



# Whatcom County

COUNTY COURTHOUSE  
311 Grand Avenue, Ste #105  
Bellingham, WA 98225-4038  
(360) 778-5010

## Agenda Bill Master Report

File Number: AB2019-445

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File Created:	08/26/2019	Entered by:			
Department:		File Type:	Resolution Requiring a Public Hearing		
Assigned to:	Council	Final Action:	09/24/2019		
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Primary Contact Email: [sdraper@co.whatcom.wa.us](mailto:sdraper@co.whatcom.wa.us) <<mailto:sdraper@co.whatcom.wa.us>>

### TITLE FOR AGENDA ITEM:

Resolution in the matter of the Whatcom County Six-Year Transportation Improvement Program (STIP) for the years 2020 through 2025

### SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Each year the County is required to update its Six-Year Transportation Improvement Program (STIP), per RCW 35.77.010 and RCW 36.81.121. The STIP includes the capital elements of the first six years of the Fourteen-Year Ferry Program. The STIP is intended as a planning tool for local, state, and federally funded projects and is designed to identify projects for preliminary engineering, right-of-way purchase and/or construction

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### HISTORY OF LEGISLATIVE FILE

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Date:	Acting Body:	Action:	Sent To:
09/10/2019	Council	INTRODUCED FOR PUBLIC HEARING	Council
09/24/2019	Council	APPROVED	

PROPOSED BY: Public Works  
INTRODUCED: 9/10/2019

RESOLUTION NO. 2019-040

SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM  
FOR THE YEARS 2020 THROUGH 2025

WHEREAS, pursuant to RCW 36.81.121, Whatcom County is required to prepare and approve a Six-Year Transportation Improvement Program each year; and

WHEREAS, pursuant to RCW 36.54.015, Whatcom County is required to prepare a Fourteen-Year Ferry Capital Program each year; and

WHEREAS, the Road Priority Array and the Annual Bridge Report were made available to the legislative authority during the preparation of this program; and

WHEREAS, following approval of the Six-Year Transportation Improvement Program, the law requires an annual review of the work accomplished under the program and a determination of current transportation needs; and

WHEREAS, based upon the findings of the annual review, and after a public hearing, a Six-Year Transportation Improvement Program shall be approved; and

WHEREAS, pursuant to RCW 36.81.121, the Six-Year Transportation Improvement Program and Fourteen-Year Ferry Capital Program must be consistent with the County comprehensive plan pursuant to RCW 36.70A; and

WHEREAS, the Six-Year Transportation Improvement Program attached hereto as Exhibit "A" has been reviewed and determined to be consistent with the County's comprehensive plan; and

WHEREAS, the Fourteen-Year Ferry Capital Program attached hereto as Exhibit "B" has been reviewed and determined to be consistent with the County's comprehensive plan;

NOW, THEREFORE, BE IT RESOLVED by the Whatcom County Council as follows:

1. That the Whatcom County Six-Year Transportation Improvement Program for the years 2020 through 2025, which is attached hereto as Exhibit "A", including the capital elements of the first six-years of the Fourteen-Year Ferry Capital Program, which is attached hereto as Exhibit "B", is hereby approved.
2. That the County Engineer is directed to file a copy of the same with the County Road Administration Board and the State Secretary of Transportation.

APPROVED this 24th day of September, 2019.

ATTEST:

  
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Dana Brown-Davis, Clerk of the Council

WHATCOM COUNTY COUNCIL  
WHATCOM COUNTY, WASHINGTON

  
\_\_\_\_\_  
Rud Browne, Chair of the Council

APPROVED AS TO FORM:

  
\_\_\_\_\_  
Chris Quinn, Senior Civil Deputy Prosecuting Attorney













**EXHIBIT “B”**



**WHATCOM COUNTY  
2020-2033 FOURTEEN-YEAR  
FERRY CAPITAL PROGRAM**

## Overview

This program provides a blueprint for the effective, efficient, and continuing operation of the Whatcom County Ferry System within existing financial constraints. Capital improvements are scheduled based on many years of experience operating and maintaining the system, while complying with applicable regulations.

