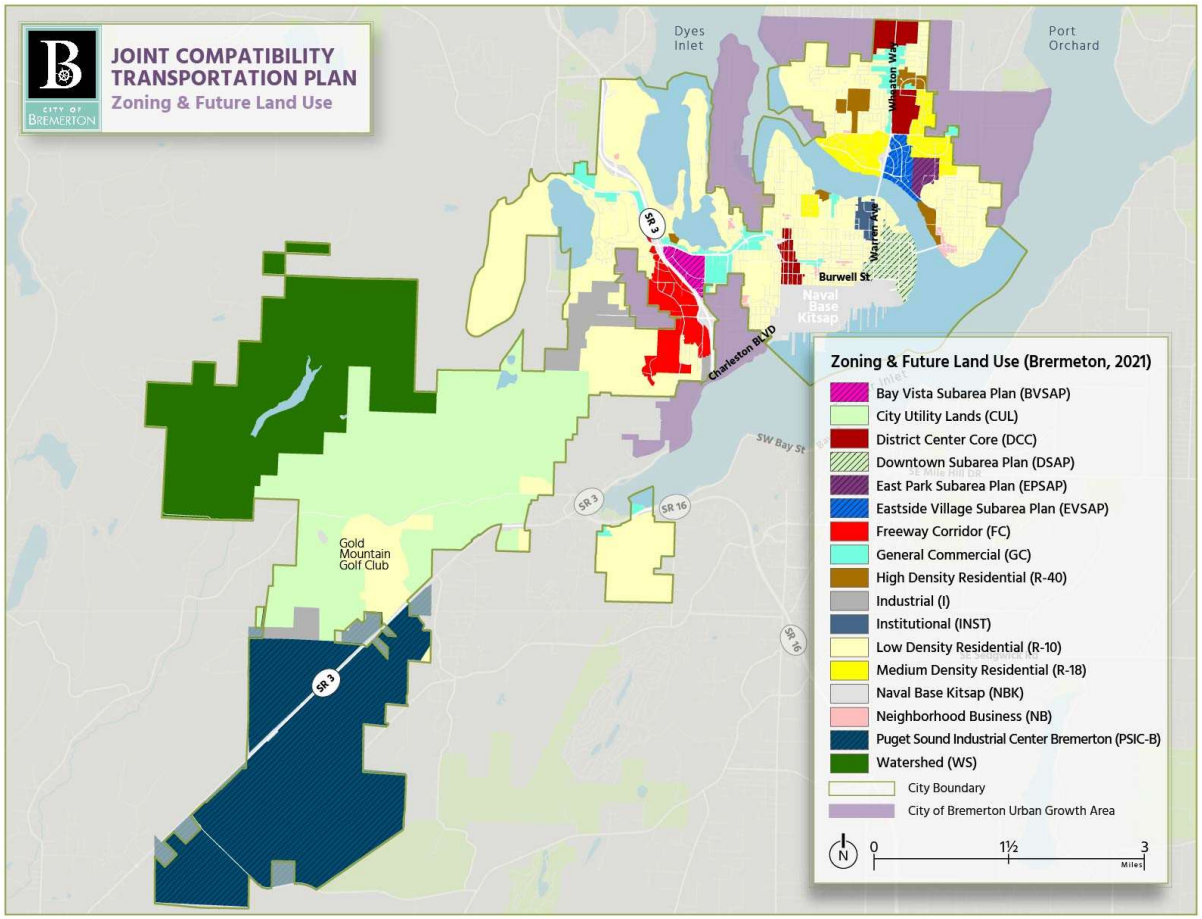
This section outlines land use and real estate metrics for the study area. Land use analysis includes a look at future land use policies as described in Bremerton's most recent (2016) Comprehensive Plan, how they have been implemented with zoning and building regulations, and how well current land use lines up with that vision. The subsequent real estate market analysis describes the most recent performance of the office, retail, and multifamily segments, and looks back at trends over the past decade to put this period of Covid-related instability into context.

Land Use Patterns

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. In this document, the City recognizes its fundamentally interdependent relationship with NBK and seeks, via specific land use goals and policies, not only to "coordinate with Naval Base Kitsap to minimize conflicts between development and naval operations," but to "ensure the ongoing success of each respective entity, while providing an opportunity to showcase a form of urbanism to the region."

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. The land use districts were then implemented through a citywide zoning update, also adopted in 2016, that aligned the land use regulatory framework – city zoning – with the Comprehensive Plan land use districts. The map in **Exhibit 14** illustrates these land use and zoning districts. In several places, a more specific mix of land use policies have been developed – these sub-area plans are detailed further in a following section. In the Urban Growth Areas of the study area, Kitsap County zoning prevails, while City-County agreements have been enacted to ensure urban development consistent with City standards where city services exist.

Exhibit 14. Study Area Future Land Use and Zoning



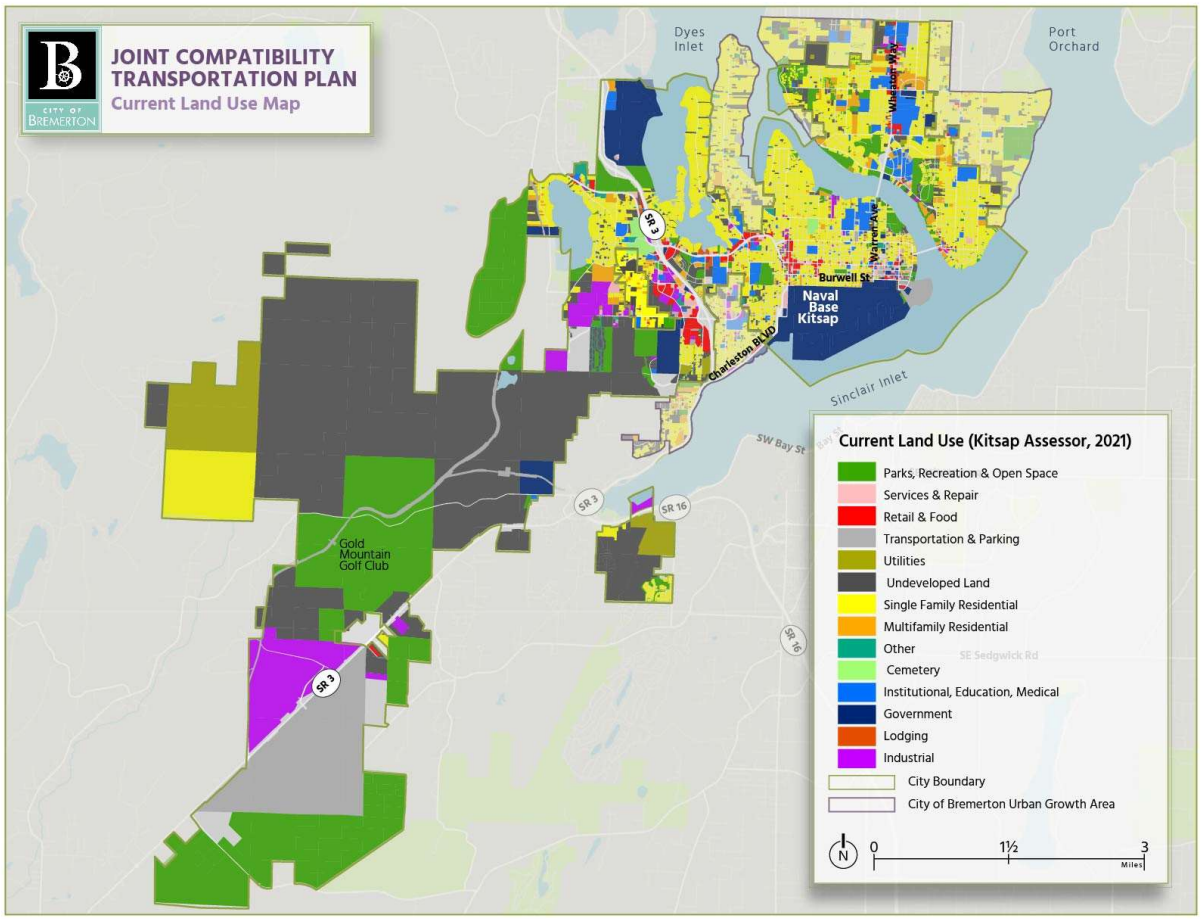
Sources: Kitsap County, 2021; City of Bremerton, 2021; Community Attributes, 2021.

To ascertain how successfully the City of Bremerton has implemented its land use vision, the project 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 (**Exhibit 15**).

These codes are updated on a rolling basis, 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 Naval Base Kitsap, especially within the PSIC-B, 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 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 single-family areas.

Exhibit 15. Study Area Current Land Use



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

City of Bremerton Subarea Plans Overview

The 2016 Bremerton Comprehensive Plan Land Use Element provides goals and policies – as well as supporting technical analysis – to guide land use decisions for the broad community over the twenty-year planning horizon of the document. However, a number of other, area-specific planning efforts have also been developed to provide additional planning detail to the Comprehensive Plan's general land use policy framework. These include the following:

Downtown Regional Subarea Plan (2007)
Bremerton's core downtown area revitalization is supported by 2007's Downtown Regional Subarea Plan (DSAP). The plan facilitates the ongoing development of a vibrant, attractive downtown, a critical need for the entire West Sound region. New development is incentivized to place parking underground or within structures, instead of surface lots. Street trees, well-designed public gathering areas, and lighting are planned to create a safe, inviting experience at the street level day and night. Residents should find access to employment, transportation, and basic amenities, along with a concentration of community activities in a more pedestrian friendly environment.

The shared border with the nearly 400-acre Naval Base Kitsap-Bremerton provides an employment boon to downtown Bremerton and all of Kitsap. The downtown Bremerton / NBK relationship provides a model of intense compact development unmatched in a West Sound region typified by continued sprawl.

Eastside Village Subarea Plan (2020)
The Eastside Employment Center is a mixed-use co-location of employment activities, residential, and commercial amenities for workers. The center type allows for large scale employment activities that may draw workers from a large geographic area, where workers can also choose to live and shop near work. Nearby living opportunities for employees will reduce commuting as well as employee parking demands. The community will be going through a transition period over the next several years with the change of Harrison Hospital campus use. The implementing regulations of the EC designation are intended to have maximum flexibility for building re-use.

Bay Vista Subarea Plan (2009)
The Bay Vista Subarea Plan (SAP) establishes the vision and the development standards for this area that acts much like a neighborhood center. The Bay Vista area (formerly known as West Park) began redevelopment in 2009 with supporting a Subarea Plan. The plan includes residential uses to the east and commercial uses adjacent to the Freeway and Kitsap Way. Open Space areas such as the Bay Vista Preserve are focal points of this area.

East Park Subarea Plan (2006)
The East Park Subarea Plan (SAP) establishes the vision and the development standards for this area. The East Park Subarea Plan reflects Bremerton's vision to continue as the metropolitan center of the West Sound by adding a unique and dense urban neighborhood. East Park has been undergoing residential redevelopment since 2007. Redevelopment consists primarily of single-family lots, but the southern portion of this area can support small commercial activity. Wildlife corridors through the subdivision connect the Madrona forest to the west with the forest creek to the west.

Puget Sound Industrial Center – Bremerton (2012)
(Formerly South Kitsap Industrial Area) is an industrial employment center that has been identified by the Puget Sound Regional Council's Vision2040 Plan as one of eight Manufacturing/Industrial Centers (MICs) in the Puget Sound region. This area includes important employment locations that serve both current and long-term regional economic objectives and calls for the provision of infrastructure and services necessary to serve intensive manufacturing and industrial activity. Heavy industrial and manufacturing development that has provisions to protect the surrounding forested area. The area supports green economic development, ensures that future development will result in reduced greenhouse gas emissions versus traditional development, promotes sustainable low-impact development and environmental stewardship.

Real Estate Market

This section outlines commercial and residential real estate market metrics for the study area, as well as Kitsap County and the central Puget Sound region for context. Real estate metrics – including building inventory, lease rates, vacancy, and absorption – are presented for three different segments: office, retail, and multifamily residential. While recent performance – especially for the retail, and to a lesser extent office, segments – has been profoundly affected by the Covid-19 pandemic, a look back at the past decades trends is presented to put this period into context.

Absorption is a measure of the difference between space being vacated and being occupied in a given period. When net absorption is positive, more space is becoming occupied than being vacated. Positive absorption can provide evidence of demand for a given type of space, though natural swings can occur when large new construction becomes available.

Market Performance in Q2 2021

Exhibit 16 presents a summary snapshot in time of the office, retail, and multifamily residential submarkets as of the second quarter (Q2) of 2021 for the study area (Bremerton and its unincorporated UGAs), as well as for

Kitsap County and the central Puget Sound region for comparison. The overview summarizes building inventory, new construction, space absorption, vacancy and lease and sales figures for all properties located within the study area for which there is CoStar data.

These data indicate a current study area inventory of 2.1 million square feet (sf) of office space, 3.5 million square feet of retail space, and 5,266 units of multifamily residential as of Q2, 2021. No new construction is currently underway in the office and retail segments, but 176 units of multifamily are under construction in the study area (representing almost two-thirds of all units being built countywide at this moment).

Exhibit 16. Market Overview - Office, Retail, & Multifamily Residential, Study Area versus County and Region

	Location	Inventory SF	Under Construction SF	12 Mo Net Absorption	Vacancy Rate	Market Rent / SF	Market Sale Price / SF
Office	Study Area	2.1M	0	3.1K	5.6%	$20.87	$166
	Kitsap County	5.3M	0	-3.6K	4.7%	$22.34	$186
	Region	221M	7.5M	4.4M	9.3%	$39.09	$473
Retail	Study Area	3.5M	0	-22.9K	6.3%	$13.46	$143
	Kitsap County	13.5M	0	-43.3K	3.5%	$16.74	$170
	Region	193M	787K	-424K	3.0%	$26.18	$290

		Inventory in Units	Under Construction Units	12 Mo Net Absorption Units	Vacancy Rate	Market Rent / Unit	Market Sale Price / Unit
Multifamily	Study Area	5,266	176	228	6.1%	$1,271	$169K
Residential	Kitsap County	14,312	276	459	3.6%	$1,431	$194K
	Region	477,523	22,242	5,660	7.3%	$1,660	$322K

Note: "Region" refers to the Central Puget Sound Region, consisting of Kitsap, Pierce, King, and Snohomish Counties.
Source: CoStar, 2021; Community Attributes, 2021

Office

Small net positive absorption of office space in the past 12 months, especially versus the net negative absorption for the County as a whole and considering the study area's significantly lower office vacancy rate versus the region (5.6% for the study area versus 9.3% region; an office vacancy rate around 10% is considered healthy, while lower vacancy suggests a tighter market), indicates that the office segment has not suffered as badly in Bremerton as it has in many other places due to shift to remote work driven by the Covid pandemic. Nevertheless, lease rates and sale prices per square foot for office space locally remain far below those of the region, and below even the average for Kitsap County, indicating continued softness and stagnant demand in this segment.

Retail

The retail submarket has fared somewhat worse. With market rents and sale prices at around half the regional average, this segment also underperforms both the region and the County; however, with the Bremerton study area representing around a quarter of the countywide total of retail space inventory, the 6.3% vacancy rate is more than double that of the region, and almost double those of the County. Like the County and region, Bremerton has experienced significant negative net absorption of retail space on average over the last 12 months. This likely reflects the profound challenges that businesses relying on in-person transactions, including bars, restaurants, gyms, and brick and mortar retailers, have faced throughout this pandemic with many businesses failing and / or downsizing.

Multifamily Residential

The Bremerton study area contains 64% of the County's multifamily residential inventory as of Q2, 2021, with 5,266 units in 126 buildings. Most of these buildings are older, with prewar construction in the downtown area, and 70s-80's development elsewhere in the city. Unlike the commercial segments, this segment is delivering new inventory even during the pandemic period with 176 new units under construction and 238 delivered in the last 12 months. The market is tighter in Bremerton that in the region, with only 6.1% vacancy versus 7.3% for the region, but not as tight as the County, with 3.6% vacancy. Market rents are currently $1,271 on average, which is around 76% of the regional average, and market sale prices are $169,000 on average per unit, or around 52% of the regional average.

Factors Influencing Market Demand in Bremerton

According to the Land Use Element of the City of Bremerton's Comprehensive Plan, several factors beyond regional and national economic conditions continue to influence market demand for commercial, and to a lesser extent, residential space within the City of Bremerton and areas of its UGAs served by urban infrastructure, despite the recent effect of the pandemic[4].

- First, many Bremerton properties, both commercial and residential, suffer from weak "curb appeal" due to several factors including building age and deferred maintenance. Where desirable sites exist, many businesses find it challenging to obtain financing for new construction, expansion, or capital costs. Many find that new development is often easier and less expensive in unincorporated areas that also have urban services, or where public sewer and water systems are not required, and road and other standards are considerably lower than in urban areas. Those areas are also more

[4]

likely to have larger vacant parcels available, less expensive land, and occasionally urban services to further stimulate growth.

- While the multifamily residential submarket is one brighter spot for Bremerton, many potential infill sites that could represent opportunities for increased density and newer, more desirable inventory are often stymied by a lack of willingness to convert on the part of property owners. Many of Bremerton's oversized lots and other vacant infill sites are being enjoyed by their owners for yard areas, additional off-street parking, RV storage, or to protect views, for instance.

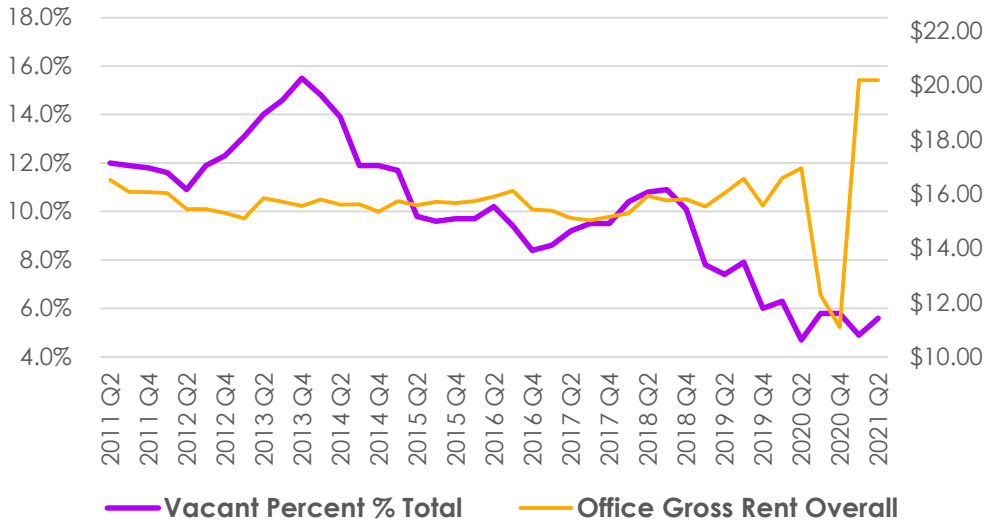
As described in this report, office and retail development and employment growth trends have and continue to significant lag the region, which suggests a need to build a market through coordinated development planning and business attraction strategies.

Market Performance Trends 2011-2021

Office

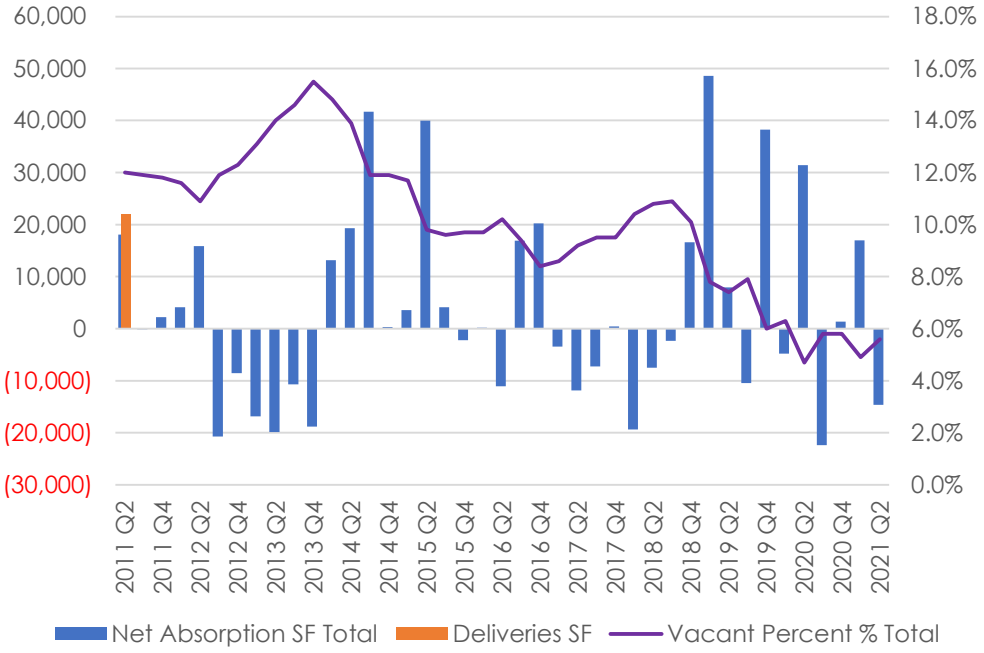
After a period of net negative absorption and high office vacancy rates from 2012-2015, the vacancy rate for office stabilized and began to decline substantially at the end of 2018 (**Exhibit 17**). However, no new deliveries of office space occurred after 2011 with the tightening market reflecting only absorption of existing office inventory. Very low vacancy rates beginning in 2019 persisted through the 2020-current pandemic period, despite a dramatic dip in rents in the second half of 2020. Rents in Q1 and Q2 of this year have bounced back to exceed pre-pandemic levels.

Exhibit 17. Vacancy & Lease Rates per SF - Office, 2011-2021



Source: CoStar, 2021; Community Attributes, 2021

Exhibit 18. Absorption, Deliveries, & Vacancy - Office, 2011-2021

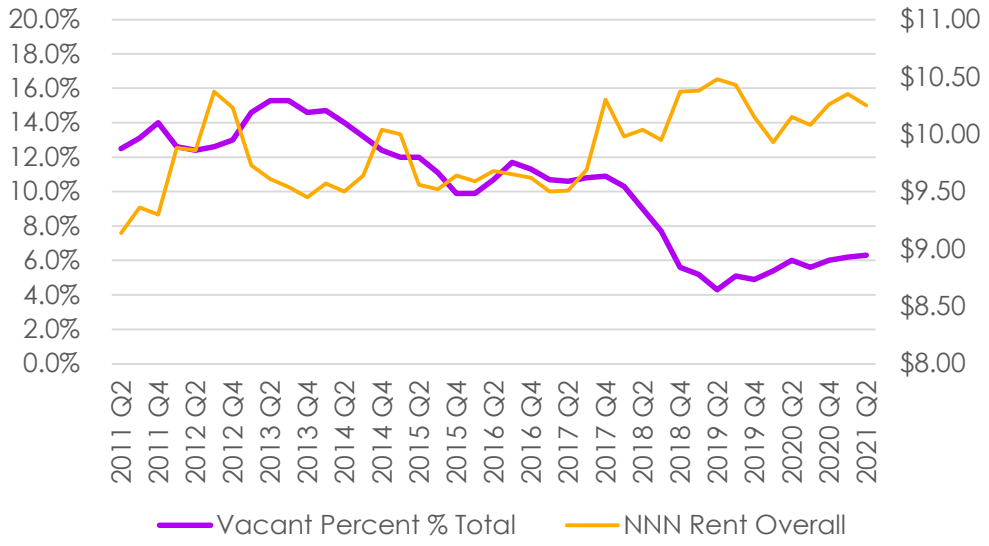


Source: CoStar, 2021; Community Attributes, 2021

Retail

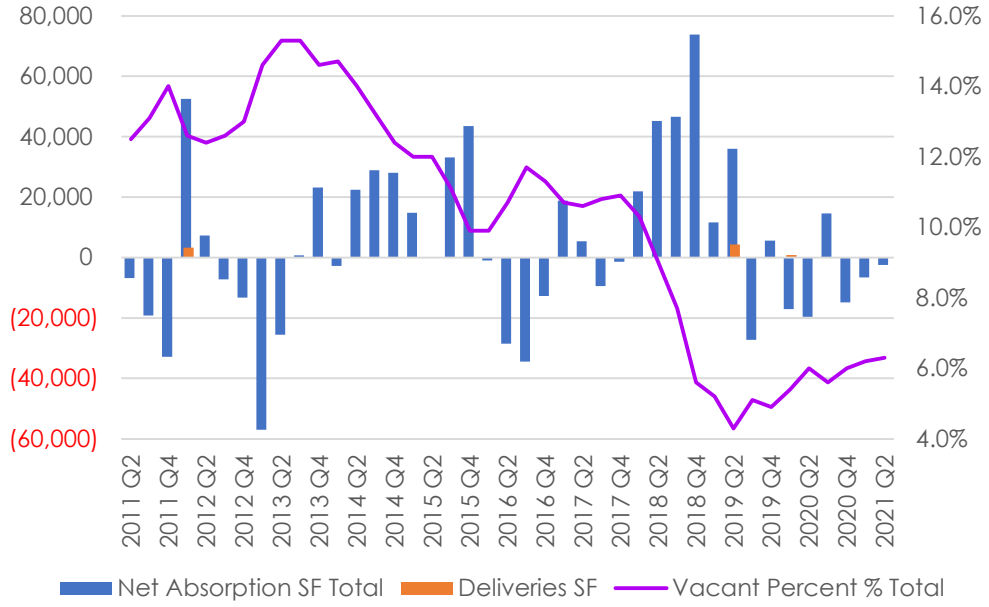
As with office, retail vacancy rates and negative absorption peaked, though to a lesser extent, for a period from 2012-2014 (**Exhibit 19**). Beginning in 2017, vacancy declined, and rents began to rise above the $10 per square foot NNN mark (still, these rates remained far below the average retail lease rates for the region). Very little new retail inventory was delivered in Bremerton and its UGAs for the 2011-2021 period, with declining vacancies again predominantly due to uptake of existing space.

Exhibit 19. Vacancy & Lease Rates per SF - Retail, 2011-2021



Source: CoStar, 2021; Community Attributes, 2021

Exhibit 20. Absorption, Deliveries, & Vacancy - Retail, 2011-2021



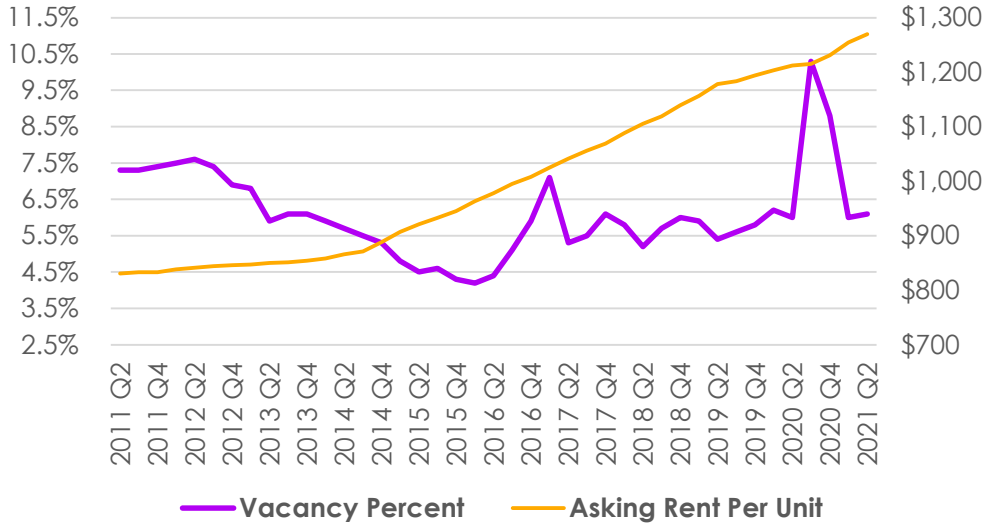
Source: CoStar, 2021; Community Attributes, 2021

Multifamily Residential

The market for multifamily residential has seen better performance recently than have the commercial segments with 579 of 799 units delivered in the decade coming onto the market after 2016. Vacancy rates remained at a relatively healthy 5.5%-6.5% level for that period, and average asking rents have climbed steadily to a high of $1,270 in Q2 of this year. Vacancy rates

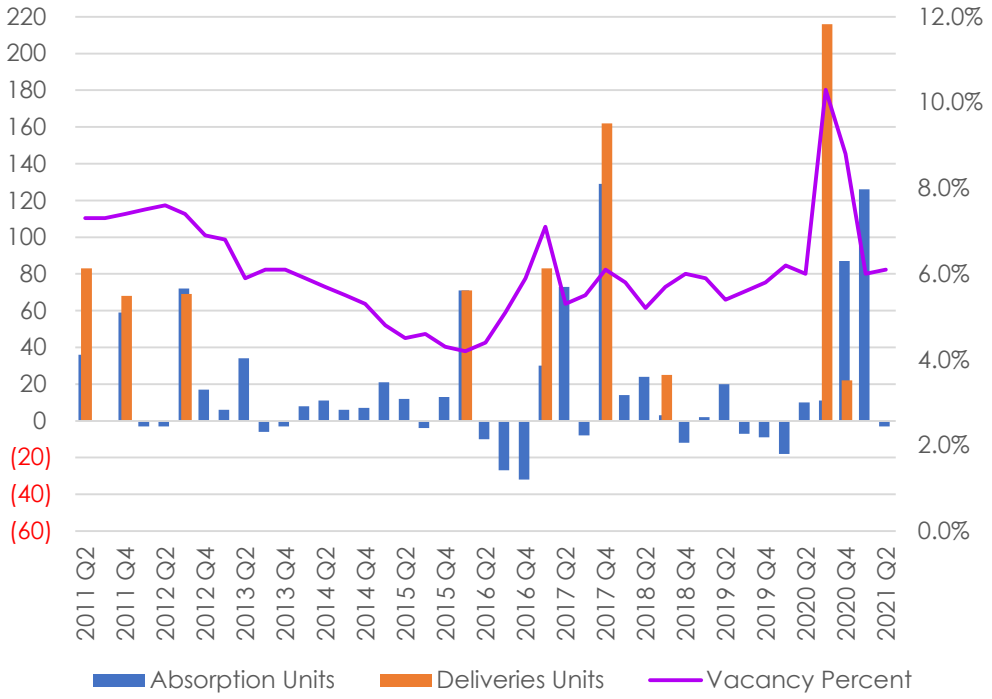
peaked briefly from 6% in Q2 of 2020 to 10.3% in Q3 of 2020 but have since recovered.

Exhibit 21. Vacancy & Lease Rates per Unit – Multifamily Residential, 2011-2021



Source: CoStar, 2021; Community Attributes, 2021

Exhibit 22. Absorption, Deliveries, & Vacancy – Multifamily Residential, 2011-2021



Source: CoStar, 2021; Community Attributes, 2021

Appendix G

Future No Build Forecasting Memo

Joint Compatibility Transportation Plan:

Model Validation and Future Forecasts

Prepared for:
City of Bremerton

May 2021

TC20-0011

FEHR PEERS

Table of Contents

Introduction 1
Naval Base Kitsap – Bremerton Trip Generation 1
Base Year Model Update and Validation 4
Future Year Model Land Use Update 7
Future Year Forecast 9

List of Figures

Figure 1. Daily Inbound Trips by Mode to NBK-BR 1
Figure 2. Model Validation Screenlines 4
Figure 3. 2019 to 2050 Volume Difference Plot 10

List of Tables

Table 1. PM Peak Hour Trip Distribution at NBK-BR 3
Table 2. PM Peak Hour Screenline Volumes 5
Table 3. Initial Model Validation Results 6
Table 4. Final Validation Results 7
Table 5. Household Forecasts 8
Table 6. Employment Forecasts 8

Introduction

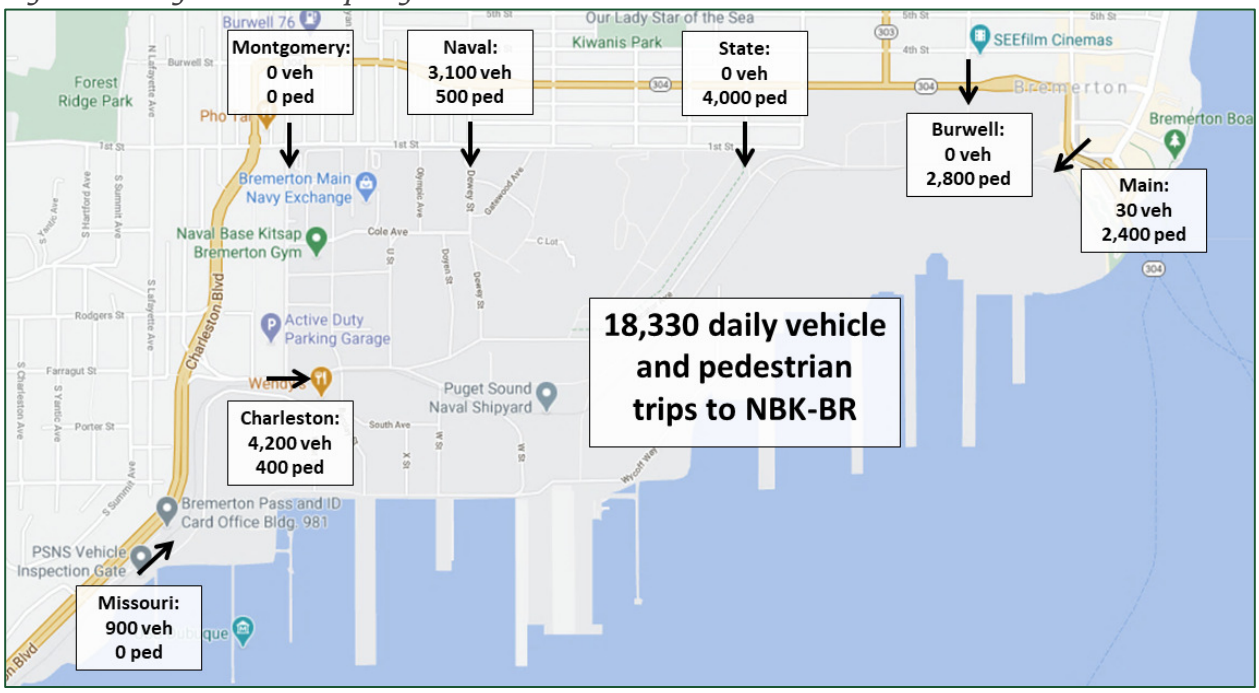
The City of Bremerton Travel Demand Model was updated to help develop future peak hour intersection forecasts for the City's *Joint Compatibility Transportation Plan*. This report documents how the base year model was updated and validated to 2019 conditions and how the future year scenario was updated from 2040 to 2050 conditions. A major effort as part of this update was re-estimating the peak hour trip generation and access gate distribution for travel associated with the Naval Base Kitsap – Bremerton (NBK-BR, or the Base).

The City's model is a 3-step model (trip generation, trip distribution, and assignment) that estimates vehicle demand during the PM peak hour, which generally occurs between 3:30 and 4:30pm due to NBK-BR travel. Peak hour vehicle-trip demand is estimated in a separate spreadsheet tool using land use estimates (single family and multi-family households and jobs across eight categories) by traffic analysis zone (TAZ). The City's model is run using Visum software, version 18.02-12.

Naval Base Kitsap – Bremerton Trip Generation

There are seven entry locations that provide access to NBK-BR and the Puget Sound Naval Shipyard and Intermediate Maintenance Facility. Four of these gates are primarily for vehicular access and three are primarily for pedestrian access. The City and NBK-BR provided daily inbound counts by mode for these access points. The vehicle counts are averaged from data collected between March and July 2014 (excluding two weeks when certain gates were closed). The pedestrian counts are based on a three-day average with an unknown observation date. The gate locations and count data are shown in **Figure 1**.

Figure 1. Daily Inbound Trips by Mode to NBK-BR



Based on a conversation with NBK-BR personnel, the observed daily inbound trips were confirmed to be consistent with the expected number of daily trips entering the facilities. Even though the count data is several years old, there has not been a significant change in Base employment, so the volumes are still consistent with demand in 2019. The following information was provided by NBK-BR:

- The Base employs between 20,000 and 23,000 individuals: 14,000 civilians, 1,000 military personnel, 3,000 sailors per carrier in port, and 2,000 contractors.
- On an average weekday, 7% of workers are on leave and 1,000 are working remotely, so the daily number of workers commuting to base would be between 17,600 and 20,400,
- The count data was collected when only a single carrier was in port and thus the Montgomery gate was closed to vehicle access.
- Approximately 1,500 employees arrive via Kitsap Transit Worker-Driver buses and would be counted as vehicle trips, not pedestrian trips.
- Approximately 75% of the pedestrian trips are assumed to drive and park in Downtown Bremerton in off-street parking lots or on City streets before walking onto the Base.
- The remaining 25% of pedestrian trips are assumed to use transit and other travel modes that do not require parking nearby (bicycling, local transit, Port Orchard Foot Ferries, and Washington State Ferries).

As shown in **Figure 1**, there are over 18,000 daily inbound trips, which is consistent with an assumed daily population on Base of around 17,600 people when one carrier is in port. There are over 7,000 inbound trips at the Charleston and Naval gates, and with 5,000 parking spaces on Base, this inbound total is reasonable given that there are three work shifts each day (day, swing, and graveyard). Of the 7,600 people that are assumed to park off-site, only 1,000 would be able to use the parking garage at 4th Street & Park Avenue. The remaining would be using other available off-street lots or parking on City streets. The volume and distribution of outbound trips was assumed to be consistent with the inbound trips since no data was collected on outbound trips at the gates.

The City's model estimates not only the vehicle trips that are driving directly onto Base but also those trips that park in Downtown Bremerton and walk onto Base. The zonal connectors in the model for these park-and-walk trips are located throughout the downtown area where there is available parking. Since no specific data was available based on the mode of arrival for the pedestrian trips, the percentage of park-and-walk trips at each gate was estimated using professional judgment based on the location of nearby parking lots and proximity to nearby transit facilities.

The PM peak hour distribution of trips was initially estimated using count data from the *2013 Vehicle and Pedestrian Safety Study: NBK Bremerton,* which showed that 5% of daily inbound NBK-BR trips and 20% of daily outbound trips occur during the PM peak hour. These estimates were then refined to be consistent with peak hour intersection counts collected in 2018 for the *6th and 11th St Corridor Feasibility Study*.

The following adjustments were incorporated into the PM peak hour calculations for NBK-BR:

- The overall trip generation was increased by 15% to account for a second carrier being in port (an increase in employees from 20,000 to 23,000), and the additional trips were assumed to be vehicle trips using the Charleston, Montgomery (outbound only), and Naval gates.
- The Missouri gate vehicular demand was tripled to match the intersection count volumes.
- The Burwell gate pedestrian demand was doubled to match observed pedestrian volumes at the tunnel portal on SR 304.
- The State gate pedestrian demand was also doubled to be consistent with the adjustment at the Burwell gate.
- Worker-driver buses were added as vehicle trips at the Main/Bremerton gate.

The final distribution of inbound and outbound PM peak hour trips assumed in the 2019 model is shown below in **Table 1**. The total number of trips is only 2% higher than the assumptions in the original version of the model, but the distribution is significantly different. There are approximately 1,500 fewer vehicle trips across the Charleston, Montgomery, and Naval gates combined and 1,600 more park-and-walk trips across the Naval, State, and Main gates combined.

Table 1. PM Peak Hour Trip Distribution at NBK-BR

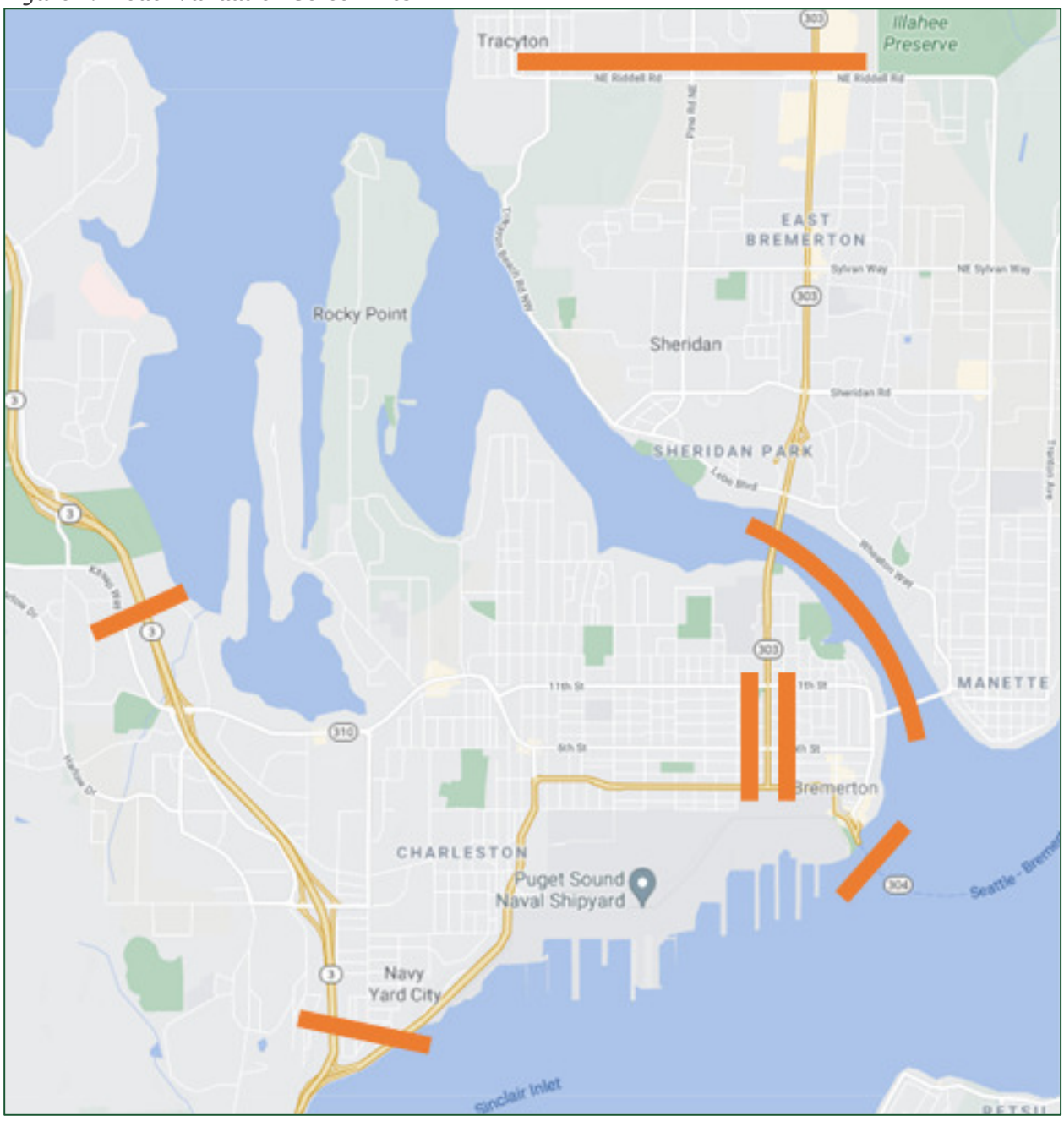
Gate	Vehicle Trips			Pedestrian Trips			Total Trips
	Inbound	Outbound	Total	Inbound	Outbound	Total	
Missouri	135	540	675	0	0	0	675
Charleston	300	800	1,100	10	40	50	1,150
Montgomery	0	500	500	0	0	0	500
Naval	200	700	900	20	80	100	1,000
State	0	0	0	350	1,400	1,750	1,750
Burwell	0	0	0	250	1,000	1,250	1,250
Main/Bremerton	0	10	10	50	200	250	260
Total	**635**	**2,550**	**3,185**	**680**	**2,720**	**3,400**	**6,585**

The data from the 2013 study and the 2018 traffic counts suggest that the AM peak hour trip generation and gate distribution is similar to the PM peak hour but reversed, with 20% inbound and 5% outbound. If necessary, the inbound and outbound trips in Table 1 could be switched and used as an estimate for the morning peak hour demand.

