

## City of Alexandria, Virginia

14  
5-28-02

## MEMORANDUM

DATE: MAY 21, 2002

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: PHILIP SUNDERLAND, CITY MANAGER *PS*

SUBJECT: CONSIDERATION OF THE WINDMILL HILL PARK RECOMMENDED CONCEPT PLAN AND ALTERNATIVE PLANS

---

**ISSUE:** Consideration of the Windmill Hill Park concept plan recommended by the Ad Hoc Steering Committee, and alternative plans.

**RECOMMENDATION:** That City Council consider the recommended concept plan for Windmill Hill Park, and Alternative Options 1 and 2.

**BACKGROUND:** In response to public comments and ideas from Council members at the April 13 City Council Public Hearing on the concept plan for Windmill Hill Park (Attachment 1) alternative options have been prepared. These options are intended to address concerns with the original concept plan, such as (1) nutrient loading and pollution impacts on the Potomac River with the location of the dog exercise area adjacent to the river; (2) limiting the public's access to scarce waterfront acreage by designating a sizable area adjacent to the river for use by off-leash dogs; and (3) insufficient area for the use of boaters. These options include moving the dog exercise area to the west side of South Union Street, moving the volleyball court to the east side of South Union Street, incorporating a roofed gazebo near the waterfront, providing for a dock or pier for sailboats on the south side of the basin, addressing uniform signage that welcomes the public to the waterfront walk and providing additional low impact educational opportunities. Baker and Associates and staff have prepared Alternative Option 1 (Attachment 2) and Alternative Option 2 (Attachment 3). It should be noted that elements of these alternative options were discussed during the Steering Committee's work sessions. Concept Plan A (Page 106 of Attachment 1) shows the dog exercise area in the northwest area of the park and the volleyball court on the east side of South Union Street. A gazebo near the waterfront and sail boat slips were part of the design for Initial Concept 3 (Page 97 of Attachment 1).

**DISCUSSION:** Alternative Option 1 and Option 2 include a number of elements which are not in the concept plan recommended by the Steering Committee. These are:

1. A roofed gazebo near the waterfront on the south side of the park to provide shelter for park users during inclement weather.
2. A dog exercise area at the northwest corner of Wilkes (extended) and South Union Streets. In order to make the dog exercise area as large as possible (13,644 sq. ft.), the path from the Wilkes Street tunnel was moved to the south. A four foot ornamental iron fence would separate the dog exercise area from the path,

and a landscaped berm would provide a buffer along South Union Street. This area, including the proper setbacks, would provide 2,994 sq. ft. more than the dog exercise area that is now east of South Union (10,650 sq. ft.). The children's play area is fenced and there is a grade separation to minimize conflicts between the two uses. Water access for dogs has been accommodated at the overlook point at the north side of the basin. It is the intent that dogs would be walked on-leash along the path on the south side of Harborside until they reached the overlook point. The dogs would then be unleashed and allowed to play in the water. When finished they would again be leashed and walked to other areas. This location would have a hard surface so that the land would not be torn up with use and remain aesthetically pleasing.

3. A volleyball court on the east side of South Union Street in the location of the current dog exercise area. This court would be located away from the gazebo, and there would be a large lawn area between the two elements.
4. A path for walkers and joggers connecting Ford's Landing, the kayak launch area, and the seating area, as well as a boardwalk over the wetlands. In the recommended plan, the boardwalk is designed to separate dogs playing in the water from the walkers and joggers, and to provide interpretive opportunities over the wetlands. If the dog exercise area is moved to the west side of South Union, the need for separating the uses would be eliminated and the boardwalk could be built in a later phase or eliminated. This would save approximately \$30,000.

Alternative Options 1 and 2 differ in the way they provide docking for small boats. Alternative Option 1 includes a floating pier at the south side of the basin, where three or four boats could tie up temporarily; and Alternative Option 2 has tie up cleats on the south side of the bulkhead where up to three boats could tie up. Small boats need approximately three feet of draft (depth of water) so they do not become stuck on the bottom of the river. If docking is provided, the City will have to dredge the basin on a regular basis to control the amount of silt that builds up over time. We note that the concept plan for Jones Point Park (Attachment 4) has a floating dock located at the end of Jones Point Drive which lessens the need and utility of docking space at Windmill Hill Park.

A variant of the plan recommended by the Steering Committee, Alternative Option 3, is attached as Attachment 5. It retains the dog exercise area on the east side of South Union, but relocates the river access of dogs from immediately east of the exercise area, as in the recommended plan, to the overlook point at the north side of the basin, as in Alternative Options 1 and 2. Dogs would be prevented from entering the water just east of the exercise area by a planted berm and a low ornamental fence. In addition, Alternative Option 3 would allow for the boardwalk to be eliminated or built in a later phase since pedestrians and dogs would be separated by the berm and the fence.

Uniform signage was requested to welcome the public to the waterfront walk. A plan designed by the Planning Department, General Services and the Waterfront Committee in 1999 will place 54 directional signs between Jones Point Park and Daingerfield Island. These signs are now in

production and will be installed by General Services in early summer. The Waterfront Walk signs are intended for a pedestrian audience, not motorists. Staff recommend that we install these signs, and then determine if additional signs are necessary.

Additional educational opportunities have been outlined (Attachment 6) by Joyce Stevens, a member of the Steering Committee and a teacher at St. Stevens/St. Agnes School. Those include the history of the windmill operation, information on the water needs of the City, a small model shore pumping operation, a map of the storm drainage area, a site for water testing, and silhouettes and names of typical shore birds.

**FISCAL IMPACT:** The costs for implementing the Steering Committee's concept plan are estimated at \$3.1 million in construction costs and \$48,200 in annual maintenance. There will be additional fiscal impact with the design changes reflected in Alternative Options 1 and 2. As listed in the chart below, for Alternative Option 1, the total additional capital cost will be \$263,135. The total additional capital cost for Alternative Option 2 is \$75,410. If the boardwalk is eliminated from each option, there would be a \$30,225 savings. Potential funding sources for this project have not been determined.

There will also be additional maintenance costs for Alternative Options 1 and 2. Option 1 will have a dredging and disposal cost of \$331,652 (for 5,102 cubic yards) and for Option 2 the dredging and disposal cost will be approximately \$184,318 (for 2,836 cubic yards). This will be a periodic cost as the area will need to be dredged every three to five years. The additional annual maintenance costs for Option 1 are estimated to be \$6,176. The additional annual maintenance costs for Option 2 are estimated to be \$5,152.

As to Alternative Option 3, additional capital costs will total \$14,494. If the boardwalk is eliminated from this option, \$15,731 would be saved. There would be no additional maintenance costs for this option.

	Alternative Option #1	Alternative Option #2	Alternative Option #3
<b>Additional Capital Costs:</b>			
Pier/Dock	\$ 226,036	\$ 38,311	\$0
Gazebo	\$ 22,605	\$ 22,605	\$0
Berm at DEA	\$ 4,924	\$ 4,924	\$4,924
Shrubs at DEA	\$ 4,290	\$ 4,290	\$4,290
Fence at DEA	\$ 5,280	\$ 5,280	\$5,280
<b>Total Additional Capital Costs:</b>	<b>\$ 263,135</b>	<b>\$ 75,410</b>	<b>\$14,494</b>
Alternative removal of boardwalk	\$ 30,225	\$ 30,225	\$30,225
<b>Total Additional Capital Costs without the boardwalk:</b>	<b>\$ 232,910</b>	<b>\$ 45,185</b>	<b>(\$15,731)</b>
<b>Additional Maintenance Costs</b>			
Dredging & Disposal (approximately every 3-5 years)	\$ 331,652 for 5,102 cubic yds	\$ 184,318 for 2,836 cubic yds	\$0
<b>Additional Annual Maintenance Costs</b>			
Dock installation/Removal	\$ 5,024	\$ 4,768	\$0
Dock repair, cleaning, and storage	\$ 1,152	\$ 384	\$0
<b>Total Additional Annual Maintenance Costs</b>	<b>\$ 6,176</b>	<b>\$ 5,152</b>	<b>\$0</b>

**ATTACHMENTS:**

Attachment 1: Recommended Concept Plan for Windmill Hill Park as presented to City Council on April 9, 2002

Attachment 2: Alternative Option 1

Attachment 3: Alternative Option 2

Attachment 4: Portion of Concept Plan for Jones Point Park

Attachment 5: Alternative Option 3

Attachment 6: Examples of Educational Opportunities at Windmill Hill Park

**STAFF:**

Sandra Whitmore, Director, Recreation, Parks, and Cultural Activities

Kirk Kincannon, Deputy Director, Recreation, Parks, and Cultural Activities

Al Cox, City Architect, Planning and Zoning

REVISED FIRST PAGE - AS OF 4/5/02

City of Alexandria, Virginia

## MEMORANDUM

WS & 18  
4-9-02

DATE: APRIL 4, 2002

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: PHILIP SUNDERLAND, CITY MANAGER *PS*

SUBJECT: CONCEPT PLAN FOR WINDMILL HILL PARK

---

**ISSUE:** Consideration of a recommended concept plan for Windmill Hill Park.

**RECOMMENDATION:** That City Council:

- (1) receive the concept plan for Windmill Hill Park that has been recommended by the Ad Hoc Steering Committee (Attachment 1);
- (2) schedule the recommended concept plan for public hearing on Saturday, April 13 and Council consideration on ~~April 23~~ May 14; and
- (3) thank the members of the Ad Hoc Steering Committee for their valuable work on this project.

**BACKGROUND:** In September 1998, City Council approved a concept plan and design guidelines for future planning for Windmill Hill Park. As staff began implementing these plans, new nearby residents at Harborside and Ford's Landing indicated that they had not been a part of the earlier design process and that, as nearby neighbors, they would like their wishes known.

In early 2001, work in the park was suspended. In May 2001, the City held two public meetings to review the earlier concept plan and guidelines, and to bring forth new ideas and plans. More than 100 people attended each of these meetings and contributed valuable comments. On June 6, 2001, City Council held a work session to review the original plan and hear the new ideas that had been put forth by citizens and other interested groups.

On June 26, 2001, Council approved a set of principles and factors for use as guidance in the Windmill Hill Park design process, and adopted Resolution No. 2003 authorizing the City Manager to appoint an ad hoc steering committee to work with staff and a design consultant to prepare and recommend a concept plan for Windmill Hill Park (Attachment 2).

**DISCUSSION:** The Ad Hoc Steering Committee began work in July of 2001. Over the next seven months, the Committee met on six different occasions. On each of these occasions, opportunity was provided to members of the public to address the committee.

Attachment 1 shows the concept plan that has been recommended by the Ad Hoc Steering Committee. The plan reflects the evaluation and planning process that was conducted by the Committee. Resolution No. 2003 provided the framework for the Committee's deliberations. All of the Committee's recommendations, which are reflected in its recommended concept plan, were made with a unanimous vote, with two pertinent exceptions; these exceptions are the location of the dog exercise area, and the proposed removal of the pilings.

The recommended concept plan addresses, and in the Committee's view fulfills, the following objectives that had been established by Council for use as guidance to the Committee:

- Enable the public to experience and enjoy the river, and retain a reasonable view of the river.
- Include natural resource enhancements.
- Include storm drain outfall improvements.
- Include educational components.
- Include a limited boat launch area.
- Include enhancements and traffic calming measures on Union Street.
- Explore potential locations for the relocation of current facilities (i.e., dog park and existing recreation areas) and development of new uses at the site.
- Identify site conditions requiring improvement including existing bulkhead, pilings and water's edge safety concerns.
- Identify and evaluate infrastructure improvements required by the overall development of the site.
- Establish a Phasing Plan for the overall site as a development guide.
- Explore parking options.

Overall, the Committee's recommended concept plan provides for the following:

- Windmill Hill Park will remain as a public park, designed to be accessible to all Alexandrians to enjoy.
- The dog exercise area will remain in its existing location, and adequate setbacks (in accordance with the City of Alexandria Dog Master Plan), ample signage, wetland protection, a boardwalk for pedestrians, and dog access to the water (with restricted times to be determined by staff) will be provided.
- The volleyball court will remain in its current general location, but will be slightly shifted to allow for the straightening of the adjacent path from the Wilkes Street pedestrian tunnel.
- The basketball court will be slightly shifted to allow for a continuous sidewalk on Gibbon Street and the leveling of the court surface.

- Walkway improvements will be made along Union Street, Lee Street, and Gibbon Street, and traffic calming measures will be added along Union Street, as well as pedestrian crosswalks, to provide a connecting element between the eastern and western portions of the park.
- A phased tree plan for the site will be considered and desirable existing trees will be retained where feasible and appropriate.
- Two temporary loading/unloading parking spaces will be provided on Union Street; no other additional parking is proposed.
- The river will be prominently featured, so that excellent views of the river are retained and water access is available for all citizens.
- A kayak launch/retrieval area will be provided.
- Existing water safety issues will be addressed by the removal of all the wood pilings from the basin and by the placement of channel markers/navigation aids for small, non-motorized boats.
- Bird resting perches will be installed.
- The existing outfall channel will be reconstructed as a natural stream restoration which will provide scientific and educational opportunities such as water testing.
- Educational components within the park will be provided, consisting of informal seating areas or “gathering spaces,” educational markers and interpretive displays on park history and the environment, an interpretive boardwalk, and space for outdoor learning activities such as applied science experiments; no building or structure will be constructed.
- The existing deteriorating bulkhead will be replaced with a variety of attractive shoreline edge treatments, to include native wetland plantings, rock, landscaped banks and “hard edge” treatments of concrete, in order for the public to safely use the eastern portion of the park, as well as to improve the visual appearance of the water’s edge.

The two major issues that the Committee did not unanimously agree upon regarding the park were the location of the dog exercise area and the removal of the pilings from the basin. Also, the Committee spent considerable time discussing the nature of the park’s educational components. These three matters are discussed below.

Dog exercise area. The committee voted 5 to 3 to keep the dog exercise area in its existing location with setbacks (in accordance with the Dog Park Master Plan), and to provide ample signage, wetland protection, a boardwalk for pedestrians and dog access to the water during restricted times. The alternative that the Committee considered was to move the dog park to the northwest corner of the park, west of Union Street, near Wilkes Street. Members of the Committee who favored keeping the dog exercise area in its current location believed that the alternate location would be too close to the children’s playground and that the current location is appropriate since many residents enjoy the water access it provides for their dogs. Members that favored moving the dog exercise area believed that it is not appropriate to have a dog exercise area located within a Resource Protection Area (RPA), and that the exercise area, in its current location, may present environmental concerns and may conflict with pedestrian activity along the waterfront.

Staff researched the environmental concerns and were not able to substantiate any specific evidence or research that indicated that dogs using a streambed or river, or an adjacent area, present harmful environmental impacts. By restricting the hours that dogs may have access to the river, the Committee believed that conflicts between dogs and pedestrians would be minimized. Staff do have concerns about their ability to maintain the turf in the dog exercise area in good condition, which was a concern expressed by the Committee. We plan to work with the dog owners to enlist their help in keeping this area well maintained and to investigate alternate ground covers.

Pilings. The Committee voted 8 to 1 to remove all the pilings from the basin and to replace some of them with bird resting perches. The Committee also decided to mark a channel for kayaks to easily access the main river channel. The decision to remove the pilings stemmed primarily from concerns regarding safety (previously identified within the City's Corps of Engineers permit application for piling removal) and the impediments to construction and the cost implications associated with the pilings. In order to facilitate repair or removal of the bulkhead, as well as dredging and hydrilla harvesting, barge access is required into the basin. The existing pilings prohibit this access, and require expensive clamshell dredging.<sup>1</sup> In addition, although most of the pilings are now in a state of decay, they can still be removed by means of a choker chain.<sup>2</sup> If they are not removed now and they later further decay and break below the waterline, more expensive removal methods would be required. One Committee member had a concern regarding the loss of bird habitat and perch areas; the Committee addressed this by recommending the installation of new bird perches in the basin.

Education component. Early in the process there was substantial discussion about the nature of the education component to place in the park design. Numerous options were evaluated that ranged from a well-defined and structured program which could be housed in a dedicated building constructed on-site, to more informal and flexible components which could be used by a variety of groups and in a variety of formats. The Committee evaluated successful environmental education programs being run elsewhere in the region as potential models for Windmill Hill Park. These included Dyke Marsh, Discovery Creek, Mason Neck and the Rappahannock Conservation Program. In addition, input was provided about the environmental education needs of the Alexandria City Public Schools. School staff provided guidance and insight. The Committee's educational sub-committee evaluated the options and made the following recommendations:

- The park should support existing educational programs, not generate new ones.

---

<sup>1</sup> Clamshell dredging uses a large crane and bucket which scoops out material bucket by bucket. It requires room to maneuver and is done from fast land. Hydraulic dredging is done from a barge and sucks the material out like a straw using water as a medium. It is a cleaner, more efficient, and less expensive operation as compared to clamshell dredging.

<sup>2</sup> Using a choker chain method, a chain is put around the visible piling and pulled out by crane. If the piling has broken off below the water line, more expensive removal methods are required.



- A less structured, more inquiry-based style of discovery education would be appropriate for the park.
- A building (for educational purposes) was not appropriate for the park.
- A design that includes group seating and safe student access to the river would be appropriate to support existing school programs.
- A “gathering” place for groups or individuals at the water’s edge near the southern point of the basin should be provided.
- This gathering place should be kept open so as not to provide refuge for inappropriate activities.

These recommendations were adopted by the Committee, and reflect the Committee’s overall view that the park’s educational component should largely take the form of flexible and informal outdoor gathering space near the water. The Committee recommended an adjacent walkway that will lead to a terraced slope at the foot of Gibbon Street which can provide informal, safe access to and from the water for kayakers and participants in educational water activities. A separate overlook area will be provided at the point south of Harborside and will provide excellent views up and down the river.

Both the Environmental Policy Commission and the Waterfront Committee have reviewed and endorsed the Steering Committee’s recommended concept plan. The Park and Recreation Commission has also reviewed and endorsed the plan, but is concerned about the location of the dog exercise area and asks Council to refer to its October 17, 2001, motion on this issue (Attachment 4).

**FISCAL IMPACT:** The costs for implementing the overall park redevelopment in current (year 2002) dollars are estimated at \$3.1 million in construction costs and \$48,200 in annual maintenance costs (Attachment 3). The majority of these costs, \$2 million, is to encapsulate part of the deteriorating bulkhead, install concrete sheetpile to prevent further erosion and establish a soft edge treatment on both the north and south side of the basin. The costs for various park components are \$0.6 million, which includes sidewalks, basketball and volleyball courts, bird perches, lighting, traffic calming devices, landscaping, park amenities such as benches and garbage cans, park signage, and site work to install irrigation, improve turf areas and provide storm water drainage. The costs to install the tidal wetland area, the kayak launch and the interpretive boardwalk are estimated at \$65,000. Costs to redevelop the outfall area and install a pedestrian bridge are projected at \$0.150 million. Mobilization, pile extraction, dolphin removal and debris removal costs are estimated at \$0.3 million.

This project can be phased by doing the park components and the basin components separately. The basin components total \$2.5 million. There are no funds in the proposed FY 2003-2008 CIP for either component of this project. Staff will consider this project next year when putting together the FY 2004-2009 CIP. Also, staff will continue to research grant opportunities. Whether this project, in whole or in part, can be funded in a future CIP will depend on a number of factors, including the availability of funds and the relative importance of this project in comparison to other City and schools capital projects.

**ATTACHMENTS:**

1. Windmill Hill Park Recommended Concept Plan - January 2002
2. June 26, 2001 Docket Item - Consideration of Planning Process for Windmill Hill Park and Resolution to Establish the Ad Hoc Steering Committee for Windmill Hill Park
3. Recommended Concept Plan Construction and Maintenance Budget
4. October 17, 2001 Park and Recreation Commission motion recommending the dog exercise area at Windmill Hill Park be relocated away from the water

**STAFF:**

Sandra Whitmore, Director, Recreation, Parks, and Cultural Activities  
Kirk Kincannon, Deputy Director, Recreation, Parks, and Cultural Activities

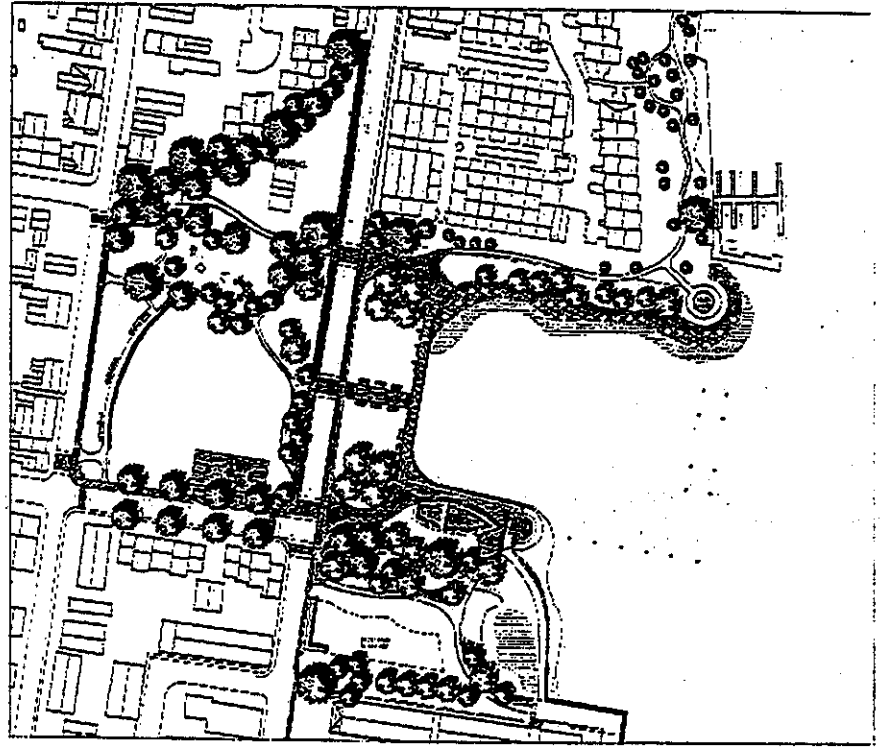
RECOMMENDED CONCEPT PLAN

17  
4-13-02

~~WS E 18~~  
~~4-9-02~~

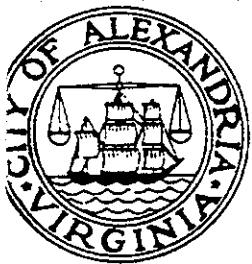
# CITY OF ALEXANDRIA

## WINDMILL HILL PARK CITY OF ALEXANDRIA, VIRGINIA



RECOMMENDED CONCEPT PLAN

JANUARY 2002



**Baker**

BAKER AND ASSOCIATES  
ARCHITECTS • PLANNERS • ENGINEERS

# WINDMILL HILL PARK

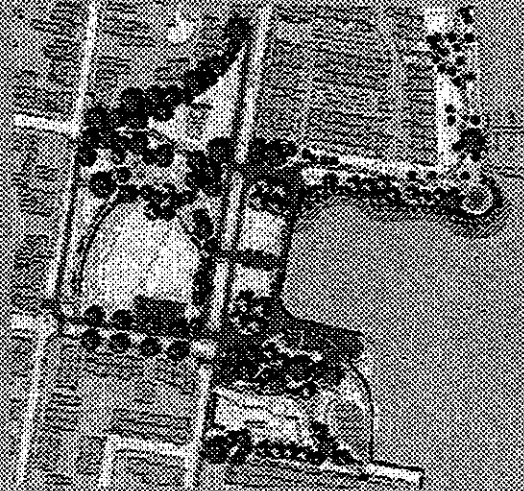
## CITY OF ALEXANDRIA, VIRGINIA

### Windmill Hill Park Concept Plan

- [Introduction](#)
- [Project Overview](#)
- [Site Analysis/Feasibility Study](#)
- [Concept Plan Development](#)
- [Recommended Concept Plan](#)
- [Appendix](#)
- [List of Figures:](#)

- [Fig. 2.1 Recommended Concept Plan](#)
- [Fig. 3.1 Site Analysis Plan](#)
- [Fig. 4.1 Initial Concept 1](#)
- [Fig. 4.2 Initial Concept 2](#)
- [Fig. 4.3 Initial Concept 3](#)
- [Fig. 4.4 Modified Concept 1](#)
- [Fig. 4.5 Soft Edge Treatment](#)
- [Fig. 4.6 Modified Concept 2](#)
- [Fig. 4.7 Bulkhead Section B-B](#)
- [Fig. 4.8 Bulkhead Section C-C](#)
- [Fig. 4.9 Street Section D-D](#)
- [Fig. 5.1 Concept Plan A](#)
- [Fig. 5.2 Recommended Concept Plan B](#)
- [Fig. 5.3 Perspective View](#)

- [Process Flow Chart 1](#)
- [Process Flow Chart 2](#)



To send mail to City Council, other elected city officials and individual City departments, click here.  
 General City Mail: [CityMail@ci.alexandria.va.us](mailto:CityMail@ci.alexandria.va.us)  
 Use the Site Feedback form for technical questions or comments regarding this web site.

Last Modified: Wednesday, 20-Mar-2002

## 1. INTRODUCTION

The Windmill Hill Park Concept Plan was initiated by City Council Resolution No. 2003 of June 26, 2001 which authorized the Mayor and City Manager to establish an Ad Hoc Steering Committee to work along with City Staff and Baker and Associates to develop a final plan for the Windmill Hill Park site. The park has previously been studied by a variety of public and private interests, and numerous redevelopment concepts proposed. The City Council directed the plan to 1) enable public to experience and enjoy the river, and should retain a reasonable view of river. 2) include natural resource enhancements. 3) include storm drain outfall improvements. 4) include educational components 5) include enhancements and traffic calming measures to Union Street.

The goal of the Concept Plan is to create a comprehensive vision that allows the City of Alexandria to direct future investment, rehabilitation, and park development in a sustainable and environmentally sensitive manner. To achieve those goals, this initiative identifies new development scenarios that offer: 1) public access and reasonable views of the river; 2) natural resource enhancements and storm water outfall improvements; and 3) traffic calming and an educational component, among other elements. The plan also intends to attract a broader public interest to the site by developing a variety of uses supporting recreational, educational, water-related and other activities consistent with the City of Alexandria's Department of Recreation, Parks and Cultural Activities (DRPC) mission.

### 1.1 Organization

The Concept Plan contains the following components, which focus on the framework for the future development of the site:

#### ❖ Executive Summary

The Executive Summary provides an overview of the planning process and final recommendations as well as cost summary information and the final Concept Plan.

#### ❖ Existing Conditions Evaluation

The Existing Conditions Evaluation examines site and environmental information from the existing site condition surveys and data provided by DRPC and other City agencies, as well as field inspections by Baker personnel, combined with information obtained in comments from key stakeholders and interest groups.

#### ❖ Opportunities and Constraints

Windmill Hill Park is operated and maintained as one of the Alexandria Waterfront City Parks open to variety of users. A number of uses for the site have been constructed over its lifetime. Various site attributes, such as topography and drainage ways, create opportunities as well as constraints for

enhancing the site and upgrading current uses. The conclusions and recommendations drawn from an analysis of these opportunities and constraints shape the size, scope and direction of the proposed elements and design solutions.

❖ **Conceptual Designs**

The conceptual design process utilized for the Concept Plan includes feedback obtained from workshops, public meetings and work sessions that explored ways to address various requirements, constraints and options for developing the site. Individual concepts were evaluated based upon a wide range of issues and a general consensus that environmental impacts, public requirements and economic feasibility should all be addressed. Numerous options were developed for consideration by the Steering Committee.

❖ **Concept Plan**

The Concept Plan is the conceptual master plan intended to guide future development of the site. The Windmill Hill Park Concept Plan is comprised of a number of strategic recommendations, which, in total, provide the vision for the future of the site. Included are discussions and recommendations concerning land uses, educational development, circulation and parking, recreational/leisure activities, and landscape development strategies. It represents the preferred recommendations of the Steering Committee.

❖ **Storm Water Management**

A storm water management strategy developed as part of the Concept Plan, outlines methods for handling stormwater in an environmentally sensitive, attractive and economical approach.

❖ **Budget**

The budgets present parametric cost estimates for the various site elements and the overall Concept Plan. They include proposed construction costs as well as projected maintenance costs, and can be used for future funding projections and strategies.

In total, the Windmill Hill Park Concept Plan represents a comprehensive vision for the future redevelopment of this portion of the City of Alexandria Waterfront Park System.

## 2. PROJECT OVERVIEW

### 2.1 Executive Summary



*Plate 2.1: Aerial photograph of existing Windmill Hill Park.*

The recommended Concept Plan is consistent with the directions provided to the Ad Hoc Steering Committee appointed by the Mayor and City Council for Windmill Hill Park and provides a clear guideline for future redevelopment of the park for all the citizens of Alexandria.

11

The Concept Plan addresses the following objectives as directed by City Council:

- ❖ Enable the public to experience and enjoy the river, and retain a reasonable view of the river.
- ❖ Include natural resource enhancements.
- ❖ Include storm drain outfall improvements.
- ❖ Include educational components.
- ❖ Include a limited boat launch area.
- ❖ Include enhancements and traffic calming measures on Union Street.
- ❖ Explore potential locations for the relocation of current facilities (i.e., dog park and existing recreation areas) and development of new uses at the site.
- ❖ Identify site conditions requiring improvement including existing bulkhead, pilings and water's edge safety concerns.
- ❖ Identify and evaluate infrastructure improvements required by the overall development of the site.
- ❖ Establish a Phasing Plan for the overall site as a development guide.
- ❖ Explore parking options.

The recommended Concept Plan represents the final recommendation of the Ad Hoc Steering Committee for Windmill Hill Park. It reflects the evaluation and planning process that was performed by the Committee, City staff, the consultant and the general public over a six-month period. The City Council resolution provided the framework for the Committee's work and deliberations, and all but three of the recommendations were made with a unanimous vote of all Committee members (*see Section 4.2.5.2*). Detailed descriptions of the options considered and the process utilized can be found in Chapters 4 and 5.

Based on an overview of the major issues studied, the Concept Plan recommends that:

- ❖ Windmill Hill Park remain as a public park, designed to be broadly accessible to all Alexandrians to enjoy.
- ❖ The dog exercise area remain in its existing location; however, adequate setbacks be provided (as per the City of Alexandria Dog Park Master Plan) as well as ample signage, wetland protection, a boardwalk for pedestrians, and dog access to the water with restricted access times to be determined by staff.
- ❖ The volleyball court remain in its current general location; however, be reoriented in a north-south direction and slightly shifted to allow for straightening of the adjacent path from the Wilkes Street pedestrian tunnel. The basketball court be slightly shifted to allow for a continuous sidewalk on Gibbon Street and leveling of the court surface.



- ❖ Walkway improvements be made along Union Street, Lee Street and Gibbon Street. Traffic calming measures be added along Union Street, as well as pedestrian crosswalks, to provide a connecting element between the eastern and western portions of the park. A phased tree plan for the site be considered and desirable existing trees retained where feasible and appropriate. Two temporary loading/unloading parking spaces to be provided on Union Street. No other additional parking is being proposed.
- ❖ The Concept Plan recommendations prominently feature the river, retain excellent views of the river, and enable public water access for all citizens. A kayak launch/retrieval area is to be provided. Existing water safety issues be addressed, including removal of all the wood pilings, and the placement of channel markers/navigation aids for small, non-motorized boats. Bird resting perches will be installed. The existing outfall channel be reconstructed as a natural stream restoration which will provide scientific and educational opportunities such as water testing.
- ❖ Educational components shall be included within Windmill Hill Park. A variety of options were studied and reviewed by the Committee to determine potential user needs as well as what the park could support and what is offered at other regional locations. Direct input was received from Alexandria City Public Schools staff and the general public. It was determined that the park include a direct waterfront pedestrian link with Jones Point Park, informal seating areas or "gathering spaces," educational markers and interpretive displays on park history and the environment, an interpretive boardwalk, and generally provide space and opportunity for outdoor learning activities such as applied science experiments. A dedicated building or structure on the site is not recommended.
- ❖ The existing deteriorating bulkhead be replaced with a variety of attractive shoreline edge treatments to include native wetland plantings, rock, landscaped banks and "hard edge" treatments of concrete, in order to allow the public to safely use the eastern portion of the park, as well as to improve the visual appearance of the water's edge.