Inevitably, priorities and available funds for the ferry system will change over the fourteen years projected in this program. Therefore, the intention of the program is to be a guide indicating long-range improvements and anticipated revenues and expenditures. Strict adherence is not required.

Enacted in 1975, Revised Code of Washington (RCW) 36.54.015 states “The legislative authority of every county operating ferries shall prepare, with the advice and assistance of the county engineer, a fourteen year long range capital improvement plan embracing all major elements of the ferry system. Such plan shall include a listing of each major element of the system showing its estimated current value, its estimated replacement cost, and its amortization period.”

**Table 1: Ferry System Current and Replacement Values** – meets applicable requirements, showing the current value, replacement cost, and amortization periods for the vessels and facilities. The current value of the M/V Whatcom Chief is the insured value, the closest approximation of true worth. The facilities’ current value is book value; original cost less depreciation plus depreciated improvements.

**RCW 36.81.121 (1)** states “...the legislative authority of each county, after one or more public hearings thereon, shall prepare and adopt a comprehensive transportation program for the ensuing six calendar years....and for those counties operating ferries shall also include a separate section showing proposed capital expenditures for ferries, docks, and related facilities. Copies of the program shall be filed with the county road administration board and the secretary of transportation not more than thirty days after its adoption by the legislative authority...” Subsection (2) requires expanded information on how a county will spend all its money on the various facets of the transportation program. This RCW Section was enacted in 1961. The capital expenditure portion of Subsection (1) is satisfied by:

**Table 2: Projected Revenues** defines the known and/or anticipated sources of operating and capital project funding for the 14-Year Plan.

**Table 3: Projected Expenditures** includes all other expenditures on the system that meet Subsection (2) requirements. Operational expenditures are delineated between vessel and non-vessel costs. U.S. Coast Guard regulations currently require the ferries to be dry-docked every two years, however to extend the life, improve reliability and protect our capital investment Whatcom County schedules dry-docking every year for its vessel. The landings are inspected regularly as required by the National Bridge

Inspection Standards administered through the Washington State Department of Transportation. The inspection report helps identify and schedule major maintenance and replacement of these facilities.

This RCW section also provides the reporting requirement and timing of program submission, as well as establishing the annual update requirement.

Additionally, the Federal Highway Administration requires all agencies within a Metropolitan Planning Organization to develop and annually update the long range Transportation Improvement Plans and their Biennial Element. Whatcom County updates this 14-Year plan each year and incorporates the results into the Six-Year Transportation Improvement Program.

## **Level-of-Service**

On July 24, 2018 the Whatcom County Council passed resolution #2018-0026. This resolution established a level of service for the Lummi Island Ferry System. In addition, the resolution enacts an action plan to achieve the recommended improvements including:

### **1. Vessel**

- A. Balancing capacity against operating costs (fuel, personnel, etc.) to ensure affordable fares over the long run, including needs-based fares, while optimizing vehicle demand, deck space and trip frequency to minimize wait times, the design and construction of a 34 car vessel is added to the 2019-2024 Six-Year Transportation Improvement Program. The timing of the design and construction shall coincide with the next cycle of funding by the County Road Administration Board.
- B. The design of the vessel shall accommodate all walk-on passengers during typical peak times, accommodate legal loads of vehicles per Washington State Commercial Vehicle Guide and comply with U.S. Coast Guard safety standards and the Americans with Disabilities Act.
- C. To approach the goal of a carbon neutral vessel and provide flexibility for future electric conversion and reliability, the design of the vessel shall be a hybrid diesel-electric.

