
Port of Everett
Short-Sea Shipping Project Designation
Puget Sound Container on Barge Service
June 2018





Ms. Lauren Brand, PPM
Associate Administrator Intermodal Systems Development
US DOT/Maritime Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Ms. Brand:

The Port of Everett is pleased to submit the following request for Project Designation for an expanded marine highway service along the M-5 corridor. The project will enable the Port to create a new marine highway service along the M-5 marine highway connecting Everett to Northwest Seaport Alliance (NWSA) terminals in Seattle and Tacoma.

The Port of Everett is currently in the final stages of modernizing its South Terminal to handle post-panamax ships in support of Boeing's new 777X program. The marine highway service was initiated in 2004 when the State of Washington, the Boeing Company, the Port of Everett, the City of Everett, and Snohomish County entered into the Project Olympus Agreement to retain, and grow, Boeing's aerospace manufacturing in Washington State with the construction of Mount Baker Terminal.

The Port has successfully demonstrated the cost effectiveness and reliability of using barge service to move aerospace containers from their main facility (in Port Gardner Bay) to their Mount Baker terminal. At Mount Baker, the containers are lifted by a rail-mounted gantry crane onto rail cars for final delivery to the plant.

The Port will continue to use their proven container-on-barge (COB) service to support Boeing manufacturing presence in Washington.

Based upon the success of the aerospace COB model, there is additional interest in a non-aerospace COB service to the NWSA terminals because of curtailments in direct ocean service and traffic congestion in the Puget Sound Region. COB service to NWSA Terminals can also be utilized by other manufacturers and industries that are impacted by the growing congestion on Puget Sound's highways and roads.

Additionally, the Project Designation will allow the Port to compete for Federal funding to support short sea shipping activities here in Puget Sound. The federal funding would be part of the \$7 million capital investment needed for gantry cranes and a dedicated barge necessary to expand the COB service.

We respectfully request your consideration of our application for a Project Designation and Service Route Expansion.

Sincerely,

A handwritten signature in blue ink that reads "Lisa Lefeber".

Lisa Lefeber
Acting CEO/ Executive Director
lisam@portofeverett.com
425-259-3164



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Designated Project Name: Port of Everett's Puget Sound Containers on Barge Service

Applicant: Port of Everett

Project Participants:

The primary participants are the Port of Everett and the Northwest Seaport Alliance (Port of Seattle and Port of Tacoma). Many other entities will be partners with the Ports in operating and using the marine highway; including shipping lines, barge service providers, local unions, port operations and maintenance staff and local governments.

Marine Highway and Ports Served:

M-5 Marine Highway serving:

- Port of Everett (Terminals in Port Gardner Bay and Mt. Baker)
- Northwest Seaport Alliance – North Harbor (Seattle) and South Harbor (Tacoma)

Executive Summary


The Port of Everett (Port) is requesting a short-sea shipping project designation to enable the Port to expand its current M-5 aerospace COB service to a new non-aerospace Container on Barge (COB) service along M-5 Marine Highway in Puget Sound. The designated project and expanded service will connect the Port of Everett to NWSA Terminals in Seattle and Tacoma. This designation will allow the Port to build on its experience and successful aerospace COB model to meet the increasing needs of non-aerospace industries in the Everett, WA area. The new designation will also create new opportunities for COB movement between Puget Sound Ports. The use of COB service for non-aerospace containers will provide regional shippers with viable options to improve productivity by diverting volume from congested highways in Puget Sound to our marine highway.

The Port of Everett currently operates a COB service in Puget Sound between its deep-water seaport on Port Gardner Bay to its satellite terminal (Mount Baker Terminal) for The Boeing Company. This COB service is used to move, by water, oversized/ overweight containers with aerospace parts approximately three (3) miles south to The Boeing Company's largest airplane manufacturing plants.

This requested project designation will provide the foundation for an alternative cargo transportation connection between the Port and the Northwest Seaport Alliance (NWSA) facilities in Puget Sound. This COB alternative will ease congestion and traffic in the greater Puget Sound region by diverting containerized freight from trucks moving along the congested I-5 corridor to barges servicing the NWSA terminals and the Port of Everett. About 70 percent of the aerospace containers are transported by barge to the NWSA terminals for export back to Japan for refilling of aerospace parts, and 30 percent are transported out of the Port of Everett via ship.

The designation as a MARAD Marine Highway Project will open grant opportunities for infrastructure improvements that will enhance the Port's ability to expand barge service along the M-5 Puget Sound corridor. Expanded service will be designed to meet the growing needs for aerospace manufacturing and other sectors of the economy.

When the Port completes the modernization of its South Terminal in December 2019, the Port will be ready to handle larger post-panamax vessels and capacity for new cargo handling equipment that would allow for increase short sea shipping opportunities in the Puget Sound.



In addition to the aerospace manufacturing industry, other north sound shippers are interested in diverting freight off Puget Sound roads onto barges for transport to NWSA terminals from Everett. It is estimated that up to 300 containers per month of lumber, soybeans, and soybean meal would initially be diverted from roads to a barge service between the Port of Everett and the Northwest Seaport terminals. This opportunity is created by the recent curtailment of direct ocean service between Everett to Australia, Papua New Guinea and Fiji. The curtailment means that 300 non-aerospace containers per month must currently be trucked to T-18 at the North Harbor of the NWSA.

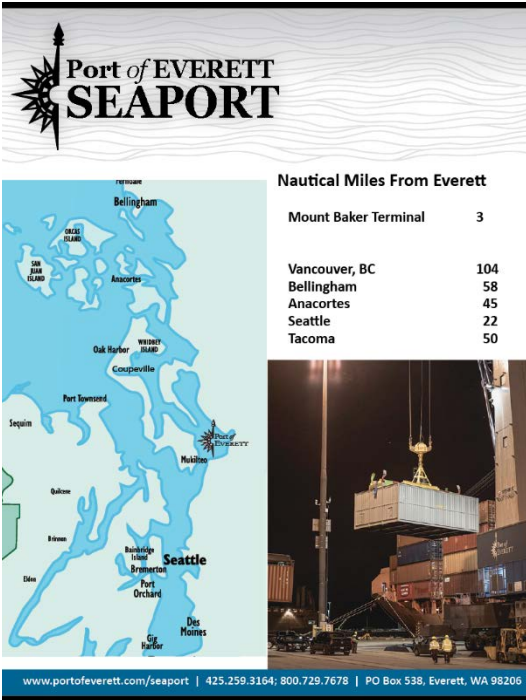
Because of the unreliability and time loss due to congestion on Puget Sound roads and highways, the Port believes this designation will generate even more interest in moving additional container traffic off Puget Sound's congested highways and onto efficient barge service. (note, Everett is among the nation's most congested regions¹).

Finally, the need for the expanded barge service is vital today. The Port has shown its ability to meet the needs for just-in-time delivery to accommodate Boeing's manufacturing demands using a COB service; however, other commodities are not currently offered this same transportation alternative. To meet that regional transportation demand, the COB service between Everett and the NWSA must be initiated. This expanded COB service will offer a safe and environmentally sustainable option to local shippers that are struggling with our regional traffic issues. It will keep both oversized and standard loads off local roads and highways, reducing emissions and wear and tear on roads. The Ports confidence that expanded COB service will be a success is due to its track record for efficiently and reliably meeting Boeing's aerospace manufacturing requirements with the current COB service in Puget Sound. It is now time for a COB service option to be offered to non-aerospace customers that have the same need for on-time deliveries that Puget Sound's road network can no longer provide.

Therefore, the Port of Everett is pleased to request the following:

1. Designation of a marine highway service from the Port of Everett to Mount Baker Terminal/NWSA and expand service to serve NWSA Terminals in Seattle and Tacoma for non-aerospace cargoes.
2. Such designation will allow the Port to compete for federal funding to stand up this service.

¹ <https://www.seattletimes.com/seattle-news/transportation/its-worse-than-you-think-everett-leads-the-nation-in-traffic-congestion-report-says/>



Background

The Port of Everett, located 25 miles north of Seattle, is a strategic self-operating seaport that supports nearly \$30 BILLION worth of U.S. exports annually and is home to the second largest customs district by export value in Washington State. The Port of Everett ranks as the third largest container port in Washington State – only Seattle and Tacoma move more containers. The Port serves the Boeing Company’s largest manufacturing facility and is the homeport to Naval Station Everett. It is uniquely positioned to serve the state’s aerospace manufacturing sector because of its proximity to the Boeing Company’s assembly plants in Everett. The Port handles 100-percent of the oversized containers of aerospace parts for Boeing’s 747, 767, 777 (777X) and KC-46 tanker airplane programs. Parts for these aircraft come to Everett in oversized containers from Japan.

The Port supports more than 35,000 jobs and \$313 million in state and local tax revenue by serving the strategic needs for high value, over dimensional cargoes needed for aerospace manufacturing. It serves as an extension of the aerospace manufacturing process because it delivers the oversized cargo to meet the industry’s just-

Exhibit 1: Nautical Distances

in-time-delivery schedule. The Port stages Boeing’s containers at their terminals in Port Gardner Bay and then delivers them to Boeing’s Everett Plant to meet their “just in time” manufacturing schedule.

Additionally, the Port is an identified recovery port for the region in the event of a man-made or natural disaster near the consumer ports of Seattle and Tacoma (NW Seaport Alliance). It serves as backup support for the U.S. Army’s 833rd Transport Battalion and is under consideration by MARAD for elevation to a Strategic Commercial Seaport. Currently, the Port of Everett is in the secondary position.


The Port is currently completing its South Terminal Intermodal Modernization Project (STMP). This project is transformative for the Port of Everett by making the necessary improvements to support large ocean-going vessels. It will bring dramatic improvements to current and future multimodal freight shipping needs for the region and nation. This modernized terminal will support the creation of 900 new jobs (382 direct) in the community in its first year alone. Over a 20-year period, the project is estimated to create more than 2,900 jobs. This will assist greatly in reducing the community’s current unemployment rate of 4.3%, (which is 0.2% higher than the U.S. average of 4.1%).

The 2019 completion of the STMP will allow the Port to efficiently and safely serve larger vessels. It creates the opportunity to expand COB service to NWSA facilities in Seattle and Tacoma for non-aerospace commodities through improvements in cargo handling capabilities.

The Port will be able to efficiently handle Post- Panamax class ships that transport oversized containerized aerospace cargo. This will improve the economic viability for Boeing’s 747, 767 (military and commercial), 777, KC-46 Tanker and upcoming 777X airplane programs. Moreover, it will enhance the Port’s ability to serve as a backup facility to the 787 Dreamliner. [Click here to see a video of the Port’s role in the aerospace logistics chain.](#)

Boeing is embarking on their new 777X aircraft program, and the STMP will allow for the Port to accommodate the heavier and wider containers used to transport airplane parts for this new program.

The Mount Baker Terminal is the Port of Everett’s satellite shipping facility located in South Everett. The Mount Baker Terminal is located just west of Boeing’s Everett Plant at Paine Field. It allows the Port and its partners to



streamline the aerospace logistic chain by moving oversized containers by barge, instead of truck or rail, between the Port's South Terminal and the Mount Baker Terminal.

