



Ferry Maintenance Facility Siting Study - Appendices

June 2024



APPENDIX C

INITIAL SITE SCREENING CRITERIA AND FINDINGS MEMO



Date: December 20, 2022
To: Kitsap Transit
From: KPFF Consulting Engineers
Subject: Kitsap Transit Ferry Maintenance Facility Site Alternatives Analysis
Task 2: Initial Site Evaluation Criteria

Introduction

Kitsap Transit (KT), supported by the KPFF consulting team, is conducting a Ferry Maintenance Facility Planning Study to locate a future ferry maintenance facility in Kitsap County. The study will identify, document and evaluate site attributes, and assess the overall viability of site alternatives. The goal of the study is to support the recommendation of a well-informed preferred site alternative, or alternatives.

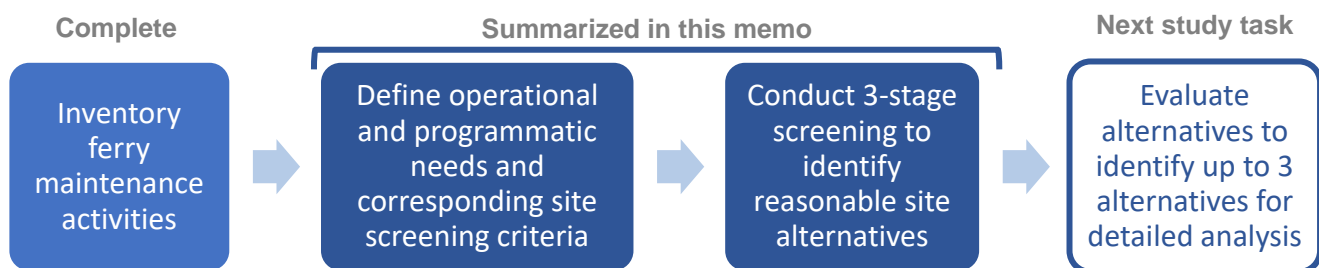
Purpose

This memo summarizes the process used to identify potential sites within Kitsap County, explains the initial site screening criteria used to determine if potential locations can feasibly support the programmatic and operational needs of a KT ferry maintenance facility as established in *Task 1 Establish Programmatic and Operational Needs*, and describes the resulting list of site alternatives that move forward from the initial screening.

In addition, the memo describes potential evaluation criteria for evaluation of the suitability of the sites identified for further comprehensive site analysis.

Approach

The overall Maintenance Facility site alternatives development process is outlined in the figure below, calling out the criteria development and application of those initial criteria to identify sites for further analysis.



Inventory ferry maintenance activities: The first task of the site alternatives analysis established an understanding of KT’s vessel maintenance needs, including current vessel preventative maintenance and repair practices, as well as the desired maintenance and repair capabilities to be provided at a dedicated KT ferry maintenance facility (presented in the *Establish Facility Programmatic and Operational Needs* memo).



Define site screening criteria based on facility needs: The list of planned maintenance activities defines KT's needs for a maintenance facility, including those related to the location and size needed to support KT's ferry program, the number of maintenance crew, the number and types of facility spaces, and the equipment required. Maintenance facility needs will be further refined in subsequent phases of the study based on conceptual site design.

The preliminary operational and programmatic needs informed the development of site screening criteria used to determine if the location and characteristics of a potential site can support KT's needs for a dedicated maintenance facility.

Initial site identification and screening: The initial site criteria, focused on operational considerations, environmental concerns, and minimum space requirements for the facility, were used to screen shoreline areas within Kitsap County for review and identify site alternatives for further assessment.

Select alternatives for detailed evaluation: The proposed site evaluation criteria outlined in Table 5 will be used to evaluate and rank site alternatives to select up to three sites for detailed evaluation, including conceptual design development.

Site Screening Criteria and Three-Stage Screening Results

Site alternatives were developed by applying initial site screening criteria focused on identifying sites that meet KT's minimum needs for a ferry maintenance facility.

Site screening criteria were applied in a three-stage process to determine the Kitsap County shoreline areas to be considered in the initial review, identify the list of viable site alternatives, and establish which site alternatives could reasonably support a ferry maintenance facility, as summarized in the sections below.

