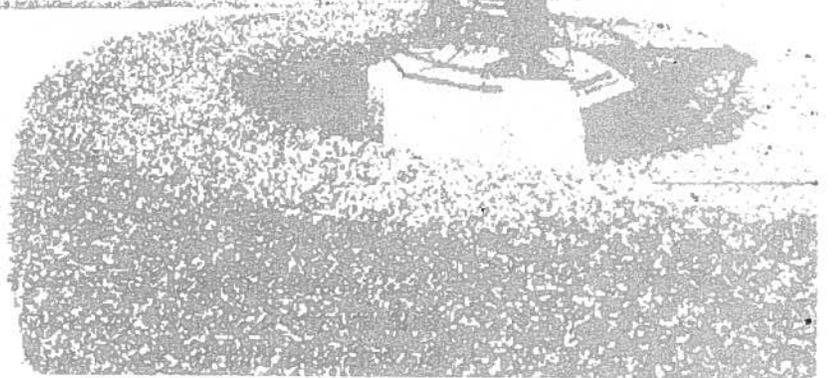
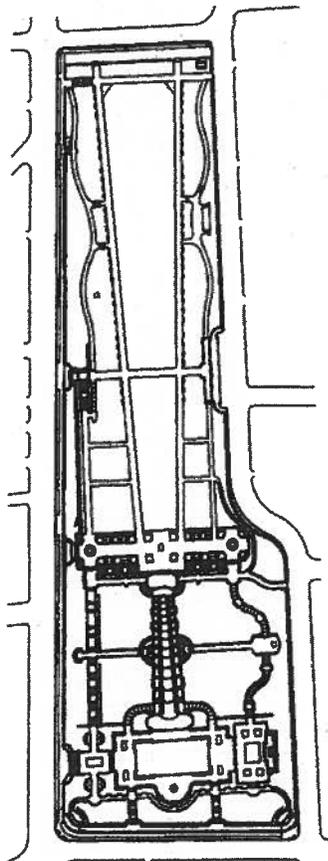




# Meridian Hill Park Cultural Landscape Report Volume 2: Treatment



**National Park Service - National Capital Region  
Contract # 1443X300094034  
architrave p.c. architects, Washington, D.C.**

**30 November 2001**

# Introduction

Meridian Hill Park<sup>5</sup>, located on Sixteenth Street just north of Florida Avenue, boundary to the L'Enfant monumental plan for Washington, D.C., was designated a National Historic Landmark in 1994 because of its significance as a formal historic designed landscape. As such, it is one of less than twenty historic designed landscapes out of nearly twenty-three hundred National Historic Landmarks.

The Landmark nomination called it "an outstanding accomplishment of neoclassical park design in the United States. Few other public parks of the period match its ambitious scale and intent and few have retained the high level of integrity apparent at Meridian Hill." The nomination continues, "...in addition to the borrowing of formal elements...from specific historic models, [its design] result[s] in a powerful original landscape that serves its unique geographic and social context and evokes the historical landscapes that served as its inspiration." About the concrete work at the site, the nomination says, "Unprecedented at the time, the technological achievement of the park's concrete construction, in addition to the park's design, distinguishes Meridian Hill as a nationally significant historical resource." Finally, the nomination states, "The scope and ambition of Meridian Hill Park sets it apart; the idea of creating a Renaissance villa landscape in the middle of an American city to serve as a public park and cultural institution has no true parallel. The park is perhaps the most ambitious and successful example of neoclassical park design in the United States, and it remains an outstanding physical reminder of the highest ideals of neoclassicism of the early 20th century... The breadth of its ambition, its remarkable integrity, and the masterful sureness of its design and construction single it out for recognition."<sup>6</sup>

Though Meridian Hill Park is an extraordinary historic resource for its craftsmanship and the integrity of its built elements, the planting design has less integrity. For instance, there are numerous design sketches clearly showing the definition of outdoor rooms by plant masses. That definition has been diminished by the loss of many hedges and planting masses.

The park is a site of citywide importance that functions as a neighborhood park as well. This duality, as well as the park's mix of structures and natural elements, creates unusual demands in its management as a cultural resource.