Base Year Model Update and Validation

The City's model was validated to 2019 PM peak hour conditions at seven screenlines across the model area. These are imaginary boundaries drawn across the street network to determine whether the model's depiction of volumes moving across the City are consistent with observed volumes. The locations of the screenlines, each of which contains 2-3 individual count locations, are shown in the **Figure 2**.

Figure 2. Model Validation Screenlines



Count data along the screenlines was collected from several different sources:

- 2017-2018 peak hour intersection counts from previous traffic studies
- 2019 daily traffic volumes provided by WSDOT's Traffic Geoportal
- 2021 roadway segment counts collected in January 2021 for this study
- Vehicle capacities for WSF vessels serving the Bremerton ferry terminal

Some adjustments were made to the raw count data. Based on count data from WSDOT's permanent traffic recorders (PTR) on SR 3 and SR 16, PM peak hour volumes were assumed to be 8% of the daily totals.. The 2021 counts were increased by a factor of 1.50 to account for reductions in traffic volumes due to stay-at-home restrictions in place because of the COVID-19 pandemic. The project team developed this adjustment factor to be applied to all count data collected in 2021 for this project. **Table 2** shows the final PM peak hour volumes used for validation and the source for each.

Table 2. PM Peak Hour Screenline Volumes

#	Screenline	Location	Source	Volume
1	South of Austin Dr	SR 3	2019 WSDOT ADT	5,200
		Kitsap Way	2021 Tube Count	1,270
2	Port Washington Narrows	SR 303	2018 Intersection Count	3,360
		Manette Bridge	2018 Intersection Count	1,170
3	West of SR 303	SR 304	2018 Intersection Count	1,280
		6th St	2018 Intersection Count	1,550
		11th St	2018 Intersection Count	2,270
4	East of SR 303	SR 304	2018 Intersection Count	870
		6th St	2018 Intersection Count	1,040
		11th St	2018 Intersection Count	1,040
5	South of B St	SR 3	2019 WSDOT ADT	4,160
		Charleston Blvd	2017 Intersection Count	2,840
6	Ferry Terminal	WSF Ferry	WSF Ferry Capacity	230
7	North of Riddell Rd	Pine Road	2021 Tube Count	710
		SR 303	2018 Intersection Count	2,740
		Ilahee Road	2021 Tube Count	510

The version of the City's model that was provided for this project used an automatic matrix adjustment process that factored the 2019 volume demand matrix to better match the count data that was used for validation. This adjustment step was removed for this project, and the model was instead calibrated by reviewing land use inputs, updating trip generation rates, verifying posted speed limits and capacities of the roadway network links, and adjusting the locations where traffic loads onto the network from the

zonal connectors. This approach is more consistent with the initial model input parameters and maintains these assumptions between the base and future scenarios. An error in the model script related to feedback loop averaging was also corrected.

The initial validation results for the 2019 scenario are shown in **Table 3**.

Table 3. Initial Model Validation Results

Screenline	Count Volume	Model Volume	Volume Difference	Percent Difference
1. South of Austin Dr.	6,470	6,540	70	1%
2. Port Washington Narrows	4,530	5,580	1,050	23%
3. West of SR 303	5,100	5,550	450	9%
4. East of SR 303	2,950	3,120	170	6%
5. South of B St	7,000	6,860	-140	-2%
6. Ferry Terminal	230	710	480	209%
7. North of Riddell Rd	3,960	3,630	-330	-8%

The initial results show that the model is overestimating the existing demand crossing the Port Washington Narrows during the PM peak hour. The model was also mis-assigning trips that were parking at a garage near the ferry terminal with trips onto the ferry. Otherwise, all other screenlines are within 10% of the PM peak hour count volumes, which is deemed an acceptable level of difference.

The following calibration adjustments were made to improve the model's validation:

- Updated the land use in zone 199 to 769 households per the City's direction.
- Updated the land use at NBK-BR (zone 132) to zero households and 23,000 military jobs, and updated the trip generation and trip distribution assumptions per the revised assumptions described above.
- Removed the extra trips at the ferry terminal associated with a nearby parking garage.
- Incorporated a trip distribution adjustment factor to reduce the number of trips crossing the Port Washington Narrows.
- Modified the roadway network east of SR 303 and north of 11th Street to minimize trips cutting through the neighborhood to avoid congestion on SR 303.
- Modified the roadway speeds in Downtown Bremerton to improve the distribution of trips on SR 304, 6th Street, and 11th Street to be consistent with the existing volume distribution.
- Removed the pre-determined loading factors on zonal connectors in downtown Bremerton to improve how trips are assigned to the network.

The final validation results after incorporating these changes are shown in **Table 4**. The volume of trips crossing the Port Washington Narrows is now only 2% higher than the count volume, and the volume at the ferry terminal is consistent with two full vessels – one arriving and one departing – during the

afternoon peak hour. All but one screenline is within 5% of the count volume. Based on the results in the table, the 2019 model is considered validated within the study area for this project. All of the calibration adjustments described above were incorporated into the future year scenario.

Table 4. Final Validation Results

Screenline	Count Volume	Model Volume	Volume Difference	Percent Difference
1. South of Austin Dr.	6,470	6,510	40	1%
2. Port Washington Narrows	4,530	4,630	100	2%
3. West of SR 303	5,100	4,890	-210	-4%
4. East of SR 303	2,950	2,910	-40	-1%
5. South of B St	7,000	6,720	-280	-4%
6. Ferry Terminal	230	230	0	0%
7. North of Riddell Rd	3,960	3,660	-300	-8%

Future Year Model Land Use Update

The future year model's land use was updated from 2040 to reflect 2050 estimates using the following methodology:

1. Increase the land use growth to match draft 2050 targets provided by PSRC within the City.
2. Extrapolate to 2050 using the 2019 and 2040 land use data for areas outside the City.
3. Modify the growth estimates in certain zones based on the City's direction.
4. Reallocate the growth in the remaining zones to maintain citywide targets.

PSRC is in the process of finalizing 2050 land use in the region. However, it was able to provide the City and project team draft 2050 growth targets for the City of Bremerton and Kitsap County with the following limitations. PSRC stated the following:

> *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 (GMA), 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 (LUV), 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)*

Table 5 and **Table 6** show the household and employment estimates for the model for 2019, 2040, and 2050. Separate totals are shown for the City of Bremerton and the remaining areas of unincorporated Kitsap County.

Within the City, the land use growth between 2019 and 2040 was increased to match the draft 2050 citywide targets provided by PSRC: 27,500 households and 55,500 jobs. The updated household target requires slightly higher average annual growth to meet the future year target: 1.9% per year instead of 1.8% per year. The updated jobs target is lower than the previously assumed total in 2040, so the annual growth decreases from 1.8% per year to 1.1% per year. Outside of the City, the growth rates between 2019 and 2040 were maintained to extrapolate out to 2050.

Table 5. Household Forecasts

Area	2019	2040	2019-2040 Growth	2019-2040 % per Year	2050	2019-2050 Growth	2019-2050 % per Year
Bremerton	17,300	24,000	6,700	1.8%	27,500	10,200	1.9%
Unincorporated	6,200	8,300	2,100	1.6%	9,400	3,200	1.7%
Model Total	*23,500*	*32,300*	*8,800*	*1.8%*	*36,900*	*13,400*	*1.8%*

Table 6. Employment Forecasts

Area	2019	2040	2019-2040 Growth	2019-2040 % per Year	2050	2019-2050 Growth	2019-2050 % per Year
Bremerton	41,000	56,300	15,300	1.8%	55,500	14,500	1.1%
Unincorporated	3,600	5,300	1,700	2.2%	6,200	2,600	2.3%
Model Total	*44,600*	*61,600*	*17,000*	*1.8%*	*61,700*	*17,100*	*1.2%*

The initial 2050 zonal land use estimates were provided to the City for review, and the following changes were incorporated per the City's direction. The source or justification for each is noted parenthetically.

- 226 new households and 240 new jobs in zone 119 (Bay Vista EIS)
- 200 new military jobs in zone 132 (NBK-BR)
- 820 new households in zone 141 (West Hills development)
- 480 new households and 298 new jobs in zones 151, 179, 185, and 191 (Gorst EIS)
- 6,500 new jobs in zones 184, 206, 208, and 213 (PSIC/SKIA EIS)
- 1,500 new jobs in zone 232 (PSIC/SKIA EIS)
- 90 new households in zone 339 (limitations on sewer capacity)
- 34 new households in zone 369 (current development trends)
- 1,750 new households and 81 less jobs in zones 370-372 and 374-376 (Eastside Village EIS)
- No job growth in zone 387 (currently City's watershed and golf course)
- 10 new jobs in zone 402 (increase in jobs is likely)
- 130 new households and no job loss in zone 406 (recent rezone and job decrease is unlikely)

After incorporating the above adjustments to the 2050 land use forecast, the growth in households and jobs in the remaining zones throughout the City were proportionally adjusted to maintain the citywide control totals. The distribution of households and jobs by type in each zone was assumed to be similar to the distributions in the 2040 forecast.

Future Year Forecast

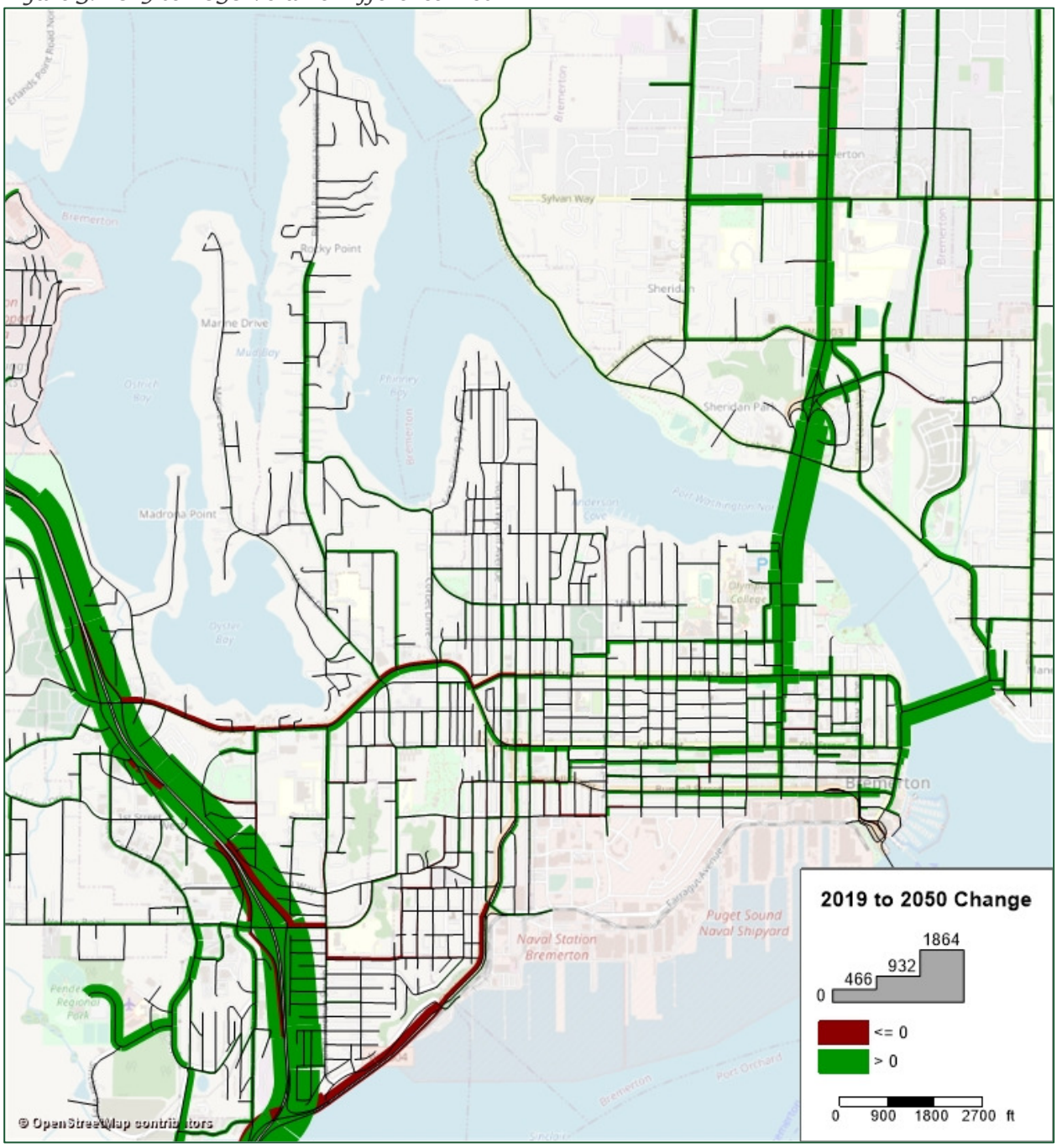
The 2050 scenario assumes an approximate 60% increase in households and a 40% increase in employment from the 2019 scenario in the model. The only network improvement project is a road diet on Naval Avenue that reduces the number of travel lanes from four to two between 1st Street and 11th Street.

After reviewing initial results from the future year scenario, the trip distribution adjustment factor was modified to reduce the growth in trips across the Port Washington Narrows to a level consistent with the growth in travel citywide. The model was overestimating the available capacity on the bridges resulting in unreasonably high forecasts. The demand for travel on these two bridges is driven by household growth to the north of the Narrows and job growth to the south.

The model estimates a 40% increase in PM peak hour vehicle trips within the City of Bremerton and nearby unincorporated areas of Kitsap County and a slight increase in the percentage of trips that remain within this area (due to an improved jobs-housing balance). A difference plot showing the relative change in peak hour trips between the 2019 and 2050 scenarios is shown in **Figure 3**.

The changes in model volumes at the study intersections were provided to the project team to develop 2050 forecasts.

Figure 3. 2019 to 2050 Volume Difference Plot



Appendix H

Screening and Evaluation Methodology Memo

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TECHNICAL MEMORANDUM

DATE:	July 16, 2021
TO:	Katie Ketterer, City of Bremerton
FROM:	Alex Atchison, PE, PTOE
SUBJECT:	Screening and Evaluation Methodology
CC:	Michael Horntvedt
PROJECT NUMBER:	554-1896-176
PROJECT NAME:	Joint Compatibility Transportation Plan

INTRODUCTION

The purpose of this memorandum is to present the approach to screening, evaluating, and ranking potential improvements for the JCTP project.

SCREENING AND EVALUATION PROCESS

Potential alternatives will be developed based on findings from the public survey; traffic analysis; past input from local clubs, neighborhoods, and studies; outcome of Workshop #1; and input from the Community Sounding Board. Following development of potential alternatives, a multi-step screening process is proposed to identify, screen, evaluate and rank potential improvements. This process will be guided by the study goals and includes these steps:

1. Screen strategies for feasibility
2. Combine improvements into alternative packages
3. Prioritize study goals relative to each other.
4. Evaluate alternative package effectiveness using performance measures.
5. Determine how performance measures will be scored

Step 1 – Screen alternatives for feasibility

This first level screening will be a qualitative evaluation that measures the feasibility of proposed alternatives. The alternatives will be screened with the following metrics:

1. Is it consistent with goals of the study?
2. Is it feasible (e.g City management support, neighborhood support, supports base operations (on the Base), does it seem cost effective?
3. Has is it been found to be ineffective by a previous study or plan?

Step 2 - Combine improvements into alternative packages

Following the feasibility screening, proposed improvements will be combined into different alternative packages. The alternative packages will be developed based on input from the Study Team, with guidance from the Community Sounding Board.

Step 3 – Prioritize study goals relative to each other

The study goals will be discussed at the second CSB meeting, scheduled for July 2021. Draft study goals include the following:

- **Travel Times and Reliability**: Improve travel times to/from downtown Bremerton and make them more predictable.
- **Mobility**: Increase the transportation system's ability to efficiently move all people and goods.
- **Safety**: Improve safety and reduce serious injury and fatal crashes
- **Active Transportation**: improve accessibility, connectivity and increase safe ped/bike options to decrease percent of trips made by driving alone.
- **Economic Vitality**: Project has the potential to improve economic investment in 4 categories (traffic, transit, pedestrian/bicycle, and aesthetic enhancements).
- **Parking**: Parking system supports a vibrant, attractive and user-friendly Downtown with thriving neighborhood districts and attractive residential neighborhoods.

Following final definition of the study goals, the study team will use input from the Community Sounding Board (CSB) to prioritize the study goals. The study team will use a methodology called "forced-choice pair comparison" (example table in **Exhibit 1**) a common tool for developing group priorities. The purpose of this step is to allow the Community Sounding Board to determine which study goals are most important in evaluating the effectiveness of modeled scenarios.

Each Community Sounding Board member will be provided with a table to readily make pair-wise comparisons between study goals to decide which one is more important (or to decide both are equally important) in terms of the study purpose, their organization's priorities, and performance of the transportation system (as well as any other considerations they thought were important). The study team will share the public survey results with the CSB consider as they prioritize the study goals. The study team will compile the pair-wise comparisons and average them by goal area to create a group weighting.

Two criteria, in addition to those listed above, will also be evaluated, but not included in the pair-wise comparison, as they are a qualitative assessment of the how the goals above work together. The two additional study goals include the following:

- **Base Accessibility**: Improve Base accessibility for NBK-BR workers.
- **Livability**: Improve overall livability for Bremerton residents.

These two study goals will be evaluated using a qualitative assessment of combinations of other metrics evaluated above. For example, a project that removes parking near base and improve worker driver program may be neutral change for Base Accessibility but a positive change for Livability. A project that relocates parking for workers outside of downtown and provide a shuttle service to downtown would have a positive change on both Base Accessibility and Livability.

Exhibit 1: Example of "forced-choice pair comparison" exercise to develop study goal priorities

	Study Goals	A Travel Time Reliablity	B Mobility	C Safety	D Active Transportation	E Economic Vitality	F Parking	Total Count	Priorities
A	Travel Times and Reliability: Improve travel times to/from downtown Bremerton and make them more predictable	A	A	A	A	A/E	A	5.5	26%
B	Mobility: Increase the transportation system's ability to efficiently move all people and goods		B	B	D	E	B	3	14%
C	Safety: Improve safety and reduce serious injury and fatal crashes			C	C/D	C/E	C	3	14%
D	Active Transportation: improve accessibility, connectivity and increase safe ped/bike options to decrease percent of trips made by driving alone				D	E	E/F	2.5	12%
E	Economic Vitality: Project has the potential to improve economic investment in 4 categories (traffic, transit, pedestrian/bicycle, and aesthetic enhancements)					E	E	5.5	26%
F	Parking: Parking system supports a vibrant, attractive and user-friendly Downtown with thriving neighborhood districts and attractive residential neighborhoods						F	1.5	7%
							SUBTOTALS	21	100%

Step 4 – Evaluate alternative package effectiveness using performance measures.

The study team proposed the following performance measures to evaluate each alternative's ability to meet the goals of the study. These performance measures will be evaluated using a mostly quantitative analysis and are shown in **Exhibit 2**. The scoring of alternatives will be independent of the pair-wise comparison and weighting of criteria. Exhibit 2 also illustrates analysis methods proposed to evaluate the effectiveness of the performance measures.

Step 5 – Determine how performance measures will be scored.

The study team will evaluate and score the alternatives based on several elements, as described below.

1. For each performance measure, the alternatives will be scored on a range from -1 to +3. In general, the scores are proposed to follow these general parameters:
    - Score of -1: Project is expected to make conditions worse than the 2050 No Build
    - Score of +1: Project does not change conditions compared to 2050 No Build
    - Score of +2: Project improves conditions compared to 2050 No Build (range varies depending on study goal)
    - Score of+ 3: Project creates even greater improvements compared to 2050 No Build (range varies depending on study goal)

    Exhibit 3 illustrates the specific scores for each performance measure.
2. Several of the study goals include more than one performance measure. A score will be assigned to each performance measure and then the individual scores will be rolled up into one overall score for the study goal area. For example, the study goal area of "improve safety and reduce serious injury and fatal crashes" includes two performance measures: 1) number of overall crashes 2) number of serious injury and fatal crashes. Each scenario's score for these two measures will be rolled up to create a performance score for the goal.
3. Apply criteria weighting developed in Step Three (if applicable) to the goal area effectiveness score described above, yielding the overall performance score.

Appendix I

First Level Screening Results

Joint Compatibility Transportation Plan
First Level Screening

#	Improvement Idea	*Notes on Improvement*	Is it consistent with the study goals?	Is it feasible?	Is it ineffective according to previous studies?	First Level Screening Result
New / Expanded Parking						
~~PC1~~	~~Add park-and-ride in West Bremerton and establish frequent shuttle service between P&R and NBK-BR~~	*Covered by PC6, PC7, T8*	N/A	N/A	N/A	FAIL
~~PC2~~	~~Added parking outside of downtown with frequent shuttle service~~	*Covered by PC6, PC7, PC 11, T8*	N/A	N/A	N/A	FAIL
PC3	Add more parking in Port Orchard and increase foot-ferry frequency for Port Orchard and Annapolis	*Assume this occurs as part of a Kitsap Transit and/or Port Orchard project. Need to consider changes to Kitsap foot ferry frequency to accommodate higher demand.*	Yes	Yes	No	PASS
PC4	Add capacity at McWilliams Park & Ride	*Needs to consider higher frequency transit (BRT) and SR 303 Corridor Study projects.*	Yes	Yes	No	PASS
PC5	Partner with Port of Bremerton to provide parking and run shuttles from PSIC		Yes	Yes	No	PASS
PC6	Park & Ride near SR 3/Kitsap Way interchange (Austin Dr or Auto Center Dr)	*Input from Kitsap Transit regarding # of stalls needed.*	Yes	Yes	No	PASS
PC7	Park & Ride near SR 3/Loxie Eagans interchange (West Hills)	*Input from Kitsap Transit regarding # of stalls needed.*	No	Yes	No	FAIL
~~PC8~~	~~Add park-and-ride locations outside of Downtown~~	*Covered by PC6, PC7, PC 11*	N/A	N/A	N/A	FAIL
PC9	Park-and-Ride near downtown similar to Gateway		No	Yes	Yes	FAIL
~~PC10~~	~~Park-and-Ride at Port~~	*Repeat of PC11*	N/A	N/A	N/A	FAIL
~~PC11~~	~~Park & Ride in Port Orchard~~	*Covered by PC3*	N/A	N/A	N/A	FAIL
PC12	Expand parking through public/private partnerships. New downtown parking should be mixed-use with active street-level uses.	*This assumes parking lots would be constructed to include retail, living, or business space on some levels and parking on others.*	Yes	Yes	No	PASS
PC13	4th and 5th between Park and 303; make one way with angled parking and improve access management		Yes	Yes	No	PASS
PC14	Add large parking garage to block between Burwell and 4th, from Warren to Park	*Parking lot would be sized to accommodate traffic growth into downtown. Parking is allowed by zoning at this location. This is adjacent to Burwell tunnel, 5 owners to negotiate with and some vacant, both Fed and Washington Ave would fit here, provides easy access to east end of the base. Include a K&R too.*	Yes	Yes	No	PASS
~~PC15~~	~~Increase the number of multi-level parking structures (not single-level lots)~~	*Covered by PC14*	N/A	N/A	N/A	FAIL
PC16	Adding more affordable parking downtown	*Reducing cost could increase demand for parking.*	Yes	Yes	No	PASS
PC17	Park & Ride along SR 3 near Port of Bremerton (south end near SW Lake Flora Rd or north end near Bree Dr or Victory Dr SW)		Yes	Yes	No	PASS
Capacity Projects (changes in lanes, signals, intersection control, etc.)						
C1	Improve SR 3/Kitsap Way interchange: update signals or replace with roundabouts at ramp terminals		Yes	Yes	No	PASS
C2	Convert signals at SR 3/Loxie Eagans interchange to roundabouts		Yes	Yes	No	PASS
C3	Design Washington Avenue/Manette Bridge roundabout to accommodate Year 2050 growth	*Add northbound right-turn slip lane to reduce v/c ratios for northbound approach. A meter on the southbound approach operates well above v/c of 1.0*	Yes	No	No	FAIL
C4	Replace all City signals with RABs in downtown		No	No	No	FAIL
C5	Access management on Kitsap Way between Corbett Dr and Oyster Bay	*Access management includes ideas like combining multiple driveway access points into one with controlled entry/exit onto main arterial.*	Yes	Yes	No	PASS
C6	Add westbound lane on Kitsap Way bewteen west of 11th Street and National Ave and add a second left-turn lane at National Ave/Kitsap Way intersection		Yes	Yes	No	PASS
C7	Add westbound business access transit (BAT) lane along Kitsap Way (11th St to SR 3)		Yes	Yes	No	PASS
C8	Add northbound right-turn pocket at Naval Ave/Burwell St that is being removed as part of the Naval Ave road diet project	*Proposed Naval Ave road diet project will degrade traffic operations*	Yes	Yes	No	PASS
C9	Add roundabouts at Naval Ave/Burwell St, State St/Burwell St, Chester St/Burwell St, and Warren Ave/Burwell St		Yes	Yes	No	PASS
C10	Reconfigure Callow Ave/Burwell St intersection to be grade-separated	*Grade-separated intersection of South Center Blvd/Klickitat as an example*	Yes	Yes	No	PASS
C11	Build road/ramps directly from SR 3 to Charleston Gate		Yes	No	No	FAIL
C12	Add capacity on SR 3, especially in southbound direction, as recommended in the SR 16 Tacoma Narrows Bridge to SR 3 Congestion Study.		Yes	Yes	No	PASS
C13	Build a bypass to PSIC	*Location TBD based on conversation at Workshop #2.*	Yes	Yes	No	PASS
C14	Add capacity at SR 3/SR 304 interchange, including a SR 3 SB off-ramp to SR 304		Yes	No	No	FAIL
C15	Reversible lane along SR 3	*Reversible lanes involve electronic control with barrier separation of the reversible lane or crews need to move barriers/cones.*	Yes	Yes	No	PASS
C16	Add northbound HOV lane along SR 304 from SR NB Off-Ramp merge to Farragut St intersection	*Could be managed as HOV during peak hours only.*	Yes	Yes	No	PASS
~~C17~~	~~Dedicated transit lane along Kitsap Way~~	*Repeat of C7*	N/A	N/A	N/A	FAIL
C18	Dedicated transit lane through Gorst (must be paired with enforcement)		Yes	Yes	No	PASS
~~C19~~	~~BAT lanes or dedicated center lanes along future BRT corridor SR 303~~	*Repeat of C29*	N/A	N/A	N/A	FAIL
C20	Change signal timing to include all-way pedestrian phase at State/Burwell and Park/Burwell intersections		Yes	Yes	No	PASS
C21	Add leading pedestrian intervals to all signals	*A leading pedestrian interval (LPI) gives pedestrians the opportunity to enter an intersection 3-7 seconds before vehicles are given a green indication.*	Yes	Yes	No	PASS
C22	Dedicated transit road from SR 3 to downtown		Yes	No	No	FAIL
C23	Transit signal priority (TSP) at every signalized intersection along transit corridors	*Transit signal priority provides opportunity for buses to extend the length of green time at a traffic signal so the bus doesn't have to stop. This improves bus travel time and reliability.*	Yes	Yes	No	PASS
C24	Road diets on 6th St and 11th St to provide bike facilities	*A road diet includes the repurposing of underused travel lanes and/or parking to provide bicycle lanes, wider sidewalks with buffer, and transit improvements. It is intended to more efficiently use the roadway space.*	Yes	Yes	No	PASS
C25	Ramp meters on all on-ramps from Kitsap Way, Loxie Eagans, and SR 304		Yes	Yes	No	PASS
C26	Traffic Management Center	*This concept provides the city with additional flexibility to modify notification signs about closures, dynamic speed signs if used (none identified at the point), and provide travel time information via vms.*	Yes	Yes	No	PASS
C27	Variable message signs	*Variable message signs are typically controlled at a station and can include notifications to the traveling public as needed. Locations would be dependent on the parking strategies. Could have signs along SR 3 to indicate parking availability at new remote parking, could have them on Charleston to indicate when downtown parking is full or show number of spaces.*	Yes	Yes	No	PASS
C28	Incident response on SR 3	*Adding service trucks along SR 3 that could respond to crashes or incidents and decrease the amount of time a lane is partially blocked or closed.*	Yes	Yes	No	PASS
C29	Build projects proposed in SR 303 study	*All analysis completed as part of the SR 303 Corridor study through the year 2040*	Yes	Yes	No	PASS
	Widen Warren Avenue Bridge to include 10' sidewalks on both sides		Yes	Yes	No	PASS
	Sidewalks at both north and south ends that are forward-compatible with long-term plan		Yes	Yes	No	PASS
	Active transportation facility to connect to Lebo Boulevard on the north side of the bridge		Yes	Yes	No	PASS
	Provide wayfinding for active transportation		Yes	Yes	No	PASS
	Bicycle facilities south of the bridge between SR 303 and Park Avenue		Yes	Yes	No	PASS
	Bicycle facilities on Almira Drive from Sylvan Way to NE Riddell Road		Yes	Yes	No	PASS
	Build a mid-block pedestrian crossing north of Dibb Street and provide a pedestrian hybrid beacon and pedestrian refuge island		Yes	Yes	No	PASS
	Build a mid-block pedestrian crossing between 6th Street and 11th Street and provide a pedestrian hybrid beacon signal and pedestrian refuge island		Yes	Yes	No	PASS
	Build a mid-block pedestrian crossing north of Pearl Street and provide a pedestrian hybrid beacon and pedestrian refuge island		Yes	Yes	No	PASS
	Build a mid-block pedestrian crossing between Hollis Street and NE Riddell Road and provide a pedestrian hybrid beacon and pedestrian refuge island		Yes	Yes	No	PASS
	Update lane striping along SR 303 to delineate active transportation facilities		Yes	Yes	No	PASS
	Improve striping along Callahan Drive tunnel to show active transportation facility		Yes	Yes	No	PASS
	Install pedestrian crossing treatment at 4th Street and 5th Stree		Yes	Yes	No	PASS
	Bicycle facilities from Callahan Drive to Cherry Avenue using lower Wheaton Way, Spruce Avenue, and E 30th Street		Yes	Yes	No	PASS
	Build a mid-block pedestrian crossing at Sheridan Road and Spruce Avenue		Yes	Yes	No	PASS
	Bicycle facilities on Callahan Drive from SR 303 to lower Wheaton Way using existing tunnel under SR 303		Yes	Yes	No	PASS

#	Improvement Idea	*Notes on Improvement*	Is it consistent with the study goals?	Is it feasible?	Is it ineffective according to previous studies?	First Level Screening Result
	Provide 10' wide sidewalks at the following locations: SR 303 to Almira Drive using NE 32nd Street through Old East Bremerton High School, connecting near Dibb Street Wheaton Way Transit Center to Pine Road NE using NE Normandy Drive or NE Roswell Drive to access Clogston Avenue NE		Yes	Yes	No	PASS
	Construct a paved active transportation facility from Cherry Avenue to Almira Drive		Yes	Yes	No	PASS
	Bicycle facilities on Almira Drive from Cherry Avenue to Sylvan Way		Yes	Yes	No	PASS
	Complete sidewalk connection from south end of Warren Ave Bridge to existing sidewalk south of 18th Street		Yes	Yes	No	PASS
	Widen sidewalk to 10' on west side of SR 303 between 13th Street and Warren Avenue Bridge		Yes	Yes	No	PASS
	Construct a tunnel under SR 303 for an active transportation undercrossing, connecting Olympic College to east side of SR 303		Yes	Yes	No	PASS
	Active transportation facilities on 18th Street through Olympic College to Broadway Avenue		Yes	Yes	No	PASS
~~C30~~	~~Roadway improvements to get employees out of NBK and onto SR 3 SB~~	*Covered by C12, C14, C16*	N/A	N/A	N/A	FAIL
C31	Signalize intersections near proposed Park & Rides	*Consider need for full signal or possibly providing a pedestrian signal.*	Yes	Yes	No	PASS
C32	Add roadway capacity along Burwell St	*Adding roadway capacity from Warren Ave to Hewitt would require widening of the road and ROW purchase or removal of parking during peak periods.*	Yes	Yes	No	PASS
C33	Widen or add road through Gorst	*To be considered as part of Gorst project.*	Yes	Yes	No	PASS
C34	Build bridge to Port Orchard		No	No	No	FAIL
C35	Adaptive signal timing at all signalized intersections		Yes	Yes	No	PASS
~~C36~~	~~Improve traffic flow outside shipyard~~	*Covered by C8, C9, C10, C11, C32*	N/A	N/A	N/A	FAIL
C37	Building a bridge that connect SR 3 to SR 16		Yes	No	No	FAIL
C38	Build projects proposed in Bremerton Strategic Road Safety Plan		Yes	Yes	No	PASS
C39	Replace signals with roundabouts along Kitsap Way between Shorewood Dr and National Ave	*RABs work for operations along Kitsap Way except at Kitsap/Marine Dr and Kitsap/11th*	Yes	Yes	No	PASS
Projects on Base						
B1	Move some Base operations (e.g. NEX) to Bangor		No	No	No	FAIL
B2	Stagger shipyard shifts, especially with ferry arrivals		No	No	No	FAIL
B3	Improve gate progression to decrease queuing in the AM peak by adding a lane at gate(s)	*Add lanes at Charleston, Naval, and Montgomery gates. Adding a lane at the gate(s) would also require another guard for id check.*	Yes	Yes	No	PASS
B4	Move gates further into the Base to reduce queuing on City streets		Yes	Yes	No	PASS
~~B5~~	~~Add commuter parking on Base~~	*Repeat of B7*	N/A	N/A	N/A	FAIL
~~B6~~	~~More parking at NBK-BR~~	*Repeat of B7*	N/A	N/A	N/A	FAIL
B7	Add parking on Base. Relocate fence west of NBK-BR parking lot to the east and build up the parking lot. Provide shuttle along 1st to loop onto Burwell		Yes	Yes	No	PASS
~~B8~~	~~Enhance access to Base from the West to reduce congestion in Downtown~~	*Covered by C11, C14*	N/A	N/A	N/A	FAIL
B9	Explore enhanced use lease to add private parking garages on base	*Enhance use lease is a program that allows private companies to lease land on base to operate a parking facility.*	Yes	Yes	No	PASS
B10	Create new entry points at NBK-BR for vehicles and peds		Yes	Yes	No	PASS
B11	Further limit vehicle access entry points to base		Yes	Yes	No	PASS
B12	Revise State St gate to remove ped/vehicle conflicts	*Repeat of AT42*	N/A	N/A	N/A	FAIL
~~B13~~	~~Increase parking for shipyard employees specifically~~	*Covered by B7, B9*	N/A	N/A	N/A	FAIL
~~B14~~	~~Stagger shipyard employee shifts to reduce traffic congestion~~	*Repeat of B2*	N/A	N/A	N/A	FAIL
B15	Expand service area of shipyard shuttle buses (Gorst, Port Orchard, etc.)		Yes	Yes	No	PASS
B16	Allow bikes in shipyard		Yes	Yes	No	PASS
~~B17~~	~~Relocate fence west of NBK-BR parking lot to the east and build up the parking lot. Provide shuttle along 1st to loop onto Burwell~~	*Repeat of B7*	N/A	N/A	N/A	FAIL
B18	Open Montgomery gate in both directions during peak hours.		Yes	Yes	No	PASS
Transit Service / Frequency						
T1	Allow KT to run bus routes onto the base (excluding the PSNS&IMF)	*This occurred prior to 9-11*	Yes	No	No	FAIL
T2	Concentrate worker/driver routes along main corridors		No	Yes	No	FAIL
T3	Ferry service from West Seattle		No	No	No	FAIL
T4	Change worker/driver to pick up and drop off at same point to accommodate non-Base employees		Yes	Yes	No	PASS
T5	Dedicated transit for uniformed Base employees (DOD-supplied shuttle service)	*Uniformed Base employees are able to use the worker/driver buses*	Yes	Yes	No	PASS
T6	More bus routes to the shipyard		Yes	Yes	No	PASS
T7	Micro transit to main corridors that have frequent/BRT routes	*Micro transit is an on-call transit service that uses vans or small shuttles that allows for flexible schedules.*	Yes	Yes	No	PASS
T8	Shuttle service between Park & Rides and downtown Bremerton (regular bus route with high frequency)		Yes	Yes	No	PASS
~~T9~~	~~Downtown circulator bus~~	*Repeat of T8*	N/A	N/A	N/A	FAIL
~~T10~~	~~Increase capacity or frequency of Port Orchard and Annapolis ferries~~	*Repeat of PC3*	N/A	N/A	N/A	FAIL
T12	Commuter boats to cross Port Washington Narrows		No	No	No	FAIL
T13	Change minimum usage for worker/driver program	*There is not currently a minimum usage requirement*	N/A	N/A	N/A	FAIL
T14	More drivers for Kitsap Transit to increase frequency		Yes	Yes	No	PASS
T15	Cover more shift times with bus and/or worker/driver		Yes	Yes	No	PASS
T16	2 different early morning worker/driver buses		Yes	Yes	No	PASS
T17	Expand vanpool program		Yes	Yes	No	PASS
T18	Add worker/driver vans and change frequency to more than once each direction for some routes	*Some worker/driver buses are already near or at capacity*	Yes	Yes	No	PASS
T19	Worker/driver late bus (similar to sports team buses) or on-call shuttle		Yes	Yes	No	PASS
~~T20~~	~~Larger ferries or more frequency for fast ferry routes (particularly Annapolis FF)~~	*Repeat of T10 and PC3*	N/A	N/A	N/A	FAIL
~~T21~~	~~Utilize Navy rail line for commuter rail (or bus/rail combo)~~	*Repeat of O4*	N/A	N/A	N/A	FAIL
T22	Kiss and rides near all gates	*Kiss and rides are locations where people can pull out of the traffic stream to let people out of their car to catch a bus. In this case it would be locations to drop passengers so they can walk onto the base. Can reduce need for parking, but does not reduce volume.*	Yes	Yes	No	PASS
T23	Expanded area for bus service (both origin and destination)		Yes	Yes	No	PASS
~~T24~~	~~Incentive system for using alternative transportation modes (ex: by passing traffic lights, bus only lanes)~~	*Covered by C7, C18, C22, C23, C29*	N/A	N/A	N/A	FAIL
T25	Improve ferry system (increase capacity, more reliable schedule, increase area service)		Yes	Yes	No	PASS
T26	Shuttle service between Bangor and NBK-BR		Yes	Yes	No	PASS
T27	WSF should add Bike Parking to their facilities		Yes	Yes	No	PASS
Active Transportation						
AT1	Construct a mobility hub at the Gateway Park & Ride for first/last mile connections. Project may include space for bike share, scooter share, car share, as well as curb space for ride hailing service pickups like Uber and Lyft.	*A Mobility Hub is a centralized point where different modes of transportation come together seamlessly. It can include space for bike share, scooter share, car share, as well as curb space for ride hailing services pickups like Uber and Lyft. They are placed in strategic locations, typically where employment, housing, shopping, transit, and/or recreation are concentrated.*	Yes	Yes	No	PASS
~~AT2~~	~~Pedestrian overpass to Charleston gate~~	*Repeat of AT8*	N/A	N/A	N/A	FAIL
AT3	Add well-lit crosswalks at the bus stop (Montgomery & 6th) to improve access to Gateway Park and Ride.		Yes	Yes	No	PASS
AT4	Remove the existing sharrows located on the eastern portion of Kitsap Way and replace with bike lanes.		N/A	N/A	N/A	FAIL
AT5	Within the 5-minute walksheds, upgrade all sidewalks in Fair, Marginal, Poor, or Very Poor condition; add sidewalks where missing; and upgrade marked and unmarked crossings to be ADA compliant.		Yes	Yes	No	PASS
AT6	Add reasonably spaced pedestrian crossings	*Similar to SDOT and other cities; need to consider complimentary actions needed to actually lower speeds (e.g. road diet, dynamic speed signs)*	Yes	Yes	No	PASS
AT7	Ped bridge from Port Orchard		No	No	No	FAIL
AT8	Construct a grade-separated crossing on Charleston Blvd, either at Charleston Beach Rd or Farragut St. Between the two, Charleston Beach Rd has a wider area of coverage for pedestrians to cross, with heavy traffic volumes, so this intersection should be prioritized.	*Grade separated refers to a bridge or tunnel that goes over or under a roadway.*	Yes	Yes	No	PASS