## 2.2 Long Range Vision

The City of Alexandria, Virginia is one of America's most historic communities and encompasses 15.75 square miles along the Potomac River six miles South of Washington, DC. The City contains over 900 acres of public parks and open space, much of it located adjacent to the Potomac River. The historic Old Town District contains many authentic eighteenth-century buildings and is carefully preserved through strict architectural and planning guidelines administered by the City. Windmill Hill Park represents one of the key open space areas within the Old Town Historic District and a key parcel within the overall waterfront park system.

The existing developed park was initiated in the 1950's. The City of Alexandria's Department of Recreation, Parks and Cultural Activities (*referred to as "DRPC" in this report*) now operates and maintains the park and the waterfront portion of the site. Today the park is an important destination for City residents and visitors who enjoy the playgrounds, active recreation courts and open spaces.

Located on the western shore of the Potomac River, this site contains many strategic advantages. It provides City residents and visitors open green space and easy access to the water within the existing urban core of Old Town. It also provides a key link within the overall waterfront park system, linking to Jones Point Park to the south and City waterfront parks to the north. While several privately-held parcels still interrupt the complete linkage of the waterfront, Windmill Hill Park provides an important step towards the completion of a unified network of publicly accessible waterfront.

The need for rehabilitation of the water's edge, public safety concerns, activities associated with the Woodrow Wilson Bridge and Jones Point redevelopment, along with the waterfront property settlement with the Federal Government, provided the impetus for DRPC to study redevelopment options for the Windmill Hill Park site. While a number of previous redevelopment proposals have been formulated by different interest groups, this plan represents a Concept Plan developed by the Steering Committee appointed by the Mayor and City Council, and which also addresses long range improvement and budgeting issues important to the City. The success of this initiative will largely rely on creating a balance between the economic viability, public acceptance and ecological sensitivity of the redevelopment goals.

Baker and Associates (Baker) was retained to help the City and the Steering Committee prepare a balanced site concept plan by conducting work sessions, feasibility and site capacity analysis, schematic designs and technical evaluations. The Concept Plan is envisioned as a guide for future redevelopment and rehabilitation projects. The City's vision, along with specific public requirements and the need to rehabilitate existing facilities, is the key for the genesis of this Concept Plan.

### 2.3 Concept Plan Accomplishments

The Concept Plan accomplishes the following objectives:

***Defines a Path Forward.*** Due to the unique characteristics of the site, the many interested stakeholders and the complexity of issues involved, it was imperative to examine a number of redevelopment scenarios and to come to a consensus on a well-defined path forward. The Steering Committee and staff worked to incorporate public comment, as well as to balance regulatory and fiscal concerns with aesthetic and recreational needs. The plan:

***Balances Redevelopment with Environmental Features.*** The proposed plan includes environmental interpretive features and natural enhancements such as wetland edge plantings, wildlife habitat, naturalistic plantings and storm water runoff improvements in order to maintain and enhance the natural qualities of the site.

***Provides a Variety of Features to Serve a Diverse User Group.*** The plan maintains all of the existing park uses while accommodating additional uses such as kayaking, canoeing, waterfront walking/jogging and educational opportunities.

***Creates a "Blueprint" to Guide Redevelopment and Funding Options.*** The plan addresses budgeting and phasing options in order to permit flexibility in funding and construction by the City. It prioritizes elements that need to be addressed early in the redevelopment process and also incorporates annual estimated maintenance costs.

***Defines Program Elements and Site Needs.*** The existing Windmill Hill Park waterfront still reflects its previous life as an industrial urban waterfront. It is in need of site and environmental upgrades. It also requires integration with the existing park west of Union Street. The Concept Plan coordinates various uses, establishes infrastructure needs, and locates new elements in a coordinated and linked site.

***Locates New Elements to be Integrated with the Site Features and Existing Development.*** The proposed waterfront trail, boardwalk/interpretive area and seating/gathering areas have been sited to take advantage of the site's natural river views while at the same time respecting adjacent residential areas and the dog exercise area.

***Develops a Comprehensive Pedestrian System Linking the Park Elements, Jones Point Park, and the Surrounding Neighborhood.*** To take advantage of the site's natural and wetland areas, a pedestrian trail and interpretive boardwalk are proposed along the water's edge. The trails will also provide connections to Jones Point Park and its planned recreational amenities, and will become an attractive recreational feature to be used by the public. Internal walkway and sidewalk improvements are also proposed. Interpretive displays and lookout points will be included to enhance understanding of important environmental features of the site, as well as the site's historical development.

***Provides Minor Enhancements to Existing Recreation Facilities.*** These include reconstructing the basketball court, providing safety surfacing to the existing playground, reorienting the volleyball court in a north-south direction, providing additional seating areas, extending sidewalks and keeping the open space between Lee Street and the basketball court in its current configuration.

***Identifies Infrastructure Upgrades Required.*** Major infrastructure needs have been identified and include shoreline stabilization, storm drain outfall improvements, undergrounding of overhead power lines, site lighting improvements and utility improvements associated with Union Street enhancements.

***Provides a Budget for Funding Strategies.*** Detailed line item cost estimates have been developed to provide a cost basis for capital improvement planning and future funding requests. The Budget permits phasing strategies to be based on available resources.

***Provides Recreational and Educational Opportunities.*** The greatest asset of the site is its strategic riverfront location and natural features. The Concept Plan has explored ways and opportunities to promote increased public use through the development of new facilities such as the waterfront walks, outdoor seating areas, kayak launch area, and interpretive exhibits. Specific emphasis was placed on evaluating appropriate educational/interpretive opportunities and matching those with potential user needs and site capacity. The final Concept Plan recommendations reflect the Steering Committee's desire to match the most appropriate solution to serve the widest potential range of users. Detailed discussion of the options evaluated can be found within subsequent chapters.

An informal seating and gathering area comprised of low bench forms in natural materials will be located at the old parking lot area. Seating elements will reflect a nautical theme and will provide an informal setting for outdoor learning activities, small group gatherings, etc. Subtle interpretive elements can be incorporated into the seating materials as well. Low profile markers would provide habitat information at water's edge. Additional educational features which can be considered in the development of final construction plans could include:

- ❖ Install a telescope for bird watching.
- ❖ Incorporate nautical items like ships ropes or mooring chains into park accents.
- ❖ Incorporate a Mariner's compass into the paved surface at the "gathering place."
- ❖ Identify flora and fauna of the park through interpretive signs.

Numerous options for the educational component were evaluated by the Steering Committee (*see Appendix, pg. A-22*). They ranged in intensity and format from a well-defined and structured program, which could be housed in a dedicated building constructed on-site, to more informal, yet flexible, components which could be used by a variety of groups and in a variety of formats.

The Education Subcommittee presented successful environmental education programs in-place elsewhere in the region as potential models for Windmill Hill Park. These included, among others, Dyke Marsh,

Discovery Creek, Mason Neck and the Rappahannock Conservation Program. In addition, Alexandria City Public Schools staff provided input regarding the needs of the public schools and provided specific guidance and insight including that the park should “encourage but not provide” formalized educational programs or spaces. The informal Educational Sub-Committee evaluated the options and made the following recommendations:

- ❖ Encourage outdoor educational programs that do not require a building (structure) within the park.
- ❖ Utilize a less structured, more inquiry-based style of discovery education for this park.
- ❖ Include group seating and safe student access to the river to support existing school programs.
- ❖ Provide a “gathering” place for groups or individuals at the water’s edge near the southern point of the basin.
- ❖ Provide an open, uncovered gathering place so as not to provide refuge for inappropriate activities.

The proposed solution reflects the Steering Committee findings that the educational component should provide flexible and informal outdoor gathering space near the water. An adjacent walkway will lead to a terraced slope at the Gibbon Street point which can provide informal, safe access to and from the water for kayakers and educational water activities. A separate overlook area will be provided at the point near Harborside and will provide excellent views up and down the river.

*Addresses Environmental Concerns of the Site.* Due to the site’s unique natural setting and past history as a working urban waterfront, areas have been identified as needing environmental improvements and/or enhancements. The redevelopment effort will address these issues within the site and will correct existing deficiencies.

Currently, several existing storm drain outfall pipes release untreated runoff directly into the Potomac River. The Concept Plan recommends a comprehensive approach to managing storm water and correcting existing deficiencies in an environmentally-sensitive and naturalistic approach by reconstructing the outfall channel as a natural stream.

Users of this site currently enjoy viewing the natural resources located on the site. Existing tree areas combine with open areas and water’s edge to provide a variety of landscape forms and habitats. The proposed redevelopment seeks to build upon and enhance the natural qualities of the site while at the same time making the necessary improvements for public access.

The design of the site establishes the physical characteristics of the redeveloped Windmill Hill Park. It combines infrastructure and green spaces in conjunction and harmony with the proposed recreation and “hardscape” improvements.

The eastern portion of the site, along the Potomac River, is classified as a Resource Protection Area (RPA) under the adopted Chesapeake Bay Preservation Act. The proposed redevelopment will improve environmental protection measures at the site by implementing storm water management improvements

where feasible. The existing outfall at the end of Gibbon Street will be redesigned as a naturalistic "stream" restoration, which will provide water quality benefits and, at the same time, create an attractive natural asset for the site. Water edge areas will also be planted with native emergent and wetland species. Wildlife enhancements will be incorporated through the addition of bird perches and trees and shrubs.

The overall site landscape will be enhanced through the provision of selective street tree plantings, native shrubs and accent plantings. In addition, edge areas should be restored/ revegetated with naturalistic plantings and native riparian and emergent plant materials.

***Establishes Clarity of Site Layout.*** The Concept Plan establishes certain areas of the site to be utilized for specific uses. The western portion of the park will remain as the active recreation portion of the site with relatively minor changes and improvements. The eastern, or waterfront portion of the site, will remain more passive in nature and focused on enjoyment of the river and natural features of the site and passive activities such as walking, seating and providing access to the river.

***Creates Traffic-Calming, Pedestrian Linkages and "Sense of Arrival" at Union Street.*** A major challenge of the planning process was to create a pedestrian-friendly environment within the park as well as to link the site, which is bisected by Union Street, visually and functionally. Speed tables utilizing decorative pavers are proposed at several points within Union Street to slow vehicles and to act as pedestrian crossings between the two portions of the park. Park identification signage is also proposed at either end of Union Street to let motorists know they have arrived at a "park zone."

***Removes Existing Safety Hazards.*** The Concept Plan proposes removal of the wooden pilings and decking in order to reduce liability and promote safe public use of the park. The piling removal is also needed for several other reasons, including for reconstruction and removal of the deteriorating bulkhead and for possible future removal/harvesting of hydrilla and sediment removal within the basin. Removal of the pilings can be accomplished under U.S. Army Corps of Engineers permits previously obtained by the City.

***Utilizes a Variety of Water's Edge Treatments.*** A number of options were examined for water edge treatments and bulkhead improvements. Based on the poor condition of the existing bulkhead, shoreline stabilization treatments are required. Hard edge, soft edge and combination solutions were all examined for aesthetics, functionality and cost of construction. The plan recommends utilizing a combination of edge conditions in order to promote visual variety in a cost efficient manner.

***Creates Flexible Interpretive/Educational Seating Areas.*** A number of options were examined for educational and interpretive facilities and components. The options ranged from those that were very formalized and would require support buildings, structures and parking areas to simply providing flexible opportunity spaces for gathering near the river. Based on the limited parking and site capacity, as well

as successful environmental education models studied elsewhere in the region, it was determined that a flexible outdoor gathering and seating area located close to the water would provide a place to encourage educational opportunities.

The work sessions included discussions with and presentations to the Steering Committee, DRPC, City technical staff, public and stakeholder question and answer sessions and a written questionnaire for public feedback. The feedback was reviewed and incorporated into a number of design scenarios and refined to develop preferred options (refer to Table 2.1).

## 2.4 Key Findings

The following key findings form the conclusions for the Concept Plan:

- ❖ *All of the “required” program elements, as defined in the City Council resolution can be accommodated on the site.*  
Various options and levels of intensity for all the program elements were explored by the Steering Committee in order to determine the ideal mix of uses for the park. In addition, a number of the “optional” Council-directed elements to be explored can also be accommodated on the site.
- ❖ *The existing bulkhead, pilings and water’s edge require extensive improvements prior to public access.*  
The existing wood and concrete bulkhead and piling remnants create a safety hazard for potential users of the site. Bulkhead will require removal and renovation. All pilings will be removed. Both items represent large cost issues within the overall park redevelopment.
- ❖ *The location of the dog exercise area proved to be a challenging issue.*  
Due to very specific user demands, functional requirements, and environmental protection concerns, several alternatives were examined for the possible relocation of the Dog Exercise Area within the park. While none were considered ideal, and the committee was not unanimous in its opinion, it was determined that retaining the area in its existing location was the least objectionable option at the current time.
- ❖ *The site cannot support intensive activities, which require additional parking areas.*  
Due to the site’s location within an existing residential neighborhood, site constraints, the existing Old Town street grid and associated on-street parking, the desire to limit impervious area and to refrain from introducing parking along the water’s edge, there is no desirable option to increase parking at the site.
- ❖ *The park should provide a direct pedestrian waterfront link through the site.*  
In order to maximize the amenity of the waterfront, it was determined that pedestrian access connecting the existing waterfront trails from Jones Point through Ford’s Landing and Harborside

should be continuous and held close to the water's edge. An interpretive boardwalk can be provided which will assist in separating pedestrians from the dog exercise area.

- ❖ ***Environmental enhancements should be incorporated as part of the proposed improvements.*** Improvements that enhance wetlands, water quality, fish and wildlife habitat and environmental learning opportunities will be incorporated into the design along with input from outside expertise such as the National Audubon Society, who could be consulted during the design process.
- ❖ ***Opportunities for direct waterfront access should be provided and waterfront views maintained.*** This includes providing the opportunity for people to be able to "touch" the water, including kayak and canoe launching, and preservation of the existing open quality of the park through views of the water.
- ❖ ***Educational opportunities can be accommodated on the site.*** The Steering Committee unanimously supports providing space for outdoor learning activities and interpretive elements within the park; however, an educational building or structure is not recommended.

## 2.5 Next Steps

"Next step" activities, including operation options, have been identified:

- ❖ ***Receipt of the Recommended Plan by City Council, Public Hearing and Final Action by City Council.***  
The Steering Committee's recommended plan will be docketed for City Council in March and set for public hearing in April, prior to final adoption by Council, before work can begin towards implementation of the Windmill Hill Park redevelopment.
- ❖ ***Finalization of Land Transfer.***  
The National Park Service must approve the final Concept Plan for its federally owned portion of the waterfront before the transfer of ownership to the City of Alexandria.

Upon approval of the plan, and when redevelopment begins, several issues will require addressing throughout the redevelopment process.

***100 Year Floodplain and Tidal Elevations.*** Due to the site's proximity to the water, all proposed improvements in the western portion of the park will need to be designed to withstand the occurrence of a 100-year flood as well as daily tidal variations. Of special importance is the desire to design improvements to enhance flushing of the basin area and to minimize water-borne trash and litter collection near the water's edge.



***Environmental Sensitivity.*** Due to the site's riverfront location, RPA, and wildlife habitat, care needs to be taken to insure that site disturbance and construction activities are limited to the maximum extent possible. Wetlands and riparian areas should be treated as valuable site assets to be protected and adequate protection measures such as barrier fencing and silt/filter fabrics utilized during construction.

***Adjacent Land Uses.*** As the park is located within the Old and Historic District, a residential neighborhood with significant historical and cultural resources, care should be taken to minimize the disturbance required for construction activities, and to set up a neighborhood group to work with the surrounding residents to insure smooth implementation of the improvements.

## **2.6 Project Budget**

A planning budget was developed for the Concept Plan, which addressed the proposed program elements, current standards and operations and maintenance concerns. These costs form the basis of projected redevelopment costs. The budget information is provided in the accompanying spreadsheet. It is anticipated that the current cost for implementing the overall park redevelopment is \$3,100,000 in construction costs. Project costs (soft costs) are not included in this budget. Phasing options are also provided.

City of Alexandria  
 Department of Parks, Recreation and Cultural Activities  
 Windmill Hill Park  
 Construction Budget

Jan-02

Baker and Associates

Phase	Activity / Item	Description	Proposed SF	Proposed Units	Unit Cost	Total Cost	Cost Budget
<b>General Description</b>							
Phase I	Demo Parking Lot	SF	15,000	NA	15,000		\$6,000
Phase II	Demo Sidewalks	SF	10,000	NA	10,000	\$0.40	\$7,650
Phase II	Demo Basketball Court	SF	4,200	NA	4,200	\$0.61	\$6,460
Phase II	Demo Volleyball Court	SF	1,800	NA	1,800	\$0.40	\$2,080
Phase I	Disposal Off-Site To 5 Miles	CU	832	NA	832	\$0.25	\$450
Phase II	Demo Play Surfacing	SF	9,700	NA	9,700	\$11.80	\$9,818
Phase I	Demo Overfall Concrete Channel	CF	2,025	NA	2,025	\$0.30	\$2,911
<b>Subtotal</b>							\$6,300
<b>Grand Total</b>							\$24,022

Phase	Activity / Item	Description	Proposed SF	Proposed Units	Unit Cost	Total Cost	Cost Budget
<b>Park Construction</b>							
Phase I	Paver Sidewalk	SF	14,000	NA	14,000	\$7.50	\$255,000
Phase II	Concrete Pad	SF	1,700	NA	1,700	\$4.50	\$7,650
Phase I	Aggregate Under Surfacing	SF	23,850	NA	23,850	\$2.50	\$59,625
Phase I	Paver Speedwalk	EA	3	NA	3	\$6,500.00	\$19,500
Phase I	Paver Concrete	EA	4	NA	4	\$4,500.00	\$18,000
Phase I	Stone/Concrete Seaming Element	CF, 16" H x 18" W x 1" F	320	NA	1,050	\$30.50	\$32,025
Phase II	Rubberized Play Surfacing	SF, Poured in Place	9,700	NA	9,700	\$1.85	\$17,945
Phase II	Interpretive Display Panel	Upper / Lower Model (rotation), Lump sum	NA	NA	1	\$4,500.00	\$4,500
Phase II	New Basketball Court	Asphalt	10,000	NA	10,000	\$3.00	\$30,000
Phase II	Color Coat Basketball Court	Assume 200 gal / Lump Sum	NA	NA	1	\$2,800.00	\$2,800
Phase II	New Volleyball Court	Sand w/ lumber Edge Lump sum	NA	NA	1	\$3,800.00	\$3,800
Phase I	Reinforced Turf Dog Exercise Area	Assume 4	10,700	NA	10,700	\$1.75	\$18,725
Phase I	Dog Area Bollards	Assume 4	NA	NA	4	\$40.00	\$160
Phase I	Irrigation Installation	Assume 4	86,000	NA	86,000	\$0.20	\$22,360
Phase I	Irrigation Water Meter Connection	Lump Sum	NA	NA	1	\$18,000.00	\$18,000
Phase I	New Landscaping	30' trees and 800 shrubs	NA	NA	1	\$25,000.00	\$25,000
Phase I	Park Signage/Pylon	Assume/Bid	NA	NA	2	\$4,800.00	\$9,600
Phase I	Sediment & Erosion Control	Lump Sum	NA	NA	1	\$5,000.00	\$5,000
Phase I	New Trash Receptacles	Assume 6	NA	NA	6	\$900.00	\$5,400
Phase I	Storm Drain Improvements / Relocations	Assume 6 new drain inlets, 80' 12" new pipe	NA	NA	1	\$34,000.00	\$34,000
Phase I	Hand Parching Platforms	Assume 4	NA	NA	4	\$3,600.00	\$14,400
Phase I	New Lighting	Assume 8 new 40-watt lights	NA	NA	8	\$1,800.00	\$14,400
<b>Subtotal</b>							\$612,950

Phase	Activity / Item	Description	Proposed SF	Proposed Units	Unit Cost	Total Cost	Cost Budget
<b>Site/Structure Rehabilitation</b>							
Phase I	Demo Bulbhead	Per LF	NA	900	900	\$1,780.00	\$1,602,000
Phase I	Soft Edge/Revetment Treatment	Per LF	NA	400	400	\$370.00	\$148,000
Phase I	Concrete Sheetpile	Per LF	NA	500	500	\$300.00	\$250,000
<b>Subtotal</b>							\$2,400,000

Phase	Activity / Item	Description	Proposed SF	Proposed Units	Unit Cost	Total Cost	Cost Budget
<b>Other</b>							
Phase I	Mobilization	Lump Sum	NA	NA	1	\$50,000.00	\$50,000
Phase I	Pile Extraction	550 Piles	NA	NA	550	\$175.00	\$96,250
Phase I	Dolphin Removal	Lump, Assume 2	NA	NA	2	\$28,000.00	\$56,000
Phase I	Wreck & Debris Removal	Lump Sum	NA	NA	1	\$40,000.00	\$40,000
Phase I	Disposal (Landfill)	Lump Sum	NA	NA	1	\$32,500.00	\$32,500
<b>Subtotal</b>							\$274,750

22

Phase	Activity / Item	Description	Quantity	Proposed Quantity	Unit Cost	Unit Cost	Total Budget
<b>Construction Budget</b>							
Phase I	Keyak Grass Slope	Fill, Grade and Seed	4,850	NA	4,850	\$3.00	\$14,550
Phase I	Tidal Wetland Area	\$80,000/ acre	10,890	NA	10,890	\$1.85	\$20,147
Phase I	Interpretive Boardwalk	Steel mesh supports, lumber	1,550	NA	1,550	\$19.50	\$30,225
<b>Subtotal</b>			<b>17,290</b>		<b>17,290</b>	<b>\$85</b>	<b>\$14,922</b>
<b>Construction Budget</b>							
Phase I	Grading and Excavation	30-ton pool areas	20,000	NA	20,000	\$3.30	\$66,000
Phase I	Rock Placement	Large Boulder, Fluid Placement	NA	NA	200	\$42.00	\$8,400
Phase I	Outfall Structures/ Piping	1-Weir	NA	NA	2	\$2,360.00	\$7,520
Phase I	Landscaping	Edge Plants and 5'-1' Edge	NA	NA	1	\$40,000.00	\$40,000
Phase I	Pedestrian Bridge	Custom Design Steel and Concrete	NA	NA	1	\$33,000.00	\$33,000
<b>Subtotal</b>			<b>20,000</b>		<b>20,000</b>	<b>\$1,100</b>	<b>\$22,000</b>
<b>Total Construction Budget</b>							<b>\$37,922</b>

Table 2.2: Budget

Note: Construction Costs are based on 2002 construction dollars and are not escalated.

Phase	Activity / Item	Description	Unit Cost	Year	Frequency	Total Budget
<b>Maintenance Expenses Per Year</b>						
FY	Mowing and Trimming	Operations and Maintenance Budget	\$216	ca. 12 hr.	3x	\$6,480
FY	Shrub Trimming	Operations and Maintenance Budget	\$360	ca. 20 hr.	2	\$720
FY	Seeding, Aeration	Operations and Maintenance Budget	\$600	ca. Applic.	1	\$600
FY	Top Dressing Turf	Operations and Maintenance Budget	\$1,200	ca. Time	1	\$1,200
FY	Trash removal - receptacles	Operations and Maintenance Budget	\$1	ca. 50	1,460	\$1,314
FY	Grounds litter pick-up	Operations and Maintenance Budget	\$18	1 hr.	365	\$6,570
FY	Trash Bags park cans	Operations and Maintenance Budget	\$80	can	2	\$160
FY	Trash Bags Dog Area	Operations and Maintenance Budget	\$40	can	1	\$40
FY	Playground material	Operations and Maintenance Budget	\$17	yd.(100)	100	\$1,700
FY	Fudging walkway	Operations and Maintenance Budget	\$18	hr.(2)	2	\$36
FY	Volleyball sand	Operations and Maintenance Budget	\$500	load	1	\$500
FY	Volleyball net	Operations and Maintenance Budget	\$80	ea.	1	\$80
FY	Planting Bed Care	Operations and Maintenance Budget	\$2	\$1/ per year	1,500	\$3,000
FY	Litter Pick-up at Water's Edge	Operations and Maintenance Budget	\$12,000	Year	1	\$12,000
FY	Plant care (West of Lee Street)	Operations and Maintenance Budget	\$3,000	Year	1	\$3,000
FY	Plant Care (Rip-Rap Area)	Operations and Maintenance Budget	\$3,200	Year	1	\$3,200
FY	Plant Care (Stream Restoration Area)	Operations and Maintenance Budget	\$3,600	Year	1	\$3,600
<b>Subtotal</b>			<b>\$3,600</b>	<b>Year</b>	<b>1</b>	<b>\$3,600</b>
<b>Total Maintenance Budget</b>						<b>\$49,200</b>

Table 2.3: Maintenance Budget

*This page intentionally left blank.*

### 3. SITE ANALYSIS/FEASIBILITY STUDY

#### 3.1 Introduction

The following analysis establishes conditions for the redesign of Windmill Hill Park in Alexandria, Virginia. The existing site is in need of rehabilitation and it has diverse program elements. Users have expressed a strong desire to connect this park to Jones Point Park and the overall waterfront; therefore, an analysis of the existing site conditions is required. The objective of the analysis is to determine the site's capacity to support the proposed program elements and to identify opportunities, constraints and key issues which could affect development. This study examines the site from a comprehensive viewpoint to identify opportunities and constraints based on the long-range vision developed by the Steering Committee and the immediate needs of the users.

#### 3.2 Site Overview and Analysis

The Concept Plan focuses on a 3.4-acre tract located within the Alexandria waterfront system. The goal of the City is to connect all the pocket parks and open spaces along the historic Old Town Alexandria waterfront with a public-access river walk. Windmill Hill Park represents one of the key park sites within the system. The park is located just north of the 63-acre Jones Point Park (Plate 3.1), which has recently been the subject of a separate redevelopment plan process as part of the Woodrow Wilson Bridge improvements. The site is adjacent to several residential developments including Ford's Landing and Harborside, as well as other individual historic townhomes.

The Windmill Hill Park site has a colorful history. In 1843, this plot of land was the location for a wind-powered mill from which it derives its current name. During antebellum days, a single brick structure stood on Windmill Hill; however, it soon gained an "unsavory" reputation as it is said to have housed a brothel during the Civil War era of the 1860's, as well as functioning as a delivery port and staging area for the war effort. Windmill Hill was also home to former slaves who worked on the wharves for the Federal military authorities, and who eventually established a small settlement and church on the site.

In 1873, a ferry slip was constructed at the foot of Wilkes Street by the Southern Railroad Company, who became the owners of the northern portion of the park. By the 1890's, Windmill Hill had become the fashionable place for Alexandrians to promenade during the summer months and to hold political rallies.

During the early twentieth century most of the houses had been destroyed by fire or arson. In 1945, the land was turned over to the City of Alexandria with the provision that it would be used as a park or it would revert back to the original owners. The park was eventually improved by adding an outdoor amphitheater and eventually a small marina, the Old Town Yacht Basin, in 1956. The former Ford automobile plant also utilized portions of the site for industrial uses at various times until the demolition of the plant and the construction of Ford's Landing.

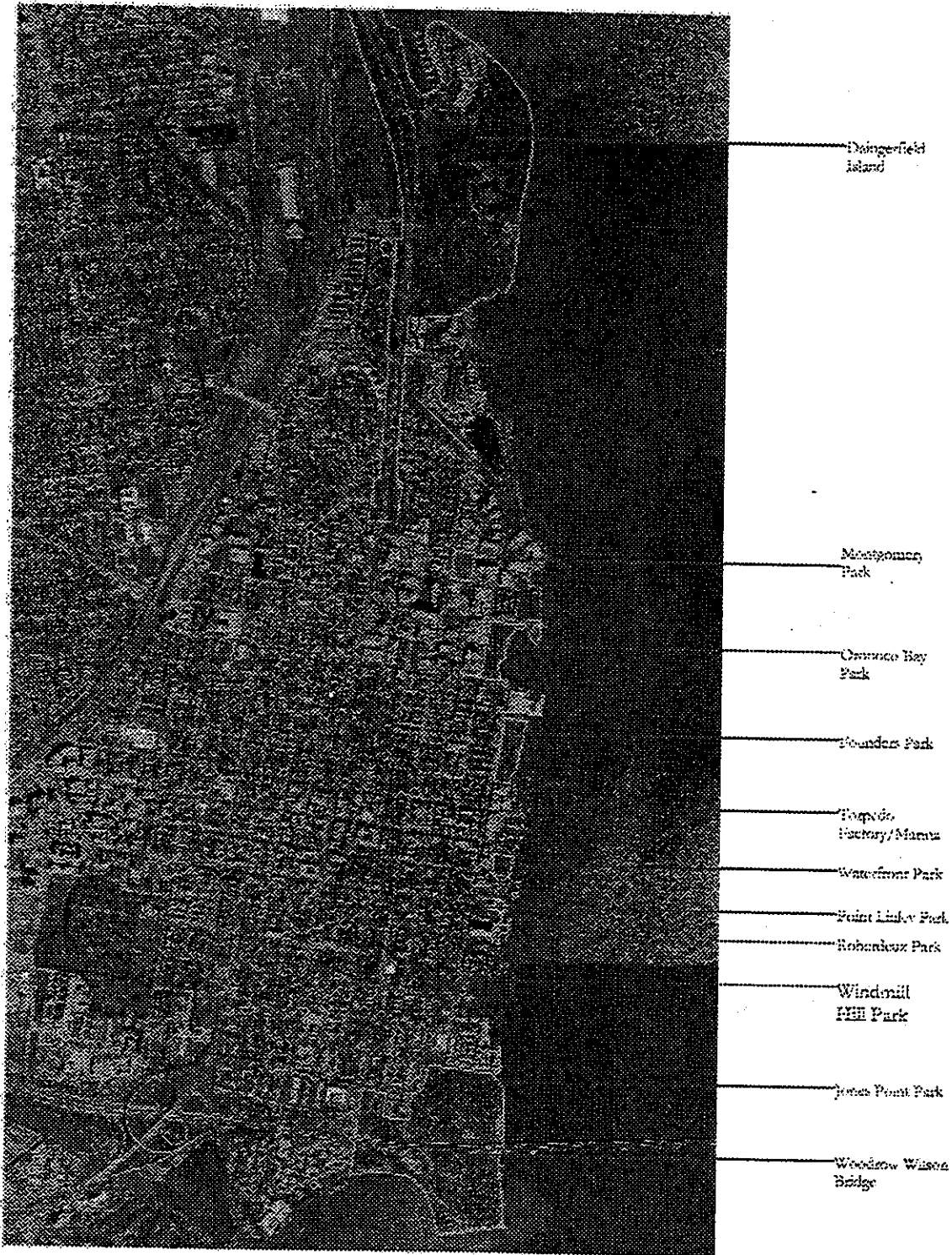


Plate 3.1: Aerial Photograph of eastern portion of Alexandria

Windmill Hill Park is currently a park with two distinct personalities on either side of Union Street. The developed western portion is well utilized and, with a few exceptions, in fairly good overall repair. The eastern, or waterfront, portion (with the exception of the lawn and dog exercise areas) is in need of repair. The remnants of the Old Town Yacht Basin are visible along the waterfront, as well as the deteriorating bulkhead. A wooded drainage outfall channel extends from the terminus of Gibbon Street and bifurcates the site. A significant portion of the eastern property is within the 100-year floodplain elevation and is considered a Resource Protection Area (RPA).

### 3.3 Evaluation of Existing Conditions

Existing conditions that were considered necessary to evaluate for the development of the Concept Plan fall into the following categories:

- ❖ Site location and access
- ❖ Site layout and organization of passive and active spaces
- ❖ Existing internal site circulation and external linkages
- ❖ Environmental and storm water management
- ❖ Views and aesthetics
- ❖ Safety issues
- ❖ Utilities
- ❖ Existing vegetation and wildlife
- ❖ Adjacent land uses
- ❖ Bulkhead condition
- ❖ Water conditions
- ❖ Zoning and regulatory constraints

#### 3.3.1 Site Location and Access

Windmill Hill Park is located within a short walk of the commercial center of Old Town. There are three types of access associated with Windmill Hill Park; vehicular, pedestrian (including bike) and water. The site is easily accessed by vehicle from Union Street or the adjacent Gibbon and Lee Streets. Union Street bisects the middle of Windmill Hill Park and acts as a primary street to and from the heart of Old Town. All of the adjacent streets have on-street parallel parking, although Union and Lee Street do not have parking on the eastern or "water" side. Parking is utilized by both residents and park users. There are a total of 93 parking spaces located on streets with park frontage.