*The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* is a comprehensive model for developing alternatives for action. The following treatment alternatives have been developed within the framework of *preservation, rehabilitation, restoration, and reconstruction* defined and elaborated in *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. They are general in nature, to illustrate approach and direction with the understanding that the preferred alternative is developed in detail.

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<sup>5</sup>Meridian Hill Park is under the management jurisdiction of Rock Creek Park (ROCR) of the National Capital Region of the National Park Service (NPS).

<sup>6</sup>*National Historic Landmark Nomination, Meridian Hill Park* prepared by Ethan Carr. Washington, D.C. October 1993. p. 13-14.

*Preservation, rehabilitation, restoration, and reconstruction* are defined as follows:<sup>7</sup>

### ***Preservation***

When the property's distinctive materials, features, and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations, preservation may be considered as a treatment. Prior to undertaking work, a documentation plan for preservation should be developed.

*Preservation* is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features, rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

### ***Rehabilitation***

When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time is not appropriate, rehabilitation may be considered as a treatment. Prior to undertaking work, a documentation plan for rehabilitation should be developed.

*Rehabilitation* is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values. Rehabilitation can include the addition of new elements needed to enable contemporary uses, but only if it does not impact the integrity of the historic materials, features, and spatial relationships that characterize the property.

### ***Restoration***

When the property's design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces, and finishes that characterize other historical periods; when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned, restoration may be considered as a treatment. Prior to undertaking work, a particular period of time, i.e., the restoration period, should be selected and justified, and a documentation plan for Restoration developed.

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<sup>7</sup>*The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. ed. by Charles A. Birnbaum. U.S. Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Heritage Preservation Services, Historic Landscape Initiative. Washington, D.C. 1996.

*Restoration* is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular time by means of the removal of features from other periods of its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

### ***Reconstruction***

When a contemporary depiction is required to understand and interpret a property's historic value (including the re-creation of missing components in a historic district or site); when no other property with the same associative value has survived; and when sufficient historical documentation exists to ensure an accurate reproduction, Reconstruction may be considered as a treatment. Prior to undertaking work, a documentation plan for Reconstruction should be developed.

*Reconstruction*, is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

Of these four approaches, only *preservation* or *restoration* are applicable as primary treatments to this park.

*Rehabilitation* is not an appropriate strategy, as it is applicable where the need to add materials or structures greatly outweighs the need to protect the historic resource, where there are no viable alternatives for providing the program or use in another manner or at another site, or where the use has substantially changed. None of these conditions apply to this site.

Furthermore, only changes responding to contemporary needs and demands on the park, such as for accessibility or safety, are appropriately considered. Thus, the many modifications to the park as completed in 1936 for which Horace Peaslee lobbied from 1939 through the 1950's, are inappropriate. Over the construction and post-construction years many alternatives for bandstands, different locations for park sculpture including the Joan of Arc statue and Serenity were suggested. Additional sculptures were proposed. There were lighting proposals. Additions, deletions, and changes to planting were suggested. However, as none of these proposals was executed, none should be implemented today since it is the as-constructed park of 1936 that is the basis for the designation of Meridian Hill Park as a National Historic Landmark.

*Reconstruction* is a strategy appropriate for sites that have lost originally designed and constructed features or substantial parts of those features. The Meridian Hill Park site is largely intact with a high level of integrity, as originally designed and constructed, so comprehensive reconstruction is neither appropriate nor necessary. Reconstruction may be applied to individual elements under another primary treatment alternative and may include replacing missing features or structures with exact replicas of those originally constructed such as drinking fountains and benches, or returning the lodge to its 1924-36 exterior appearance.

# Part B

# Recommended Landscape Treatment

## Selecting a Treatment for the Meridian Hill Park Cultural Landscape

Based on the nearly-complete Volume 1 of the Cultural Landscape Report on Meridian Hill Park, which includes the history of the site, the design process, construction, and existing conditions of the park, Treatment Alternatives for the park were developed. The Treatment Alternatives discussed applicability and appropriateness of the four possible approaches of *preservation, rehabilitation, restoration, and reconstruction*. *Rehabilitation* and *reconstruction* were eliminated because of inapplicability. On 25 September 1998 the treatment alternatives, collateral issues of management decisions that impact the built and vegetative elements of the site, additional study needed, and general recommendations were presented to the Superintendent of Rock Creek Park and the Regional Director, National Capital Region, National Park Service.