Before barge service was initiated, movement of the oversized containers by rail to Boeing's plants required shutdown of the BNSF Rail line to accommodate the containers. Today, BNSF can no longer move the 23'-25' wide containers from Everett to the Boeing Plant due to a change in the track geometry. Until the STMP upgrades are completed in December 2019, the oversized containers are handled at the Port's Pier 1 facility using a mobile harbor crane capable of handling the heavier, larger containers. The containers are then loaded onto a barge for transport to the Mount Baker Terminal (3 miles south of the main port complex). The containers are then offloaded onto rail cars for delivery via a dedicated rail spur to the Boeing Everett Plant.

Leveraging Grant Funds

In 2016, the Port was awarded a \$10 million TIGER grant from U.S. Department of Transportation and \$1.8 million in local FAST Lane funds to partially fund the STMP. The funds are being used to modernize the Port's South Terminal to prevent future freight bottlenecks. These improvements will allow the Port to meet the changing shipping industry in order to better support the aerospace sector.

The project will also improve the efficiency of the terminal space to accommodate non-aerospace COB service that can improve reliability, costs, and reduce congestion on the I-5 corridor between Everett and the NWSA terminals in Seattle and Tacoma.

The **expanded marine highway service** (the barge line) is a critical network. It will allow for cost effective, "just in time" delivery for all manufacturers (not just aerospace) and shippers north of Seattle that currently rely on the unpredictable I-5 corridor for trucking.

Since the Port's TIGER award in July 2016, three larger charter ships are now routinely calling on the Port of Everett. The South Terminal project is slated to be completed by the end of 2019. The Port is at a point where it is necessary to improve "water-side" infrastructure to keep pace with the changes in the industry and to assist in providing cost effective, reliable freight movement for shippers in Puget Sound.

The designation as a MARAD Marine Highway Project will open grant opportunities for infrastructure improvements that will enhance the Port's ability to expand barge service along the M-5 Puget Sound corridor. Expanded service will be designed to meet the growing needs for aerospace manufacturing and other sectors of the economy.

The requested MARAD project designation will also assist the Port in fully developing the marine highway barge strategy, and, consequently, achieve the benefits of reducing traffic congestion and improving air quality. Expanded barge service on the marine highway will offer a safe and environmentally sustainable way to move the oversized containers necessary to meet Boeing's manufacturing requirements, and to offer similar service to other industry's needs, in addition to the current benefit of the service for the aerospace industry.

If expansion of barge service along the M-5 Route is not accomplished, then container shippers do not have an option other than to continue to move their export products by truck, causing safety issues, increased traffic delays and increased emissions along already congested I-5.

Designation of this expanded marine highway service will result in cost effective, reliable COB options for moving additional freight via barge rather than relying on trucks on the congested I-5 corridor and creating a time-sensitive logistic chain for the Arlington/Marysville Manufacturing Investment Center (AMMIC) located 10 miles north of Everett.

A. Project Meets Minimum Eligibility Requirements for Designation

1.1 Documented Vessels

The requested expanded service will use U.S. Documented Vessels. It will mitigate landside congestion on I-5 by promoting short sea transportation options for moving cargo from the Port of Everett to the Northwest Seaport Alliance Terminal in Seattle and Tacoma. See more details in Section 10: Support and Investment.

1.2 Carries Cargo in Short Sea Shipping

This requested expanded service on the M-5 Marine Highway moves cargo between Port facilities in Washington State via the inland Puget Sound waterway.

1.3 Mitigates Landside Congestion

The Port of Everett has proven that COB service can work in the Puget Sound Region. Since 1993, the Port has used short sea shipping to deliver oversized containers to the Boeing



Exhibit 2: Everett Traffic ranked worst in US.

Manufacturing Plant in Everett, WA. The expanded service will build upon the Port, and its partners, expertise in COB shipping. The introduction of a non-aerospace route between the Port of Everett and the NWSA, operating about 3 times per month, will reduce congestion on I-5 by diverting container trucks

CUSTOMERS SAY THEY CAN ONLY MAKE 1 TRUCK TURN PER DAY BETWEEN EVERETT AND THE PORT OF SEATTLE. BUT WITH A COB SERVICE FROM PORT OF EVERETT, THEIR PRODUCTIVITY COULD INCREASE TO 6 TRIPS PER DAY. THE COB SERVICE WILL REDUCE IDLING TIME IN TRAFFIC AS WELL AS WAIT TIMES AT THE TERMINAL GATES IN SEATTLE.

to barge. Based upon market research and customer discussions,

the Port has identified a new business opportunity that will start with three commodities: lumber from the surrounding area; soybeans and soybean meal which are railed into Port of Everett from the Midwest where the products are transloaded into containers for transit to NWSA.

At the start, this new service will result in 300 containers per month, or 7,200 annual truck trips, being removed from the I-5 corridor between Everett and Seattle/ Tacoma.

The Seattle Times² recently reported that this particular corridor leads the nation in traffic congestion. Washington State Department of Transportation (WSDOT) data shows that, in 2016, I-5 morning drivers from Everett to Seattle needed **94 minutes to reliably make the 24-mile trip**. The trend continues to worsen; it was 85 minutes in 2014, and 76 minutes in 2012. Although customers indicate that trucking charges may appear less expensive than a barge option, the truck option does not include the value of (1) time lost due to road congestion and (2) the gate wait times when a truck arrives at a NWSA terminal.

2.1 Short Sea Transportation

This requested Project Designation and expanded service meets the USDOT definition of Short Sea shipping. The non-aerospace COB service will transport containers received at the Port of Everett by inbound ocean-going

² Ibid

vessels or truck, loaded via cranes onto barges, and then towed via tug to either of the NWSA ports (Seattle or Tacoma) via the inland Puget Sound waterway.

2.2 Expanded Service

This designation and associated funding will provide the foundation for the Port of Everett and the NWSA to develop and market COB service. Both ports have identified strong market opportunities to expand short-sea shipping service from the Port of Everett to the NWSA for a variety of cargoes.

2.3 Designated Route

The Port of Everett currently runs a container on barge service on the M-5 designated route to serve Boeing’s aerospace manufacturing plants. This application requests a route service expansion to the NWSA as well as a project designation at the Port of Everett to expand COB service for other shippers, manufacturers and commodities.

3.0 Route Designation Submission

As mentioned in Section 2.3 above this application requests only a service expansion on the current M-5 Marine Highway route. The Designated Project requested in this application is on the designated route. The Applicant does not intend to submit any additional route designation requests.

4.0 Direct Connection

The requested Project Designation will facilitate direct connection between the carriage of cargo through and between ports in the Puget Sound region of the United States. These ports are served by the M-5 Marine Highway. This request is for a Project Designation for a COB service at the Port of Everett and includes expanding service along the M-5 Marine Highway to connect with the NWSA terminals in Seattle and Tacoma.

Narrative

1.0 Market and Customers


1.1 Market currently served by barge on container operations at Port of Everett

History of the M-5 Boeing Barges:

Barge transportation of 777 parts in oversized containers was initiated at the Port of Everett in 1993. Since then, barge transportation has expanded to move oversized shipping containers with parts for the 777, 767 and 747 aircraft manufacturing lines. The service started with weekly Foss barges to/from Seattle and Tacoma to Boeing. Beginning in 2005, the service transformed into weekly direct ocean vessel calls into the Port of Everett. The opening of the Port’s satellite Mount Baker Terminal in June 2008 allowed the Port to improve “just in time deliveries to Boeing” by moving the cargo from rail to barge. This also eliminated any need for BNSF mainline closures. Prior to 2005, all the parts for the oversized airplane programs were shipped directed to the NWSA, barged to the Port of Everett and railed to the manufacturing plant.



Exhibit 3: Container on Barge, Port of Everett



In June 2011, the Port celebrated the 1,000th barge movement at Mount Baker Terminal supporting the aerospace industry.

Port of Everett - Current Operations

The Port of Everett manages its break-bulk and containerized general cargo operations at the Pacific Terminal/Pier 1 complex in Port Gardner Bay. In addition to its terminals in Port Gardner Bay, the Port of Everett operates the Mount Baker Terminal to provide a rail/barge transfer facility in Everett.

The Port has two, 40 long-ton Hitachi gantry cranes complemented by a 100-metric ton and a 150-metric ton Gottwald mobile harbor cranes for ship to shore transfers. For yard handling and storage operations, the Port has five Linde reach stacker units. The satellite Mount Baker terminal has a rail mounted gantry crane designed to transfer the aerospace containers from barge to railcar. The Port is fortunate to have a highly skilled longshore labor force that has demonstrated the ability to handle the growth at the Port. Two well-known stevedoring companies, Jones Stevedoring and Stevedoring Services of America, regularly facilitate the cargo handling activities at Everett. Tug assistance services at the marine terminals are provided by Brusco Tug & Barge, Foss Maritime and Crowley.

Exhibit 10 illustrates the Port of Everett operations at the Mount Baker Terminal in Everett. Aerospace parts arrive at Pacific Terminal/Pier 1 from Japan via Westwood Shipping Lines cargo ships in oversized containers. The containers are transferred to barge for delivery to the Mount Baker Terminal. The facility features a rail-mounted crane which transfers the containers to rail cars for delivery to Boeing manufacturing plants adjacent to Paine Field. At Boeing's current production schedule, the Port annually handles 52 in-bound aerospace shipments from Japan and 12 outbound vessels transporting empty aerospace parts containers with custom tooling. The containers are unloaded at the plant, returned to Mount Baker Terminal and sent by barge back to Pacific Terminal/Pier 1, 30% of the containers are sent direct to Japan via Eastern Car Liner, 70% of the remaining containers are then sent by barge to the NWSA to be returned to Japan on Hapag Lloyd.

1.2 Shippers have indicated an interest in, and level of commitment to, the proposed service

Current COB Service

The commitments for the Mount Baker Terminal and South Terminal investments are part of the 2004 Project Olympus Agreement between The Boeing Company, the Port, City of Everett, Snohomish County and the State of Washington. The Project Olympus Agreement was vital to maintaining and growing the aerospace manufacturing sector in Washington State. The agreement anticipated, and supported, the COB service via the Port's Seaport and Mount Baker Terminal.

The chart below illustrates the historical barge movements from the Port's Port Gardner Bay terminals to the Mt. Baker satellite terminal. Although, the frequency of past movements has varied year to year, it is anticipated that the new 777X airplane program will require the movement of more than 3,000 oversized containers per year (based upon a 4-8 plane per month delivery schedule). Thus, the Port envisions the continuation of the current weekly COB service will be required between the two facilities. The first oversized containers for the six 777X test aircraft being assembled for certification started arriving in early March 2018. Weekly barge service will be adequate to meet current production schedules and the required schedule when Boeing enters full production. The Port will adjust the service as necessary based upon Boeing's delivery requirements to ensure the parts are available on a just-in-time schedule for the production line.