Joint Compatibility Transportation Plan
First Level Screening

#	Improvement Idea	*Notes on Improvement*	Is it consistent with the study goals?	Is it feasible?	Is it ineffective according to previous studies?	First Level Screening Result
AT9	Construct at-grade crossing enhancements at Charleston Blvd/Charleston Beach Rd such as improved intersection geometries, new paint, and leading pedestrian intervals.		Yes	Yes	No	PASS
AT10	Construct at-grade pedestrian crossing enhancements at Charleston Blvd/Farragut St such as improved intersection geometries, continental striping, and leading pedestrian intervals. Install sensors to detect bikes at the traffic signal. To address vehicle-bike conflicts at Charleston Gate resulting from high speed right turn movements across the bicycle lane/shoulder, consider design treatments to buffer bicyclists from turning vehicles.		Yes	Yes	No	PASS
AT11	Stripe the crosswalk at Charleston Blvd/Rodgers St by the bus stop.		Yes	Yes	No	PASS
AT12	Construct a grade-separated crossing over Burwell St near State St/Burwell St intersection.		Yes	Yes	No	PASS
AT13	Gondola from Port Orchard to Bremerton.		No	No	No	FAIL
AT14	Construct an off-street trail from Gorst to downtown Bremerton. The trail will be 12 feet wide for bicyclists and pedestrians, and will not coincide with the roadway.	*This refers to a bicycle and pedestrian trail that would be 12 feet wide and not coincide with the roadway. Some level of buffer between the road edge and trail would be necessary. Details would be worked out in a future Gorst project.*	Yes	Yes	No	PASS
AT15	Establish safe east/west walking routes along the north perimeter of the base (e.g. Burwell St and 1st St to Charleston Blvd), including wayfinding and sidewalks. Stripe a crosswalk and consider additional enhanced crossing elements on Anoka Avenue at Burwell St, and at Burwell St and N Callows Ave to facilitate easier pedestrian crossings. Implement sidewalks and crosswalks on 1st Street to make it a viable option for pedestrians, and extend the sidewalk on Chester Ave to connect Burwell Street to 1st Street. Fill the sidewalk gaps along Burwell St east of Naval Avenue. Additional wayfinding could be implemented at Burwell Street and Pacific Avenue to direct people to nearby attractions and the Naval Base.		Yes	Yes	No	PASS
AT16	Upgrade pedestrian facilities in the vicinity of all pedestrian gates at NBK-BR to establish a safe, comfortable walking route to the Base. Widen sidewalks along Montgomery Ave, Naval Ave, and State St. Consider pedestrian safety enhancements near the bus stops on Burwell Ave.		Yes	Yes	No	PASS
AT17	Upgrade pedestrian facilities on Montgomery Ave from 6th St to 1st St to establish a safe, comfortable walking route from the Gateway P&R to the Base by widening the sidewalks along Montgomery Ave and adding ADA-complaint curb ramps at the intersection of Montgomery Ave/Burwell St.		Yes	Yes	No	PASS
AT18	Inventory sidewalk obstructions/disrepair/ADA issues throughout downtown and identify priority locations for upgrades	*Already a requirement*	Yes	Yes	No	PASS
AT19	Install bike locker parking outside (and/or inside) the State Street, Burwell, and Bremerton gates. Naval and Charleston would also benefit from bike parking, but are less of a priority due to lower pedestrian traffic.		Yes	Yes	No	PASS
AT20	Explore pedestrian/bike upgrades near the Charleston gate to incentivize their use. From the city's non-motorized plan, Charleston Gate is mentioned as a high vehicle-bicycle conflict area due to high speed right turn movements across the bicycle lane/shoulder. According to the bike network workshop, there are still issues regarding bike proximity sensors (or lack thereof), so a solution could be to install such sensors to enhance bicycle commuting. Additional curb treatments could be implemented to allow bicycles larger buffers from turning vehicles at the intersection, along with the addition of bike lanes or an off street trail.		N/A	N/A	N/A	FAIL
AT21	Extend the planned bike facilities to provide bike access to the Charleston, Montgomery, Naval, and State gates. Treatments at specific intersections; see above for Charleston Gate. Montgomery Avenue between 1st and 6th street is flat, low volume, and suitable for low stress bicycle networks (could potentially act as a neighborhood greenway). Addition of bicycle facilities or even a greenway would give access to this gate for cyclists, and there are little to no sidewalk gaps along Montgomery posing little problems to pedestrian access. Regarding Naval Gate, preliminary design work does not show relationship between bike facilities, but the non-motorized transportation plan does recommend bike facilities along Naval Avenue as well as specific intersection treatments at various crossings (examples include crosswalk restriping and sidewalk improvements). Regarding State Gate, there are high pedestrian volumes and many sidewalks surrounding State Gate are in good shape. There are no bicycle facilities along State Street and there aren't plans for facilities found in the non-motorized transportation plan. Projects could include the addition of such facilities such as planned sharrow or bike lane extensions.		N/A	N/A	N/A	FAIL
AT22	Develop a biking map of downtown Bremerton, including how to access/navigate the Base by bike		Yes	Yes	No	PASS
AT23	Evaluate what planned bike facilities can be upgraded to provide more comfort (e.g. bike lane instead of sharrows, protected bike lane instead of bike lane, etc.), focusing establishing continuous networks without gaps. Burwell Street has limited right of way that could potentially fit a bike lane; this street would need greater protection than a sharrow due to higher traffic volumes and speed. Construct an off-street bike facility on 1st Street southbound. Additional improvements could include a replacement of on-street parking with a bicycle lane along Pacific Avenue, extending planned bike lanes west to entirely cover 11th Street from Kitsap Way, and constructing bike lanes along Montgomery Avenue instead of sharrows.		N/A	N/A	N/A	FAIL
~~AT24~~	~~Implement bike/ped improvements proposed by the SR 303 Study. Need better N/S connection for cyclists in the vicinity of Warren Ave.~~	*Repeat of C29*	N/A	N/A	N/A	FAIL
AT25	Improve pedestrian crossings on Kitsap Way/6th Street: Stripe new high-visibility crosswalks on 6th Street at Montgomery Avenue, High Avenue, and Chester Avenue. Implement crossing enhancements at the 6th Street and SR-3 interchange, such as restriping, stop bars, signage to yield to pedestrians, and ADA upgrades. Enhance crosswalks at Kistap Way/National Ave, Kitsap Way/Oyster Bar Ave, Kistap Way/Ostrich Bay Ave, to provide striping at all sides of the intersection. Add a PHB or signal between Morgan Road and Corbet Drive to provide access to the bus stops and businesses.	*Consideration for crossings at, or near, bus stops could help to encourage transit use on the corridor.*	Yes	Yes	No	PASS
AT26	Upgrade Charleston Blvd to be more comfortable for people walking and biking. This includes adding new crossings, upgrading existing crossings, and adding protected bike lanes. A new crossing should be constructed at the bus stop before Charleston Blvd/Farragut St, and at Charleston Blvd/Rodgers St. Improve the existing crossing at Charleston Blvd/Farragut St with high visibility striping and consider an enhanced pedestrian crossing.		N/A	N/A	N/A	FAIL
AT27	Improve the sidewalk conditions in the neighborhood west of Charleston Blvd. (There are sidewalk gaps approaching Charleston Blvd along Cambria Avenue, missing curb ramps on sidewalks, and many sidewalks that are uneven and made with gravel. Lafayette Avenue has the same sidewalk profiles, with more intersections and transit stops along the corridor that need ADA improvements. Fill sidewalk gaps on Summit Avenue.)	*A lot of people are moving to this area and not many full width/ada accessible sidewalks.*	Yes	Yes	No	PASS
AT28	At the intersection of Burwell St/Park Ave, improve visibility of pedestrians crossing the street by adding leading pedestrian intervals. Consider additional signage to remind drivers to look for pedestrians, such as in pavement lighting or a flashing signal on the eastern ap proach to the signal to warn drivers accelerating out of the tunnel to slow for the signal/pedestrians. Consider removing the tree at the NE corner of the intersection to increase pedestrian visibility/sight distance for drivers.		Yes	Yes	No	PASS
AT29	Remove the proposed sharrow along Union Ave W between Werner Rd and Earhart St from future construction plans.	*The proposed sharrow is not feasible given terrain and cost*	Yes	Yes	No	PASS
AT30	Provide pedestrian safety enhancements at Callow Ave/1st St, such as adding a signalized pedestrian crossing, and re-striping the crosswalk with high visibility paint.	*People get stranded in the median. There have been some ped accidents. Right by the Pho restaurant. Also a transit stop here. Possibly relocate cross-walk to north side of intersection. Consider HAWK signal.*	Yes	Yes	No	PASS
AT31	Add crosswalks on Hewitt Avenue north and south of Burwell Street, and Anoka Avenue at Burwell Street.		Yes	Yes	No	PASS
AT32	Relocate the bike lanes on the Manette Bridge to be adjacent to the sidewalk, on the other side of the concrete barrier	*Widened sidewalks across bridge part of SR 303 Corridor Study*	Yes	Yes	No	PASS
AT33	Add crosswalk at Highland Ave/11th St		Yes	Yes	No	PASS
AT34	Implement wayfinding throughout downtown Bremerton for pedestrian routes and bicycle routes to help people navigate to popular destinations (e.g. Manette, ferry, parks, etc.)	*Wayfinding refers to adding signs, kiosks, apps that help people navigate a city using the sidewalk or bicycle network.*	Yes	Yes	No	PASS
AT35	Modify approach to sidewalk design in Bremerton so new constructed sidewalks do not have vertical barriers (i.e. returned curbs)	*While these are ADA compliant, they are not best practice, as they perpetually trap debris and require cleaning by hand in many cases; can be a tripping hazard; and create tight pedestrian environments. We do not recommend redoing these locations, but when locations that are not ADA compliant get upgraded, we recommend moving away from this approach. This recommendation may be better suited outside the context of this project list.*	Yes	Yes	No	PASS
AT36	Extend the bike lane on Washington Avenue to the ferry terminal		N/A	N/A	N/A	FAIL
AT37	Naval Avenue Elementary School Safe Routes To School (SRTS) improvements - inventory bike/ped facilities in the walking catchment area and identify specific improvements to make it safer to walk and bike	*Project from the Non-Motorized Plan*	Yes	Yes	No	PASS
AT38	Bremerton High School SRTS improvements - inventory bike/ped facilities in the walking catchment area and identify specific improvements to make it safer to walk and bike	*Project from the Non-Motorized Plan*	Yes	Yes	No	PASS
~~AT39~~	~~More protected bike lanes and storage~~	*Covered by AT4 and AT19*	N/A	N/A	N/A	FAIL
~~AT40~~	~~Safety for pedestrians (streetlights, intersection crossings, improve/add sidewalks, infrastructure to support slower speeds in residential areas)~~	*Covered by AT5, AT8, AT9, AT10, AT11, AT15, AT16, AT18, AT28, AT30*	N/A	N/A	N/A	FAIL
~~AT41~~	~~Improve pedestrian infrastructure to shipyard~~	*Covered by AT5, AT8, AT9, AT10, AT11, AT12, AT15, AT16, AT17, AT20, AT26, AT28, AT30, AT31*	N/A	N/A	N/A	FAIL
AT42	Revise State St gate to remove ped/vehicle conflicts	*Solutions could include speed humps along 1st St to slow down vehicles, signs to warn vehicles of pedestrian activity, and defined areas for pedestrians to queue before entering the gate*	Yes	Yes	No	PASS

Joint Compatibility Transportation Plan
First Level Screening

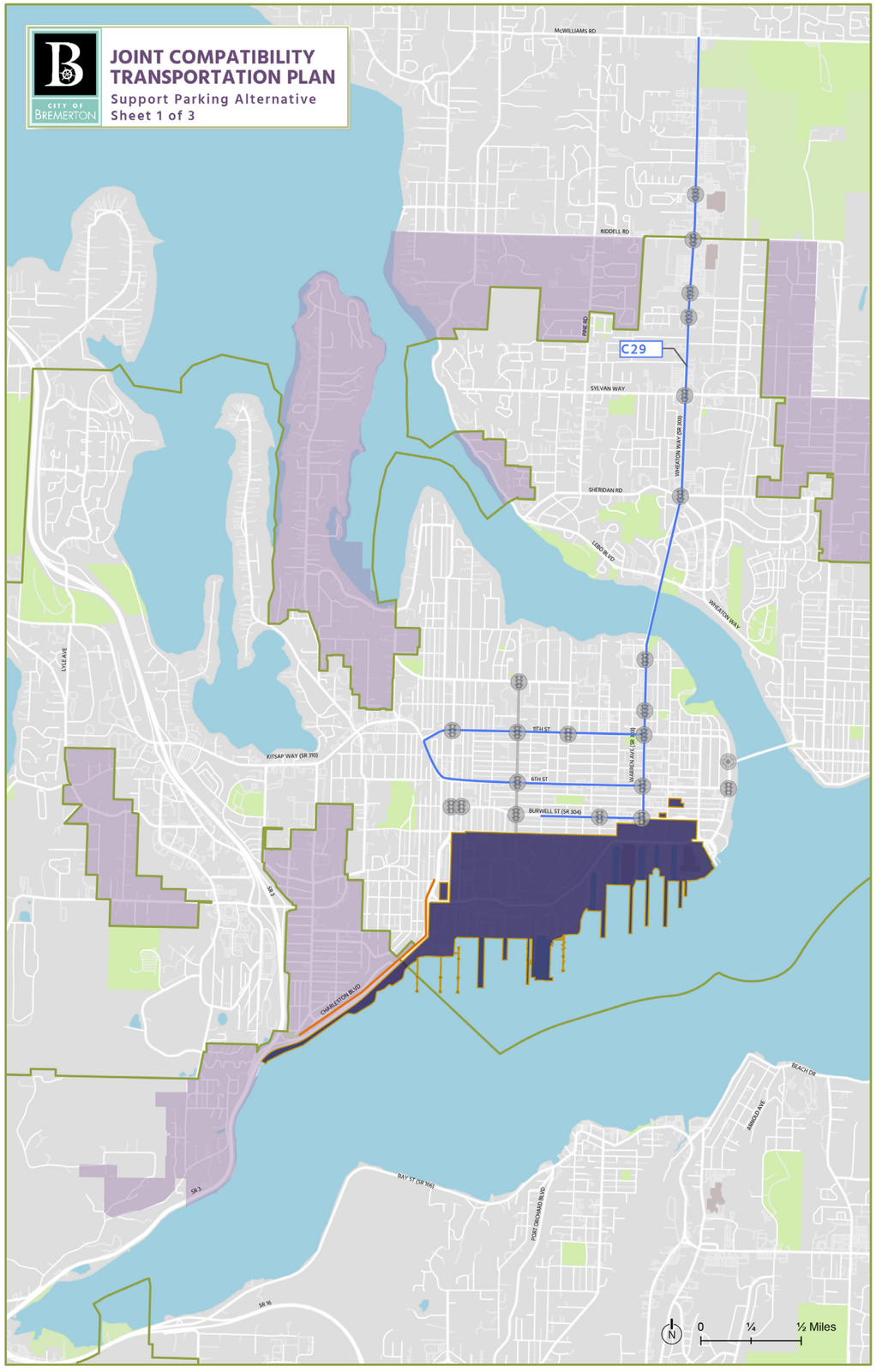
#	Improvement Idea	*Notes on Improvement*	Is it consistent with the study goals?	Is it feasible?	Is it ineffective according to previous studies?	First Level Screening Result
AT43	Evaluate safety enhancements at the site of the pedestrian fatality near the Kitsap Way/Morgan Road intersections, including an enhanced crosswalk such as a pedestrian crossing signal such as an RRFB or pedestrian hybrid beacon.		Yes	Yes	No	PASS
AT44	Install motorcycle parking outside (and/or inside) the State St and Charleston gates.		Yes	Yes	No	PASS
AT45	Provide low-stress bike connections to Olympic College by adding wayfinding and low-stress connections from 13th/Ohio to 16th/Warren. The SR-303 Corridor study proposes future bike facilities around Warren Avenue, specifically along the west side of Warren Avenue from 16th Street to 18th Street, along with a tunnel crossing Warren Avenue at 16th Street. The bike route would be on 16th Street and Chester Avenue (a path that runs through Olympic College that could potentially be a shared use path). Explore the possibility of extending 18th Street in North OC to allow bicyclists to access Ohio Avenue; this avoids major inclines and provides a low-stress bike corridor along Ohio Avenue. This project will require coordination with Olympic College.		Yes	Yes	No	PASS
AT46	Construct a bike boulevard on High Street through downtown Bremerton including sharrows and wayfinding. High Street is 20 mph and primarily residential. There are not significant inclines across High St outside of a short hill approaching 7th Street. Adjacent roads such as 11th Street and 13th Street are very steep and would be challenging for bicyclists. Modify the RRFB at High St/Burwell St so the push buttons can be used by bicyclists without dismounting and consider additional signage.		Yes	Yes	No	PASS
AT47	Construct separated bike faciliites on Naval Avenue from 13th St to 1st St. Install bicycle signals at major intersections on Naval Avenue. Additional sensors need to be implemented at major intersections such as Burwell, 6th, and 11th Streets, as bike users are not currently triggering signal lights. Naval Avenue should be prioritized for implementation, with 13th St bike lanes (AT59) occuring in a second phase.		Yes	Yes	No	PASS
AT48	In line with the Active Transportation Plan, add bike facilities on Shorewood Drive and Cascades Pass Blvd/Deception Pass St/Gray Harbor Ct to provide a key connection from Jackson Park to planned facilities on Kitsap Way and to downtown Bremerton. It also connects the housing area to the base. Shorewood Drive does not experience inclines, is low volume, and has low traffic speeds.		Yes	Yes	No	PASS
AT49	In response to roadway updates recommended to Kitsap Way and National Ave as part of other projects, construct crosswalks at 1st St/National Ave and install sidewalks on National Ave. Address visibility for northbound traffic on National Avenue at 1st St by adding pedestrian crossing signage and/or trimming the vegetation blocking the intersection.		Yes	Yes	No	PASS
AT50	Construct protected bike lanes or a shared-use path on Charleston Blvd between 1st St and SR-3 to make it a low-stress facility given high traffic speeds and volumes (ADT is greater than 30,000). The west side of Charleston Blvd has a buffered sidewalk, so the west side could be considered for a shared-use path. Install separate bicycle signal heads at signals to provide a leading bicycle signal phase and bike activation sensors, and design all intersections to allow safe movements for bicyclists (e.g. bike boxes, green pavement paint, etc), such as Charleston Blvd/Farragut Street, where northbound right turning vehicles may conflict with cyclists.		Yes	Yes	No	PASS
AT51	Construct bike boulevards that connect to downtown Bremerton to flesh out the low-stress bike network. Bike boulevards will include sharrows and distinct, branded wayfinding signage that indicates it is a bicycle route. Where the routes cross signalized intersections, provide bicycle signal detection and actuation, and consider installing separate bicycle signal heads to provide a leading bicycle signal phase. Types of improvements needed at non-signalized intersection include advance warning signs to notify motorists of bicycle boulevard crossings, intersection crossing markings, or raised intersections. Bike boulevards are proposed on 15th St from High Ave to Corbet Dr NW, Chester Ave from Olympic College to 1st St, Montgomery Ave from 1st St to 15th St, State Street from 1st Street to 4th Street, 4th Street from Washington Ave to Naval Ave, 8th Street from Washington Ave to Montgomery Ave, Wycoff Ave from 11th Ave to 26th St, 1st St from Chester Ave to Marion Ave (with added signage at intersections), 19th St from Naval Ave to Corbert Dr NW, National Ave from Kitsap Way to Charleston Beach Blvd, Oyster Bay Ave/W Arsenal Way, Marion Ave from W Arsenal Way to Kitsap Way, Corbet Dr NW from E Phinney Bay Dr to Kitsap Way, Pacific Ave from Burwell St to 13th St.		Yes	Yes	No	PASS
AT52	Construct protected bike lanes on 11th Street from Kitsap Way to Washington Avenue to connect with proposed bike lanes along Washington Avenue. Protected bike lanes are recommended as ADT is high at around 20,000. Install separate bicycle signal heads to provide a leading bicycle signal phase and bike activation sensors at N Callow Ave, Naval Ave, High Ave, Warren Ave, Park Ave, and Pacific Ave. Design all intersections to allow safe movements for bicyclists (e.g. bike boxes, green pavement paint, etc).		Yes	Yes	No	PASS
AT53	Construct protected bike lanes on 6th Street from Kitsap Way to Washington Avenue. Protected bike lanes recommended as ADT is greater than 10,000. Install separate bicycle signal heads to provide a leading bicycle signal phase and bike activation sensors at Naval Avenue, High Avenue, Veneta Avenue, Warren Avenue, Park Avenue, Pacific Avenue and Washington Avenue. Design all intersections to allow safe movements for bicyclists (e.g. bike boxes, green pavement paint, etc).		Yes	Yes	No	PASS
AT55	Construct bike lanes on Park Avenue from Burwell St to Lower Roto Vista Park, and install separate bicycle signal heads to provide a leading bicycle signal phase and bike activation sensors at 11th St and 6th St. ADT is less than 5,000 and speeds are relatively low, so bike lanes are sufficient per the FHWA Bikeway Selection Guide.		Yes	Yes	No	PASS
AT58	Add leading pedestrian intervals at key intersections in downtown Bremerton that people frequently walk to access facilities, such as Olympic College, the Naval Base, or Gateway Park & Ride, or key intersections that may align with pedestrian travel patterns to activity centers. As a first phase of improvements, leading pedestrian intervals are recommended at the following intersections: Burwell & State, Burwell & Naval, Burwell & Pacific, Burwell & Washington, Warren & 16th, Warren & 13th, 6th & Montgomery, 6th & Warren, 6th & Pacific, 11th & Warren. Evaluate adding additional leading pedestrian intervals as part of a second phase of improvements.		Yes	Yes	No	PASS
AT59	Implement a separated bike lane on 13th St from Park Ave to Naval Ave. ADT is close to 10,000 and speeds are relatively low, but the higher volumes and presence of transit stops warrants need for enhanced bicycle facilities to provide connections to Olympic College and other planned facilities on Warren Ave and High Ave.		Yes	Yes	No	PASS
AT60	Update bicycle lanes to separated bicycle lanes on Wheaton Way to provide low stress facilities due to high ADT around 7,000 and speed limits of 25 MPH. Extend separated bike facilities to Lebo Blvd and Sheridan Rd to connect with Warren Avenue Bridge bike facilities.		Yes	Yes	No	PASS
AT61	Implement low stress separated bike lanes on National Avenue to provide N/S connections in the Naval Yard area of Bremerton. Road widening would be necessary to provide a low-stress facility, which is recommended due to ADT around 7,000 and 35 MPH speeds.		Yes	Yes	No	PASS
AT62	Construct protected bike lanes or a shared-use path on Kitsap Way between SR3 and N Callow Ave to make it a low-stress facility given high traffic speeds and volumes (ADT around 40,000). Install separate bicycle signal heads at signals to provide a leading bicycle signal phase and bike activation sensors, and design all intersections to allow safe movements for bicyclists (e.g. bike boxes, green pavement paint, etc).		Yes	Yes	No	PASS
Education / Marketing						
E1	Education/marketing campaign for Bremerton residents and NBK-BR employees about transportation options, including bike storage and routes, vanpools, worker/driver program (guaranteed ride home, easy to change routes, real time tracking app, can be used by non-NBK employees), and parking options.		Yes	Yes	No	PASS
~~E2~~	~~Increase communication and marketing for vanpools~~	*Covered by E1*	N/A	N/A	N/A	FAIL
~~E3~~	~~Education on worker/driver program (guaranteed ride home, easy to change routes, real time tracking app)~~	*Covered by E1*	N/A	N/A	N/A	FAIL
~~E4~~	~~Joint marketing campaign for City or KT - education on the fact that non-NBK employees can also use the worker/driver program~~	*Covered by E1*	N/A	N/A	N/A	FAIL
E5	Education/marketing campaign to increase number of NBK employees commuting from Seattle (reverse commute)		Yes	Yes	No	PASS
~~E6~~	~~Parking education program about transportation and parking options~~	*Covered by E1*	N/A	N/A	N/A	FAIL
E7	Transportation Liaison at NBK-BR to help new hires and staff find best commuter option for them.		Yes	Yes	No	PASS
E8	Signage along the routes to educate motorists about merging		Yes	Yes	No	PASS
Parking Management / Policy						
PM1	Require NBK-BR contractors to park at a Park & Ride location outside of Downtown with frequent transit service to work		Yes	Yes	No	PASS
PM2	Revisit on-street parking management strategies including permit programs and paid parking in Downtown		Yes	Yes	No	PASS
PM3	Establish a transportation management association	*A transportation management association 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.*	Yes	Yes	No	PASS
PM4	Restrict new parking in Downtown	*This may include restricting park and ride lots and/or new standalone public parking facilities (i.e., those that are not accessory to another land use) through zoning. It may also include a City policy to not develop new public parking facilities Downtown that would be for commuter parking.*	Yes	Yes	No	PASS
~~PM5~~	~~Identify priority users for parking (i.e. commuters vs. residents/businesses)~~	*Repeat of PM2 (permits)*	N/A	N/A	N/A	FAIL

Joint Compatibility Transportation Plan
First Level Screening

#	Improvement Idea	*Notes on Improvement*	*Is it consistent with the study goals?*	*Is it feasible?*	*Is it ineffective according to previous studies?*	*First Level Screening Result*
PM6	Increase parking violation fines and enforcement frequency		Yes	No	No	FAIL
PM7	Parking cash-out for new development and employees in lieu of providing parking	*A cash-out is a direct payment in lieu of providing parking that is typically paid by an employer to an employee. Parking cash-out could be approved by the City as part of a transportation demand management plan for a new development in lieu of providing on-site parking. Existing employers could also offer parking cash out such as through a TMA.*	Yes	Yes	No	PASS
PM8	Prioritize rideshare and vanpool stalls in existing facilities	*This is underway but included in new 2022 parking rates and fees for on-street vanpool parking and a GIS map of off-street parking stalls*	N/A	N/A	N/A	FAIL
PM9	Repurpose parking lots for other travel modes	*Repurposing could include things like kiss and rides, electric bike charging, and parklets. Parklets are small plots of land that people can have lunch, rest while on a longer walk, sit and figure out where they want to go next when visiting a city.*	Yes	Yes	No	PASS
PM10	Issue commuter parking permits for City-owned facilities	*Monthly parking permits could first be prioritized for residents, Downtown employees, and visitors. If there is excess supply for commuter parking the City could develop a specific permit and pricing to support parking management and transportation related investments in Downtown and adjacent neighborhoods. The City already offers monthly permits at some facilities and this program could be expanded and priced appropriately to manage demand.*	Yes	Yes	No	PASS
PM11	Lower/remove fees for employees		No	No	No	FAIL
PM12	Provide safe parking options		Yes	Yes	No	PASS
PM13	De-monopolize Diamond parking		No	No	No	FAIL
PM14	Create commercial parking zones (or non-residential parking permit zones BMC 10.10.030) with on-street paid parking permits for both employees and clientele		Yes	Yes	No	PASS
Programs/Technologies/Incentives to encourage mode shift						
CTR1	Maintain telework options currently available to Base	*Telework allows people to work from home and use internet or phone for their meetings.*	Yes	Yes	No	PASS
CTR2	Eliminate fares for Kitsap Transit fixed route buses and worker/driver buses		Yes	Yes	No	PASS
CTR3	Incentives to ride transit	*The City would like to offer citation forgiveness for smart commuter registration and 1 month of activity*	Yes	Yes	No	PASS
CTR4	Reduced fare and regular bus passes. Reduced fare based on income		Yes	Yes	No	PASS
CTR5	Provide incentives for mode shift away from SOV for residents of neighborhoods along SR 303	*Incentives could include subsidized bus passes, free bus zones, or incentives from employers that do not provide free parking such as shower facilities for bikers and childcare options*	Yes	Yes	No	PASS
CTR6	Provide free parking for vanpools	*This is underway. The first stall is located on 4th street and spaces are being slotted throughout the City*	N/A	N/A	N/A	FAIL
CTR7	Operate City run rideshare program		Yes	No	No	FAIL
CTR8	Co-locate worker/driver stops with origins (daycares, schools, etc.)		Yes	Yes	No	PASS
CTR9	Expand affordable on-site daycare		Yes	Yes	No	PASS
CTR10	App similar to OneBusAway		N/A	N/A	N/A	FAIL
CTR11	Improve technology to make the worker/driver program more efficient		Yes	Yes	No	PASS
CTR12	Partner with Port Orchard to incentivize foot-ferry ridership		Yes	Yes	No	PASS
~~CTR13~~	~~Tracking system (like Onebusaway)~~	*Repeat of CTR10*	N/A	N/A	N/A	FAIL
CTR14	Address confusing and changing bus routes		Yes	Yes	No	PASS
~~CTR15~~	~~Encourage shipyard employees to telecommute~~	*Repeat of CTR1*	N/A	N/A	N/A	FAIL
Other						
O1	Align with other planned projects		N/A	N/A	N/A	FAIL
O2	Identify who you're designing for (have solutions meet the needs)		N/A	N/A	N/A	FAIL
O3	Keep in mind growth especially through Gorst		N/A	N/A	N/A	FAIL
O4	Use the Navy's rail line to move people		No	No	Yes	FAIL
O5	Reduce posted speeds (near gate entrances)		Yes	Yes	No	PASS
O6	Better enforcement of HOV lanes		Yes	Yes	No	PASS
O7	Funnel drivers to desired arterials through design/traffic calming		Yes	Yes	No	PASS
O8	Separate truck traffic from GP traffic; provide load/unload zones and restrict time of day		Yes	Yes	No	PASS
O9	Enforcement at at-capacity or over-capacity Park & Rides		Yes	Yes	No	PASS
O10	Make Callow area more livable - get NBK employees to live near NBK		Yes	Yes	No	PASS
O11	Incentivize development with sidewalks and bike lane improvements near developable land		No	Yes	No	FAIL
O12	Keep worker/driver system map more up-to-date		Yes	Yes	No	PASS
O13	More transit-oriented development at Park & Rides	*Transit oriented development includes adding more retail, services, housing near a transit station or Park&Ride. The goal would be to increase population density while minimizing the need for owning and/or driving a vehicle.*	Yes	Yes	No	PASS
O14	Kayaking from Port Orchard		Yes	No	No	FAIL
O15	Off-board payment for transit	*Off-board payment allows people to pay their bus fare before they get onto the bus. This reduces the amount of time a bus waits at a stop because people can get on and off using all doors.*	Yes	Yes	No	PASS

Appendix J

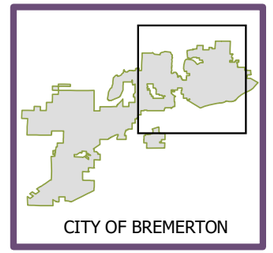
Second Level Screening Build Alternatives

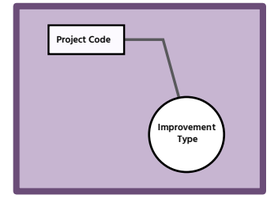


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New Parking · Restrict New Parking · Parking Management · Park & Ride Improvement · Passenger Loading Zone

HOV Lane · Signal Improvement · Roundabout · New Grade-Separation · Base Gate Improvement





PC - New / Expanded Parking, C - Capacity Projects,
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Source: City of Bremerton, Bremerton Non-Motorized Transportation Plan, USGS

System-Level Improvements Included in All Alternatives

C26	Traffic Management Center
C27	Variable message signs
C35	Adaptive signal timing at all signalized intersections
C38	Build projects proposed in Bremerton Strategic Road Safety Plan

T6	More bus routes to the shipyard
CTR3	Incentives to ride transit
CTR4	Reduced fare and regular bus passes. Reduced fare based on income
CTR5	Provide incentives for mode shift away from SOV for residents of neighborhoods along SR 303
CTR8	Co-locate worker/driver stops with origins (daycares, schools, etc.)
CTR11	Improve technology to make the worker/driver program more efficient
CTR12	Partner with Port Orchard to incentivize foot-ferry ridership
O6	Better enforcement of HOV lanes
O9	Enforcement at at-capacity or over-capacity Park & Rides
O12	Keep worker/driver system map more up-to-date
O16	More shelters at transit stops with lighting

PM2	Revisit on-street parking management strategies including permit programs and paid parking in Downtown
PM3	Establish a transportation management association

E1	Education/marketing campaign for Bremerton residents and NBK-BR employees about transportation options
E5	Education/marketing campaign to increase number of NBK employees commuting from Seattle (reverse commute)
E7	Transportation Liaison at NBK-BR to help new hires and staff find best commuter option for them
CTR1	Maintain telework options currently available to Base
O10	Make Callow area more livable - get NBK employees to live near NBK

System-Level Improvements Included in This Alternative

PC12	Expand parking through public/private partnerships. New downtown parking should be mixed-use with active street-level uses
PM 10	Issue commuter parking permits for City-owned facilities

O7	Funnel drivers to desired arterials through design/traffic calming

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FOR DISCUSSION PURPOSES ONLY

JOINT COMPATIBILITY TRANSPORTATION PLAN

Support Parking Alternative

Sheet 2 of 3

CITY OF BREMERTON

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For Discussion Purposes Only

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N

0 300 600 Feet

Project Code

Improvement Type

CITY OF BREMERTON

16TH T
LINCOLN AVE
BROADWAY AVE
ELIZABETH AVE
PARK AVE
SHELDON BLVD
15TH ST
12TH ST
11TH ST
NAVAL AVE
HIGH AVE
VENETA AVE
N WYCOFF AVE
N MONTGOMERY AVE
KITSAP WAY (SR 310)
N CAMBRIAN AVE
C24
6TH ST
BRYAN AVE
HEWITT AVE
5TH ST
4TH ST
C10
C9
C32
BURWELL ST (SR 304)
B4
S CALLOW AVE
STATE AVE
PC16
WARREN AVE (SR 303)
PARK AVE
PACIFIC AVE
WASHINGTON AVE
PC13
PC14
2ND ST

JOINT COMPATIBILITY TRANSPORTATION PLAN

Support Parking Alternative

Sheet 3 of 3

CITY OF BREMERTON

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For Discussion Purposes Only

C1 C1 C39 C39 C39 C39 C2 C2 B4 C16

KELLY RD ROCKY POINT RD NW JACKSON DR NW 18TH ST 17TH ST MARINE DR S MARINE DR LOWER MARINE DR ETHAN CT DORA AVE BERTHA AVE MORGAN RD CORBET DR E PHINNEY DR FORD AVE 24TH ST 21ST ST 20TH ST 19TH ST N LAFAYETTE AVE N CAMBRIAN AVE 13TH ST SUNDOWN DR 11TH ST 9TH ST 6TH ST 5TH ST 1ST ST O ST 6TH ST OSTRICH BAY AVE KITSAP WAY (SR 310) N CHARLOTTE AVE ADELE AVE WILBERT AVE TIMES AVE N LAFAYETTE AVE BRUENN AVE AUTO CENTER WAY SR 3 BAY VISTA BLVD N OYSTER BAY AVE N NATIONAL AVE N MARION AVE S DORA AVE S MARION AVE S HARTFORD AVE S SUMMIT AVE S LAFAYETTE AVE N WYCOFF AVE AUTO CENTER BLVD KEAN BLVD W ARSENAL WAY RODGERS ST MONROE ST W WERNER RD LOXIE EAGANS BLVD S CHARLESTON AVE CHARLESTON BLVD OYSTER BAY AVE BREMERTON BLVD S NATIONAL AVE CHARLOTTE AVE S MARION AVE S SUMMIT AVE UNION AVE SINCLAIR WAY ROOSEVELT BLVD

City of Bremerton Urban Growth Boundary
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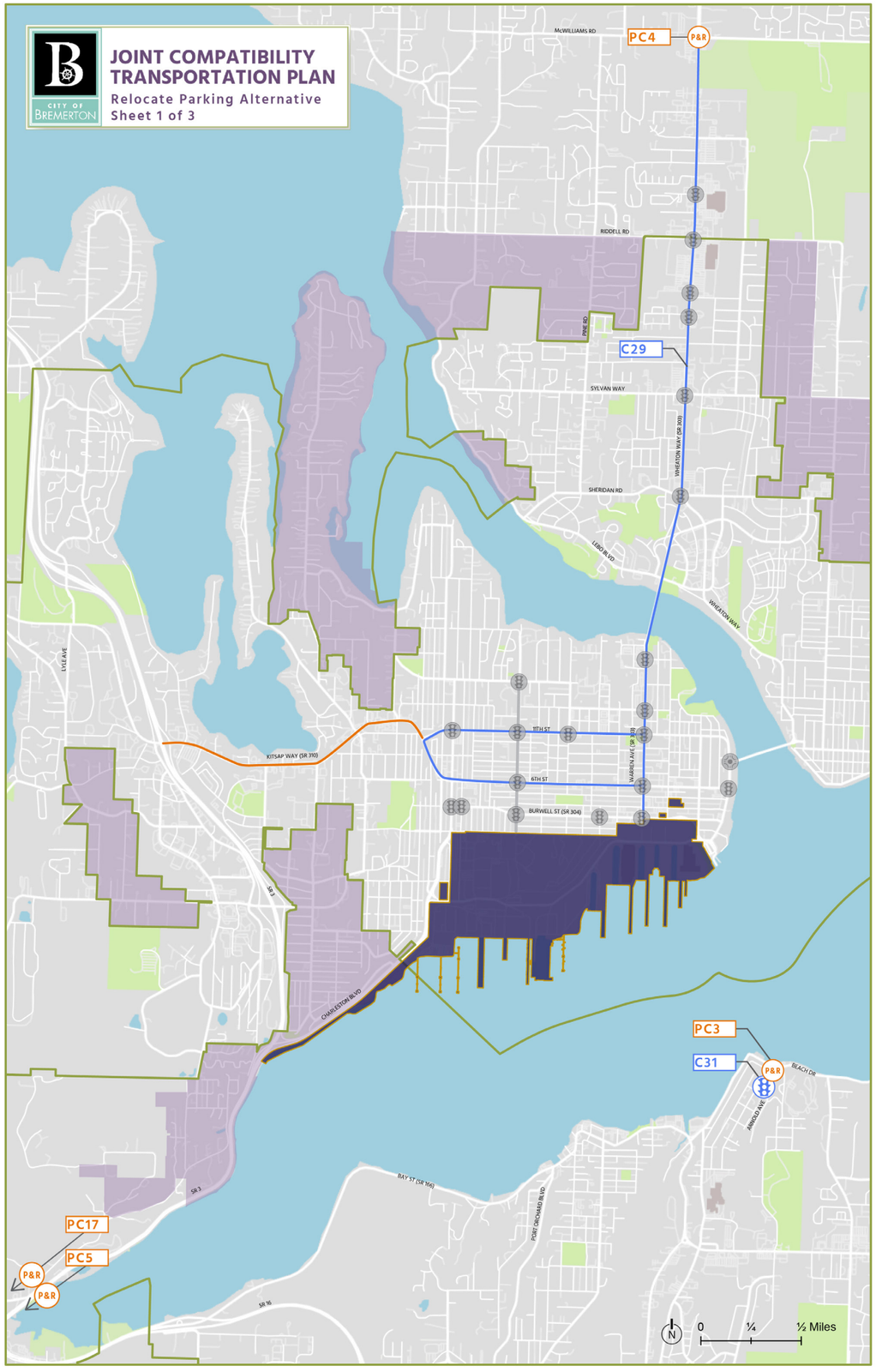
New Parking
Restrict New Parking
Parking Management
Park & Ride Improvement
Passenger Loading Zone
HOV Lane
Signal Improvement
Roundabout
New Grade-Separation
Base Gate Improvement

Project Code
Improvement Type

CITY OF BREMERTON

N 0 0.1 0.2 Miles

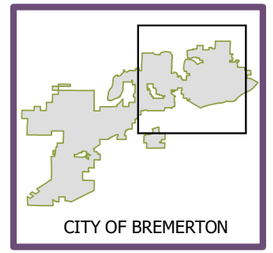
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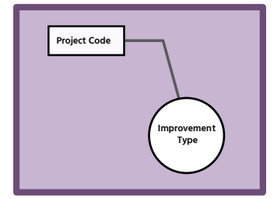


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New Parking · Restrict New Parking · Parking Management · Park & Ride Improvement · Passenger Loading Zone

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System-Level Improvements Included in All Alternatives

C26	Traffic Management Center
C27	Variable message signs
C35	Adaptive signal timing at all signalized intersections
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T6	More bus routes to the shipyard
CTR3	Incentives to ride transit
CTR4	Reduced fare and regular bus passes. Reduced fare based on income
CTR5	Provide incentives for mode shift away from SOV for residents of neighborhoods along SR 303
CTR8	Co-locate worker/driver stops with origins (daycares, schools, etc.)
CTR11	Improve technology to make the worker/driver program more efficient
CTR12	Partner with Port Orchard to incentivize foot-ferry ridership
O6	Better enforcement of HOV lanes
O9	Enforcement at at-capacity or over-capacity Park & Rides
O12	Keep worker/driver system map more up-to-date
O16	More shelters at transit stops with lighting

PM2	Revisit on-street parking management strategies including permit programs and paid parking in Downtown
PM3	Establish a transportation management association

E1	Education/marketing campaign for Bremerton residents and NBK-BR employees about transportation options
E5	Education/marketing campaign to increase number of NBK employees commuting from Seattle (reverse commute)
E7	Transportation Liaison at NBK-BR to help new hires and staff find best commuter option for them
CTR1	Maintain telework options currently available to Base
O10	Make Callow area more livable - get NBK employees to live near NBK

System-Level Improvements Included in This Alternative

T8	Shuttle service between Park & Rides and downtown Bremerton (regular bus route with high frequency)
T15	Cover more shift times with bus and/or worker/driver
T16	2 different early morning worker/driver buses
T17	Expand vanpool program
T19	Worker/driver late bus (similar to sports team buses) or on-call shuttle
O13	More transit-oriented development at Park & Rides

PM1	Require NBK-BR contractors to park at a Park & Ride location outside of Downtown with frequent transit service to work
PM7	Parking cash-out for new development and employees in lieu of providing parking
PM9	Repurpose parking lots for other travel modes

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FOR DISCUSSION PURPOSES ONLY

JOINT COMPATIBILITY TRANSPORTATION PLAN

Relocate Parking Alternative

Sheet 2 of 3

CITY OF BREMERTON

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For Discussion Purposes Only

Project Code

Improvement Type

CITY OF BREMERTON

- City of Bremerton Urban Growth Boundary
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- Naval Base Kitsap - Bremerton
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New Parking · Restrict New Parking · Parking Management · Park & Ride Improvement · Passenger Loading Zone

HOV Lane · Signal Improvement · Roundabout · New Grade-Separation · Base Gate Improvement

N

0 300 600 Feet

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

C23 C24 C20 PM14 PM4 T22

16TH T
LINCOLN AVE
BROADWAY AVE
ELIZABETH AVE
PARK AVE
SHELDON BLVD
15TH ST
12TH ST
11TH ST
KITSAP WAY (SR 310)
N WYCOFF AVE
N MONTGOMERY AVE
NAVAL AVE
HIGH AVE
VENETA AVE
WARREN AVE (SR 303)
PARK AVE
PACIFIC AVE
WASHINGTON AVE
MANETTE BRIDGE
N CAMBRIAN AVE
6TH ST
BRYAN AVE
HEWITT AVE
5TH ST
4TH ST
BURWELL ST (SR 304)
STATE AVE
S CALLOW AVE
2ND ST

JOINT COMPATIBILITY TRANSPORTATION PLAN

Relocate Parking Alternative

Sheet 3 of 3

CITY OF BREMERTON

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For Discussion Purposes Only

C1 C23 C23 C23 C23 C23 C23 C23 C7 C23 T22 C23 T22 C23 C2 PC6 C31

P&R

KELLY RD
ROCKY POINT RD NW
JACKSON DR
NW 18TH ST
17TH ST
MARINE DR
S MARINE DR
LOWER MARINE DR
ETHAN CT
DORA AVE
BERTHA AVE
MORGAN RD
CORBET DR
13TH ST
24TH ST
21ST ST
20TH ST
19TH ST
E PHINNEY DR
FORD AVE
N LAFAYETTE AVE
N CAMBRIAN AVE
SUNDOWN DR
11TH ST
9TH ST
6TH ST
5TH ST
1ST ST
O ST
KITSAP WAY (SR 310)
OSTRICH BAY AVE
BAY VISTA BLVD
AUTO CENTER WAY
AUTO CENTER BLVD
SR 3
BRUENN AVE
N OYSTER BAY AVE
N NATIONAL AVE
N MARION AVE
N CHARLOTTE AVE
ADELE AVE
WILBERT AVE
TIMES AVE
N WYCOFF AVE
S DORA AVE
S MARION AVE
S HARTFORD AVE
S SUMMIT AVE
S LAFAYETTE AVE
W ARSENAL WAY
LOXIE EAGANS BLVD
RODGERS ST
KEAN BLVD
MONROE ST
W WERNER RD
OYSTER BAY AVE
BREMERTON BLVD
S NATIONAL AVE
CHARLOTTE AVE
S CHARLESTON AVE
S SUMMIT AVE
CHARLESTON BLVD
UNION AVE
SINCLAIR WAY
ROOSEVELT BLVD

City of Bremerton Urban Growth Boundary
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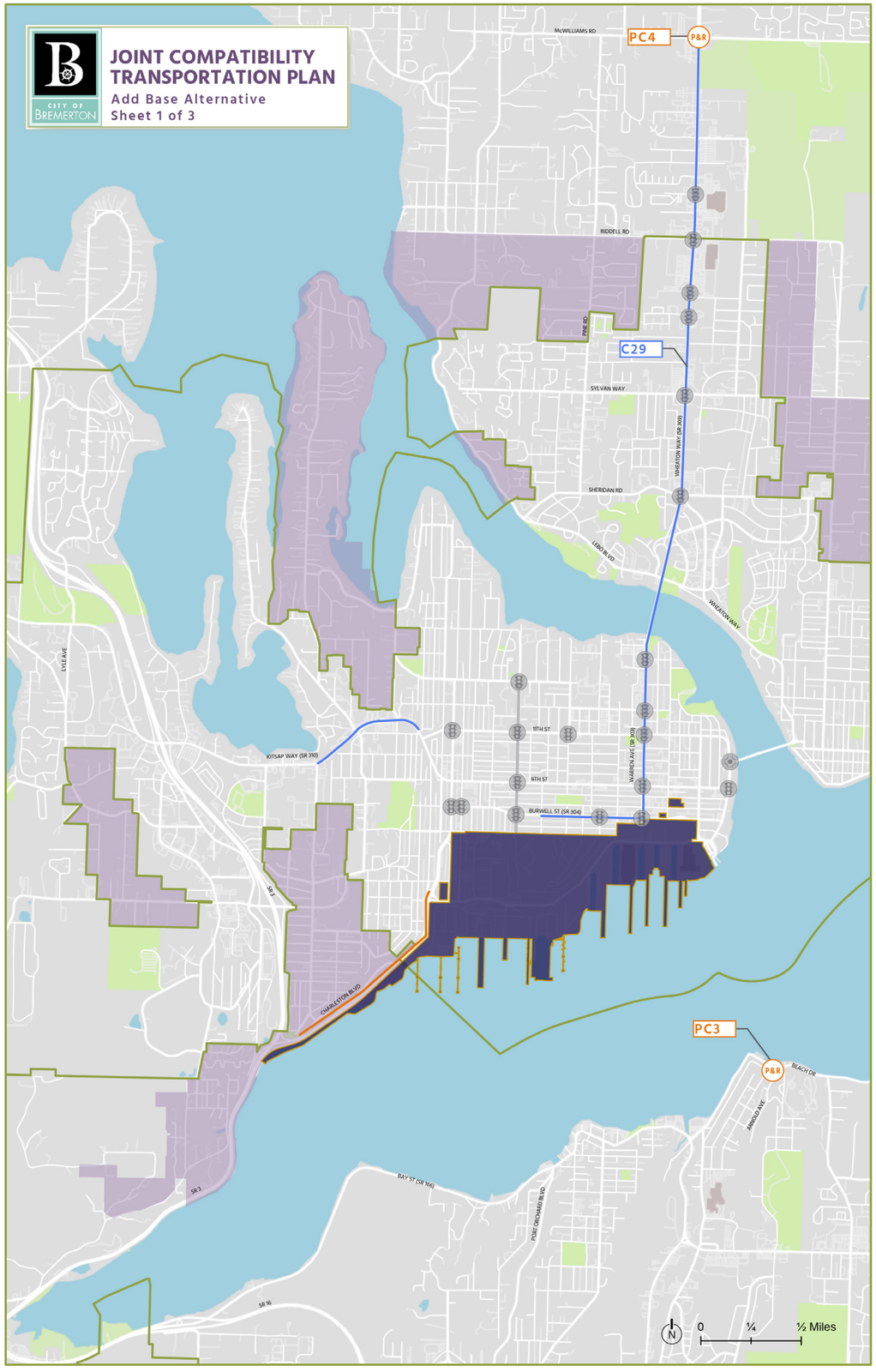
New Parking
Restrict New Parking
Parking Management
Park & Ride Improvement
Passenger Loading Zone
HOV Lane
Signal Improvement
Roundabout
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Base Gate Improvement

Project Code
Improvement Type

CITY OF BREMERTON

N
0 0.1 0.2 Miles

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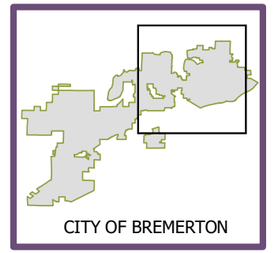


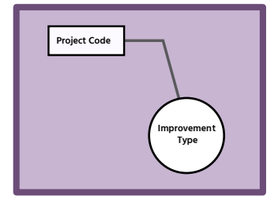
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System-Level Improvements Included in All Alternatives

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CTR1	Maintain telework options currently available to Base
O10	Make Callow area more livable - get NBK employees to live near NBK

System-Level Improvements Included in This Alternative

T17	Expand Vanpool Program
T19	Worker/driver late bus (similar to sports team buses) or on-call shuttle

PM7	Parking cash-out for new development and employees in lieu of providing parking
PM9	Re purpose parking lots for other travel modes
PM10	Issue commuter parking permits for City-owned facilities

O7	Funnel drivers to desired arterials through design/traffic calming

B9	Explore enhanced use lease to add private parking garages on base

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FOR DISCUSSION PURPOSES ONLY

JOINT COMPATIBILITY TRANSPORTATION PLAN

Add Base Alternative

Sheet 2 of 3

CITY OF BREMERTON

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N

0 300 600 Feet

Project Code

Improvement Type

CITY OF BREMERTON

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16TH T
BROADWAY AVE
ELIZABETH AVE
PARK AVE
SHELDON BLVD
15TH ST
LINCOLN AVE
12TH ST
11TH ST
PM4
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HIGH AVE
VENETA AVE
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N MONTGOMERY AVE
N CAMBRIAN AVE
6TH ST
BRYAN AVE
HEWITT AVE
5TH ST
4TH ST
C10
C8
C32
BURWELL ST (SR 304)
STATE AVE
WARREN AVE (SR 303)
PARK AVE
PACIFIC AVE
WASHINGTON AVE
2ND ST
B18
B4
B3
B3
B4
S CALLOW AVE

JOINT COMPATIBILITY TRANSPORTATION PLAN

Add Base Alternative

Sheet 3 of 3

CITY OF BREMERTON

DRAFT

For Discussion Purposes Only

C1

C6

B7

B3

B4

C16

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New Parking

Restrict New Parking

Parking Management

Park & Ride Improvement

Passenger Loading Zone

HOV Lane

Signal Improvement

Roundabout

New Grade-Separation

Base Gate Improvement

Project Code

Improvement Type

CITY OF BREMERTON

N

0 0.1 0.2 Miles

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

JOINT COMPATIBILITY TRANSPORTATION PLAN

All Alternatives

Active Transportation Improvements

CITY OF BREMERTON

- City of Bremerton Urban Growth Boundary
- City Limits
- Naval Base Kitsap - Bremerton
- 15 Minute Walkshed
- Active Transportation Projects in Improvement C29 (projects proposed in SR 303 study)
- NBK-BR Gates
- No Build Projects
- No Build Projects
- Proposed Bicycle Improvements in Locations Consistent with City Plans
- Proposed Bicycle Improvements at Additional Locations than those Identified in City Plans

Bicycle Improvement · Pedestrian Improvement · New Grade-Separation · Combined Pedestrian / Bicycle Improvement

AT Active Transportation
Project included in all alternative unless as noted below.