After discussion of the various alternatives, it was agreed that *Restoration* should be the recommended treatment for the park. In fact, it was generally agreed, since Meridian Hill Park had such great integrity, we should make every effort to restore it. Consequently, the July 1, 1999 Final Draft of Volume 2 of the CLR was written based on this assumption.

On January 27, 2000, this recommended treatment was presented at a public meeting to which various neighborhood, citywide and national-citizen, historic preservation, and other professional design constituency groups were invited. This meeting was followed by a 60-day public comment period.

After full consideration both of concerns expressed at that meeting and subsequent written comments, it was felt that the most important consideration was to preserve the park and its current uses. Thus, it was decided that the primary treatment of the park should be *Preservation*. Under the umbrella of this primary treatment, individual contributing elements would be stabilized, repaired, replaced in kind, and maintained to enhance the historic integrity of the park. *Preservation* was selected because of the remarkable degree of integrity of the park, making extensive restoration unnecessary. In addition, complete restoration of all park planting is impractical because of safety, maintenance, and environmental concerns.

# Basis in Integrity, Significance, Period of Significance, and Existing Conditions

## Significance and Integrity

Meridian Hill Park, located on Sixteenth Street just north of Florida Avenue, boundary to the L'Enfant monumental plan for Washington, D.C., was designated a National Historic Landmark in 1994 because of its significance as a formal historic designed landscape. As such, it is one of less than twenty historic designed landscapes out of nearly twenty-three hundred National Historic Landmarks.

The Landmark nomination called it "an outstanding accomplishment of neoclassical park design in the United States. Few other public parks of the period match its ambitious scale and intent and few have retained the high level of integrity apparent at Meridian Hill." The nomination continues, "...in addition to the borrowing of formal elements...from specific historic models, [its design] result[s] in a powerful original landscape that serves its unique geographic and social context and evokes the historical landscapes that served as its inspiration." About the concrete work at the site, the nomination says, "Unprecedented at the time, the technological achievement of the park's concrete construction, in addition to the park's design, distinguishes Meridian Hill as a nationally significant historical resource." Finally, the nomination states, "The scope and ambition of Meridian Hill Park sets it apart; the idea of creating a Renaissance villa landscape in the middle of an American city to serve as a public park and cultural institution has no true parallel. The park is perhaps the most ambitious and successful example of neoclassical park design in the United States, and it remains an outstanding physical reminder of the highest ideals of neoclassicism of the early 20th century... The breadth of its ambition, its remarkable integrity, and the masterful sureness of its design and construction single it out for recognition."<sup>1</sup>

## Period of Significance

The acquisition and construction period of Meridian Hill Park, from 1910 to 1936, is the park's period of significance in accordance with the definition of *period of significance* as the time period in which the property achieved the qualities that make it eligible for the National Register or other recognized designation.

## Existing Conditions

While the integrity of the site is very high with almost all of the original structures, furnishings, and objects intact and in place, and with its original spatial organization intact, the planting design has less integrity. For instance, numerous design sketches, prepared for the park over

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<sup>1</sup>*National Historic Landmark Nomination, Meridian Hill Park* prepared by Ethan Carr. Washington, D.C. October 1993. p. 13-14.

a twenty-year period clearly show how the plant massing gave definition to individual spaces or outdoor rooms. That definition has been diminished by the loss of many hedges and planting masses.

Likewise, there are numerous aspects of the structures, furnishings, objects, and sculpture that have suffered degradation from time, weather, and use. While the NPS has maintained most of the water features in operating condition, the water jets are less high and it is not possible to operate all the features at once because of constriction of pipes. Portions of the site drainage systems appear not to be functioning. Site paving needs attention as do various parts of the concrete structures. The sculpture on the site is generally in good condition except for the Armillary Sphere, missing altogether; the Serenity statue, which is in poor condition; and Joan of Arc, missing her sword, and her horse that is missing part of his bridle.

Please refer to Volume 1 of the Cultural Landscape Report for detailed descriptions of the park's existing conditions.