### **2. Terminals**

- A. Design and construction of the marine structure modifications to the Gooseberry Point terminal and Lummi Island terminal to accommodate the new vessel are included in the 2020-2025 Six-Year Transportation Improvement Program. The timing of the design and construction shall coincide with the next cycle of funding by the County Road Administration Board and the construction of the new vessel.
- B. In addition to the modifications to accommodate a new vessel, improvements to the Lummi Island terminal shall include: reconfigure the queuing lanes, install ADA restrooms, and improve bicycle and pedestrian loading by locating the

- queuing area as close to the vessel as possible to reduce the time required to load onto the ferry.
- C. Implement remote ferry queue monitoring.
  - D. Implement self-service ticketing.
  - E. Whatcom County will initiate an intergovernmental agreement with the Lummi Nation to confirm the location of the Gooseberry Point Terminal as shown on the 2015 Lummi Nation TIGER grant application. Upon the finalization of the agreement Whatcom County Public Works shall initiate the environmental review and permitting process for the Gooseberry Point terminal relocation.
  - F. Construction of the new Gooseberry Point terminal relocation is to be accomplished prior to the end of the Uplands Lease Agreement with the Lummi Nation (October 2046). The design shall include dual lane loading and improve bicycle and pedestrian loading by locating the queuing area as close to the vessel as possible to reduce the time required to load onto the ferry.
  - G. Whatcom County shall coordinate the Gooseberry Point terminal relocation with the Lummi Nation's permitting, funding and construction of the future Fisherman's Cove Improvements.
  - H. As property becomes available, Whatcom County shall purchase lands adjacent and near the new location of the Gooseberry Point terminal. The property will be utilized for off-street queuing, parking, and passenger amenities.
  - I. All infrastructures shall be designed to accommodate the 100-year sea level rise prediction by NOAA.

### **3. Operations**

- A. A Whatcom County ferry district may be created to increase grant opportunities. This district shall be funded by a seasonal surcharge on single cash fares for the capitalization of future vessels.
- B. The long-term improvements shall be phased over time to allow for a complete funding portfolio to leverage a variety of funding sources and mechanisms.

## **Minor Maintenance**

General minor maintenance is continual on the ferry, landings, aprons, approaches, and waiting facilities. The costs and extent of the work is unpredictable, and frequently problems must be repaired immediately upon detection. Routine maintenance such as building painting and roof cleaning is more predictable and scheduled in advance.

## History of the Ferry System

The ferry system is the only public transportation link for the majority of Lummi Island residents and vehicles to the mainland at Gooseberry Point. In the event of an emergency ferry outage or mechanical failure, the County has contracted pedestrian only ferry services while the vessel is being repaired.

Following is a brief chronology outlining the history of the Whatcom County Ferry System.

**GP** denotes work occurred at the Gooseberry Point Terminal

**LI** denotes work occurred at the Lummi Island Terminal

- 1926 Lummi Shore Road from Bellingham was completed and a ferry, the Central, owned by Whatcom County and large enough to hold six small Model-T Fords started making scheduled runs between Lummi Island and Gooseberry Point.
- 1929 The slightly larger Chief Kwina replaces the Central.
- 1950 Gooseberry Point terminal built (**GP**)
- 1962 The M/V Whatcom Chief begins service
- 1977 Lummi Island terminal is relocated (**LI**)
- 1981 New transfer span and tower superstructure installed (**LI**)
- 1982 Approach span trestle refurbished (**GP**)
- 1986 Transfer span, tower structures, and marine structures replaced (**GP**)
- 1993 South inner and mid-ship timber dolphins replaced/installed (**LI**)
- 1999 Emergency South outer dolphin and breakwater repair (**LI**)
- 1999 Electrical feeder replacement (**GP**)
- 2001 Major maintenance on both terminals including painting, new aprons, electrical work, new hydraulics, tower bolt replacement (**LI** and **GP**)
- 2002 20-Year Plan Phase 1 Process and report completed
- 2005 South outer timber dolphin replaced with steel structure (**LI**)  
Major Status Report on Ferry System
- 2006 Emergency bearing seat pedestal replacement (**LI**)  
Parking lot improvements (**LI**)  
Major corrosion repair to vessel hull  
Completed design package for a 35-car replacement vessel  
Completed design package for urgent electrical/structural terminal repairs  
First Rate Increase in 5 years
- 2007 Bridge bearings replaced (**LI**)  
Electrical repairs (**LI** and **GP**)
- 2008 Two North timber dolphins replaced with steel doughnut dolphins designed for larger 35-car ferry boat design (**LI**)  
Counterweight sheaves replaced (**GP** and **LI**)  
Rate increase
- 2009 Emergency North wingwall replacement (**LI**)