Traffic calming measures, such as special paver speed tables, and enhancements such as crosswalks and signage are needed for pedestrian safety. By improving pedestrian access across Union Street the two distinct pieces of the park will appear more visually united, thru-traffic will proceed more cautiously and pedestrian flow will be enhanced.

The second type of access is pedestrian via foot or bicycle. Existing sidewalks adjacent to the streets currently exist in places, however they are not complete around the site's perimeter, and are of minimal width. The residential neighborhoods, Fords Landing and Harborside, have well maintained river walks, however, Windmill Hill Park does not connect these two promenades along the waterfront. Bike trail access is currently provided within Union Street and through the pedestrian tunnel under Wilkes Street.

The third type of access is from the Potomac River. Currently, the only access from the water is either at the tidal mudflat near the Dog Exercise area or to the north at the old ramp adjacent to Harborside. The decaying pilings and bulkhead currently present safety hazards in access to and from the river along most of the shoreline.

### 3.3.2 Site Layout and Organization of Passive and Active Spaces

Windmill Hill Park currently provides an attractive balance of active and passive uses. The area to the west contains both active uses (basketball, volleyball, and playground) and passive uses which include the scenic overlook and benches near Lee Street, picnic tables and open field areas. The eastern portion, with the exception of the Dog Exercise area, does not currently contain active uses. The areas near the wooded drainageway, open grass area, and asphalt paved area formerly served as a construction staging area.

The existing basketball court and volleyball court are oriented in an east-west configuration, which is not optimal from a solar perspective, however it does minimize the court's profile against the river views. The benches at the top of the park provide dramatic 180 degree views of the Potomac River and the park below.

### 3.3.3 Environmental and Storm Water Management

There are several environmental issues that need to be addressed as part of the overall park redevelopment. Primary among these are issues associated with the river: water quality and the shoreline. Currently there are several storm drain outfall and overflow pipes which discharge directly into the river. The pipes collect stormwater runoff from an approximately five acre watershed. One outfall is located in the northwest corner of the basin and the other is located at the terminus of Gibbon Street within a concrete channel. Any park improvement plan should incorporate improvements to these outfalls in order to improve water quality as well as the attractiveness of the structures themselves.

Due to the deep configuration of the existing basin (distance from the main channel), as well as the existing piling remnants, there has been a reduction in natural flushing of the basin and an increase in sedimentation. Hydrilla, a non-native invasive species, as well as other native aquatic vegetation and algae are also present within the basin. Based on previous studies, there are indications of underwater debris, some of which is visible at low tide. The overall appearance of the water within the basin is poor and is marked by floating litter which collects in the corners and along the high tide line.



Storm drain improvements will help water quality within the basin by reducing the levels of phosphorous and other nutrients and sediments directly entering the basin. Environmental enhancements to improve the quality of the Potomac River are proposed. By creating micropools within, and wetlands around, the outfall channel and mud flat area, storm water can be vegetatively filtered before it reaches the river. Wetlands will reduce the amount of sediment that reaches the river. Wetlands will also enhance and add to the natural habitat of the area.



Plate 3.2: Condition of the existing storm drain outfall

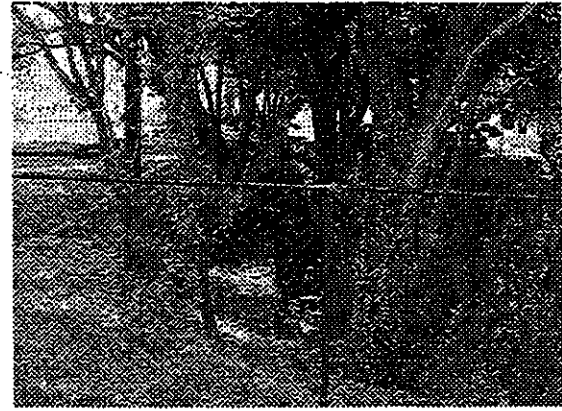


Plate 3.3: View of the fencing protecting storm drain.

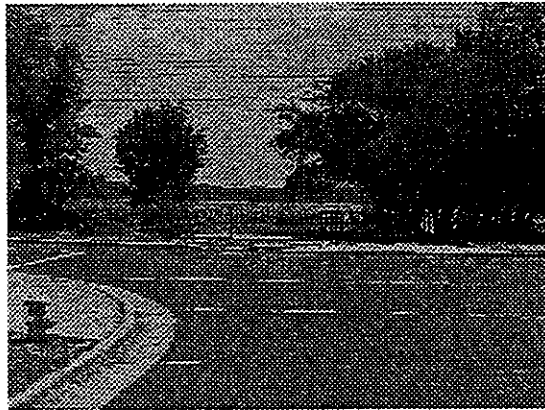


Plate 3.4: View of the Potomac River from Union Street and Gibbon Street Intersection.

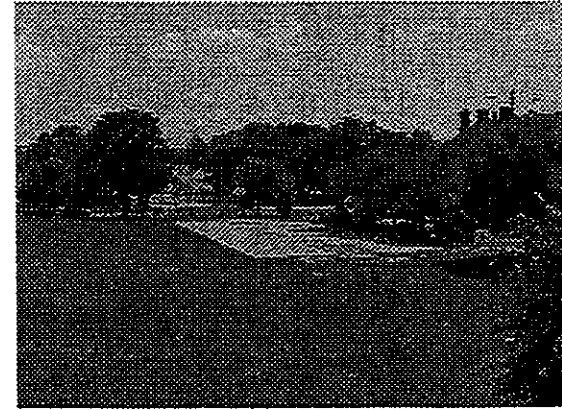


Plate 3.5: View of the Park with Potomac River in background.

The dog exercise area should be brought into compliance with the Alexandria Dog Park Master Plan and Guidelines, which has mandatory setbacks of 60' from any body of water and 50' from residential property. By complying with the city environmental codes and enhancing the storm water outfall, water quality benefits can be realized and the physical condition of Windmill Hill park improved.

### 3.3.4 Existing Views

The park provides excellent internal and external views, especially towards the Potomac River. From the park's higher ground, panoramic views of the river and the Maryland shoreline beyond can be experienced. Closer to the water, vistas up and down the river can be observed. The proximity of the river to Union Street and at the terminus of Gibbon Street provides attractive views to passing motorists as well as pedestrians.

### 3.3.5 Safety Issues

There are two main safety issues and several minor issues which need to be addressed in the park redevelopment. The highest priority should be placed on removal of the decaying pilings/decking and the demolition/reconstruction of the existing bulkhead. The safety concerns regarding these two items were previously identified in the City permit application to the U.S. Army Corps of Engineers. While individual pilings are in varying states of decay (most rotting at the waterline), there is an immediate danger to boaters trying to navigate within the basin, as well as to river boaters potentially endangered by floating pilings which may break free.



Plate 3.6: View of the decaying pilings.

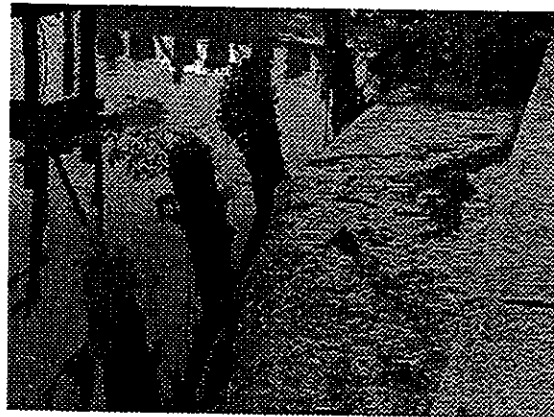


Figure 3.7: View of the dilapidated bulkhead.

According to a previous technical report on the pilings commissioned by the City, "piles are in very poor condition above the tidal zone because of advanced decay. Underwater, where the decay organisms (fungus) do not thrive, the piles are in somewhat better condition."

The existing concrete bulkhead is of a varying width and evidence of gradual slippage and canting are found. It is difficult to ascertain specific conditions due to the piecemeal nature of the wall construction over its history and its non-uniform design. It is assumed that timber structures were incorporated with the concrete wall and have reached the end of their useful life. Water surcharge behind the wall may be

contributing to freeze/thaw movement. (It should be noted that no structural testing or inspections were performed as part of this report). Cracking and an uneven surface are typical along the wall faces and cap. There is no guardrail or handrail present on top of the wall.

It appears that the original bulkheads were of timber construction, and over the years as the timbers rotted, concrete was poured behind them to shore up the walls. There was not a systematic approach to this concrete filling, and the presence of any tiebacks or other necessary stabilization was not observed. The existing concrete cap/walkway does not appear to be tied into the wall or concrete fill, and thus provides no structural integrity.

Other more minor safety issues include the lack of pedestrian crosswalks and traffic calming, deteriorating or cracked walkways, and low light levels in certain areas of the park and the tunnel.

### 3.3.6 Utilities

Existing site utilities appear adequate to serve the proposed uses. The existing overhead utility lines, located on the east side of Union Street, are currently programmed to be removed or undergrounded within the near future. This will remove an impediment to the river views from the park and will permit construction of the proposed amenities.

Existing storm drain inlets and storm pipes located in Union Street are low-lying and will require improvements as traffic-calming speed tables are constructed.

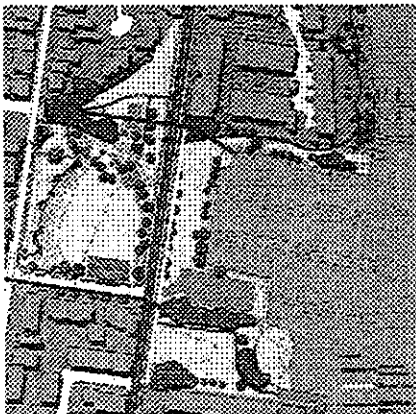


Plate 3.8: Existing Utility Locations.

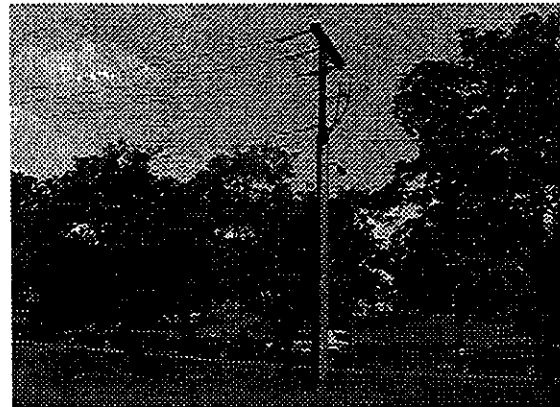


Plate 3.9: Existing overhead power line along Union Street.

### 3.3.7 Existing Vegetation

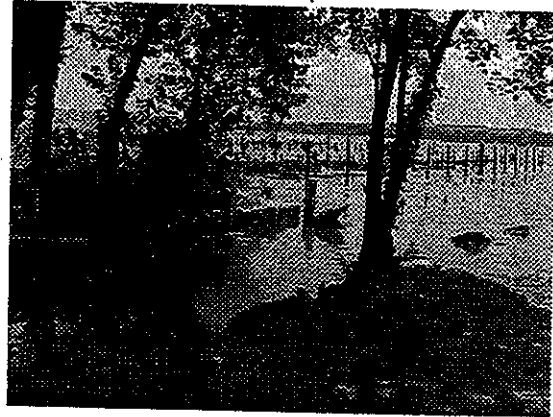
The site currently contains mature trees and shrubs interspersed with grassy lawn areas. Many of the trees are of low quality and/or scrub type and have grown up behind the bulkhead or within ravines. Others have been planted adjacent to streets and within the park. Some, such as the locust trees along Union Street, appear to be of poor quality and have not been sited to maximize and frame views to the water.

The outfall channel at Gibbon Street contains typical floodplain species such as willows, cottonwoods and other scrub-shrub species. While the overall effect is pleasant, there are few trees of high quality or distinction.

Areas of erosion are present, primarily along the shoreline and the outfall channel. Much of the turf area appears heavily compacted. High use areas, such as the dog exercise area, exhibit signs of worn turf and require considerable ongoing maintenance.



*Plate 3.10: View of the lower park with grass lawn.*



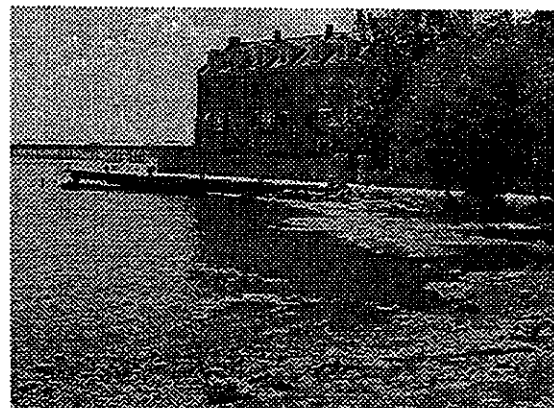
*Plate 3.11: View of low quality trees along the water's edge.*

### 3.3.8 Adjacent Land Uses

The park's adjacent land uses are all residential uses. To the north of Windmill Hill Park is the townhome community of Harborside. Harborside also contains a private boat dock and is bordered by a winding gravel waterfront walk and landscaped berms within its perimeter open spaces. The neighborhood that borders the southern side of the park is the Ford's Landing townhome neighborhood. This neighborhood has a hard-edge waterfront promenade with a rectilinear design. Most of the homes that surround the park have the traditional brick town house style that is associated with Old Town Alexandria. Older townhomes are located adjacent to Gibbon and Lee Streets. A public-access fishing pavilion is located immediately north of the park adjacent to Harborside.



*Plate 3.12: Soft edge treatment*



*Plate 3.13: Hard edge treatment*

### 3.3.9 Zoning and Regulatory

Ownership of the waterfront portion of the park is currently under negotiation with the Federal Government. Submerged lands fall under the jurisdiction of the Federal Government and certain permits are reviewed by multiple agencies. Most of the proposed improvements will be regulated and approved by the City of Alexandria. The table below summarizes allowable uses under the existing zoning.

ZONING ANALYSIS	CRITERIA
Location	Alexandria, Virginia Waterfront to the left and right of Union St. between Wolfe St. and Franklin St.
Ownership/Control	City of Alexandria, Virginia and Federal Government
Area, Acres	3.4 acres
Zoning District	WPR = Waterfront Parks and Recreation zone
Description	The WPR zone is to enhance the vitality of the Alexandria waterfront by providing for parks, open space and recreational opportunities linked by a continuous pedestrian promenade.
Permitted Uses	<ol style="list-style-type: none"> <li>1 Public</li> <li>2 Public parks, playgrounds, athletic fields or other outdoor recreation</li> <li>3 retail and/ or service commercial when accessory to a permitted use, provided such retail and/ or service commercial does not occupy more than ten percent of the land area of the lot, parcel or tract of land</li> </ol>
Special Use Exceptions	<ol style="list-style-type: none"> <li>1 Bike</li> <li>2 Commercial outdoor recreation</li> <li>3 Facilities used for the docking or berthing of boats or ships, including public or private marinas and/or boat clubs with related facilities limited to water and electricity connections</li> <li>4 Outdoor food and crafts</li> <li>5 Privately owned public use buildings such as civic auditoriums or performing arts</li> <li>6 Restaurants, including outdoor cafes</li> </ol>
Minimum Lot Area	0
Minimum Lot Width	0
Minimum Front Yard Setback	20 ft
Minimum Rear Yard Setback	12 ft
Minimum Side Yard Setback	12 ft
Maximum Building Height	30 ft
No. of parking spaces	Community buildings 1 per 200sq ft Restaurant 1 per 4 seats
Parking Space Standard	Off-street parking (diagonal 45) 8.5'X 19' (diagonal 60) 8.5'X 20' (perpendicular) 9'X 18.5' (Parallel) 8'X 22'
No. of loading berths	1 per 20,000 sq. ft
<i>Other Limitations</i>	
Flood Plain	Zone AE = base flood elevations determined. Flood plain is 11.5'
Wetlands	PSS = Palustrine scrub shrub
Bathometrics	22'

## 4. CONCEPT PLAN DEVELOPMENT

### 4.1 Introduction

This chapter reviews the process utilized in developing the Concept Plan. The Concept Plan evolved from a review and refinement of several options which were presented to the Steering Committee and the general public, and were evaluated against the goals and objectives identified by City Council.

The initial work session with the Steering Committee included a site visit with the entire committee and the consultant team. An overview of the park system and a general discussion of opportunities and constraints followed. Additional information was requested and a general direction given to the consultant team to develop several concept options for review and comment by the Steering Committee.

Three initial concepts dealt with varying options on the topics of education, park components, recreation locations, water access, walkways, traffic calming, storm water management, edge treatments, pilings, and signage. Two additional modified concepts were developed to incorporate Steering Committee comments on the initial plans. The final Concept Plan was developed based on further refinement and preferred options as discussed in the work sessions. Votes by the Steering Committee members on various design elements were taken to establish the final design direction.

### 4.2 Steering Committee Process and Findings

A total of five Steering Committee work sessions were held and included attendance by the general public. Plan options were presented, discussed and evaluated at each session. The following is a summary of each of the Steering Committee work sessions to document the steps taken for the development for the Concept Plan (*Note: See meeting notes in Appendix for additional detail*).

#### 4.2.1 Work Session #1 Summary

- ❖ Site visit with Steering Committee members, staff and consultant team.
- ❖ Overview of the Alexandria waterfront parks system. This assessment consisted of the existing activities in place, design of the waters edge, and overall impression of each park in the system from Dangerfield Island to Jones Point Park.
- ❖ Discussion of potential opportunities and constraints at Windmill Hill Park. The discussion addressed such topics as public access, vistas, environmental conditions, boating, educational opportunities, parking, and dog park location.
- ❖ General discussion focused on identifying potential park elements and their priority. The topics included environmental concerns, passive areas, active recreational uses, and maintenance issues.
- ❖ The committee requested a more thorough analysis of the site so that several initial concepts could be presented at the following work session.

*Action Items:*

- ❖ *Perform site analysis work and prepare initial concepts for Steering Committee review and comment.*

**4.2.2 Work Session #2 Summary**

- ❖ Site Analysis plans were presented along with a summary of interviews of key technical city staff, including utility and environmental requirements and action items.
- ❖ Stormwater management location options and environmental analysis were presented.
- ❖ Three initial concepts were presented for Steering Committee review and comment.

**4.2.2.1 Initial Concept 1**

Concept 1 illustrates a complete “soft edge” solution which places heavy emphasis on passive (low intensity) uses and heavy landscaping and minimal development of new facilities (*Figure 4.1*). It would require complete demolition and removal of the existing bulkhead and replacement with naturalistic plantings, rocks and wetland edge plantings. It utilizes a curvilinear or freeform style of walkways similar in character to the existing Harborside trail. Boating opportunities would be minimal and only include a kayak launch located at the point near Harborside.

A stormwater management detention area/wetland would be created at the current outfall channel and additional wetlands planted at the tidal mud flat near Ford’s Landing. An interpretive boardwalk, gazebo and picnic area would be placed near the water’s edge. The dog exercise area would be relocated across the street and the basketball and volleyball court would be clustered together closer to the playground to create an active recreation node. A potential restroom building is also shown adjacent to Union Street. Three traffic calming/pedestrian crossing points are shown in Union Street and an overlook area with interpretive displays created at the top of the hill near Lee Street. The majority of existing pilings would remain within the basin.

ADVANTAGES	DISADVANTAGES	ISSUES/CONCLUSIONS
Soft edges, natural appearance (no bulkhead required)	Minimal access to/from the water for boating	Examine alternatives, mix of edge treatments
Lower ‘new’ construction costs.	Higher bulkhead removal costs	Need additional budget information.
Consolidates active and passive recreation areas	Active areas closer to adjacent residential	Noise and user conflicts.
Potential water quality benefits by moving dogs away from water	Dogs lose water access	Dog owner desire for water access; potential dog/user conflicts
Maximizes amount of new green space	Lack of paved public gathering spaces	Need to define educational component needs
Retains pilings/ bird habitat	Safety and aesthetic negatives	Need to define boating requirements
Limited boating traffic	Minimal boating opportunities	Launch near deep channel is potential safety issue.
Maximizes Storm Water Management (SWM) treatment	Requires extensive regrading	Examine SWM options



*This page intentionally left blank.*

#### 4.2.2.2 Initial Concept 2

Concept 2 also consolidates the active recreation areas but retains the dog exercise area in its current location near Ford's Landing (*Figure 4.2*). It creates a large, formal paved plaza and pedestrian crossing centrally located within Union Street linking the two park areas and is designed to foster a sense of arrival. Wide semi-circular steps would lead to the water and act as a public seating terrace or mini-amphitheater. A strong visual axis would be created from the top of the hill near Lee Street to the waterfront. A combination of hard edge and soft edge treatments would be used and a gazebo with boat tie-up spaces provided near the point at Harborside as well as along the bulkhead. A majority of the pilings would be removed with select pilings to remain for bird perches and a historical reference. A more developed interpretive boardwalk would pass through the wetland areas. A restroom is also shown.

ADVANTAGES	DISADVANTAGES	ISSUES/CONCLUSIONS
Provides moderate areas for boating tie ups	Less soft/green edge	Variety in shoreline experience is a positive; define boating needs
Provides formal paved plaza areas near water	Reduces green space, probable loss of parking spaces	May be too much impervious within RPA area; need existing parking
More "Urban" in character	Higher construction costs and increased impervious area	Activity needs may not warrant large public gathering space
Retains Existing Dog exercise area water access	Potential walker/dog conflicts	May need grade separation between pedestrians and dogs; Water quality issue
Provides park users with restrooms	Maintenance, safety and aesthetic concerns	Restrooms only if included within an educational building.

*This page intentionally left blank.*

### 4.2.2.3 Initial Concept 3

Concept 3 attempts to maximize boating and educational elements on the site and represents a more 'intensive' level of development (*Figure 4.3*). It includes boat tie-up areas and docks on two sides of the basin as well as a gazebo and up to a 35' x 45' environmental education building near the water. A boat launch ramp is provided at the end of Gibbon Street as well as vehicular/boat trailer turnaround 'plaza'. The stormwater management/wetland area would be located within the existing basin area and a new pedestrian walkway would be constructed directly across the basin. All pilings would be removed from the boat basin with only a few remaining within the SWM/wetland area. The dog exercise area would be relocated closer to the tunnel and the volleyball and basketball courts moved to the interior of the park, away from residences. A more developed terraced seating area is also proposed for the hillside below Lee Street.

ADVANTAGES	DISADVANTAGES	ISSUES/CONCLUSIONS
Maximizes water accessibility for boating options	Requires launch and vehicle maneuver areas. Off-site parking required.	May be too intensive for site and neighborhood.
Potential for revenue generation	More expensive concept to construct/operate/maintain	May be more than is needed. Don't want to increase traffic along Union Street.
Provides formal educational opportunities/space	Potential for increased traffic (school buses). Visually intrudes into waterfront views.	Identify potential educational users. Evaluate existing regional programs.
Captures both outfall pipe locations	Would be considered filling of wetlands by COE. Eliminates existing water area.	Examine permit requirements and other options.
Dog exercise area out of RPA	Potential conflicts with pedestrians/bikers & playground	Evaluate setbacks and enclosures
Develops terraced seating with great views. Reduces hillside maintenance.	Eliminates sledding hill for neighborhood kids	Retain existing hillside

Breakout sessions were conducted with the Steering Committee members and the public in order to review the various plans and solicit feedback. A comprehensive matrix was created for the various park components to capture and record advantages and disadvantages as perceived by the groups.

ELEMENTS	GROUP #1	GROUP #2	GROUP #3	GROUP #4	GROUP #5 (PUBLIC)	GROUP #6 (PUBLIC)	CONCLUSION
Basketball Court	Existing location with screening	North on Union Street	Existing location	Existing location	Existing location	Existing location	Existing location with screening
Dog Exercise Area	Existing location with bridge	Existing basketball court	Existing location with bridge, separation	Existing location	Existing location & water access	Existing location	Existing location with bridge, separation
Playground	Existing location	Existing location	Existing location	Existing location	Existing location	Existing location	Existing location
Volleyball Court	Existing location	Existing location	Existing location	Existing location	Existing location	Existing location, but reoriented	Existing location, maybe reoriented
Vista	Concept #1 with historical markers	Formal, axial	Enhance, historical markers	Enhance Historical Markers	ADA accessible & keep wall	Simple, historical, open	Concept #1 with historical markers
Hill	Grass	Softscape	Grass	Grass	Grass	Grass	Grass
Union Street	Concept #1 plus dial from Concept #2	Concept #2	Softer treatment	Open, nothing special	Traffic calming	Open	Traffic calming
Building	None	None	Indifferent	Yes- educational Concept #3	None	None	Revisit Issue
Water's Edge	Combination soft and hard	Soft corners	Define and access	Soft	Soft only at Dog Park	Soft	Soft
Water Access	None major	Step down	Concept #2, steps down	As much as possible	Dog Exercise Area	Dog	Dog exercise area, steps down
Boating	Low level	Kayak, nothing major	Low level	Boats- non-powered	Some with no traffic impact	Kayak	Some with no traffic impact
Walkways	Bridge, better connection to tunnel	Vary experience	Natural, separate dogs, no bridge Concept #3	Simple, less definition	All on waters edge	Simple	All on waters edge, Simple
Storm Water	Pond	Pond with picnic area	TBD	No pond	No pond, underground	No pond enhancements	Revisit Issue
Restrooms	None	None	Only if building	Only if building, limited access	None	None	Only if building, revisit issue
Wetlands	Concept #2	Interpretive boardwalk	Some	Yes	Remove Hydrilla	Open	Revisit issue
Pilings/ Dredge	TBD	TBD	Some	None	Remove Pilings	Leave	Some

Table 4.1 Preference matrix of various park programs

*Action Items:*

- ❖ Further development of the concepts based on the breakout group conclusion points reached.
- ❖ Additional information/research on the issues of education, storm water management, edge treatment options and parking requirements needed.

### 4.2.3 Work Session #3 Summary

- ❖ Detailed discussions regarding the educational component included available options and examples being used elsewhere. Alexandria schools representative briefed committee on existing programs and potential needs.
- ❖ Overview of additional storm water management options.
- ❖ Review of edge treatment, bulkhead and pilings options and potential costs.
- ❖ Discussion of parking requirements and constraints.
- ❖ Review of the modified Concept Plans.

#### 4.2.3.1 Modified Concept #1

Modified Concept 1 retains an overall naturalistic and 'low-intensity' character. Removal of the entire bulkhead is proposed with a soft-edge treatment in its place (*Figure 4.4*). The dog exercise area remains in its existing location and the restroom building was eliminated. Basketball court remains in its current location, but planting buffers are provided. Removal of the nearest and most deteriorated pilings are proposed with some to remain closer to the river channel. Kayak launch remains as the only boating activity. The outfall channel is proposed as a "stream restoration" rather than a more developed detention basin. The waters edge/basin has been slightly rounded to eliminate trash collection and enhance flushing.

ADVANTAGES	DISADVANTAGES	ISSUES/CONCLUSIONS
Retains dog access to the water	Potential remains for pedestrian/dog conflicts. No water quality improvements.	Physical separation of dogs and pedestrians may still be required.
Retains existing active recreation locations. Provides buffers to adjacent residential areas.	No centralized active recreation zone.	Existing locations preferred.
Eliminates restroom conflicts.	No defined educational space.	No restrooms required.
Maximizes green space/open space.	No defined waterfront gathering space.	
Removes worst of the pilings.	Aesthetic and potential safety issues remain.	May still prohibit access for dredging/Hvdrilla and bulkhead work.
Naturalistic 'soft-edge'	Requires removal of entire bulkhead.	Removal cost remains a potential issue.

*This page intentionally left blank.*

#### 4.2.3.2 Modified Concept 2

Modified Concept 2 retains the central semi-circular plaza concept but incorporates an educational building located near the water. The basketball court remains in its current location but incorporates buffer plantings. The basin corners have been rounded and utilize the soft-edge treatment (*See Figure 4.6*) while the Harborside edge would have the existing bulkhead remain in place and be encapsulated with a hard-edge treatment (*See Figure 4.7*). A gazebo and tie-up slips would be provided near the Harborside point. Pilings would be removed within main basin and man-made bird perches provided to replace the pilings.

ADVANTAGES	DISADVANTAGES	ISSUES/CONCLUSIONS
Reduces cost of bulkhead demolition.	Unknown sub-surface wall conditions could affect encapsulation.	Further testing will be required prior to final design.
Provides boat tie-up space	Close to channel, safety issue	Examine other areas of site
Provides education building	May be too intrusive on site	Define educational needs

#### *Action Items:*

- ❖ *Formation of informal subcommittees to further research and make recommendations for education and boating issues.*
- ❖ *A final refinement on the topics of cost budget, parking, other safety issues, and the dog exercise area location was requested.*
- ❖ *Prepare composite plan based on meeting comments and refinements of the two concepts.*

#### 4.2.4 Work Session #4 Summary

- ❖ Finalization of issues included report-back from the sub-committees organized for educational component and boater safety issues.
- ❖ Letter presented from Park and Recreation Commission recommending that dog exercise area be relocated away from the waterfront.
- ❖ Composite Plan presented to the Steering Committee.
- ❖ Review of the best, balanced options for the park components addressed shoreline stabilization, piles, water edge treatments, outfall options, cost budget, parking, other safety issues, and the location of the dog exercise area.
- ❖ Development of a final concept that addressed all possible locations for the dog exercise area was requested.

#### *Action Items:*

- ❖ *Provide all potential dog park location options (alternate plans).*
- ❖ *Finalize selected plan concept.*



#### 4.2.5 Work Session #5 Summary

- ❖ Final concept options A and B were presented with a choice of dog park locations.

*Design direction for both plans included the following direction:*

- ❖ Improve the sidewalks on Lee Street, Gibbon Street and Union Street.
- ❖ Provide locations at the top of the hill for interpretive displays on the park history and environment.
- ❖ Retain existing playground.
- ❖ Add pedestrian crosswalks and wide speed tables to promote pedestrian safety.
- ❖ Reconstruct basketball court with room for buffer plantings.
- ❖ Realign path from the tunnel to align better with the Harborside walkway.
- ❖ Create an open lawn area near the water to enhance vistas.
- ❖ Utilize soft-edge treatment (shrubs, rocks, and wetland plants) on the north edge (Harborside) of the basin.
- ❖ Reconstruct a hard edge on the west and south sides of the basin.
- ❖ Provide seating areas near water for small educational group/outdoor learning space.
- ❖ Add a gentle slope for kayaks/canoes to enter the water on the southeastern corner of the basin.
- ❖ Incorporate stream restoration within the outfall channel.
- ❖ Provide pedestrian bridge over outfall channel.
- ❖ Enhance tidal mud flat area with emergent and wetland plantings and interpretive boardwalk.

##### 4.2.5.1 Final Concept Plan A

Final Concept Plan A relocates the dog exercise area out of the RPA to the triangular space near the tunnel (*Figure 4.10 and Figure 4.11*). Required setbacks are provided from residential units. A staggered hedge enclosure would be used to contain the dog exercise area. The volleyball court would be relocated to the former dog exercise area adjacent to Ford's Landing.

##### 4.2.5.2 Recommended Concept Plan B (Note Steering Committee votes summarized on following page)

Recommended Concept Plan B leaves the exercise area in its existing location (*Figure 4.11*). It redesigns the dog exercise area to meet the city setback requirements (60' from bodies of water and 50' from residential and commercial properties) and uses pylons to mark the corners of these setbacks. A low hedge would be utilized to prevent dogs from running into the street. Volleyball court remains in its existing location but is reoriented in a north-south direction.