(a) Support Parking Alternative

(b) Relocate Parking Alternative

(c) Add Base Alternative

AT25 Improve Pedestrian Crossing

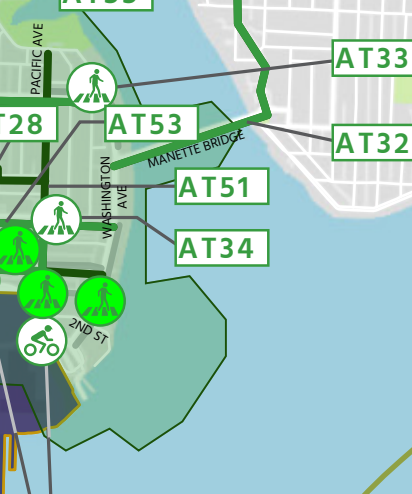
AT58 Add Leading Pedestrian Intervals (LPI) to Signal Phasing

Additional Improvements Included in All Alternatives:

- AT22 - Develop biking map of downtown
- AT34 - Implement way-finding for people who bike and pedestrians
- AT35 - Modify sidewalk design standards to remove vertical barriers
- AT5 (a, b only) - upgrade sidewalks and pedestrian crossings to be ADA compliant

For descriptions of other AT projects, see page 2.





N 0 ¼ ½ Miles

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

DRAFT - For Discussion Purposes Only

#	Improvement Idea	*Notes on Improvement*	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative
Capacity Projects (changes in lanes, signals, intersection control, etc.)					
C29	Build projects proposed in SR 303 study	*All analysis completed as part of the SR 303 Corridor study through the year 2040*	X	X	X
	Widen Warren Avenue Bridge to include 10’ sidewalks on both sides		X	X	X
	Sidewalks at both north and south ends that are forward-compatible with long-term plan		X	X	X
	Active transportation facility to connect to Lebo Boulevard on the north side of the bridge		X	X	X
	Provide wayfinding for active transportation		X	X	X
	Bicycle facilities south of the bridge between SR 303 and Park Avenue		X	X	X
	Bicycle facilities on Almira Drive from Sylvan Way to NE Riddell Road		X	X	X
	Build a mid-block pedestrian crossing north of Dibb Street and provide a pedestrian hybrid beacon and pedestrian refuge island		X	X	X
	Build a mid-block pedestrian crossing between 6th Street and 11th Street and provide a pedestrian hybrid beacon signal and pedestrian refuge island		X	X	X
	Build a mid-block pedestrian crossing north of Pearl Street and provide a pedestrian hybrid beacon and pedestrian refuge island		X	X	X
	Build a mid-block pedestrian crossing between Hollis Street and NE Riddell Road and provide a pedestrian hybrid beacon and pedestrian refuge island		X	X	X
	Update lane striping along SR 303 to delineate active transportation facilities		X	X	X
	Improve striping along Callahan Drive tunnel to show active transportation facility		X	X	X
	Install pedestrian crossing treatment at 4th Street and 5th Stree		X	X	X
	Bicycle facilities from Callahan Drive to Cherry Avenue using lower Wheaton Way, Spruce Avenue, and E 30th Street		X	X	X
	Build a mid-block pedestrian crossing at Sheridan Road and Spruce Avenue		X	X	X
	Bicycle facilities on Callahan Drive from SR 303 to lower Wheaton Way using existing tunnel under SR 303		X	X	X
	Provide 10' wide sidewalks at the following locations: SR 303 to Almira Drive using NE 32nd Street through Old East Bremerton High School, connecting near Dibb Street Wheaton Way Transit Center to Pine Road NE using NE Normandy Drive or NE Roswell Drive to access Clogston Avenue NE		X	X	X
	Construct a paved active transportation facility from Cherry Avenue to Almira Drive		X	X	X
	Bicycle facilities on Almira Drive from Cherry Avenue to Sylvan Way		X	X	X
	Complete sidewalk connection from south end of Warren Ave Bridge to existing sidewalk south of 18th Street		X	X	X
	Widen sidewalk to 10’ on west side of SR 303 between 13th Street and Warren Avenue Bridge		X	X	X
	Construct a tunnel under SR 303 for an active transportation undercrossing, connecting Olympic College to east side of SR 303		X	X	X
	Active transportation facilities on 18th Street through Olympic College to Broadway Avenue		X	X	X
Active Transportation					
AT1	Construct a mobility hub at the Gateway Park & Ride for first/last mile connections. Project may include space for bike share, scooter share, car share, as well as curb space for ride hailing service pickups like Uber and Lyft.	*A Mobility Hub is a centralized point where different modes of transportation come together seamlessly. It can include space for bike share, scooter share, car share, as well as curb space for ride hailing services pickups like Uber and Lyft. They are placed in strategic locations, typically where employment, housing, shopping, transit, and/or recreation are concentrated.*	X		X
AT3	Add well-lit crosswalks at the bus stop (Montgomery & 6th) to improve access to Gateway Park and Ride.		X	X	X
AT5	Within the 5-minute walksheds, upgrade all sidewalks in Fair, Marginal, Poor, or Very Poor condition; add sidewalks where missing; and upgrade marked and unmarked crossings to be ADA compliant.		X	X	
AT8	Construct a grade-separated crossing on Charleston Blvd, either at Charleston Beach Rd or Farragut St. Between the two, Charleston Beach Rd has a wider area of coverage for pedestrians to cross, with heavy traffic volumes, so this intersection should be prioritized.	*Grade separated refers to a bridge or tunnel that goes over or under a roadway.*	X		X
AT9	Construct at-grade crossing enhancements at Charleston Blvd/Charleston Beach Rd such as improved intersection geometries, new paint, and leading pedestrian intervals.			X	
AT10	Construct at-grade pedestrian crossing enhancements at Charleston Blvd/Farragut St such as improved intersection geometries, continental striping, and leading pedestrian intervals. Install sensors to detect bikes at the traffic signal. To address vehicle-bike conflicts at Charleston Gate resulting from high speed right turn movements across the bicycle lane/shoulder, consider design treatments to buffer bicyclists from turning vehicles.			X	
AT11	Stripe the crosswalk at Charleston Blvd/Rodgers St by the bus stop.		X	X	X
AT12	Construct a grade-separated crossing over Burwell St near State St/Burwell St intersection.		X		X
AT14	Construct an off-street trail from Gorst to downtown Bremerton. The trail will be 12 feet wide for bicyclists and pedestrians, and will not coincide with the roadway.	*This refers to a bicycle and pedestrian trail that would be 12 feet wide and not coincide with the roadway. Some level of buffer between the road edge and trail would be necessary. Details would be worked out in a future Gorst project.*	X	X	X
AT15	Establish safe east/west walking routes along the north perimeter of the base (e.g. Burwell St and 1st St to Charleston Blvd), including wayfinding and sidewalks. Stripe a crosswalk and consider additional enhanced crossing elements on Anoka Avenue at Burwell St, and at Burwell St and N Callows Ave to facilitate easier pedestrian crossings. Implement sidewalks and crosswalks on 1st Street to make it a viable option for pedestrians, and extend the sidewalk on Chester Ave to connect Burwell Street to 1st Street. Fill the sidewalk gaps along Burwell St east of Naval Avenue. Additional wayfinding could be implemented at Burwell Street and Pacific Avenue to direct people to nearby attractions and the Naval Base.		X	X	X

#	Improvement Idea	*Notes on Improvement*	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative
AT16	Upgrade pedestrian facilities in the vicinity of all pedestrian gates at NBK-BR to establish a safe, comfortable walking route to the Base. Widen sidewalks along Montgomery Ave, Naval Ave, and State St. Consider pedestrian safety enhancements near the bus stops on Burwell Ave.			X	
AT17	Upgrade pedestrian facilities on Montgomery Ave from 6th St to 1st St to establish a safe, comfortable walking route from the Gateway P&R to the Base by widening the sidewalks along Montgomery Ave and adding ADA-complaint curb ramps at the intersection of Montgomery Ave/Burwell St.		X	X	X
AT19	Install bike locker parking outside (and/or inside) the State Street, Burwell, and Bremerton gates. Naval and Charleston would also benefit from bike parking, but are less of a priority due to lower pedestrian traffic.		X	X	X
AT22	Develop a biking map of downtown Bremerton, including how to access/navigate the Base by bike		X	X	X
AT25	Improve pedestrian crossings on Kitsap Way/6th Street: Stripe new high-visibility crosswalks on 6th Street at Montgomery Avenue, High Avenue, and Chester Avenue. Implement crossing enhancements at the 6th Street and SR-3 interchange, such as restriping, stop bars, signage to yield to pedestrians, and ADA upgrades. Enhance crosswalks at Kistap Way/National Ave, Kitsap Way/Oyster Bar Ave, Kistap Way/Ostrich Bay Ave, to provide striping at all sides of the intersection. Add a PHB or signal between Morgan Road and Corbet Drive to provide access to the bus stops and businesses.	*Consideration for crossings at, or near, bus stops could help to encourage transit use on the corridor.*	X	X	X
AT27	Improve the sidewalk conditions in the neighborhood west of Charleston Blvd. (There are sidewalk gaps approaching Charleston Blvd along Cambria Avenue, missing curb ramps on sidewalks, and many sidewalks that are uneven and made with gravel. Lafayette Avenue has the same sidewalk profiles, with more intersections and transit stops along the corridor that need ADA improvements. Fill sidewalk gaps on Summit Avenue.)	*A lot of people are moving to this area and not many full width/ada accessible sidewalks.*	X	X	X
AT28	At the intersection of Burwell St/Park Ave, improve visibility of pedestrians crossing the street by adding leading pedestrian intervals. Consider additional signage to remind drivers to look for pedestrians, such as in pavement lighting or a flashing signal on the eastern ap proach to the signal to warn drivers accelerating out of the tunnel to slow for the signal/pedestrians. Consider removing the tree at the NE corner of the intersection to increase pedestrian visibility/sight distance for drivers.		X	X	X
AT29	Remove the proposed sharrow along Union Ave W between Werner Rd and Earhart St from future construction plans.	*The proposed sharrow is not feasible given terrain and cost*	X	X	X
AT30	Provide pedestrian safety enhancements at Callow Ave/1st St, such as adding a signalized pedestrian crossing, and re-striping the crosswalk with high visibility paint.	*People get stranded in the median. There have been some ped accidents. Right by the Pho restaurant. Also a transit stop here. Possibly relocate cross-walk to north side of intersection. Consider HAWK signal.*	X	X	X
AT31	Add crosswalks on Hewitt Avenue north and south of Burwell Street, and Anoka Avenue at Burwell Street.			X	
AT32	Relocate the bike lanes on the Manette Bridge to be adjacent to the sidewalk, on the other side of the concrete barrier	*Widened sidewalks across bridge part of SR 303 Corridor Study*	X	X	X
AT33	Add crosswalk at Highland Ave/11th St		X	X	X
AT34	Implement wayfinding throughout downtown Bremerton for pedestrian routes and bicycle routes to help people navigate to popular destinations (e.g. Manette, ferry, parks, etc.)	*Wayfinding refers to adding signs, kiosks, apps that help people navigate a city using the sidewalk or bicycle network.*	X	X	X
AT35	Modify approach to sidewalk design in Bremerton so new constructed sidewalks do not have vertical barriers (i.e. returned curbs)	*While these are ADA compliant, they are not best practice, as they perpetually trap debris and require cleaning by hand in many cases; can be a tripping hazard; and create tight pedestrian environments. We do not recommend redoing these locations, but when locations that are not ADA compliant get upgraded, we recommend moving away from this approach. This recommendation may be better suited outside the context of this project list.*	X	X	X
AT45	Provide low-stress bike connections to Olympic College by adding wayfinding and low-stress connections from 13th/Ohio to 16th/Warren. The SR-303 Corridor study proposes future bike facilities around Warren Avenue, specifically along the west side of Warren Avenue from 16th Street to 18th Street, along with a tunnel crossing Warren Avenue at 16th Street. The bike route would be on 16th Street and Chester Avenue (a path that runs through Olympic College that could potentially be a shared use path). Explore the possibility of extending 18th Street in North OC to allow bicyclists to access Ohio Avenue; this avoids major inclines and provides a low-stress bike corridor along Ohio Avenue. This project will require coordination with Olympic College.		X	X	X
AT46	Construct a bike boulevard on High Street through downtown Bremerton including sharrows and wayfinding. High Street is 20 mph and primarily residential. There are not significant inclines across High St outside of a short hill approaching 7th Street. Adjacent roads such as 11th Street and 13th Street are very steep and would be challenging for bicyclists. Modify the RRFB at High St/Burwell St so the push buttons can be used by bicyclists without dismounting and consider additional signage.		X	X	X
AT47	Construct separated bike faciliites on Naval Avenue from 13th St to 1st St. Install bicycle signals at major intersections on Naval Avenue. Additional sensors need to be implemented at major intersections such as Burwell, 6th, and 11th Streets, as bike users are not currently triggering signal lights. Naval Avenue should be prioritized for implementation, with 13th St bike lanes (AT59) occuring in a second phase.		X	X	X
AT48	In line with the Active Transportation Plan, add bike facilities on Shorewood Drive and Cascades Pass Blvd/Deception Pass St/Gray Harbor Ct to provide a key connection from Jackson Park to planned facilities on Kitsap Way and to downtown Bremerton. It also connects the housing area to the base. Shorewood Drive does not experience inclines, is low volume, and has low traffic speeds.		X	X	X
AT49	In response to roadway updates recommended to Kitsap Way and National Ave as part of other projects, construct crosswalks at 1st St/National Ave and install sidewalks on National Ave. Address visibility for northbound traffic on National Avenue at 1st St by adding pedestrian crossing signage and/or trimming the vegetation blocking the intersection.		X	X	X

#	Improvement Idea	*Notes on Improvement*	Support Parking Alternative	Relocate Parking Alternative	Add Base Parking Alternative
AT50	Construct protected bike lanes or a shared-use path on Charleston Blvd between 1st St and SR-3 to make it a low-stress facility given high traffic speeds and volumes (ADT is greater than 30,000). The west side of Charleston Blvd has a buffered sidewalk, so the west side could be considered for a shared-use path. Install separate bicycle signal heads at signals to provide a leading bicycle signal phase and bike activation sensors, and design all intersections to allow safe movements for bicyclists (e.g. bike boxes, green pavement paint, etc), such as Charleston Blvd/Farragut Street, where northbound right turning vehicles may conflict with cyclists.		X	X	X
AT51	Construct bike boulevards that connect to downtown Bremerton to flesh out the low-stress bike network. Bike boulevards will include sharrows and distinct, branded wayfinding signage that indicates it is a bicycle route. Where the routes cross signalized intersections, provide bicycle signal detection and actuation, and consider installing separate bicycle signal heads to provide a leading bicycle signal phase. Types of improvements needed at non-signalized intersection include advance warning signs to notify motorists of bicycle boulevard crossings, intersection crossing markings, or raised intersections. Bike boulevards are proposed on 15th St from High Ave to Corbet Dr NW, Chester Ave from Olympic College to 1st St, Montgomery Ave from 1st St to 15th St, State Street from 1st Street to 4th Street, 4th Street from Washington Ave to Naval Ave, 8th Street from Washington Ave to Montgomery Ave, Wycoff Ave from 11th Ave to 26th St, 1st St from Chester Ave to Marion Ave (with added signage at intersections), 19th St from Naval Ave to Corbert Dr NW, National Ave from Kitsap Way to Charleston Beach Blvd, Oyster Bay Ave/W Arsenal Way, Marion Ave from W Arsenal Way to Kitsap Way, Corbet Dr NW from E Phinney Bay Dr to Kitsap Way, Pacific Ave from Burwell St to 13th St.		X	X	X
AT52	Construct protected bike lanes on 11th Street from Kitsap Way to Washington Avenue to connect with proposed bike lanes along Washington Avenue. Protected bike lanes are recommended as ADT is high at around 20,000. Install separate bicycle signal heads to provide a leading bicycle signal phase and bike activation sensors at N Callow Ave, Naval Ave, High Ave, Warren Ave, Park Ave, and Pacific Ave. Design all intersections to allow safe movements for bicyclists (e.g. bike boxes, green pavement paint, etc).		X	X	X
AT53	Construct protected bike lanes on 6th Street from Kitsap Way to Washington Avenue. Protected bike lanes recommended as ADT is greater than 10,000. Install separate bicycle signal heads to provide a leading bicycle signal phase and bike activation sensors at Naval Avenue, High Avenue, Veneta Avenue, Warren Avenue, Park Avenue, Pacific Avenue and Washington Avenue. Design all intersections to allow safe movements for bicyclists (e.g. bike boxes, green pavement paint, etc).		X	X	X
AT55	Construct bike lanes on Park Avenue from Burwell St to Lower Roto Vista Park, and install separate bicycle signal heads to provide a leading bicycle signal phase and bike activation sensors at 11th St and 6th St. ADT is less than 5,000 and speeds are relatively low, so bike lanes are sufficient per the FHWA Bikeway Selection Guide.		X	X	X
AT58	Add leading pedestrian intervals at key intersections in downtown Bremerton that people frequently walk to access facilities, such as Olympic College, the Naval Base, or Gateway Park & Ride, or key intersections that may align with pedestrian travel patterns to activity centers. As a first phase of improvements, leading pedestrian intervals are recommended at the following intersections: Burwell & State, Burwell & Naval, Burwell & Pacific, Burwell & Washington, Warren & 16th, Warren & 13th, 6th & Montgomery, 6th & Warren, 6th & Pacific, 11th & Warren. Evaluate adding additional leading pedestrian intervals as part of a second phase of improvements.		X	X	X
AT59	Implement a separated bike lane on 13th St from Park Ave to Naval Ave. ADT is close to 10,000 and speeds are relatively low, but the higher volumes and presence of transit stops warrants need for enhanced bicycle facilities to provide connections to Olympic College and other planned facilities on Warren Ave and High Ave.		X	X	X
AT60	Update bicycle lanes to separated bicycle lanes on Wheaton Way to provide low stress facilities due to high ADT around 7,000 and speed limits of 25 MPH. Extend separated bike facilities to Lebo Blvd and Sheridan Rd to connect with Warren Avenue Bridge bike facilities.		X	X	X
AT61	Implement low stress separated bike lanes on National Avenue to provide N/S connections in the Naval Yard area of Bremerton. Road widening would be necessary to provide a low-stress facility, which is recommended due to ADT around 7,000 and 35 MPH speeds.		X	X	X
AT62	Construct protected bike lanes or a shared-use path on Kitsap Way between SR3 and N Callow Ave to make it a low-stress facility given high traffic speeds and volumes (ADT around 40,000). Install separate bicycle signal heads at signals to provide a leading bicycle signal phase and bike activation sensors, and design all intersections to allow safe movements for bicyclists (e.g. bike boxes, green pavement paint, etc).		X	X	X

Appendix K

Second Level Screening Results

Joint Compatibility Transportation Plan
Second Level Screening

Performance compared to 2050	Worse	Same	Improves	Significantly improves

Study Goal Area	Performance Measures	Support Parking Alternative: Performance Compared to 2050 No Build	Support Parking Alternative: Key Findings	Relocate Parking Alternative: Performance Compared to 2050 No Build	Relocate Parking Alternative: Key Findings	Add Base Parking Alternative: Performance Compared to 2050 No Build	Add Base Parking Alternative: Key Findings
Travel Times and Reliability: *Improve travel times to/from downtown Bremerton and make travel times to/from downtown Bremerton more predictable.*	Travel Time	→	* During AM peak hour travel times improve for both general purpose traffic and transit due to roundabouts along Kitsap Way, Burwell Street, and Loxie Eagans Blvd during AM peak hour. * Transit travel times during the AM peak hour are further improved by northbound HOV lane along Charleston Blvd * During PM peak hour travel times worsen for both general purpose traffic and transit due to reduced capacity associated with the 11th Street and 6th Street road diets. * During the PM peak hour, transit travel time improvements associated with the BAT lane along SR 303 are outweighed by reduced capacities associated with the 11th Street and 6th Street road diets. * Impacts to travel time reliability are similar to those associated with travel time.	↗	* This alternative assumes 1,000 vehicles will be removed from traffic inbound to downtown during the AM peak hour and from traffic outbound of downtown during the PM peak hour. Assume they instead park outside downtown and take transit in. * General purpose and transit travel times improve due to reduced volumes. * Transit travel times are further improved by TSP. * During the PM peak hour, improvements to general purpose travel time associated with reduced outbound volumes are outweighed by reduced capacities associated with the 11th Street and 6th Street road diets. * During the PM peak hour, improvements to transit travel time associated with BAT lanes along Kitsap Way and SR 303 are outweighed by reduced capacities associated with the 11th Street and 6th Street road diets. * Impacts to travel time reliability are similar to those associated with travel time.	→	* Transit travel times during the AM peak hour are further improved by northbound HOV lane along Charleston Blvd * During the PM peak hour, general purpose and transit travel times improve due to added capacity along Kitsap Way. * Transit travel time during the PM peak hour is further improved by the BAT lane along SR 303. * Impacts to travel time reliability are similar to those associated with travel time.
	Travel Time Reliability	→		↑		→	
	Average Score	→		↗		→	
Mobility: *Increase the transportation system's ability to efficiently move all people and goods.*	Person hours of delay - general purpose	↗	* With minimal changes to volumes in this alternative, impacts to general purpose and transit mobility are similar to those associated with travel time.	↑	* General purpose mobility improves during the AM and PM peak hour due to reduced general purpose vehicle volumes. * Transit mobility worsens during the AM and PM peak hour despite the addition of transit signal priority (TSP). This is because the reduction of network vehicles results in a demand for transit, thus increasing the number of transit users in the analysis. This assumes bus service and bus stop locations remain the same as existing.	↑	* With minimal changes to volumes along several of the major corridors in this alternative, impacts to general purpose and transit mobility are similar to those associated with travel time. * General purpose mobility improves most along Burwell St due to reduced volumes and added roadway capacity.
	Person hours of delay - Transit	↗		→		↗	
	Average Score	↗		↗		↑	
Safety: *Improve safety and reduce serious injury and fatal crashes.*	Number of overall crashes	↗	* Road diet projects at 6th Street and 11th Street provide the largest reduction in overall crashes, and in serious injury and fatal crashes. * Roundabouts and adaptive signal timing provide additional crash reductions.	↑	* Road diet projects at 6th Street and 11th Street provide the largest reduction in overall crashes, and in serious injury and fatal crashes. * TSP, roundabouts, and adaptive signal timing provide additional crash reductions.	↑	* Roundabouts and adaptive signal timing result in a reduction of overall crashes and the number of serious injury and fatal crashes.
	Number of serious injury and fatal crashes	↑		↑		↑	
	Average Score	↗		↑		↑	
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	↗	* Active transportation is not a differentiator between alternatives. Active transportation projects will be prioritized for the Preferred Alternative.	↗	* Active transportation is not a differentiator between alternatives. Active transportation projects will be prioritized for the Preferred Alternative.	↗	* Active transportation is not a differentiator between alternatives. Active transportation projects will be prioritized for the Preferred Alternative.
	Number of high-quality travel choices in the study area	↑		↑		↑	
	Safe and Comfortable Walking and Biking Options	↑		↑		↑	
	Average Score	↗		↗		↗	
Parking: *Parking system supports a vibrant, attractive and user-friendly Downtown with thriving neighborhood districts and attractive residential neighborhoods.*	Parking utilization	↑	* Assumes paid parking downtown, on-street commuter parking permits in residential zones *Substantional increase in surface parking; results in largest increases in revenue and decreases in the "Bremeton Shuffle" * Would have the highest parking impacts on downtown/neighborhood but would provide the largest boost to City revenues and technology investments. * Alternative is positive from a parking business/resource perspective but most impactful to Downtown and adjacent neighborhoods.	↑	* Assumes residential only parking permits and paid parking downtown. * Assumes a substantial decrease in surface parking, as existing parking is replaced outside downtown, and a portion of current downtown parking is replaced by redeveloping City-owned surface lots to more active land-uses. It also doesn't account for differences in the user experience of being able to park near or on NBK versus park and ride/transit access. * Assumes a "Commuter Engagement and Incentive Platform" where major employers in the study area would participate in use of a commuter engagement and incentive platform to enhance mobility options and incentives for commuters.	↑	* Assumes parking downtown that is used by NBK-BR workers is now provided on Base; also assumes residential only parking permits * Shift in parking from dowtown to th Base results in a decrease in revenue * Alternative doesn't include improvements or policies that would substantially improve enforcement. *Available surface parking largely assumed to remain the same
	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	↗		↑		→	

Joint Compatibility Transportation Plan
Second Level Screening

				No Build		Support Parking Alternative		Relocate Parking Alternative		Add Base Parking Alternative	
Arterial (Direction)	From	To	Distance (miles)	TT	Speed (mph)	Corridor TT	Speed (mph)	Corridor TT	Speed (mph)	Corridor TT	Speed (mph)
AM GP											
Corridor Travel Time											
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	1.40	0:03:30	24	0:03:20	25	0:02:40	32	0:02:40	32
11th Ave (Eastbound)	Kitsap Way	SR 303	1.11	0:03:30	19	0:02:20	29	0:02:20	29	0:02:20	29
6th St (Eastbound)	N Callow Ave	SR 303	0.95	0:03:30	16	0:03:30	16	0:03:10	18	0:03:40	15
Burwell St (Eastbound)	N Callow Ave	SR 303	0.95	0:03:40	16	0:03:10	18	0:02:50	20	0:02:50	20
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2.91	0:08:20	21	0:06:30	27	0:08:00	22	0:08:20	21
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	0.89	0:03:20	16	0:02:10	25	0:02:10	25	0:02:40	20
		GP Total		**0:25:50**		**0:21:00**		**0:21:10**		**0:22:30**	
		Change from No Build		**0%**		**19%**		**18%**		**13%**	
		Score		**1**		**2**		**2**		**2**	
AM Transit											
Corridor Travel Time											
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	1.40	0:06:20	13	0:06:00	14	0:04:20	19	0:05:30	15
11th Ave (Eastbound)	Kitsap Way	SR 303	1.11	0:05:00	13	0:03:50	17	0:03:40	18	0:03:50	17
6th St (Eastbound)	N Callow Ave	SR 303	0.95	0:07:40	7	0:07:50	7	0:05:10	11	0:07:50	7
Burwell St (Eastbound)	N Callow Ave	SR 303	0.95	0:07:00	8	0:06:30	9	0:05:20	11	0:06:10	9
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2.91	0:13:30	13	0:12:10	14	0:10:30	17	0:14:10	12
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	0.89	0:04:50	11	0:03:30	15	0:03:30	15	0:04:00	13
		Transit Total		**0:44:20**		**0:39:50**		**0:32:30**		**0:41:30**	
		Change from No Build		**0%**		**10%**		**27%**		**6%**	
		Score		**1**		**2**		**3**		**1**	
PM GP											
Corridor Travel Time											
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	1.40	0:05:30	15	0:05:40	15	0:03:20	25	0:03:40	23
11th Ave (Westbound)	SR 303	Kitsap Way	1.11	0:04:50	14	0:03:30	19	0:03:20	20	0:03:20	20
6th St (Westbound)	SR 303	N Callow Ave	0.95	0:04:00	14	0:06:30	9	0:07:00	8	0:06:30	9
Burwell St (Westbound)	SR 303	N Callow Ave	0.95	0:04:20	13	0:03:30	16	0:03:10	18	0:04:30	13
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2.91	0:13:20	13	0:12:00	15	0:12:40	14	0:11:30	15
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	0.89	0:03:10	17	0:02:20	23	0:02:10	25	0:02:20	23
		GP Total		**0:35:10**		**0:33:30**		**0:31:40**		**0:31:50**	
		Change from No Build		**0%**		**5%**		**10%**		**9%**	
		Score		**1**		**1**		**1**		**1**	
PM Transit											
Corridor Travel Time											
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	1.40	0:07:20	11	0:07:20	11	0:04:10	20	0:05:20	16
11th Ave (Westbound)	SR 303	Kitsap Way	1.11	0:06:20	11	0:05:00	13	0:04:40	14	0:04:50	14
6th St (Westbound)	SR 303	N Callow Ave	0.95	0:09:00	6	0:11:30	5	0:09:20	6	0:11:20	5
Burwell St (Westbound)	SR 303	N Callow Ave	0.95	0:07:20	8	0:06:30	9	0:05:10	11	0:07:30	8
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2.91	0:18:50	9	0:14:30	12	0:13:00	13	0:14:00	12
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	0.89	0:04:00	13	0:03:00	18	0:02:50	19	0:03:00	18
		Transit Total		**0:52:50**		**0:47:50**		**0:39:10**		**0:46:00**	
		Change from No Build		**0%**		**9%**		**26%**		**13%**	
		Score		**1**		**1**		**3**		**2**	

Joint Compatibility Transportation Plan
Second Level Screening

					No Build								Support Parking Alternative							
Arterial (Direction)	From	To	Number of lanes (directional)	Free Flow Speed (FFS)	Actual Speed	Arterial LOS	V/C	V/C rounded	Travel Rate *= (1/ Actual speed)*	Recurring Delay *= (t-(1/FFS))*	Incident Delay (D_u) *= (IDAP lookup)*	TTI_m	Number of lanes (directional)	Actual Speed	Arterial LOS	V/C	V/C rounded	Travel Rate *= (1/ Actual speed)*	Recurring Delay *= (t-(1/FFS))*	Incident Delay (D_u) *= (IDAP lookup)*	TTI_m
AM GP																					
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	2	35	24	C	0.71	0.70	0.042	0.013	1.12E-03	1.50	2	25	C	0.71	0.70	0.040	0.011	1.12E-03	1.43
11th Ave (Eastbound)	Kitsap Way	SR 303	2	30	19	C	0.71	0.70	0.053	0.019	1.12E-03	1.60	2	29	B	0.61	0.60	0.035	0.002	6.00E-04	1.06
6th St (Eastbound)	N Callow Ave	SR 303	2	25	16	C	0.71	0.70	0.062	0.021	1.12E-03	1.56	2	16	D	0.81	0.80	0.062	0.021	2.09E-03	1.58
Burwell St (Eastbound)	N Callow Ave	SR 303	2	25	16	D	0.81	0.80	0.064	0.024	2.09E-03	1.66	2	18	D	0.81	0.80	0.055	0.015	2.09E-03	1.44
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2	28	21	D	0.81	0.80	0.048	0.013	2.09E-03	1.41	2	27	D	0.81	0.80	0.037	0.002	2.09E-03	1.12
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	3	30	16	D	0.81	0.80	0.062	0.029	1.64E-03	1.94	4	25	C	0.71	0.70	0.041	0.007	5.28E-04	1.24
		Average										**1.61**									**1.31**
		Change from No Build										**0%**									**19%**
		Change Type										**NO CHANGE**									**IMPROVE TTR**
		Score										**1**									**2**
AM Transit																					
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	2	35	13	C	0.71	0.70	0.075	0.047	1.12E-03	2.68	2	14	C	0.71	0.70	0.071	0.043	1.12E-03	2.54
11th Ave (Eastbound)	Kitsap Way	SR 303	2	30	13	C	0.71	0.70	0.075	0.042	1.12E-03	2.27	2	17	B	0.61	0.60	0.058	0.024	6.00E-04	1.73
6th St (Eastbound)	N Callow Ave	SR 303	2	25	7	C	0.71	0.70	0.135	0.095	1.12E-03	3.39	2	7	D	0.81	0.80	0.138	0.098	2.09E-03	3.48
Burwell St (Eastbound)	N Callow Ave	SR 303	2	25	8	D	0.81	0.80	0.122	0.082	2.09E-03	3.12	2	9	D	0.81	0.80	0.114	0.074	2.09E-03	2.90
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2	28	13	D	0.81	0.80	0.077	0.042	2.09E-03	2.25	2	14	D	0.81	0.80	0.070	0.034	2.09E-03	2.04
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	3	30	11	D	0.81	0.80	0.091	0.057	1.64E-03	2.79	4	15	C	0.71	0.70	0.066	0.032	5.28E-04	2.00
		Average										**2.75**									**2.45**
		Change from No Build										**0%**									**11%**
		Change Type										**NO CHANGE**									**IMPROVE TTR**
		Score										**1**									**2**
PM GP																					
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	2	35	15	E	0.91	0.90	0.065	0.037	5.10E-03	2.47	2	15	E	0.91	0.90	0.067	0.039	5.10E-03	2.54
11th Ave (Westbound)	SR 303	Kitsap Way	2	30	14	E	0.91	0.90	0.073	0.039	5.10E-03	2.32	2	19	D	0.81	0.80	0.053	0.019	2.09E-03	1.63
6th St (Westbound)	SR 303	N Callow Ave	2	25	14	D	0.81	0.80	0.070	0.030	2.09E-03	1.80	2	9	F	1.00	1.00	0.114	0.074	1.99E-02	3.34
Burwell St (Westbound)	SR 303	N Callow Ave	2	25	13	D	0.81	0.80	0.076	0.036	2.09E-03	1.95	2	16	D	0.81	0.80	0.061	0.021	2.09E-03	1.59
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2	28	13	F	1.00	1.00	0.076	0.041	1.99E-02	2.73	3	15	E	0.91	0.90	0.069	0.034	4.01E-03	2.07
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	2	30	17	C	0.71	0.70	0.059	0.026	1.12E-03	1.83	2	23	C	0.71	0.70	0.044	0.011	1.12E-03	1.35
		Average										**2.18**									**2.09**
		Change from No Build										**0%**									**4%**
		Change Type										**NO CHANGE**									**IMPROVE GP**
		Score										**1**									**1**
PM Transit																					
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	2	35	11	E	0.91	0.90	0.087	0.059	5.10E-03	3.23	2	11	E	0.91	0.90	0.087	0.059	5.10E-03	3.23
11th Ave (Westbound)	SR 303	Kitsap Way	2	30	11	E	0.91	0.90	0.095	0.062	5.10E-03	2.99	2	13	D	0.81	0.80	0.075	0.042	2.09E-03	2.30
6th St (Westbound)	SR 303	N Callow Ave	2	25	6	D	0.81	0.80	0.158	0.118	2.09E-03	3.99	2	5	F	1.00	1.00	0.202	0.162	1.99E-02	5.53
Burwell St (Westbound)	SR 303	N Callow Ave	2	25	8	D	0.81	0.80	0.128	0.088	2.09E-03	3.26	2	9	D	0.81	0.80	0.114	0.074	2.09E-03	2.90
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2	28	9	F	1.00	1.00	0.108	0.073	1.99E-02	3.63	3	12	E	0.91	0.90	0.083	0.048	4.01E-03	2.47
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	2	30	13	C	0.71	0.70	0.075	0.042	1.12E-03	2.30	2	18	C	0.71	0.70	0.056	0.023	1.12E-03	1.73
		Average										**3.23**									**3.03**
		Change from No Build										**0%**									**6%**
		Change Type										**NO CHANGE**									**IMPROVE TTR**
		Score										**1**									**1**