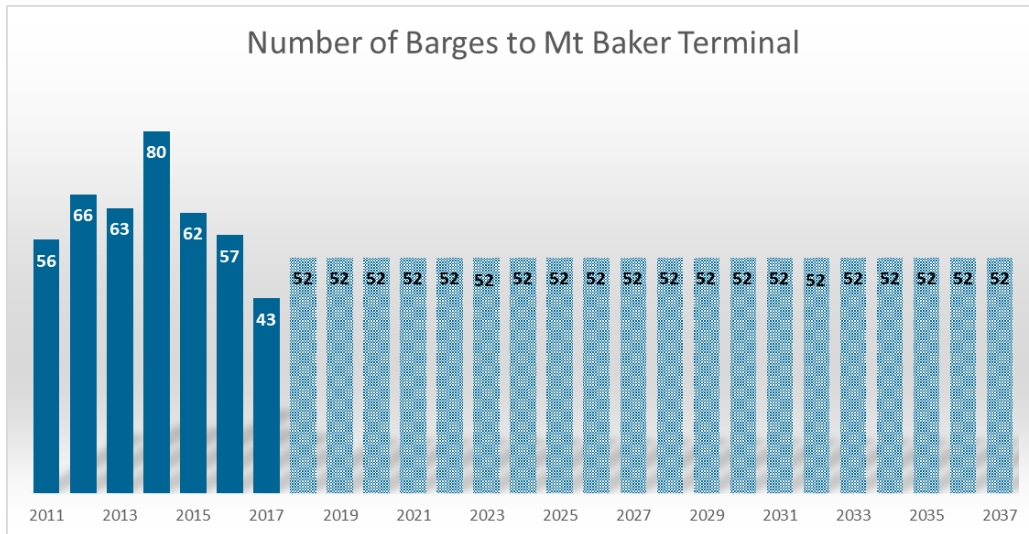


Exhibit 4: Anticipated Annual Container on Aerospace Barge Services to Mt Baker Terminal

Project Designation

The new project designation will facilitate expansion of barge service that mirrors the COB service provided to support aircraft manufacturing at Boeing’s Everett plant. Over the past two decades, Washington State has repeatedly demonstrated its commitment to growing this key sector of the state’s economy through Project Olympus (787 manufacturing), the 777X program and expansion of 737 manufacturing in Renton. In the evaluations for both Project Olympus and the 777X program, the importance of increased, and efficient barge service has been identified as a key element for program success. Over this period, the Boeing Company, the Port of Everett, Longshore workers, stevedores, and barge and tug operators have consistently demonstrated their commitment to using and improving barge service on the M-5 marine highway. Now the opportunity exists to expand service for other sectors of the economy, and to utilize the Port, and its partners, expertise by expanding COB service to NWSA Terminals in Seattle and Tacoma.

Additional Market Opportunities for the Expanded Service

Recently, Swire Shipping announced routing changes that eliminated direct service between Everett and Australia, Papua New Guinea, and Fiji. The change creates a new opportunity for the Port of Everett. The shippers that previously used the Swire service now must truck their containers to NWSA terminals in Seattle or Tacoma. They have expressed interest in barging containers from the Port of Everett to the NWSA instead of relying on trucking to move the containers to the NWSA.

1.3 Specific Commodities, markets, and shippers the Project is expected to attract

The commodities that are anticipated be diverted to expanded COB service from Everett to NWSA include building materials that are manufactured locally, and soy bean / soy meal products that come via rail to the Port of Everett where the products transloaded into containers for export. The shippers moving these products are interested in using Port of Everett expanded M-5 COB service to deliver their export containers to T-18 at the NWSA North Harbor. This would eliminate their need to use the congested I-5 corridor for trucking to the NWSA North Harbor.

Both Ports believes that once the new barge on container option is available to suppliers located north of Seattle, other manufacturers and suppliers will choose this transportation route over trucking to the major container hub of the NWSA along the I-5 corridor. This service could become more widely used, with more diverse cargo opportunities, as the 4,000 acres of the AMMIC comes online. It is of national interest to ensure

that the cargo manufactured in the U.S. has an effective and time-sensitive way to move through US gateways rather be divert to Canada for export.

1.4 Extent to which interested entities have been educated about the project and expressed support

The Port of Everett has been educating and soliciting support from interested parties for the proposed expansion. Containers holding Agricultural Products such as soybean are often overweight and require special handling and transportation options. For these heavy containers, truck transportation is not always an option unless the trucks have heavy weight chassis and / or are able to use heavy haul corridors. Due to the Everett's location in perspective to the NWSA terminals, the only feasible alternatives are to move heavy agricultural containers is by rail or barge to NWSA. Rail is not a cost-effective option due to the short travel distance and the need to dray the containers from the BNSF yard to T-18.

1.5 Market Strategy for the project

The project designation is part of the Port's overall marketing strategy as a service that will be offered upon the opening of the modernized South Terminal. Port Staff has already reached out to current and potential stakeholders and customers to test their interest in using a COB route to NWSA. All contacted parties have expressed an interest in the COB especially as the regional traffic conditions continue to put pressure on shippers' profit margins. As the opening date of the South Terminal approaches, Port staff hope to include COB as a service offering from the modernized terminal.

When this expanded Project Designation is achieved, the Port of Everett will initiate a full marketing strategy announcing the service and communicating the benefits for shippers and business. Local shippers have indicated that they are interested in ways to improve their own logistics chains and reduce their cost of doing business. Based upon the information discussed with them concerning the proposed non-aerospace COB, these

shippers believe they can increase the number of turns their trucks make each day if the Port of Everett can offer a COB service to the NWSA terminals. This will benefit the shippers and the community by taking trucks off the already congested I-5 Corridor.

The Cities of Arlington and Marysville are interested in the COB as a marketing tool for their Arlington Marysville Manufacturing Industrial Center AMMIC that is in its early developmental stage. The AMMIC is a designated Manufacturing Industrial Center located approximately 12 miles northeast of the Port of Everett along I-5. Forty-four percent of the 4000 acre center has capacity for additional development. Their marketing focus is on aerospace and other manufacturers that will need shipping options that the Port of Everett can offer.

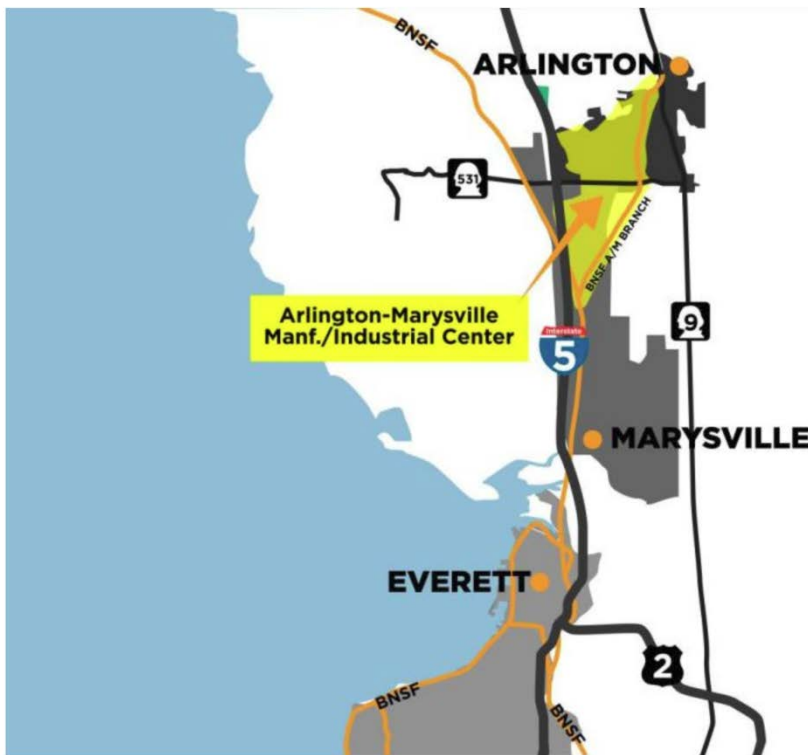


Exhibit 5: Arlington Marysville Manufacturing Industrial Center

2.0 Operational framework

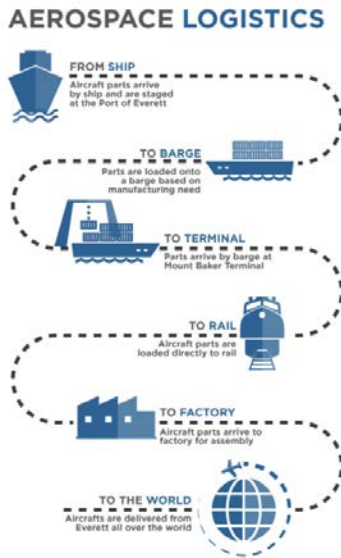


Exhibit 6: Aerospace Supply Chain

The proposed designation would expand (1) the Port’s capability to ship oversize and heavy containers by barge from the South Terminal to the Mount Baker Terminal, and (2) initiate service between Everett and Northwest Seaport Alliance Terminals in Seattle and Tacoma. The operational flow is shown in the graphic to the left. The COB route expansion will provide shippers with cost effective, reliable options to transporting by truck within the northern Puget Sound region. It will allow shippers to divert freight moving by truck in the highly congested corridor to barge. As mentioned earlier, travel time from Everett to Seattle can average more than 90 minutes to go 25 miles. Going to the NWSA’s southern facilities can take as much as 180 minutes to go 45 miles.

Proven COB Model

The Port of Everett has experience in offering COB service. The Port provides a charter COB service between their Port Gardner facility and Mt. Baker terminal to meet Boeing’s aerospace

manufacturing requirements. The Port of Everett serves as an extension of the aerospace manufacturing process, supplying just-in-time-deliveries of parts and components. It transports ALL the oversized parts for Boeing’s 747, 767 (military and commercial), 777, and K-C46 Tanker programs. The Port also serves as backup for handling components for the 787 Dreamliner program.

With the approval of this project designation and route expansion, the Port can build on their expertise in COB service by expanding service to the NWSA terminals in Seattle and Tacoma. The Port’s vision includes expanding to a scheduled service to meet shippers needs across all business sectors, while still addressing the growing aerospace requirements. Many local exporters are trucking product to the NWSA terminals. Providing a cost effective, reliable option that diverts truck traffic from Puget Sound’s congested roadways will benefit the region, the shippers, the environment and the economy.

Initially, the planned expanded service will include a 3-times per month round trip service between Port of Everett and T-18 in Seattle. This will provide COB service to local shippers that are no longer able to ship directly from Everett to Australia and Oceania destinations. See Exhibit 7 below for frequency, transit times, vessel type and capacities.

Origin	Destination	Transit time	Frequency	Vessel Type	Capacity
Port of Everett- South Terminal	NWSA – North Harbor – T-18	4 hours	3 times per month	Barge	100 40’ containers
NWSW- North Harbor – T-18	Port of Everett – South Terminal	4 hours	3 times per month	Barge	100 40’ containers

Exhibit 7: Proposed COB services and routes.

Today, the COB service uses barges supplied by the tug companies. For this expanded service, the Port of Everett intends to purchase at least one US Documented Barge to meet reliability and predictability requirements of customers.

3.0 Cost Model

Everett-Seattle Container on Barge Service					
Volume	100 Containers				
Port of Everett Costs	COB Route				Truck Route
	AML Barge		Stockton Barge		
	Per Container	Per Shift	Per Container	Per Shift	
POE Gate Charge	\$100		\$100		
Dock Handling		\$5,900		\$5,900	
Loading		\$10,770		\$10,770	
Lashing		\$5,370		\$0	
Lines		\$3,200		\$3,200	
Total	\$252	\$25,240	\$199	\$19,870	
Cost per Container					
Everett	\$352		\$299		
Seattle*	\$365		\$265		\$365
Tug/Barge	\$100	\$10,000	\$100	\$10,000	
Truck					\$400
Total Per Container Charges	\$817		\$664		\$765

* quote based upon 200 moves

Exhibit 8: Expanded COB Service Cost Model

3.1 Comparative to Truck only Costs

Although direct trucking costs of containers between Everett and Seattle averages \$400, the \$365 Seattle container charge must be added to that cost, showing that expanded COB service using a barge with guides such as the Stockton Barge is lower than trucking. The trucking costs; however, are understated. They do not include wait times in traffic, wait times at NWSA gates, wear and tear on Puget Sound highways, increased emissions and other environmental considerations (e.g. fuel usage, oil discharges, etc.).