##### *Action Item:*

- ❖ *Recommended Concept Plan B retaining the existing dog exercise area in its existing location, subject to muster plan setbacks, and with restricted access to the water as determined by Staff, was agreed upon by a Steering Committee vote.*

Vote/(Plan)	Motion to Approve Recommended Concept Plan B with the following Caveats
5 (for) - 3 (against)	1. Keep the dog exercise area in the existing location with set backs (as per Dog Park Master Plan), ample signage, wetland protection, a boardwalk for pedestrians, and dog access to water with restricted access times.
9 (for) - 0 (against)	2. Retain the volleyball court in location depicted in the Recommended Concept Plan B and with a north-south orientation.
9 (for) - 0 (against)	3. Adopt the path configuration which straightens the path as depicted in the Recommended Concept Plan B.
9 (for) - 0 (against)	4. Adopt site features from the tot lot to the basketball court with the exception that the new walk will be moved closer toward Union Street, and a connecting element added, to include traffic calming measures, between the western and eastern halves of the park.
9 (for) - 0 (against)	5. Adopt the enhancements to the sidewalks along Lee, Gibbon, and Union Streets to include widening of the Lee St. sidewalk, brick pavers and the extension of the Gibbon St. sidewalk, with the slight shift of the basketball court.
9 (for) - 0 (against)	6. Adopt the hardscape/ softscape approach for the water's edge as depicted in the Recommended Concept Plan B with landscape and wetland enhancements.
9 (for) - 0 (against)	7. Adopt the stream restoration for the outfall area, as depicted in the Recommended Concept Plan B, which could be used for water testing, scientific and educational opportunities.
8 (for) - 1 (against)	8. Remove all pilings which will be replaced with bird resting perches and a marked channel for kayaks, and to permit water access for all citizens.
9 (for) - 0 (against)	9. Adopt the lawn and low benches/gathering area with the caveat to soften the benches and introduce nautical elements.
9 (for) - 0 (against)	10. Use signage for park entrances, the two temporary loading/unloading parking spaces near the kayak area, bike directions, kayak launch, kayak navigational aids, dog park use and hours, dog park cautionary signs, and educational markers.
9 (for) - 0 (against)	11. Adopt a phased tree plan for the site and to consider retaining healthy trees
8 (for) - 1 (against)	12. Encourage City Council to implement Recommended Concept Plan B

Recommended Concept Plan B, with the noted modifications, represents the final plan recommendations of the Steering Committee and is discussed further in Chapter 5.

## 5. RECOMMENDED CONCEPT PLAN

### 5.1 Introduction

The purpose of the Concept Plan is to ensure that new construction is sited, oriented and sized in compliance with an agreed upon, long-term vision for Windmill Hill Park.

The Concept Plan establishes the framework for open space, streets, landscaping, recreation amenities and environmental improvements. It includes guidance in areas of land use, circulation, open space and implementation. Implementation of the Concept Plan not only includes recreation improvements, but also includes streetscapes, infrastructure, open space development, and interpretive/educational elements. –

The Concept Plan also establishes the design direction for Windmill Hill Park. It is important for the plan to do more than accommodate various uses; these uses must be located and accommodated in a manner that enhances the character of the park along with creating a more-desirable environment for neighbors and city residents.

This chapter reviews the detailed recommendations contained in the Concept Plan. The initial concepts presented in Chapter 4 dealt with varying options on the topics of education, recreation locations, water access, walkways, traffic calming, storm water management, edge treatments, pilings, and signage. The Concept Plan represents the final votes for the various options as selected by the Steering Committee. An alternate plan has also been included based on extensive discussions regarding the final dog exercise area location.

### 5.2 Development Process of Final Design Elements

Each desired element had multiple ways of being incorporated into the final design for Windmill Hill Park. Through a process of discussions with the Steering Committee and a review of graphically illustrated plan alternatives, the committee worked to achieve coherence on how each element would fit into the park. While agreement was reached on many points, the Steering Committee's final recommendation for some elements was based on a majority vote. The following is a description of how these design elements evolved into the final concept plan. The applicable City Council goal or objective has been identified, where appropriate.

#### 5.2.1 Traffic Calming

- ❖ *Goal: "Provide enhancements to Union Street which will enhance traffic calming and integrate the east and west portions of the Park."*

Traffic calming was desired to slow vehicles for pedestrian safety because Union Street bisects the park and there will be increased pedestrian flows across Union Street. Traffic calming devices can also function as pedestrian crosswalks. There are many ways of accomplishing this such as speed bumps, speed tables, special paving and "throating" or narrowing of the road. Several of these options presented safety and/or cost concerns and there was an overall desire to minimize any loss of existing parking spaces along Union Street.

The City of Alexandria currently has a traffic calming program in place and discussions with staff indicated that a 10 foot wide "speed table" with gradual side slopes would be adequate. Special paving would be used to match adjacent brick sidewalks. Multiple locations were identified for traffic calming which would also serve as pedestrian crosswalks linking the park. At a minimum, the Gibbon Street/ Union Street intersection, a central mid-point crossing, and between the tunnel and Harborside walk would be included. (It should be noted that T&ES has concerns with the mid-block crossing and would prefer only two speed table). Crosswalks are also proposed around at each park corner crossing to further enhance pedestrian safety.

Improvements should be coordinated with T&ES as paving and storm drain improvements will be needed in conjunction with installation of the speed tables/crosswalks. Minimal slopes on Union Street may require additional storm drain inlets or raising inlet rim elevations.

### 5.2.2 Signage

❖ *Goal: "Include educational components that are intended and designed to advance the public's knowledge and understanding of the river and of the natural resource enhancements in the park."*

Several types of park signage were desired. These included park identification signage along Union Street to announce a "sense of arrival" for both pedestrians and motorists, historical/educational interpretive signage, and regulatory signage.

Two park identification sign locations are proposed at either end of Union Street to alert motorists they are entering a park zone. These signs should be of a pylon or pedestal type and should reflect a consistency with signage proposed within other city parks.

Interpretive signage is proposed in several formats. There was a strong desire by the Steering Committee to not "over-sign" the park, but to provide a single, well designed interpretive display which would address the history and environmental issues associated with Windmill Hill Park. The proposed location is at the top of the hill near the seating area at Lee Street. This location provides excellent vistas of the entire park as well as the Potomac River and surrounding neighborhoods. Interpretive displays could either reflect the prototype being developed for Jones Point Park or could be integrated with the existing

stone wall. There was also a desire to have smaller and simpler interpretive elements designed into various park elements (paving, benches, etc.) to identify the flora and fauna of the park, similar to signage utilized at the African American Heritage Park.

Regulatory signage would include more standard signage such as park rules and regulations, hours of operation, parking and traffic, etc.

### 5.2.3 Recreation Organization and Improvements

- ❖ *Goal: "Explore potential locations for the relocation of current facilities and development of new uses at the site."*

The western half of the park will continue to be the active recreation zone within the park. Existing recreation facilities will remain generally in their current locations, with some facilities being reconstructed or improved.

The basketball court will be reconstructed and shifted slightly to the north of its current location. Slope and drainage of the court will be improved.

The volleyball court will also be retained in its current location, but reoriented in a north-south direction which is more optimal for users.

The well-used playground will be left in its current configuration, which provides a dynamic three-tier format for children, however, rubberized safety surfacing is proposed to replace the loose mulch currently used.

The eastern portion of the park generally contains the more passive recreation uses, as well as the main educational gathering space. The overhead utility lines will be relocated underground to enhance views to the water. An open lawn area framed on both sides by a cluster of four small trees will be located adjacent to Union Street and act as a simple foreground element for the waterfront. The lawn can be used for informal activities such as picnics, frisbee, etc. Special paving walkways border the lawn area and lead to the water's edge.

- ❖ *Goal: "Include educational components that are intended and designed to advance the public's knowledge and understanding of the river and of the natural resource enhancements in the park."*

An informal seating and gathering area comprised of low bench forms in natural materials will be located at the old parking lot area. Seating elements will reflect a nautical theme and will provide an informal setting for outdoor learning activities, small group gatherings, etc. Subtle interpretive elements

can be incorporated into the seating materials as well. Low profile markers would provide habitat information at water's edge. Additional educational features which can be considered in the development of final construction plans could include:

- ❖ Installation of a telescope for bird watching.
- ❖ Incorporation of nautical items like ships' ropes or mooring chains into park accents.
- ❖ Incorporate a Mariner's compass into the paved surface at the "gathering place."
- ❖ Identification of the flora and fauna of the park.

Numerous options for the educational component were evaluated by the Steering Committee. They ranged in intensity and format from a well-defined and structured program which could be housed in a dedicated building constructed on-site, to more informal yet flexible components which could be used by a variety of groups and in a variety of formats. The Steering Committee evaluated successful environmental education programs being run elsewhere in the region as potential models for Windmill Hill Park. These included, among others, Dyke Marsh, Discovery Creek, Mason Neck and the Rappahannock Conservation Program. In addition, input was provided regarding the needs of the City of Alexandria Schools. Schools staff also provided specific guidance and insight. The informal educational sub-committee evaluated the options and made the following recommendations:

- ❖ The park should support existing educational programs, not generate new ones.
- ❖ A less structured, more inquiry-based style of discovery education would be appropriate for this park.
- ❖ A building was not recommended for educational purposes at Windmill Hill Park.
- ❖ A design that includes group seating and safe student access to the river would be appropriate to support existing school programs.
- ❖ A "gathering" place for groups or individuals at the water's edge near the southern point of the basin should be provided.
- ❖ The gathering place does not need to be covered and should be kept open so as not to provide refuge for inappropriate activities.

The proposed solution reflects the Steering Committee findings that the educational component should provide flexible and informal outdoor gathering space near the water. An adjacent walkway will lead to a terraced slope at the Gibbon Street point which can provide informal, safe access to and from the water for kayakers and educational water activities. A separate overlook area will be provided at the point near Harborside and will provide excellent views up and down the river.

#### 5.2.4 Parking

There will be no increase in parking required or provided as part of the Concept Plan. Input regarding parking requirements and options was provided by the City of Alexandria Department of Planning and Zoning during the planning process.

Questions associated with parking were twofold. The first concerned how many additional parking spaces would be required by the Zoning Ordinance if a 35'x45' educational building was constructed within the park. Eight spaces would be required based on a land use classification of "Community Building." This option was not considered viable due to the limited site area capable of providing safe off-street parking, along with a building blocking river views.

The second concern was how to provide kayak unloading space within a reasonable distance of the water. The Concept Plan recommends designating two existing spaces at Gibbon and Union Street as temporary boat loading and unloading spaces.

### 5.2.5 Storm Water Management

- ❖ *Goal: "Improvements to the outfall that lies to the east of Union Street to make these features more attractive and possibly to better integrate the parts of this portion of the park."*

Stormwater management improvements are focused on rehabilitating the existing outfall channel at Gibbon Street. The Steering Committee consensus was to redesign the channel as a more naturalistic stream restoration, utilizing large rocks and native plant materials. This direction has several advantages. It will more closely reflect the original historic character of the way this portion of the site looked and functioned. By designing the "stream" with a series of micro-pools and weirs, some benefits can be obtained in detention and water quality during peak storm events. In addition, the restored stream will create an interesting and aesthetic amenity for the park as well as an additional environmental educational resource for native plant materials, wildlife habitat and water resources. A pedestrian bridge would cross the stream near its outfall to the river.

### 5.2.6 Tidal Wetland

- ❖ *Goal: "Natural resource enhancements, which should include native plantings, one or more walkways along, across or into the area containing the native plantings."*

The existing tidal mudflat area will be enhanced with native tidal wetland and emergent wetland plantings. An interpretive boardwalk will be provided through the wetlands to permit enjoyment and viewing of the area. The wetland area will provide enhanced wildlife habitat.

### 5.2.7 Bulkhead/Edge Treatments

- ❖ *Goal: "Identify site conditions requiring improvement including existing bulkhead and waters edge safety concerns."*

A large portion of the Steering Committee's work focused on evaluating bulkhead and shoreline stabilization options in order to create an attractive and safe, yet cost-effective approach. Redeveloping

or removing the approximately 900 feet of existing bulkhead will be the largest cost item in the overall park redevelopment and required a comparative evaluation of proposed methods and materials.

A summary of the evaluated approaches included:

- ❖ *Lowest Initial First Cost Approach* - Leave existing bulkhead in-place and encapsulate. Provide an independent raised deck above the wall.
- ❖ *Balanced/Cost Effective Approach* - Combine bulkhead encapsulation and/or new bulkhead with bulkhead removal and soft edge treatments.
- ❖ *Minimal Operations and Maintenance Approach* - Avoidance of rock revetment solutions or other long-term maintenance approaches.

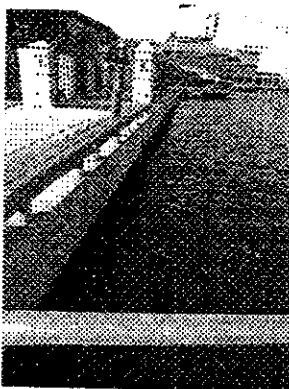


Plate 5.1: Hard edge bulkhead

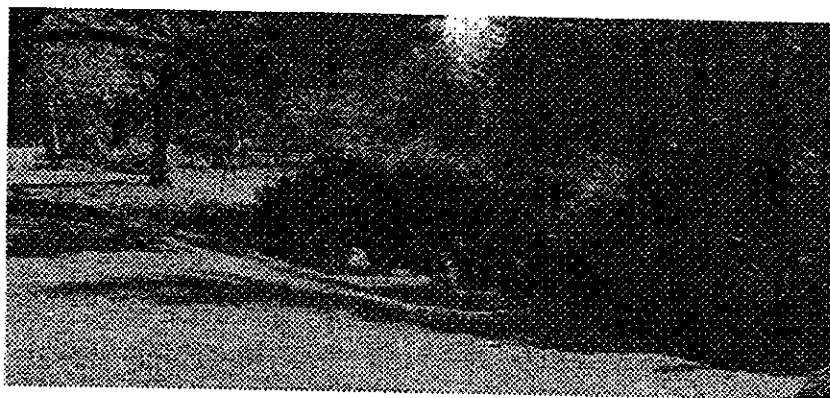
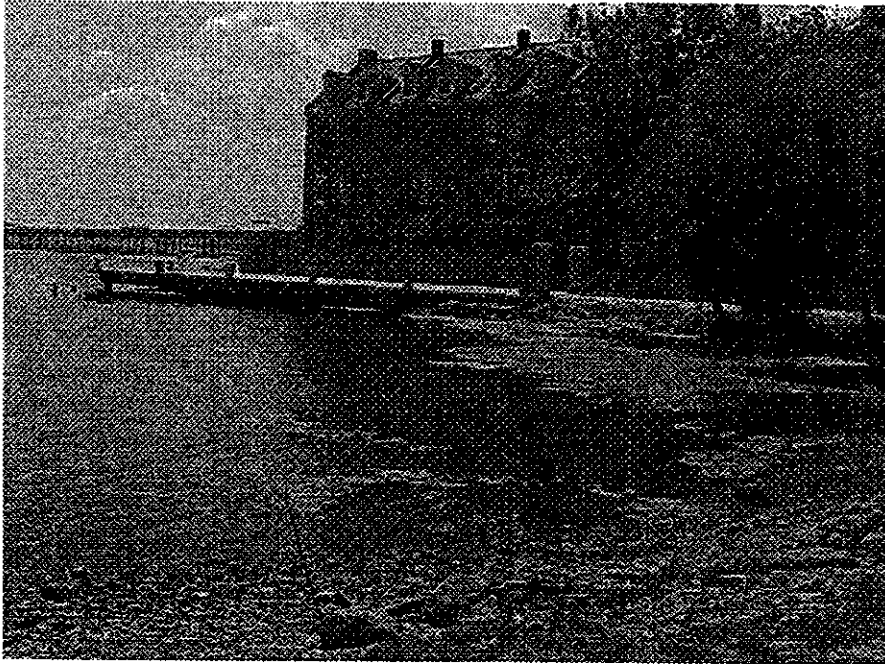


Plate 5.2: Stormwater stream (source: Landscape Architecture Magazine)

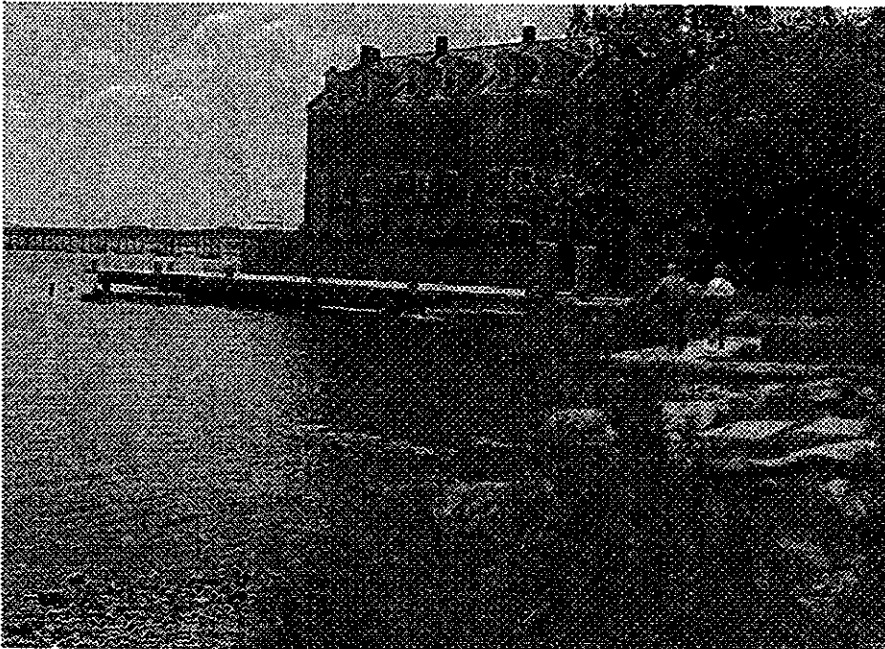


Plate 5.3: Soft edge treatment (photomontage created by Baker)





*Plate 5.4: Existing condition of tidal mudflat*



*Plate 5.5: Proposed tidal wetland planting with interpretive boardwalk (photomontage  
—source: Landscape Architecture January 2001, Volume 91)*

Specific estimated item costs used in the evaluation process of bulkhead/shoreline options included:

Shoreline Stabilization (new construction):

- ❖ Steel Sheetpile - \$800 - \$1,100/l.f.
- ❖ Rock Revetment - \$110 - \$175/l.f.
- ❖ Timber/Vinyl Sheetpile - \$250 - \$300/l.f.
- ❖ Concrete Sheetpile - \$450 - \$500/l.f.

Options evaluated included those that would retain the existing bulkhead in-place, as well as options which would require removal of the existing bulkhead. Estimated costs for removing all of the 900 linear feet of existing bulkhead were \$1,778 per foot (assumes 48 cubic feet per linear foot of bulkhead) for a total of \$1,600,000. The following replacement options were evaluated including bulkhead removal costs:

Bulkhead Removal/Replacement Options	Budget for Construction Only
Steel Sheet Pile	\$2,590,200
Concrete Sheet Pile	\$2,050,200
Timber/Vinyl Sheet Pile	\$1,870,200
Soft Edge Treatment	\$1,935,000

Options which assume the existing bulkhead remains in-place were evaluated, including:

Bulkhead Stabilization Options	Budget for Construction Only
Bulkhead Encapsulation	\$540,000
Boardwalk over Bulkhead	\$504,000
Rock Revetment	\$270,000

The evaluation process resulted in the committee's selection of the *Balanced/Cost Effective Approach*, which will balance desired aesthetics of the shoreline edge with cost considerations. This approach also allows the design to unify the hard edge characteristics of the bulkhead at Ford's Landing with the softer edge of Harborside, and will create a varied experience for all park users.

The proposed hard edge portion of the Concept Plan will include a paved pedestrian promenade behind the bulkhead and decorative bollards and edge restraints to ensure public safety requirements are met.

The soft edge portion will involve removal of the existing bulkhead and creation of a landscaped slope with native plant materials and rock to the waters edge. Additional wetland and emergent plantings within the water will enhance the naturalistic appearance of the basin, as well as soften the existing basin corners. Any ancillary fill required for the shoreline stabilization will be minimal and can be accommodated within the parameters of the Corps of Engineers permit obtained by the City.

### 5.2.8 Pilings

Extensive discussions also centered on evaluating options for removal or retention of the deteriorating pilings. These included leaving them in-place, removing some of the pilings and removing all of the pilings.

Primary concerns focused on existing safety issues (previously identified within the Corps of Engineers permit application) and the impediments and cost implications created by retaining the pilings. In order to facilitate repair or removal of the bulkhead, as well as dredging or hydrilla harvesting, barge access is required into the basin. Pilings would prohibit this or require expensive clamshell dredging. In addition, while most of the pilings are in a state of decay, they can still be removed by means of a choker chain. If they further decay and break below the waterline, more expensive removal methods will be required, such as clamshell dredging.

Upon completion of the evaluation of all the alternatives, as well as a review of previous reports, permits, safety and liability issues and construction cost needs, the Steering Committee recommended removal of all the pilings. Concerns with the loss of bird habitat and perch areas will be mitigated through the installation of a number of man-made bird perches, including perches suitable for the blue heron.

### 5.2.9 Hydrilla

Hydrilla is an invasive submerged aquatic vegetation offering a number of ecological benefits as well as other characteristics that have become a problem within the Potomac River watershed. Citizens raised the issue of the visual appearance of the hydrilla and algae blooms within the basin. Current methods for controlling hydrilla are still somewhat limited, but expanding with on-going research. Currently mechanical harvesting and drying is the standard method to deal with hydrilla. Concerns were expressed over the potential loss of fish habitat, however, any habitat loss could be offset by the proposed wetland plantings.

### 5.2.10 Public Access to Water and Boating

- ❖ *Goal: "Provide a limited boat launch/retrieval area, with boats limited to kayaks, small sail boats, row boats, canoes, sculls and similar boats (and excluding power and similar gasoline fueled boats)."*

The Steering Committee recommends providing public access to the water for kayaks, canoes, sculls and other small, non-motorized boats, as well as access to the water by the general public. The final design incorporates this by creating a gently sloped area for kayaks and small boats to enter the water, and locating public access walkways along the river frontage.

### 5.2.11 Walkway Connection to Jones Point Park

- ❖ *Goal: "Consideration should be give to an interpretive trail from Jones Point Park to Windmill Hill Park."*

The Concept Plan provides a direct waterfront pedestrian trail to Jones Point Park. Interpretive elements as previously discussed will be incorporated at various points along the link including the option for pedestrians to experience the interpretive boardwalk and wetland areas. Implementation of the Concept Plan will provide a key "missing link" within the overall waterfront trail system.

### 5.2.12 Dog Exercise Area

- ❖ *Goal: "A dog exercise area should be retained in Windmill Hill Park, and relocation of the current exercise area should be considered in the design process."*

Extensive discussion focused on examining dog exercise area location options. As previously discussed, concerns were expressed over the existing location including its current location within the Resource Protection Area (RPA), inadequate setbacks to residential units and streets and potential conflicts with increased pedestrian activity along the waterfront. Alternate plans are included in this report which reflect two different sitings of the dog exercise area.

The vote of the Steering Committee (5 to 3 vote) was to retain the dog exercise area in its current location and resize the area to meet the required setbacks. Plant materials and pylon markers are proposed to mark the dog exercise area boundary and to provide separation between dogs and pedestrians.

### 5.3 Conclusion

#### Phasing/Implementation Strategy

The Concept Plan is intended to be implemented over a period of several years based on available funding and priorities. Two general phases are currently recommended, however, additional phases could be incorporated if needed. The initial phases include those required for public safety including piling removal and shoreline stabilization/removal of the bulkhead. It should be noted that these are also the higher order of magnitude costs identified within the overall site redevelopment costs. Following phases would include implementation of site amenities.

Implementation will begin with City Council approval of the Concept Plan and subsequent design development and final construction design packages and regulatory permitting.

#### Summary

The Concept Plan presented within this report represents the results of extensive effort and input from the Steering Committee, City of Alexandria staff and the citizens of Alexandria. The implementation of its recommendations will enhance the quality of life for those who live, work and play in the city and will guide Windmill Hill Park through its redevelopment process and into the next century of its history.

*This page intentionally left blank.*

## A.1 Team Members

### *Steering Committee:*

William Conkey	Park and Recreation Commission Representative	703-519-3748
Andrew Palmieri	Waterfront Commission Representative	703-837-6976
Susan Anderson	Environmental Policy Commission Representative	703-518-8557
Windsor Demaine	District 1 Representative	703-683-8411
Joyce Stevens	District 1 Representative	703-838-0686
Elizabeth Jones	District 2 Representative	202-208-0246
Andrew MacDonald	District 2 Representative – Convener	202-548-7572
Bernard Schulz	District 3 Representative	202-885-3499
Jack Sullivan	District 3 Representative	703-276-0677

### *City of Alexandria Staff:*

Sandra Whitmore	Director, Recreation, Parks, & Cultural Activities	703-838-4842
William Skrabak	Division Chief of Transportation & Environmental Services/Environmental Quality	703-519-3400
Jay Grimes	Alexandria City Public Schools	703-824-6676
Kathleen Beeton	Urban Planner, Planning and Zoning	703-838-4666
Lori Godwin	Assistant City Manager	703-838-4300
Jean Federico	Director, Office of Historic Alexandria	703-838-4554
Kirk Kincannon	Deputy Director, Recreation, Parks, & Cultural Activities	703-838-4842
Patricia McManus	Landscape Architect, Recreation, Parks, & Cultural Activities	703-838-4842

### *Consultants:*

Gregory Long	Director of Planning, Baker and Associates	703-960-4400
Mike Murphy	Senior Planner, Baker and Associates	703-960-4400
Kiran Mathema	Urban Planner at Baker and Associates	703-960-4400
Kristen Schaible	Planner, Baker and Associates	703-960-4400
Mitch Bernstein	Civil Engineer, Michael Baker Jr., Inc.	703-960-8800
Pete Peterson	Coastal Engineer, Applied Technology & Management	904-249-8009

### *Advisors:*

Clenton Blount	Curriculum Specialist in Science for the City of Alexandria Schools	703-824-6680
----------------	---	--------------

## A.2 Work Session Steering Committee Meeting #1

**Project:** Windmill Hill Park  
**Meeting:** Steering Committee Meeting #1  
**Date:** July 25, 2001  
**Time:** 4:00 p.m. - 9:00 p.m.  
**Location:** Lee Center

### Attendees:

#### Steering Committee:

William Conkey	Park and Recreation Commission Representative	703-519-3748
Andrew Palmieri	Waterfront Commission Representative	703-837-6976
Susan Anderson	Environmental Policy Commission Representative	703-518-8557
Windsor Demaine	District 1 Representative	703-683-8411
Joyce Stevens	District 1 Representative	703-838-0686
Elizabeth Jones	District 2 Representative	202-208-0246
Andrew MacDonald	District 2 Representative – Convener	202-548-7572
Bernard Schulz	District 3 Representative	202-885-3499
Jack Sullivan	District 3 Representative	703-276-0677

#### City of Alexandria Staff:

Sandra Whitmore	Director of Recreation, Parks, & Cultural Activities	703-838-4842
William Skrabak	Division Chief of Transportation & Environmental Services/Environmental Quality	703-519-3400
Jay Grimes	Alexandria City Public Schools	703-824-6676
Kathleen Beeton	Urban Planner in Planning and Zoning	703-838-4666
Lori Godwin	Assistant City Manager	703-838-4300
Jean Federico	Director of the Office of Historic Alexandria	703-838-4554
Kirk Kincannon	Deputy Director of Recreation, Parks, & Cultural Activities	703-838-4842
Patricia McManus	Landscape Architect of Recreation, Parks, & Cultural Activities	703-838-4842

#### Consultants:

Gregory Long	Director of Planning at Baker and Associates	703-960-4400
Mike Murphy	Senior Planner at Baker and Associates	703-960-4400
Kristen Schaible	Planner at Baker and Associates	703-960-4400



**INTRODUCTIONS - MEETING AT WINDMILL HILL PARK**

Participants met at the park for a brief site overview and informal question and answer session.

**1. RECONVENE AT LEE CENTER**

1. Introductory remarks – Mr. Philip Sunderland, City Manager, City of Alexandria
2. Introduction of Steering Committee and staff members by Sandra Whitmore, Director of Parks and Recreation
3. Introduction of Baker and Associates by Sandra Whitmore

**2. STEERING COMMITTEE DISCUSSION/ OVERVIEW OF ALEXANDRIA WATERFRONT PARKS SYSTEM**

Greg Long of Baker and Associates presented an overview of the Alexandria waterfront parks system.

- A. Before Greg Long lead into the topic of Windmill Hill Park, he reviewed the other parks along the Alexandria Waterfront with the participants. He described the important details of each park which included what recreational activities are located at each, how the water's edge is treated, and what kind of character each park has. The parks he mentioned were Dangerfield Island, Montgomery Park, Oronoco Bay Park, Founders Park, Torpedo Factory/ Marina, Waterfront Park, Point Linley Park, Roberdeux Park, and Jones Point Park
- B. There followed a question and answer discussion about Windmill Hill Park.

*Question 1. What kinds of connection/linkages are needed?*

Comment a. There should be more connections to the Potomac River.

1. Provide a walkway long the water's edge to connect people with the Potomac River.
2. The park blends the furthest into the community, which opens the opportunity to knit the community to the water.
3. The access to the water in this park is unique. For example pedestrians are able to walk out onto the mud flat of the River.

Comment b. The park has remnants of its history, which opens the opportunity to teach people about the past importance of the park.

1. An old railroad tunnel has been restored on the site for bikes.
2. Dilapidated pilings from an old marina exist in the river.

*Question 2. Should the pilings remain or be removed?*

Comment a. Dredging the water's edge would have this advantage.

1. Clearing out the algae and trash gives the perception of a cleaner river.

Comment b. Preserving the pilings would also have an advantage.

1. By preserving the pilings, the story of Alexandria's shipyard the marina history remains in tact and linked to the park.

*Question 3. What are some other ways to preserve the history?*

Comment a. At one point in history this park was a community gathering spot which can easily be recreated and give the park a sense of place again.

Comment b. To maintain the seaport history, signs describing the parks past can be placed in strategic spots around the park. Also, brochures are a possibility for a self-guided historical tour of the park.

*Question 4. What are the some benefits of the park?*

Comment a. The long walkway along the rivers edges not only links people to the water but can connect other parks along Alexandria's waterfront also (from Dangerfield Island to Jones Point Park).

Comment b. The multiple terraces and advantage points of the park open tremendous opportunities for views and spaces of various activities.

*Question 5. What should the design entail?*

Comment a. It is possible to give the park a "Neighborhood" feel by keeping the design on a smaller scale.

Comment b. By providing multiple types of uses such as kayaking, educational courses, and Community-gathering spots the park can cater to a variety of people.

Comment c. Due to its rich history, the park has environmental restoration opportunities, especially with the marina pilings and railroad tunnel.

Comment d. The park needs some educational opportunities.

1. An educational building could be erected for year round learning. It would most likely include a restroom.
2. Conducting classes outside can provide a tremendous amount of educational opportunity without the environmental impact that a building creates.
3. Opening the mud flat for people to walk out onto can enhance scientific education.

Comment e. Fishing is possible if a pier can go out into the river channel far enough for adequate fishing depths. This suggestion was not favored by many.

Comment f. The design could bring people out over the water by incorporating boardwalk bridges over the river. This opens opportunities for more views of the water.

Comment g. Even though the railroad tunnel is part of the Alexandria bike path system, there could be more accommodations for cyclists in the design.

Comment h. There also could be opportunities for public art to be incorporated into the design of the park.

*Question 6. What types of transportation can have access to the park?*

Comment a. There were a few suggestions on how to approach the issue of slowing traffic on Union St. between Harborside and Ford's Landing for pedestrian safety.

1. A speed table was recommended because it would not be as damaging to the cars as speed bumps.
2. "Throating" the road creates a "gateway" affect to slow traffic.
3. Paving patterns on the road also make cars aware that they are entering into a park.

Comment b. Boat traffic needs to be small because of the size of the park. Small sailboats and kayak rentals were favored to be incorporated into the design.

1. The possibilities of this design depend on the river depth around the water's edge. The Bathometrics need to be verified in order to determine how close the boats can come to shore.

### **3. STEERING COMMITTEE DISCUSSION OF SITE OPPORTUNITIES AND CONSTRAINTS**

MIKE MURPHY OF BAKER AND ASSOCIATES LED A DISCUSSION OF POTENTIAL OPPORTUNITES AND CONSTRAINTS AT WINDMILL HILL PARK.