Stage 1: Establish Areas within Kitsap County for Consideration

Goal: *Exclude locations which do not meet the operational needs of a KT ferry maintenance facility*

The first stage of initial site screening defined the area to be reviewed by applying criteria focused on the operational needs of a maintenance facility related to its location. Specific needs considered in the first stage include:

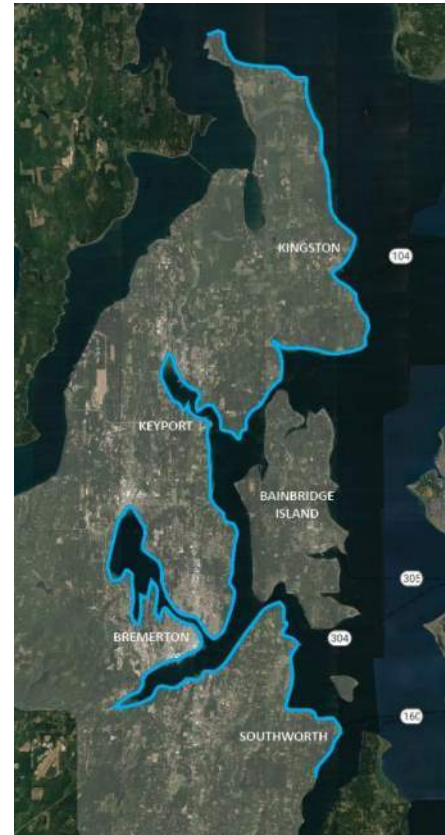
- Range of alternatives: KT established the goal for construction and operation of the new facility to occur within Kitsap County.
- Waterside access: To best serve the needs of the KT ferry system, the maintenance facility must be located within reasonable distance of existing Kitsap Transit ferry routes and terminals so that vessels can travel to and from the facility without excessive time and costs.
- Landside access: The location of the facility must also consider the ease of access for maintenance staff and crew. This criteria eliminated all Bainbridge Island locations from further consideration because access to the island is constrained to State Route 305, which is subject to traffic conditions and closures.

Table 1 below describes the maintenance facility needs and corresponding criteria used for initial screening. Figure 1 highlights the resulting area of Kitsap County that was carried forward to Stage 2.

Table 1. Stage 1 Criteria

Focus Area	Need	Criteria
Geographic boundaries, or range of alternatives	Provide jobs, tax revenue, etc. within Kitsap County	Sites limited to locations in Kitsap County
Waterside access	Minimize labor and fuel costs of vessel transits to/from maintenance facility, and costs/time of staff/crew commute to/from facility	Site to be located on eastern side of Kitsap Peninsula
Landside access	Location that provides multiple points of access for staff commuting in (i.e., not reliant on single bridge or roadway subject to traffic or closures)	Site located in areas with more than one point of roadway access

Figure 1. Result of Stage 1 Criteria: Area for Review of Shorelines



Stage 2: Preliminary Environmental Review

Goal: *Identify sites where a ferry maintenance facility fits within existing zoning and land use policies and is compatible with the local land use vision*

The second stage of initial site screening focused on identifying site alternatives that provide opportunity for development and long-term use as a ferry maintenance facility under current land use regulations and existing uses.

Table 2 summarizes the environmental criteria used to identify locations where a maintenance facility could be sited under current land use regulations. Additional detail on the initial environmental review is included in the 1/6/23 draft memo *Desktop Siting Survey and Initial Regulatory Review for Kitsap Transit Maintenance Facility in Kitsap County*.

Table 2. Stage 2 Criteria

Focus Area	Need	Criteria
Shoreline environmental designation	Shoreline area allows construction and long-term operation of a ferry maintenance facility	Ferry maintenance facility is an allowed use
Shoreline context / existing uses	Shoreline context is conducive to establishment of a maintenance facility (consideration for environmental review and public, stakeholder, and tribal outreach)	Shoreline stretch has some established high-intensity uses
Site zoning	Site reasonably supports construction and long-term operation of a ferry maintenance facility	Ferry maintenance facility is an allowed use

Criteria application included review of shoreline environmental designations to identify shoreline areas where a ferry maintenance facility would be an allowable use, including areas designated as High Intensity and Shoreline Residential (where a maintenance facility may be conditionally approved). Review of potential shoreline areas also looked for stretches of shoreline with some level of existing high-intensity use where the shoreline context would be conducive to the establishment of a ferry maintenance facility.

