

PROPOSED BY: _____

INTRODUCED: 9/12/2023

RESOLUTION NO. _____

SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM
FOR THE YEARS 2024 THROUGH 2029

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 2024 through 2029, 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 ____ day of _____, 2023.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Chair of the Council

APPROVED AS TO FORM:

Approved Via Email-CQ/LC
Chris Quinn, Senior Civil Deputy Prosecuting Attorney

EXHIBIT “B”



Photo by Dan Ohms

WHATCOM COUNTY 2024-2037 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 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 program is intended as 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 operating and capital project funding sources for the 14-Year Plan.

Table 3: Projected Expenditures include all other expenditures on the system that meet Subsection (2) requirements. Operational expenditures are delineated between the 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 or an a out-of-service maintenance every year for its vessel. The terminal structures 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 and establishes 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 #2018-026. This resolution established a level of service for the Lummi Island Ferry System. The resolution also 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 of a 34-car vessel is in the 2024-2029 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 vessel design shall accommodate all walk-on passengers during typical peak times, accommodate legal vehicle loads 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 vessel's design shall be a hybrid diesel-electric.

2. Terminals

- A. The design of the marine structure modifications to the terminals at Gooseberry Point and Lummi Island to accommodate the new vessel are included in the 2024-2029 Six-Year Transportation Improvement Program and take into consideration the plan, listed 2E-2H below, to move the Gooseberry terminal at a future date. 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 reconfiguration of the queuing lanes, installation of ADA restrooms, and improvements to bicycle and pedestrian loading by locating the queuing area as close to the vessel as possible, reducing 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 before 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 ride 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.

4. New Vessel and Terminal Improvements Progress Updates

- A. Whatcom County Council passes resolution #2021-011 giving direction to Whatcom County Public Works to pursue funding through the BUILD (RAISE) grant program. The Council recognizes the formation of a ferry district is no longer the best option.
- B. Lummi Island Ferry Advisory Committee unanimously recommends to the Whatcom County Council a \$1.00 per trip surcharge to go towards the new vessel and terminal improvements cost. Council adopts the recommendation as ordinance #2021-012.
- C. 2022 Lummi Nation Planning Commission reviews previous study for relocation of Gooseberry Point terminal; begins internal discussion.
- D. Washington State passes the Capital Projects Budget Supplement "Move Ahead WA"; including \$5.3M in Transportation Appropriation for the new ferry and terminal improvements.
- E. County Road Administration Board (CRAB) unanimously recommends a \$10M grant program for the project (\$500k for 20 years); Recommendation goes to the WA State legislature for 2023 approval.
- F. August 2022, US DOT awards Whatcom County \$25M through the RAISE grant program for the new vessel and terminal improvements.
- G. Whatcom County Public Works negotiates a scope of work with PSE for an infrastructure study to determine alternatives to provide power for the new vessel.
- H. July 2023, the WA State legislature approves the first \$1M of the CRAB funding in the 23-25 state biennium budget.

Minor Maintenance

General minor maintenance continues on the ferry, terminals, 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 the 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)**
- 2019 Commenced public outreach and preliminary vessel and terminal designs
Completed Lummi Island Preservation Project which included application of new paint system on transfer span, tower assemblies and apron **(LI)**
- 2020 COVID 19 significantly impacted operations resulting in lost revenue, reduced ridership, and conversion to cashless fares to mitigate risk
Completed propulsion study for new vessel
Applied for federal Build Grant and state Consolidated Grant Program
Whatcom County obtained approval from USCG to modify the annual dry-docking schedule with a dockside maintenance substitution. This will be continued for future dry dockings when eligible.
Terminal structural improvements and full paint job **(LI)**
- 2021 Completed the Gooseberry Point Terminal Preservation Project which included application of new paint system on transfer span, tower assemblies and apron **(GP)**
- 2022 Replaced existing southerly timber breakwater with new steel breakwater at the Lummi Island Terminal **(LI)**
- 2022 Completed repair of most waterward northern timber dolphin at the Lummi Island Terminal **(LI)**
- 2023 Completed repair to southerly mid-ship timber dolphin at the Lummi Island Terminal **(LI)**