*Question 1. What types of public access create a unifying element?*

Comment a. Walkways can connect pedestrians to the river.

Comment b. Boat access can connect boaters to the park.

*Question 2. What does the site need to improve upon?*

Comment a. Seating areas need some shade without blocking views to the water.

Comment b. Enhancing the natural resources, such as the bird habitat, increases the health of the site.

*Question 3. What are the issues concerning boat traffic?*

Comment a. Large boats should be restricted so that more people can enjoy the site. Boats that fit on top of the car were favored more than trailers.

Comment b. The issue of whether or not the boats should access the land from the water by tying up or docking seemed to evoke no real strong opinion.

Comment c. Kayak and/or sailboat rental seemed to be favored as long as there were adequate regulations.

Comment d. Providing a dock or pier could give boats access to the land as well as extend views out over the water. It was suggested that the pier or dock be placed at the southern end of the park because that has the deepest water.

*Question 4. What are the educational opportunities?*

Comment a. Existing educational components are historical, environmental, and maritime.

Comment b. There may be a possibility of using signs in the tunnel to convey it's historical significance.

Comment c. For educational purposes a small building could be added to the site, but there are questions about the building that need to be resolved:

1. Where is the best location for this building?
2. What size does the building need to be?
3. What facilities need to be added to the building such as classrooms and a lab?
4. How far does it need to be set back from the water?
5. What would be the architectural style?

Comment d. One suggestion was for setting up self-guided tour with brochures instead of erecting a building.

Comment e. Students could use the building all year around. The busiest time of the year would be the spring.

*Question 5. What about parking?*

Comment a. The participants seemed to prefer street parking as opposed to a parking lot.

Comment b. The suggestion of a drop off for school children and park visitors was the most favored idea amongst the participants.

*Question 6. What are the issues with the dog park?*

Comment a. The issue of durable turf for the dog park was brought up because the dogs tend to kill the grass. No solution was determined.

Comment b. There is a possibility of relocating the dog park to solve the issue of separating dogs and pedestrians

#### **4. PUBLIC COMMENTS**

1. Most agree that the water is accessible to people now, and should maintain residential character by mimicking it in the park.
2. One recommendation is that the building be a 25'x 55' building, 2 story 15' to eave midpoint, 26' peak. Also there is a suggestion that the building have classrooms and labs +/- 1200 SF, and agrees that some dredging of the water's edge is needed no matter what (about 4-5ft).
3. Some point out that the building will disrupt the views and vistas, and thinks that solutions should be categorized by the amount of impact to the site.
4. A few people want a direct crossing on Union Street between the water and recreational site. It is suggested that we look at the examples Belle Haven and Huntley Meadows for design ideas.
5. Some people emphasized that the park should be simple with a strong residential character to it. Yet they do not think the educational building is not appropriate for this site. Admitting that light boats would work for this park, but not large boats. They firmly believe that dog owners are important to the park because they use it. It may be possible to use barrier types so that dogs will not have to be on leashes.

#### **5. STEERING COMMITTEE PRIORITIZATION AND SELECTION OF PREFERRED PARK ELEMENTS**

THERE WAS A GENERAL DISCUSSION FOCUSED ON IDENTIFYING PREFERRED PARK ELEMENTS AND THEIR PRIORITY WHICH WAS FACILITATED BY GREG LONG

*Question 1. What are the issues of importance?*

Comment a. The issues of importance are environmental, selective clearing, reparian environment.

*Question 2. Which areas of the park lend themselves to passive recreation uses?*

Comment a. The top of the slope on the west side of the park is more passive and contains sight features such as seating and site views.

*Question 3. Which areas of the park lend themselves to active recreation uses?*

Comment a. The open field on the west side of Union St. is used as a play field.

Comment b. The basketball court needs to be relocated to a more suitable spot, away from street traffic.

Comment c. The tunnel is an active spot because it is used for biking and volleyball.

Comment d. The dog park is a well-used feature of the park, which brings up the issue of how to separate pedestrians and dogs.

Comment e. The new educational building should be located in a more active spot.

*Question 4. What are the maintenance issues?*

Comment a. The water may become a maintenance problem because the area is a tidal emergent marsh that easily collects garbage and debris.

Comment b. There was a suggestion to vary the edge treatment to cut down on large maintenance problems.

Comment c. Pilings most likely contains creosote, which can be a health hazard.

## 6. PUBLIC COMMENTS

1. Some people wish to keep the "beach for dogs".
2. Others suggested that the design could have fitness equipment and trails.
3. A few people voiced concern that people might not control their dogs in the park.
4. Some expressed a strong opposition to having a building, preferring more open space.
5. One individual warned designers not to duplicate Jones Point Park because of its proximity to Windmill Hill Park.

**7. ESTABLISH SCHEDULE AND NEXT MEETING DATE**

The Steering Committee will reconvene on September 10, 2001 @ 6:00-9:00 p.m. to review two concepts prepared by Baker and Associates.

**8. MEETING ADJOURNED**

### A.3 Work Session Steering Committee Meeting #2

**Project:** Windmill Hill Park  
**Meeting:** Steering Committee Meeting #2  
**Date:** September 10, 2001  
**Time:** 5:00 p.m. - 10:00 p.m.  
**Location:** Lee Center

#### Attendees:

##### Steering Committee:

William Conkey	Park and Recreation Commission Representative	703-519-3748
Andrew Palmieri	Waterfront Commission Representative	703-837-6976
Susan Anderson	Environmental Policy Commission Representative	703-518-8557
Windsor Demaine	District 1 Representative	703-683-8411
Joyce Stevens	District 1 Representative	703-838-0686
Elizabeth Jones	District 2 Representative	202-208-0246
Andrew MacDonald	District 2 Representative – Convener	202-548-7572
Bernard Schulz	District 3 Representative	202-885-3499
Jack Sullivan	District 3 Representative	703-276-0677

##### City of Alexandria Staff:

Sandra Whitmore	Director of Recreation, Parks, & Cultural Activities	703-838-4842
William Skrabak	Division Chief of Transportation & Environmental Services/Environmental Quality	703-519-3400
Jay Grimes	Alexandria City Public Schools	703-824-6676
Kathleen Beeton	Urban Planner in Planning and Zoning	703-838-4666
Lori Godwin	Assistant City Manager	703-838-4300
Jean Federico	Director of the Office of Historic Alexandria	703-838-4554
Kirk Kincannon	Deputy Director of Recreation, Parks, & Cultural Activities	703-838-4842
Patricia McManus	Landscape Architect of Recreation, Parks, & Cultural Activities	703-838-4842

##### Consultants:

Gregory Long	Director of Planning at Baker and Associates	703-960-4400
Mike Murphy	Senior Planner at Baker and Associates	703-960-4400
Kiran Mathema	Planner at Baker and Associates	703-960-4400
Kristen Schaible	Planner at Baker and Associates	703-960-4400
Mitch Bernstein	Civil Engineer at Michael Baker Jr., Inc.	703-960-8800



**Introductions:**

*Speaker                      Comments*

A. MacDonald: *Welcoming Comments*

1. Mr. MacDonald reviewed the last meeting and reiterated that the city council has asked that the steering committee and consultants look at a number of options for Windmill Hill Park, which includes the Lee St. recreation areas and the waterfront. He listed some of the options including: an education center/ building, connections to other waterfront parks, location of dog park, recreation locations, aesthetics of the park, and new additions such as kayaking and education.
2. Reiterated that the City of Alexandria wants this land to remain a park and the question is what kind of park do we want to see in our community. Purpose of this meeting is to consider how all of these options fit together. He also says we have many more meetings to come.
3. Asked for everyone to be cordial, polite, cooperative, and remain focused on the park.

G. Long: *Review of Agenda*

1. Steering committee will reflect on the steering committees meeting #1 and meeting notes.
2. Mike Murphy will give an overview of site analysis and interviews with key technical staff members of the City which will include technical requirements and action items.
3. Mr. Murphy will walk through the three concepts that have been developed.
4. Public comment periods will be provided.
5. Breakout Groups will be created to review the three concepts and examine pros and cons.
6. Groups will reconvene and report their conclusions.

**1. REVIEW OF STEERING COMMITTEE MEETING #1 AND MEETING NOTES**

The following items were discussed:

*Speaker                      Statements and/or questions*

- |              |   |
|--------------|---|
| J. Stevens:  | Asks for answers to the questions brought up in the last meeting.   |
| G. Long:     | Specifies that answers will come out in the technical overview and analysis review.   |
| S. Whitmore: | Asks for comments on meeting notes?   |
| W. Demaine:  | States that the classroom size needs to be included, and that there was no program specifying square feet. He was unaware that a building had to go out for bid.  |
| S. Whitmore: | Suggests meeting minutes be called meeting notes. No building would actually be built for just one program or organization. Since the last meeting she had discussed the size of the building with the designers, and found that the building figures usually match the program. Windmill Hill Park is unique because we have to look |

69

at what the site will accommodate, according to size and aesthetics. There is no program specifying an exact size for the building.

J. Sullivan: Discussed email that was sent regarding educational component. Included closing of Canal Center, NPS "mobile" program, Alexandria Schools policy, and whether a building is needed..

S. Whitmore: She asks if there are comments on notes (no comments).

## 2. OVERVIEW OF THE SITE ANALYSIS PROCESS

The following items were discussed:

*Speaker*      -      *Information*

M. Murphy: *Recaps meetings with city technical staff and utility engineers.*

1. Requested this meeting be an interactive forum.
2. Introduces the three concepts and indicates that many of the plan elements are interchangeable between the three plans.
3. Indicates that the concepts took into account the information gained from the city technical support, utility and infrastructure information, and water/environmental quality staff. Specifies that there will be more information gathering to be done as the concepts are more developed.
4. Indicates Baker coastal, environmental, and civil engineers have visited site.
5. Introduces Mitch Bernstein to talk about the issues of water quality, utilities and storm water.

M. Bernstein: *Speaks on storm water and utilities*

1. Does not see project as creating requirements for new storm water management, but a way to enhance the water quality and create an amenity. Amenity could be either a wetland or a retention pond.
2. Noted that the outfall near the dog park has some erosion.
3. Utilities in Union Street will need to be addressed with streetscape and traffic calming improvements per meetings with City Engineers. Could be added cost.

M. Murphy: *Overview of the site analysis*

1. Development of the site analysis information was in conjunction with our environmental specialists and the City technical staff.
2. The analysis examines our options for locating a new wetland that can be interpretive, aesthetic, and enhance the water quality by:
  - a. Creating a wetland where the existing storm drain outfall is located.
  - b. Creating a wetland within the existing water marina area.

3. The site analysis shows view sheds, circulation patterns, physical constraints and opportunities.

### 3. PRESENTATION OF CONCEPTS

The following items were discussed:

*Speaker*                      *Information*

M. Murphy: *Describes each of the three concepts.*

*All three concepts:*

1. Show the park different features in varying locations. These locations can be mixed and matched during the break out sessions.
2. Vary in level of intensity of development.
3. Include wetland creation.
4. Show different options for the pilings.

*Concept #1*

1. 'softscape' that has the lowest intensity.
  - a. Hard edge bulkhead will be removed.
  - b. Wetland edge plantings with rocks would be used.
  - c. Curvilinear design will be similar to the Harborside character.
  - d. Boating activities would be minimal (kayak launch only).
2. New wetland shown near existing channel. Would open up water views from Gibbon Street.
3. Relocates the dog park to basketball court area.
4. Proposes a boardwalk crossing over the tidal wetland area.
5. Incorporates a gazebo and picnic area, which is a low intensity use that will bring people close to the water.
6. Shows special paving as a traffic calming measure and masonry gateways or kiosks to identify Windmill Hill Park.
7. Shows proposed restrooms.
8. Relocates the basketball court near the volleyball court to create an active recreational area.
9. Retains the top of the hill near Lee St. as public seating. The seating will be improved and interpretive displays would be added to the overlook.
10. Heavy landscaping improvements.

S. Whitmore:                      Asks about the treatment of the pilings.

M. Murphy:                      Explains this concept would retain most of the vertical pilings. Has an interesting aesthetic value as well as maintaining the bird habitat. The pilings fit the naturalistic character of the design.

*Concept #2*

1. 'Hardscape' concept that has a medium intensity of development.
  - a. Some new bulkhead combined with some soft-edge treatments.
  - b. More formalized in design.
  - c. Sail Boating activities will be accommodated with some tie-up areas.
2. Creates a strong visual axis from the top of the hill near Lee St. to the waterfront.
3. Has a circular paved area along the axis in Union St. Special paving and bollards will slow traffic.
4. Creates a seating area by terracing the east side with steps that go down to the water.
5. Retains the dog park in existing location. A slightly elevated bridge could be built to separate the pedestrians from the dogs.
6. Includes an interpretive boardwalk that winds out into the tidal wetland near Ford's Landing.
7. Enhances the hillside by adding colorful plantings for aesthetics and to reduce maintenance.
8. Also includes a gazebo.

*Concept #3*

1. More intense level of development
  - a. Incorporates the most boating opportunities.
  - b. Includes an educational building.
2. Extends Gibbon Street with special paving to create a boat launch and turn-a-round area for small sailboats. Parking could be provided elsewhere.
3. Includes 35'x45' building which is probably the maximum size the site could accommodate.
4. Creates a wetland within the existing water area (will appear as a wetland instead of the open water it is now).
5. Shows a pedestrian bridge that was considered in previous concepts, although it has pulled back to reduce visual impact and screen the grade change required for the wetland.
6. Pedestrian bridge could be curvilinear to blend more with Harborside.

J. Stevens: Asks about storm drain outfall locations

M. Murphy: Relocation of the existing storm drain would be required to flow into this wetland.  
The advantage to this wetland location is that it captures both outfall locations.

7. Dog park relocated near the tunnel with an ornamental fence or hedge enclosure.
8. Relocates the volleyball court and basketball court south of the playground.
9. Formal terracing of the hill by Lee St. creates a seating and gathering area.
10. Maximizes boating opportunities with more tie-ups.

(Public) Asks why Concept #3 relocates the dog park near the tunnel?

S. Whitmore: Indicates that we will have a public comment session but at the moment the floor should be opened up for steering committee questions.

- W. Demaine: Asks about dredging and silting.
- M. Murphy: According to the coastal engineers, hydrilla is the bigger problem because most sailboats need only 3'-5' depth of water which currently exists. In the long term hydrilla removal and sedimentation for a marine-oriented concept will be an on-going expense.
- W. Demaine: Asks if dredging is a probability down the road.
- M. Murphy: The issue with dredging is the added cost and need for permitting. Also have to seal off the marina area to get dredging done. Current sedimentation process is slow.
- J. Stevens: Asks if there are changes to the playground.
- M. Murphy: Playground equipment is in good condition. Also liked the existing terracing. Does need rubberized surfacing and ADA access on both levels and these will be recommended. By relocating the walkways we can add another play area near the swings.
- A. MacDonald: Asks if the basketball court is relocated near the tunnel is there a concern with noise.
- M. Murphy: Affirms recognition that noise is a big issue for the adjacent residents whether it is the basketball court or dog park.
- W. Conkey: Asks if the walkway that goes over the water in concept #3 is on pilings and how the water goes between.
- M. Murphy/  
M. Bernstein: There will be some type of outfall there. The wetland will have to sit higher than the existing water elevation. The bridge could be an elevated piling design.
- W. Conkey: Asks what kind of surface would be used on the walkway.
- M. Murphy: It could be wood or hardscape paving. Concept #3 has hardscape elements on the west side which could be reflected on the walkway.
- W. Demaine: Asks whether it was noticed that most of the birds, except for seagulls, perch further out from the land.
- M. Murphy: Baker observed ducks and other smaller birds covering the entire area. Environmentalist thinks that as long as we keep some type of nesting elements birds will remain. The wooded areas around the park don't provide large quantities of habitat. The pilings in concept #3 would be removed so replacement nests/perches for larger birds may need to be designed.
- A. MacDonald: Asks the purpose of the boardwalk across the water (other than aesthetics) and why it is so close to the bulkhead. Also silting concerns with the pier.
- M. Murphy: This option would require some type of dredging and harvesting of the hydrilla. Regarding siltation, our coastal engineers say that sedimentation is a slow process, and that Windmill Hill Park's sedimentation is not at the point that it would prohibit small sailboats yet.
- A. MacDonald: Asks whether the pier is for aesthetics.

- M. Bernstein: The wetland needs some type of embankment or high ground to contain the wetland. However, that does not necessarily mean a walkway.
- M. Murphy: Also the bridge can curve to be more aesthetic and follow the sedimentation line more closely.
- S. Whitmore: Asks whether there are two walks on concept #3?
- M. Murphy: Yes. One by the bulkhead, and the other is between the wetlands and the existing water.
- S. Whitmore: Asks if it's necessary for the wetland, so that the wetlands aren't be encapsulated by the walkways?
- M. Murphy: The bridge can change form or be eliminated so that it is not duplicating the walkway on the bulkhead.
- J. Stevens: Asks about the "C" shaped structure on concept #3.
- M. Murphy: It could be a seating area with benches. Needs more definition.
- A. MacDonald: Asks about building placements that were considered.
- M. Murphy: Several options were considered. Location closest to the water seemed like the best place for a nautical or environmental education building. It would be at a lower elevation here. Other options considered where either near the tunnel or the existing dog park area at Union Street.
- J. Sullivan: Asks why there is no restroom shown in Concept #3 and if it is within the building.
- M. Murphy: Restroom within the building is a possibility. An issue to be addressed is the depth of the sewer line and the fact that the building is located within the flood plain. Building has not been programmed yet but it may be an option.
- B. Schulz: Asks about additional parking in Union Street.
- M. Murphy: No new parking areas are shown. Want to develop the concept and then determine how much additional parking is generated. Will be discussing with the city. Want to maintain existing Union St. parking but would probably take several spaces to do traffic calming and pedestrian walkways in all 3 concepts.
- E. Jones: Asks about the Hydrilla problem and whether wetlands will eliminate the problem.
- M. Murphy: According to coastal engineers, it will come back. Hydrilla will be an ongoing maintenance issue.
- E. Jones: Asks if the wetland in concept #3 was built could we use the steps down to the water from concept #2 some where else on the site.
- M. Murphy: Yes, there are multiple places on all the plans to do the steps down to the water.
- S. Whitmore: Asks Mr. Skrabak to address this issue because the purpose of the wetlands is not to reduce the hydrilla and will have to address the hydrilla problem no matter what plan we have.
- W. Skrabak: Explains that the bright green material floating on the water is not hydrilla but algae. Hydrilla has roots in the ground so it is hard to prevent it from coming back and that applies to all the concepts.
- E. Jones: Asks whether it is from runoff.

- W. Skrabak: Hydrilla is an evasive aquatic vegetation that likes the Potomac River. It's expensive to harvest, and has to be disposed of and dried out. The COE historic policy is to only harvest it where boat traffic will be an issue. They have never harvested hydrilla for aesthetics or other purposes. So for boating uses we will have to harvest. It's usually done later in the season when it starts to get thicker and impedes the boating areas. Hydrilla comes back every year thicker. There are some small positive benefits to not removing the hydrilla. It adds some nutrients to the water and habitat for a few fish, but too much is a problem. It can accentuate the algae and keep it around longer. Large storms clear out the algae, but the hydrilla stays.
- E. Jones: Asks where the algae is coming from.
- W. Skrabak: Algae is a naturally occurring organic matter that grows when there is a certain amount of nutrients in the water. The City has no policy for harvesting algae because large storms can clear it out.
- E. Jones: Asks if we implement steps down to the water will people be stepping into algae?
- W. Skrabak: Yes, at certain times of the year. Potentially, algae does capture some of the floatables and keeps them from sticking around. There are a couple of positives about the storm water detention. It can be designed to capture a lot of the floatables, but because the Potomac River is tidal we receive all we want from our own outfalls and everything every one else dumps into the river will come into this basin. On the sedimentation issue, we would like to keep the issue of dredging open in the long term because over time sedimentation will build up extensively. If there is a design element that prevents us from clearing it out there could be a sedimentation problem.
- A. MacDonald: Hydrilla attracts small fish and birds. It looks bad because it attracts the algae when the water temperature rises but is one of the natural elements of the bay. May want to push it aside for the boats.
- M. Murphy: One issue with Concept #3 is that once you put the wetland in the water it's permanent. You will lose any opportunities for having boating or anything else there in the future.
- S. Anderson: Asks about building design and impervious issues as they relate to the Bay Ordinance.
- M. Murphy: It could be hardscape or wood decking.
- W. Skrabak: The building is required to have a water-oriented use or it will need a 100' setback. The Chesapeake Bay Act will allow us to go in and put hardscape where the existing parking lot remains are. Another requirement would be treating runoff before it goes into the river. Might have some catch basins to catch the water and bring it back to the wetland or have some type or filter system. In this case, if we were to locate the building then it would be best to put it where it is.

#### 4. PUBLIC COMMENT

The following items were discussed:

<i>Speaker</i>	<i>Statements and/or questions</i>
Angela Anderson:	Wonders if anyone on the steering committee has boating experience with the Potomac River. (Two steering committee members raise their hands). Small boats will not be able to access the water in Concept #2, so where will the boats come from? Also, she is concerned that children don't have enough experience to have access to the water.
Pete Balany:	How much traffic goes with each of the options? He likes to fish and thinks that traffic will impact that.
Bill Hunly:	We should not eliminate children from the water. If we build an educational center, kids will come and learn about the river.
Dave Amsoly:	There is a problem with providing for small boats in our design because they will mess up the larger boat traffic in the channel. He show a pictures of all the piling covered with birds and a previous seaport educational building disaster. Steve says that restrooms will create a problem.
Steve Crams:	We don't need to have restrooms. Leave the basketball court in its existing location. We are short of parking as it is now.
Katy Kennedy:	Disagrees with having boat access because it causes a problem with the panoramic view. She likes concepts #1 and #2. Also, she opposes a building.
Theresa Miller:	A building will be a safety hazard for children, especially during construction.
Jim Sharf:	The boat ramp from concept #3, will be attractive nesciences especially with fishing boats. The restrooms will attract buses, which will cause parking problems.
Jack ___:	Doesn't want to move dog park.
Brian Brizel:	Concepts #1 and #2 create a problem with flooding by leaving the existing boat launch. Our ideas are not realistic for small boats. He suggests we look at Washington Sailing Marina. Small boats are a safety issue with the larger boats in the canal, especially with kids in small boats. Hydrilla will have to be dredged every 3-5 years.
Christopher Hernandus:	Likes the existing location of the dog park.
Peter Kilcole:	There are too many uses within this park, which will attract too many people. The retention pond could create an insect problem. It is extremely hard to find disposal for dredging.
Judy MacVay:	Doesn't want the basketball court near the playground. She says the restrooms will attract bums. Lastly, she doesn't want the dog park by the houses, which is shown in concept #3.



- S. Whitmore: There have been a number of comments from residents on Gibbons St. about the basketball court.
- Unknown: Says she lives across from the basketball court and likes it.  
Six break-out groups were created for a review and work session of the Concepts.

**5. COMPREHENSIVE MATRIX FROM BREAK-OUT GROUPS**

ELEMENTS	GROUP #1	GROUP #2	GROUP #3	GROUP #4	GROUP #5 (PUBLIC)	GROUP #6 (PUBLIC)	CONCLUSION
Basketball Court	Existing loc. with screening	North on Union St.	Existing loc.	Existing loc.	Existing loc.	Existing loc.	Existing loc. with screening
Dog Park	Existing loc. with bridge	Ex. basketball court	Existing loc. with bridge, separation	Existing loc.	Existing loc. & water access	Existing loc.	Existing loc. with bridge, separation
Playground	Existing loc.	Existing loc.	Existing loc.	Existing loc.	Existing loc.	Existing loc.	Existing loc.
Volleyball Court	Existing loc.	Existing loc.	Existing loc.	Existing loc.	Existing loc.	Existing loc. but reoriented	Existing loc., may reoriented
Vista	Concept #1 with historical markers	Formal, axial	Enhance, historical markers	Same	ADA accessible & keep wall	Simple, historical, open	Concept #1 with historical markers
Hill	Grass	Softscape	Grass	Same	Grass	Grass	Grass
Union Street	Concept #1 plus dial from Concept #2	Concept #2	Softer treatment	Open, nothing special	Traffic calming	Open	Traffic calming
Building	None	None	Indifferent	Yes- edu. Concept #3	None	None	Revisit Issue
Water's Edge	Comb. soft and hard	Soft corners	Define and access	Soft	Soft only at Dog Park	Soft	Soft
Water Access	None major	Step down	Concept #2, steps down	As much as possible	Dog park	Dog	Dog park, steps down
Boating	Low level	Kayak, nothing major	Low level	Boats-unpowered	Some with no traffic impact	Kayak	Some with no traffic impact
Walkways	Bridge, better connection to tunnel	Vary experience	Natural, separate dogs, no bridge- Concept #3	Simple, less definition	All on waters edge	Simple	All on waters edge, Simple
Storm Water	Pond	Pond with picnic area	TBD	No pond	No pond, underground	No pond enhancements	Revisit Issue
Restrooms	None	None	Only if building	Only if building, limited access	None	None	Only if building, revisit issue
Wetlands	Concept #2	Interpretive boardwalk	Some	Yes	Remove Hvdrilla	Open	Revisit issue
Fillings/ Dredge	TBD	TBD	Some	None	Remove	Leave	Some

## 6. PUBLIC COMMENT

The following items were discussed:

<i>Speaker</i>	<i>Statements and/or questions</i>
S. Whitmore:	The city council has said that we should have an educational component.
W. Conkey:	There are different ideas about what is educational; it does not have to be a building.
A. MacDonald:	Need to continue to explore the idea of an educational component.
J. Sullivan:	Could use the tunnel for education.
W. Conkey:	Maybe there is no interest in an educational component
Woman:	In the meeting on June 26 <sup>th</sup> , the educational component was information pieces (kiosks) from Jones Point Park. It was not a building.
Al:	No building is needed for educational purposes.
Man:	If the building is limited to the size of the park then it will be too small.
Woman:	Info pieces have historical value so if we modernize the kiosk we need to consider how it will be perceived. Don't push issues that are not popular with the overall vote.
Woman:	Look to the teacher on the steering committee for the educational component advice. Also thinks that if the park is more passive it can be educational to more than just school children.
Woman:	Have noise and hour controls been considered?
Man:	If you put a picnic area and a gazebo near the water you can put boats in there.
Man:	Dogs should have access to the water, and the dog park should be marked better.
Man:	There is no need a building. The kids can use the school nearby and walk to the water.
Woman:	The wetlands are educational and take care of the environmental concerns, and it also helps the bay. If the wetlands are done correctly then it won't have an insect problem that will happen with your retention ponds.
Women:	Can we incorporate bikes and bike safety into the next design?
Man:	There are issues with the way the water flow goes along the park. We need to make sure that it is not a problem like it is now.
G. Long:	Baker will bring coastal engineers to the next meeting.
Man:	We need to think about if the money available matches what we want done.

## 7. THE NEXT STEERING COMMITTEE MEETING DATES

Monday, Oct 1<sup>st</sup> at 6:00 p.m.

Wednesday, Oct 24<sup>th</sup> at 6:00 p.m. (additional meeting added)

**Meeting Adjourned**

**A.4 Work Session Steering Committee Meeting #3**

*Project:* Windmill Hill Park  
*Meeting:* Steering Committee Meeting #3  
*Date:* October 1, 2001  
*Time:* 6:00 p.m. -10:00 p.m.  
*Location:* Lee Center

**Attendees:***Steering Committee:*

William Cenkey	Park and Recreation Commission Representative	703-519-3748
Andrew Palmieri	Waterfront Commission Representative	703-837-6976
Susan Anderson	Environmental Policy Commission Representative	703-518-8557
Windsor Demaine	District 1 Representative	703-683-8411
Joyce Stevens	District 1 Representative	703-838-0686
Elizabeth Jones	District 2 Representative	202-208-0246
Andrew MacDonald	District 2 Representative – Convener	202-548-7572
Bernard Schulz	District 3 Representative	202-885-3499
Jack Sullivan	District 3 Representative	703-276-0677
Clenton Blount	Curriculum Specialist in Science for the City of Alexandria Schools	703-824-6680

*City of Alexandria Staff:*

William Skrabak	Division Chief of Transportation & Environmental Services/Environmental Quality	703-519-3400
Jay Grimes	Alexandria City Public Schools	703-824-6676
Kathleen Beeton	Urban Planner Dept of Planning and Zoning	703-838-4666
Lori Godwin	Assistant City Manager	703-838-4300
Jean Federico	Director of the Office of Historic Alexandria	703-838-4554
Kirk Kincannon	Deputy Director of Recreation, Parks, & Cultural Activities	703-838-4842
Patricia McManus	Landscape Architect of Recreation, Parks, & Cultural Activities	703-838-4842

*Consultants:*

Gregory Long	Director of Planning at Baker and Associates	703-960-4400
Mike Murphy	Senior Planner at Baker and Associates	703-960-4400
Kristen Schaible	Planner at Baker and Associates	703-960-4400
Pete Paterson	Coastal Engineer	904-249-8009

**Introductions:****A. MacDonald: *Welcoming Comments***

Summarizes the last meeting and reviews the outstanding issues:

1. How will the park develop the educational component, since the Seaport Foundation has withdrawn its support?
2. How will we treat the storm water concerns?
3. How to beautify the bay (edge treatments)?
4. What is the safety of the pilings?
5. Should we have restrooms?

**L. Godwin: *Reviews Steering Committee's purpose as Directed by City Council:***

1. Incorporate mandated elements.
2. Consider some suggested elements.
3. Access to park for all people.
4. Enjoy and maintain reasonable views of the water.
5. Include natural resource enhancements.
6. Address storm water runoff improvements.
7. Address educational components.
8. Consider interpretive trail to Jones Point Park.
9. Consider a building and restroom.
10. Incorporate traffic calming.
11. Discuss small boating and fishing (if it works in the design).
12. Address parking.

**1. DISCUSSION OF EDUCATIONAL COMPONENT**

The following items were discussed:

1. Using water for environmental science to educate children ages 1-5 as part of Alexandria Public Schools curriculum.
2. See handouts about educational components done elsewhere within the region.
3. Discussion about Windmill Hill Park being too small for bus parking.
4. Examined how to merge the uses of Windmill Hill Park and Jones Point Park.
5. Suggested that the Chesapeake Bay Act should be used as a guide.
6. The Steering Committee organized a sub group to examine options with the issue of education. Sign-up sheets were circulated.

7. Discussed the fact that the building could not exceed the size of 35'x45'.
8. Reviewed that the building needs to reflect a specific program.
9. Reiterated that the conclusion of restrooms will be determined after the building purpose is decided.

## 2. OVERVIEW OF STORM WATER MANAGEMENT

The following items were discussed:

1. Goal is to improve water quality and create an aesthetic feature within the park.
2. Storm Water Options:
  - a. Create a stream channel/stream restoration with wetland plants. Will help reduce nutrient loads that feed hydrilla.
  - b. Develop a shallow retention pond so that the water can percolate the ground which will reduce Sediment build up and nutrients that feeds hydrilla.
  - c. Construct piping or create an underground storage structure (may be expensive and not appropriate for site).
3. To develop options A & B regrading and bio filter fabric would be required.
4. By planting the buffer zones around the dog beach, the water quality could be treated.
5. No problem with mosquitoes if the storm water doesn't have standing water for seven or more days.
6. Storm water discharge/flushing can circulate sedimentation out of the bay.
7. Options a & b can help water quality and provide educational opportunities.

## 3. REVIEW OF EDGE TREATMENT OPTIONS

The following items were discussed:

1. Safety, cost, and aesthetics are the main concerns
2. One bulkhead option is vertical piles that are either conc., steel, or wood. (Can be more expensive and unattractive)
3. Another option is to cover the existing bulkhead with stone and/or riprap. (This decreases shoreline and makes it less user friendly – additional filling may be required).
4. Reconstructing entire bulkhead will be expensive due to length.
5. Must take pilings out if there will be future dredging and hydrilla harvesting.
6. Can remove pilings and develop bird-resting stands to preserve wild life habitat.
7. Other groups will have a say in removing the pilings (i.e. Corps of Engineers)
8. Pilings have environmental hazards as well as safety issues.
9. Both concepts presented incorporate both hard and soft edge. Concept 1 has more soft edge, and Concept 2 has more hard edge

#### 4. OVERVIEW ON PARKING

The following items were discussed:

1. No additional off-street parking requirement unless a building is constructed. Then there will need to be eight additional parking spaces added.
2. Finding more parking is difficult. Due to limited area and water front restrictions.
3. The option of providing head-in parking on Gibbon St. may be safety concern due to backing onto street.