## Phasing

Funding realities suggest that the preferred treatment alternative of *Preservation* is unlikely to be implemented either all at once or immediately. Likewise, some aspects of preservation of the park will require preliminary efforts such as detailed study and analysis of methods for repairing the concrete and of the existing mechanical, electrical, plumbing, and drainage systems, all investigations beyond the scope of a CLR. Therefore, the preservation of the entire park will be incremental and much of the intervening action taken at the park will entail the maintenance of existing intact structures and vegetation.

Under any funding scenario, however, the phases of treatment must parallel the ability to maintain them. For example, shrub beds or hedges that require extensive pruning would not be planted until funds and trained staff are available to maintain them.

## Recommended Landscape Treatment

The *Preservation* Treatment Alternative, as described, accepts Meridian Hill Park as it is, sustaining its form, integrity, and materials to prevent further losses to its structures and vegetation. Under this approach, stabilization efforts may be undertaken initially, while further research to allow repairs to the structures is done and while funding is sought. *Preservation* is consistent with the importance and national significance of the site.

*Preservation* is therefore recommended as the primary treatment for Meridian Hill Park. The preservation of the unique structural elements - the hardscape, the water features, the retaining walls and the architectural details - that comprise Meridian Hill Park is paramount to maintaining and caring for this National Historic Landmark. These elements define the site's use, its spatial organization, and its circulation patterns. *Preservation* would address all the structural elements of the site, stabilizing, repairing, and maintaining them as closely as possible to their original appearance at damaged areas.

The preservation approach would also address the space-defining aspects of as much of the as-planted vegetation as possible, with priority given to the main, structure-driven areas of the park. During the long period of the park's development between 1910 and 1936, the original 1920 planting plan, conceived by prominent landscape architect Ferruccio Vitale and revised many times by Irving Payne with input from Peaslee and the Commission of Fine Arts (CFA), was implemented in phases, with each phase of planting adapted and altered to fit the park's evolving architectural design. When the park was dedicated in 1936, the trees, shrubs, and ground covers enhanced and further delineated Meridian Hill's strong architectural character.

While less directly visible, infrastructure such as power, lighting, plumbing, drainage, and the water feature systems must be repaired, replaced, and maintained as needed to prevent damage to the historic fabric and to allow elements of the park to operate as they did historically. Issues such as settlement must be addressed.

Accessibility provisions will be made under the *Preservation* approach according to the analysis and evaluation presented in Appendix 4 of Volume 1.

Guided and self-guided tours are recommended for interpretation, both to minimize the visual impact of interpretive elements on the site and to educate more people about the significance of this historic designed landscape.

# Preservation Treatment Recommendations

Various approaches to organizing a site into parts for maintenance, operation, or preservation can be taken. Sometimes the design of the site itself suggests units: natural wooded areas separate from formal designed areas. In the case of Meridian Hill Park, the unique nature of the site as an intensely developed design with a great deal of both vegetation and structure packed into a relatively small area, suggests treatment units by category rather than by park area. These categories are generally the same used in Volume 1 of the Park's CLR: spatial organization and land use; circulation and universal access; views and vistas; vegetation; structures, furnishings, and objects; mechanical, electrical, plumbing, and drainage systems; and sculpture. Some of these categories have sub-categories. All recommendations within each category are organized in a three-tiered priority ranking, as follows:

## Critical:

to correct health, safety, and structural problems, to prevent further deterioration, to preserve space-defining elements, to re-establish space definition, or to repair damaged elements. Collateral investigations are essential to guide this work.

## Important:

but not highest priority, including removal of non-original elements (like corner paving), limited replacement of missing elements, and collateral investigations

## Desirable:

when feasible, such as replication of original elements (like the drinking fountains that are present and functioning but not the original design, replacement paving that is present and functioning but not consistent with the original, or replacement of all trash receptacles with a compatible design)

The above are recommended priorities. However, some actions may be implemented before others because of funding and operational considerations.

A further way to understand the park and the priorities of its preservation is to see it as *structure driven*. In other words, because the constructed elements shape, focus, and organize the park, their design largely determines what are the most critical areas of the park. Thus, the park may be seen as comprising two distinct character areas: the primary being the formally-defined portions where structure and vegetation are a highly integrated whole and the plantings are essential elements of the spatial and architectonic intentions of the design. These are the mall, the great terrace, the cascades, the ascents and hillside gardens, and the lower plaza. This intensely-designed core is bounded on its east and west sides by less formal, more naturalistic *edges* or *borders*, forming zones of secondary importance. The trees between the lower plaza and W Street are part of the primary zone because of their important space-defining function for the lower plaza.