Trucking is inefficient compared to a scheduled COB service. The 25-mile door-to-door trip can take over two hours. Wait times at NWSA gates can vary from 30 minutes to several hours. Additionally, truck deliveries to NWSA facilities must adhere to their gate schedule - T-18's truck gate hours are Monday through Friday 7 am to 4:15 pm. Finally, if a truck must wait at NWSA gates, they must adhere to regulations restricting "line ups", parking on public roadways, and staging of trucks.

Moreover, the NWSA is participating in the Green Port's initiative to improve air quality in the region. Under the initiative all trucks must meet or surpass EPA emission standards for model 2007 by 2017. The data indicates that, at the end of 2016, 42% of the trucks delivering to NWSA had 2007 or newer engines, or equivalent. The availability of a COB service to accommodate shippers in the Everett area would help NWSA achieve better air quality as fewer trucks will sit idling waiting at the terminal gates.

Clearly, use of COB service between Everett and NWSA terminals in Seattle and Tacoma has financial benefits for shippers, as well as public benefits such as state of good repair of the roads and environmental benefits, and will be more reliable than trucking into the NWSA Terminals on Puget Sound's congested roadways.

3.2 Project's Financial Plan

The Expanded Marine Highway Project

Containers on Barge Services offered by the Port are not accounted for as a stand-alone line of business. Instead, this service is included in their respective terminal's reporting of financial results and operations. The Port envisions utilizing grant dollars to acquire the additional resources necessary to operate the expanded marine highway project. Costs will be distributed to charge shippers accordingly.



Exhibit 9: Boeing Containers off loading at Port of Everett



Exhibit 10: Containers leaving Mt. Baker Terminal

Barge handling at the Mount Baker Terminal

The Mount Baker facility, pictured above on the right, opened in March 2008. The terminal is used to support the 747, 767 and 777 Boeing Aircraft programs. The opening of this barge facility allowed oversized containers to be transported on the M-5 Marine Highway COB service from the Port's deepwater terminals to a rail spur serving Boeing's Everett Plant. Before the Mount Baker Terminal was opened, the aerospace parts were shipped into the Port's Port Gardner Bay deepwater terminals and transported by rail to Boeing's plant. The Mount Baker barge facility reduced the BNSF railroad operating constraints that closed the rail line up to 2 hours to move the oversized containers from Everett to the Boeing Facility. The Mount Baker Terminal also serves as a backup facility for the 787 Dreamliner.

Financial Plan

The Port has successfully operated a container on barge service since March 2008 between the Port Gardner terminals and Mt. Baker. It is anticipated that the expansion of the service will meet Port financial requirements.

The Short Sea Shipping guidelines are:

The Port will charge tariffs, fees, and lease rates which will, at a minimum, generate sufficient revenue to cover all proportionate direct costs of operations associated with the use of that asset, as well as sufficiently cover all maintenance costs, a prorated portion of the Port's general and administrative costs and any financing costs (or equivalent cost of capital). The Port will further strive to establish tariffs, fees, and lease rates which, at a minimum, will provide for the full value of Port assets within a defined schedule of replacement.

For Operating Activities which include public infrastructure such as breakwaters, roads, dredging and parking lots, Port staff shall determine the appropriate allocation of such infrastructure to the overall costs of those Operating Activities. Those costs, including replacement of such infrastructure will be allocated into the rates and tariffs of those operations. When accounting for the value of operating assets, all ancillary costs of

development including environmental mitigation and remediation, planning, legal, and any other development cost will be calculated and included in the cost basis for determining tariffs, fees and lease rates.

For projects in which the Port is entering into a long-term agreement (10 years or longer) staff will have the authority to negotiate tariffs, fees and lease rates which are below the financial returns required in section 3 Financial Guidelines if the overall revenue streams meet the following minimum requirements:

A calculation of a Present Value of all Revenue streams for the period of the agreement exceeds the present value of the annual debt service by 35%.

That in no instance does the projected cash flow (calculated as Project Revenues less Expenses) in any one year fall below the annual debt service required to support the project.

That the debt service for projects not being financed by the issuance of debt but through reduction of cash reserves will be calculated at the net interest cost available if the project would have been financed through the issuance of debt.

[Click here for the Port's Financial Guidelines](#)

2018 Budget Overview of the Port’s Terminal Operations

Budget Overview	Budget Assumptions	Community Benefits	Challenges
<ul style="list-style-type: none"> Operating Revenue: \$17 Million Operating Expenses: \$12.5 Million 2018 Capital Budget: \$23.01 Million 57% of Total Port Operating Revenue is generated by Port Terminal Division 24% Revenue Decrease From 2017 Budget 	<ul style="list-style-type: none"> Slower aerospace business Flat growth in project cargoes Declining oil and gas business 	<ul style="list-style-type: none"> Key support for aerospace employment in Washington state More than 34,000 jobs supported Generates nearly \$373 million in tax revenue 	<ul style="list-style-type: none"> Federal policy uncertainty Low oil prices Exports affected by strong U.S. dollar Canadian Dollar vs. U.S. dollar Russian sanctions/Proposed Tariffs

3.3 No anticipated changes are needed in local or regional short sea transportation, policy or regulations, ports, industry, or other developments affecting the project.

The Port has not identified any changes in policy or regulations necessary to initiate this project and expand COB service. This expanded non-aerospace COB service will build on the Port’s proven experience with operating the aerospace COB service.

3.4 Public sector financial support is being sought

The Port has forecasted that the remaining infrastructure required for two used cranes and a barge will be \$7 million. The cranes are needed to support the aerospace COB operation, as the 777X parts are larger and heavier than the current 777 program.

The Port is requesting federal grant assistance to procure cranes and barges to support the service. See Section 10 for more details.

4.0 Overall Net Public Benefits

A Benefit-Cost Analysis (BCA) was performed on this project. The results of the project’s BCA demonstrate that the project’s social benefits exceed the project costs. The BCA shows that the project is likely to deliver its

anticipated public benefits at a reasonable cost. Thus, the investment of public funds in the project is beneficial to the nation and the affected populations. The following highlights the findings of the analysis:

Annual Public Benefit Savings (2016 data)					
Benefit Type	Section Reference	Quantitative or Qualitative	Measure	Amount /Volume Yr .1	
Reduction in Vehicle Miles Traveled (Congestion)	8.0	Quantitative	VMT	136,800	
Reduction in Truck trips (Year 1)	8.0	Quantitative	Reduction of Containers on Truck	3,600	
Number of TEUs moved to water (Year 1)	8.0	Quantitative	Containers on COB	3,600	
Benefit Type	Section Reference	Quantitative or Qualitative	Measure	Amount /Volume	US\$ Value
Reduction in Emissions	8.1	Quantitative	Short Tons		
CO2*Note USDOT does not provide a cost factor for CO2			"	30.9695	Not Calculated*
Non-CO2			"	0.4286	\$8,543
Reduction in Energy (For information included in Operational Savings below)	8.2	Quantitative	Gallons of Fuel saved truck vs. barge	16,672	\$60,686*
Savings in infrastructure maintenance (Pavement)	8.3	Quantitative	Reduction in VMT on Roads	136,800	\$16,416
Economic Competitiveness	8.4	Quantitative	Operational savings	3,600	\$1,085,760
Safety Improvements (Crashes)	8.5	Quantitative	Prevented Fatal Accidents	.001 lives per year	\$14,183
System Resiliency & Redundancy	8.6	Qualitative			
Total Annual Savings before stand-alone fuel cost that are accounted for in Operational savings					\$1,124,904

Exhibit 11: Projected Annual Public Benefit Savings with the expansion of the COB service to NWSA

5.0 Marine Highway Utilized

The application requests that M-5 Marine Highway Route be expanded to include a short-sea shipping option from the Port to the NWSA. See Map in Appendix 4.

6.0 Organizational Structure

The Project Designation and the Expansion of the service on the M-5 Marine Highway has broad-based, multi-jurisdictional support from the community, stakeholders and elected officials. Support comes from: the Northwest Seaport Alliance, Washington Public Ports Association, Crowley Tug and Barge, Swire Shipping, Dunlap Tug and Barge, the Aerospace Futures Alliance, Snohomish County, City of Everett, City of Mukilteo and the Economic Alliance Snohomish County. The marine highway cargo service will continue to be owned and operated by the Port of Everett. Exhibit 12 lists the Roles of each Partner.

	Port of Everett	Northwest Seaport Alliance North Harbor (Seattle)	Northwest Seaport Alliance South Harbor (Tacoma)
Proposed Operator	Port of Everett	T-18	Husky Terminals
Maintenance:	Port of Everett Maintenance Staff	IAM	Port of Tacoma Maintenance Staff
Primary Shippers	Local Exporters	Local Exporters	Local Exporters
Ocean Carriers	Westwood, Eastern Car Liner (ECL), Swire Shipping Co.	The Alliance	K-Line
Barge Operator:	Foss Maritime / Brusco Tug and Barge		
Terminal Operator	SSA/Jones	SSA	Husky Terminals
Longshore	ILWU Local 32, 98, 52	ILWU Local 19/98/52	ILWU Local 23/98
Rail Operator	BNSF		

Exhibit 12: Partner Roles in COB service expansion

Stakeholder	Affiliation	Role	Contribution	Letter of Support Y/N
Port of Everett	Port of Everett	Public Port	Financial and experience of operating a financially viable COB model	N/A
SSA/ Jones Stevedoring	Port of Everett	Terminal operators/ Stevedoring services	Terminal operation expertise	
Aerospace Futures Alliance	Port of Everett	Shippers	Shipper Support	Y
Foss, Dunlap Towing Co., Brusco	Port of Everett	Tug Boat / Barge operators	Expertise and equipment	Y
Swire Shipping Co.	Port of Everett	Shipping Line	Ocean Service	Y
Cities of Everett and Mukilteo	Port of Everett	Local Authorities	Political Support/ permitting support	Y
Snohomish County	Port of Everett	Local Authority	Political Support	Y
Economic Alliance	Port of Everett	Economic Regional Council of Snohomish Co.	Private Business Support	Y
NWSA	Ports of Seattle and Tacoma	Public Port	Terminal Owner/ Political Support	Y
Washington Public Ports Association (WPPA)	Public Ports members including Port of Everett and NWSA	Public Port Association	Political Support	Y
Pacific Northwest Waterways Association	Ports in WA, OR, ID	Waterways Association	Political Support	Y
Great Northern Corridor Coalition	Deep water and inland Ports in WA, ID, MT, States of WA, OR, ID, MT, ND, MN, IL, WI	Northern Tier Corridor	Political Support	Y

Exhibit 13: Stakeholders Supporting COB expansion

7.0 Partnerships

7.1 Private Sector Partners

See Section 6 for a detailed list of private sector partners.

