FACILITY & SITE ANALYSIS FOR A BOATHOUSE ON THE POTOMAC RIVER IN ARLINGTON COUNTY AND VICINITY

PREPARED FOR
THE NATIONAL PARK SERVICE

PREPARED BY
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EXECUTIVE SUMMARY

This study was initiated specifically at the request of Congress for assessing the potential siting of a boathouse (rowing facility) within Arlington County along the Potomac River. Based on that direction, the National Park Service (NPS) is considering allowing the construction and operation of a rowing facility on the Potomac River that would include rowing equipment (boats) storage and training facilities for the three Arlington County high school rowing programs. In addition, the facility may provide storage facilities and river access for others. The facility would be located along the Virginia side of the river on lands administered by the George Washington Memorial Parkway (GWMP) or nearby.

This study is intended to determine the potential of locating such a boathouse/rowing facility at three areas along the Potomac River. These areas are:

- The Rosslyn waterfront
- Downstream of the 14th Street Bridge, &
- Along the shoreline of Daingerfield Island.

Project Scope

This study includes the identification of a minimum and a maximum practical program for the potential boathouse. These two sizes/programs are used to analyze the study areas.

The report also includes a facility and site analysis of four alternative sites at the identified locations. The sites are the Rosslyn Waterfront Lower Site, Rosslyn Waterfront Upper Site, south of CSX/14th Street Bridges and Daingerfield Island. The key factors for assessing the potential of siting an Arlington County Boathouse at these sites are physical conditions, visual/cultural resources, environmental impacts, economics and operational issues.

The final piece of this study is a synopsis of public comments received in a public scoping session in the Winter of 1999/2000. The public scoping session was conducted by NPS, where comments were sought on four potential locations for the boathouse.

Subsequent to this study, NPS will determine how/if to proceed further. If one or more sites appear to be able to accommodate the boathouse, NPS may proceed with a NEPA study and a National Historic Preservation Act Section 106 on the site(s).

Program/Project Requirements

A number of steps were undertaken to develop a program for the boathouse. These include a review of a study prepared by Arlington County's Water-Based Recreational Facility Task Force in 1995, feedback from crew coaches at the three Arlington County public high schools, and a study of three area boathouses and one area boat club. Based on these, this report suggests that a potential boathouse on any of these sites should include, at a minimum, existing boat storage needs and immediate expansion plans of the crew teams at the three Arlington County public high schools. In addition, the boathouse should include exercise areas, lockers, showers and storage space for the three schools, boat-repair area, minimal office space, access for trailers, school buses and emergency vehicles, gas storage area and outdoor rigging areas. The maximum facility should include all of these amenities along with additional boat storage area for other high school crew teams in the area, individual rowers and/or community rowing programs.

For all of the boathouse alternatives, the access road could be paved or of a material that provides access to the trailer/ bus/ emergency vehicular traffic. A footprint of ± 10,000 SF would accommodate the minimum program. This size would allow a potential configuration of four storage bays and a repair bay. Of the four potential bays, the three high schools would require 2 and 2/3rd bays. The remaining bays would provide for any expansion needs that the schools may have beyond the immediate future, or could be used for some community rowing programs. A footprint of ± 14,000 SF would accommodate the maximum program and would allow a potential configuration of six bays for storage of large boats, and a repair bay. In both cases, other than some equipment storage space and space for storing gas, other amenities could be located on a partial second floor.

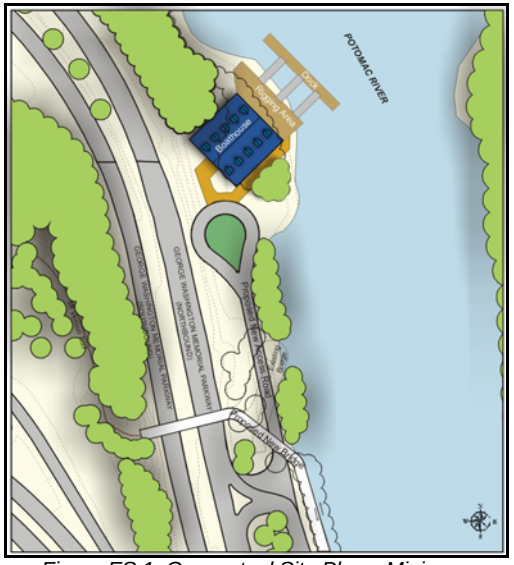

Figure ES.1: Conceptual Site Plan - Minimum Program, Rosslyn Waterfront Lower Site