Joint Compatibility Transportation Plan
Second Level Screening

					Relocate Parking Alternative									Add Base Parking Alternative								
Arterial (Direction)	From	To	Number of lanes (directional)	Free Flow Speed (FFS)	Number of lanes (directional)	Actual Speed	Arterial LOS	V/C	V/C rounded	Travel Rate *= (1/ Actual speed)*	Recurring Delay *= (t-(1/FFS))*	Incident Delay (D_u) *= (IDAP lookup)*	TTI_m	Number of lanes (directional)	Actual Speed	Arterial LOS	V/C	V/C rounded	Travel Rate *= (1/ Actual speed)*	Recurring Delay *= (t-(1/FFS))*	Incident Delay (D_u) *= (IDAP lookup)*	TTI_m
AM GP																						
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	2	35	2	32	D	0.81	0.80	0.032	0.003	2.09E-03	1.18	2	32	C	0.71	0.70	0.032	0.003	1.12E-03	1.15
11th Ave (Eastbound)	Kitsap Way	SR 303	2	30	2	29	B	0.61	0.60	0.035	0.002	6.00E-04	1.06	2	29	B	0.61	0.60	0.035	0.002	6.00E-04	1.06
6th St (Eastbound)	N Callow Ave	SR 303	2	25	2	18	D	0.81	0.80	0.056	0.016	2.09E-03	1.44	2	15	D	0.81	0.80	0.065	0.024	2.09E-03	1.66
Burwell St (Eastbound)	N Callow Ave	SR 303	2	25	2	20	D	0.81	0.80	0.050	0.010	2.09E-03	1.29	2	20	C	0.71	0.70	0.050	0.010	1.12E-03	1.27
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2	28	2	22	D	0.81	0.80	0.046	0.011	2.09E-03	1.36	2	21	D	0.81	0.80	0.048	0.013	2.09E-03	1.41
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	3	30	3	25	C	0.71	0.70	0.041	0.007	7.98E-04	1.25	4	20	C	0.71	0.70	0.050	0.017	5.28E-04	1.53
		Average											**1.27**									**1.35**
		Change from No Build											**21%**									**16%**
		Change Type											**IMPROVE TTR**									**IMPROVE TTR**
		Score											**3**									**2**
AM Transit																						
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	2	35	2	19	D	0.81	0.80	0.052	0.023	2.09E-03	1.88	2	15	C	0.71	0.70	0.065	0.037	1.12E-03	2.33
11th Ave (Eastbound)	Kitsap Way	SR 303	2	30	2	18	B	0.61	0.60	0.055	0.022	6.00E-04	1.66	2	17	B	0.61	0.60	0.058	0.024	6.00E-04	1.73
6th St (Eastbound)	N Callow Ave	SR 303	2	25	2	11	D	0.81	0.80	0.091	0.051	2.09E-03	2.31	2	7	D	0.81	0.80	0.138	0.098	2.09E-03	3.48
Burwell St (Eastbound)	N Callow Ave	SR 303	2	25	2	11	D	0.81	0.80	0.093	0.053	2.09E-03	2.39	2	9	C	0.71	0.70	0.108	0.068	1.12E-03	2.73
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2	28	2	17	D	0.81	0.80	0.060	0.025	2.09E-03	1.77	2	12	D	0.81	0.80	0.081	0.046	2.09E-03	2.36
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	3	30	3	15	C	0.71	0.70	0.066	0.032	7.98E-04	2.01	4	13	C	0.71	0.70	0.075	0.042	5.28E-04	2.28
		Average											**2.00**									**2.49**
		Change from No Build											**27%**									**10%**
		Change Type											**IMPROVE TTR**									**IMPROVE TTR**
		Score											**3**									**1**
PM GP																						
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	2	35	3	25	D	0.81	0.80	0.040	0.011	1.64E-03	1.45	2	23	D	0.81	0.80	0.044	0.015	2.09E-03	1.60
11th Ave (Westbound)	SR 303	Kitsap Way	2	30	2	20	D	0.81	0.80	0.050	0.017	2.09E-03	1.55	2	20	D	0.81	0.80	0.050	0.017	2.09E-03	1.55
6th St (Westbound)	SR 303	N Callow Ave	2	25	2	8	F	1.00	1.00	0.123	0.083	1.99E-02	3.56	2	9	F	1.00	1.00	0.114	0.074	1.99E-02	3.34
Burwell St (Westbound)	SR 303	N Callow Ave	2	25	2	18	D	0.81	0.80	0.055	0.015	2.09E-03	1.44	2	13	E	0.91	0.90	0.079	0.039	5.10E-03	2.10
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2	28	3	14	E	0.91	0.90	0.073	0.037	4.01E-03	2.17	3	15	E	0.91	0.90	0.066	0.031	4.01E-03	1.98
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	2	30	2	25	C	0.71	0.70	0.041	0.007	1.12E-03	1.26	2	23	C	0.71	0.70	0.044	0.011	1.12E-03	1.35
		Average											**1.91**									**1.99**
		Change from No Build											**13%**									**9%**
		Change Type											**IMPROVE GP**									**IMPROVE GP**
		Score											**2**									**1**
PM Transit																						
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	2	35	3	20	D	0.81	0.80	0.050	0.021	1.64E-03	1.79	2	16	D	0.81	0.80	0.063	0.035	2.09E-03	2.30
11th Ave (Westbound)	SR 303	Kitsap Way	2	30	2	14	D	0.81	0.80	0.070	0.037	2.09E-03	2.15	2	14	D	0.81	0.80	0.073	0.039	2.09E-03	2.23
6th St (Westbound)	SR 303	N Callow Ave	2	25	2	6	F	1.00	1.00	0.164	0.124	1.99E-02	4.58	2	5	F	1.00	1.00	0.199	0.159	1.99E-02	5.46
Burwell St (Westbound)	SR 303	N Callow Ave	2	25	2	11	D	0.81	0.80	0.090	0.050	2.09E-03	2.32	2	8	E	0.91	0.90	0.131	0.091	5.10E-03	3.41
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2	28	3	13	E	0.91	0.90	0.074	0.039	4.01E-03	2.23	3	12	E	0.91	0.90	0.080	0.045	4.01E-03	2.39
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	2	30	2	19	C	0.71	0.70	0.053	0.020	1.12E-03	1.64	2	18	C	0.71	0.70	0.056	0.023	1.12E-03	1.73
		Average											**2.45**									**2.92**
		Change from No Build											**24%**									**10%**
		Change Type											**IMPROVE TTR**									**IMPROVE TTR**
		Score											**3**									**1**

Joint Compatibility Transportation Plan
Second Level Screening

					No Build				Support Parking Alternative				Relocate Parking Alternative				Add Base Parking Alternative			
						GP AVO	85%	1.12			85%	1.12			85%	1.12			85%	1.12	
						HOV AVO	15%	2.2			15%	2.2			15%	2.2			15%	2.2	
Arterial (Direction)	From	To	Distance (miles)	Free Flow TT	Corridor TT	# of Vehicles	# or Persons	Person Hours of Delay	Corridor TT	# of Vehicles	# or Persons	Person Hours of Delay (per mile)	Corridor TT	# of Vehicles	# or Persons	Person Hours of Delay (per mile)	Corridor TT	# of Vehicles	# or Persons	Person Hours of Delay (per mile)
AM GP																				
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	1.40	0:02:20	0:03:30	1,770	1,982	39	0:03:20	1,770	1,982	33	0:02:40	1,510	1,691	9	0:02:40	1,770	1,982	11
11th Ave (Eastbound)	Kitsap Way	SR 303	1.11	0:02:10	0:03:30	830	930	21	0:02:20	930	1,042	3	0:02:20	850	952	3	0:02:20	890	997	3
6th St (Eastbound)	N Callow Ave	SR 303	0.95	0:02:20	0:03:30	1,130	1,266	25	0:03:30	930	1,042	20	0:03:10	820	918	13	0:03:40	810	907	20
Burwell St (Eastbound)	N Callow Ave	SR 303	0.95	0:02:20	0:03:40	1,130	1,266	28	0:03:10	1,250	1,400	19	0:02:50	830	930	8	0:02:50	890	997	8
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2.91	0:06:10	0:08:20	1,170	1,310	47	0:06:30	1,180	1,322	7	0:08:00	930	1,042	32	0:08:20	1,240	1,389	50
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	0.89	0:01:50	0:03:20	1,740	2,230	56	0:02:10	1,740	2,230	12	0:02:10	1,300	1,456	8	0:02:40	1,740	2,230	31
		Total						**215**				**95**				**72**				**123**
		Change from No Build						**0%**				**56%**				**66%**				**43%**
		Score						**1**				**3**				**3**				**3**
AM Transit																				
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	1.40	0:02:20	0:06:20		360	24	0:06:00		360	22	0:04:20		610	20	0:05:30		360	19
11th Ave (Eastbound)	Kitsap Way	SR 303	1.11	0:02:10	0:05:00		260	12	0:03:50		260	7	0:03:40		460	12	0:03:50		260	7
6th St (Eastbound)	N Callow Ave	SR 303	0.95	0:02:20	0:07:40		125	11	0:07:50		125	11	0:05:10		175	8	0:07:50		125	11
Burwell St (Eastbound)	N Callow Ave	SR 303	0.95	0:02:20	0:07:00		475	37	0:06:30		475	33	0:05:20		910	46	0:06:10		475	30
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2.91	0:06:10	0:13:30		520	64	0:12:10		520	52	0:10:30		735	53	0:14:10		520	69
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	0.89	0:01:50	0:04:50		520	26	0:03:30		520	14	0:03:30		930	26	0:04:00		520	19
		Total						**174**				**140**				**165**				**156**
		Change from No Build						**0%**				**19%**				**5%**				**10%**
		Score						**1**				**2**				**1**				**2**
PM GP																				
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	1.40	0:02:20	0:05:30	2,210	2,475	131	0:05:40	2,210	2,475	138	0:03:20	1,960	2,195	37	0:03:40	2,210	2,475	55
11th Ave (Westbound)	SR 303	Kitsap Way	1.11	0:02:10	0:04:50	1,330	1,490	66	0:03:30	1,440	1,613	36	0:03:20	1,350	1,512	29	0:03:20	1,390	1,557	30
6th St (Westbound)	SR 303	N Callow Ave	0.95	0:02:20	0:04:00	1,390	1,557	43	0:06:30	1,180	1,322	92	0:07:00	1,060	1,187	92	0:06:30	1,040	1,165	81
Burwell St (Westbound)	SR 303	N Callow Ave	0.95	0:02:20	0:04:20	1,120	1,254	42	0:03:30	1,250	1,400	27	0:03:10	810	907	13	0:04:30	890	997	36
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2.91	0:06:10	0:13:20	1,760	1,971	235	0:12:00	1,770	1,982	193	0:12:40	1,530	1,714	186	0:11:30	1,840	2,061	183
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	0.89	0:01:50	0:03:10	1,520	1,950	43	0:02:20	1,520	1,950	16	0:02:10	1,080	1,380	8	0:02:20	1,270	1,630	14
		Total						**561**				**501**				**364**				**399**
		Change from No Build						**0%**				**11%**				**35%**				**29%**
		Score						**1**				**2**				**3**				**3**
PM Transit																				
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	1.40	0:02:20	0:07:20		360	30	0:07:20		360	30	0:04:10		610	19	0:05:20		360	18
11th Ave (Westbound)	SR 303	Kitsap Way	1.11	0:02:10	0:06:20		260	18	0:05:00		260	12	0:04:40		460	19	0:04:50		260	12
6th St (Westbound)	SR 303	N Callow Ave	0.95	0:02:20	0:09:00		125	14	0:11:30		125	19	0:09:20		175	20	0:11:20		125	19
Burwell St (Westbound)	SR 303	N Callow Ave	0.95	0:02:20	0:07:20		475	40	0:06:30		475	33	0:05:10		910	43	0:07:30		475	41
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2.91	0:06:10	0:18:50		520	110	0:14:30		520	72	0:13:00		735	84	0:14:00		520	68
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	0.89	0:01:50	0:04:00		520	19	0:03:00		520	10	0:02:50		930	16	0:03:00		520	10
		Total						**230**				**177**				**200**				**167**
		Change from No Build						**0%**				**23%**				**13%**				**27%**
		Score						**1**				**3**				**2**				**3**

Joint Compatibility Transportation Plan
Second Level Screening

			No Build				Support Parking Alternative					Relocate Parking Alternative					Add Base Parking Alternative				
	Total Crash CMF	KABC Crash CMF	Total Crash CMF	Intersections Im	KABC Crash CMF	Intersections Im	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	*Notes*	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	*Notes*	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	*Notes*
Alternative Improvements																					
C1	1.00	0.34					1.00	2, 3	0.34	2, 3	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*										
C2	1.00	0.34					1.00	104, 105	0.34	104, 105	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	104, 105	0.34	104, 105	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*					
C6	1.00	0.71															1.00	7	0.71	7	*Single left-turn to double left-turn lanes (ODOT H63)*
C7												-		-							
C8	0.96	1.00															0.96	37	1.00	37	*Add right-turn lane (ODOT H4)*
C9	1.00	0.34					1.00	37, 38, 135, 21	0.34	37, 38, 135, 21	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*										
C10	0.58	0.58					1.00	35	0.34	35	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*						-	35	-	35	*No improvement*
C16							-		-								-		-		
C20												-		-		*Add all-way pedestrian phase (Virginia DOT - ped crashes only)*					
C21							-		-		*Add LPI (ODOT BP3 - ped and bike crashes only)*	-		-		*Add LPI (ODOT BP3 - ped and bike crashes only)*	-		-		*Add LPI (ODOT BP3 - ped and bike crashes only)*
C23	0.87	0.95										0.87	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 35, 36, 37, 38, 44, 45	0.95	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 35, 36, 37, 38, 44, 45	*Add TSP*					
C24							-		-		*Added below*	-		-		*Added below*					
6th St road diet							-	12, 13, 14, 16, 17	-	12, 13, 14, 16, 17	*10.9 fewer annual crashes (Bremerton Strategic Road Safety Plan)*	-	12, 13, 14, 16, 17	-	12, 13, 14, 16, 17	*10.9 fewer annual crashes (Bremerton Strategic Road Safety Plan)*					
11th St road diet							-	22, 30, 31, 32	-	22, 30, 31, 32	*10.9 fewer annual crashes (approximate based on Bremerton Strategic Road Safety Plan)*	-	22, 30, 31, 32	-	22, 30, 31, 32	*10.9 fewer annual crashes (approximate based on Bremerton Strategic Road Safety Plan)*					
C26							-		-			-		-			-		-		
C27							-		-			-		-			-		-		
C29																					
11th RAB	1.00	0.34					1.00	22	0.34	22	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	22	0.34	22	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	22	0.34	22	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*
Ridell RAB	1.00	0.34					1.00	28	0.34	28	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	28	0.34	28	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	28	0.34	28	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*
Median treatments		0.70					-		0.70	25, 26, 27, 28, 29	*Add median intersection treatment (ODOT H1)*	-		0.70	25, 26, 27, 28, 29	*Add median intersection treatment (ODOT H1)*	-		0.70	25, 26, 27, 28, 29	*Add median intersection treatment (ODOT H1)*
Furneys porkchop		0.65					-		0.65	29	*Add channelized right turn with median (ODOT H6)*	-		0.65	29	*Add channelized right turn with median (ODOT H6)*	-		0.65	29	*Add channelized right turn with median (ODOT H6)*
C31												-		-							
C32							-		-								-		-		
C35	0.83	0.92					0.83	8, 10, 11, 12, 13, 14, 16, 17, 23, 24, 25, 26, 27, 29, 30, 31, 32, 35, 44, 45	0.92	8, 10, 11, 12, 13, 14, 16, 17, 23, 24, 25, 26, 27, 29, 30, 31, 32, 35, 44, 45	*Adaptive signal timing*	0.83	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 35, 36, 37, 38, 44, 45	0.92	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 35, 36, 37, 38, 44, 45	*Adaptive signal timing*	0.83	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 35, 36, 37, 38, 44, 45, 104, 105	0.92	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 35, 36, 37, 38, 44, 45, 104, 105	*Adaptive signal timing*
C38 - added below																					
Burwell St adaptive signals							-		-		*See adaptive signal timing improvement above (C35)*	-		-		*See adaptive signal timing improvement above (C35)*	-		-		*See adaptive signal timing improvement above (C35)*
6th St road diet							-		-		*See 6th St road diet improvement above (C24)*	-		-		*See 6th St road diet improvement above (C24)*					
11th/Callow								11		11	*1.72 fewer annual crashes (Bremerton Strategic Road Safety Plan)*		11		11	*1.72 fewer annual crashes (Bremerton Strategic Road Safety Plan)*		11		11	*1.72 fewer annual crashes (Bremerton Strategic Road Safety Plan)*

Joint Compatibility Transportation Plan
Second Level Screening

			No Build				Support Parking Alternative					Relocate Parking Alternative					Add Base Parking Alternative				
	Total Crash CMF	KABC Crash CMF	Total Crash CMF	Intersections In	KABC Crash CMF	Intersections In	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	*Notes*	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	*Notes*	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	*Notes*
13th and Sylvan corridors								23		23	*1.39 fewer crashes (Bremerton Strategic Road Safety Plan)*		23		23	*1.39 fewer crashes (Bremerton Strategic Road Safety Plan)*		23		23	*1.39 fewer crashes (Bremerton Strategic Road Safety Plan)*
C39	1.00	0.34					1.00	4, 5, 6, 7	0.34	4, 5, 6, 7	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*										
AT1							-		-								-		-		
AT5							-		-		*Add sidewalks (ODOT BP29 - ped crashes on roadway segments only)*	-		-		*Add sidewalks (ODOT BP29 - ped crashes on roadway segments only)*					
AT8	0.70	0.64					0.70	44	0.64	44	*Install raised pedestrian crossing (Virginia DOT)*						0.70	44	0.64	44	*Install raised pedestrian crossing (Virginia DOT)*
AT9												-		-		*Add LPI (ODOT BP3 - ped and bike crashes only)*					
AT10												-		-		*Add LPI (ODOT BP3 - ped and bike crashes only)*					
AT12	0.70	0.64					0.70	38	0.64	38	*Install raised pedestrian crossing (Virginia DOT)*						0.70	38	0.64	38	*Install raised pedestrian crossing (Virginia DOT)*
AT16											*Add sidewalks (ODOT BP29 - ped crashes on roadway segments only)*	-		-		*Add sidewalks (ODOT BP29 - ped crashes on roadway segments only)*					*Add sidewalks (ODOT BP29 - ped crashes on roadway segments only)*
Intersections																					
	2014-2019 Crash Rate	2014-2019 KABC Crash Rate	Total Crash CMF	Total Crash Rate	KABC Crash CMF	KABC Crash Rate	Total Crash CMF	Total Crash Rate	KABC Crash CMF	KABC Crash Rate	*Notes*	Total Crash CMF	Total Crash Rate	KABC Crash CMF	KABC Crash Rate	*Notes*	Total Crash CMF	Total Crash Rate	KABC Crash CMF	KABC Crash Rate	*Notes*
2	7	1	1.00	6.50	1.00	1.17	1.00	6.50	0.34	0.40	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	0.72	4.69	0.87	1.02	*Add TSP, Adaptive signal timing*	0.83	5.40	0.92	1.07	*Adaptive signal timing*
3	9	3	1.00	8.50	1.00	3.00	1.00	8.50	0.34	1.02	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	0.72	6.14	0.87	2.62	*Add TSP, Adaptive signal timing*	0.83	7.06	0.92	2.76	*Adaptive signal timing*
4	6	2	1.00	5.67	1.00	1.67	1.00	5.67	0.34	0.57	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	0.72	4.09	0.87	1.46	*Add TSP, Adaptive signal timing*	0.83	4.70	0.92	1.53	*Adaptive signal timing*
5	5	2	1.00	4.83	1.00	1.50	1.00	4.83	0.34	0.51	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	0.72	3.49	0.87	1.31	*Add TSP, Adaptive signal timing*	0.83	4.01	0.92	1.38	*Adaptive signal timing*
6	6	2	1.00	6.17	1.00	2.00	1.00	6.17	0.34	0.68	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	0.72	4.45	0.87	1.75	*Add TSP, Adaptive signal timing*	0.83	5.12	0.92	1.84	*Adaptive signal timing*
7	7	2	1.00	7.33	1.00	2.17	1.00	7.33	0.34	0.74	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	0.72	5.30	0.87	1.89	*Add TSP, Adaptive signal timing*	0.83	6.09	0.65	1.42	*Single left-turn to double left-turn lanes (ODOT H63), Adaptive signal timing*
8	6	2	1.00	6.33	1.00	2.00	0.83	5.26	0.92	1.84	*Adaptive signal timing*	0.72	4.57	0.87	1.75	*Add TSP, Adaptive signal timing*	0.83	5.26	0.92	1.84	*Adaptive signal timing*
10	8	2	1.00	8.33	1.00	1.83	0.83	6.92	0.92	1.69	*Adaptive signal timing*	0.72	6.02	0.87	1.60	*Add TSP, Adaptive signal timing*	0.83	6.92	0.92	1.69	*Adaptive signal timing*
12	5	2	1.00	5.33	1.00	1.83	0.83	4.43	0.92	1.69	*Adaptive signal timing*	0.72	3.85	0.87	1.60	*Add TSP, Adaptive signal timing*	0.83	4.43	0.92	1.69	*Adaptive signal timing*
13	3	1	1.00	3.00	1.00	1.00	0.83	2.49	0.92	0.92	*Adaptive signal timing*	0.72	2.17	0.87	0.87	*Add TSP, Adaptive signal timing*	0.83	2.49	0.92	0.92	*Adaptive signal timing*
14	8	3	1.00	7.50	1.00	2.50	0.83	6.23	0.92	2.30	*Adaptive signal timing*	0.72	5.42	0.87	2.19	*Add TSP, Adaptive signal timing*	0.83	6.23	0.92	2.30	*Adaptive signal timing*
16	2	1	1.00	2.00	1.00	0.50	0.83	1.66	0.92	0.46	*Adaptive signal timing*	0.72	1.44	0.87	0.44	*Add TSP, Adaptive signal timing*	0.83	1.66	0.92	0.46	*Adaptive signal timing*
17	9	1	1.00	8.50	1.00	1.00	0.83	7.06	0.92	0.92	*Adaptive signal timing*	0.72	6.14	0.87	0.87	*Add TSP, Adaptive signal timing*	0.83	7.06	0.92	0.92	*Adaptive signal timing*
21	4	1	1.00	4.33	1.00	0.67	1.00	4.33	0.34	0.23	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	0.72	3.13	0.87	0.58	*Add TSP, Adaptive signal timing*	0.83	3.60	0.92	0.61	*Adaptive signal timing*
22	9	2	1.00	9.00	1.00	2.17	1.00	9.00	0.34	0.74	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	9.00	0.34	0.74	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	9.00	0.34	0.74	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*
23	7	3	1.00	7.17	1.00	2.50	0.83	5.95	0.92	2.30	*Adaptive signal timing*	0.72	5.18	0.87	2.19	*Add TSP, Adaptive signal timing*	0.83	5.95	0.92	2.30	*Adaptive signal timing*
24	4	1	1.00	4.33	1.00	1.17	0.83	3.60	0.92	1.07	*Adaptive signal timing*	0.72	3.13	0.87	1.02	*Add TSP, Adaptive signal timing*	0.83	3.60	0.92	1.07	*Adaptive signal timing*
25	14	4	1.00	13.50	1.00	3.67	0.83	11.21	0.64	2.36	*Adaptive signal timing*	0.72	9.75	0.61	2.24	*Add TSP, Adaptive signal timing*	0.83	11.21	0.64	2.36	*Adaptive signal timing*

Joint Compatibility Transportation Plan
Second Level Screening

			No Build				Support Parking Alternative					Relocate Parking Alternative					Add Base Parking Alternative				
	Total Crash CMF	KABC Crash CMF	Total Crash CMF	Intersections In	KABC Crash CMF	Intersections In	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	Notes	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	Notes	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	Notes
26	13	5	1.00	13.17	1.00	4.50	0.83	10.93	0.64	2.90	*Adaptive signal timing*	0.72	9.51	0.61	2.75	*Add TSP, Adaptive signal timing*	0.83	10.93	0.64	2.90	*Adaptive signal timing*
27	4	1	1.00	3.83	1.00	1.33	0.83	3.18	0.64	0.86	*Adaptive signal timing*	0.72	2.77	0.61	0.82	*Add TSP, Adaptive signal timing*	0.83	3.18	0.64	0.86	*Adaptive signal timing*
28	1	0	1.00	1.00	1.00	0.17	1.00	1.00	0.24	0.04	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	1.00	0.24	0.04	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	1.00	0.24	0.04	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*
30	12	4	1.00	11.83	1.00	3.67	0.83	9.82	0.92	3.37	*Adaptive signal timing*	0.72	8.54	0.87	3.20	*Add TSP, Adaptive signal timing*	0.83	9.82	0.92	3.37	*Adaptive signal timing*
31	4	2	1.00	4.33	1.00	1.67	0.83	3.60	0.92	1.53	*Adaptive signal timing*	0.72	3.13	0.87	1.46	*Add TSP, Adaptive signal timing*	0.83	3.60	0.92	1.53	*Adaptive signal timing*
32	2	1	1.00	2.00	1.00	0.83	0.83	1.66	0.92	0.77	*Adaptive signal timing*	0.72	1.44	0.87	0.73	*Add TSP, Adaptive signal timing*	0.83	1.66	0.92	0.77	*Adaptive signal timing*
34	1	0	1.00	0.83	1.00	0.33	1.00	0.83	1.00	0.33		1.00	0.83	1.00	0.33		1.00	0.83	1.00	0.33	
35	11	2	1.00	11.33	1.00	1.67	0.83	9.41	0.31	0.52	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT), Adaptive signal timing*	0.72	8.18	0.87	1.46	*Add TSP, Adaptive signal timing*	-	0.00	-	0.00	*No improvement, Adaptive signal timing*
36	6	1	1.00	6.17	1.00	1.33	1.00	6.17	1.00	1.33		0.72	4.45	0.87	1.17	*Add TSP, Adaptive signal timing*	0.83	5.12	0.92	1.23	*Adaptive signal timing*
37	7	2	1.00	7.00	1.00	1.83	1.00	7.00	0.34	0.62	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	0.72	5.05	0.87	1.60	*Add TSP, Adaptive signal timing*	0.80	5.58	0.92	1.69	*Add right-turn lane (ODOT H4), Adaptive signal timing*
38	3	1	1.00	2.67	1.00	0.67	0.70	1.87	0.22	0.15	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT), Install raised pedestrian crossing (Virginia DOT)*	0.72	1.93	0.87	0.58	*Add TSP, Adaptive signal timing*	0.58	1.55	0.59	0.39	*Adaptive signal timing , Install raised pedestrian crossing (Virginia DOT)*
44	1	0	1.00	0.67	1.00	0.33	0.58	0.39	0.59	0.20	*Adaptive signal timing , Install raised pedestrian crossing (Virginia DOT)*	0.72	0.48	0.87	0.29	*Add TSP, Adaptive signal timing*	0.58	0.39	0.59	0.20	*Adaptive signal timing , Install raised pedestrian crossing (Virginia DOT)*
45	0	0	1.00	0.17	1.00	0.00	0.83	0.14	0.92	0.00	*Adaptive signal timing*	0.87	0.15	0.87	0.00	*Add TSP*	0.83	0.14	0.92	0.00	*Adaptive signal timing*
47	4	1	1.00	3.67	1.00	0.67	1.00	3.67	1.00	0.67		1.00	3.67	1.00	0.67		1.00	3.67	1.00	0.67	
104	5	1	1.00	4.83	1.00	1.17	1.00	4.83	0.34	0.40	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	4.83	0.34	0.40	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	0.83	4.01	0.92	1.07	*Adaptive signal timing*
105	10	4	1.00	10.33	1.00	4.17	1.00	10.33	0.34	1.42	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	10.33	0.34	1.42	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	0.83	8.58	0.92	3.83	*Adaptive signal timing*
135	5	0	1.00	4.50	1.00	0.33	1.00	4.50	0.34	0.11	*Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)*	1.00	4.50	1.00	0.33		1.00	4.50	1.00	0.33	
400	2	1	1.00	1.50	1.00	0.67	1.00	1.50	1.00	0.67		1.00	1.50	1.00	0.67		1.00	1.50	1.00	0.67	
401	3	0	1.00	2.50	1.00	0.17	1.00	2.50	1.00	0.17		1.00	2.50	1.00	0.17		1.00	2.50	1.00	0.17	
Additional change																					
6th St road diet								-10.9		-10.9	*Bremerton Strategic Road Safety Plan)*		-10.9		-10.9	*Bremerton Strategic Road Safety Plan)*		-10.9		-10.9	
11th St road diet								0		0	*(approximate based on Bremerton Strategic Road Safety Plan)*		0		0	*(approximate based on Bremerton Strategic Road Safety Plan)*					
11th/Callow								-1.72		-1.72	*(Bremerton Strategic Road Safety Plan)*		-1.72		-1.72	*(Bremerton Strategic Road Safety Plan)*		-1.72		-1.72	*(Bremerton Strategic Road Safety Plan)*
13th and Sylvan corridors								-1.39		-1.39	*(Bremerton Strategic Road Safety Plan)*		-1.39		-1.39	*(Bremerton Strategic Road Safety Plan)*		-1.39		-1.39	*(Bremerton Strategic Road Safety Plan)*
	211	**58**		**211**		**58**		**176**		**22**			**149**		**30**			**154**		**33**	
		Overall CMF						**0.84**		**0.39**			**0.71**		**0.52**			**0.73**		**0.57**	
		Change from No Build		0%		0%		16%		61%			29%		48%			27%		43%	
		Score		**1**		**1**		**2**		**3**			**3**		**3**			**3**		**3**	

Appendix L

Cost-Benefit Analysis

Joint Compatibility Transportation Plan
Cost-Benefit Analysis

	Person Mobility																												
		2050 AM Peak Hour							2050 PM Peak Hour							Annual			K (Fatal Injury)										
																			Segments			Intersections				Total		
	Free Flow (mins)	Travel Time (mins)	Travel Time (mins)	Change in Travel Time (seconds)	# of Vehicles	# of People	Person Hours of Delay	Change in Person Hours of Delay	Travel Time (mins)	Travel Time (mins)	Change in Travel Time (seconds)	# of Vehicles	# of People	Person Hours of Delay	Change in Person Hours of Delay	Annual Person Hours of Delay	Annual Cost of Person-Delay	Change in Annual Cost of Person-Delay	No Build Annual Crash Rate	Build Annual Crash Rate	Change	No Build Annual Crash Rate	KABC CMF	Build Annual Crash Rate	Change	Annual Crash Rate	Annual Cost of Crashes	Change in Annual Cost of Crashes
No Build	**34.3**		**70.2**			**11,250**	**389**			**88.0**			**12,960**	**791**		**988,500**	**$ 17,694,000**		**1.00**			**0.00**				**1.00**	**$ 10,900,000**	
Support Parking	**34.3**		**60.8**	**-560**		**11,270**	**235**	**-154**		**81.3**	**-400**		**13,000**	**678**	**-113**	**847,400**	**$ 15,168,000**	**$ (2,526,000)**	**1.00**	**1.00**	**0.00**	**0.00**		**0.00**	**0.00**	**1.00**	**$ 10,900,000**	**$ -**
C1 - RABs at ramp terminals (Kitsap Way)	2.3	0:03:30	3.5	0				0	0:05:25	5.4	-5				-3			$ (77,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C9 - RABs at Naval, State, Chester, Warren (Burwell St)	2.3	0:03:10	3.2	-30				-9	0:03:05	3.1	-75				-22			$ (486,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C10 - RAB at Burwell/Callow	2.3	0:03:40	3.7	0				0	0:04:20	4.3	0				0			$ -	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	$ -	$ -
C16 - NB HOV lane (SR 304)	1.8	0:03:10	3.2	-10				-6	0:03:00	3.0	0				0			$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C24 - Road diet (6th St)	2.3	0:03:55	3.9	25				4	0:07:25	7.4	205				66			$ 1,477,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - Extend turn lane at 6th (SR 303 Corridor)	6.2	0:08:20	8.3	0				0	0:13:50	13.8	30				16			$ 359,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - RAB at 11th (SR 303 Corridor)	6.2	0:08:05	8.1	-15				-5	0:11:45	11.8	-95				-51			$ (1,136,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C29 - Extend turn lane at 16th (SR 303 Corridor)	6.2	0:08:20	8.3	0				0	0:13:15	13.3	-5				-3			$ (60,000)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - Install medians and u-turns (SR 303 Corridor)	6.2	0:07:40	7.7	-40				-15	0:15:40	15.7	140				75			$ 1,675,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	6.2	0:08:20	8.3	0				0	0:12:40	12.7	-40				-21			$ (479,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C29 - NB BAT lane (SR 303 Corridor)	6.2	0:13:30	13.5	0				0	0:15:05	15.1	-225				-33			$ (727,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
C32 - add WB capacity (Burwell St)	2.3	0:03:40	3.7	0				0	0:04:25	4.4	5				1			$ 32,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C35 - Adaptive signal timing	17.2	0:24:00	24.0	-110				-39	0:32:05	32.1	-185				-85			$ (1,895,000)	0.00	0.00	0.00	0.00	5.52	0.00	0.00	0.00	$ -	$ -
C39 - RABs between Shorewood and National (Kitsap Way)	2.3	0:03:35	3.6	5				3	0:06:40	6.7	70				48			$ 1,078,000	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
Signal optimization and change in volumes	17.2	0:23:55	23.9	-115				-48	0:20:05	20.1	-145				-81			$ (1,824,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
GP Improvements	17.0	0:39:50	39.8	-270				-34	0:51:35	51.6	-75				-21			$ (471,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
Support Parking - Option 2 (Signals)	**34.3**		**60.8**	**-560**	**7,800**	**11,270**	**235**	**-154**		**83.0**	**-300**	**9,370**	**13,000**	**704**	**-87**	**879,800**	**$ 15,748,000**	**$ (1,949,000)**	**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**$ 10,900,000**	**$ -**
C1 - RABs at ramp terminals (Kitsap Way)	2.3	0:03:30	3.5	0				0	0:05:25	5.4	-5				-3			$ (77,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C16 - NB HOV lane (SR 304)	1.8	0:03:10	3.2	-10				-6	0:03:00	3.0	0				0			$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C24 - Road diet (6th St)	2.3	0:03:55	3.9	25				4	0:07:25	7.4	205				66			$ 1,477,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - Extend turn lane at 6th (SR 303 Corridor)	6.2	0:08:20	8.3	0				0	0:13:50	13.8	30				16			$ 359,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - RAB at 11th (SR 303 Corridor)	6.2	0:08:05	8.1	-15				-5	0:11:45	11.8	-95				-51			$ (1,136,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C29 - Extend turn lane at 16th (SR 303 Corridor)	6.2	0:08:20	8.3	0				0	0:13:15	13.3	-5				-3			$ (60,000)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - Install medians and u-turns (SR 303 Corridor)	6.2	0:07:40	7.7	-40				-15	0:15:40	15.7	140				75			$ 1,675,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	6.2	0:08:20	8.3	0				0	0:12:40	12.7	-40				-21			$ (479,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C29 - NB BAT lane (SR 303 Corridor)	6.2	0:13:30	13.5	0				0	0:15:05	15.1	-225				-33			$ (727,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
C32 - add WB capacity (Burwell St)	2.3	0:03:40	3.7	0				0	0:04:15	4.3	-5				0			$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C35 - Adaptive signal timing	17.2	0:23:40	23.7	-130				-45	0:31:45	31.8	-205				-82			$ (1,830,000)	0.00	0.00	0.00	0.00	5.52	0.00	0.00	0.00	$ -	$ -
C39 - RABs between Shorewood and National (Kitsap Way)	2.3	0:03:35	3.6	5				3	0:06:40	6.7	70				48			$ 1,078,000	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
Signal optimization and change in volumes	17.2	0:23:45	23.8	-125				-51	0:20:10	20.2	-140				-85			$ (1,907,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
GP Improvements	17.0	0:39:50	39.8	-270				-34	0:51:35	51.6	-25				-14	49,500	$ 886,000	$ (322,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
Relocate Parking	**34.3**		**53.7**	**-990**		**10,810**	**237**	**-152**		**70.8**	**-1030**		**12,720**	**565**	**-226**	**705,700**	**$ 12,632,000**	**$ (5,062,000)**	**1.00**	**1.00**	**0.00**	**0.00**		**0.00**	**0.00**	**1.00**	**$ 10,900,000**	**$ -**
C7 - WB BAT lane (Kitsap Way)	2.3	0:06:20	6.3	0	0			0	0:06:30	6.5	-50	0			-3			$ (67,000)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C20 - all-way ped phase at State and Park (Burwell St)	2.3	0:03:40	3.7	0	0			0	0:04:15	4.3	0	0			0			$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C23 - TSP	17.2	0:42:35	42.6	-105	0			-2	0:50:35	50.6	-135	0			-16			$ (348,000)	0.00	0.00	0.00	0.00	4.75	0.00	0.00	0.00	$ -	$ -
C24 - Road diet (6th St)	2.3	0:03:30	3.5	0	0			0	0:08:00	8.0	240	0			66			$ 1,468,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - Extend turn lane at 6th (SR 303 Corridor)	6.2	0:08:20	8.3	0	0			0	0:13:10	13.2	-10	0			-13			$ (280,000)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - RAB at 11th (SR 303 Corridor)	6.2	0:08:05	8.1	-15	0			-12	0:11:40	11.7	-100	0			-125			$ (2,795,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C29 - Extend turn lane at 16th (SR 303 Corridor)	6.2	0:08:20	8.3	0	0			0	0:13:20	13.3	0	0			0			$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - Install medians and u-turns (SR 303 Corridor)	6.2	0:09:15	9.3	55	0			43	0:17:35	17.6	255	0			319			$ 7,127,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	6.2	0:08:20	8.3	0	0			0	0:12:35	12.6	-45	0			-56			$ (1,258,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C29 - NB BAT lane (SR 303 Corridor)	6.2	0:13:30	13.5	0	0			0	0:16:35	16.6	-135	0			-10			$ (225,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
C35 - Adaptive signal timing	17.2	0:23:30	23.5	-140	0			-86	0:31:40	31.7	-210	0			-161			$ (3,590,000)	0.00	0.00	0.00	0.00	5.52	0.00	0.00	0.00	$ -	$ -
Signal optimization and change in volumes	17.2	0:22:50	22.8	-180	0			-88	0:29:35	29.6	-340	0			-227			$ (5,072,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
GP Improvements	17.0	0:39:40	39.7	-280	0	0	0	-1	0:49:40	49.7	-190	0	0	0	49	0	$ -	$ 1,087,000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
Express Service	17.2	0:38:55	38.9	-325	0			-6	0:47:40	47.7	-310	0			-50			$ (1,114,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
Add Base Parking	**34.3**		**64.0**	**-370**		**10,770**	**280**	**-109**		**77.8**	**-610**		**12,150**	**566**	**-225**	**707,500**	**$ 12,664,000**	**$ (5,030,000)**	**1.00**	**1.00**	**0.00**	**0.00**		**0.00**	**0.00**	**1.00**	**$ 10,900,000**	**$ -**
C6 - Westbound lane between National and 11th (Kitsap Way)	2.3	0:03:30	3.5	0	0			0	0:04:10	4.2	-80	0			-55			$ (1,233,000)	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	$ -	$ -
C8 - Add NBR turn pocket at Burwell/Naval	2.3	0:03:40	3.7	0	0			0	0:04:15	4.3	-5	0			-3			$ (63,000)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C16 - NB HOV lane (SR 304)	1.8	0:03:30	3.5	10	0			6	0:03:00	3.0	0	0			0			$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C24 - Road diet (6th St)	2.3	0:04:00	4.0	30	0			13	0:07:25	7.4	205	0			51			$ 1,138,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - Extend turn lane at 6th (SR 303 Corridor)	6.2	0:08:20	8.3	0	0			0	0:13:20	13.3	0	0			0			$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - RAB at 11th (SR 303 Corridor)	6.2	0:08:05	8.1	-15	0			-9	0:11:45	11.8	-95	0			-45			$ (1,008,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C29 - Extend turn lane at 16th (SR 303 Corridor)	6.2	0:08:20	8.3	0	0			0	0:13:15	13.3	-5	0			-2			$ (53,000)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - Install medians and u-turns (SR 303 Corridor)	6.2	0:09:35	9.6	75	0			43	0:15:35	15.6	135	0			64			$ 1,432,000	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	6.2	0:08:20	8.3	0	0			0	0:12:40	12.7	-40	0			-19			$ (424,000)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -
C29 - NB BAT lane (SR 303 Corridor)	6.2	0:13:30	13.5	0	0			0	0:15:05	15.1	-225	0			-33			$ (726,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
C32 - add WB capacity (Burwell St)	2.3	0:03:40	3.7	0	0			0	0:03:25	3.4	-55	0			-31			$ (693,000)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -
C35 - Adaptive signal timing	17.2	0:23:20	23.3	-150	0			-75	0:31:35	31.6	-215	0			-100			$ (2,232,000)	0.00	0.00	0.00	0.00	5.52	0.00	0.00	0.00	$ -	$ -
Signal optimization and change in volumes	17.2	0:23:20	23.3	-150	0			-71	0:34:35	34.6	-45	0			-22			$ (490,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
GP Improvements	17.2	0:41:30	41.5	-170	0			-18	0:49:45	49.8	-185	0			-30			$ (683,000)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -

Joint Compatibility Transportation Plan
Cost-Benefit Analysis

	Safety																														
	A (Suspected Serious Injury)										B (Suspected Minor Injury)										C (Possible Injury)									
	Segments			Intersections				Total			Segments			Intersections				Total			Segments			Intersections				Total		
	No Build Annual Crash Rate	Build Annual Crash Rate	Change	No Build Annual Crash Rate	KABC CMF	Build Annual Crash Rate	Change	Annual Crash Rate	Annual Cost of Crashes	Change in Annual Cost of Crashes	No Build Annual Crash Rate	Build Annual Crash Rate	Change	No Build Annual Crash Rate	KABC CMF	Build Annual Crash Rate	Change	Annual Crash Rate	Annual Cost of Crashes	Change in Annual Cost of Crashes	No Build Annual Crash Rate	Build Annual Crash Rate	Change	No Build Annual Crash Rate	KABC CMF	Build Annual Crash Rate	Change	Annual Crash Rate	Annual Cost of Crashes	Change in Annual Cost of Crashes
No Build	**7.00**			**3.33**				**10.33**	**$ 5,387,000**		**43.33**			**19.33**				**62.67**	**$ 8,899,000**		**173.00**			**76.33**				**249.33**	**$ 18,077,000**	
Support Parking	**7.00**	**6.83**	**-0.17**	**3.33**		**3.10**	**-0.23**	**9.93**	**$ 5,178,000**	**$ (209,000)**	**43.33**	**42.63**	**-0.70**	**19.33**		**16.82**	**-2.51**	**59.45**	**$ 8,442,000**	**$ (457,000)**	**173.00**	**170.51**	**-2.49**	**76.33**		**65.17**	**-11.16**	**235.68**	**$ 17,087,000**	**$ (990,000)**
C1 - RABs at ramp terminals (Kitsap Way)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	0.34	0.06	-0.11	0.00	$ -	$ (16,000)	0.00	0.00	0.00	2.83	0.34	0.96	-1.87	0.00	$ -	$ (136,000)
C9 - RABs at Naval, State, Chester, Warren (Burwell St)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.50	0.34	0.17	-0.33	0.00	$ -	$ (47,000)	0.00	0.00	0.00	3.00	0.34	1.02	-1.98	0.00	$ -	$ (144,000)
C10 - RAB at Burwell/Callow	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	1.67	0.58	0.97	-0.70	0.00	$ -	$ (51,000)
C16 - NB HOV lane (SR 304)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -
C24 - Road diet (6th St)	0.33	0.16	-0.17	0.33	1.00	0.33	0.00	0.00	$ -	$ (89,000)	1.33	0.63	-0.70	1.33	1.00	1.33	0.00	0.00	$ -	$ (99,000)	4.83	2.34	-2.49	4.17	1.00	4.17	0.00	0.00	$ -	$ (181,000)
C29 - Extend turn lane at 6th (SR 303 Corridor)	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -
C29 - RAB at 11th (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.50	0.34	0.17	-0.33	0.00	$ -	$ (47,000)	0.00	0.00	0.00	1.67	0.34	0.57	-1.10	0.00	$ -	$ (80,000)
C29 - Extend turn lane at 16th (SR 303 Corridor)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -
C29 - Install medians and u-turns (SR 303 Corridor)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	1.67	1.00	1.67	0.00	0.00	$ -	$ -	0.00	0.00	0.00	7.17	1.00	7.17	0.00	0.00	$ -	$ -
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	0.34	0.06	-0.11	0.00	$ -	$ (8,000)
C29 - NB BAT lane (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
C32 - add WB capacity (Burwell St)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -
C35 - Adaptive signal timing	0.00	0.00	0.00	1.50	5.52	1.38	-0.12	0.00	$ -	$ (63,000)	0.00	0.00	0.00	6.67	5.52	6.13	-0.53	0.00	$ -	$ (76,000)	0.00	0.00	0.00	23.50	5.52	21.62	-1.88	0.00	$ -	$ (137,000)
C39 - RABs between Shorewood and National (Kitsap Way)	0.00	0.00	0.00	0.17	0.34	0.06	-0.11	0.00	$ -	$ (57,000)	0.00	0.00	0.00	1.83	0.34	0.62	-1.21	0.00	$ -	$ (172,000)	0.00	0.00	0.00	5.33	0.34	1.81	-3.52	0.00	$ -	$ (255,000)
Signal optimization and change in volumes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
GP Improvements	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
Support Parking - Option 2 (Signals)	**7.00**	**6.83**	**-0.17**	**3.33**	**0.00**	**3.10**	**-0.23**	**9.93**	**$ 5,179,000**	**$ (209,000)**	**43.33**	**42.63**	**-0.70**	**19.33**		**17.11**	**-2.22**	**59.74**	**$ 8,485,000**	**$ (415,000)**	**173.00**	**170.51**	**-2.49**	**76.33**		**67.51**	**-8.83**	**238.02**	**$ 17,256,000**	**$ (820,000)**
C1 - RABs at ramp terminals (Kitsap Way)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	0.34	0.06	-0.11	0.00	$ -	$ (16,000)	0.00	0.00	0.00	2.83	0.34	0.96	-1.87	0.00	$ -	$ (136,000)
C16 - NB HOV lane (SR 304)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -
C24 - Road diet (6th St)	0.33	0.16	-0.17	0.33	1.00	0.33	0.00	0.00	$ -	$ (89,000)	1.33	0.63	-0.70	1.33	1.00	1.33	0.00	0.00	$ -	$ (99,000)	4.83	2.34	-2.49	4.17	1.00	4.17	0.00	0.00	$ -	$ (181,000)
C29 - Extend turn lane at 6th (SR 303 Corridor)	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -
C29 - RAB at 11th (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.50	0.34	0.17	-0.33	0.00	$ -	$ (47,000)	0.00	0.00	0.00	1.67	0.34	0.57	-1.10	0.00	$ -	$ (80,000)
C29 - Extend turn lane at 16th (SR 303 Corridor)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -
C29 - Install medians and u-turns (SR 303 Corridor)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	1.67	1.00	1.67	0.00	0.00	$ -	$ -	0.00	0.00	0.00	7.17	1.00	7.17	0.00	0.00	$ -	$ -
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	0.34	0.06	-0.11	0.00	$ -	$ (8,000)
C29 - NB BAT lane (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
C32 - add WB capacity (Burwell St)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -
C35 - Adaptive signal timing	0.00	0.00	0.00	1.67	5.52	1.53	-0.13	0.00	$ -	$ (70,000)	0.00	0.00	0.00	9.17	5.52	8.43	-0.73	0.00	$ -	$ (104,000)	0.00	0.00	0.00	36.00	5.52	33.12	-2.88	0.00	$ -	$ (209,000)
Signal optimization and change in volumes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
GP Improvements	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
Express Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
Add Base Parking	**7.00**	**6.83**	**-0.17**	**3.33**		**3.20**	**-0.13**	**10.03**	**$ 5,229,000**	**$ (158,000)**	**43.33**	**42.63**	**-0.70**	**19.33**		**17.88**	**-1.45**	**60.52**	**$ 8,593,000**	**$ (306,000)**	**173.00**	**170.51**	**-2.49**	**76.33**		**71.42**	**-4.91**	**241.93**	**$ 17,540,000**	**$ (537,000)**
C6 - Westbound lane between National and 11th (Kitsap Way)	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	1.33	0.71	0.95	-0.39	0.00	$ -	$ (55,000)	0.00	0.00	0.00	2.83	0.71	2.01	-0.82	0.00	$ -	$ (60,000)
C8 - Add NBR turn pocket at Burwell/Naval	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	1.67	1.00	1.67	0.00	0.00	$ -	$ -
C16 - NB HOV lane (SR 304)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -
C24 - Road diet (6th St)	0.33	0.16	-0.17	0.33	1.00	0.33	0.00	0.00	$ -	$ (89,000)	1.33	0.63	-0.70	1.33	1.00	1.33	0.00	0.00	$ -	$ (99,000)	4.83	2.34	-2.49	4.17	1.00	4.17	0.00	0.00	$ -	$ (181,000)
C29 - Extend turn lane at 6th (SR 303 Corridor)	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -
C29 - RAB at 11th (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.50	0.34	0.17	-0.33	0.00	$ -	$ (47,000)	0.00	0.00	0.00	1.67	0.34	0.57	-1.10	0.00	$ -	$ (80,000)
C29 - Extend turn lane at 16th (SR 303 Corridor)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -
C29 - Install medians and u-turns (SR 303 Corridor)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	1.67	1.00	1.67	0.00	0.00	$ -	$ -	0.00	0.00	0.00	7.17	1.00	7.17	0.00	0.00	$ -	$ -
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	0.34	0.06	-0.11	0.00	$ -	$ (8,000)
C29 - NB BAT lane (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
C32 - add WB capacity (Burwell St)	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -
C35 - Adaptive signal timing	0.00	0.00	0.00	1.67	5.52	1.53	-0.13	0.00	$ -	$ (70,000)	0.00	0.00	0.00	9.17	5.52	8.43	-0.73	0.00	$ -	$ (104,000)	0.00	0.00	0.00	36.00	5.52	33.12	-2.88	0.00	$ -	$ (209,000)
Signal optimization and change in volumes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -
GP Improvements	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -

Joint Compatibility Transportation Plan
Cost-Benefit Analysis

	O (No Apparent Injury)										UNKNOWN										OVERALL					
	Segments			Intersections				Total			Segments			Intersections				Total								
	No Build Annual Crash Rate	Build Annual Crash Rate	Change	No Build Annual Crash Rate	KABC CMF	Build Annual Crash Rate	Change	Annual Crash Rate	Annual Cost of Crashes	Change in Annual Cost of Crashes	No Build Annual Crash Rate	Build Annual Crash Rate	Change	No Build Annual Crash Rate	KABC CMF	Build Annual Crash Rate	Change	Annual Crash Rate	Annual Cost of Crashes	Change in Annual Cost of Crashes	Annual Cost of Person-Delay	Change in Annual Cost of Person-Delay	Annual Cost of Crashes	Change in Annual Cost of Crashes	High Project Cost ($2021)	Benefit/Cost Ratio
No Build	**512.33**			**244.00**				**756.33**	**$ 2,798,000**		**46.00**			**18.00**				**64.00**	**$ 9,613,000**		**$ 17,694,000**		**$ 55,674,000**			
Support Parking	**512.33**	**504.73**	**-7.60**	**244.00**		**227.17**	**-16.83**	**731.91**	**$ 2,708,000**	**$ (90,000)**	**46.00**	**46.00**	**0.00**	**18.00**		**16.66**	**-1.34**	**62.66**	**$ 9,411,000**	**$ (202,000)**		**$ (2,533,000)**		**$ (1,946,000)**	**$ 170,780,000**	**0.03**
C1 - RABs at ramp terminals (Kitsap Way)	0.00	0.00	0.00	5.50	1.00	5.50	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -		$ (77,000)		$ (152,000)	$ 9,270,000	0.02
C9 - RABs at Naval, State, Chester, Warren (Burwell St)	0.00	0.00	0.00	14.50	1.00	14.50	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.50	1.00	0.50	0.00	0.00	$ -	$ -		$ (486,000)		$ (191,000)	$ 48,300,000	0.01
C10 - RAB at Burwell/Callow	0.00	0.00	0.00	9.17	0.58	5.32	-3.85	0.00	$ -	$ (14,000)	0.00	0.00	0.00	0.50	0.58	0.29	-0.21	0.00	$ -	$ (32,000)		$ -		$ (97,000)	$ 13,950,000	0.01
C16 - NB HOV lane (SR 304)	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -		$ -		$ -	$ 7,160,000	0.00
C24 - Road diet (6th St)	14.50	6.90	-7.60	11.17	1.00	11.17	0.00	0.00	$ -	$ (28,000)	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -		$ 1,477,000		$ (397,000)	$ 600,000	-1.80
C29 - Extend turn lane at 6th (SR 303 Corridor)	0.00	0.00	0.00	6.83	1.00	6.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -		$ 359,000		$ -	$ 150,000	-2.39
C29 - RAB at 11th (SR 303 Corridor)	0.00	0.00	0.00	6.33	1.00	6.33	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.50	1.00	0.50	0.00	0.00	$ -	$ -		$ (1,136,000)		$ (127,000)	$ 13,440,000	0.09
C29 - Extend turn lane at 16th (SR 303 Corridor)	0.00	0.00	0.00	2.83	1.00	2.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -		$ (60,000)		$ -	$ 470,000	0.13
C29 - Install medians and u-turns (SR 303 Corridor)	0.00	0.00	0.00	18.83	1.00	18.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	2.17	1.00	2.17	0.00	0.00	$ -	$ -		$ 1,675,000		$ -	$ 6,260,000	-0.27
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -		$ (479,000)		$ (8,000)	$ 8,570,000	0.06
C29 - NB BAT lane (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (727,000)		$ -	$ 41,840,000	0.02
C32 - add WB capacity (Burwell St)	0.00	0.00	0.00	6.17	1.00	6.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -		$ 32,000		$ -	$ 1,410,000	-0.02
C35 - Adaptive signal timing	0.00	0.00	0.00	76.33	4.98	63.36	-12.98	0.00	$ -	$ (48,000)	0.00	0.00	0.00	6.67	4.98	5.53	-1.13	0.00	$ -	$ (169,000)		$ (1,895,000)		$ (493,000)	$ 1,530,000	8.70
C39 - RABs between Shorewood and National (Kitsap Way)	0.00	0.00	0.00	15.83	1.00	15.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -		$ 1,078,000		$ (484,000)	$ 17,730,000	-0.03
Signal optimization and change in volumes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (1,824,000)		$ -	$ 100,000	0.00
GP Improvements	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (471,000)		$ -		0.00
Support Parking - Option 2 (Signals)	**512.33**	**504.73**	**-7.60**	**244.00**		**227.71**	**-16.29**	**732.44**	**$ 2,711,000**	**$ (87,000)**	**46.00**	**46.00**	**0.00**	**18.00**		**16.70**	**-1.30**	**62.70**	**$ 9,418,000**	**$ (196,000)**		**$ (1,949,000)**		**$ (1,727,000)**	**$ 108,785,000**	**0.03**
C1 - RABs at ramp terminals (Kitsap Way)	0.00	0.00	0.00	5.50	1.00	5.50	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -		$ (77,000)		$ (152,000)	$ 9,270,000	0.02
C16 - NB HOV lane (SR 304)	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -		$ -		$ -	$ 7,160,000	0.00
C24 - Road diet (6th St)	14.50	6.90	-7.60	11.17	1.00	11.17	0.00	0.00	$ -	$ (28,000)	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -		$ 1,477,000		$ (397,000)	$ 600,000	-1.80
C29 - Extend turn lane at 6th (SR 303 Corridor)	0.00	0.00	0.00	6.83	1.00	6.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -		$ 359,000		$ -	$ 150,000	-2.39
C29 - RAB at 11th (SR 303 Corridor)	0.00	0.00	0.00	6.33	1.00	6.33	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.50	1.00	0.50	0.00	0.00	$ -	$ -		$ (1,136,000)		$ (127,000)	$ 13,440,000	0.09
C29 - Extend turn lane at 16th (SR 303 Corridor)	0.00	0.00	0.00	2.83	1.00	2.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -		$ (60,000)		$ -	$ 470,000	0.13
C29 - Install medians and u-turns (SR 303 Corridor)	0.00	0.00	0.00	18.83	1.00	18.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	2.17	1.00	2.17	0.00	0.00	$ -	$ -		$ 1,675,000		$ -	$ 6,260,000	-0.27
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -		$ (479,000)		$ (8,000)	$ 8,570,000	0.06
C29 - NB BAT lane (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (727,000)		$ -	$ 41,840,000	0.02
C32 - add WB capacity (Burwell St)	0.00	0.00	0.00	6.17	1.00	6.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -		$ -		$ -	$ 1,410,000	0.00
C35 - Adaptive signal timing	0.00	0.00	0.00	95.83	4.98	79.54	-16.29	0.00	$ -	$ (60,000)	0.00	0.00	0.00	7.67	4.98	6.36	-1.30	0.00	$ -	$ (195,000)		$ (1,830,000)		$ (561,000)	$ 1,785,000	7.98
C39 - RABs between Shorewood and National (Kitsap Way)	0.00	0.00	0.00	15.83	1.00	15.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -		$ 1,078,000		$ (484,000)	$ 17,730,000	-0.03
Signal optimization and change in volumes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (1,907,000)		$ -	$ 100,000	0.00
GP Improvements	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (322,000)		$ -		0.00
Relocate Parking	**512.33**	**504.73**	**-7.60**	**244.00**		**219.62**	**-24.38**	**724.35**	**$ 2,680,000**	**$ (118,000)**	**46.00**	**46.00**	**0.00**	**18.00**		**16.17**	**-1.83**	**62.17**	**$ 9,337,000**	**$ (276,000)**		**$ (5,065,000)**		**$ (1,517,000)**	**$ 453,854,000**	**0.01**
C7 - WB BAT lane (Kitsap Way)	0.00	0.00	0.00	25.67	1.00	25.67	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -		$ (67,000)		$ -	$ 13,540,000	0.00
C20 - all-way ped phase at State and Park (Burwell St)	0.00	0.00	0.00	2.00	1.00	2.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -		$ -		$ -	$ 4,000	0.00
C23 - TSP	0.00	0.00	0.00	110.83	5.70	105.29	-5.54	0.00	$ -	$ (20,000)	0.00	0.00	0.00	8.33	5.70	7.92	-0.42	0.00	$ -	$ (62,000)		$ (348,000)		$ (321,000)	$ 1,200,000	3.08
C24 - Road diet (6th St)	14.50	6.90	-7.60	11.17	1.00	11.17	0.00	0.00	$ -	$ (28,000)	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -		$ 1,468,000		$ (397,000)	$ 600,000	-1.79
C29 - Extend turn lane at 6th (SR 303 Corridor)	0.00	0.00	0.00	6.83	1.00	6.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -		$ (280,000)		$ -	$ 150,000	1.87
C29 - RAB at 11th (SR 303 Corridor)	0.00	0.00	0.00	6.33	1.00	6.33	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.50	1.00	0.50	0.00	0.00	$ -	$ -		$ (2,795,000)		$ (127,000)	$ 13,440,000	0.22
C29 - Extend turn lane at 16th (SR 303 Corridor)	0.00	0.00	0.00	2.83	1.00	2.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -		$ -		$ -	$ 470,000	0.00
C29 - Install medians and u-turns (SR 303 Corridor)	0.00	0.00	0.00	18.83	1.00	18.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	2.17	1.00	2.17	0.00	0.00	$ -	$ -		$ 7,127,000		$ -	$ 6,260,000	-1.14
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -		$ (1,258,000)		$ (8,000)	$ 8,570,000	0.15
C29 - NB BAT lane (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (225,000)		$ -	$ 41,840,000	0.01
C35 - Adaptive signal timing	0.00	0.00	0.00	110.83	4.98	91.99	-18.84	0.00	$ -	$ (69,000)	0.00	0.00	0.00	8.33	4.98	6.92	-1.42	0.00	$ -	$ (212,000)		$ (3,590,000)		$ (664,000)	$ 2,210,000	10.10
Signal optimization and change in volumes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (5,072,000)		$ -	$ 365,570,000	0.01
GP Improvements	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	$ -	$ 1,087,000	$ -	$ -		
Express Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (1,114,000)		$ -		
Add Base Parking	**512.33**	**504.73**	**-7.60**	**244.00**		**224.97**	**-19.03**	**729.71**	**$ 2,700,000**	**$ (98,000)**	**46.00**	**46.00**	**0.00**	**18.00**		**16.56**	**-1.44**	**62.56**	**$ 9,397,000**	**$ (216,000)**		**$ (5,034,000)**		**$ (1,313,000)**	**$ 881,920,000**	**0.01**
C6 - Westbound lane between National and 11th (Kitsap Way)	0.00	0.00	0.00	9.00	1.00	9.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.50	1.00	0.50	0.00	0.00	$ -	$ -		$ (1,233,000)		$ (115,000)	$ 14,420,000	0.09
C8 - Add NBR turn pocket at Burwell/Naval	0.00	0.00	0.00	4.67	0.96	4.48	-0.19	0.00	$ -	$ (1,000)	0.00	0.00	0.00	0.50	0.96	0.48	-0.02	0.00	$ -	$ (3,000)		$ (63,000)		$ (4,000)	$ 150,000	0.00
C16 - NB HOV lane (SR 304)	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -		$ -		$ -	$ 7,160,000	0.00
C24 - Road diet (6th St)	14.50	6.90	-7.60	11.17	1.00	11.17	0.00	0.00	$ -	$ (28,000)	0.00	0.00	0.00	0.83	1.00	0.83	0.00	0.00	$ -	$ -		$ 1,138,000		$ (397,000)	$ 600,000	-1.24
C29 - Extend turn lane at 6th (SR 303 Corridor)	0.00	0.00	0.00	6.83	1.00	6.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -		$ -		$ -	$ 150,000	0.00
C29 - RAB at 11th (SR 303 Corridor)	0.00	0.00	0.00	6.33	1.00	6.33	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.50	1.00	0.50	0.00	0.00	$ -	$ -		$ (1,008,000)		$ (127,000)	$ 13,440,000	0.08
C29 - Extend turn lane at 16th (SR 303 Corridor)	0.00	0.00	0.00	2.83	1.00	2.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.33	1.00	0.33	0.00	0.00	$ -	$ -		$ (53,000)		$ -	$ 470,000	0.11
C29 - Install medians and u-turns (SR 303 Corridor)	0.00	0.00	0.00	18.83	1.00	18.83	0.00	0.00	$ -	$ -	0.00	0.00	0.00	2.17	1.00	2.17	0.00	0.00	$ -	$ -		$ 1,432,000		$ -	$ 6,260,000	-0.23
C29 - RAB at NE Riddell Rd (SR 303 Corridor)	0.00	0.00	0.00	0.67	1.00	0.67	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.17	1.00	0.17	0.00	0.00	$ -	$ -		$ (424,000)		$ (8,000)	$ 8,570,000	0.05
C29 - NB BAT lane (SR 303 Corridor)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (726,000)		$ -	$ 41,840,000	0.02
C32 - add WB capacity (Burwell St)	0.00	0.00	0.00	6.17	1.00	6.17	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	$ -	$ -		$ (693,000)		$ -	$ 1,410,000	0.49
C35 - Adaptive signal timing	0.00	0.00	0.00	110.83	4.98	91.99	-18.84	0.00	$ -	$ (69,000)	0.00	0.00	0.00	8.33	4.98	6.92	-1.42	0.00	$ -	$ (212,000)		$ (2,232,000)		$ (664,000)	$ 2,210,000	7.60
Signal optimization and change in volumes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (490,000)		$ -	$ 785,240,000	0.00
GP Improvements	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$ -	$ -		$ (683,000)				

Appendix M

Preferred Alternative Analysis Results

Joint Compatibility Transportation Plan
Preferred Alternative Screening

Performance compared to 2050	Worse	Same	Improves	Significantly improves

Study Goal Area	Performance Measures	Preferred Alternative: Performance Compared to 2050 No Build	Preferred Alternative: Key Findings
Travel Times and Reliability: *Improve travel times to/from downtown Bremerton and make travel times to/from downtown Bremerton more predictable.*	Travel Time	↑	* TSP included in No Build and all Build Alternatives * This alternative assumes 1,000 vehicles will be removed from traffic inbound to downtown during the AM peak hour and from traffic outbound of downtown during the PM peak hour. Assume they instead park outside downtown and take transit in. * Roundabout at Naval Ave/6th Street helps offset some of the increased delays resulting from road diet along 6th Street * General purpose and transit travel times improve due to reduced volumes. * Transit travel times are improved by express bus service. * Impacts to travel time reliability are similar to those associated with travel time.
	Travel Time Reliability	↑	
	Average Score	↑	
Mobility: *Increase the transportation system's ability to efficiently move all people and goods.*	Person hours of delay - general purpose	↑	* General purpose mobility improves during the AM and PM peak hour due to reduced general purpose vehicle volumes. * Modest improvements to mobility due to increased ridership. This is because the reduction of network vehicles results in a demand for transit, thus increasing the number of transit users in the analysis. This assumes bus service and bus stop locations remain the same as existing.
	Person hours of delay - Transit	→	
	Average Score	↗	
Safety: *Improve safety and reduce serious injury and fatal crashes.*	Number of overall crashes	↑	* Road diet projects at 6th Street and Naval Ave provide the largest reduction in overall crashes, and in serious injury and fatal crashes. * Roundabouts and adaptive signal timing provide additional crash reductions.
	Number of serious injury and fatal crashes	↑	
	Average Score	↑	
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	↗	* Mobility hubs at 2 locations will increase high quality travel choices * Improvements to sidewalks within 10-minute walkshed will increase low-street options for accessing NBK-BR by foot * Added bike lanes will increase low-stress options for accessing NBK-BR by bike
	Number of high-quality travel choices in the study area	↑	
	Safe and Comfortable Walking and Biking Options	↑	
	Average Score	↗	
Parking: *Parking system supports a vibrant, attractive and user-friendly Downtown with thriving neighborhood districts and attractive residential neighborhoods.*	Parking utilization	↑	* Assumes residential only parking permits and paid parking downtown. * Assumes a substantial decrease in surface parking, as existing parking is replaced outside downtown, and a portion of current downtown parking is replaced by redeveloping City-owned surface lots to more active land-uses. It also doesn't account for differences in the user experience of being able to park near or on NBK versus park and ride/transit access. * Assumes a "Commuter Engagement and Incentive Platform" where major employers in the study area would participate in use of a commuter engagement and incentive platform to enhance mobility options and incentives for commuters.
	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	↑	

Joint Compatibility Transportation Plan
Preferred Alternative Screening

				No Build		Preferred Alternative		
Arterial (Direction)	From	To	Distance (miles)	TT	Speed (mph)	Corridor TT	Speed (mph)	*Notes*
AM GP								
Corridor Travel Time								
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	1.40	0:07:10	12	0:03:40	23	***Reduced travel time due to reduction of eastbound volume and signal timing optimization.***
11th Ave (Eastbound)	Kitsap Way	SR 303	1.11	0:04:20	15	0:02:50	24	***Reduced travel time due to reduction of eastbound volume, signal timing optimization, and RAB at Warren Ave (SR 303)/11th Street.***
6th St (Eastbound)	N Callow Ave	SR 303	0.95	0:03:40	15	0:03:10	18	***Reduced travel time due to reduction of eastbound volume and signal timing optimization. RAB at Naval Ave/6th St offsets road diet along 6th St***
Burwell St (Eastbound)	N Callow Ave	SR 303	0.95	0:03:50	15	0:03:00	19	***Reduced travel time due to reduction of eastbound volume and signal timing optimization.***
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2.91	0:10:00	17	0:07:50	22	***Reduced travel time due to SR 303 Corridor Study projects.***
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	0.89	0:03:40	15	0:02:50	19	***Reduced travel time due to optimized timing and reduction of northbound volume.***
		GP Total		**0:32:40**		**0:23:20**		
		Change from No Build		**0%**		**29%**		
		Score		**1**		**3**		
AM Transit								
Corridor Travel Time								
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	1.40	0:09:30	9	0:05:30	15	***Reduced travel time due to reduction of eastbound volume and signal timing optimization.***
11th Ave (Eastbound)	Kitsap Way	SR 303	1.11	0:05:40	12	0:04:10	16	***Reduced travel time due to reduction of eastbound volume, signal timing optimization, and RAB at Warren Ave (SR 303)/11th Street.***
6th St (Eastbound)	N Callow Ave	SR 303	0.95	0:07:50	7	0:05:10	11	***Reduced travel time due to reduction of eastbound volume and signal timing optimization. RAB at Naval Ave/6th St offsets road diet along 6th St***
Burwell St (Eastbound)	N Callow Ave	SR 303	0.95	0:07:10	8	0:05:20	11	***Reduced travel time due to reduction of eastbound volume and signal timing optimization.***
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2.91	0:14:50	12	0:10:20	17	***Reduced travel time due to SR 303 Corridor Study projects.***
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	0.89	0:05:00	11	0:04:10	13	***Reduced travel time due to optimized timing and reduction of northbound volume.***
		Transit Total		**0:50:00**		**0:34:40**		
		Change from No Build		**0%**		**31%**		
		Score		**1**		**3**		
PM GP								
Corridor Travel Time								
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	1.40	0:06:10	14	0:04:00	21	***Reduced travel time due to reduced westbound volume and signal timing optimization.***
11th Ave (Westbound)	SR 303	Kitsap Way	1.11	0:05:10	13	0:04:10	16	***Reduced travel time due to reduced westbound volume and signal timing optimization.***
6th St (Westbound)	SR 303	N Callow Ave	0.95	0:03:20	17	0:04:20	13	***Increased travel time due to 6th Street road diet. RAB at Naval Ave/6th St helps offset road diet along 6th St***
Burwell St (Westbound)	SR 303	N Callow Ave	0.95	0:04:10	14	0:03:50	15	***Reduced travel time due to reduced westbound volume and signal timing optimization.***
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2.91	0:12:20	14	0:09:40	18	***Reduced travel time due to SR 303 Corridor Study projects.***
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	0.89	0:03:10	17	0:02:40	20	***Reduced travel time due to reduced southbound volume and signal timing optimization.***
		GP Total		**0:34:20**		**0:28:40**		
		Change from No Build		**0%**		**17%**		
		Score		**1**		**2**		
PM Transit								
Corridor Travel Time								
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	1.40	0:07:40	11	0:05:30	15	***Reduced travel time due to reduced westbound volume and signal timing optimization.***
11th Ave (Westbound)	SR 303	Kitsap Way	1.11	0:06:30	10	0:05:20	12	***Reduced travel time due to reduced westbound volume and signal timing optimization.***
6th St (Westbound)	SR 303	N Callow Ave	0.95	0:08:10	7	0:06:50	8	***Reduced travel time due to reduced westbound volume and signal timing optimization. RAB at Naval Ave/6th St helps offset road diet along 6th St***
Burwell St (Westbound)	SR 303	N Callow Ave	0.95	0:07:00	8	0:05:50	10	***Reduced travel time due to reduced westbound volume and signal timing optimization.***
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2.91	0:17:20	10	0:10:10	17	***Reduced travel time due to SR 303 Corridor Study projects, including the northbound BAT lane.***
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	0.89	0:03:30	15	0:03:10	17	***Reduced travel time due to reduced southbound volume and signal timing optimization.***
		Transit Total		**0:50:10**		**0:36:50**		
		Change from No Build		**0%**		**27%**		
		Score		**1**		**3**		

Joint Compatibility Transportation Plan
Preferred Alternative Screening

					No Build							
Arterial (Direction)	From	To	Number of lanes (directional)	Free Flow Speed (FFS)	Actual Speed	Arterial LOS	V/C	V/C rounded	Travel Rate *= (1/ Actual speed)*	Recurring Delay *= (t-(1/FFS))*	Incident Delay (D_u) *= (IDAP lookup)*	TTI_m
AM GP												
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	2	35	12	C	0.71	0.70	0.085	0.057	1.12E-03	3.03
11th Ave (Eastbound)	Kitsap Way	SR 303	2	30	15	C	0.71	0.70	0.065	0.032	1.12E-03	1.97
6th St (Eastbound)	N Callow Ave	SR 303	2	25	15	C	0.71	0.70	0.065	0.024	1.12E-03	1.63
Burwell St (Eastbound)	N Callow Ave	SR 303	2	25	15	D	0.81	0.80	0.067	0.027	2.09E-03	1.73
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2	28	17	D	0.81	0.80	0.057	0.022	2.09E-03	1.69
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	3	30	15	D	0.81	0.80	0.069	0.036	1.64E-03	2.12
		Average										**2.03**
		Change from No Build										**0%**
		Change Type										**NO CHANGE**
		Score										**1**
AM Transit												
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	2	35	9	C	0.71	0.70	0.113	0.085	1.12E-03	4.00
11th Ave (Eastbound)	Kitsap Way	SR 303	2	30	12	C	0.71	0.70	0.085	0.052	1.12E-03	2.57
6th St (Eastbound)	N Callow Ave	SR 303	2	25	7	C	0.71	0.70	0.138	0.098	1.12E-03	3.46
Burwell St (Eastbound)	N Callow Ave	SR 303	2	25	8	D	0.81	0.80	0.125	0.085	2.09E-03	3.19
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2	28	12	D	0.81	0.80	0.085	0.050	2.09E-03	2.47
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	3	30	11	D	0.81	0.80	0.094	0.061	1.64E-03	2.88
		Average										**3.09**
		Change from No Build										**0%**
		Change Type										**NO CHANGE**
		Score										**1**
PM GP												
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	2	35	14	E	0.91	0.90	0.073	0.045	5.10E-03	2.75
11th Ave (Westbound)	SR 303	Kitsap Way	2	30	13	E	0.91	0.90	0.078	0.044	5.10E-03	2.47
6th St (Westbound)	SR 303	N Callow Ave	2	25	17	D	0.81	0.80	0.059	0.018	2.09E-03	1.51
Burwell St (Westbound)	SR 303	N Callow Ave	2	25	14	D	0.81	0.80	0.073	0.033	2.09E-03	1.88
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2	28	14	F	1.00	1.00	0.071	0.035	1.99E-02	2.57
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	2	30	17	C	0.71	0.70	0.059	0.026	1.12E-03	1.83
		Average										**2.17**
		Change from No Build										**0%**
		Change Type										**NO CHANGE**
		Score										**1**
PM Transit												
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	2	35	11	E	0.91	0.90	0.091	0.063	5.10E-03	3.37
11th Ave (Westbound)	SR 303	Kitsap Way	2	30	10	E	0.91	0.90	0.098	0.064	5.10E-03	3.06
6th St (Westbound)	SR 303	N Callow Ave	2	25	7	D	0.81	0.80	0.144	0.104	2.09E-03	3.63
Burwell St (Westbound)	SR 303	N Callow Ave	2	25	8	D	0.81	0.80	0.122	0.082	2.09E-03	3.12
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2	28	10	F	1.00	1.00	0.099	0.064	1.99E-02	3.38
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	2	30	15	C	0.71	0.70	0.066	0.032	1.12E-03	2.01
		Average										**3.10**
		Change from No Build										**0%**
		Change Type										**NO CHANGE**
		Score										**1**

Joint Compatibility Transportation Plan
Preferred Alternative Screening

					Preferred Alternative								
Arterial (Direction)	From	To	Number of lanes (directional)	Free Flow Speed (FFS)	Number of lanes (directional)	Actual Speed	Arterial LOS	V/C	V/C rounded	Travel Rate *= (1/ Actual speed)*	Recurring Delay *= (t-(1/FFS))*	Incident Delay (D_u) *= (IDAP lookup)*	TTI_m
AM GP													
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	2	35	2	23	D	0.81	0.80	0.044	0.015	2.09E-03	1.60
11th Ave (Eastbound)	Kitsap Way	SR 303	2	30	2	24	B	0.61	0.60	0.043	0.009	6.00E-04	1.29
6th St (Eastbound)	N Callow Ave	SR 303	2	25	2	18	D	0.81	0.80	0.056	0.016	2.09E-03	1.44
Burwell St (Eastbound)	N Callow Ave	SR 303	2	25	2	19	D	0.81	0.80	0.052	0.013	2.09E-03	1.37
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2	28	2	22	D	0.81	0.80	0.045	0.010	2.09E-03	1.33
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	3	30	3	19	D	0.81	0.80	0.053	0.020	1.36E-03	1.64
		Average											**1.45**
		Change from No Build											**29%**
		Change Type											**IMPROVE TTR**
		Score											**3**
AM Transit													
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	2	35	2	15	C	0.71	0.70	0.065	0.037	1.12E-03	2.33
11th Ave (Eastbound)	Kitsap Way	SR 303	2	30	2	16	B	0.61	0.60	0.063	0.029	6.00E-04	1.88
6th St (Eastbound)	N Callow Ave	SR 303	2	25	2	11	D	0.81	0.80	0.091	0.051	2.09E-03	2.31
Burwell St (Eastbound)	N Callow Ave	SR 303	2	25	2	11	C	0.71	0.70	0.093	0.053	1.12E-03	2.36
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2	28	2	17	D	0.81	0.80	0.059	0.024	2.09E-03	1.74
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	3	30	3	13	C	0.71	0.70	0.078	0.045	5.28E-04	2.37
		Average											**2.17**
		Change from No Build											**30%**
		Change Type											**IMPROVE TTR**
		Score											**3**
PM GP													
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	2	35	2	21	D	0.81	0.80	0.048	0.019	2.09E-03	1.74
11th Ave (Westbound)	SR 303	Kitsap Way	2	30	2	16	D	0.81	0.80	0.063	0.029	2.09E-03	1.93
6th St (Westbound)	SR 303	N Callow Ave	2	25	2	13	E	0.91	0.90	0.076	0.036	5.10E-03	2.02
Burwell St (Westbound)	SR 303	N Callow Ave	2	25	2	15	D	0.81	0.80	0.067	0.027	2.09E-03	1.73
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2	28	3	18	E	0.91	0.90	0.055	0.020	4.01E-03	1.69
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	2	30	2	20	C	0.71	0.70	0.050	0.017	1.12E-03	1.54
		Average											**1.78**
		Change from No Build											**18%**
		Change Type											**IMPROVE GP**
		Score											**2**
PM Transit													
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	2	35	2	15	D	0.81	0.80	0.065	0.037	2.09E-03	2.36
11th Ave (Westbound)	SR 303	Kitsap Way	2	30	2	12	D	0.81	0.80	0.080	0.047	2.09E-03	2.45
6th St (Westbound)	SR 303	N Callow Ave	2	25	2	8	F	1.00	1.00	0.120	0.080	1.99E-02	3.49
Burwell St (Westbound)	SR 303	N Callow Ave	2	25	2	10	E	0.91	0.90	0.102	0.062	5.10E-03	2.68
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2	28	3	17	E	0.91	0.90	0.058	0.023	4.01E-03	1.77
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	2	30	2	17	C	0.71	0.70	0.059	0.026	1.12E-03	1.83
		Average											**2.43**
		Change from No Build											**22%**
		Change Type											**IMPROVE TTR**
		Score											**3**

Joint Compatibility Transportation Plan
Preferred Alternative Screening

					No Build				Preferred Alternative				
					GP AVO	85%	1.12			85%	1.12		
					HOV AVO	15%	2.2			15%	2.2		
Arterial (Direction)	From	To	Distance (miles)	Free Flow TT	Corridor TT	# of Vehicles	# or Persons	Person Hours of Delay	Corridor TT	# of Vehicles	# or Persons	Person Hours of Delay (per mile)	*Notes*
AM GP													
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	1.40	0:02:20	0:07:10	1,770	1,982	160	0:03:40	1,510	1,691	38	***Mobility improves due to reduced volumes and signal timing optimization.***
11th Ave (Eastbound)	Kitsap Way	SR 303	1.11	0:02:10	0:04:20	830	930	34	0:02:50	850	952	11	
6th St (Eastbound)	N Callow Ave	SR 303	0.95	0:02:20	0:03:40	1,130	1,266	28	0:03:10	820	918	13	
Burwell St (Eastbound)	N Callow Ave	SR 303	0.95	0:02:20	0:03:50	1,130	1,266	32	0:03:00	820	918	10	
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2.91	0:06:10	0:10:00	1,170	1,310	84	0:07:50	930	1,042	29	
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	0.89	0:01:50	0:03:40	1,740	2,230	68	0:02:50	1,300	1,456	24	
		Total						**405**				**124**	
		Change from No Build						**0%**				**69%**	
		Score						**1**				**3**	
AM Transit													
Kitsap Way (Eastbound)	SR 3 NB Ramps	11th Ave	1.40	0:02:20	0:09:30		360	43	0:05:30		610	32	***Transit mobility improves due to express transit service.***
11th Ave (Eastbound)	Kitsap Way	SR 303	1.11	0:02:10	0:05:40		260	15	0:04:10		460	15	
6th St (Eastbound)	N Callow Ave	SR 303	0.95	0:02:20	0:07:50		125	11	0:05:10		175	8	
Burwell St (Eastbound)	N Callow Ave	SR 303	0.95	0:02:20	0:07:10		475	38	0:05:20		910	46	
SR 303 (Southbound)	NE Riddell Rd	Burwell St	2.91	0:06:10	0:14:50		520	75	0:10:20		735	51	
SR 304 (Northbound)	Charleston Beach Rd W	Burwell St	0.89	0:01:50	0:05:00		520	27	0:04:10		930	36	
		Total						**210**				**189**	
		Change from No Build						**0%**				**10%**	
		Score						**1**				**2**	
PM GP													
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	1.40	0:02:20	0:06:10	2,210	2,475	158	0:04:00	1,960	2,195	61	***Mobility improves due to reduced volumes and signal timing optimization. RAB at Naval Ave/6th St helps offset road diet along 6th St.***
11th Ave (Westbound)	SR 303	Kitsap Way	1.11	0:02:10	0:05:10	1,330	1,490	74	0:04:10	1,350	1,512	50	
6th St (Westbound)	SR 303	N Callow Ave	0.95	0:02:20	0:03:20	1,390	1,557	26	0:04:20	1,060	1,187	40	
Burwell St (Westbound)	SR 303	N Callow Ave	0.95	0:02:20	0:04:10	1,120	1,254	38	0:03:50	810	907	23	
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2.91	0:06:10	0:12:20	1,760	1,971	203	0:09:40	1,530	1,714	100	
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	0.89	0:01:50	0:03:10	1,520	1,950	43	0:02:40	1,050	1,176	16	
		Total						**543**				**290**	
		Change from No Build						**0%**				**47%**	
		Score						**1**				**3**	
PM Transit													
Kitsap Way (Westbound)	11th Ave	SR 3 NB Ramps	1.40	0:02:20	0:07:40		360	32	0:05:30		610	32	***Reduction in transit travel times due to express bus service are offset by huge increase of 1,500 in transit ridership.***
11th Ave (Westbound)	SR 303	Kitsap Way	1.11	0:02:10	0:06:30		260	19	0:05:20		460	24	
6th St (Westbound)	SR 303	N Callow Ave	0.95	0:02:20	0:08:10		125	12	0:06:50		175	13	
Burwell St (Westbound)	SR 303	N Callow Ave	0.95	0:02:20	0:07:00		475	37	0:05:50		910	53	
SR 303 (Northbound)	Burwell St	NE Riddell Rd	2.91	0:06:10	0:17:20		520	97	0:10:10		735	49	
SR 304 (Southbound)	Burwell St	Charleston Beach Rd W	0.89	0:01:50	0:03:30		520	14	0:03:10		930	21	
		Total						**211**				**192**	
		Change from No Build						**0%**				**9%**	
		Score						**1**				**1**	

Joint Compatibility Transportation Plan
Preferred Alternative Screening

			No Build				Preferred Alternative				
	Total Crash CMF	KABC Crash CMF	Total Crash CMF	Intersections In	KABC Crash CMF	Intersections In	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	*Notes*
Alternative Improvements											
C1	1.00	0.34					1.00	2, 3	0.34	2, 3	***Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)***
C2	1.00	0.34					1.00	104, 105	0.34	104, 105	***Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)***
C6	1.00	0.71									
C7											
C8	0.96	1.00									
C9	1.00	0.34									
C10	0.58	0.58									
C16											
C20							-		-		***Add all-way pedestrian phase (Virginia DOT - ped crashes only)***
C21											
C23	0.87	0.95									
C24							-		-		***Added below***
6th St road diet							-	12, 13, 14, 16, 17	-	12, 13, 14, 16, 17	***10.9 fewer annual crashes (Bremerton Strategic Road Safety Plan)***
11th St road diet											
C26							-		-		
C27											
C29											
11th RAB	1.00	0.34					1.00	22	0.34	22	***Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)***
Ridell RAB	1.00	0.34					1.00	28	0.34	28	***Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)***
Median treatments		0.70					-		0.70	25, 26, 27, 28, 29	***Add median intersection treatment (ODOT H1)***
Furneys porkchop		0.65					-		0.65	29	***Add channelized right turn with median (ODOT H6)***
C31											
C32							-		-		
C35	0.83	0.92					0.83	4, 5, 6, 7, 8, 10, 11, 12, 13, 16, 17, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 35, 36, 37, 38, 44, 45	0.92	4, 5, 6, 7, 8, 10, 11, 12, 13, 16, 17, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 35, 36, 37, 38, 44, 45	***Adaptive signal timing***
C38 - added below											
Burwell St adaptive signals							-		-		***See adaptive signal timing improvement above (C35)***
6th St road diet											
11th/Callow								11		11	***1.72 fewer annual crashes (Bremerton Strategic Road Safety Plan)***
13th and Sylvan corridors											
C39	1.00	0.34									
C40											***Road diet on Naval***
C41							1.00	14	0.34	14	***Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)***

Joint Compatibility Transportation Plan
Preferred Alternative Screening

			No Build				Preferred Alternative				
	Total Crash CMF	KABC Crash CMF	Total Crash CMF	Intersections In	KABC Crash CMF	Intersections In	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	***Notes***
Intersections											
	2014-2019 Crash Rate	2014-2019 KABC Crash Rate	Total Crash CMF	Total Crash Rate	KABC Crash CMF	KABC Crash Rate	Total Crash CMF	Total Crash Rate	KABC Crash CMF	KABC Crash Rate	***Notes***
2	7	1	1.00	6.50	1.00	1.17	1.00	6.50	0.34	0.40	***Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)***
3	9	3	1.00	8.50	1.00	3.00	1.00	8.50	0.34	1.02	***Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)***
4	6	2	1.00	5.67	1.00	1.67	0.83	4.70	0.92	1.53	***Adaptive signal timing***
5	5	2	1.00	4.83	1.00	1.50	0.83	4.01	0.92	1.38	***Adaptive signal timing***
6	6	2	1.00	6.17	1.00	2.00	0.83	5.12	0.92	1.84	***Adaptive signal timing***
7	7	2	1.00	7.33	1.00	2.17	0.83	6.09	0.92	1.99	***, Adaptive signal timing***
8	6	2	1.00	6.33	1.00	2.00	0.83	5.26	0.92	1.84	***Adaptive signal timing***
10	8	2	1.00	8.33	1.00	1.83	0.83	6.92	0.92	1.69	***Adaptive signal timing***
12	5	2	1.00	5.33	1.00	1.83	0.83	4.43	0.92	1.69	***Adaptive signal timing***
13	3	1	1.00	3.00	1.00	1.00	0.83	2.49	0.92	0.92	***Adaptive signal timing***
14	8	3	1.00	7.50	1.00	2.50	1.00	7.50	0.34	0.85	***Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)***
16	2	1	1.00	2.00	1.00	0.50	0.83	1.66	0.92	0.46	***Adaptive signal timing***
17	9	1	1.00	8.50	1.00	1.00	0.83	7.06	0.92	0.92	***Adaptive signal timing***
21	4	1	1.00	4.33	1.00	0.67	0.83	3.60	0.92	0.61	***Adaptive signal timing***
22	9	2	1.00	9.00	1.00	2.17	1.00	9.00	0.34	0.74	***Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)***
23	7	3	1.00	7.17	1.00	2.50	0.83	5.95	0.92	2.30	***Adaptive signal timing***
24	4	1	1.00	4.33	1.00	1.17	0.83	3.60	0.92	1.07	***Adaptive signal timing***
25	14	4	1.00	13.50	1.00	3.67	0.83	11.21	0.64	2.36	***Adaptive signal timing***
26	13	5	1.00	13.17	1.00	4.50	0.83	10.93	0.64	2.90	***Adaptive signal timing***
27	4	1	1.00	3.83	1.00	1.33	0.83	3.18	0.64	0.86	***Adaptive signal timing***
28	1	0	1.00	1.00	1.00	0.17	1.00	1.00	0.24	0.04	***Signal to multi-lane RAB, AADT greater than 18,000 (WSDOT)***
30	12	4	1.00	11.83	1.00	3.67	0.83	9.82	0.92	3.37	***Adaptive signal timing***
31	4	2	1.00	4.33	1.00	1.67	0.83	3.60	0.92	1.53	***Adaptive signal timing***
32	2	1	1.00	2.00	1.00	0.83	0.83	1.66	0.92	0.77	***Adaptive signal timing***
34	1	0	1.00	0.83	1.00	0.33	1.00	0.83	1.00	0.33	
35	11	2	1.00	11.33	1.00	1.67	0.83	-	0.92	1.53	***Adaptive signal timing***
36	6	1	1.00	6.17	1.00	1.33	0.83	5.12	0.92	1.23	***Adaptive signal timing***
37	7	2	1.00	7.00	1.00	1.83	0.83	5.81	0.92	1.69	***Adaptive signal timing***
38	3	1	1.00	2.67	1.00	0.67	0.83	2.21	0.92	0.61	***Adaptive signal timing***
44	1	0	1.00	0.67	1.00	0.33	0.83	0.55	0.92	0.31	***Adaptive signal timing***
45	0	0	1.00	0.17	1.00	0.00	0.83	0.14	0.92	0.00	***Adaptive signal timing***
47	4	1	1.00	3.67	1.00	0.67	1.00	3.67	1.00	0.67	
104	5	1	1.00	4.83	1.00	1.17	0.83	4.01	0.92	1.07	***Adaptive signal timing***
105	10	4	1.00	10.33	1.00	4.17	0.83	8.58	0.92	3.83	***Adaptive signal timing***