Table 1

FERRY SYSTEM CURRENT AND REPLACEMENT VALUES - 2023						
VESSEL						
	<i>M/V Whatcom Chief</i>					
Current Statistics						
LENGTH (ft)		94				
BEAM (ft)		44				
DISPLACEMENT (tons)		78				
YEAR BUILT		1962				
CAPACITY -- Passengers		100				
CAPACITY -- Cars		20				
CURRENT INSURED VALUE - 2023		\$840,000				
TOTAL CURRENT VALUE - 2023						<u>\$840,000</u>
Replacement Statistics						
YEAR		2024				
LENGTH (ft)		184				
BEAM (ft)		54				
DISPLACEMENT (tons)		100				
CAPACITY -- Passengers		150				
CAPACITY -- Cars		34				
REPLACEMENT VALUE ⁽¹⁾		\$25,653,000				
TOTAL - REPLACEMENT VALUE						<u>\$25,653,000</u>
FACILITIES						
LOCATION	YEAR BUILT OR REBUILT	AMORTIZATION PERIOD END	SCHEDULED REPLACEMENT /MODIFICATION YEAR	CURRENT BOOK VALUE ⁽⁴⁾	ESTIMATED REPLACEMENT COST 2023 \$'s ⁽²⁾	
Lummi Island Terminal						
Transfer Span and Dock	1982	2022	2040	\$363,108	\$11,941,000	
Dolphins/Wingwall/Breakwater	1978	2018	2024	\$2,842,684	\$8,357,000	
Upland Facilities	1978	2018	2024	\$70,141	\$4,776,000	
Subtotal - Lummi Island Terminal				\$3,275,933	\$25,074,000	
Gooseberry Point Terminal						
Transfer Span and Dock	1987	2027	2024-2046	\$652,264	\$28,059,000	
Dolphins/Wingwall ⁽³⁾	2013, 2014	2053, 2054	2024-2046	\$1,877,879	\$3,581,000	
Upland Facilities				\$31,144	\$11,343,000	
Retrofit & Electrification ⁽⁵⁾					\$24,638,000	
Subtotal - Gooseberry Point Terminal				\$2,561,287	\$67,621,000	
TOTAL FACILITIES VALUE				\$5,837,220	\$92,695,000	
TOTAL VESSEL & FACILITIES VALUE				\$6,677,220	\$118,348,000	
NOTES:						
⁽¹⁾ Cost based on 2022 figures from the RAISE Grant Submission						
⁽²⁾ Per 2018 LOS Alternatives Analysis by KPFF Consulting (Costs have been escalated 3% per year and represent a 2023 replacement cost of the full structure, not the retrofit for a new boat.)						
⁽³⁾ Replacement requires relocation. A phased approach to relocation will include modifications to existing facilities prior to completion of the new facility.						
⁽⁴⁾ Reported from 2022 year end using a 20-year life for improvements and straight-line depreciation (including depreciated improvements)						
⁽⁵⁾ Retrofit & Electrification costs represent the required modification to the facilities to accept a replacement boat, not a full rebuild.						

Table 2

Lummi Island Ferry 14-Year Capital Program							
All \$ in 000's Revenues 2024-2030							
Category	2024	2025	2026	2027	2028	2029	2030
Multi-Ride Fares (3)	\$1,107	\$1,246	\$1,369	\$ 1,480	\$ 1,582	\$1,677	\$1,767
Single-Ride Fares (4)	277	312	342	370	396	419	442
Supplement to fares (above existing rates)	549	439	351	281	225	180	144
(Memo 55% of Operating Cost) (1)	1,933	1,997	2,063	2,131	2,203	2,276	2,353
MVFT Subsidy & Ferry Deficit Reimb.	550	561	572	584	595	607	619
County Road Fund Operating Subsidy	1,581	1,634	1,688	1,744	1,802	1,862	1,925
Ferry Replacement Fund	160	163	166	170	173	177	180
CRAB Capital Ferry Funding	500	500	500	500	500	500	500
Federal Raise Grant	-	-	5,000	19,000	1,000	-	-
State Move Ahead Washington Funds	436	698	4,166				
Federal Ferry Boat Program Funding	521	521	521				
Bond or other funding (6)					12,000	5,000	
Total Revenues	5,681	6,073	14,676	24,129	18,273	10,423	5,577
Total Expenditures (2)	5,160	5,552	17,153	23,764	16,488	10,193	5,614
Net Funded (Unfunded) (5)	521	521	(2,476)	365	1,785	230	(37)

Lummi Island Ferry 14-Year Capital Program							
All \$ in 000's Revenues 2031-2037							
Category	2031	2032	2033	2034	2035	2036	2037
Multi-Ride Fares (3)	\$1,946	\$2,011	\$2,079	\$ 2,150	\$ 2,223	\$2,299	\$2,378
Single-Ride Fares (4)	486	503	520	538	556	575	594
Supplement to fares (above existing rates)	115	92	74	59	47	38	30
(Memo 55% of Operating Cost) (1)	2,432	2,514	2,599	2,688	2,779	2,874	2,972
MVFT Subsidy & Ferry Deficit Reimb.	632	644	657	670	684	698	711
County Road Fund Operating Subsidy	2,274	2,347	2,422	2,501	2,582	2,665	2,752
Ferry Replacement Fund	184	187	191	195	199	203	207
CRAB Capital Ferry Funding	500	500	500	500	500	500	500
Total Revenues	6,022	6,193	6,370	6,554	6,743	6,940	7,143
Total Expenditures (2)	5,774	5,938	6,107	6,283	6,465	6,653	6,848
Net Funded (Unfunded) (5)	248	255	263	271	279	287	295