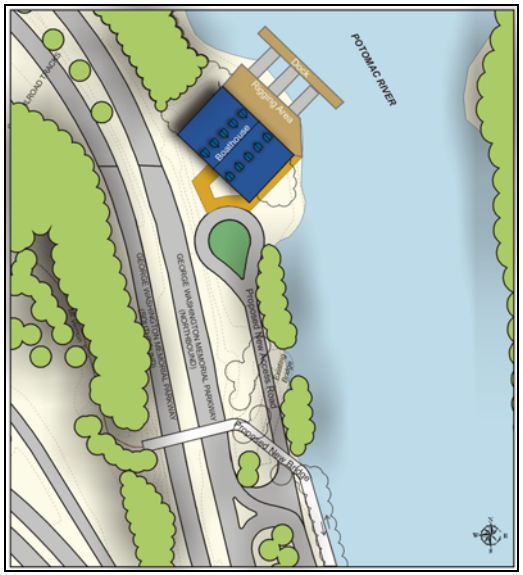

Figure ES.2: Conceptual Site Plan – Maximum Program, Rosslyn Waterfront Lower Site

Facility and Site Analysis

Four alternatives were analyzed for the potential of locating a boathouse. The analysis included an assessment of potential environmental constraints, conditions of water for rowing, transportation access, required infrastructure improvements and potential visual impacts. Two conceptual site plans were prepared for each site. One plan examines the potential of locating a boathouse with the minimum boathouse program and the second plan examines a boathouse with the maximum program. Each site is described as follows:

<u>Rosslyn Waterfront Lower Site</u>

A proposed minimum and maximum boathouse, that would have a footprint that ranges from 10,000 SF to 14,000 SF, could be accommodated at the lower Rosslyn site (see Figures ES.1 and ES.2). There are a number of improvements that would be necessary for these plans to work. These include the following:

- A new road and drop-off location that would provide boathouse access for trailers, school buses and emergency vehicles.
- To configure a turning radius for exiting trailers, buses and emergency vehicles, the existing pedestrian bridge would have to be reconstructed on the eastern portion of GWMP. The proposed configuration, illustrated in the conceptual site plan, ensures that there is no conflict between movement on the Mount Vernon Trail and the new access drive.

Figure ES.3: Conceptual Site Plan - Minimum Program, Rosslyn Waterfront Upper Site

Figure ES.4: Conceptual Site Plan – Maximum Program, Rosslyn Waterfront Upper Site

Rosslyn Waterfront Upper Site

A proposed minimum and maximum boathouse, that would have a footprint that ranges from 10,000 SF to 14,000 SF, could be accommodated at the upper Rosslyn site (see Figures ES.3 and ES.4). As the plans illustrate, the boathouse and rigging area could be constructed at the upper level with a staging area and the docks at the lower site. These schemes would require rowers to take their boats to the river and back each time they go rowing. There are a number of measures and improvements that would be necessary for these plans to work, including the following:

- The site is privately owned. To construct a boathouse the site would have to be acquired.
- The Mount Vernon Trail currently provides pedestrian access across GWMP at this location. This trail is heavily used by bicyclists, joggers and pedestrians. Rowers could use this trail, and its pedestrian bridge, to carry their boats from the boathouse to the river. However, the daily use of the trail by rowers carrying their boats, and cyclists and/or joggers using the trail, could result in conflicting situations including potential accidents. To avoid such conflicts, a second path designed specifically for the use of rowers, along with a second bridge across GWMP, could be required.
- An access road would be required off North Lynn Street for school buses, trailers and emergency vehicles.