Joint Compatibility Transportation Plan
Preferred Alternative Screening

			No Build				Preferred Alternative				
	Total Crash CMF	KABC Crash CMF	Total Crash CMF	Intersections In	KABC Crash CMF	Intersections In	Total Crash CMF	Intersections Impacted	KABC Crash CMF	Intersections Impacted	***Notes***
135	5	0	1.00	4.50	1.00	0.33	1.00	4.50	1.00	0.33	
400	2	1	1.00	1.50	1.00	0.67	1.00	1.50	1.00	0.67	
401	3	0	1.00	2.50	1.00	0.17	1.00	2.50	1.00	0.17	
Additional change											
6th St road diet								-10.9		-10.9	***(Bremerton Strategic Road Safety Plan)***
11th St road diet											
11th/Callow								-1.72		-1.72	***(Bremerton Strategic Road Safety Plan)***
13th and Sylvan corridors											
Naval Ave road diet								-5		-5	***(approximate based on Bremerton Strategic Road Safety Plan)***
	211	**58**		**211**		**58**		**156**		**28**	
		Overall CMF						**0.74**		**0.48**	
		Change from No Build		0%		0%		26%		52%	
		Score		**1**		**1**		**3**		**3**	

Joint Compatibility Transportation Plan
Preferred Alternative Screening

	No Build	Preferred Alternative
		Key Assumptions: *Includes residential-only parking permits and paid parking downtown.* *Will redevelop City-owned surface lots and pursue redevelopment of exisitng surface lots to more active land uses.* *Commuter Engagement and Incentive Platform: Major employers in the study area would participate in use of a commuter engagement and incentive platform to enhance mobility options and incentives for commuters.*
Performance Measure		Metric
Parking Utilization	Project does not increase the availability of parking or transit options or increase in consistency between parking regulations and parking turnover or duration.	Project has a substantial increase availability of parking or transit options or increase in consistency between parking regulations and parking turnover or duration.
Score	**1**	**3**
Parking Violations	The project does not result in a decrease in the violation rate	The project results in a substantial decrease in the violation rate
Score	**1**	**3**
City Parking Revenue	The project does not increase parking revenue	The project results in a modest increase in parking revenue
Score	**1**	**2**
City Parking Enforcement	The project does not enhance the City's parking technology for enforcement	The project results in a substantial improvement in the City's use of technology for parking enforcement
Score	**1**	**3**
Accessibility to Parking for Base Workers	The project does not increase the amount of available parking for shipyard workers but moves locations of parking and improves congestion	The project results in modest increase in available parking for shipyard workers and moves locations of parking and improves congestion
Score	**1**	**2**
Tracking the "Bremerton Shuffle"	The project does not change the number of vehicles that typically are moved to evade time limits	The project results in a substantial decrease in vehicles being moved to evade time limits
Score	**1**	**3**
Surface Parking/Land Use Impacts	The project results in a neutral or modest decease in surface parking.	The projects results in a substantial decrease in surface parking.
Score	**1**	**3**

Appendix N

Preferred Alternative Phasing Matrix

Joint Compatibility Transportation Plan
Preferred Alternative Project Phasing

Project Code	Project Description	Capital Improvement or Policy	Owner Agency	Partner Agencies	Cost Estimate	City Goals 3 = Both 2 = Livability 1 = Base Accessibility	Cost Level 3 = Low (<$500k) 2= Medium ($500k-$5M) 1= High (>$5M)	Ease of Implementation 3 = (0-6 years) 2 = (6-20 yr) 1 = (20-30 yr)	Funding 3 = Funding Available 2 = Funding Identified 1 = Funding Not Identified	Total Score	Recommended Phasing Order
City Capital Projects (CC)											
C40	Naval Ave Road Re-channelization - revises lane configuration on Naval Ave to include a 2-way center turn lane and bike lanes	Capital	City of Bremerton		$ 10,400,000	3	1	3	3	**10**	**CC-1**
C24	6th St Road Re-channelization - revises lane configuration on 6th St to include a 2-way center turn lane and bike lanes	Capital	City of Bremerton		$ 3,500,000	3	2	3	3	**11**	**CC-2**
AT15	Add a shared-use path on south side of 1st St between Naval Ave and Callow Ave	Capital	City of Bremerton		$ 300,000	3	3	3	2	**11**	**CC-3**
AT5	Within the 10-minute walksheds of base gates, upgrade and/or add sidewalks; upgrade marked and unmarked crossings to be ADA compliant	Capital	City of Bremerton		$ 66,200,000	3	1	3	3	**10**	**CC-4**
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	Capital	City of Bremerton		$ 25,000	1	3	3	3	**10**	**CC-5**
C35	Adaptive signal timing at 19 signalized intersections along Kitsap Way, 6th St, and 11th St	Capital	City of Bremerton		$ 5,100,000	1	1	3	3	**8**	
C38	Build projects proposed in Bremerton Strategic Road Safety Plan. Includes adaptive signal timing along Burwell St and pedestrian crossing treatments at 6th St/Hewitt Ave and Burwell St/Washington Ave	Capital	City of Bremerton		$ 2,900,000	1	2	3	3	**9**	**CC-6**
AT48	Add bike 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.	Capital	City of Bremerton	NBK-BR	$ 4,900,000	2	2	3	2	**9**	**CC-7**
C31	Pedestrian/bike improvements within 5 minute walkshed of park and rides or transit hubs (existing and proposed)	Capital	City of Bremerton	Kitsap Transit	$ 6,600,000	1	1	3	2	**7**	**CC-8**
AT27	Improve the sidewalk conditions in the neighborhood west of Charleston Blvd	Capital	City of Bremerton/ Kitsap County		$ 8,000,000	2	1	3	2	**8**	**CC-9**
AT2	Construct a mobility hub at the southwest corner of Park Ave and 4th St for first/last mile connections	Capital	City of Bremerton	Kitsap Transit	$ 1,500,000	3	2	2	1	**8**	**CC-10**
AT55	Construct bike lanes on Park Ave from 4th St to 6th St	Capital	City of Bremerton		$ 125,000	3	3	3	2	**11**	
C26	Traffic Management Center that includes IT infrastructure to support adaptive signals (e.g. Cloud based technology)	Capital	City of Bremerton		$ 2,300,000	1	2	2	1	**6**	**CC-11**
C41	Convert signal at Naval Ave/6th St to a roundabout	Capital	City of Bremerton		$ 7,500,000	1	1	2	1	**5**	**CC-12**
C29	Build projects proposed in SR 303 Corridor Study - prioritize capacity projects including roundadbouts and BAT lane	Capital	City of Bremerton	Kitsap County Kitsap Transit	$ 120,000,000	3	1	1	2	**7**	**CC-13**
City Policy Projects (CP)											
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	Policy	City of Bremerton	Kitsap Transit	$ 1,500,000	2	2	3	1	**8**	**CP-1**
PM15	Implement paid on-street parking in the downtown subarea	Policy	City of Bremerton		$ 50,000	2	3	2	2	**9**	**CP-2**
PM2	Implement permit only parking in residential neighborhoods adjacent to and surrounding NBK-BR	Policy	City of Bremerton		$ 50,000	2	3	2	2	**9**	**CP-3**
Naval Base Kitsap - Bremeton Capital Projects (BC)											
AT19	Install secure covered bike parking inside NBK-BR, PSNS, and outside gates	Capital	NBK-BR		$ 200,000	3	3	3	2	**11**	**BC-1**
B3	Improve or manage vehicle input at NBK-BR gates in the AM peak to decrease queuing on City streets	Policy	NBK-BR		$ 600,000	1	2	3	2	**8**	**BC-2**
B18	Allow output at Montgomery gate during AM peak hours and allow input during PM peak hours	Policy	NBK-BR		TBD	1	1	3	2	**7**	**BC-3**
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	Capital	NBK-BR	WSDOT, City of Bremerton	$ 1,000,000	1	2	3	1	**7**	**BC-4**
B7	Maximize the efficient use of parking stalls on NBK-BR installation and construct additional parking	Policy/Capital	NBK-BR		$ 25,200,000	1	1	1	1	**4**	**BC-5**
Naval Base Kitsap - Bremeton Policy Projects (BP)											
CTR1	Maintain telework options currently available to DOD employees	Policy	NBK-BR		TBD	3	3	3	2	**11**	**BP-1**
CTR3	Improve NBK-BR/Kitsap Transit Worker/Driver Bus program by making changes to reimbursement process and easing use requirements	Policy	NBK-BR	City of Bremerton, Kitsap Transit	TBD	3	1	3	1	**8**	**BP-2**
Kitsap Transit Capital Projects (KC)											
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	Capital	Kitsap Transit		$ 53,200,000	3	1	2	2	**8**	**KC-1**
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	Capital	Kitsap Transit		$ 48,000,000	3	1	2	2	**8**	**KC-2**
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	Capital	Kitsap Transit	City of Bremerton	$ 24,200,000	3	1	2	1	**7**	**KC-3**
Kitsap Transit Policy Projects (KP)											
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	Policy	Kitsap Transit	NBR-BR	TBD	3	3	3	1	**10**	**KP-1**
CTR12	Study increased foot-ferry capacity between Bremerton and Port Orchard to align with the Kitsap Transit Long Range Plan	Policy	Kitsap Transit	City of Bremerton, City of Port Orchard	TBD	3	2	3	1	**9**	**KP-2**
CTR4	Reduced fare and regular bus passes. Reduced fare based on income	Policy	Kitsap Transit		TBD	3	2	3	1	**9**	**KP-3**
T8	Shuttle service between park and rides and downtown Bremerton (regular bus route with high frequency)	Policy	Kitsap Transit	NBK-BR	TBD	3	2	2	2	**9**	**KP-4**
T6	More bus routes and greater frequency (10-15 minute headways) to NBK-BR, including early moring and late evening routes	Policy	Kitsap Transit	NBK-BR	TBD	3	2	2	1	**8**	**KP-5**
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.	Policy	Kitsap Transit	City of Bremerton, NBK-BR, Port of Bremerton, WSDOT	$ 500,000	2	2	2	1	**7**	**KP-6**
Washington State Capital Projects (WC)											
C1	Build intersection improvements at SR 3/Kitsap Way as recommended by the West Kitsap Way study	Capital	WSDOT	City of Bremerton	$ -	1	3	2	1	**7**	**WC-1**
C2	Convert stop sign and signals at SR 3/W Loxie Eagans Blvd interchange to roundabouts	Capital	WSDOT	City of Bremerton	$ 13,700,000	1	1	2	1	**5**	**WC-2**
Washington State Policy Projects (WP)											
O6	Better enforcement of HOV lanes	Policy	Washington State Patrol	City of Bremerton	TBD	1	1	3	1	**6**	**WP-1**
AT14	Support planning efforts for SR 3 in Gorst	Policy	WSDOT	City of Bremerton, NBK-BR, Kitsap County, Port of Bremerton, Port Orchard	TBD	1	1	3	2	**7**	**WP-2**

Appendix O

Project One-Pagers

Phase CC-1

Project Description	
Naval Ave Road Re-channelization - revises lane configuration on Naval Ave to include a 2-way center turn lane and bike lanes	
Project Code	C40
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	Precedes roundabout at Naval Ave/6th St as part of project C41
Location	Naval Ave between 15th St and 1st St
Project Length	0.7 miles
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$10,400,000

**Cost in 2022 dollars*

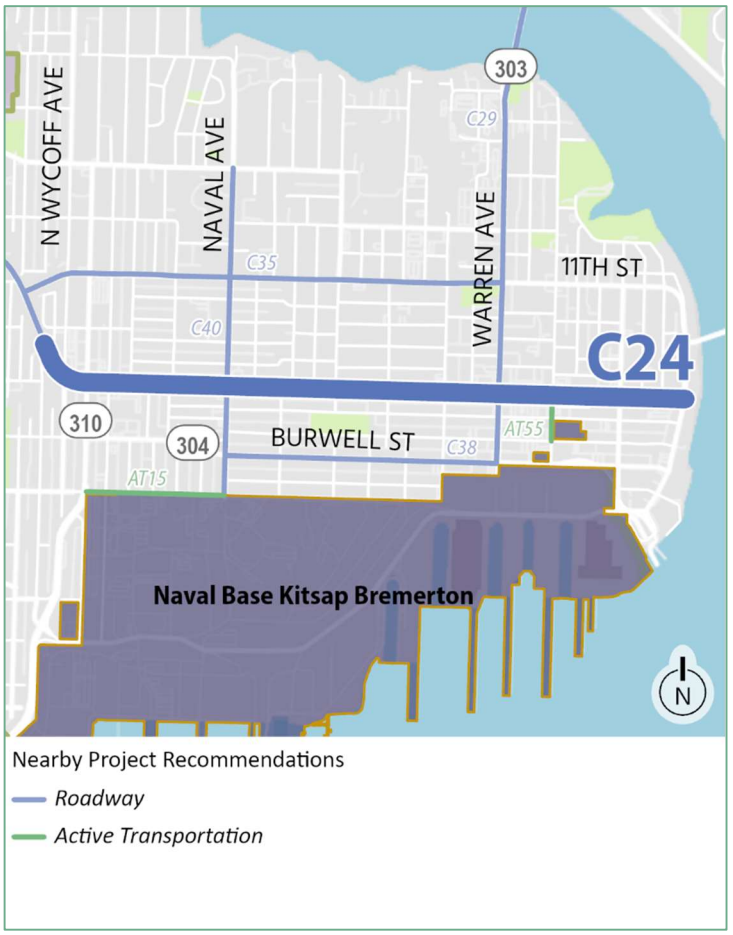


Project Attributes	
Project Assumptions	• Reduce 4 lane section to 3 lane section with center left-turn lane and add bike lanes • Project limits are 1st St to 15th St • Lighting upgrades should be evaluated in accordance with the City's engineering design and construction standards • Does not include roundabout at Naval Ave/6th St (project C41)
Project Benefits	• Road diets improve safety by reducing rear-end and left-turn crashes due to the dedicated left-turn lane • Provides opportunity to install bicycle lanes with reclaimed lane width • Makes direct connection between NBK Naval Gate and the bike network
Project Issues and Risks	• Strong buy-in from elected officials and community members is beneficial • Project has potential to reduce travel time, travel time reliability, and mobility for vehicles and transit • Vehicle input at the NBK-BR Naval gate may cause queueing on Naval Ave that could cause congestion in the AM peak hour (5:30am to 6:30am). See project B3. Queueing outside of the AM peak hour is not anticipated. The City believes the overall benefits of the project outweight this risk.
Notes	• Shovel ready - design, ROW, NEPA already funded

Phase CC-2

Project Description	
6th St Road Re-channelization - revises lane configuration on 6th St to include a 2-way center turn lane and bike lanes	
Project Code	C24
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	Precedes roundabout at Naval Ave/6th St as part of project C41
Location	6th St between Cambrian Ave and Washington Ave
Project Length	1.5 miles
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$3,500,000

**Cost in 2022 dollars*



Project Attributes	
Project Assumptions	• Reduce 4 lane section to 3 lane section with center left-turn lane and add bike lanes • Project limits are Cambrian Ave to Washington Ave • Lighting upgrades should be evaluated in accordance with the City's engineering design and construction standards • Does not include roundabout at Naval Ave/6th St (project C41)
Project Benefits	• Road diets improve safety by reducing rear-end and left-turn crashes due to the dedicated left-turn lane • Provides opportunity to install bicycle lanes with reclaimed lane width • Makes east-west bike network connection between Downtown and Kitsap Way • Protected bike lanes provide a safer biking environment • Providing bike lanes on 6th St provide a key east-west connection in downtown Bremerton
Project Issues and Risks	• Strong buy-in from elected officials and community members is beneficial • Project has potential to reduce travel time, travel time reliability, and mobility for vehicles and transit • Vehicle input at the NBK-BR Naval gate may cause queueing onto 6th Street that could cause congestion in the AM peak hour (5:30am to 6:30am). See project B3. Queueing outside of the AM peak hour is not anticipated. The City believes the overall benefits of the project outweight this risk.
Notes	• Identified in City of Bremerton 6-year TIP (2023 to 2028)

Phase CC-3

Project Description	
Add a shared-use path on south side of 1st St between Naval Ave and Callow Ave	
Project Code	AT15
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	-
Location	1st St between Naval Ave and Callow Ave
Project Length	0.3 miles
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$300,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*

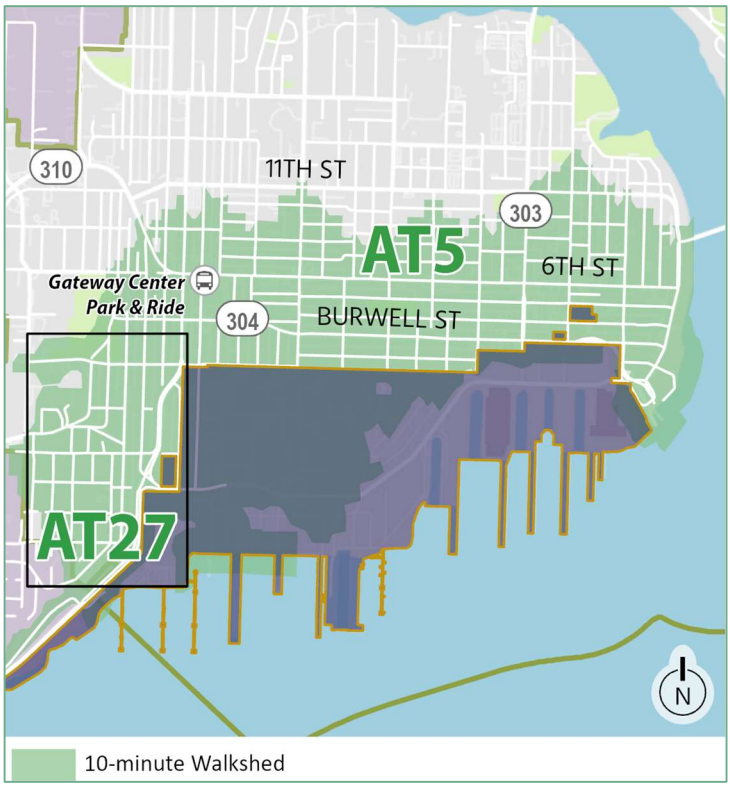


Project Attributes	
Project Assumptions	• 1st Street would become one-way for vehicles • Lighting upgrades should be evaluated as part of design of the project, per City construction standards
Project Benefits	• Protected bike lanes provide a safer biking environment • Protected bike lanes along 1st St would provide an easier and safer route for bicyclists travelling to and from NBK-BR and would encourage mode shift to biking
Project Issues and Risks	• Additional outreach, design, and estimating are required for the final configuration for bicycle facilities
Notes	• Potential to extend east to State Street

Phase CC-4

Project Description	
Within the 10-minute walksheds of base gates, upgrade and/or add sidewalks; upgrade marked and unmarked crossings to be ADA compliant	
Project Code	AT5
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	-
Location	Downtown Bremerton
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$66,200,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*

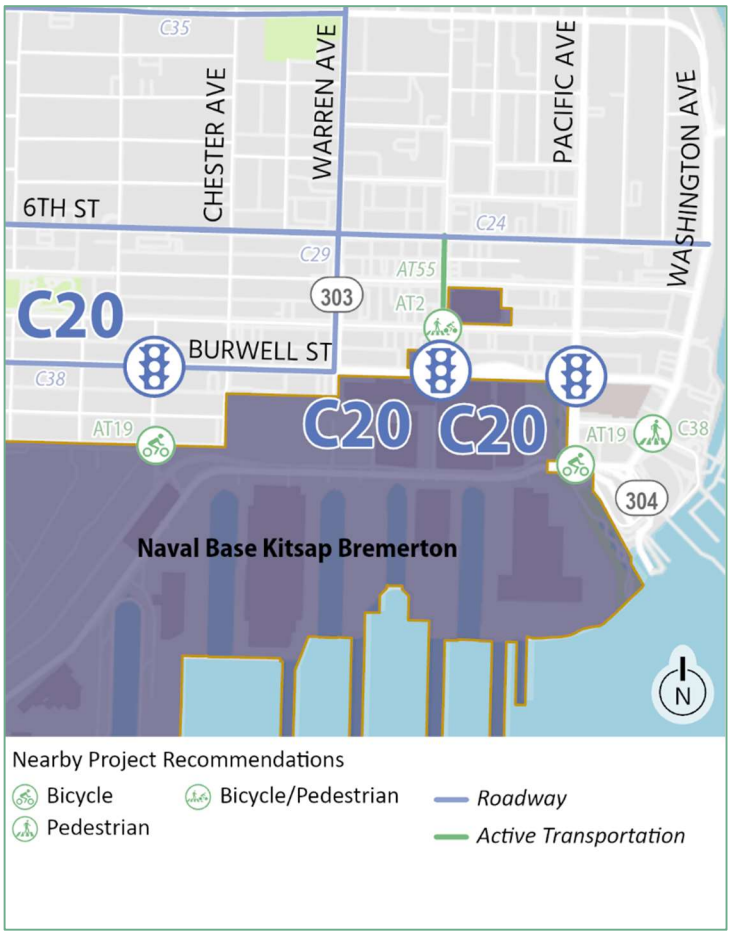


Project Attributes	
Project Assumptions	• Total cost for improving 136,700 linear feet of sidewalks that are in fair/marginal or poor/very poor conditions. Does not include sidewalks in neighborhood west of Charleston Blvd (AT27) • Suggest breaking this into smaller packages of $775k - $1M • Lighting upgrades should be evaluated in accordance with the City's engineering design and construction standards
Project Benefits	• Would benefit approximately 11,500 pedestrians who currently walk onto NBK-BR every day. • Consistent with City plans and ongoing City efforts to make crosswalks and sidewalks ADA compliant • Improved sidewalk conditions and connectivity provide a safer walking environment and encourage mode shift to walking
Project Issues and Risks	• No major issues or risks identified at this time
Notes	• Sidewalk Program identified in City of Bremerton 6-year TIP (2023 to 2028)

Phase CC-5

Project Description	
Change signal timing to include all-way pedestrian phase at State St/Burwell St, Park Ave/Burwell St, and Pacific Ave/Burwell St intersections	
Project Code	C20
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	Can occur with adaptive signal timing updates on Burwell St as part of C38
Location	State St/Burwell St, Park Ave/Burwell St, and Pacific Ave/Burwell St
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$25,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*

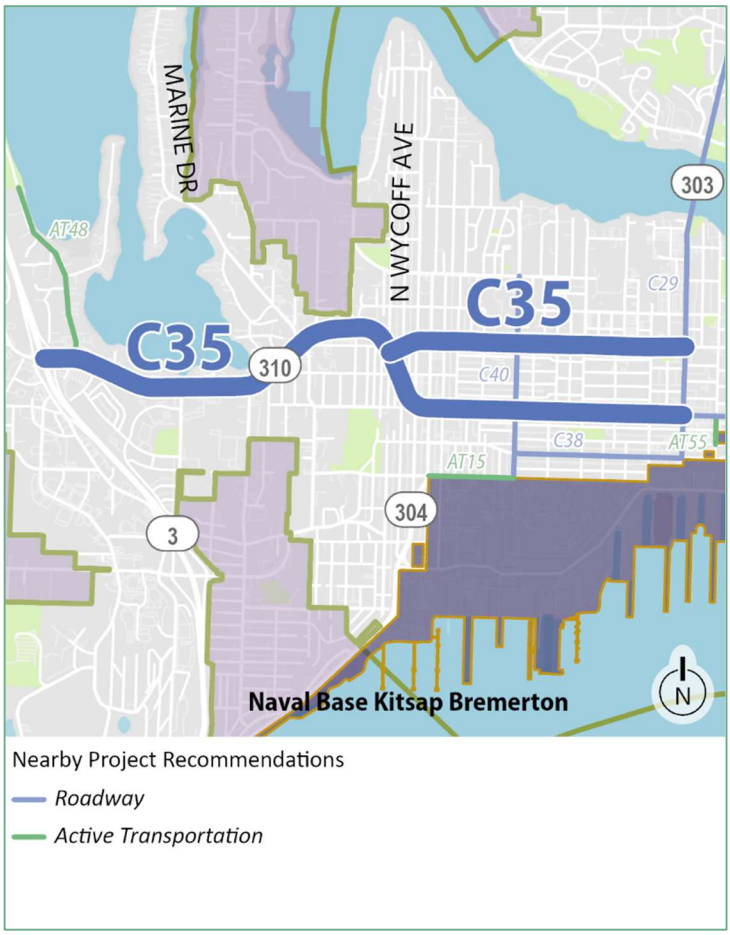


Project Attributes	
Project Assumptions	• Cost estimate assumes City hires a contractor to adjust the signal timing
Project Benefits	• Improves pedestrian safety by reducing conflicts between pedestrians and vehicles turning into crosswalks
Project Issues and Risks	• Design should incorporate Accessible Pedestrian Signal elements to assist visually impaired pedestrians who traditionaly rely on traffic sounds to decide when and where to cross • Project has potential to reduce travel time, travel time reliability, and mobility by reducing the amount of green time available to vehicle and transit
Notes	• Education efforts and permanent signage required

Phase CC-5

Project Description	
Adaptive signal timing at 19 signalized intersections along Kitsap Way, 6th St, and 11th St	
Project Code	C35
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	-
Location	Kitsap Way, 6th St, and 11th St
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$5,100,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



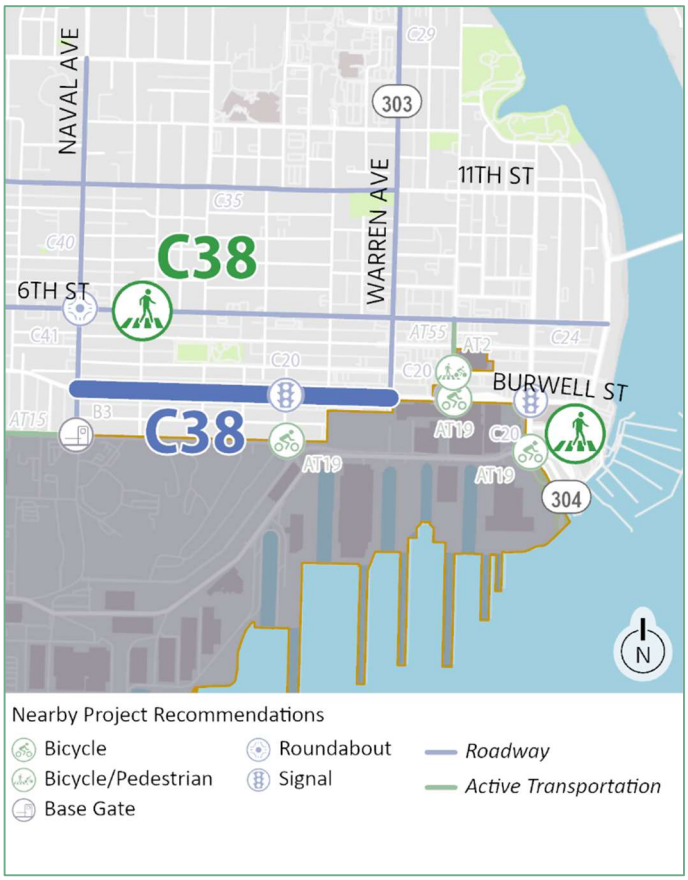
Project Attributes	
Project Assumptions	• No project assumptions identified at this time
Project Benefits	• Adaptive signal timing provides flexibility for improved traffic operations and optimizing efficiency of existing roadway capacity. Adaptive signals change without human interaction and automatically adjust the length of green time given to each movement at an intersection based on what the traffic conditions need. This enables the traffic signals to better serve all people (vehicles, pedestrians, bicyclists) moving through the intersection or along a roadway. This increases capacity of the intersection without changing the channelization and improves average performance metrics (travel time, control delay, emissions, and fuel consumption) by 10 percent or more. • Project would likely improve travel time, travel time reliability, and mobility
Project Issues and Risks	• Adapative signal systems need to be designed to ensure that pedestrians receive adequate walk time to safely cross the street.
Notes	• Signal system upgrade funding in 6 year TIP • Adaptive signal timing along Burwell St already included in the TIP and as part of project C38 • Adaptive signal timing along SR 303 already included as part of project C29

Phase CC-6

Project Description
Build projects proposed in Bremerton Strategic Road Safety Plan, per updated plan (2022). Includes adaptive signal timing along Burwell St and pedestrian crossing treatments at 6th St/Hewitt Ave and Burwell St/Washington Ave

Project Code	C38
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	Can occur with all-way pedestrian phasing on Burwell St as part of C20
Location	Burwell St, 6th St/Hewitt Ave, and Burwell St/Washington Ave
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$2,900,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



Project Attributes	
Project Assumptions	• No project assumptions identified at this time
Project Benefits	• Adaptive signal timing provides flexibility for improved traffic operations and optimizing efficiency of existing roadway capacity. Adaptive signals change without human interaction and automatically adjust the length of green time given to each movement at an intersection based on what the traffic conditions need. This enables the traffic signals to better serve all people (vehicles, pedestrians, bicyclists) moving through the intersection or along a roadway. This increases capacity of the intersection without changing the channelization and improves average performance metrics (travel time, control delay, emissions, and fuel consumption) by 10 percent or more. • Pedestrian crossing treatments provide safer facilities for pedestrians by providing visibility
Project Issues and Risks	• No major issues or risks identified at this time
Notes	• City Safety Improvements in 6 year TIP

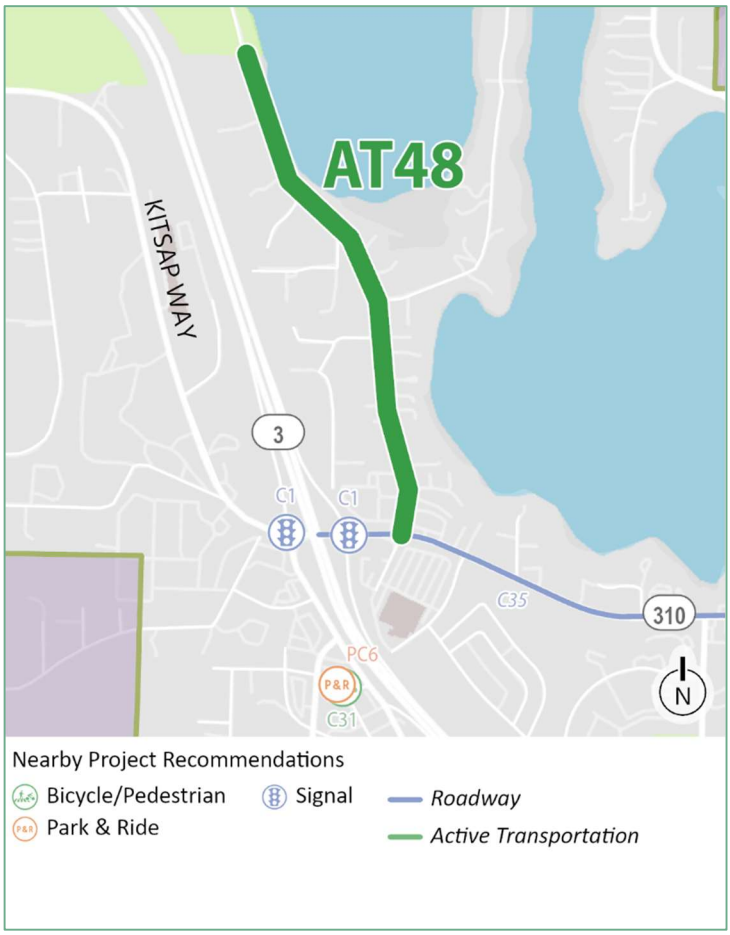
Phase CC-7

Project Description

Add bike facilities on Shorewood Dr to connect to Kitsap Way to downtown Bremerton. Navy should consider improving path from Grays Harbor Court to Shorewood Dr to provide connection for Jackson Park to city facilities.

Project Code	AT48
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	NBK-BR
Relationship to Other Projects	-
Location	Shorewood Dr north of Kitsap Way
Project Length	1 mile
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$4,900,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



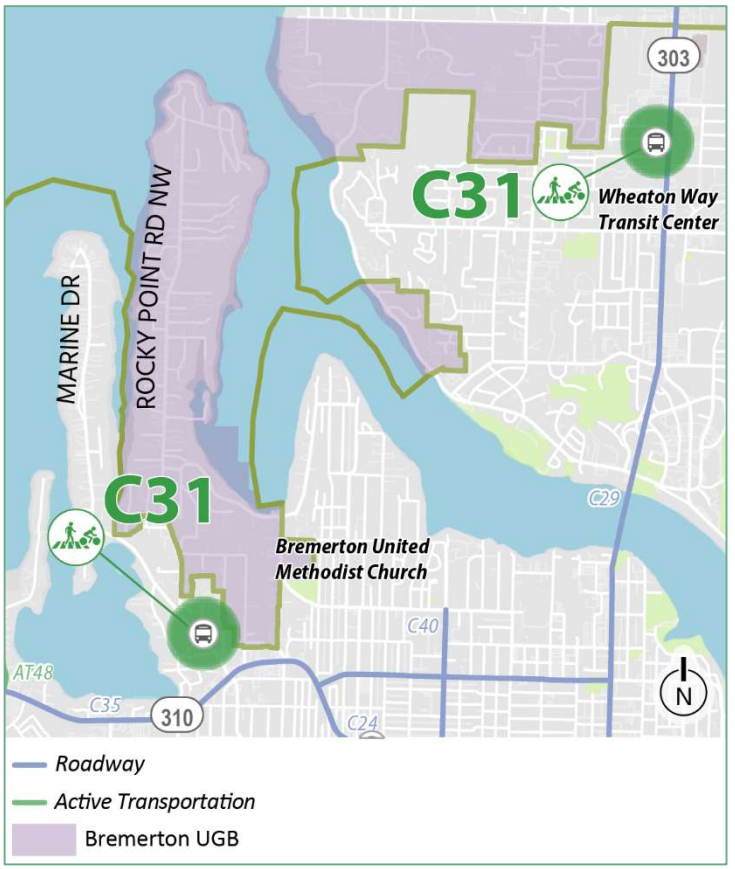
Project Attributes

Project Assumptions	• Lighting upgrades should be evaluated in accordance with the City's engineering design and construction standards • Navy would maintain all property rights to paths within Jackson Park, could restrict access as needed and would not be considered part of an official bike route
Project Benefits	• Consistent with City plans • Protected bike lanes provide a safer biking environment • Protected bike lanes along Shorewood Dr would provide an easier and safer route for bicyclists travelling to and from NBK-BR and would encourage mode shift to biking
Project Issues and Risks	• Additional outreach, design, and estimating are required for the final configuration for bicycle facilities
Notes	• Identified in City of Bremerton 6-year TIP (2023 to 2028)

Phase CC-8

Project Description	
Pedestrian/bike improvements within 5 minute walkshed of Wheaton Way Transit Center and United Methodist Church P&R	
Project Code	C31
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	Kitsap Transit
Relationship to Other Projects	-
Location	-
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$6,600,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*

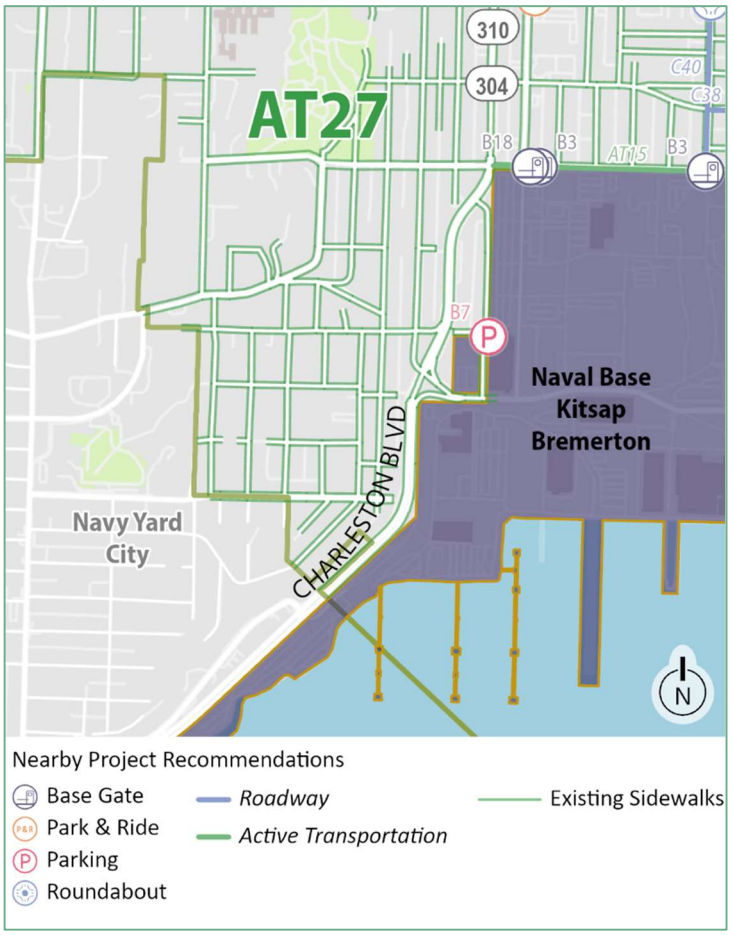


Project Attributes	
Project Assumptions	• Cost estimate assume sidewalk upgrades (bringing sidewalks up to standards, adding ADA ramps, and building sidewalks where they are missing) within a 5-minute walkshed of each P&R. • Lighting upgrades should be evaluated in accordance with the City's engineering design and construction standards
Project Benefits	• Pedestrian and bike improvements in the vicinity of existing park and rides provide an easier and safer route for pedestrians and bicyclists using transit to travel to and from NBK-BR and would encourage mode shift to transit
Project Issues and Risks	• No major issues or risks identified at this time
Notes	

Phase CC-9

Project Description	
Improve the sidewalk conditions in the neighborhood west of Charleston Blvd	
Project Code	AT27
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton, Kitsap County
Partner Agencies	-
Relationship to Other Projects	-
Location	-
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$8,000,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*

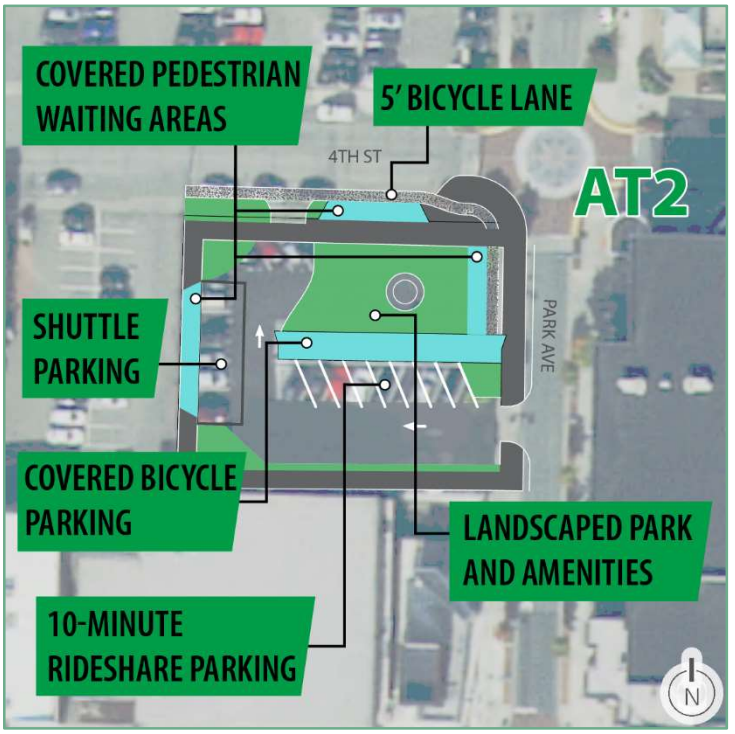


Project Attributes	
Project Assumptions	• Total cost for improving 16,800 linear feet of sidewalks that are in fair/marginal or poor/very poor conditions • Lighting upgrades should be evaluated in accordance with the City's engineering design and construction standards
Project Benefits	• Improved sidewalk conditions and connectivity provide a safer walking environment and encourage mode shift to walking
Project Issues and Risks	• No major issues or risks identified at this time
Notes	• Sidewalk Program already identified in City of Bremerton 6-year TIP (2023 to 2028)

Phase CC-10

Project Description	
Construct a mobility hub at the southwest corner of Park Ave and 4th St for first/last mile connections	
Project Code	AT2
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	Kitsap Transit
Relationship to Other Projects	With bike lanes on Park Ave as part of project AT55
Location	Park Ave/4th St
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate*	$1,500,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*

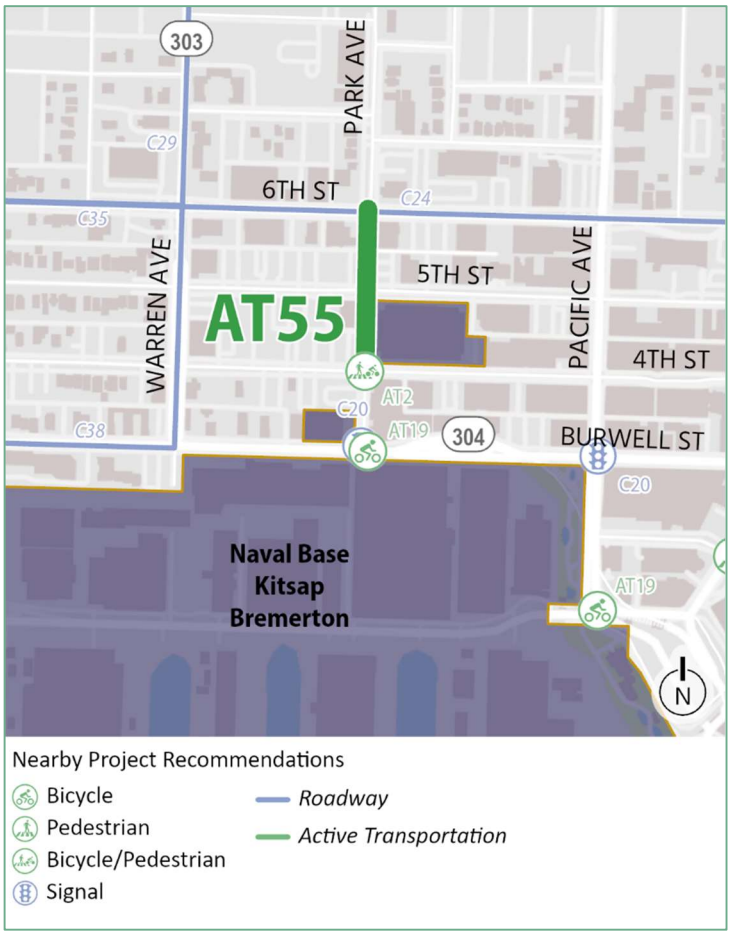


Project Attributes	
Project Assumptions	• Includes drive aisle and parking areas, sidewalks, ornamental open planting • Assumes no impacts to right-of-way • Project location is the City-owned parking lot at the southwest corner of 4th St and Park Ave • Lighting upgrades should be evaluated in accordance with the City's engineering design and construction standards
Project Benefits	• Improved connectivity encourages mode shift to walking, biking, and transit
Project Issues and Risks	• Project would result in loss of parking revenue from exisitng surface lot.
Notes	

Phase CC-10

Project Description	
Construct bike lanes on Park Ave from 4th St to 6th St	
Project Code	AT55
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	With mobility hub at Park Ave/4th St as part of AT2
Location	Park Ave between 4th St and 6th St
Project Length	570 feet
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$125,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



Project Attributes	
Project Assumptions	• Would be constructed in conjuction with proposed mobility hub • Lighting upgrades should be evaluated in accordance with the City's engineering design and construction standards
Project Benefits	• Protected bike lanes provide a safer biking environment • Protected bike lanes along Park Ave would provide an easier and safer route for bicyclists travelling to and from NBK-BR and would encourage mode shift to biking • Provides a connection between the proposed 6th St bike lanes (C24/AT53) and proposed mobility hub (AT2)
Project Issues and Risks	• No major issues or risks identified at this time
Notes	

Phase CC-11

Project Description	
Traffic Management Center that includes IT infrastructure to support adaptive signals (e.g. Cloud based technology)	
Project Code	C26
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	In coordination with adaptive signal timing as part of C35 and C38
Location	-
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate*	$2,300,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



Project Attributes	
Project Assumptions	• Cost estimate assumes retrofit of existing building in Bremerton, ITS services, servers, and ATS systems.
Project Benefits	• This concept provides the city with additional flexibility in operating an adaptive signal system by observing system-wide operations in real-time, making changes to traffic signals to help reduce congestion and reducing delays caused by incidents or crashes by dispatching tow-trucks. .
Project Issues and Risks	• Requires off-site control area with dedicated computer system and operator • Cost for operations and maintenance • Active traffic management on state highways may require a systems engineering process as defined in the WSDOT Local Agency Guidelines Manual
Notes	

Phase CC-12

Project Description	
Convert signal at Naval Ave/6th St to a roundabout	
Project Code	C41
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	Follows road diet on 6th St as part of project C24 and road diet on Naval Ave as part of project C40
Location	Naval Ave/6th St
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate*	$7,500,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



Project Attributes	
Project Assumptions	• Not needed until level of service falls below standards • Compact roundabout • Additional intersection analysis will be required during design to determine a layout for the roundabout that addresses AM peak hour congestion
Project Benefits	• Roundabouts reduce crash severity, improve pedestrian safety, and provide a sustainable solution for traffic control • Project improves travel time, travel time reliability, and mobility for vehicles and transit
Project Issues and Risks	• Impacts to right-of-way • Public education required • Cost • Moderate traffic interruption during construction • Additional mitigation may be required to address environmental impacts not evaluated in this study
Notes	

Phase CC-13

Project Description
Build projects proposed in SR 303 Corridor Study

Project Code	C29
Project Type	City Capital Projects (CC)
Owner Agency	City of Bremerton
Partner Agencies	Kitsap County, Kitsap Transit
Relationship to Other Projects	-
Location	-
Project Length	3.9 miles
Recommended Implementation Time Frame	> 20 years
Cost Estimate*	$120,000,000

**Source: SR 303 Corridor Study*



Project Attributes	
Project Assumptions	• Project costs are in 2020 dollars • Implementation of projects is consistent with the SR 303 Corridor Study phasing recommendations, with full build out in the 20-year timeframe
Project Benefits	• Most of the proposed projects from the SR 303 Corridor Study would improve travel time, travel time reliability, mobility, safety, and access to transit to commuters of all modes along SR 303/Warren Ave • Consistent with Kitsap Transit long-range planning efforts
Project Issues and Risks	• Impacts to right-of-way • Cost • Northbound BAT lane along SR 303 has potential to reduce travel time, travel time reliability, and mobility for general purpose vehicles by reducing the amount of green time available to general purpose vehiclesa • Replacing the TWLTL along SR 303 with a median has potential to reduce travel time, travel time reliability, and mobility for general purpose vehicles by requiring vehicles to take u-turns at intersections to access businesses
Notes	• Priority projects include safety measures along SR 303 between Burwell St and 6th St (Phase 4A) and sidewalk improvements along SR 303 (Phase 8A)

Phase CP-1

Project Description	
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	
Project Code	AT1
Project Type	City Policy Projects (CP)
Owner Agency	City of Bremerton
Partner Agencies	Kitsap Transit
Relationship to Other Projects	-
Location	6th St/Montgomery Ave
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$1,500,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



Project Attributes	
Project Assumptions	• Proposed mobility hub at existing Gateway Park and Ride
Project Benefits	• Consistent with Kitsap Transit long-range planning efforts • This Kitsap Transit property was identified by the JCTP as having valuable potential for transit oriented development. Projects that support transit, active transportation, and affordable housing have a positive benefit to the goals outlined in the JCTP
Project Issues and Risks	• No major issues or risks identified at this time
Notes	• City can provided supportive language for future grant applications

Phase CP-2

Project Description	
Implement paid on-street parking in the downtown subarea	
Project Code	PM15
Project Type	City Policy Projects (CP)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	Should follow projects that increase access to transit and other modes such as PC3, PC4 and PC6, the CTR projects, and the AT projects.
Location	-
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate*	$50,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



Project Attributes	
Project Assumptions	• Paid parking in downtown may be implemented through mobile payment with the primary cost to the City being to install the signage. Revenue has the potential to exceed management costs and could be used for improvements to downtown.
Project Benefits	• Paid parking will increase access to downtown for customers and visitors in support of local businesses
Project Issues and Risks	• Requires communication and outreach to residents, NBK-BR, and the business community
Notes	• Recommend following these implementation steps: ○ Update the Rates and Fees per Bremerton Municipal Code 3.01 to authorize rates for paid parking in the downtown subarea and provide a framework for pricing ○ Develop a demand-based pricing program ○ Create a revenue model to test different pricing strategies and develop estimates ○ Establish an initial regulatory framework for time limits and pricing that varies by season, day, and/or hourly ○ Conduct outreach to downtown businesses, property owners, and residents about implementing paid parking downtown ○ Develop and issue an RFP for mobile parking payment to implement paid on-street parking in downtown or expand current agreement with PaybyPhone ○ Establish an on-street validation program or price reductions at local businesses in partnership with downtown businesses. Would need to issue an RFP for software agreements ie. Flagstaff, AZ has a "parking angels" program where businesses discount purchases by $1 to pay for parking. ○ Develop a communications and marketing plan for implementing paid parking in downtown that will precede the launch of the program. See programs such as the City of Bellingham and the Ctiy of Seattle.