7.2 Public Sector Partners

Public Agencies supporting *this designation*:

Northwest Seaports Alliance

City of Everett

Snohomish County

Washington State Public Ports Association

City of Mukilteo

7.3 Documentation of Partnerships

See attached support letters in Appendix 5.

8.0 Public Benefits

Long-Term Outcomes Summary	Societal Benefits of the Project
Potential relief to surface transportation travel delays ✓	M-5 Marine Highway provides an effective option to the use of I-5. Thus, reduction of 136,800 VMT annually on local roadways and highways.
Landside Transportation Maintenance Savings ✓ (8.3)	Maintenance & Repair Savings of \$6,416 annually will be achieved due to the reduction of VMT on the Road Network
Economic Competiveness ✓ (8.4)	Operating Cost Savings of \$1.1 million is anticipated to be achieved annually as the COB option is less expensive than trucking as the cost per ton miles averages \$0.02 per ton on barge vs \$0.21 on truck.
Energy Savings ✓ (8.2)	Decreased Fuel Usage by Trucks of 21,714 gallons per year with the use of the Container on Barge route (Net energy saving of 4,580 gallons per year.)
Emissions Benefits ✓ (8.1)	Environmental Benefits will be gained from Reduced Emissions due to modal shift from truck to barge of 30 ST per year of emissions and the availability of electrified cranes
Safety Improvements ✓ (8.5)	Highway Accidents will be prevented due to reduced Vehicle Miles Traveled (VMT) by Trucks. This will also keep the oversized loads off the I-5 Corridor. Savings in 0.001 annual prevented fatalities is estimated public benefit of \$14,183 per year.
System Resiliency and Redundancy ✓ (8.6)	M-5 Service will move containers on barge between the Port's South Terminal and NWSA. This will provide shippers with redundant transportation options to move the containers from the Port to the marine terminals in Seattle and Tacoma.

Exhibit 14: Long Term Outcomes of COB

8.1 Estimated Annual Emissions Avoided

Pollutant	Truck ST	Barge ST	Net reduction ST	Cost / unit	Non-CO2 Savings \$
CO2	31.0000	0.0305	(30.9695)	N/A	USDOT has not given a value for CO2
NOX	0.4130	0.0007	(0.4123)	\$7,377/ ST	\$3,042
PM2.5	0.0163	0.0000	(0.0163)	\$337,459/ ST	\$5,501
Annual Total	31.4293	0.0312	(31.3981)		\$8,543

Exhibit 15: Annual Emission Avoided by COB Note: CO2 savings is not monetized based upon USDOT BCA guidance.

It is estimated that there will be a savings in CO2, VOX and PM using COB versus trucking to the NWSA in the first year.

8.2 Energy Savings

Avoided Interstate Mileage and Fuel Consumption per Truck										
This is informational only as fuel cost is included in Operational costs										
From	To	Route	Annual # Containers	Approx Miles	Mileage Per Year	Fuel Use Per Truck Trip	Fuel Use by Trucks Per Year	Measure (cost/ gallon)	miles/ gallon	Net Savings using COB \$
POE	T-18	I-5 /Everett to Seattle	1,800	38	68,400	6.3 gallons	10,857	\$3.64	6.3	\$8,336
T-18	POE	I-5 Seattle to Everett	1,800	38	68,400	6.3 gallons	10,857	\$3.64	6.3	\$8,336
Total			3,600		136,800		22,800			\$16,672

Exhibit 16: Avoided Interstate Mileage and Fuel Consumption per Truck

It is estimated that the expanded COB will achieve an annual \$16,672 in Energy savings in net reduced fuel usage in the first year. This is for information only as it is accounted for in the operational costs.

8.3 Landslide Transportation Infrastructure Annual Maintenance Savings

Service	Vehicle Type	Savings in Annual Trip Miles (VMT)	Overweight/Size	Measure (cost/ VMT)	Savings in \$
Containers POE to T-18	Semi-Truck	68,400	40' Containers	\$0.12/ VMT	\$8,208
Containers T-18 to POE	Semi-Truck	68,400	40' Containers	\$0.12/ VMT	\$8,208
Total		136,800			\$16,416

Exhibit 17: Landslide Transportation Infrastructure Maintenance Savings

State of Good Repair for the local roads and highways are projected to increase with the expansion of the COB services. An estimated 136,800 VMT is anticipated to be diverted from roads and highway, resulting in annual savings of \$16,416 in the first year in maintenance and preservation costs.

8.4 Economic Competitiveness

Service	Number of Containers	Annual Ton miles Truck	Cost per ton mile Truck*	Trucking Option	Annual Ton Miles-Barge	Cost per ton mile Barge*	COB Option	Annual Savings in \$ using COB
Containers POE to T-18	1800	2,736,000	\$0.21	\$574,560	1,584,000	\$0.02	\$31,680	\$542,880
Containers T-18 to POE	1800	2,736,000	\$0.21	\$574,560	1,584,000	\$0.02	\$31,680	\$542,880
Total	3,000	5,472,000	\$0.125	\$1,149,120	3,168,000	\$0.02	\$63,360	\$620,640

Exhibit 18: Operational cost savings of expanded COB services * operating cost factors derived from Quetica' Iowa Optimization Study

The COB option will reduce annual ton miles from 5.4 million required in a truck route versus 3.2 million-ton miles in a COB service between the same two locations. It is estimated that shippers will experience \$0.6 million in operating cost savings annually in the first year using the expanded COB services.

8.5 Safety Improvements

It is estimated that 0.001 lives per year will be saved with the use of the expanded COB proposed service by removing a total of 136,800 VMT from the local roads and highways annually.

Service	Estimated VMT reduced off roadways	Measure	Unit estimated annual lives saved	Annual Savings in \$
Containers POE to T-18	68,400	\$9,600,000 times state rate per 100 Million miles Traveled	0.0005/ year	\$7,092
Containers T-18 to POE	68,400	"	0.0005/ year	\$7,092
Total	136,800	"	0.001/ year	\$14,183

Exhibit 19: Estimated Fatalities Prevented by expanded COB service

8.6 System Resiliency and Redundancy

The availability of an expanded M-5 Marine Highway service to move cargo by barge between Port of Everett and the NWSA terminals will benefit the public during any extended disruption of the I-5 Corridor road network.

As has been seen in recent years, the I-5 road system is vulnerable to both man-made and natural disasters³. The Puget Sound is prime for a disruptive earthquake event. Based on the studies some of the Pacific Northwest’s top minds have assembled, we know the fault produces magnitude 9.0 quakes every 200 to 700 years. The last was on Jan. 26, 1700.

If such an event were to occur, the I-5 Highway system will be impassable. Thus, barging may be one of the few options available to get relief supplies and resources into the Puget Sound urban areas.

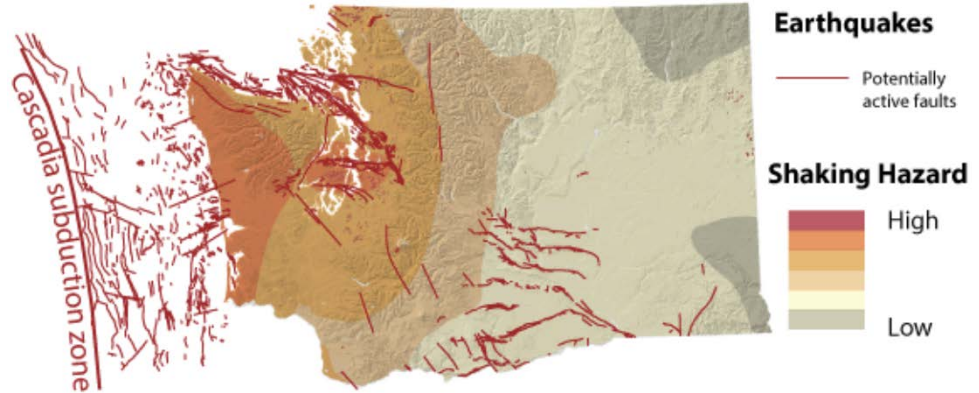


Exhibit 20: Cascadia Subduction Zone

9.0 Proposed Project Timeline for South Terminal and COB

#	Task	Start	End																
				2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	M-5 Marine Highway Container on Barge Expansion	1/1/04	12/2/19	[Timeline bar from 2004 to 2019]															
1	2004 Project Olympus Agreement	1/1/04	12/30/04	[Timeline bar from 2004 to 2004]															
2	Construction of Mt. Baker Terminal	11/20/06	2/20/08	[Timeline bar from 2006 to 2008]															
3	Mt Baker Terminal Opens	3/1/08	3/1/08	[Timeline bar from 2008 to 2008]															
4	Port's Marine Terminal Master Plan Updates	4/19/08	3/5/15	[Timeline bar from 2008 to 2015]															
5	South Terminal Design	1/31/15	6/3/16	[Timeline bar from 2015 to 2016]															
6	Funding Activities for South Terminal Modernization	1/31/15	1/19/18	[Timeline bar from 2015 to 2018]															
7	Phase I Completed	7/20/15	10/12/16	[Timeline bar from 2015 to 2016]															
8	Phase II Construction	5/24/17	11/30/19	[Timeline bar from 2017 to 2019]															
9	First 777X Container arrives at Port	12/26/17	12/26/17	[Timeline bar from 2017 to 2017]															
10	Port solicits Information on 2 Post Panamax Cranes	3/30/18	5/1/18	[Timeline bar from 2018 to 2018]															
11	Cranes Purchased and Upgraded	1/1/19	12/2/19	[Timeline bar from 2019 to 2019]															
12	South Terminal Opens / M-5 Route Expanded	12/2/19	12/2/19	[Timeline bar from 2019 to 2019]															

Exhibit 21: Project Schedule

10.0 Support and Investment Required Support

The Port has received excellent support from the community and its stakeholders since the Project Olympus Agreement was signed in 2004. That agreement was vital in assuring that Boeing will continue to produce airplanes in Everett. Now that funding has been secured for the Modernization of the South Terminal, that project is in construction and anticipated to be completed in late 2019. The completion will allow the facility to be fully operational in advance of full production of the new 777X airplane line. A list of the South Terminal Modernization supporters and partners can be found on the Port’s website. Appendix 5: M-5 Expansion Support Letters has the support letters for this Project Designation and service route expansion.

³ Centralia Floods in 2007 closed I-5 for days as flood waters up to 10 feet covered the highway and the Skagit River Bridge Collapse in 2013, closed I-5 for approximately one month until a temporary bridge could be set in place.

The requested project designation COB route is one of the last steps needed to meet the COB service requirements. Placement of the two, 100-foot gauge cranes at South Terminal and the purchase of a dedicated barge for the expanded service will ensure that all COB containers are delivered in a timely, safe and cost effectively manner.

Issue	Risk	Mitigation	Budget Cost	Impact H/M/L
Completion of POE South Terminal by 12/19	Unforeseen construction challenges	Either delay in opening or expedited construction	Construction contract signed	Low
Availability/ Cost of used cranes	Cranes take longer or cost more to procure than anticipate	Continue to unload containers at Pacific terminal	\$5 million	Low
Availability/ Cost of Barge	Procurement of a U.S. Documented Barge is delayed	Have tug companies provide barge until the Port can secure a dedicated barge	\$2 million	Low
Additional Customers slow to adapt to Container on Barge Service	Port revenues to cover infrastructure costs will be slower than anticipated- recovery of costs on a delayed schedule	Other port revenues will have to cover shortfall	Benefit Cost Analysis assumes 3600 annual moves for first five years	Low, as volume estimates are conservative

Exhibit 22: Risk Matrix

Investment Required

The Port plans to request federal funds to acquire two used gantry cranes and a U.S. Documented barge. No on-going operational support is requested.