There are a number of management decisions that impact the park but that are not strictly

physical fabric or vegetation issues. These decisions affect many of the specifics of the preservation of the park (for instance, the decision to provide public toilets at the park necessitates providing accessible restrooms in the lodge) and have been made within the context of the primary treatment.

Finally, under the preservation treatment, as any element is replaced because it is at the end of its useful life, such as drinking fountains, or plants, it should either be replaced in-kind, if it is original fabric, or according to the original design. This replacement would occur as cyclic maintenance, rather than according to the priority ranking above.

## Spatial Organization and Land Use

- In addition to the current uses of the site implied by the original park design, which include passive recreation such as walking, jogging, sitting, reading, picnicking, frisbee playing, informal play, sunbathing, and other individual recreational activities, the park will consider ways to add more programmed minimal impact activities to attract greater numbers of people from the neighborhood and whole city, and to help foster a sense of safety by use. Additional activities implied by the original design are particularly desirable. Concerts are an excellent, historically appropriate use in the park that can take place on a portable stage with no threat to the architectural and visual integrity of the park. Life-sized checker or chess matches could be held on the chessboard in the lower plaza. Other similar activities may also be considered. Interpretive walking tours of the park would be both appropriate and desirable to explain the significance of the park to visitors.

- Rock Creek Park will work with the community to explore opportunities for more contemporary tot-lot, playground, and other active recreational opportunities at other nearby sites such as the Girard Street playground. Off site tot-lot and playground opportunities are more appropriate for children and play for several reasons. Because the only vehicular access to the upper level of the park is located next to the Euclid Street play area, this traffic creates a safety hazard for children. The preservation treatment guidelines preclude the re-establishment of the hedge-enclosed grassed mid-mall play areas. Finally, none of the historic play areas could be developed to contemporary expectations without unacceptable impacts on the park resources.

## Circulation and Universal Access

As part of the development of a recommended landscape preservation treatment, there have been numerous meetings and discussions with NPS staff and management about specifics.<sup>2</sup>

Because all the work that is anticipated at this site only involves the treatment of existing elements, it is not believed that the requirements for handrails and their configurations apply to this site.

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<sup>2</sup> One such meeting was held at the park on 2 February 1999 with Dave Park, National Park Service Accessibility Program Coordinator, Stanley Briscoe, National Capital Region Accessibility Coordinator and Architect, Daniel Hodgson, Darwina Neal, and Judith Capen where providing access to the park was discussed. The approach discussed here was presented to the Superintendent and Assistant Superintendent and has received their approval.

**Critical:**

*It is critical to maintain the access currently possible to the site while also doing the relatively modest things that will maintain and improve accessibility to the site.*

- The park will maintain access to the upper park at the corner of Sixteenth Street and Euclid, one of the park's major entrances. The park will install signage identifying the wheelchair accessible route as part of the interpretive and signage program currently in process (Sketch, SK-1).
- The park will continue to provide interim repairs to deal with the accessibility impediments of heaved pavement joints until permanent pavement repairs are made.
- An accessible drinking fountain will be installed at the current location of the upper park drinking fountain. This drinking fountain will be replaced with a replication of the original design drinking fountain when the rest of the drinking fountains in the park are replaced with replications (Sketch, SK-2).

**Important:**

*The following accessibility interventions should be made:*

- The park has identified returning the lodge to its 1924-36 exterior appearance to be a high priority. The restored lodge would have accessible restrooms, an accessible drinking fountain, a U. S. Park Police office, and interpretive opportunities (Sketch, SK-3).

The existing inaccessible restrooms under the great terrace will be closed to the public once new and accessible restrooms are available in the restored lodge.

- The park will work with the District of Columbia government to designate a space at the Chapin Street entrance as an accessible parking space, and install a curb cut and ramp at that entrance (Sketch, SK-4).
- The park will install a ramp at the Sixteenth Street entrance to the lower plaza and a ramped sidewalk to the lower plaza itself to provide access to the best-known, most characteristic view of the park, up the cascades, (Sketch, SK-5).
- Appropriate identifying signage will be added as each provision is made.