Note 1: Fare revenue is not calculated on ridership and is instead calculated based on a 55% recovery of expenditures as outlined in farebox recovery legislation. With this collection goal, actual ridership numbers will help determine fare prices.

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. In the case of years 2024 to 2027 various funding mechanisms are being looked at supplement the road fund.

Note 6: Bond funding will likely be needed and has been added in to year 2028.

Table 3

Lummi Island Ferry 14-Year Capital Program All in 000's Table 2 Expenditures 2024-2030 Page 1							
Category	2024	2025	2026	2027	2028	2029	2030
Operating Expenses							
Vessel Operations							
Personnel	1,700	1,768	1,839	1,912	1,989	2,068	2,151
Fuel & Operating Supplies	1,289	1,328	1,368	1,409	1,451	1,494	1,539
Insurance	91	94	97	99	102	105	109
Other Operating Expenses	207	215	224	233	242	252	262
Total Vessel Operations	3,287	3,405	3,527	3,653	3,784	3,920	4,061
Other Operations							
Administration	420	422	424	426	428	431	433
Parking Lots							
Lummi Island	6	6	6	6	6	7	7
Gooseberry Pt.	6	6	6	6	6	7	7
Staging Areas							
Lummi Island	15	15	16	16	17	17	18
Gooseberry Pt.	8	8	8	9	9	9	10
Docks							
Lummi Island	70	71	73	74	76	77	79
Gooseberry Pt.	252	257	262	267	273	278	284
Total Operating Expenses	4,064	4,191	4,323	4,459	4,600	4,746	4,897
Capital Expenditures							
Replacement of Whatcom Chief	125	290	10,096	13,812	1,331	-	-
Terminal Modifications	570	517	2,329	4,967	4,998		
Upland Improvements	160	212	57	-	1,427		
Electrification	191	292	298	526	3,420	4,732	
Relocation of Gooseberry Terminal	50	50	50				
Potential Debt Service to Outside Funding ⁽¹⁾					712	715	717
Total Capital Program Costs	1,096	1,361	12,830	19,305	11,888	5,447	717
Total Costs	5,160	5,552	17,153	23,764	16,488	10,193	5,614
Note 1: Debt Service was added for 2028 and beyond though it has not yet been determined what funding mechanism will be used.							

Table 3 (continued)

Lummi Island Ferry 14-Year Capital Program							
All in 000's Table 2 Expenditures 2031-2037 Page 2							
Category	2031	2032	2033	2034	2035	2036	2037
Operating Expenses							
Vessel Operations							
Personnel	2,237	2,327	2,420	2,516	2,617	2,722	2,831
Fuel & Operating Supplies	1,585	1,633	1,682	1,732	1,784	1,838	1,893
Insurance	112	115	119	122	126	130	134
Other Operating Expenses	272	283	295	306	319	331	345
Total Vessel Operations	4,207	4,358	4,515	4,677	4,846	5,021	5,202
Other Operations							
Administration	435	437	439	441	444	446	448
Parking Lots							
Lummi Island	7	7	7	7	7	8	8
Gooseberry Pt.	7	7	7	7	7	8	8
Staging Areas							
Lummi Island	18	19	20	20	21	21	22
Gooseberry Pt.	10	10	10	11	11	11	12
Docks							
Lummi Island	80	82	84	85	87	89	91
Gooseberry Pt.	289	295	301	307	313	320	326
Total Operating Expenses	5,054	5,216	5,383	5,557	5,737	5,923	6,116
Capital Expenditures							
Replacement of Whatcom Chief	-	-	-	-	-	-	-
Terminal Modifications	-	-	-	-	-	-	-
Upland Improvements	-	-	-	-	-	-	-
Electrification	-	-	-	-	-	-	-
Relocation of Gooseberry Terminal	-	-	-	-	-	-	-
Debt Service to Outside Funding	720	722	724	726	728	730	732
Total Capital Program Costs	720	722	724	726	728	730	732
Total Costs	5,774	5,938	6,107	6,283	6,465	6,653	6,848
Note 1: Debt Service was added for 2028 and beyond though it has not yet been determined what funding mechanism will be used.							