The cranes and barge are necessary to meet the demand for growing service along the newly designated corridor between Everett and NSWA terminals. Existing cranes and barge capacity is not sufficient to meet the expected demand for COB service on the expanded route, and the need for the new 777X airplane assembly line.

As discussed earlier, the dedicated closed system service will operate on a three-times per month schedule and be timed to meet shipping schedule requirements. To meet this aggressive goal, the Port needs to acquire two used container cranes for the South Terminal and a barge to maintain scheduling and operational control. The Port is exploring the opportunity of two, 100-foot gauge container cranes on surplus. If acquired, the cranes will begin supporting larger vessels at South Terminal by late 2019. The cranes would be painted “smoke blue,” a color previously selected by neighbors. The need for these cranes was envisioned in the 2008 Marine Terminals Master Plan (MTMP).

Specifically, the proposed project includes adding two used Post Panamax gantry cranes to the South Terminal that meet the following minimum requirements. Minimum Ratings:

Rated Load:	50 LT (minimum)	Trolley Speed:	500 foot per minute (fpm)
Gauge:	100 foot	Gantry Speed:	150 foot per minute (fpm)
Outreach:	145 foot	Boom:	5 minutes travel time
Backreach:	50 foot	Power:	Cable reel with 1000 feet of travel, 4160
Lift Height above rail:	155 foot		Volts, three phase, 1.3MVA power requirement

The Port is in the process of obtaining information on the availability of such cranes through a Request for Information (which closed on May 1, 2018). The Port is striving to acquire used cranes at a low initial cost. Although the Port will be responsible for transportation, painting, certification and any required maintenance,

the cost is estimated to be approximately \$5 million. Finally, to insure system reliability and scheduling, the Port plans to acquire a used barge at a cost of \$2 million.

11.0 Environmental Considerations

The Port of Everett, as the lead agency, completed an environmental analysis that included a review of pertinent and available environmental information. The Port has completed an Environmental Checklist for the Port Marine Terminals Master Plan 2008 (MTMP) which included the South Terminal, in accordance with the Washington State Environmental Policy Act (SEPA). The environmental evaluation concluded that an environmental impact statement (EIS) was not required under law. South Terminal Modernization and the Rail Expansion received a Categorical Exemption (CE) in 2017. See Appendix 6 for a copy of the US Maritime Administration Record of Categorical Exemption signed 5/23/18.

D. Conclusion

The Port of Everett has designed this expanded service and Project to meet the needs of both aerospace and non-aerospace shippers that would like to move their containerized cargo by an alternative mode to trucking. Based upon the success of the Boeing COB, the Port of Everett and the NWSA would like MARAD to designate this expanded route (between Everett and the NWSA Terminals at Seattle and Tacoma) project so that the Port of Everett can apply for federal funding to support the procurement of two used cranes and a barge. The Project designation, along with the cranes, barge and upgraded Terminal facilities will provide the opportunity to expand COB service for north Puget Sound shippers with a cost effective, safe and reliable waterborne route to move cargo between Everett, Seattle and Tacoma. Once this route is established, other Puget Sound ports that do not have Ocean Container Service such as Olympia and Port Angeles may find the COB service beneficial to their local manufactures and shippers as well to avoid the Puget Sound roadway and terminal gate congestion.



Exhibit 23: Trucks lined up to enter T-18 in Seattle



Appendix:

Appendix 1: Public Benefits Supporting Material

Appendix 2: Cost Model Supporting Data

Appendix 3: Financial Plan

Appendix 4: Map of Marine Highway Route (s) and planned Project Designationservice

Appendix 5: Letters of Support

Appendix 6: Other Supporting Material

Appendix 7: Checklist – Cross Reference of Topics and Page Location

Appendix 1: Public Benefits Supporting Material

Values used to calculate Public Benefits:

All sources and additional notes have been cited on each benefit or cost table and are in the Benefit Cost Analysis excel workbook in Assumptions Tab.

USDOT: This analysis implemented the 2017 USDOT BCA guidance as released in 2017. Factors used include:

Table 3: Value of Statistical Life: Table 3

Table 4: Value of Injuries

Table 9: Costs for Pollutant Emissions Note: USDOT did not provide a factor to value CO2. For this analysis we calculate the amount of CO2 but did not assign it a value per the

For factors not found in the guidance, additional sources were used including:

WSDOT: Cost per mile reduction of maintenance and preservation costs associated with usages of roads and highways.

The EIA website was used to gather the current fuel prices for the EIA average week of 4/30/18 (all grades) West Coast PADD5 http://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_r50_w.ht

Sources for factors for the emission calculations are based upon GOA findings in their Report to the Subcommittee on Select Revenue Measures, Committee on Ways and Means, House of Representatives dated January 2011, SURFACE FREIGHT TRANSPORTATION: A Comparison of the Costs of Road, Rail, and Waterways Freight Shipments That Are Not Passed on to Consumers based on Millions of VMT per mode for:

CO2 emission

NOX emissions

PM2.5 emissions

Operational costs factors are based upon Quetica's Iowa Optimization Study

https://iowadot.gov/systems_planning/pdf/Development-of-Iowa-Statewide-Freight-Network-Optimization-Strategy.pdf

Table 6.4: Cost per Ton-Mile Associated With Each Mode

	Water	Rail	Road
2014 USD	\$0.16	\$0.05	\$0.388*
Escalation from 2014\$ to 2017\$ 1.0422	\$0.167 Rounded to \$0.2	\$0.052 Rounded to \$0.05	\$0.404 Rounded to \$0.40
Actual Way bills used in Quincy, IL COB study for less than 250 miles**	\$0.02	\$0.05	\$0.21

Source: Iowa State University Report # MATC-ISU: 237 (Dong, 2015) Table 3 pg. 12

http://www.intrans.iastate.edu/research/documents/research-reports/multimodal_freight_disruption_w_cvr.pdf

*Note: The original Iowa State University Report has a typo in the table showing \$3.88 as the cost per ton-mile associated with road. The corrected number is used and shown in this report after confirming with Dr. Dong at Iowa State University. ** Lower truck cost per ton used in the POE COB model.

Appendix 2: Cost Model Supporting Data

Budget Cost Model						
Item	Description	Unit Measure	Current Weekly Service (Frequency)	Proposed weekly Service Yr. 1	Proposed weekly Service Yr. 2	Proposed weekly Service Yr. 3
1.0	Service					
	Round Trip Service POE to T-18		N/A	3/month	3/ month	3/month
2.0	Freight Unit					
		Containers		300/ mo.	300/ mo.	300/mo.
3.0	Transit Time					
	COB			4 hours each way	4 hours each way	4 hours each way
4.0	Barge Service Costs – using Barge with Container Guides					
	POE gate and throughput charge	Per 100 containers		\$352	\$352	\$352
	Barge Cost	"		\$100	\$100	\$100
	T-18 charge	"		\$365	\$365	\$365
5.0	Comparison Truck					
	Truck Charge			\$400	\$400	\$400
	T-18 Charge			\$365	\$365	\$365
6.0	Comparison Rail					
	N/A no service offered					

Appendix 3: Financial Plan

As noted in Section 3.2 Financial Plan above, the COB is not accounted for as a stand-alone line of business but is included in the market offerings for the South Terminal. Below is a Pro forma for the South Terminal. Based upon current forecasts, the South Terminal is anticipated to produce annual revenues of \$6.8 million, with operating costs of \$1.7 million. This will generate an annual profit of \$5.1 million. Free Cashflow after Debt Service is projected to be \$7.5 million per year.

Project Name		South Terminal Wharf	
Pro forma			Annual
Revenue			
Wharfage			\$4,800,000
Crane Rental			\$2,000,000
Annual Revenue			\$6,800,000
Rate of Return on Investment before Debt Service and Operating Costs			15.32%
Operating Costs			
Staff			\$300,000
Maintenance			\$600,000
Other			\$0
Overhead	12.0% % of Rev		\$816,000
Total Operating costs			\$1,716,000
Net Income after Operating costs			\$5,084,000
Return on Revenue After Operating Costs Before Depreciation and Debt Serv			74.76%
Less Debt Service			\$2,397,735
Cashflow after Debt Service			\$7,481,735
Project Costs			
Dock strengthening project		\$32,800,000	
Gantry cranes		\$5,000,000	
Warehouse move		\$2,000,000	
Public Access		\$586,000	
Barge Acquisition		\$2,000,000	
Dredging		\$2,000,000	
Summary of Project Costs		\$44,386,000	
Funding currently available		\$11,800,000	
Net Project cost to be financed		\$32,586,000	
Annual debt Service	Interest	4.00%	
	Term yrs	20	\$2,397,735
Net Operating Revenues			\$5,084,000
Debt Service Coverage Ratio			2.12

Appendix 4: Map of Marine Highway Route and planned Project Designationservice



 Expanded Non-Aerospace Container on Barge Service Route between Port of Everett and NSWA terminals in Seattle and Tacoma

Appendix 5: Letters of Support



June 11, 2018

Secretary Elaine L. Chao
US Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Subject: Request for Project Designation as Enhance Marine Highway Service and Funding Support

Dear Secretary Chao:

Our agency strongly supports the Port of Everett's request for a federal project designation as "Enhance Marine Highway Service" to better support the nation's largest exporter's logistics chain and provide a short-sea shipping opportunity from the Port of Everett to the consumer ports of Seattle and Tacoma.


Current congestion, consolidation of liner service throughout the shipping industry and overdimensional cargoes that are not conducive to over-road or rail travel is the primary force behind this request. We believe there is a business case to be made to move the ever-growing commodity mix of products in Snohomish County via barge to where liner service is located to reduce truck traffic on the I-5 corridor.

The designation also supports the local aerospace industry logistics chain, as aerospace parts travel to the Port of Everett via ship from Japan and via barge by way of The Northwest Seaport Alliance. The Port is committed to supporting the transportation needs of the aerospace industry. When the new 777X airplane comes online, it will require longer and stronger docks and upgraded container cranes to maintain the efficiencies in the just-in-time logistics chain. Their sophisticated logistics chain allowed us to reach 1,000 777 deliveries faster than any other airplane program in the company's history. It also supported more than **\$30 Billion** in exports from the Everett's custom's district in 2016.

The Port of Everett is an economic driver in our community supporting more than 35,000 jobs and contributing hundreds of millions of dollars to state and local governments' tax rolls each year. In addition, the Port supports the several other economically significant operations in our community including The Boeing Company's 747, 767 (military and commercial), 777(X) lines, and serves as a backup for the 787.

Thank you in advance for your consideration. The strength of our regional and state economy is dependent on international cargo moving quickly and efficiently through our region, and this designation will provide another option for one of the fastest growing counties in Washington state.

Sincerely,



John Wolfe
Chief Executive Officer

P.O. Box 2985 | Tacoma, WA 98401-2985 | 800-657-9808
The Northwest Seaport is a marine-cargo operating partnership of the Port of Seattle and Port of Tacoma.