- Traffic Gates Installed (**LI** and **GP**)  
Rate adjustment
- 2010 Emergency South wingwall replacement (**LI**)
- 2011 New live load hangers and pins installed (**GP**)
- 2013 Steel apron flaps replaced with rubber-coated flaps (**LI**)  
Timber wingwalls replaced with steel structures (**GP**)  
Terminal remote control system installed, electrical and hydraulic equipment updates (**LI**)
- 2014 Terminal remote control system installed (**GP**)  
All four timber dolphins replaced with steel structures (**GP**)
- 2015 Steel apron flaps replaced with rubber-coated flaps (**GP**)  
Emergency temporary repair to outer timber dolphin (**LI**)  
Rate adjustment
- 2017 Electrical system overhaul (**GP**)
- 2018 Structural steel repair work including new lifting beam, new live load hangars, and replacement of corroded high-strength bolts and diagonal bracing (**GP**)  
Structural steel repair work including replacement of corroded high-strength bolts and diagonal bracing (**LI**)

## EXHIBIT "B"

**Table 1**

<b>FERRY SYSTEM CURRENT AND REPLACEMENT VALUES - 2018</b>						
<b>VESSELS</b>						
Current Statistics	<i>M/V Whatcom Chief</i>					
LENGTH (ft)	94					
BEAM (ft)	44					
DISPLACEMENT (tons)	78					
YEAR BUILT	1962					
CAPACITY -- Passengers	100					
CAPACITY -- Cars	20					
CURRENT INSURED VALUE - 2017	\$890,000					
<b>TOTAL CURRENT VALUE - 2018<sup>(1)</sup></b>		<b>\$890,000</b>				
Replacement Statistics						
YEAR	2024					
CAPACITY -- Passengers	150					
CAPACITY -- Cars	34					
REPLACEMENT VALUE	\$15,000,000					
<b>TOTAL - REPLACEMENT VALUE</b>		<b>\$15,000,000</b>				
<b>FACILITIES</b>						
LOCATION	YEAR BUILT	AMORTIZATION PERIOD	SCHEDULED REPLACEMENT /MODIFICATION YEAR	CURRENT BOOK VALUE <sup>(4)</sup>	ESTIMATED REPLACEMENT COST 2018 \$'s <sup>(2)</sup>	
<b>Lummi Island Landing</b>						
Transfer Span and Dock	1982	2022	2040	\$421,345	\$10,000,000	
Dolphins/Wingwall/Breakwater	1978	2018	2024	\$1,222,929	\$7,000,000	
Upland Facilities	1978	2018	2024	\$60,000	\$4,000,000	
<b>Subtotal - Lummi Island Landing</b>				<b>\$1,704,274</b>	<b>\$21,000,000</b>	
<b>Gooseberry Point Landing</b>						
Transfer Span and Dock	1987	2027	2024-2046	\$552,345	\$23,500,000	
Dolphins/Wingwall <sup>(3)</sup>	2013, 2014	2053, 2054	2024-2046	\$2,945,405	\$3,000,000	
Upland Facilities				\$0	\$9,500,000	
<b>Subtotal - Gooseberry Point Landing</b>				<b>\$3,497,750</b>	<b>\$36,000,000</b>	
<b>TOTAL FACILITIES VALUE</b>				<b>\$5,202,024</b>	<b>\$57,000,000</b>	
<b>TOTAL VESSEL &amp; FACILITIES VALUE</b>				<b>\$6,092,024</b>	<b>\$72,000,000</b>	
NOTES:						
(1) Current Insured Value						
(2) Per 2018 LOS Alternatives Analysis by KPFF Consulting						
(3) Replacement requires relocation. A phased approach to relocation will include modifications to existing facilities prior to completion of the new facility.						
(4) Estimated using a 40-year life and straight-line depreciation (including depreciated improvements)						