Figure ES.5: Conceptual Site Plan – Minimum Program, 14th Street Bridge Site

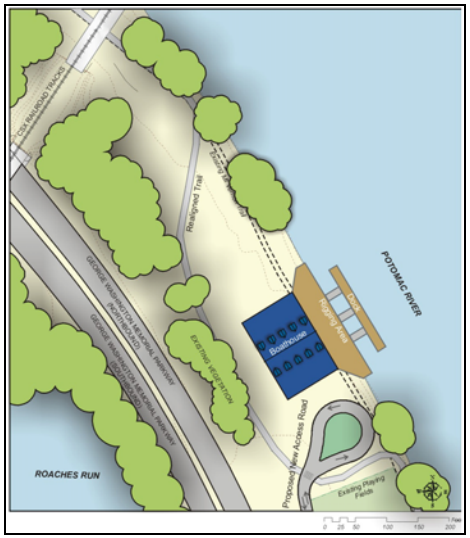

Figure ES.6: Conceptual Site Plan – Maximum Program, 14th Street Bridge Site

CSX/14th Street Bridges Site

A proposed minimum and maximum boathouse, that would have a footprint that ranges from 10,000 SF to 14,000 SF, could be accommodated at the 14th Street Bridge site (See Figures ES.5 and ES.6). As the plans illustrate, the boathouse could be constructed near the CSX Bridge, at the northern end of the Gravelly Point area. The two plans are slightly different as in they locate the smaller boathouse slightly to the north compared to the larger boathouse. There are a number of measures and improvements that would be necessary for these plans to work, including the following:

- A new road and drop-off location would be required to provide boathouse access for trailers, school buses and emergency vehicles. This road could be located between GWMP and the existing playing fields to the east.
- Portions of the existing Mount Vernon Trail would need to be relocated away from the river to create space for the boathouse.

Daingerfield Island Site

A proposed minimum and maximum boathouse, that would have a footprint that ranges from 10,000 SF to 14,000 SF, could be accommodated at the Daingerfield Island site (see Figures ES.7 and ES.8). As the plans illustrate, there is sufficient space on the eastern-shore of the Island to develop a boathouse. The suggested conceptual layout locates the proposed docks and boathouse approximately 400 feet south of the existing docks that are used by the Washington Sailing Marina. The plan conforms with the Development Concept Plan (dated 1983) for the Island which identifies this area as a Development Zone for the Island. A number of measures and improvements would be necessary for this plan to work, including the following:

- A new road would be required off the existing road network to provide access to the proposed boathouse.

- Apart from the construction of the road and bus/trailer drop-off, a change of contract would be required with the concessionaire who is responsible for the management of the marina. As part of this management agreement, the concessionaire maintains the internal roads and provides 24-hour security to the area.

Synopsis of Public Comments Received

The input received during the public scoping session, summarized in Chapter 4, helped identify the various issues with locating a boathouse along the Potomac River.

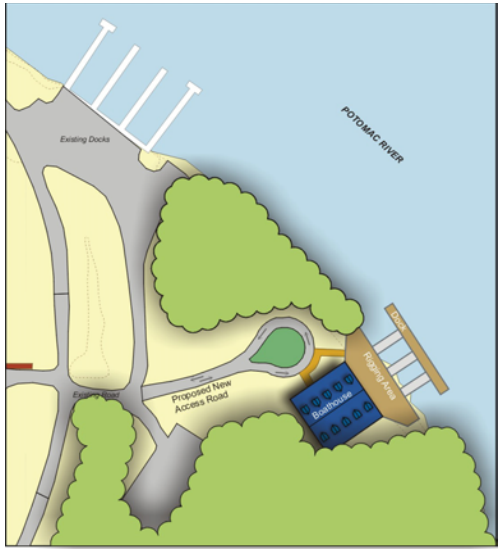

Figure ES.7: Conceptual Site Plan – Minimum Program, Daingerfield Island Site

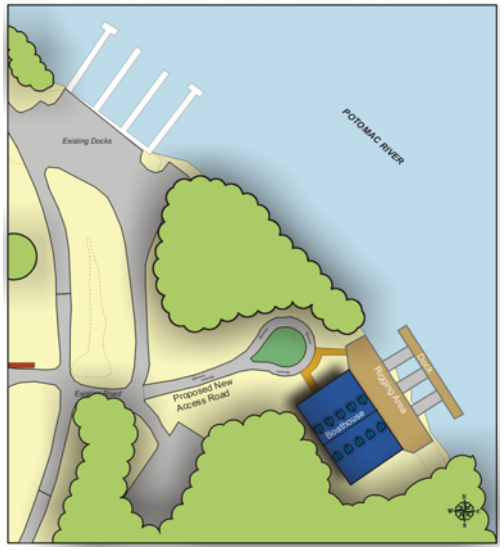

Figure ES.8: Conceptual Site Plan – Maximum Program, Daingerfield Island Site

Comments received fall under two major categories. The first category includes issues relevant to the potential program, need and management of a boathouse facility. The second category are those that are specific to each location.

There is significant difference in opinion regarding the preferred location and program of such a facility. Comments related to the potential program include encouraging boathouse and river access to the general public and not just restricted to the use of the Arlington high schools. Comments related to the project also include suggestions of alternate locations such as Potomac Yard and at the existing Columbia Island Marina.