Phase CP-3

Project Description	
Implement permit only parking in residential neighborhoods adjacent to and surrounding NBK-BR	
Project Code	PM2
Project Type	City Policy Projects (CP)
Owner Agency	City of Bremerton
Partner Agencies	-
Relationship to Other Projects	Should follow projects that increase access to transit and other modes such as PC3, PC4 and PC6, the CTR projects, and the AT projects.
Location	-
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate*	$50,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*

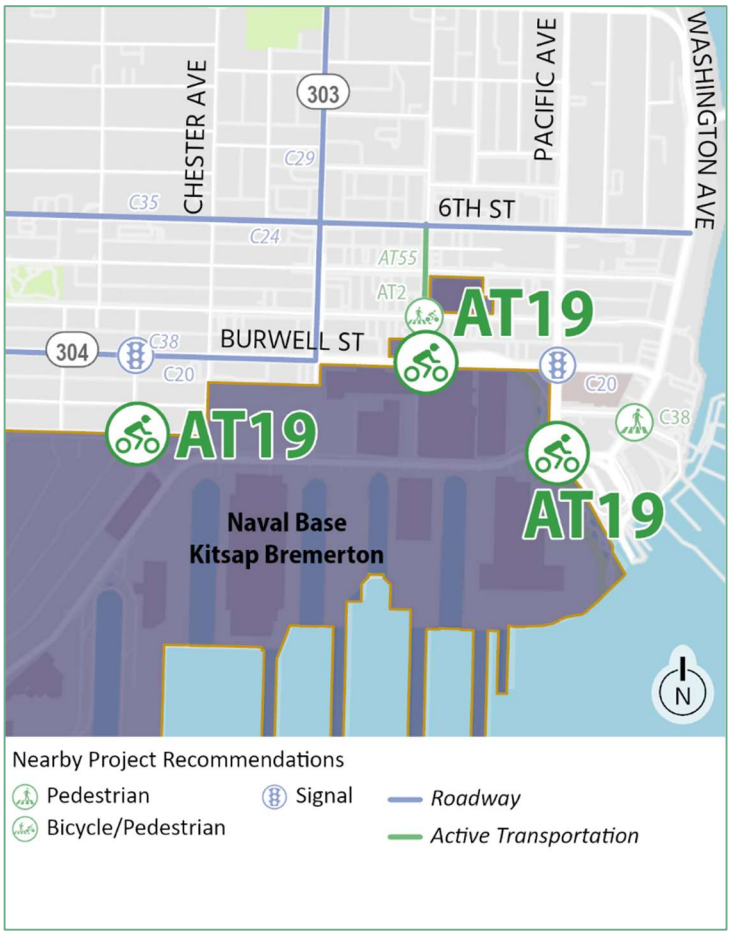


Project Attributes	
Project Assumptions	• The implementation of expanded on-street parking permit programs will be actively managed to achieve project benefits
Project Benefits	• Manage commuter parking conflicts in residential areas. • Improve livability in residential areas
Project Issues and Risks	• Requires communication and outreach to residents and NBK-BR
Notes	• Recommend following these implementation steps: ○ Update the Bremerton Municipal Code ○ Authorize permit-only zones by petition ○ Address guest pass eligibility ○ Include a framework for permit pricing ○ Add a prohibition on permit zones in the downtown subarea where customer and visitor access should be prioritized. ○ Conduct public engagement to residents in existing permit zones regarding the desirability of converting to permit-only parking. ○ Implement pricing to sustain management of the program.

Phase BC-1

Project Description	
Install secure covered bike parking inside NBK-BR, PSNS, and outside gates	
Project Code	AT19
Project Type	Naval Base Kitsap - Bremerton Capital Projects (BC)
Owner Agency	NBK-BR
Partner Agencies	-
Relationship to Other Projects	-
Location	Naval Base Kitsap-Bremerton
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$200,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*

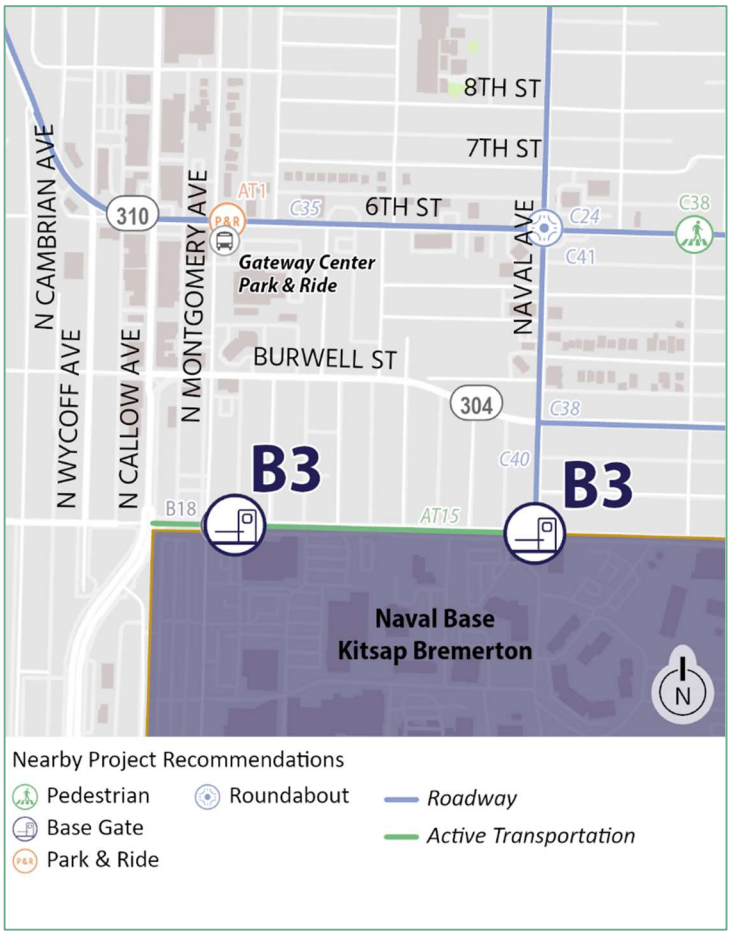


Project Attributes	
Project Assumptions	• Cost estimate assumes 9 bike lockers that hold 2 bikes each at a cost of $3,700 each plus concrete slabs and luminaires.
Project Benefits	• Provides more transportation options for NBK-BR commuters • Installation can provide added security for bikes which will encourage bike commuting, especially as electric bikes are an investment for workforce and attractive for theft
Project Issues and Risks	• Coordinate project with NBK-BR security staff to ensure placement and type of bike lockers is consistent with installation security needs
Notes	• Could include the conversion of vehicle parking spaces

Phase BC-2

Project Description	
Improve or manage vehicle input at NBK-BR gates in the AM peak to decrease queuing on City streets	
Project Code	B3
Project Type	Naval Base Kitsap - Bremerton Capital Projects (BC)
Owner Agency	NBK-BR
Partner Agencies	-
Relationship to Other Projects	-
Location	Naval Base Kitsap-Bremerton
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$600,000

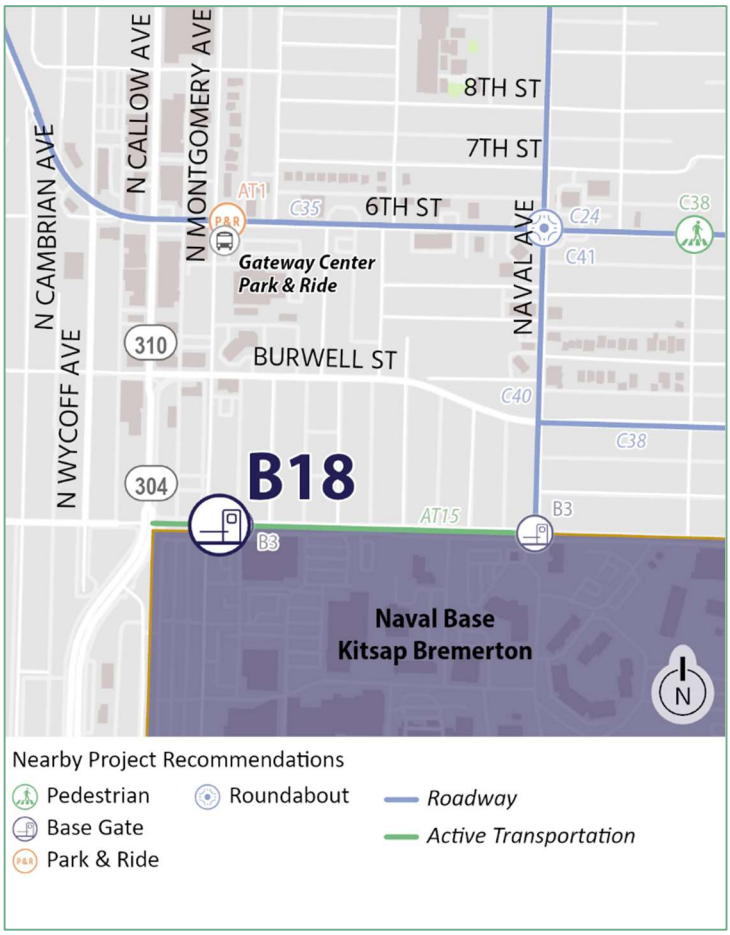
**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



Project Attributes	
Project Assumptions	• Cost estimate assumes new fencing, additional lanes, utility relocation, and new guardhouses at Naval and Montgomery gates. Does not include operating costs like additional staff.
Project Benefits	• Decreases queueing and improves traffic operations for adjacent roadways. • NBK-BR can actively manage gate progression through process changes, additional staff, or gate improvements
Project Issues and Risks	• Gate security needs may change/fluctuate during times of heightened national security • Additional staff support may be required to maintain appropriate gate progression
Notes	• NBK-BR and Bremerton would benefit from coordination of gate progression. This would allow for Bremerton employ traffic management through the proposed adaptive signal timing system to mitigate issues at times when NBK-BR cannot meet gate progression goals

Phase BC-3

Project Description	
Allow outpt at Montgomery gate during AM peak hours and allow input during PM peak hours	
Project Code	B18
Project Type	Naval Base Kitsap - Bremerton Capital Projects (BC)
Owner Agency	NBK-BR
Partner Agencies	-
Relationship to Other Projects	-
Location	Naval Base Kitsap-Bremerton
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate	TBD



Project Attributes	
Project Assumptions	• May require NBK-BR staffing increases to maintain gate when fleet is deployed • Montgomery Gate currently opens when multiple Carriers are in port and when staffing allows
Project Benefits	• Decreases queueing and improves traffic operations for adjacent roadways by dispering incoming and outgoing traffic through multiple gate locations.
Project Issues and Risks	• Gate security needs may change/fluctuate during times of heightened national security
Notes	• NBK-BR and Bremerton would benefit from coordination regarding gate operations. This would allow for Bremerton to employ traffic management through the proposed adaptive signal timing system to mitigate issues at times when NBK-BR cannot meet gate progression goals.

Phase BC-4

Project Description	
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 Base modifications that triggers this project	
Project Code	C14
Project Type	Naval Base Kitsap - Bremerton Capital Projects (BC)
Owner Agency	NBK-BR
Partner Agencies	WSDOT, City of Bremerton
Relationship to Other Projects	-
Location	SR 3/SR 304 interchange
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate*	$1,000,000

**Cost in 2022 dollars*

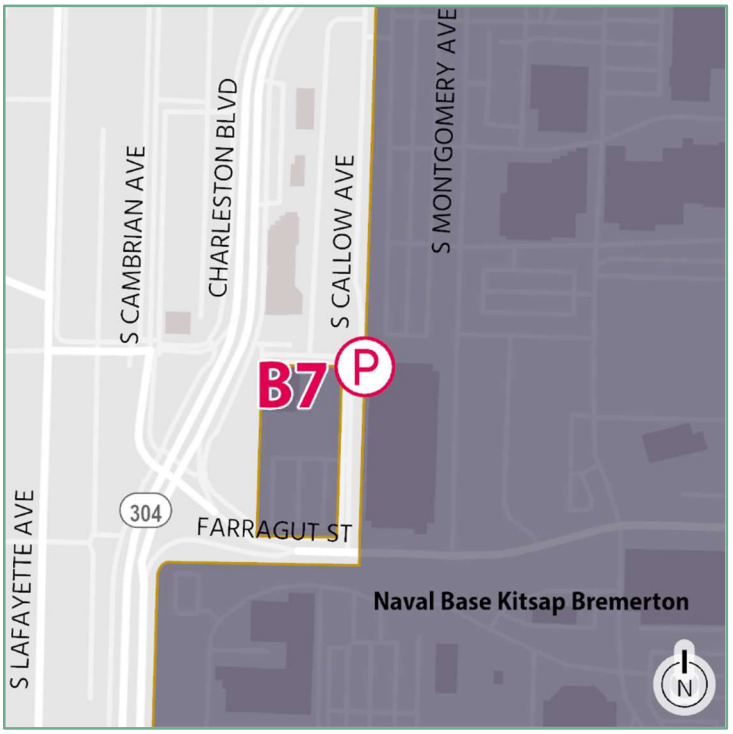


Project Attributes	
Project Assumptions	• Cost estimate is for cost of planning study, not the actual cost of the new off-ramp.
Project Benefits	• A new off-ramp from southbound SR 3 to eastbound SR 304 would provide more direct access for people travelling from southbound SR 3 to NBK-BR
Project Issues and Risks	• No major issues or risks identified at this time
Notes	• WSDOT has conducted several studies of the SR 3/SR 304 interchange in the last ten years. Findings did not indicate a need for a southbound ramp from SR 3 to SR 304. • WSDOT policy requires the formal submission of a request to either add, revise, or abandon access to freeways.

Phase BC-5

Project Description	
Maximize the efficient use of parking stalls on NBK-BR installation and construct additional parking	
Project Code	B7
Project Type	Naval Base Kitsap - Bremerton Capital Projects (BC)
Owner Agency	NBK-BR
Partner Agencies	-
Relationship to Other Projects	-
Location	Naval Base Kitsap-Bremerton
Project Length	-
Recommended Implementation Time Frame	> 20 years
Cost Estimate*	$25,200,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



Project Attributes	
Project Assumptions	• Efficiencies to existing parking can be achieved through a variety of measures including: restriping lots to fit more vehicles, revising permit programs to add more car pool and van pool, prioritize new permits for car pools or van pools, stall sharing for teleworkers • Additional parking can be constructed vertically to existing surface lots. Cost estimate assumes one parking garge with 4 stories on an existing surface lot.
Project Benefits	• Additional parking on the west side of the installation near the Farragut Gate would complement the SB SR 3 off-ramp to Charelston Beach Blvd (Project C14) • Recommended due to high demand for parking traffic originating from the south. Also available space at the base entrance with ease of access to base bus service. • Additonal people served by stalls on base reduces the amount of parking off-installation which improves livability for Bremerton residents • On-Installation parking provides safe reliable and free parking for workforce. Technology and telework provide opportunity to maximize use of parking stalls on installation
Project Issues and Risks	• Funding for additional parking on Base is not supported by the DOD
Notes	• Parking efficiencies achievable through lower cost measures such as permit program changes, restriping lots, and stall sharing should be pursued as a near-term project.

Phase BP-1

Project Description	
Maintain telework options currently available to DOD employees	
Project Code	CTR1
Project Type	Naval Base Kitsap - Bremerton Policy Projects (BP)
Owner Agency	NBK-BR
Partner Agencies	-
Relationship to Other Projects	-
Location	-
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate	TBD



Project Attributes	
Project Assumptions	• Telework allows people to work from home and use internet or phone for their meetings. • During the COVID-19 Pandemic NBK-BR expanded its telework options and telework has continued for some positions, as appropriate for the work demands
Project Benefits	• Fewer commuters travelling to NBK-BR would improve travel time, travel time reliability, and mobility for vehicles and transit in downtown
Project Issues and Risks	• No major issues or risks identified at this time
Notes	• Telework is not feasible for a majority of positions at NBK-BR due to the nature of the work, however some office-based jobs may be a good fit for telework

Phase BP-2

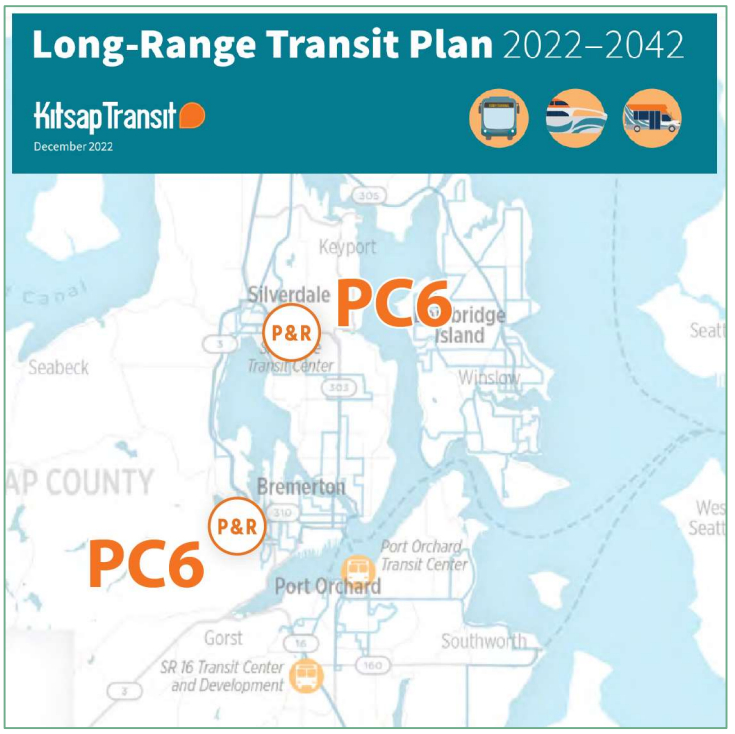
Project Description	
Improve NBK-BR/Kitsap Transit Worker Driver Bus program by making changes to reimbursement process and easing use requirements	
Project Code	CTR3
Project Type	Naval Base Kitsap - Bremerton Policy Projects (BP)
Owner Agency	NBK-BR
Partner Agencies	City of Bremerton, Kitsap Transit
Relationship to Other Projects	-
Location	-
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate	TBD

Project Attributes	
Project Assumptions	• Reimbursement program is the Federal Incentive Program (TIP) and changes would need to negotiated at the Federal level • D.C. area program would be model - workers get a monthly pass rather than the reimbursement model currently in use at NBK-BR
Project Benefits	• Encourages mode shift to transit • Allows flexibility for individual workers to optimize their commutes
Project Issues and Risks	• No major issues or risks identified at this time
Notes	

Phase KC-1

Project Description	
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	
Project Code	PC6
Project Type	Kitsap Transit Capital Projects (KC)
Owner Agency	Kitsap Transit
Partner Agencies	-
Relationship to Other Projects	-
Location	-
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate*	$53,200,000

**Source: Kitsap Transit Long Range Plan*



Project Attributes	
Project Assumptions	• Kitsap Transit LRP assumes 270 parking stalls at the proposed Silverdale Park and Ride and does not specify the number of parking stalls at the proposed West Bremerton Transit Center/Park and Ride. JCTP study suggests a demand for 225 parking stalls north of Bremerton and 700 parking stalls near the SR 3/West Kitsap Way interchange.
Project Benefits	• Encourages mode shift to transit • Captures portion of vehicles travelling into downtown, reducing travel time, travel time reliability, and mobility for vehicles and transit downtown
Project Issues and Risks	• Cost • Additional mitigation may be required to address environmental impacts not evaluated in this study
Notes	• 1,570 vehicles (23 percent of total inbound vehicles) are forecasted to travel through the SR 3/West Kitsap Way interchange during the Year 2050 AM peak hour. • 1,740 vehicles (25 percent of total inbound vehicles) are forecasted to travel from north of Bremerton along SR 303 during the Year 2050 AM peak hour. • Smaller scale park and rides in mixed use settings may be more cost efficient and provide a safer environment than large scale dedicated park and ride lots

Phase KC-2

Project Description
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

Project Code	PC4
Project Type	Kitsap Transit Capital Projects (KC)
Owner Agency	Kitsap Transit
Partner Agencies	-
Relationship to Other Projects	-
Location	-
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate*	$48,000,000

**Source: Kitsap Transit Long Range Plan*

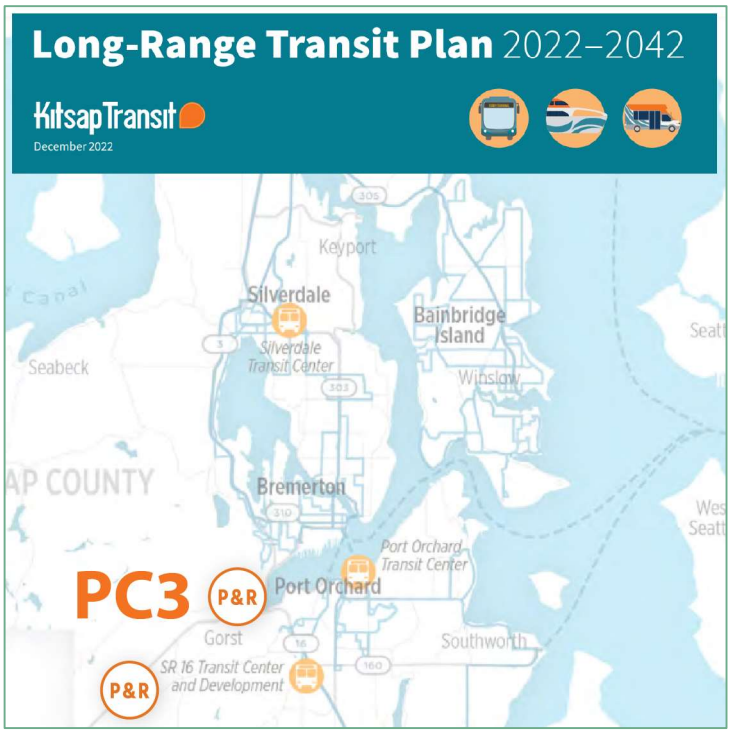


Project Attributes	
Project Assumptions	• No project assumptions identified at this time
Project Benefits	• Encourages mode shift to transit • Captures portion of vehicles travelling into downtown, reducing travel time, travel time reliability, and mobility for vehicles and transit downtown
Project Issues and Risks	• Cost • Additional mitigation may be required to address environmental impacts not evaluated in this study
Notes	• See Kitsap Transit Long Range Plan for more details on scope of project, cost estimates, and implementation time frames

Phase KC-3

Project Description	
Build park and rides in Kitsap Transit's Long Range Plan at the Puget Sound Industrial Center and in South Kitsap; look for opportunities to add parking beyond planned 520 parking stalls	
Project Code	PC3
Project Type	Kitsap Transit Capital Projects (KC)
Owner Agency	Kitsap Transit
Partner Agencies	City of Bremerton
Relationship to Other Projects	-
Location	Gorst
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate*	$24,200,000

**Source: Kitsap Transit Long Range Plan*



Project Attributes	
Project Assumptions	• Located in areas that will reduce traffic volumes through Gorst • Kitsap Transit LRP assumes 270 parking stalls at the proposed Tremont Park and Ride and 250 parking stalls at the proposed Puget Sound Industrial Area Park and Ride. JCTP study suggests a demand for 1,150 parking stalls south of Bremerton.
Project Benefits	• Encourages mode shift to transit • Captures portion of vehicles travelling into downtown, reducing travel time, travel time reliability, and mobility for vehicles and transit downtown
Project Issues and Risks	• Cost • Additional mitigation may be required to address environmental impacts not evaluated in this study
Notes	• 1,795 vehicles (26 percent of total inbound vehicles) are forecasted to travel from south of Bremerton along Charleston Blvd (SR 304) during the Year 2050 AM peak hour. • Smaller scale park and rides in mixed use settings may be more cost efficient and provide a safer environment than large scale dedicated park and ride lots

Phase KP-1

Project Description	
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	
Project Code	CTR11
Project Type	Kitsap Transit Policy Projects (KP)
Owner Agency	Kitsap Transit
Partner Agencies	NBR-BR
Relationship to Other Projects	-
Location	-
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate	TBD

Project Attributes	
Project Assumptions	• Technology could be utilized to optimize routes
Project Benefits	• Encourages mode shift to transit
Project Issues and Risks	• Availability of drivers and fleet
Notes	• Consider adding routes to shorten overall route time. Many survey respondents cited time as a reason why they do not utilize the worker driver bus program. Consider capping route length/time to 30-45 minutes

Phase KP-2

Project Description	
Study increased foot-ferry capacity between Bremerton and Port Orchard to align with Kitsap Transit's Long Range Transit Plan	
Project Code	CTR12
Project Type	Kitsap Transit Policy Projects (KP)
Owner Agency	Kitsap Transit
Partner Agencies	City of Bremerton, City of Port Orchard
Relationship to Other Projects	-
Location	-
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate	TBD



Project Attributes	
Project Assumptions	• No project assumptions identified at this time
Project Benefits	• Encourages mode shift to transit • JCTP identified foot-ferry from Port Orchard as an efficient commute option that could reduce commute times by avoiding Gorst congestion • Provides resilient connection between North and South Kitsap
Project Issues and Risks	• Need to consider changes to Kitsap foot ferry frequency to accommodate higher demand. • Need to consider transit frequency, transit routes, and park and rides to support foot ferry
Notes	

Phase KP-3

Project Description	
Reduced fare and regular bus passes. Reduced fare based on income	
Project Code	CTR4
Project Type	Kitsap Transit Policy Projects (KP)
Owner Agency	Kitsap Transit
Partner Agencies	-
Relationship to Other Projects	With incentives to ride transit as part of project CTR3
Location	-
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate	TBD



Project Attributes	
Project Assumptions	• No project assumptions identified at this time
Project Benefits	• Encourages mode shift to transit
Project Issues and Risks	• Kitsap Transit operations are funded by fares
Notes	

Phase KP-4

Project Description	
Shuttle service between park and rides and downtown Bremerton (regular bus route with high frequency)	
Project Code	T8
Project Type	Kitsap Transit Policy Projects (KP)
Owner Agency	Kitsap Transit
Partner Agencies	NBK-BR
Relationship to Other Projects	With new park and rides (PC6, PC4, PC3)
Location	Bremerton
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate	TBD



Project Attributes	
Project Assumptions	• No project assumptions identified at this time
Project Benefits	• Encourages mode shift to transit • Consistent with Kitsap Transit long-range planning efforts • Project would likely improve travel time, travel time reliability, and mobility for transit
Project Issues and Risks	• Availability of drivers and fleet
Notes	• Many survey respondents cited difficulty accessing vehicle in case of emergency (such as a child that needs to be picked up from school) as a reason why they do not utilize park and rides

Phase KP-5

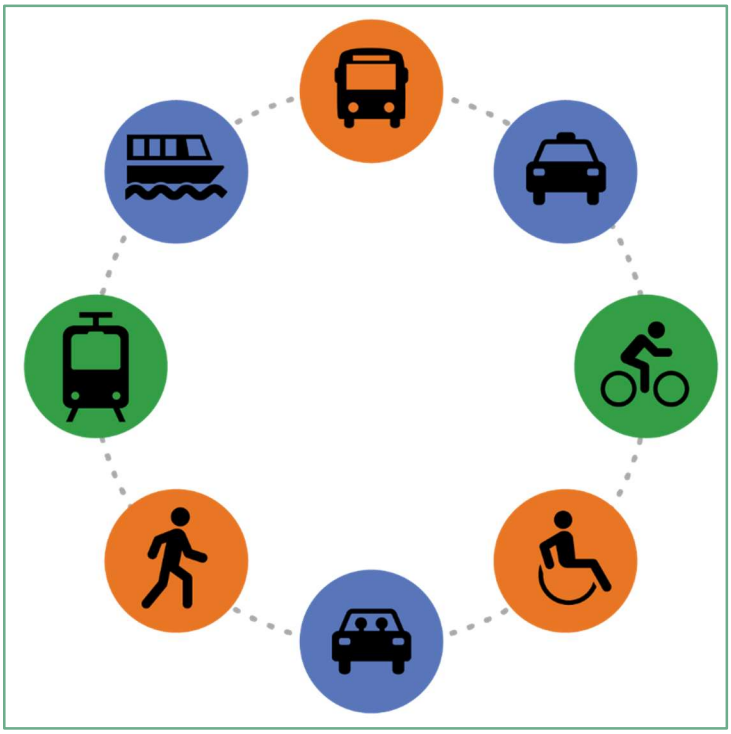
Project Description	
More bus routes and greater frequency (10-15 minute headways) to NBK-BR, including early moring and late evening routes	
Project Code	T6
Project Type	Kitsap Transit Policy Projects (KP)
Owner Agency	Kitsap Transit
Partner Agencies	NBK-BR
Relationship to Other Projects	-
Location	Bremerton
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate	TBD

Project Attributes	
Project Assumptions	• No project assumptions identified at this time
Project Benefits	• Encourages mode shift to transit • Project would likely improve travel time, travel time reliability, and mobility for transit
Project Issues and Risks	• Availability of drivers and fleet
Notes	

Phase KP-6

Project Description	
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	
Project Code	PM3
Project Type	Kitsap Transit Policy Projects (KP)
Owner Agency	Kitsap Transit
Partner Agencies	City of Bremerton, NBK-BR, Port of Bremerton, WSDOT
Relationship to Other Projects	-
Location	-
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate*	$500,000

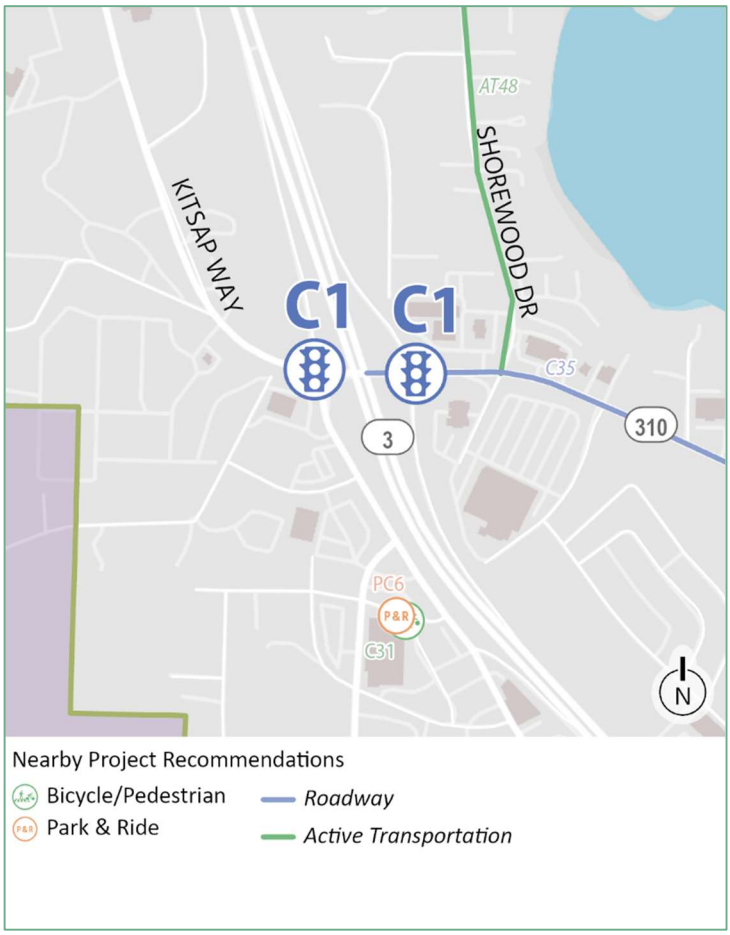
**Cost in 2022 dollars*



Project Attributes	
Project Assumptions	• Cost estimate includes startup costs and operations for at least a year, including two staff members, and office space. As a member of the TMA, the City could contribute ongoing funding (perhaps using parking revenue), but the TMA should be self-funding through its multiple partnerships and serve as a standalone organization. Major employers could also provide seed funding. • Requires convening potential partners to discuss interest, coordination, and funding potential. The TMA will require involvement from NBK-Bremerton, transit agencies, and major institutions and employers to be successful
Project Benefits	• Coordination between public and private entities that have significant transportation demand. The TMA would provide incentives for expanding transportation options that reduce impacts on the system and on neighborhoods in Bremerton. • Coordination with NBK-BR to promote transportation options and inform workforce of available benefits like the guaranteed ride home
Project Issues and Risks	• Requires coordination and agreement among several entities with significant seed money to startup costs and initial programs
Notes	• Recommend following these implementation steps: ○ Convene a workgroup of potential TMA partners including the city, major employers and institutions, the chamber of commerce, transit agencies, and community organizations to develop a framework for implementation

Phase WC-1

Project Description	
Build intersection improvements at SR 3/Kitsap Way as recommended by the West Kitsap Way study	
Project Code	C1
Project Type	Washington State Capital Projects (WC)
Owner Agency	WSDOT
Partner Agencies	City of Bremerton
Relationship to Other Projects	-
Location	Bremerton
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate	Refer to West Kitsap Way Planning Study

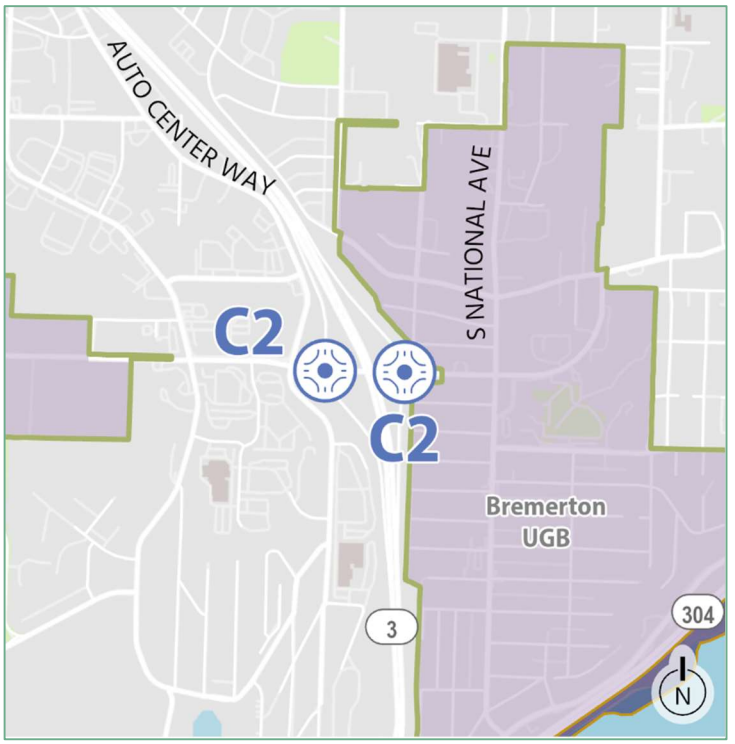


Project Attributes	
Project Assumptions	• No project assumptions identified at this time
Project Benefits	• Intersection improvements would likely improve travel time, travel time reliability, and mobility by reducing intersection delay for vehicles and transit
Project Issues and Risks	• No major issues or risks identified at this time
Notes	• Project will be documented in West Kitsap Way Planning Study (City of Bremerton)

Phase WC-2

Project Description	
Convert stop sign and signals at SR 3/W Loxie Eagans Blvd interchange to roundabouts	
Project Code	C2
Project Type	Washington State Capital Projects (WC)
Owner Agency	WSDOT
Partner Agencies	City of Bremerton
Relationship to Other Projects	-
Location	Bremerton
Project Length	-
Recommended Implementation Time Frame	6-20 years
Cost Estimate*	$13,700,000

**Cost in 2022 dollars and includes 50% contingency, 30% PE, and 30% CM*



Project Attributes	
Project Assumptions	• No project assumptions identified at this time
Project Benefits	• Roundabouts reduce crash severity, improve pedestrian safety, and provide a sustainable solution for traffic control • Project would likely improve travel time, travel time reliability, and mobility by reducing intersection delay for vehicles and transit
Project Issues and Risks	• Impacts to right-of-way • Public education required • Cost • Moderate traffic interruption during construction • Additional mitigation may be required to address environmental impacts not evaluated in this study
Notes	• Design should support and include all City of Bremerton active transportation planning improvements

Phase WP-1

Project Description	
Better enforcement of HOV lanes	
Project Code	O6
Project Type	Washington State Policy Projects (WP)
Owner Agency	Washington State Patrol
Partner Agencies	City of Bremerton
Relationship to Other Projects	-
Location	-
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate	TBD



Project Attributes	
Project Assumptions	• HOV lane on SR 304 west bound
Project Benefits	• Encourages mode shift to HOV by providing clearer benefit for vehicles in HOV lane compared to SOV lanes
Project Issues and Risks	• Requires ongoing enforcement
Notes	• If additional HOV lanes are considered with the Gorst project, enforcement needs should be considered with design of the lanes (i.e. a place for Traffic Enforcement Officers to stage)

Phase WP-2

Project Description	
Support planning efforts for SR 3 in Gorst	
Project Code	AT14
Project Type	Washington State Policy Projects (WP)
Owner Agency	WSDOT
Partner Agencies	City of Bremerton, NBK-BR, Kitsap County, Port of Bremerton, Port Orchard
Relationship to Other Projects	-
Location	Gorst
Project Length	-
Recommended Implementation Time Frame	< 6 years
Cost Estimate	TBD



Project Attributes	
Project Assumptions	• Gorst plan should incorporate a bicycle and pedestrian trail that would be 12 feet wide and not coincide with the roadway. Some level of buffer between the road edge and trail would be necessary.
Project Benefits	• SR 3 is critical to transportation in Kitsap County and is a nationally important frieght corridor. It's function is of critical importance to the mission of NBK-BR • Currently SR 3 is a barrier for active transportation between Bremerton (and points north) and South Kitsap.
Project Issues and Risks	• Cost
Notes	• City can provided supportive language for future grant applications