**Table 2**

<b>Lummi Island Ferry 14-Year Capital Program</b>							
<b>All \$ in 000's Revenues 2020-2026</b>							
<b>Category</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Punch Card Fares (3)	\$1,289	\$1,290	\$1,323	\$1,358	\$1,393	\$1,428	\$1,465
Cash Fares (4)	322	322	331	339	348	357	366
(Memo 55% of Operating Cost) (1)	1,611	1,612	1,654	1,697	1,741	1,786	1,832
MVFT Deficit Subsidy	338	338	338	338	338	338	338
County Road Fund Operating Subsidy	1,424	1,425	1,458	1,492	1,526	1,562	1,598
County Road Fund Capital Subsidy	1,992	2,330	50	50	-	-	-
Total Revenues	5,365	5,705	3,500	3,577	3,605	3,685	3,768
Total Expenditures (2)	5,156	5,497	3,290	3,365	3,392	3,471	3,551
Net Unfunded	(209)	(209)	(210)	(212)	(213)	(215)	(216)

<b>Lummi Island Ferry 14-Year Capital Program</b>							
<b>All \$ in 000's Revenues 2027-2033</b>							
<b>Category</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>
Punch Card Fares	\$1,503	\$1,541	\$1,582	\$1,621	\$1,664	\$1,711	\$1,754
Cash Fares	376	385	395	405	416	428	439
(Memo 55% of Operating Cost) (1)	1,879	1,926	1,977	2,027	2,080	2,139	2,193
MVFT Deficit Subsidy	338	338	338	338	338	338	338
County Road Fund Operating Subsidy	1,635	1,673	1,713	1,752	1,794	1,841	1,883
County Road Fund Capital Subsidy	-	-	-	-	-	-	-
Total Revenues	3,852	3,938	4,028	4,117	4,212	4,318	4,414
Total Expenditures (2)	3,634	3,718	3,807	3,894	3,987	4,091	4,185
Net Unfunded (5)	(218)	(220)	(221)	(223)	(225)	(227)	(229)

Note 1: After Subtracting the MVFT Deficit Subsidy. Budgeted for 57% fare recovery based on historical results.  
 Note 2: As Shown On Table 2, including capital expenditures.  
 Note 3: Equal to 80% of Fares  
 Note 4: Equal to 20% of Fares  
 Note 5: Unfunded ferry capital is generally covered using road fund revenue