#### 5. REVIEWING OF CONCEPT PLANS

The following items were discussed:

*M. Murphy*

*Concept 1*

1. Meandering stream restoration enhances storm water management/ water quality.
2. Green edge maximized along water.
3. Removal of existing bulkhead is proposed.
4. More naturalistic spaces created.
5. Includes no educational shelter.

*Concept 2*

1. Creates a plaza open space.
2. Terracing steps to the water allow access for pedestrians.
3. Retains existing bulkhead.
4. Storm water is more contained in a shallow holding pond with a interpretive boardwalk that extends over it.
5. Includes an educational shelter (no decision on location, size, and structure).
6. Provides tie-up area for small boats (no decision on whether or not to have tie-up areas)

#### 6. PUBLIC COMMENT

#### 7. MEETING ADJOURNED

**A.5 Work Session Steering Committee Meeting #4**

*Project:* Windmill Hill Park  
*Meeting:* Steering Committee Meeting #4  
*Date:* October 24, 2001  
*Time:* 6:00 p.m. -10:00 p.m.  
*Location:* Lee Center

**Attendees:**

*Steering Committee:*

William Conkey	Park and Recreation Commission Representative	703-519-3748
Andrew Palmieri	Waterfront Commission Representative	703-837-6976
Susan Anderson	Environmental Policy Commission Representative	703-518-8557
Windsor Demaine	District 1 Representative	703-683-8411
Joyce Stevens	District 1 Representative	703-838-0686
Elizabeth Jones	District 2 Representative	202-208-0246
Andrew MacDonald	District 2 Representative – Convener	202-548-7572
Bernard Schulz	District 3 Representative	202-885-3499
Jack Sullivan	District 3 Representative	703-276-0677

*Staff:*

Sandra Whitmore	Director of Recreation, Parks, & Cultural Activities	703-838-4842
William Skrabak	Division Chief of Transportation & Environmental Services/Environmental Quality	703-519-3400
Jay Grimes	Alexandria City Public Schools	703-824-6676
Kathleen Beeton	Urban Planner Dept of Planning and Zoning	703-838-4666
Lori Godwin	Assistant City Manager	703-838-4300
Jean Federico	Director of the Office of Historic Alexandria	703-838-4554
Kirk Kincannon	Deputy Director of Recreation, Parks, & Cultural Activities	703-838-4842
Patricia McManus	Landscape Architect of Recreation, Parks, & Cultural Activities	703-838-4842

*Consultants:*

Gregory Long	Director of Planning at Baker and Associates	703-960-4400
Mike Murphy	Senior Planner at Baker and Associates	703-960-4400

**Introductions:**

A. MacDonald: *Welcoming Comments*

Revised agenda and Summarized the issues that need to be focused on:

1. Safety issues concerning access to the river
2. Cost and technical issues of bulkhead
3. Decision-making process for the steer committee

G. Long: *Reviews Steering Committee's purpose for this and the next meeting and the process chart.*

1. Finalize issues 20. Fully develop concepts
2. Develop a cost and maintenance budget
3. Develop a phasing strategy

**1. REPORT ON EDUCATIONAL COMPONENT**

The following items were discussed:

*J. Stevens*

1. Distributes handout about educational sub-group meeting
2. Determines that a building was not necessary, instead a gathering space with benches was agreed on.
3. Use educational markers
4. Opportunities for students to access water safely at the end of Gibbons St.
5. Windmill Hill Park will support Jones Point educationally
6. Park is not large enough for boat docking and loading for children
7. Telescopes could be an option
8. Interpretive signs for tree names and areas of historic significance could be incorporated
9. Students to help in the planting of the park
10. Education sub-group was very much in consensus
11. There were members of public at the sub-group meeting

*S. Whitmore*

1. Jones Point Park will not be started until completion of Wilson Bridge (approx. 2007)



## 2. OVERVIEW OF SAFETY ISSUES

The following items were discussed:

### *B. Schulz*

1. Suggest a sandy or grass launch for kayaks and small boats (car-top boats)
2. Two nearest on-street parking spaces should be designated for kayak loading
3. Use signs in water to inform boaters where small boats will access the channel
4. Launch will serve not only visitors but students also
5. Could look at rotating existing Harborside pier and gazebo for safety to access the channel
6. There would be minimal conflict with dog park

### *S. Whitmore*

1. National Park Service wants to retain Harborside pier/gazebo
2. Park and Recreation has requested that VA Marine Fisheries evaluate the site
3. Area is a no-wake zone which should help boat safety

## 3. REVIEW OF EDGE TREATMENT OPTIONS

The following items were discussed:

### *G. Long*

1. Park components (see chart from Meeting Notes #2)
2. Shoreline stabilization options and cost estimations (based on 900' LF of existing shoreline)
  - a. rock riprap with no bulkhead removal (110-175 LF) (\$270K total)
  - b. boardwalk over the existing bulkhead (\$504,000 total)
  - c. encapsulate existing bulkhead (\$540K) – last 40-60 years
  - d. remove entire bulkhead (\$1,600,000)
  - e. replacing existing bulkhead with soft edge (\$1,935,000)
  - f. replacing existing bulkhead with hard edge (\$2,050,000)
3. Piles
  - a. are a safety hazard according to a report by KCI and PBS&J. City liability issue
  - b. recommend removing all 65 piles and dolphins due to safety issues (\$200,000)
  - c. will be replace with bird perches to preserve this habitat and keep bird watching
  - d. recommend to remove also for any future dredging, hydrilla harvesting, and boating
  - e. removal will help maintenance issues because there is a better chance flushing will improve

4. General water's edge treatments
  - a. replacement of the of 900 LF of bulkhead in concrete sheet pile (see plan)
  - b. use of riprap and planting (see plan) which will cost around \$2,000,000
  - c. will create erosion control for both A & B
5. Existing Outfall Options
  - a. Recommend to remove existing concrete box culvert for the stream restoration which will cost around \$150,000 (recommended)
  - b. create water impoundment, however it is not favored because of concern with ponding.
  - c. underground storage from Union St. to basin which will not work effectively because of a high water table
6. Cost Budget Philosophy
  - a. Lowest initial first cost
  - b. create a balanced/effective cost which means a mix of edge treatments (most cost effective in the long term)
  - c. minimize operation and maintenance requirements
7. Parking
  - a. need to slightly reduce parking by using the two parking spaces for kayak drop off and adding speed tables/pedestrian crossing. No additional parking is proposed
8. Safety Issues
  - a. creating 10' wide speed tables with brick pavers is the general direction from the City for traffic calming for pedestrian safety.
  - b. moving the point of departure for kayak away from the channel and adding signage will improve boating safety
  - c. improve pedestrian safety by providing brick paver crosswalks on Lee St. and other key points
  - d. may also want additional park identification signage
  - e. meeting ADA and BOCA codes for the walkway along the water's edge will decrease hazards for people near the water
9. Dog Park
  - a. although current location is popular it has conflicts with multiple uses of the park, water quality, and city environmental requirements
  - b. second option is to relocate to the north near tunnel
  - c. option to enclose the dog park with a hedge instead of a fence
  - d. maintenance is expensive

#### *S. Whitmore*

1. Maintenance is increasingly expensive for city dog parks

#### *A. MacDonald*

1. Read 10/17 parks and recreation motion on dog parks

*W. Conkey*

1. There was unanimous agreement to balance the needs of all users

*J. Sullivan*

1. Planning District III Representative supports dog park relocation away from water

**4. PUBLIC COMMENT**

**5. MEETING ADJOURNED**

## A.6 Work Session Steering Committee Meeting #5

*Project:* Windmill Hill Park  
*Meeting:* Steering Committee Meeting #5  
*Date:* November 11, 2001  
*Time:* 5:00 p.m. -9:00 p.m.  
*Location:* Lee Center

### Attendees:

#### *Steering Committee:*

William Conkey	Park and Recreation Commission Representative	703-519-3748
Andrew Palmieri	Waterfront Commission Representative	703-837-6976
Susan Anderson	Environmental Policy Commission Representative	703-518-8557
Windsor Demaine	District 1 Representative	703-683-8411
Joyce Stevens	District 1 Representative	703-838-0686
Elizabeth Jones	District 2 Representative	202-208-0246
Andrew MacDonald	District 2 Representative – Convener	202-548-7572
Bernard Schulz	District 3 Representative	202-885-3499
Jack Sullivan	District 3 Representative	703-276-0677

#### *City of Alexandria Staff:*

Sandra Whitmore	Director of Recreation, Parks, & Cultural Activities	703-838-4842
William Skrabak	Division Chief of Transportation & Environmental Services/Environmental Quality	703-519-3400
Jay Grimes	Alexandria City Public Schools	703-824-6676
Kathleen Beeton	Urban Planner in Planning and Zoning	703-838-4666
Lori Godwin	Assistant City Manager	703-838-4300
Jean Federico	Director of the Office of Historic Alexandria	703-838-4554
Kirk Kincannon	Deputy Director of Recreation, Parks, & Cultural Activities	703-838-4842
Patricia McManus	Landscape Architect of Recreation, Parks, & Cultural Activities	703-838-4842

#### *Consultants:*

Gregory Long	Director of Planning at Baker and Associates	703-960-4400
Kristen Schaible	Planner at Baker and Associates	703-960-4400

**Introductions:**

*Speaker                      Comments*

A. MacDonald: *Welcoming Comments*

1. Mr. MacDonald expressed that the Steering Committee should vote on the plans because they need to be presented to the City Council soon.
2. He reviewed the last meeting and reiterated that the issues of edge treatments, dog park location, access to the water, signage, storm water management, and the cost budget topic have not been completely decided upon.

G. Long: *Clarification of Action Items*

1. Resolve the conflicts about the dog park location.
2. Determine if some of the pilings stay and if it is worth the cost.
3. Decide on the edge treatments for the park.
4. Review maintenance and construction costs.
5. Discuss connection between Windmill Hill Park and Jones Point.

**1. REVIEW OF BOTH PLANS A AND B**

*Speaker                      Comments*

G. Long: *Both Plans:*

1. Widen the sidewalks on Lee Street.
2. Locate signs on the wall for historical education.
3. Leave the playground the same.
4. Add Cross walks and wide speed tables to promote crossing at intersections.
5. Shift the basketball court a few feet to the north and added some shrubs for screening.
6. Tweak the path from the tunnel to better connect it to the eastern portion of the park.
7. Create an open lawn to enhance vistas.
8. Add a three terraced soft edge (shrubs, rocks, and wetland plants) on the north side of the basin. Shrubs will keep people off the rocks and the wetlands will clean much of the water.
9. Reconstruct a hard edge on the west and south sides of the basin because bulkhead is cleaner, lasts longer, and has less maintenance issues.
10. Provide 18" benches for small groups to congregate.
11. Add a gentle slope for kayaks to enter the water on the southeastern corner of the basin.
12. Improve the storm water management by creating a wetland streambed.
13. Cross the wetland stream with a wood bridge that dogs can go under.

14. Create a tidal wetland with a boardwalk to separate pedestrians and dogs.
15. Construct new sidewalks on Union Street.
16. Provide signage to inform bikers that they cannot ride in Windmill Hill Park.
17. Add revetment for flood control.

*Plan B:*

1. Leave the dog park in the existing location.
2. Redesign this dog park to meet the setback requirements (60' from bodies of water and 50' from residential and commercial properties) and use pylons to mark the corners of these setbacks.
3. Screen the dogs from the road with a hedge to prevent them from running into the street.
4. Provide signage telling dog owners that their dogs must be on a lease when going to the water.
5. Leave the volleyball court near the tunnel.

*Plan A:*

1. Relocate the dog park near the tunnel to create more space for the dogs to exercise.
2. Screen the dogs in the exercise area from pedestrians, vehicles, and bikers with a thick hedge.
3. Move the volleyball court across Union Street between the storm water management streambed and Ford's Landing.

## 2. STEERING COMMITTEE'S QUESTIONS AND REQUESTS

*Information*

1. Suggestion to have a sign designating certain times for dogs to use the water and other times for kayak.
2. Request to fine people \$100-\$250 for not obeying the rules
3. Concern was expressed about the dogs destroying the tidal wetland
4. Discussed the topic of removing only the decaying pilings and how it may inflate the cost and increase the construction impact to the residents.
5. Request for a crossing in the middle to the park on Union Street to create a sense of connectivity. (Baker and Associates express to the committee that T&ES is not in favor of this).
6. Suggestion to have signs at the entrances to the park on Union Street for a sense of arrival.
7. Agreement amongst the committee that the low benches need to be less "ridged" in the design.
8. Reiterates that in the previous meetings the two designate parking spaces for unloading and using benches instead of a building for school children was agreed upon.

**3. STEERING COMMITTEE VOTES ON THE DEVELOPMENT PLANS A AND B**

<i>Vote</i>	<i>Motion to Approve Plan B with Caveats</i>
5(B)-3(A) (none)	1. Motion to keep the dog park in the existing location with set backs, signage, wetland protection, a boardwalk for pedestrians, and dog access to water.
9 (B)-0 (A)	2. Motion to see the volleyball court in location of plan B with a north-south orientation.
9 (B)-0 (A)	3. Motions to adopt the path configuration from the tunnel as depicted in plan B.
9 (B)-0 (A)	4. Motion to adopt from the tot lot down to the basketball court with the exception that the new walk be moved closer toward Union Street, and add some type of connecting element between the western and eastern halves of the park.
9 (B)-0 (A)	5. Motion to adopt the enhancements to the sidewalks along Lee, Gibbon, and Union Streets with the slight adjustment to the basketball court. Also include some signage.
9 (B)-0 (A)	6. Motion to adopt the hardscape/ softscape approach as depicted in plan B with some flora enhancements.
9 (B)-0 (A)	7. Motion to adopt the stream restoration as depicted in plan B.
8 (B)-1 (A)	8. Motion to remove the pilings which will be replaced with a few bird resting perches and a channel for kayaks
9 (B)-0 (A)	9. Motion to adopt the lawn and low benches with the caveat to soften the benches and introduce nautical elements.
9 (B)-0 (A)	10. Motion to use signage for park entrances, the two temporary parking spaces, bike directions, kayak launch, kayak navigational aids, dog park use and hours, dog park cautionary signs
9 (B)-0 (A)	11. Motion to adopt a phased tree plan for the site and to consider retaining healthy trees
8 (B)-1 (A)	12. Motion to encourage City Council to explore ways to implement plan B

**4. ACTION ITEMS**

Prepare the report and plan  
Review the report and plan at the next meeting

**5. THE NEXT STEERING COMMITTEE MEETING DATE**

Thursday, Jan 10th at 6:30 p.m.  
To review final consensus plan and text

**6. MEETING ADJOURNED****7. REVISED MEETING DATE**

Submit the report to the Steering Committee by Friday, Jan 25th  
Meeting on Thursday, Jan 31st at 6:00 p.m.  
To review final consensus plan and text

*This page intentionally left blank.*





**Windmill Hill Park  
Concept Plan Development  
Recommended Concept Plan**



CITY OF ALEXANDRIA  
200000

200000

Figure 21



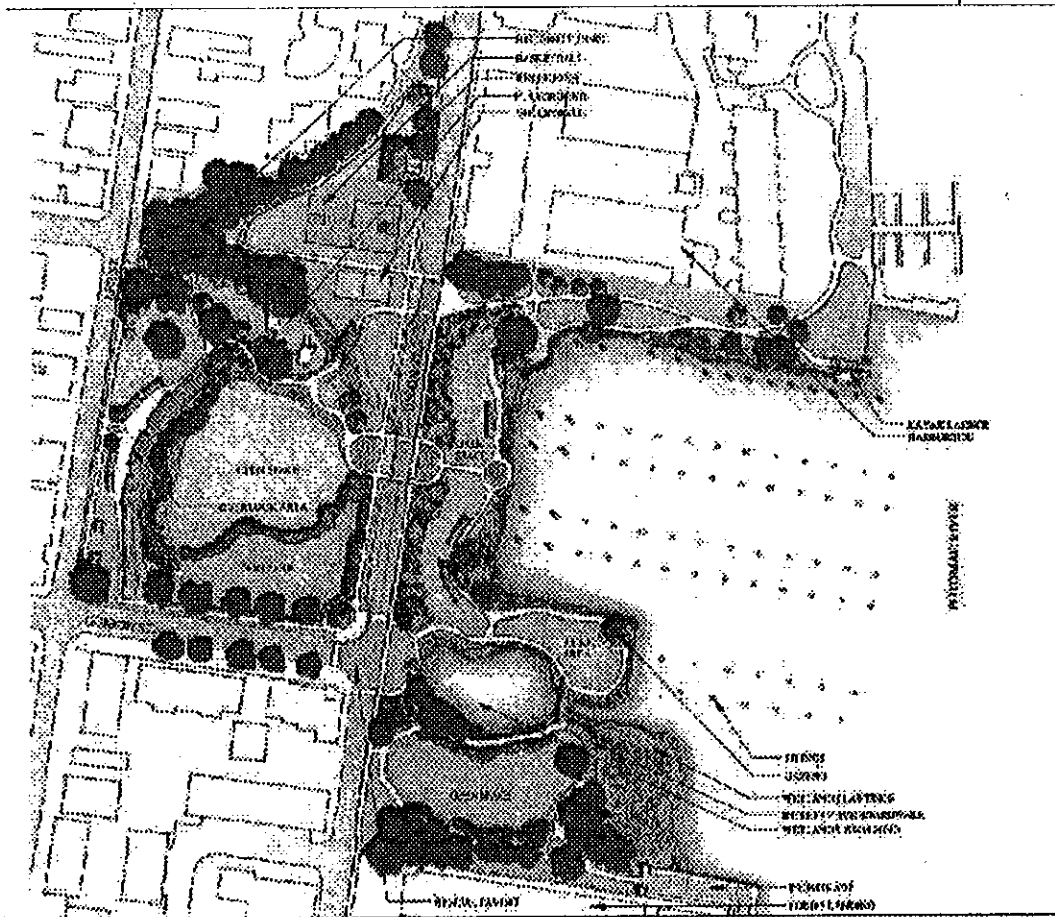
Graphic Scale

0 100 200 300



93





Windmill Hill Park  
Concept Plan Development  
Initial Concept 1



CITY OF ALEXANDRIA  
1000 E. BROAD ST.

100000

Figure 4-1

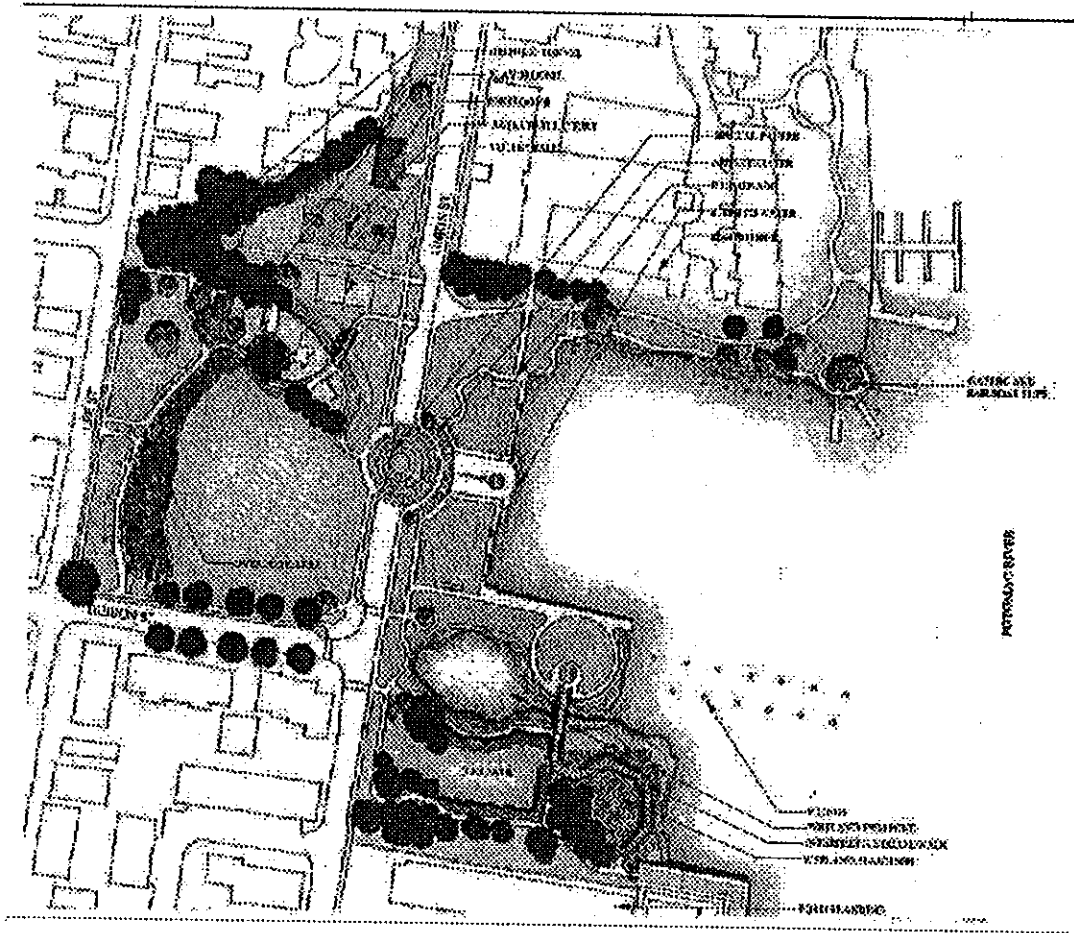


Scale

0 20 40 60 80



95



Windmill Hill Park  
Concept Plan Development  
Initial Concept 2

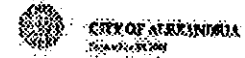
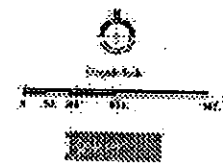
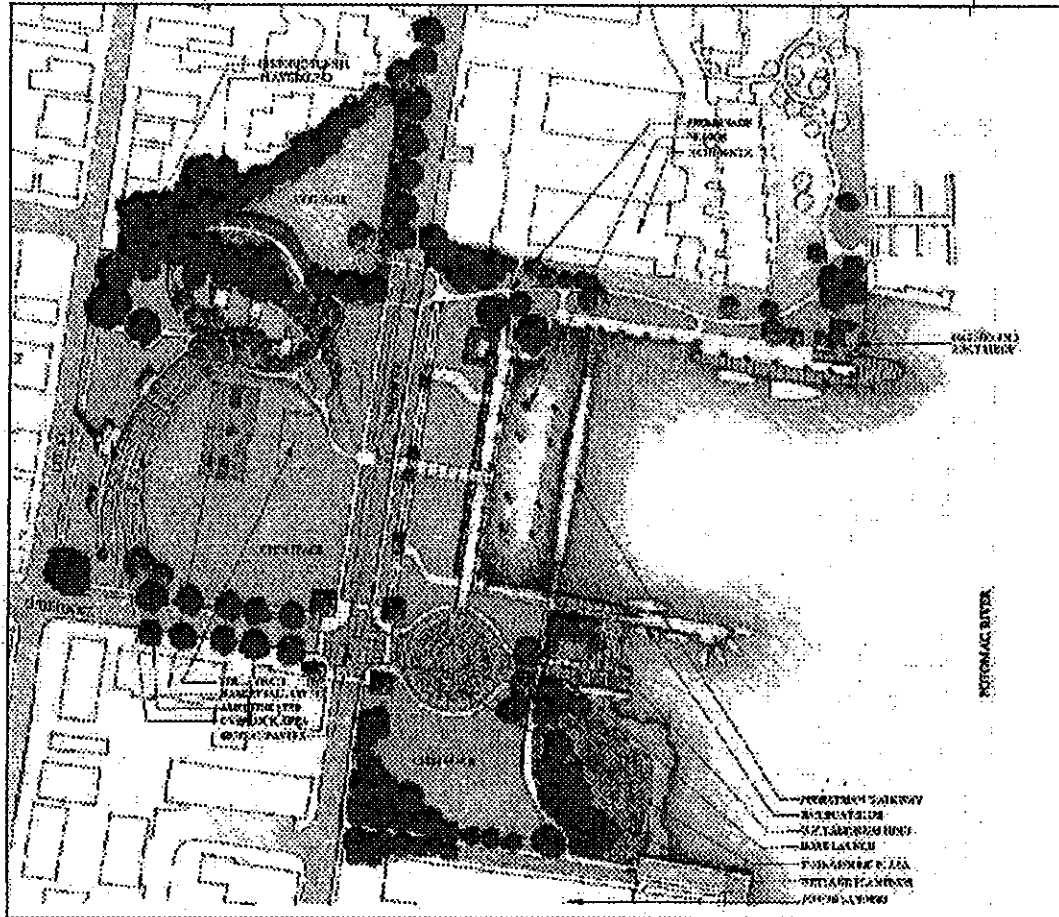


Figure 22



96



Windmill Hill Park  
Concept Plan Development  
Initial Concept 3



1/20/02

Figure 1

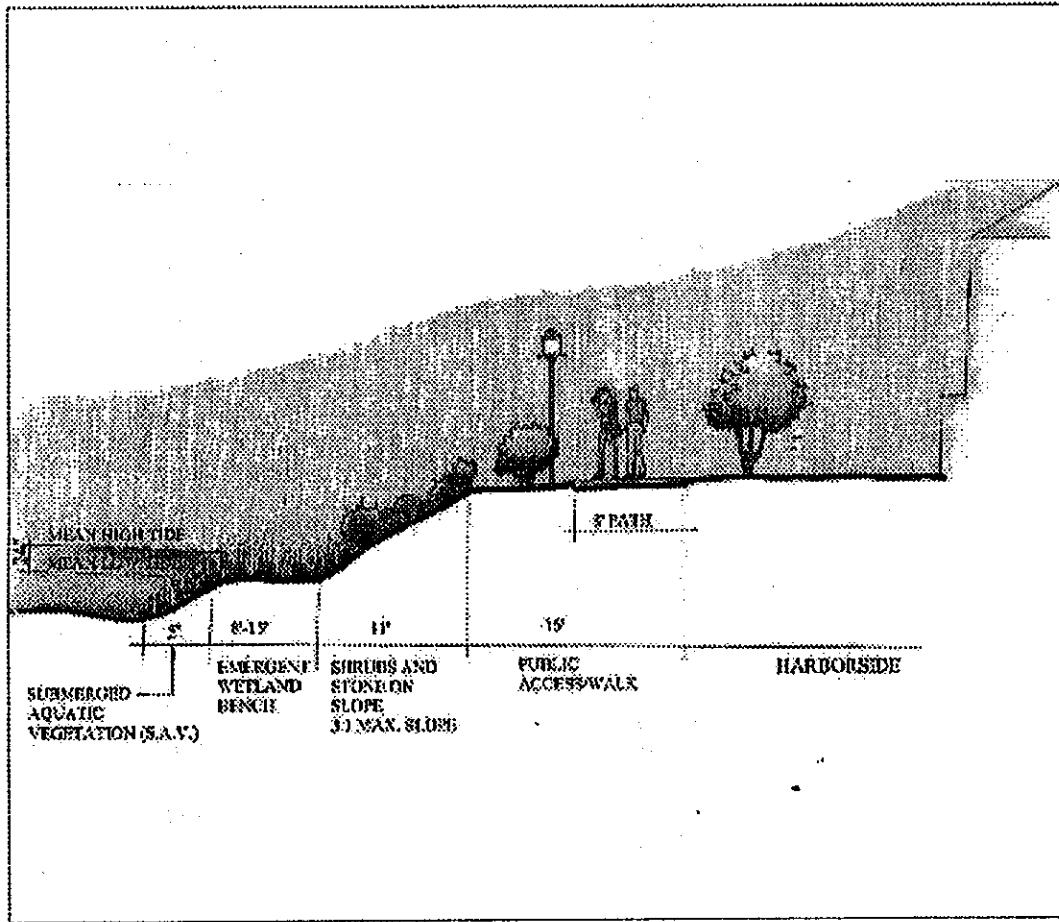


Scale 1" = 100'



97





Windmill Hill Park  
Concept Plan Development  
Section A-A  
Soft Edge Treatment