Figure 2a highlights the Kitsap County shoreline areas identified for review of sites, which include areas with a supportive shoreline environmental designation and established high-intensity uses.

While eight areas of shoreline were reviewed initially for regulatory compatibility, further review of land use and property size compatibility revealed only 10 sites for consideration, as shown in Figure 2. This more detailed compatibility review did not identify sites in the areas of Kingston, Poulsbo or Silverdale.

Figure 2. Results of Criteria Application: Shoreline Stretches for Review

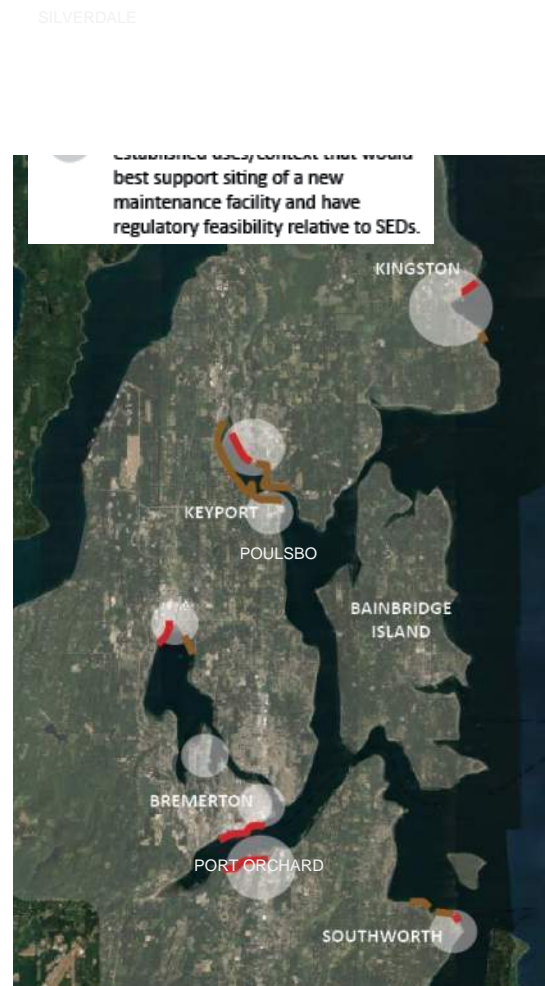


Figure 3. Results of Criteria Application: 10 Identified Sites

Site specific evaluation focused on the review of land use zoning and environmental considerations, resulting in the identification of 10 sites for further review. Figure 3 shows the 10 sites identified for further review (also listed in Table 4).



Stage 3: Site Size and Dimensions

Goal: Identify sites that meet minimum requirements for site size and dimensions

Criteria applied in Stage 3 focused on efficiently screening sites do not have minimum space requirements to meet KT's vessel maintenance needs. While the total space required to meet KT's vessel maintenance needs will consist of several elements including vessel moorage, shop and storage buildings, parking, and crew spaces, many of these elements have some flexibility in how they could be configured to fit on a specific site. The area required to allow Kitsap Transit to lift two vessels out of the water for repair work (vessel laydown area) was identified as the most restrictive site space need and was used to inform the Stage 3 screening criteria.

Because of the limited amount of uplands space on many waterfront sites, initial screening considered two options to meet the identified need:

- 1. Uplands:** Vessel yard with space for two KT vessels to be hauled out of the water, including uplands maneuvering space for a boat lift, approximately 300 by 150 feet (either parallel or perpendicular to the shoreline)
- 2. In-water:** If a site does not meet the minimum criteria for uplands space, potential application of a barge equipped with a boat lift with space to accommodate two vessels (one hauled with full access to the entire hull, and one on the boat lift with access to the propulsion gear), approximately 320 by 60 feet in water depths of at least 10 feet



Screening criteria considered the vessel laydown space for two vessels together, either both uplands or both overwater. An alternate configuration, with space for one vessel uplands and an overwater barge with space for a second vessel was not considered due to the higher capital cost requirements to install two boat lifts. Table 3 summarizes the initial size criteria used to screen locations that do not meet minimum space needs for a KT ferry maintenance facility.