**Table 3**

<b>Lummi Island Ferry 14-Year Capital Program</b>							
<b>All in 000's Table 2 Expenditures 2020-2026 Page 1</b>							
<b>Category</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
<b>Operating Expenses</b>							
<b>Vessel Operations</b>							
Personnel	1,470	1,499	1,529	1,560	1,591	1,623	1,655
Fuel & Operating Supplies	700	721	743	765	788	811	836
Insurance	50	52	53	55	56	58	60
Other Operating Expenses	100	104	108	112	117	122	127
<b>Total Vessel Operations</b>	<b>2,320</b>	<b>2,376</b>	<b>2,433</b>	<b>2,492</b>	<b>2,552</b>	<b>2,614</b>	<b>2,678</b>
<b>Other Operations</b>							
Administration	310	316	323	329	336	342	349
Parking Lots							
Lummi Island	5	5	5	5	5	6	6
Gooseberry Pt.	7	7	7	7	8	8	8
Staging Areas							
Lummi Island	8	8	8	9	9	9	10
Gooseberry Pt.	4	4	4	4	5	5	5
Docks							
Lummi Island	160	70	71	73	74	76	77
Gooseberry Pt.	350	380	388	395	403	411	420
<b>Total Operating Expenses</b>	<b>3,164</b>	<b>3,167</b>	<b>3,240</b>	<b>3,315</b>	<b>3,392</b>	<b>3,471</b>	<b>3,551</b>
<b>Capital Expenditures</b>							
Replacement of Whatcom Chief & Terminal Mods	400	330	-	-	-	-	-
Lummi Island Terminal Preservation	825	-	-	-	-	-	-
Gooseberry Pt Terminal Preservation	50	-	-	-	-	-	-
Lummi Island Breakwater Replacement	125	1,950	-	-	-	-	-
Relocation of Gooseberry Terminal	50	50	50	50			
Gooseberry Point							
Docks	390	-	-	-	-	-	-
Staging	9	-	-	-	-	-	-
Parking	5	-	-	-	-	-	-
Lummi Island							
Docks	100	-	-	-	-	-	-
Staging	28	-	-	-	-	-	-
Parking	10	-	-	-	-	-	-
<b>Total Capital Program Costs</b>	<b>1,992</b>	<b>2,330</b>	<b>50</b>	<b>50</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Costs</b>	<b>5,156</b>	<b>5,497</b>	<b>3,290</b>	<b>3,365</b>	<b>3,392</b>	<b>3,471</b>	<b>3,551</b>

**Lummi Island Ferry 14-Year Capital Program**  
**All in 000's Table 2 Expenditures 2027-2033 Page 2**

Category	2027	2028	2029	2030	2031	2032	2033
<b>Operating Expenses</b>							
<b>Vessel Operations</b>							
Personnel	1,689	1,722	1,757	1,792	1,828	1,864	1,902
Fuel & Operating Supplies	861	887	913	941	969	998	1,028
Insurance	61	63	65	67	69	71	73
Other Operating Expenses	132	137	142	148	154	159	163
<b>Total Vessel Operations</b>	<b>2,743</b>	<b>2,809</b>	<b>2,878</b>	<b>2,948</b>	<b>3,020</b>	<b>3,092</b>	<b>3,166</b>
<b>Other Operations</b>							
Administration	356	363	370	378	385	393	401
Parking Lots							
Lummi Island	6	6	6	6	6	6	7
Gooseberry Pt.	8	8	9	9	9	9	10
Staging Areas							
Lummi Island	10	10	10	11	11	11	12
Gooseberry Pt.	5	5	5	5	6	18	19
Docks							
Lummi Island	79	80	82	84	85	87	89
Gooseberry Pt.	428	437	445	454	463	472	482
<b>Total Operating Expenses</b>	<b>3,634</b>	<b>3,718</b>	<b>3,807</b>	<b>3,894</b>	<b>3,987</b>	<b>4,091</b>	<b>4,185</b>
<b>Capital Expenditures</b>							
Replacement of Whatcom Chief & Terminal Mods	-	-	-	-	-	-	-
Lummi Island Terminal Preservation	-	-	-	-	-	-	-
Gooseberry Pt Terminal Preservation	-	-	-	-	-	-	-
Lummi Island Breakwater Replacement	-	-	-	-	-	-	-
Relocation of Gooseberry Terminal	-	-	-	-	-	-	-
Gooseberry Point							
Docks	-	-	-	-	-	-	-
Staging	-	-	-	-	-	-	-
Parking	-	-	-	-	-	-	-
Lummi Island							
Docks	-	-	-	-	-	-	-
Staging	-	-	-	-	-	-	-
Parking	-	-	-	-	-	-	-
<b>Total Capital Program Costs</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Costs</b>	<b>3,634</b>	<b>3,718</b>	<b>3,807</b>	<b>3,894</b>	<b>3,987</b>	<b>4,091</b>	<b>4,185</b>