CITY OF ALEXANDRIA  
January 2002

LEGEND

Figure 5.3



Graphic Scale



99





Windmill Hill Park  
Concept Plan Development  
Rubbish Section R-R



CITY OF ALEXANDRIA  
EST. 1799

10/02

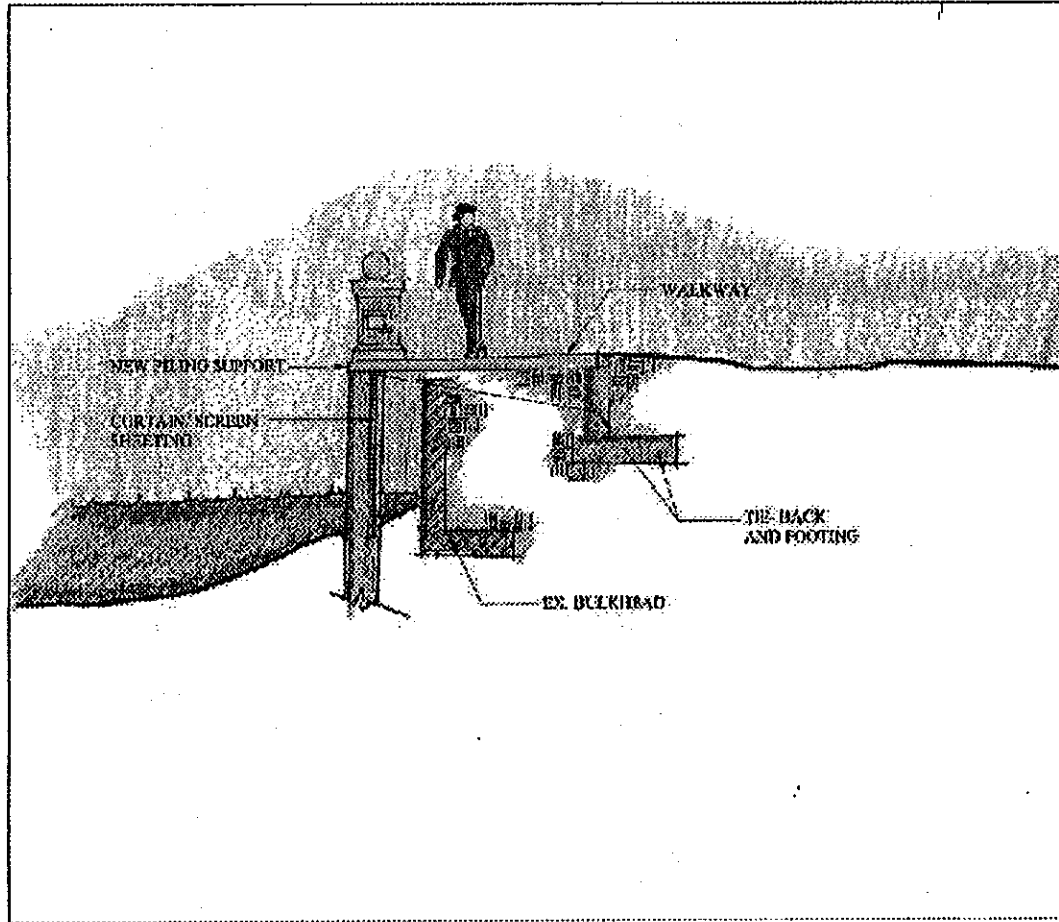


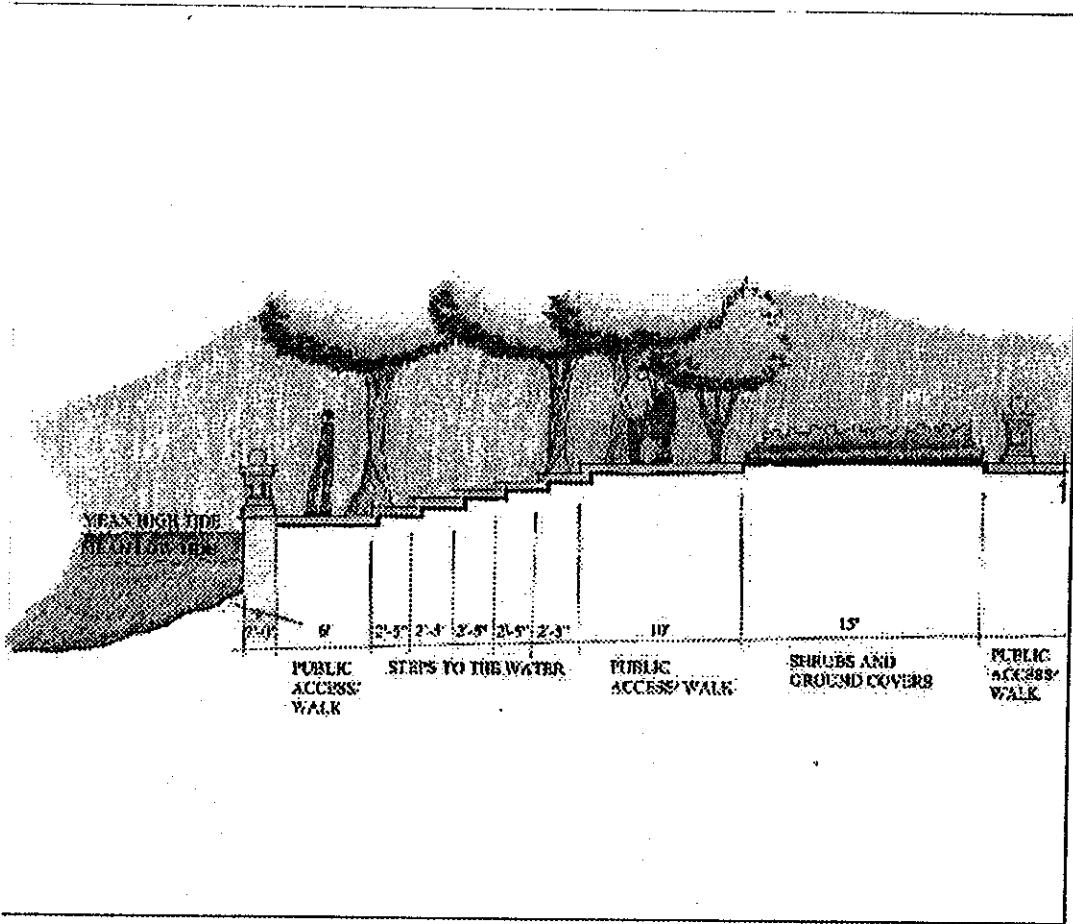
Figure 42



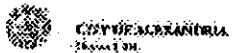
Graphic Scale



101



Windmill Hill Park  
 Concept Plan Development  
 Bullhead Section C-C



10/20/08

Figure 45



102

Windhill Hill Park  
 Concept Plan Development  
 Station Section D-D



CITY OF ALEXANDRIA  
 Office 1200

16085-01

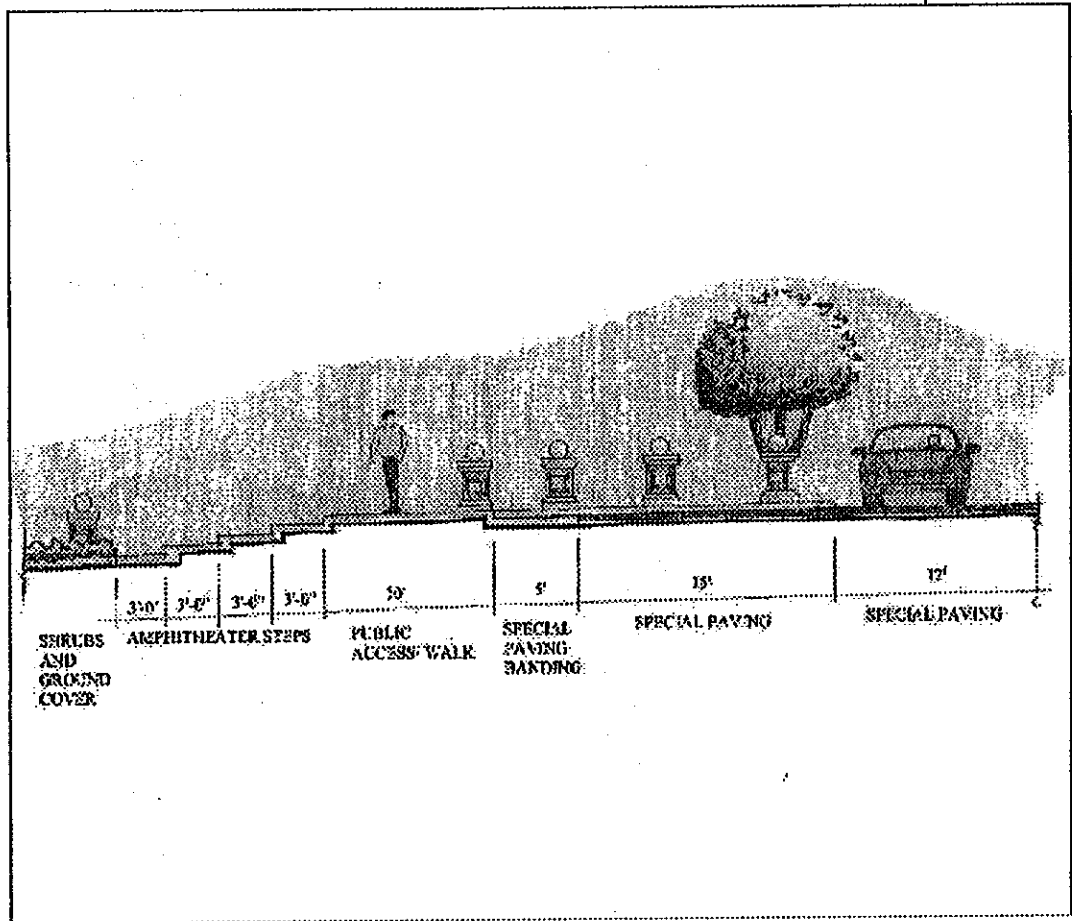
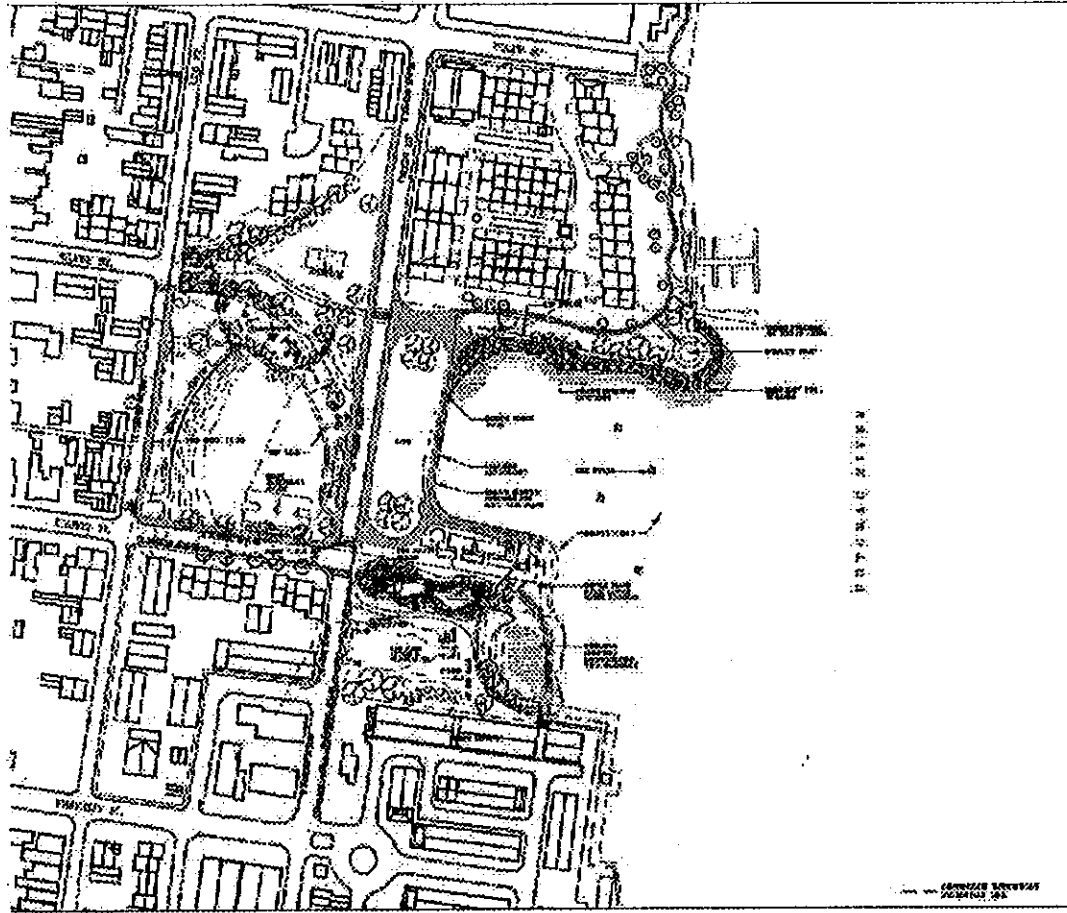


Figure S-9



103





**Windmill Hill Park  
Concept Plan Development  
Recommendation Concept Plan II**



**CITY OF ALEXANDRIA**  
2000-01-15-02

00000

Figure 1.2



0 100 200

1:5000



105



**Windmill Hill Park**  
**Concept Plan Development**  
Illustrative Plan  
Concept Plan A



CITY OF ALEXANDRIA  
June 2001

Attachment

Figure 43



Scale: 1" = 20'



906

City of Alexandria  
Windmill Hill Park

Jan-02

Process Flow Chart

Workshops Meetings Worksessions	Project Start Meeting	Steering Committee Workshop 1	Steering Committee Workshop 2	City Staff Worksession 1	Steering Committee Workshop 3	City Staff Worksession 2	Steering Committee Workshop 4	Steering Committee Workshop 5	City Staff Worksession 3	
Lead Facilitator	G. Long	G. Long	G. Long	S. Whitmore G. Long	M. Murphy	S. Whitmore G. Long	G. Long	G. Long	S. Whitmore G. Long	
Date	July 1, 2001	July 25, 2001	September 10, 2001	September 27, 2001	October 1, 2001	October 18, 2001	October 24, 2001	January 31, 2002	February 1, 2002	
Objectives	<ul style="list-style-type: none"> <li>Establish Project Expectations</li> </ul>	<ul style="list-style-type: none"> <li>Project Introduction</li> <li>Review of Initial Findings</li> </ul>	<ul style="list-style-type: none"> <li>Initial Concepts (Three)</li> <li>Establish Component Desires</li> <li>Determine Project Issues</li> </ul>	<ul style="list-style-type: none"> <li>Review of Issues</li> <li>Potential Issue / Technical Solutions</li> <li>Workshop Preparation</li> <li>Review of Educational Opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary Concepts (Two)</li> <li>Review of Issue Solutions</li> <li>Review of Educational Findings</li> </ul>	<ul style="list-style-type: none"> <li>Select Issue Solutions</li> <li>Review Cost Budget</li> <li>Review Proposed Agenda</li> <li>Review Safety Issues</li> <li>Review Revised Concept Plan</li> </ul>	<ul style="list-style-type: none"> <li>Summary of Educational Findings</li> <li>Summary of Safety Issues</li> <li>Review of Technical Issue Solutions</li> <li>Review Revised Plan Concepts</li> <li>Discuss Cost Considerations</li> </ul>	<ul style="list-style-type: none"> <li>Finalize Issue Solutions</li> <li>Final Concept Plan</li> <li>Discuss Cost Budget</li> <li>Discuss Funding Sources</li> </ul>	<ul style="list-style-type: none"> <li>Review Final Direction Implementation Strategy</li> <li>Discuss Final Product</li> <li>Discuss Final Plan Refinements</li> </ul>	<ul style="list-style-type: none"> <li>Review Final Deliverable</li> <li>Discuss City Council Presentation</li> <li>Discuss Funding Options</li> </ul>
Public Involvement	Not Present	Audience Mid Point Comments Final Comments	Charrette Participants Mid Point Comments Final Comments	Not Present	Audience Final Comments	Not Present	Audience Final Comments	Audience Final Comments	Not Present	
Action Items Outstanding Issues	<ul style="list-style-type: none"> <li>Steering Committee Membership</li> </ul>	<ul style="list-style-type: none"> <li>Component Uses</li> </ul>	<ul style="list-style-type: none"> <li>Project Issues To Be Clarified</li> </ul>	<ul style="list-style-type: none"> <li>Better Issue Definition</li> </ul>	<ul style="list-style-type: none"> <li>Project Issues To Be Solved</li> <li>Nature of Educational Delivery</li> <li>Safety and Parking</li> </ul>	<ul style="list-style-type: none"> <li>Clear City Direction</li> </ul>	<ul style="list-style-type: none"> <li>Steering Committee Consensus</li> </ul>	<ul style="list-style-type: none"> <li>Steering Committee Consensus</li> </ul>	<ul style="list-style-type: none"> <li>City Staff Final Comments</li> </ul>	<ul style="list-style-type: none"> <li>Project Delivery To City Council</li> </ul>

Table 2.1: Process Flow Chart

City of Alexandria  
Windmill Hill Park  
Development Program

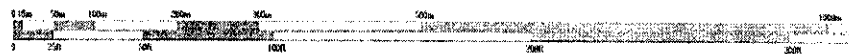
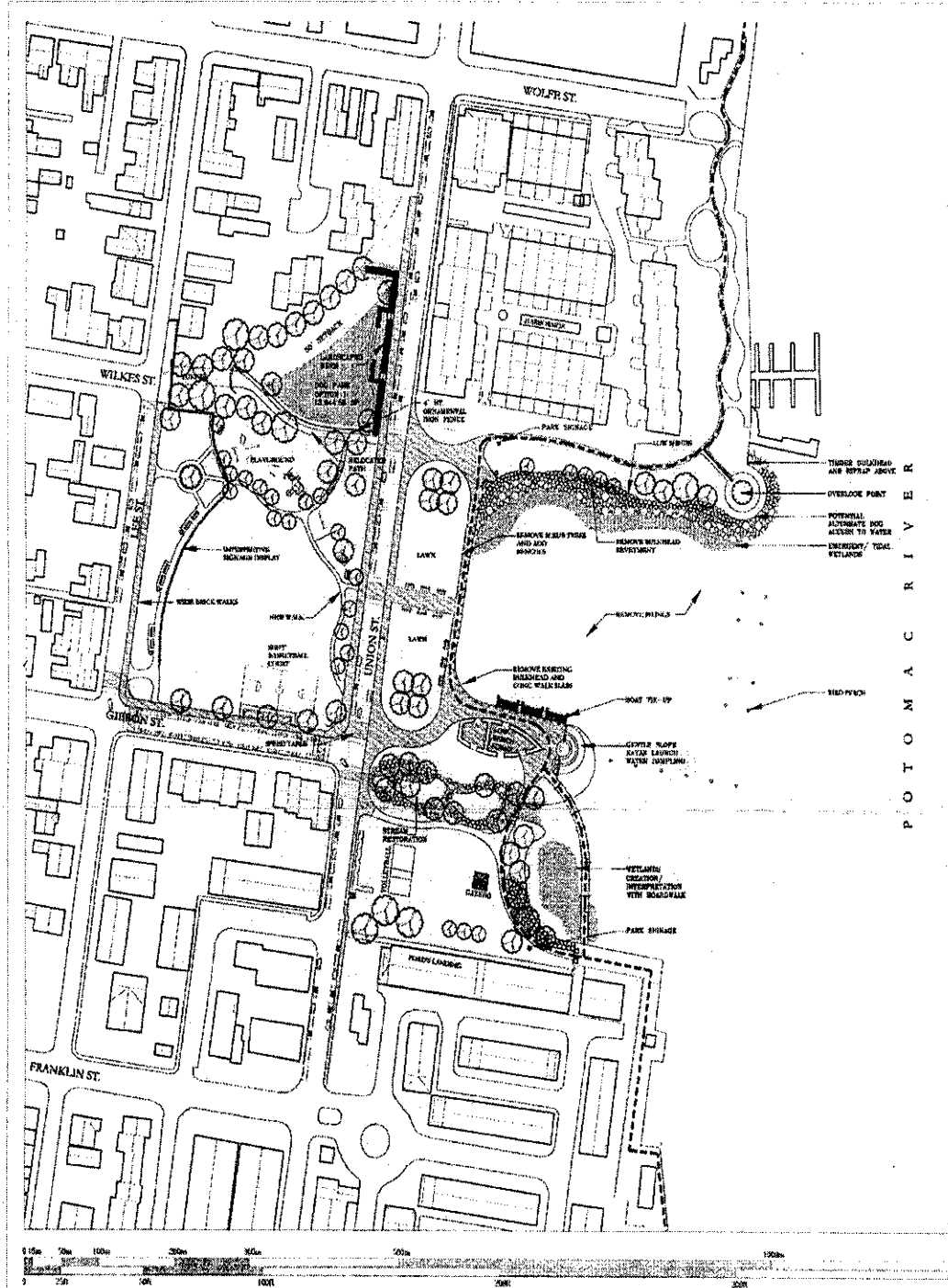
Title/Description	Description	Action	Action	Action	Action
<b>Decision</b> <b>Options</b> <b>Cost Budget</b>	<b>Decorations and Location of the Park Improvements</b>	<b>Decks to be taken</b>	<b>Which to remove or embellish</b>	<b>Decks to be general direction</b>	<b>Deck location</b>
<ul style="list-style-type: none"> <li>• Basketball Court</li> <li>• Dog Park</li> <li>• Existing location with elevated pedestrian bridge near water tower. Possible dog zones in water</li> <li>• Playground</li> <li>• Existing location</li> <li>• Valley Hill Court</li> <li>• Reoriented to existing location</li> <li>• Vista Terrace</li> <li>• Existing with horizontal concrete and a walkway</li> <li>• 11th</li> <li>• Replace with granite surface in current configuration</li> <li>• Linton Street</li> <li>• Provide bicycle parking and safe pedestrian crossing</li> <li>• Bicycling Education</li> <li>• Any enclosed building to be based on delivery or other annual program</li> <li>• Water's Edge</li> <li>• Provide construction of hard and soft edge conditions</li> <li>• Water Access</li> <li>• Access to water directly</li> <li>• Seating</li> <li>• Provide access for staff and users such as kayakers and swimmers. Do not provide cup water parking area unless easy</li> <li>• Walkways</li> <li>• Walkways to be located along water's edge with simple treatment</li> <li>• Storm Water Management</li> <li>• Provide storm water retention basins without pond or standing water per need</li> <li>• Restrooms</li> <li>• Restrooms provided only if educational program requires on-site building</li> <li>• Wetlands</li> <li>• Incorporate wetlands into design if applicable and if no educational program</li> <li>• Fencing &amp; Signage</li> <li>• Provide fencing at all points desired based on safety concerns</li> </ul>	<ul style="list-style-type: none"> <li>• <i>If you remove the existing Bullhead, we can provide:</i></li> <li>• <b>Deck Replacement</b> to meet existing bulkhead, an additional element of \$110 to \$175 per linear foot plus grading and landscaping \$125,000</li> <li>• <b>Deck with new Bullhead</b> \$45 per linear foot plus \$30 per linear foot existing bulkhead or additional element \$7 FF wide plus deck matching the bulkhead \$304,500</li> <li>• <b>Bulkhead Replacement</b> Stone bulkhead with concrete top \$300 per linear foot \$562,500</li> <li>• <b>Bulkhead Removal</b> Remove all existing concrete bulkhead. Assume approximately one-half of the 11 m width by 9 ft depth exists \$1,728 per LF. Assume 100 cubic feet per LF of bulkhead (at 1.76 LF per 1 LF). \$1,728,000</li> <li>• <i>If you remove the existing Bullhead, we can provide:</i></li> <li>• <b>Deck Edge (existing)</b> (including 12 ft wide, 12" depth) \$110 per linear foot, includes bulkhead removal of \$1,760. Per LF plus grading and landscaping \$1,052,500</li> <li>• <b>Replace Bulkhead</b> Number 4 Viny 150 lengths: \$250 - \$300 per linear foot including delivery \$1728 per linear foot from the bulkhead demolition \$1,800,000</li> <li>• <b>Water's Edge</b> \$450 - \$500 per linear foot including additional \$1178 per linear foot from the bulkhead demolition \$1,865,000</li> <li>• <b>Deck Edge</b> \$300 - \$41,000 per linear foot including additional \$1236 per linear foot from the bulkhead demolition \$1,920,000</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Remove 6.5 miles along with 8 dolphins and a crossing pier deck to provide water access</b> \$292,500</li> <li>• <b>Remove Claretto Shore</b> Deck on pier work, leaving pilings present safety risks and associated liabilities \$200,000</li> <li>• <b>Replace 13 pier</b> Deck on pier work, leaving pilings present safety risks and associated liabilities \$200,000</li> <li>• <b>Leave in Place</b> Deck on pier work, leaving pilings present safety risks and associated liabilities \$200,000</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Bulkhead Replacement at Basin &amp; Sun Edge at Existing Dog Park</b> Total 1200 cubic feet of existing bulkhead condition with concrete that bulkhead plus one LF of Existing Dog Park \$2,000,000</li> <li>• <b>Removal/Partial Bulkhead Replacement at Basin/Partial Natural Edge at Existing Dog Park</b> Remove existing bulkhead condition along Linton St. and 11th St. Sun edge as well as 11th St. Sun edge access. \$600,000</li> <li>• <b>Partial Bulkhead Replacement at Basin/Partial Natural Edge at Existing Dog Park</b> Approximately 2000 LF along Linton St., 11th St. and 11th St. Sun edge \$1,500,000</li> <li>• <b>Sun Edge</b> Sun Edge condition. Remove existing Bulkhead, provide sun edge \$2,041,500</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Screen Retention</b> Remove existing screen concrete base culvert in remove screen (per LF) bed in concrete configuration. Approx 2000 LF of screen base \$150,000</li> <li>• <b>Water Impedement</b> Remove existing screen concrete base culvert in remove screen (per LF) bed in concrete configuration. Approx 2000 LF of impedement area \$150,000</li> <li>• <b>Culvert Under</b> High water table would create non-usable condition. No screen needed \$150,000</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Lowest Initial Pier Cost</b> Deck on pier work, leaving pilings present safety risks, plus, pier removal, screen existing edge condition</li> <li>• <b>Bulkhead 11th St. Existing</b> Concrete bulkhead, sun edge removal of deck, pier, plus, pier removal, screen existing edge condition</li> <li>• <b>Minimum 11th St. Requirements</b> Assume retention at single condition due to maintenance on long haul. Create proper thinking condition to avoid gathering on deck</li> </ul>
<b>Legend</b> <b>Line</b> <b>Physical Solution</b>					



Issue	Response
Existing site context	
Parking	Recommendation: Minimize parking lot, except for the existing structure. Provide two kayak launch parking spaces on Edison Street. Minimize parking lot, except for public fishing structure. Provide two kayak launch parking spaces on Edison Street.
Parking need	
Limitations include	No additional space on site exists for on-site parking but without exception to recreational facilities. No additional parking requirements for public park users.
Critical Views	Critical views need to be maintained. Generally, parking on the roadside of Brook Edison Street and Lee Street is not objectionable in terms of blocking views. Also, the setting of a more expansive landscape is to be performed with parking only allowed on the roadside on the site.
Public Safety	Recommendation: Provide a kayak launch launch of the present Edison St. point with signage on appropriate side for fishing in open water.
Boating Safety	Advance signage for boating area to be provided within the limits of the park. Signage to be provided regarding danger of rocks, shoals and boat traffic.
Federated Safety	Site pedestrian crossing to be provided around and within the park. Provide signage to be provided in coordination with pedestrian crossings.
Water's Edge	Site pedestrian crossing along the water's edge to be provided with ADA compliant handrails/guides. ADA access to be provided.
Trail Use	Recommendation: Provide crosswalks at the intersection of Edison and Edison, at the intersection of Edison Street, and at the intersection of walking from the tunnel (1) to the shore.
Trail Crossing	Trail crossing measures must be provided on Edison Street at about creating some removal problems. Trail crossing measures to be provided at 10 FT wide with 6 FT cross on both sides.
Parking Conflict	Parking for boating and unloading will be provided in parallel spaces adjacent or across from each other by way of small watercraft.
Water's Edge	Recommendation: Provide water's edge enhancement in the form of wetland creation here on Park's land along and the small watercraft launch.
Filling or Subwarp of Wetland	N.P. 13 states that backfilling activities necessary for erosion prevention is allow of which moderate backfilling.
Wetland	Wetland creation would accompany both edge condition development.
Fishing / Debris	Proper fishing of the lake may require stabilization or retaining at better corners and fly fish have fishing. Fish covers that help water fishing and three bulkhead at retention along with fly fishing.
Piling	Recommendation: Remove piles, unless needed to allow access to the shore for shoreline restoration, proper fishing and fly fishing. No piles will be required from the VSMR due to the submerged land fishing under the control of the Federal Government.
Virginia Marine Resources Commission	
US Coast Guard	Seismic hazard development for the determination of the piles requires a point where the upper ground pile is situated in the degree where it breaks out and becomes a dike and power safety hazards in boat use and small craft water and least submerged observation.
FDNY / VET Review	"Piles are in very poor condition above the pile zone because of advanced decay. Consider, where the decay is advanced (dangerous) do not do this. The piles are in somewhat better condition." Generally, the piles could be removed with a shore cleanup and a fishing platform. At the pile condition in detritus, the removal becomes more difficult and expensive due to prevent the flying out and would require cleanup of retention (dragging). The piles in the 17th Town York Drive are in a better condition.
Regulatory	Recommendation: Prepare Concept Plan and submit documents with NPS and CHIE. Submerged lands to be under the jurisdiction of the Federal Government. Piles are to be removed by another project under NMP 13. Permit for the pile and water level removal by City of Alexandria. P. Permits due on August 28, 1997 upon the meeting date. Permit clearance or resolution may be necessary due to expiration date of August 28, 2001.
US Park Service	
Contract Engineer Requirement	Separate permits may be required for wetlands, and both for modification.
Dog Park	Recommendation: Retain the dog exercise area in its current location at this site.
Responsible By / Provision AD	
City of Alexandria Dog Park Ordinance	New dog parks are required to be within 500 feet of the nearest recreation area. A radius of 60 FT from the top of any bank of any stream bed or water course. Limited access may be set back from the bank. The dog park area to be set back from any residential property line by 50 FT. Locate to minimize potential problems for wildlife and habitat.

109





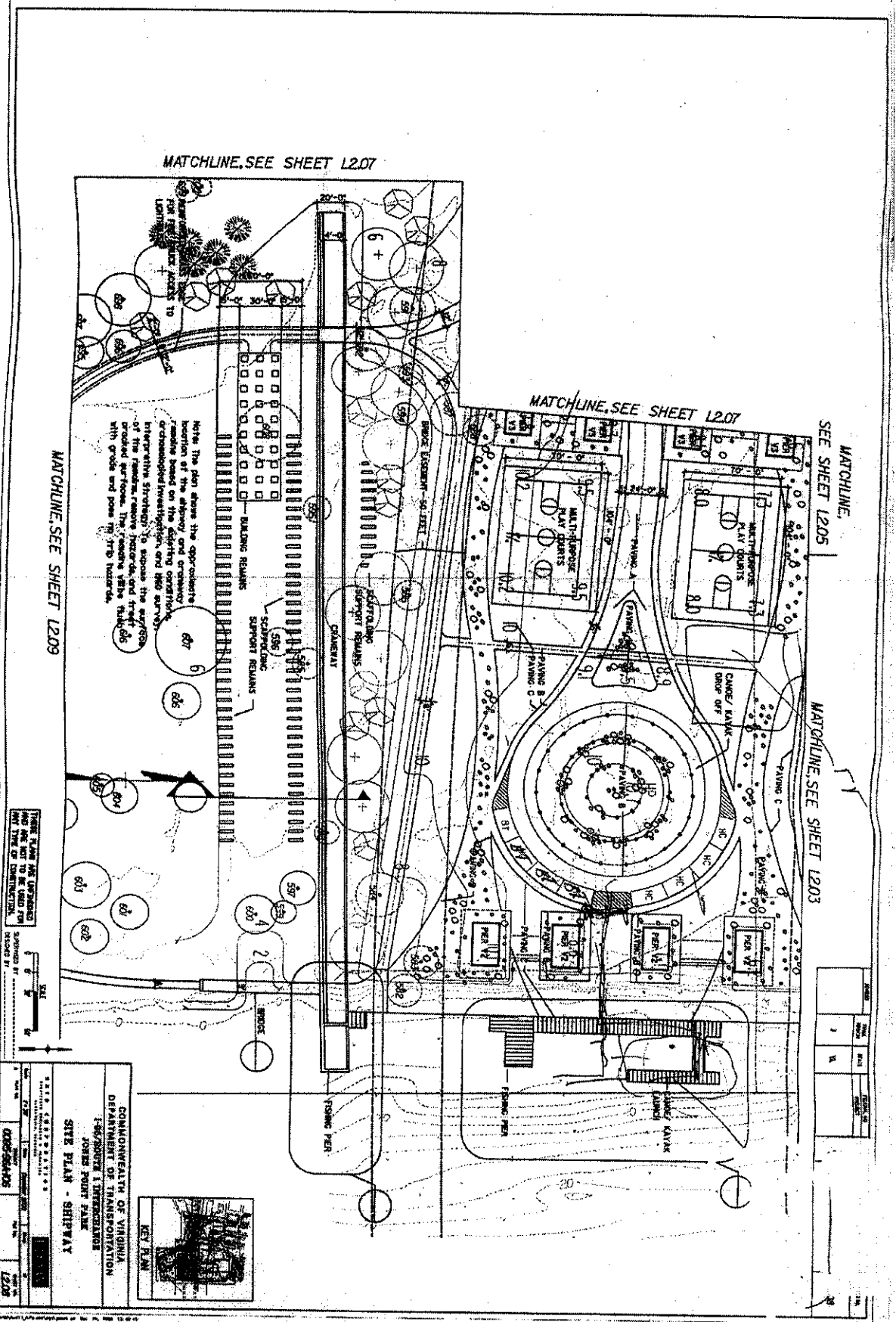
**WINDMILL HILL PARK  
 ALTERNATIVE OPTION 2**

**Baker**

**CITY OF ALEXANDRIA DEPARTMENT OF  
 PARKS AND RECREATION**

4-23-02

///



MATCHLINE, SEE SHEET L209

MATCHLINE, SEE SHEET L207

MATCHLINE, SEE SHEET L207

MATCHLINE, SEE SHEET L205

MATCHLINE, SEE SHEET L203

Note: The plan shows the approximate location of the above and corresponding features based on the existing conditions, archaeological investigation, and the survey of the remains. The remains are shown with grade and pose to the best of the surveyor's knowledge.

DATE OF PLAN PREPARED: 11/11/11  
 DATE OF FIELD WORK: 11/11/11  
 DATE OF REVISION: 11/11/11

SCALE: 1" = 100'

COMMONWEALTH OF VIRGINIA  
 DEPARTMENT OF TRANSPORTATION  
 FEDERAL ROAD ADMINISTRATION  
 PORTER POINT PARK  
 SITE PLAN - SHIPWAY



NO.	DATE	BY	REVISION
1	11/11/11	MA	



## Examples of Educational Opportunities at Windmill Hill Park

From Joyce Stevens, Member of Ad Hoc Windmill Hill Park Steering Committee

The report contained several suggestions for the park. This list gives a few more topics that could be presented through plaques or as education packets that can be downloaded as PDF files from a link to the Alexandria City web site.

Please note that these suggestions only serve to illustrate a few ideas that could be carried out at the park. I have not checked the Jones Point plans for redundancy.