P.O. Box 1576
 Longview, WA 98632
 Phone (360) 636-3341
 Fax (360) 636-1521



June 26, 2018

Secretary Elaine L. Chao
 US Department of Transportation
 1200 New Jersey Ave, SE
 Washington, DC 20590

Subject: Request for Project Designation as Enhance Marine Highway Service and Funding Support

Dear Secretary Chao:

Our agency strongly supports the Port of Everett's request for a federal project designation as "Enhance Marine Highway Service" to better support the nation's largest exporter's logistics chain and provide a short-sea shipping opportunity from the Port of Everett to the consumer ports of Seattle and Tacoma.

Current congestion, consolidation of liner service throughout the shipping industry and overdimensional cargoes that are not conducive to over road or rail travel is the primary force behind this request. We believe there is a business case to be made to move the ever-growing commodity mix of products in Snohomish County via barge to where the liner service is located to reduce truck traffic on the I-5 corridor.

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Thank you in advance for your consideration. The strength of our regional and state economy is dependent on international cargo moving quickly and efficiently through our region, and this designation will provide another option for one of the fastest growing counties in Washington state.

Sincerely,

Dave Somers
Snohomish County Executive

Cassie Franklin
Everett Mayor

Jennifer Gregerson
Mukilteo Mayor

Mike Harlan
Vice President
Dunlap Towing

Kristin Miera
Executive Director
Pacific Northwest Waterways

Bill Christ
Executive VP & COO
Eastern Car Liner (Americas), Inc. Association

Alex Pattison
Swire Shipping

Kelly Maloney
President
Aerospace Futures Alliance

Patrick Pierce
President/CEO
Economic Alliance Snohomish County

Dave Callantine
Brusco Tug & Barge

ALWAYS SAFE. ALWAYS READY.



June 19, 2018

Secretary Elaine L. Chao
US Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Subject: Request for Project Designation as Enhance Marine Highway Service and Funding Support

Dear Secretary Chao:

Our agency strongly supports the Port of Everett's request for a federal project designation as "Enhance Marine Highway Service" to better support the nation's largest exporter's logistics chain and provide a short-sea shipping opportunity from the Port of Everett to the consumer ports of Seattle and Tacoma.

Current congestion, consolidation of liner service throughout the shipping industry and over dimensional cargoes that are not conducive to over road or rail travel is the primary force behind this request. We believe there is a business case to be made to move the ever-growing commodity mix of products in Snohomish County via barge to where the liner service is located to reduce truck traffic on the I-5 corridor.

The designation also supports the local aerospace industry logistics chain, as aerospace parts travel to the Port of Everett via ship from Japan and via barge by way of the Northwest Seaport Alliance. The Port is committed to supporting the transportation needs of the aerospace industry. When the new 777X airplane comes online, it will require longer and stronger docks and upgraded container cranes to maintain the efficiencies in the just-in-time logistics chain. Their sophisticated logistics chain allowed us to reach 1,000 777 deliveries faster than any other airplane program in the company's history. It also supported more than **\$30 Billion** in exports from the Everett's custom's district in 2016.

The Port of Everett is an economic driver in our community supporting more than 35,000 jobs and contributing hundreds of millions of dollars to state and local governments' tax rolls each year. In addition, the Port supports the several other economically significant operations in our community including The Boeing Company's 747, 767 (military and commercial), 777(X) lines, and serves as a backup for the 787.

Thank you in advance for your consideration. The strength of our regional and state economy is dependent on international cargo moving quickly and efficiently through our region, and this designation will provide another option for one of the fastest growing counties in Washington State.

Sincerely,

A handwritten signature in black ink, appearing to read "William Roberts".

William Roberts | Chief Commercial Officer, Foss Maritime Company

Foss Maritime Company T: 206.281.3800 www.foss.com
450 Alaskan Way S., Suite 706 F: 206.281.4702
Seattle, WA 98104



June 10, 2018

Secretary Elaine L. Chao
US Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Subject: Request for Project Designation to Enhance Marine Highway Service and Funding Support

Dear Secretary Chao:


The Washington Public Ports Association strongly supports the Port of Everett's request for a federal project designation to "Enhance Marine Highway Service" along the M-5 Corridor. The service levels designed in this project will directly support the nation's largest exporter's logistics chain by providing a short-sea shipping option which links the Port of Everett to the consumer ports of Seattle and Tacoma.

Current landside congestion along I-5, consolidation of steamship container service throughout the shipping industry and incompatible, over-dimensional aerospace cargoes which are often not conducive to existing road or rail infrastructure are the primary drivers for the development of this project. Our project demonstrates a strong business case which supports the ever-growing commodity mix of products in Snohomish County. This project directly links Port of Everett, via barge, to existing steamship container service and will reduce truck traffic on the I-5 corridor.

The project designation also supports the local aerospace manufacturers by providing service flexibility which allows them to continue to innovate with the confidence that sufficient supply chain flexibility exists to support their current and future business needs. Aircraft modules and parts travel to the Port of Everett via ship from Japan and via barge by way of the Northwest Seaport Alliance's North and South Harbors. The Port is committed to supporting the transportation needs of the aerospace industry. When the new 777X airplane comes online, it will require longer and stronger docks and upgraded container cranes to maintain the efficiencies in the just-in-time logistics chain. Their sophisticated logistics supply chain allowed us to reach 1,000 777 deliveries faster than any other airplane program in the company's history. It also supported more than \$30 Billion in exports from the Everett's custom's district in 2016.

The Port of Everett is an economic driver in our region supporting more than 35,000 jobs and contributing hundreds of millions of dollars to state and local governments' tax rolls each year. In addition, the Port supports the several other economically significant operations in our community including The Boeing Company's 747, 767 (military and cargo), 777(X) lines, and serves as a backup for the 787.

Thank you in advance for your consideration. The strength of our regional and state economy is dependent on international cargo moving quickly and efficiently through our region, and this project designation will provide another option for one of the fastest growing counties in Washington state.

Sincerely,

Eric D. Johnson
Executive Director

WASHINGTON PUBLIC PORTS ASSOCIATION

A TRADE ASSOCIATION REPRESENTING THE 75 PUBLIC PORT DISTRICTS IN WASHINGTON STATE

1501 Capitol Way S., Suite 304 | Olympia, WA 98501 | t: 360-943-0760 | f: 360-753-6176 | www.washingtonports.org



GREAT NORTHERN

CORRIDOR COALITION

The Mission of the Great Northern Corridor Coalition is to:

"Promote a premier multi-state corridor by acting collectively to promote public policy, research, and multimodal infrastructure development that expands commerce and enhances safety on the corridor."

P.O. Box 1255 Williston, North Dakota 58802 (360) 567-7521

Members:

Idaho Transportation Department

Minnesota DOT

Montana DOT

North Dakota DOT

Oregon DOT

Washington State DOT

Wisconsin DOT

BNSF Railway

The Northwest Seaport Alliance

Port of Everett

Port of Seattle

Port of Tacoma

Port of Grays Harbor

Port of Vancouver, USA

Port of Portland, OR

Port of Pasco

Port of Quincy

Port of Kalama

WA Public Ports Association

Port of Northern Montana

City of Spokane Valley

City of Connell

June 28, 2018

The Honorable Elaine Chao, Secretary
United States Department of Transportation
1200 New Jersey Avenue S.E.
Washington, DC 20590

RE: Request for Project Designation to Enhance Marine Highway Service and Funding Support

Dear Secretary Chao,

The Great Northern Corridor Coalition strongly urges consideration of the Port of Everett's request for a federal project designation to "Enhance Marine Highway Service" along the M-5 Corridor. The service levels designed in this project will directly support the nation's largest exporter's logistics chain by providing a short-sea shipping option which links the Port of Everett to the consumer ports of Seattle and Tacoma.

Current landside congestion along 1-5, consolidation of steamship container service throughout the shipping industry and incompatible, over-dimensional aerospace cargoes which are often not conducive to existing road or rail infrastructure are the primary drivers for the development of this project. The Port's project demonstrates a strong business case which supports the ever-growing commodity mix of products in Snohomish County. This project directly links Port of Everett, via barge, to existing steamship container services, will reduce truck traffic on the 1-5 corridor and help to create new opportunities for market access for products that are produced in and destined for the Great Northern Corridor Region.

Producers from all across the Great Northern Corridor are desperately seeking innovative supply chain solutions that are going to contribute meaningfully to maintaining their individual and collective competitive edge in a fiercely aggressive and ever changing global marketplace.

The Port of Everett's approach to maximizing "Short Seas Shipping" and their collaborative approach with other Northwest and Inland Ports is exactly the type of systems thinking that is the very foundation of the Great Northern Corridor Coalition. We support all multi-modal options that fit within the Great Northern Corridor Coalition's Project Criteria that takes trucks off our congested highways

The Port of Everett is a proven economic driver in our region supporting more than 35,000 jobs and contributing hundreds of millions of dollars to state and local governments' tax rolls each year. In addition, the Port of Everett supports economies across the Great Northern Corridor by providing a gateway for global commerce.

Thank you in advance for your consideration. The strength of our regional and state economy is dependent on international cargo moving quickly and efficiently through the Great Northern Corridor and this project designation will provide another opportunity to enhance the economic vitality of the region which supports more than 38 Million Americans in Eight States and 162 Counties.

Sincerely,

THE GREAT NORTHERN CORRIDOR COALITION

A handwritten signature in black ink, appearing to be 'CS', written in a cursive style.

Curtis E. Shuck, Jr.
Executive Director

Appendix 6: Other Supporting Material

U.S. MARITIME ADMINISTRATION RECORD OF CATEGORICAL EXCLUSION

SUBJECT:

Port of Everett WA South Terminal Intermodal Modernization Project

REFERENCE:

- (a) Department of Transportation Order DOT 5610.1C; September 18, 1979
- (b) Maritime Administrative Order (MAO) 600-1; July 23, 1985
- (c) Consolidated Appropriations Act of 2016 (Pub. L. 114-113, December 18, 2015) for the National Infrastructure Investments Discretionary Grant Program (FY2016 TIGER Discretionary Grants)
- (d) MAO 600-1 Categorical Exclusion Checklist
- (e) MARAD FY 2016 TIGER Grant No. DTMA91G1600009

Action:

The Consolidated Appropriations Act of 2016 (Pub. L. 114-113), signed by the President on December 18, 2015, appropriated funds for the National Infrastructure Investments Discretionary Grant Program. The purpose of the FY2016 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant funding is to advance capital investments in surface transportation infrastructure that will have a significant impact on the nation, a metropolitan area, or a region.

The Port of Everett Washington was awarded funds under the TIGER grant program and these funds will be used to modernize the existing southern portion of the port facility. The project includes two individual upgrade areas, the South Terminal Rail Improvements and the South Terminal Wharf Strengthening. As such, the project was evaluated for compliance with the National Environmental Policy Act (NEPA) and a Categorical Exclusion was issued on November 14, 2016. Recognizing the Port's recent change-in-scope to relocate rather than demolish a warehouse, the Categorical Exclusion is being re-issued as two individual documents for ease of funding.