Table 3: Stage 3 Criteria

Focus Area	Need	Criteria
Vessel laydown area (uplands)	Minimum space for the two largest Kitsap Transit vessels to be hauled out uplands, including boat lift maneuvering	Uplands: 300'x150'
Vessel laydown area (over-water space)	<i>(If uplands space criteria is not met)</i> Minimum space for the two largest Kitsap Transit vessels to be hauled out over water	In-water: 320'x60'

The ten sites identified in Stage 2 were reviewed for uplands and in-water space, with consideration of existing water depths. In cases where multiple sites are located adjacent to each other, parcels were reviewed for their individual sizes as well as combined sizes.

The results of the Stage 3 screening criteria application identified 5 sites for further review, as shown in Table 4 below. Two of the sites, both located in the Sinclair Inlet, meet the criteria for a future maintenance facility only if their property size is in combination with an adjacent property.

Table 4. Sites Meeting Initial Site Screening Criteria

Site No.	Site Name	Meets min. uplands space	If insufficient uplands space, meets min. in-water space	Site carried forward
1	Kitsap Marine Properties	✓	✓ <i>(would require buildout beyond current marina infrastructure)</i>	Yes
2	Suldan's Boat Works	No	✓ <i>(would require buildout beyond current marina infrastructure)</i>	Yes
3	Port Orchard Railway Marina	No	✓	Yes <i>(2 parcels)</i>
4	Bar & Grill	✓	No	
5	Sinclair Inlet Marina	No	✓	Yes <i>(2 parcels)</i>
6	Bay Street Parcels	No	✓ <i>(assumes Sinclair Inlet Marina or adjacent in-water space)</i>	
7	Annapolis Quay / Whiskey Gulch	No	No <i>(based on existing water depths)</i>	No
8	Keyport Area Residences	No	No	No
9	Shaw Island Residences	No	✓	Yes
10	Southworth Ferry Area Residences	No	No	No

Five sites met initial site screening criteria and were selected to be carried forward for further site evaluation and ranking, shown below in Figure 4. Four of the sites are located in the Sinclair Inlet along the Port Orchard waterfront, while the Shaw Island Residences site is located near Rocky Point north of Bremerton. Two of the ten sites reviewed only met the Stage 3 criteria when combined with an adjacent parcel.

Figure 4. 5 Sites Identified for Further Site Evaluation and Ranking



Criteria for Further Site Evaluation and Ranking

The next phase of site alternatives assessment will use additional criteria to evaluate and rank site alternatives in order to select up to three sites for further detailed assessment.

The five sites carried forward from Stage 3 of initial site screening will be further evaluated and compared against each other based on each site's ability to support KT's ferry maintenance program needs. The top sites (up to three) will be carried forward for comprehensive site analysis and identification of a locally-preferred alternative.

Proposed factors to be used for further site evaluation and ranking are summarized below in Table 5. In Task 4, Criteria will be defined and weighted to measure how well a site meets KT's ferry maintenance facility needs.



Table 5: Proposed Criteria for Further Site Evaluation and Ranking

Focus Area	Need	Criteria for Evaluation and Site Ranking
Site Access	Facility location that supports the operational and service needs of the KT ferry system	<ul style="list-style-type: none"> • Distance from KT terminals/routes • Distance from KT Bremerton administrative offices • Distance/access for maintenance contractors & equipment vendors • Ease of landside waterfront access • Water depths / waterside access
Environmental Considerations	Site that provides a viable opportunity for permitting and construction of a maintenance facility; minimize environmental impacts	<ul style="list-style-type: none"> • Proximity/impacts to residents or businesses • Permitting complexity (overwater coverage, neighboring uses, etc.) • Potential impacts to low-income and minority populations
Site Space and Constructability	Facility with space and flexibility to meet KT’s current and future ferry maintenance needs; consider facility construction costs and timeline	<ul style="list-style-type: none"> • In-water space: ease of vessel navigation and access, space for additional berths, space for truck access to berths • Uplands space: total square footage to support maintenance shops, office space, and other facility programming • Site construction considerations / cost impacts (site grade, access, etc.) • Availability of utilities • Space for future needs (flexibility/expansion)