### Windmill History:

- Provide information about date and purpose of windmill operation. Perhaps a fact about the height the water was pumped from the river to the ridge.
- A multiple choice question, i.e. the number of gallons pumped at various wind speeds could be asked at one plaque with the answer supplied on the next plaque. This would encourage movement into and through the park.
- A small model (like a bird nest box) could be on a pole and illustrate the pumping action – also serve as a weather vane.
- Why was a windmill needed? What other techniques have been used in the past to move water? (Aqueduct, water wheel, bucket & pulley)
- What were the advantages and disadvantages of moving water with wind? Does it require any other energy besides the wind? Is it windy today? Is the model windmill moving?

### Storm Drain Outfall:

- Show map of old town area and this storm drainage area highlighted. Explanation of drainage restoration.
- Site for water sample collection, discussion of pollutants.
- Sequence path of water from street to the Potomac and Bay. Discuss one individual's impact.
- Relate this site to boardwalk area where the positive effects of vegetation on water quality are discussed.

### Along Hard Edge at Water:

- How clear is the water today? (Secchi disc attached to the bottom of a vertically mounted, sliding pole) explanation for use of disc and chart on nearby plaque.
- Silhouettes and names of typical shore birds imbedded in stone walkway on either side of brass telescope.
- "Down Periscope!" - attach to hard edge for a peek at life under the water.

### Other Ideas:

- What is a nautical mile? – Have a section of walkway marked off.
- How wide is the river? – To solve, provide distance between only 2 "legs" of the W.W. bridge.
- Brass porthole magnifiers, perhaps in the boardwalk.
- Whirly-gig kayak weather vane mounted to a channel marker at the soft shore – reflects wind speed and direction.
- There are Dolphins in the Potomac! – (class trip activity – tie 5 pencils together using a piece of string with and no knots, discuss purpose)

EXHIBIT NO. 2

14  
5-28-02



danr@fransmart.com  
05/28/02 09:43 AM

To: Beverly I Jett@Alex  
Subject: Against Clair Eberwein

I support the Windmill Hill Park Ad Hoc Task Force Plan and not Clair Eberwein's proposals. Eberwein is out of touch and I am afraid of the problems associated with the public bathrooms adjacent to Fords Landing, Harborside, the Windmill Hill Park and the over 40 known, registered sex offenders who live within the 22314 zip code. This is a train wreck waiting to happen.  
Thank you,  
Dan Rowe

PHONE-O-GRAM<sup>®</sup>

for: CC

14  
5-28-02

From Margaret Wood Company \_\_\_\_\_

City \_\_\_\_\_ Area Code 703 Phone 535-6778

Telephoned  Please return the call  Returned your call  Will call again  Came in  See me

Message She is in support of the Windmill Hill Task Force plan.

Date 5/28 Time 11:25 Taken by Ky

Action Wanted \_\_\_\_\_

Action Taken \_\_\_\_\_

PHONE-O-GRAM<sup>®</sup>

for: CC

14  
5-28-02

From Charles Sposito Company \_\_\_\_\_

City Bethel Area Code \_\_\_\_\_ Phone \_\_\_\_\_

Telephoned  Please return the call  Returned your call  Will call again  Came in  See me

Message We support the Ad Hoc Task Force

Plan - "Recommended Concept Plan"

Date 5-28 Time 2:20 Taken by \_\_\_\_\_

Action Wanted \_\_\_\_\_

Action Taken \_\_\_\_\_



14  
5-28-02



arudd@comcast.net  
05/28/02 05:29 PM

To: Beverly I Jett@Alex  
Subject: Windmill Hill Park

I support the task force recommendations and not last minute revisions generated by Councilwoman Eberweiner. (Please distribute this email to the city council and Mayor.)

14  
5-28-02

Ann Louise Mapes  
8 Potomac Court  
Alexandria, Virginia 22314

May 28, 2002

To all Members of the City Council -  
703-838-6433

I strongly support the Windmill Hill Park  
Recommended Concept Plan and do hope  
the Members of the City Council will approve  
this most logical plan for our neighborhood.

Ann Louise Mapes



kathwaugh8@aol.com  
05/28/02 10:37 AM

To: Beverly I Jett@Alex  
Subject: Windmill Hill Park

14  
5-28-02

Please advise the mayor and the city council that our family is in favor of the plan for Windmill Hill Park which was proposed by the Ad Hoc Task Force and are very much opposed by the concepts proposed by Councilwoman Claire Eberwein.

Thank you.  
kathleen Waugh



Johnwaugh14@aol.com  
05/28/02 10:51 AM

To: Beverly I Jett@Alex  
Subject: WINDMILL HILL PARK

14  
5-28-02

PLEASE ADVISE THE MAYOR AND CITY COUNCIL MEMBERS THAT I SUPPORT THE PLAN PROPOSED BY THE AD HOC COMMITTEE REGARDING WINDMILL HILL PARK AND REALLY OPPOSE THE NEW CONCEPTS PROPOSED BY CLAIRE EBERWEIN.

THANK YOU,  
JOHN WAUGH  
ALEXANDRIA CITIZEN



peterjuge@juno.com  
05/28/02 11:49 AM

To: Beverly I Jett@Alex  
Subject: Windmill Hill Park

124  
5-28-02

To the Mayor and City Council:

I support the Task Force Plan for the Park. A lot of taxpayer's money was spent on this task force. How can you justify Clair Eberwein's continuous revisiting the matter? How many citizens does it take to overule one councilperson?

Peter Juge, Alexandria, VA 703 684 5917 peterjuge@juno.com



Alexandria, Virginia

# Historic Alexandria Resources Commission

Box 178, City Hall  
Alexandria, Virginia 22313  
(703) 838-4554



14  
-----  
5-28-02

May 28, 2002

The Honorable Kerry J. Donley, Mayor  
Members of City Council  
City Hall  
301 King Street  
Alexandria, Virginia 22314

Re: Concept Plan for Windmill Park

Dear Mayor Donley and City Council Members:

I am writing to express the strong support of the Historic Alexandria Resources Commission (HARC) for the concept plan for Windmill Hill Park recommended by the citizen task force. We particularly commend the plan for ensuring that the historic elements of the park will be recognized and for emphasizing the importance of preserving the open space on the riverfront. We believe that the task force plan takes into consideration the diverse interests of City residents for the use of the Park and reflects the effort of the task force to develop appropriate accommodations for all of these interests.

HARC has high praise for the process that was developed to provide citizen input into the plan for Windmill Hill Park. The task force itself was broadly representative of the various interests and constituencies. Its meetings provided extensive opportunities for public participation, and it is clear from the final report that the task force gave consideration to all of the interests and concerns that were expressed in fashioning the final plan. The fact that the comments from the public hearing on the plan were almost uniformly favorable demonstrates that there is a broad consensus that the task force plan is supported by most concerned citizens.

HARC was very concerned to learn that the City Council is now considering alternative plans that were commissioned or received after the public hearing on the task force plan. These alternative plans have not been widely available for public review, nor has there been any opportunity for public comment. While Council clearly has the authority and responsibility to approve the final plan for the Park, we believe its consideration of revised plans without an opportunity for public comment undermines the open and fair process that has taken place.

HARC strongly urges the City Council to adopt the task force plan for Windmill Hill Park. We also request that if a revised plan is to be considered by the Council, that an adequate opportunity for public review and comment be allowed before such plans are adopted.

Thank you for your consideration of our views in this matter. As you know, Windmill Hill Park has tremendous significance to the City by virtue of its location on the waterfront and its important historic features. Its use should be carefully considered and accepted as appropriate by the broadest possible constituency.

Sincerely,

A handwritten signature in cursive script that reads "Elaine L. Johnston". The signature is written in black ink and is positioned above the typed name.

Elaine L. Johnston, Chair



AWilson@crowell.com  
05/28/02 12:07 PM

To: Beverly I Jett@Alex  
Subject: re windmill hill park vote tonight

14  
5-28-02

I write as a citizen of Alexandria to respectfully state my support for the Task Force Plan for Windmill Hill Park, which is scheduled for vote at tonight's meeting. My understanding is that your office can distribute this to the Mayor, Vice-Mayor and each Councilperson. Thank you.

Adam Wilson  
310 South Fairfax Street



14  
5-28-02



ydw@att.net

05/28/02 01:13 PM

To: Beverly I Jett@Alex, bclevela@moon.jic.com @ INTERNET,  
weuille@wdeuille.com @ INTERNET, delpepper@aol.com @  
INTERNET, dspeck@firstunion2.com @ INTERNET,  
mayoralx@aol.com @ INTERNET, council@joycewoodson.net @  
INTERNET, eberweincounsel@comcast.net @ INTERNET  
Subject: Windmill Hill Park

Dear Beverly,

I hope you will pass these comments on to the Mayor and members of Council, as I am not sure I have a couple of addresses correctly in my book.

Dear Mr. Mayor and members of Council:

I am urging all of you to support the current plan for the development of Windmill Hill Park, without any changes, revisions, or re-examinations.

The task force, which you appointed, held meeting after meeting after meeting. The task force, which you appointed, came up with a plan. Is there to be any credibility or finality to be maintained if you do not support the committes that you appointed?

It is indeed unfortunate that Ms. Eberwein has chosen to take it upon herself to seek drastic amendments to the plan and to engage in her own personal urban planning, with no citizen input. In the stroke of her magic marker, she would undo not only the plans for Windmill Hill Park, but Jones Point Park as well. Buses at Jones Point? Did anyone tell any citizens in the area of the Park about that? Bathroom facilities at Jones Point Park? Has anyone run that one past the National Park Service, which has said NO to such ideas repeatedly?

Moving the dog park does the following (1) puts dogs where there was no expectation they would be there and (2) puts dogs closer to the tot lot and closer to the bike path. That hardly benefits kids, bikers, or dogs.

Please, respect the process that you created. Respect the views of the majority of the task force that you appointed, and the countless hours they spent looking at this issue.

Please, endorse the plan as it has been recommended and let's move on to something else.

Regards,  
Yvonne Weight

PHONE-O-GRAM<sup>®</sup>

for: Mayor & Council

17  
5-28-02

From Scott Schwartz Company Vice Chair  
City \_\_\_\_\_ Area Human Rights Commission  
(W) Code 202 Phone 906-6361

- Telephoned     Please return the call     Returned your call     Will call again     Came in     See me

Message please support appointment of  
Susan Kumberg to the Human  
Rights Commission - she has  
done an outstanding job.

Date 5/28 Time 10:35 Taken by bc

Action Wanted \_\_\_\_\_

Action Taken \_\_\_\_\_

#14, 5/28/02

# City of Alexandria, Virginia

## MEMORANDUM

DATE: JUNE 6, 2002

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: PHILIP SUNDERLAND, CITY MANAGER

THROUGH: SANDRA WHITMORE, DIRECTOR  
RECREATION, PARKS AND CULTURAL ACTIVITIES

SUBJECT: WINDMILL HILL APPROVED CONCEPT PLAN

---

At the May 28 City Council meeting, Council approved a concept plan for Windmill Hill Park. Attached is the approved plan.

The approved concept plan places the dog exercise area in the northwest corner of the park, adjacent to the Wilkes Street Tunnel and Union Street. The volleyball court and a gazebo are placed in the southeast corner of the site, adjacent to Ford's Landing and the Potomac River. The boardwalk is eliminated, but could be phased in at a later date. The dog water access is located on the northeast side of the site, adjacent to the overlook point at the Potomac River edge.

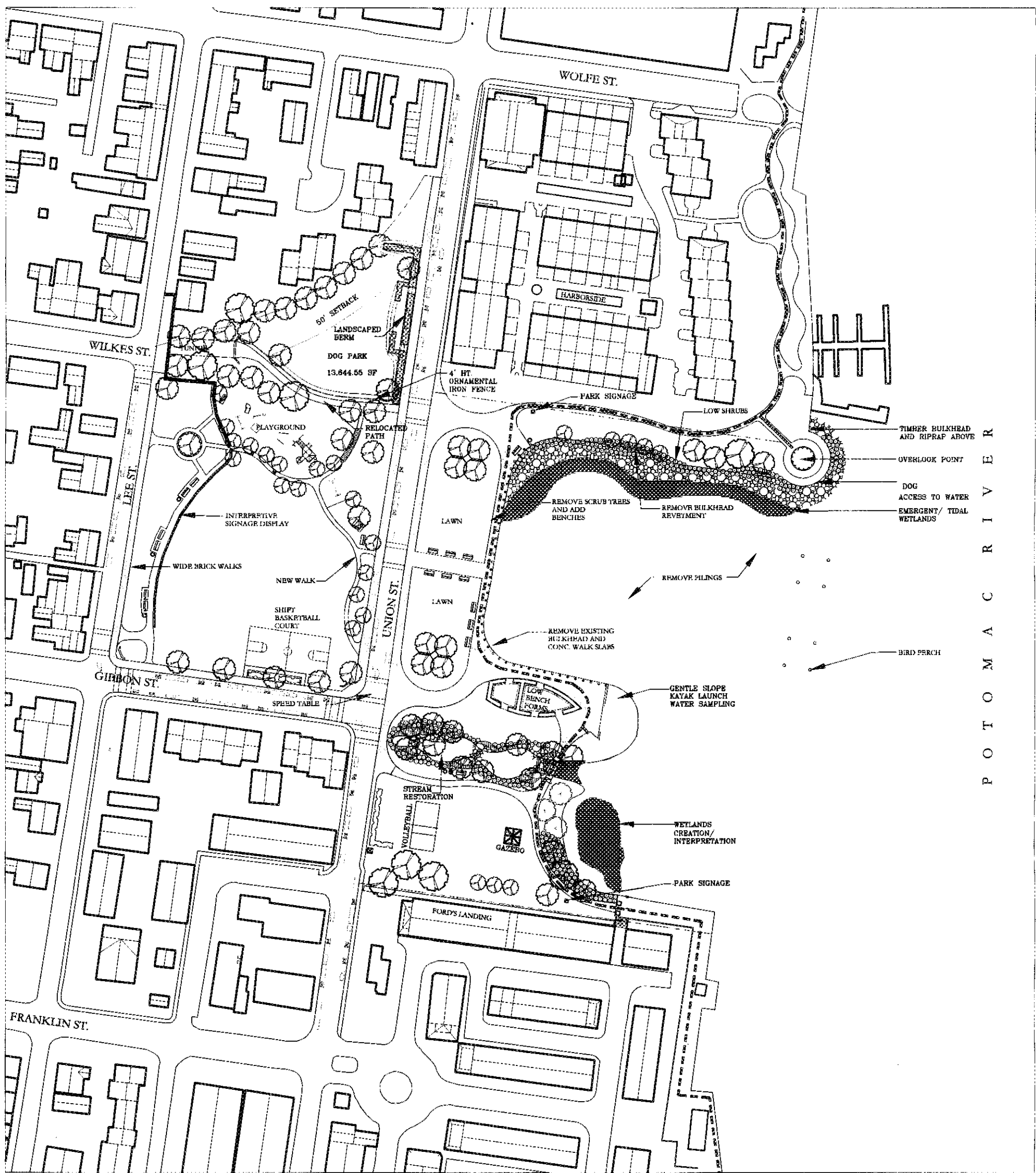
Staff will begin relocation of the dog exercise area after the volleyball season concludes this fall, with site work to be completed by early spring of 2003. The relocation of the volleyball court should be completed by late spring. Operating funds earmarked for dog park maintenance and capital funds within the Park Renovation account will be used to facilitate this construction work.

We have begun planning for the removal of the pilings now located in the basin. We hope to have them removed by the end of the calendar year but have a number of details to work out before we know if that will be possible.

Staff will continue to look for additional funding options to complete the renovations of the park and may be able to provide some funding in the FY 2004 to FY 2009 Capital Improvement Program that will be proposed next March.

Attachment: Approved Concept Plan for Windmill Hill Park

cc: Kirk Kincannon, Deputy Director, Recreation, Parks and Cultural Activities  
Rich Baier, Director, Transportation and Environmental Services  
Michele Evans, Assistant City Manager  
Mark Jinks, Assistant City Manager



# WINDMILL HILL PARK

## APPROVED CONCEPT PLAN

## City of Alexandria, Virginia

## MEMORANDUM

DATE: DECEMBER 12, 2002

TO: JOYCE WOODSON, COUNCILWOMAN

FROM: PHILIP SUNDERLAND, CITY MANAGER *PS*

SUBJECT: RELOCATION OF DOG EXERCISE AREA AT WINDMILL HILL PARK

---

You asked that we respond to issues raised in Joe Oliva's e-mail regarding the relocation of the dog exercise area and the volleyball court at Windmill Hill Park, funding for these projects, the removal of the pilings in the basin, and authorization for these activities to take place.

On June 6, 2002, City Council was provided a memorandum and a final design plan of Windmill Hill Park (attached) detailing the park improvements and changes that Council had approved at its May 28 legislative meeting. The memorandum accompanying the plan included a general schedule for the relocation of the dog exercise area and the volleyball court, and the source of funds that would be used to accomplish these relocations. The memorandum stated that relocation of the dog exercise area would begin after the volleyball season concluded in the fall (2002), with site work to be completed by early spring 2003. The relocation of the volleyball court was scheduled to be completed by late spring 2003. Operating funds earmarked for dog park maintenance and capital funds within the Park Renovation Account were identified as the source of funding for this construction work.

The work underway on the dog exercise area is limited to the relocation of the existing path (under the 2,500 square foot threshold for site plans) and the addition of landscaping and fencing. Minor renovations of this nature to park areas and playgrounds do not require site plans or other formal City regulatory approvals. The fencing, however, does require BAR approval, and it is docketed for the December 18 BAR meeting. This work is being done by Triple J Construction, Inc., under a contract for general construction services for park and playground renovations (contract # 00-010114, bid #0122-R).

The June 6 memorandum also stated that planning for the removal of the pilings had begun and that staffed hoped to have them removed by the end of the calendar year. The plan to remove the pilings was also discussed at a City Council meeting that month. Subsequently, in late June, the project to remove the pilings was bid, and five bids were received. Virginia Marine Construction, Inc. was the low bidder at \$187,500, and was awarded the contract. The funds to perform this work came from the Waterfront Improvement Capital Account. Council had allocated monies to remove the pilings in October 1999. When the removal of the pilings was again approved by Council last spring, funds were still available in the Waterfront Improvement Account, and were used for the project.

The memorandum further stated that funds were not currently available to complete the improvements outlined in the approved plan for the park, and indicated that additional funding options to undertake these improvements would be sought. This was largely in reference to the funds, on the order of \$2,000,000, to replace the bulkhead and provide plantings and soft edge treatment along the basin.

If you need further information, please give Sandra or me a call.

Attachment

cc: The Honorable Mayor and Members of City Council

# City of Alexandria, Virginia

## MEMORANDUM

DATE: JUNE 6, 2002

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: PHILIP SUNDERLAND, CITY MANAGER

THROUGH: SANDRA WHITMORE, DIRECTOR  
RECREATION, PARKS AND CULTURAL ACTIVITIES

SUBJECT: WINDMILL HILL APPROVED CONCEPT PLAN

---

At the May 28 City Council meeting, Council approved a concept plan for Windmill Hill Park. Attached is the approved plan.

The approved concept plan places the dog exercise area in the northwest corner of the park, adjacent to the Wilkes Street Tunnel and Union Street. The volleyball court and a gazebo are placed in the southeast corner of the site, adjacent to Ford's Landing and the Potomac River. The boardwalk is eliminated, but could be phased in at a later date. The dog water access is located on the northeast side of the site, adjacent to the overlook point at the Potomac River edge.

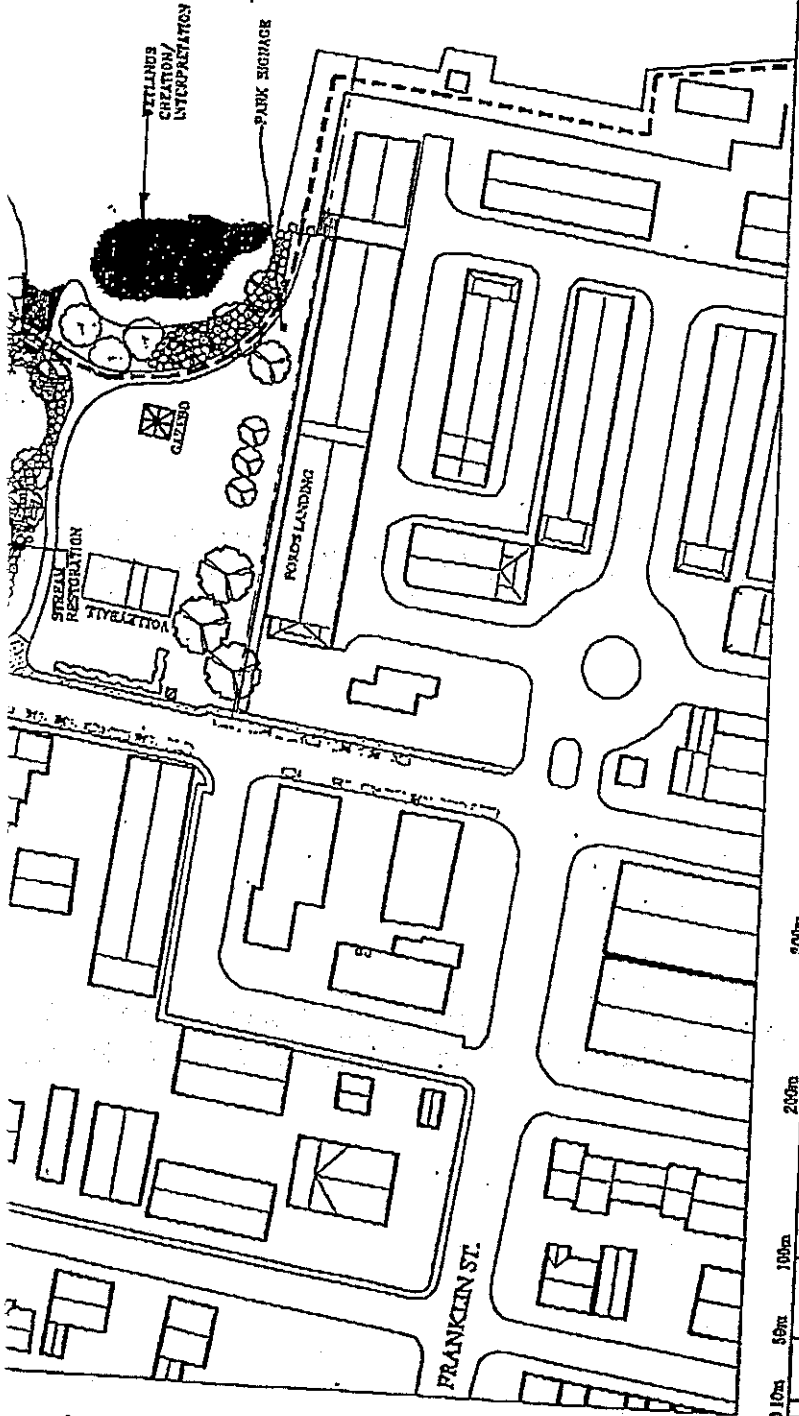
Staff will begin relocation of the dog exercise area after the volleyball season concludes this fall, with site work to be completed by early spring of 2003. The relocation of the volleyball court should be completed by late spring. Operating funds earmarked for dog park maintenance and capital funds within the Park Renovation account will be used to facilitate this construction work.

We have begun planning for the removal of the pilings now located in the basin. We hope to have them removed by the end of the calendar year but have a number of details to work out before we know if that will be possible.

Staff will continue to look for additional funding options to complete the renovations of the park and may be able to provide some funding in the FY 2004 to FY 2009 Capital Improvement Program that will be proposed next March.

Attachment: Approved Concept Plan for Windmill Hill Park

cc: Kirk Kincannon, Deputy Director, Recreation, Parks and Cultural Activities  
Rich Baier, Director, Transportation and Environmental Services  
Michele Evans, Assistant City Manager  
Mark Jinks, Assistant City Manager



# WINDMILL HILL PARK

## APPROVED CONCEPT PLAN

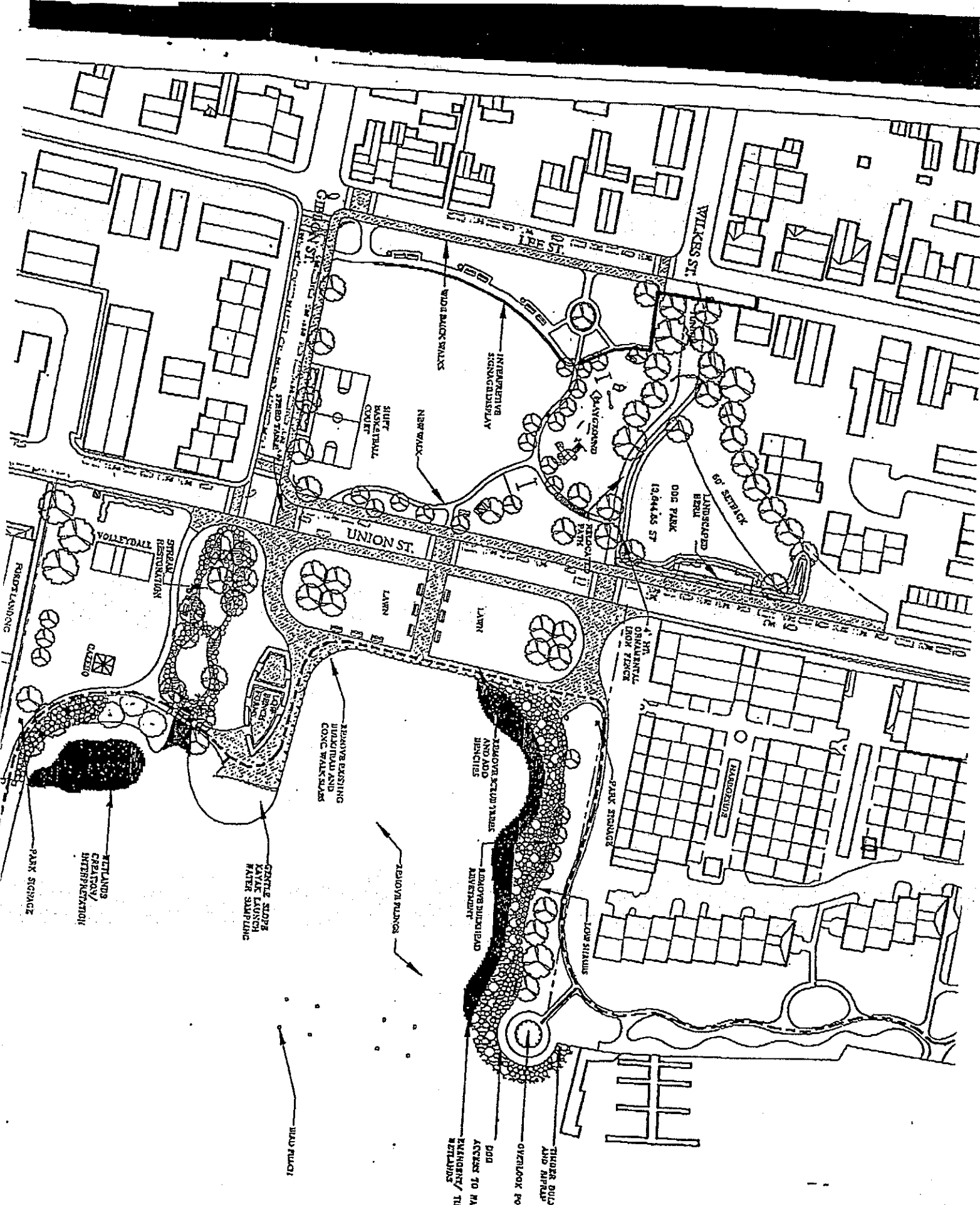
JUNE 5, 2002



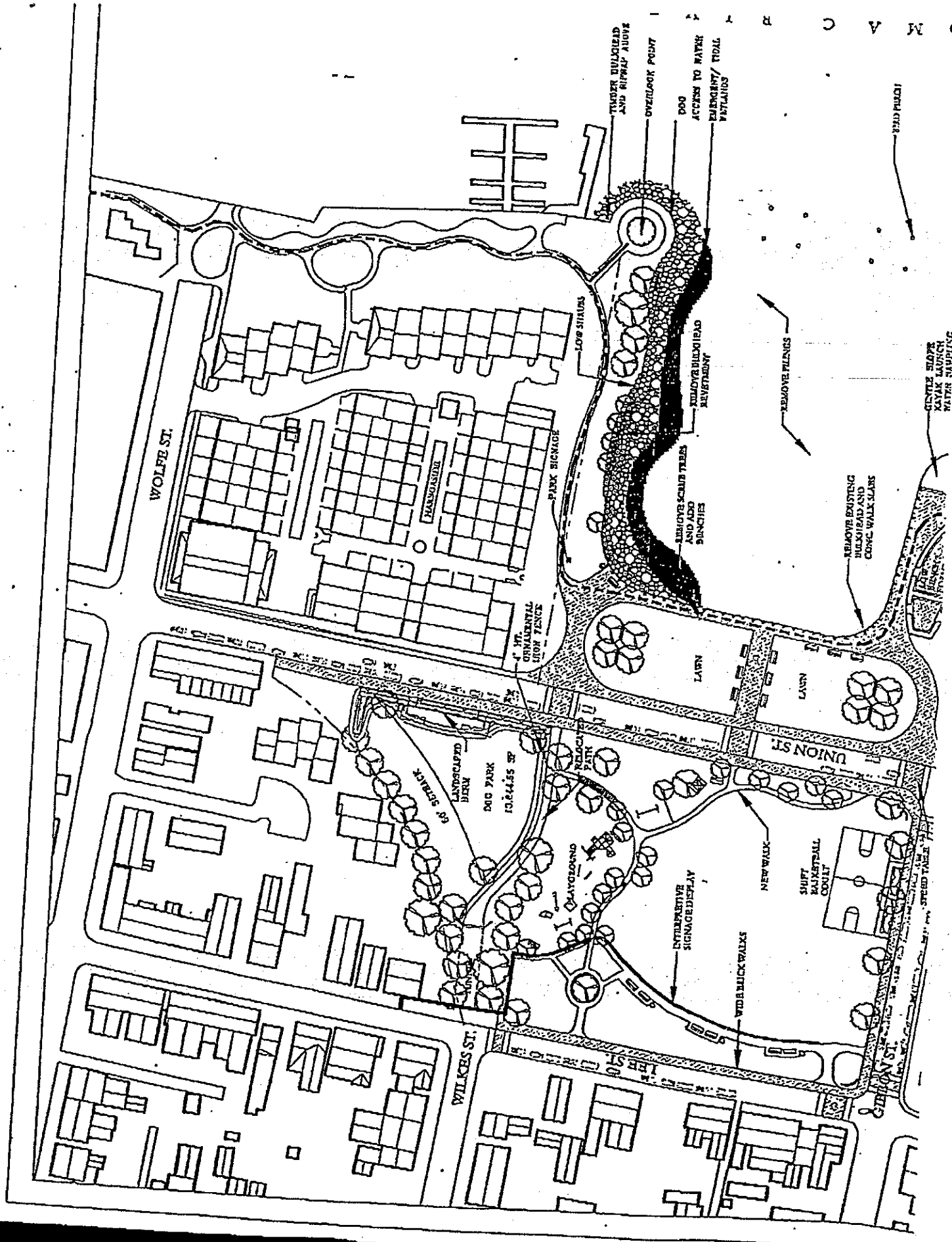
CITY OF ALEXANDRIA DEPARTMENT OF PARKS AND RECREATION

4-23-02





P O T O M A C R I V E R



WOLFE ST.

WILKES ST.

LEE ST.

UNION ST.

DOG PARK  
13,244.55 SF

UNENCLOSED  
DOG PARK

PLAYGROUND

WDR BLACK WALKS

NEW WALK

SHUTT  
RAKEBALL  
COURT

INTERPRETIVE  
SIGNAGE DISPLAY

PARK SIGNAGE

REMOVE SCRAM TREES  
AND ADD  
BUNCHES

REMOVE EXISTING  
BULKHEAD AND  
CONC. WALK LANE

REMOVE EXISTING  
BULKHEAD AND  
CONC. WALK LANE

REMOVE EXISTING  
BULKHEAD AND  
CONC. WALK LANE

UNDER BULKHEAD  
AND W/WRAP ABOVE

OVERLAP POINT

DOG  
ACCESS TO WATER  
EMERGENCY/TIDAL  
WETLANDS

YIELD CURB

GENTLE SLOPE  
WATER LAUNCH  
WATER SAMPLING