Site specific comments regarding the sites under consideration relate to rowing conditions, proximity to the public high schools, transportation access, environmental issues, aesthetic concerns and cultural/historical factors. Most commentators agreed that water conditions in vicinity of the Rosslyn waterfront (also identified as the Theodore Roosevelt Island site) were the safest for rowing. Some suggested that weather conditions and conflicting uses downstream made rowing more difficult at the other sites. Other comments indicated that the Daingerfield site was not within Arlington and would take the longest to get to from the three public high schools.

Comparison Between Sites

Table ES.1 compares the site plans, improvements required to render them viable and their potential impacts on various resources:

Table ES.1: Alternative Site Comparison

	ROSSLYN WATERFRONT (LOWER SITE)		ROSSLYN WATERFRONT (UPPER SITE)		14TH STREET RAILROAD BRIDGE AREA		DAINGERFIELD ISLAND SITE	
	MINIMUM PROGRAM	MAXIMUM PROGRAM	MINIMUM PROGRAM	MAXIMUM PROGRAM	MINIMUM PROGRAM	MAXIMUM* PROGRAM	MINIMUM PROGRAM	MAXIMUM PROGRAM
Rowing Conditions								
Depth of Water	Shallow close to the shore / may require minimal dredging				Sufficient Depth		Sufficient depth	
Potential Conflicts	Established 'no-wake' zone reduces potential for conflicts				No established 'no-wake' zone		Proximity to sail boats / no established 'no-wake' zone	
Potential Practice Days Lost due to Weather	Less than one day per week during Spring months				Two to three days per week during Spring months		Two to three days per week during Spring months	
Potential Significant Environmental Impacts								
Approx. Area of Disturbance	1.02 acres	1.23 acres	1.38 acres	1.46 acres	2.08 acres	2.07 acres	0.83 acres	0.98 acres
Approx. Area of Vegetation Impacted (treed area)	20, 200 SF	28,700 SF	39,000 SF	41,300 SF	11,500 SF	9,600 SF	35,400 SF	42,100 SF
Topography (Approx. Amount of Required Cut)	20,000 cu.ft.	28,000 cu.ft.	35,000 cu.ft.	63,000 cu.ft.	-	-	-	-
Approx. Areas of Wetlands Disturbed	5,400 SF	8,300 SF	7,800 SF	7,800 SF	7,600 SF	7,700 SF	5,500 SF	5,900 SF
Transportation								
Average Travel Times from the Three Schools (Depart Schools at 3:15 PM)	15 minutes		14 minutes		17 minutes		17 minutes	
Average Travel Times to the Three Schools (Depart Sites at 6:00 PM)	15 minutes		16 minutes		15 minutes		18 minutes	
Transit Access	Rosslyn Metro about 0.33 miles from the site		Rosslyn Metro about 0.25 miles from the site		Metro not easily accessible		Metro not easily accessible	
Infrastructure Improvements								
Water Service	Approx. 100 feet of new service		Approx. 100 feet of new service		Approx. 2,400 feet of service**		Approx. 900 feet of new service	
Sewer Service	Approx. 900 feet of new service		Approx. 500 feet of new service		Approx. 2,400 feet of service**		Approx. 1,000 feet of new service	
Electrical Service	Approx. 100 feet of new service		Approx. 450 feet of new service		Approx. 2,400 feet of service**		Approx. 1,000 feet of new service	
Access	Realignment of pedestrian bridge, new access road (±770 feet in length)		Construction of a new pedestrian bridge and trail, new access road (±575 feet)		Construction of new access road (±1,825 feet), relocation of MV Trail (±600 feet)		Construction of new access road (±440 feet)	
Cost of Development (Order of Magnitude)	± $6.2 million	± $7.4 million	±$6.0 million	±$7.1 million	±$5.7 million	±$6.8 million	±$5.0 million	±$6.2 million

Other resources that were examined for potential impacts include wildlife, historical, cultural and visual resources.
*The maximum plan is located slightly south of the minimum plan to provide a comparison of sites within the 14th Street Bridge area.
** The new service is identified from a Comfort Station proposed to be constructed close to Gravelly Point parking area.

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FACILITY & SITE ANALYSIS FOR A BOATHOUSE ON THE POTOMAC RIVER AT ARLINGTON COUNTY AND VICINITY

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