The project component that is the subject of this Categorical Exclusion is:

South Terminal Rail Improvements – The project includes approximately 3,300 lineal feet of additional rail sidings and realignment of 1,100 lineal feet of existing track. The two new tracks will be designated as SDG-01 and SDG-02 and will connect at each end to existing Terminal Track 115. SDG-01 will be approximately 1,700 lineal feet and SDG-02 will be approximately 1,175 lineal feet. Approximately 1,100 lineal feet of existing track T115 will be realigned to accommodate the new turnouts. A warehouse structure, used for storage and maintenance, will be relocated on the site. Elements of project work include mobilization/demobilization, demolition/site preparation, realigning and encasing existing underground utilities, installation of a new storm drainage system, track construction including four new turnouts (switches), paving restoration/stripping, material testing and construction engineering.

Analysis:

As per the Washington State Environmental Policy Act (SEPA), the Port completed the environmental checklist and Determination of Non-Significance for the projects identified above. The final document for the wharf strengthening project was signed on September 23, 2016. Mitigation measures are included due to the in-water work. The final document for the rail improvements project was signed on August 9, 2016. An addendum to the SEPA document was completed and signed on March 28, 2018 in order to allow for the minor scope change to relocate the building. The above documents with supporting documentation are included as an attachment to this Categorical Exclusion.

The project listed above involves actions related to equipment purchase, modernization activities, and/or facility upgrades that does not alter the character of the facility. The Agency has reviewed the project scope and associated environmental documents and concludes that these actions have no significant effect on the human and natural environment, individually or cumulatively, under normal conditions, and are categorically excluded from further documentation requirements under the National Environmental Policy Act (NEPA) by Maritime Administrative Order 600-1 Categorical Exclusions.

The MAO Categorical Exclusion that applies is:

MAO Categorical Exclusion # 4: Reconstruction, modification, modernization, replacement, repair, and maintenance (including emergency replacement, repair, or maintenance) of equipment, facilities, or structures which do not change substantially the existing character of the equipment/facility/structure.

Conclusion:

Based upon the analysis completed, the proposed actions fit squarely within the scope of MAO 600-1 Categorical Exclusions and are not expected to involve any extraordinary circumstances that would result in significant environmental effects.

Environmental Reviewer:



Kristine A. Gilson
Environmental Protection Specialist
Office of Environment



Date

Approval:



Michael C. Carter
Acting Associate Administrator for
Environment, Safety and Vessel Security



Date

Appendix 7: Checklist – Cross Reference of Topics and Page Location

Project Designation Application Checklist Appendices				
	Project Name	Container on Barge Service	Check	Page No.
	Project designation background Information	Introductory description, scope and need for the project in relation to America’s Marine Highway and an explanation of how the Project will fulfill this need.	✓	1-4
(A)	Minimum Eligibility requirements			
1.1	Documented Vessels	Uses U.S. Documented Vessels - and mitigates landside congestion or promote short sea transportation See (2).	✓	4
1.2	Carries Cargo in Short Sea Shipping	Self-explanatory	✓	4
1.3	Mitigates Landside Congestion	Self-explanatory	✓	4-5
2.1	Short Sea Transportation	Meets the definition of Short sea shipping. <i>Short sea transportation</i> means the carriage by a U.S. documented vessel of cargo (1) That is— (i) Contained in intermodal cargo containers and loaded by crane on the vessel; (ii) Loaded on the vessel by means of wheeled technology; (iii) Shipped in discrete units or packages that are handled individually, palletized, or unitized for purposes of transportation; or (iv) Freight vehicles carried aboard commuter ferry boats; and (2) That is— (i) Loaded at a port in the United States and unloaded either at another port in the United States or at a port in Canada located in the Great Lakes-Saint Lawrence Seaway System; or, (ii) Loaded at a port in Canada located in the Great Lakes-Saint Lawrence Seaway System and unloaded at a port in the United States.	✓	5
2.2	New or expanded services	Involves new or expand existing services for the carriage of cargo	✓	5
2.3	Designated Route	Are on a designated Marine Highway Route	✓	5
3.0	Route Designation submission	Project Designation applications can be submitted with Route Designations (refer to Final Rule 393.2)	✓	5
4.0	Direct Connection	Successful Project Applicants must demonstrate a direct connection between a proposed Marine Highway Project and the carriage of cargo through ports on Designated Marine Highway Routes.	✓	5
(B)	Timing of Project Designation submissions	Announcements will be made by notice in the Federal Register and on MARAD’s AMHP Web site open season periods to allow Project Applicants opportunities to submit Marine Highway Project designation applications		

(C)	Project Application Contents	What should Project Applicants include when preparing a Marine Highway Project designation application		
1.0	Market and Customers	The market or customer base to be served by the service and the service's value proposition to customers. This includes:	✓	5-9
		(i) A description of how the market is currently served by transportation options;	✓	
		(ii) Identities of shippers that have indicated an interest in, and level of commitment to, the proposed service;	✓	
		(iii) Specific commodities, markets, and shippers the Project is expected to attract;	✓	
		(iv) Extent to which interested entities have been educated about the Project and expressed support, and	✓	
		(v) A marketing strategy for the project if one exists.	✓	
2.0	Operational framework	A description of the proposed operational framework of the project including:		9-10
		Origin & Destination Pairs	✓	10
		Transit times	✓	10
		Vessel types	✓	10
		Service Frequency	✓	10
3.0	Cost Model	The cost model for the proposed service. The cost model should be broken down by container, trailer, or other freight unit, including loading and discharge costs, vessel operating costs, drayage costs, and other ancillary costs.	✓	10
3.1		Provide a comparison cost model outlining the current costs for transportation using landside mode (truck and rail) alternatives for the identified market that the proposed project will serve.	✓	10-11
3.2		Provide the project's financial plan and provide projected revenues and expenses. Include labor and operating costs, drayage, fixed and recurring infrastructure and maintenance costs, vessel or equipment acquisition or construction costs, etc.	✓	11-13
3.3		Include any anticipated changes in local or regional short sea transportation, policy or regulations, ports, industry, or other developments affecting the project.	✓	13
3.4		In the event that public sector financial support is being sought, describe the amount, form and duration of public investment required. Applicants may email <i>mh@dot.gov</i> to request a sample cost model.	✓	13

4.0	Overall Net Public Benefits	An overall quantification of the net public benefits estimated to be gained through the successful initiation of the Marine Highway Project, including highway miles saved, road maintenance savings, air emissions savings, and safety and resiliency impacts. In other words, the collective savings from section 8.	✓	14
5.0	Marine Highway Route utilized	Identify the designated Marine Highway Routes the Project will utilize.	✓	14
6.0	Organizational Structure	Provide the organizational structure of the proposed project, including an outline of the business affiliations, environmental, non-profit organizations and governmental or private sector stakeholders.	✓	14-15
7.0	Partnerships:		✓	15
7.1	Private sector partners.	(i) Identify private sector partners and describe their levels of commitment to the proposed service. Private sector partners can include terminals, vessel operators, shipyards, shippers, trucking companies, railroads, third-party logistics providers, shipping lines, labor, workforce and other entities deemed appropriate by the Secretary.	✓	
7.2	Public sector partners.	(ii) Identify State Departments of Transportation, metropolitan planning organizations, municipalities and other governmental entities, including tribal entities, that Project Applicants have engaged and the extent to which they support the service. Include any affiliations with environmental groups or civic associations.	✓	15
7.3	Documentation	(iii) Provide documents affirming commitment or support from entities involved in the project.	✓	16 + Appendix 5
8.0	Public benefits.	These measures reflect current law and are consistent with USDOT's Strategic Goals. Project Applicants should organize external net cost savings and public benefits of the Project based on the following six categories:	✓	16
8.1	Emissions benefits	(i). Address any net savings, in quantifiable terms, now and in the future, over current emissions practices, including greenhouse gas emissions, criteria air pollutants or other environmental benefits the project offers.	✓	16
8.2	Energy Savings	(ii) Provide an analysis of potential net reductions in energy consumption, in quantifiable terms, now and in the future, over the current practice.	✓	16
8.3	Landside transportation infrastructure maintenance savings	(iii) To the extent the data is available indicate, in dollars per year, the projected net savings of public funds that would result in road or railroad maintenance or repair, including pavement, bridges,	✓	17

		tunnels or related transportation infrastructure from a proposed project.		
8.3	Landside transportation infrastructure maintenance savings	Include the impacts of accelerated infrastructure deterioration caused by vehicles currently using the route, especially in cases of oversized or overweight vehicles. This information applies only to projects for a marine highway service where a landside alternative exists.	✓	17
8.4	Economic Competitiveness	(iv) To the extent the data is available, describe how the project will measurably result in transportation efficiency gains for the U.S. public. For purposes of aligning a project with this outcome, applicants should provide evidence of how improvements in transportation outcomes (such as time savings, operating cost savings, and increased utilization of assets) translate into long term economic productivity benefits.	✓	17
8.5	Safety Improvements	(v) Describe, in measurable terms, the projected safety improvements that would result from the proposed operation.	✓	17
8.6	System Resiliency and Redundancy	(vi) To the extent data is available, describe, if applicable, how a proposed Marine Highway Project offers a resilient route or service that can benefit the public. Where land transportation routes serving a locale or region are limited, describe how a proposed project offers an alternative and the benefit this could offer when other routes are interrupted as a result of natural or man-made incidents.	✓	17-18
9.0	Proposed project timeline	Include a proposed project timeline with estimated start dates and key milestones. If applicable, include the point in the timeline at which the enterprise is anticipated to attain self sufficiency	✓	18
10.0	Support and investment required.	Describe any known or anticipated obstacles to either implementation or long-term success of the project. Include any strategies, either in place or proposed, to mitigate impediments. Identify specific infrastructure gaps such as docks, cranes, ramps, etc. that will need to be addressed in order for the project to become economically viable. Include estimates for the required investments needed to address the infrastructure gaps.	✓	18-19
11.0	Environmental considerations	Project Applicants must provide all information necessary to assist MARAD's environmental analysis of the proposed project, pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 <i>et seq.</i>) and other environmental requirements	✓	20

12.0	Other considerations			
12.1	Confidentiality	If your application, including attachments, includes information that you consider to be a trade secret or confidential commercial or financial information, or otherwise exempt from disclosure under the Freedom of Information Act (5 U.S.C. 552), as implemented by the Department at 49 CFR part 7, you may assert a claim of confidentiality.		
12.2	Application length	The narrative portion of an application should not exceed 20 pages in length. Documentation supporting the assertions made in the narrative portion may also be provided in the form of appendices but limited to relevant information. Applications may be submitted electronically via <i>regulations.gov</i> (http://www.regulations.gov). Applications submitted in writing must include the original and three copies and must be on 8.5" x 11" single spaced paper, excluding maps, Geographic Information Systems (GIS) representations, etc.	✓	
(D)	Conclusion		✓	20
(E)	For Program Background, only			
1.1		Freight Plans, Port Plans, State STIP/TIP or other approved planning documents		
1.2		Identifying future planning studies that will be required prior to or part of any future Marine Highway Grant funding		N/A
1.3		Whether the Project will proceed without Project Designation		Cranes procurement must proceed with or without the Project Designation due to the fact that the Cranes are needed for South Terminal operations by Jan 2020.
1.4		Whether the Applicant only intends to seek Project Designation only (no intention to apply for future Marine Highway Grant funding opportunities)		Pg. 19 Applicant plans to apply for future Marine Highway Grant funding for one-time capital improvements