## Views and Vistas

The National Park Service will work with adjacent landowners to ameliorate the blocked major view to the south. Strategies may include purchasing the building to the south, encouraging decreased height in a new structure, obtaining a scenic easement, and removal of satellite dishes.

# Vegetation

*"In the original design for Meridian Hill vines, hedges and trees were as essential to the composition as the concrete structures underlying them."<sup>3</sup>*

In the years since the official opening of the park in 1936, some elements of the planting design have survived and some have failed. The lines of white oaks along the mall, various mature specimen trees and the dense American holly hedges along the cascades and west ascent are remarkable for their longstanding presence in the park. Trees and shrubs that have not been replaced when their natural lifespan passed, or when environmental conditions warranted their removal, include hemlock and hawthorne hedges, and various shrub massings. Maintenance concerns also affected decisions about keeping dense groundcovers and vines. Presently, lawn predominates on the hillsides where groundcovers were historically planted and vines intended to grow up and over walls have not been replaced.

Developing a preservation planting plan is complicated by the voluminous and sometimes contradictory record of proposed schemes, questions of what was actually executed, and the fact that planting in the park spanned nearly fifteen years, during which time some early-planted materials were removed and replaced due to their failure to thrive or changes in design intent before the park's dedication in 1936.

The historic vegetation in this park will be re-established, as practical, based on drawings, photographs, and evidence of plants still on the site. Re-establishment of the park's planting is possible through the selection of the genus and species of trees, shrubs, and vines that replicate or nearly replicate the character of the original plant selection while reflecting today's environmental and maintenance conditions. Siting adequate quantities of plants in their original locations and maintaining them properly are essential to the overall preservation of the park.

A further way to understand the park and the priorities of its preservation is to see it as *structure driven*. In other words, because the constructed elements shape, focus, and organize the park, their design largely determines what are the most critical areas of the park. Thus, the park may be seen as comprising two distinct character areas: the primary being the formally-defined portions where structure and vegetation are a highly integrated whole and the plantings are essential elements of the spatial and architectonic intentions of the design. These are the mall, the great terrace, the cascades, the ascents and hillside gardens, and the lower plaza. This intensely-designed core is bounded on its east and west sides by less formal, more naturalistic *edges* or *borders*, forming zones of secondary importance. The trees between the lower plaza and W Street are part of primary zone because of their important space-defining function for the lower plaza.

Because of the contribution of the original street trees in defining the perimeter of the park, (see Figs. 79 and 80 in Volume 1 of the Cultural Landscape Report), the park will explore the possibility of replacing the trees on the surrounding streets in cooperation with the District of Columbia.

Addressing the issue of volunteer paths in non-obtrusive ways that are appropriate to the park should be part of the preservation planting plan.

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<sup>3</sup>Ethan Carr, National Historic Landmark Nomination, December 15, 1993.

## Critical:

*It is critical to have a Preservation Planting Plan.*

The Rock Creek Park management is having a planting plan prepared based on thorough review of the many planting plans and photographs for each area through 1936, as well as detailed as-planted plans for 1936. This planting plan will reflect decisions of how each area should be treated considering changes in environmental conditions, original plant materials that never thrived, safety, contemporary maintenance capabilities, careful identification of inappropriate plants added to the park over the years, assessment of their condition, and determinations about removal.

*It is critical to replace individual deteriorated or missing space- and view-defining trees, including understory flowering trees in the primary areas of the park: the mall, at the great terrace, the cascades, the ascents and hillside gardens, the lower plaza, and the buffer along W Street. It is also critical to replace space- and view-defining single shrubs or entire plant groupings when the vegetation is missing, too deteriorated, or too damaged to be saved.<sup>4</sup>*

Space-defining planting in the park:

- the rows of trees along the mall
- the oak groves at the southern end of the mall
- the hedges along the cascades
- the hedges along the west ascent
- trees and shrubs in the hillside gardens
- trees and shrub massings in the border space between the lower plaza and W Street

Planting terminating major axes and background planting:

- behind the Dante statue
- behind the Buchanan statue
- tree masses between lower plaza and W Street

## Important:

*It is important to replant missing trees, understory trees, and shrub massings in the edges or borders such as:*

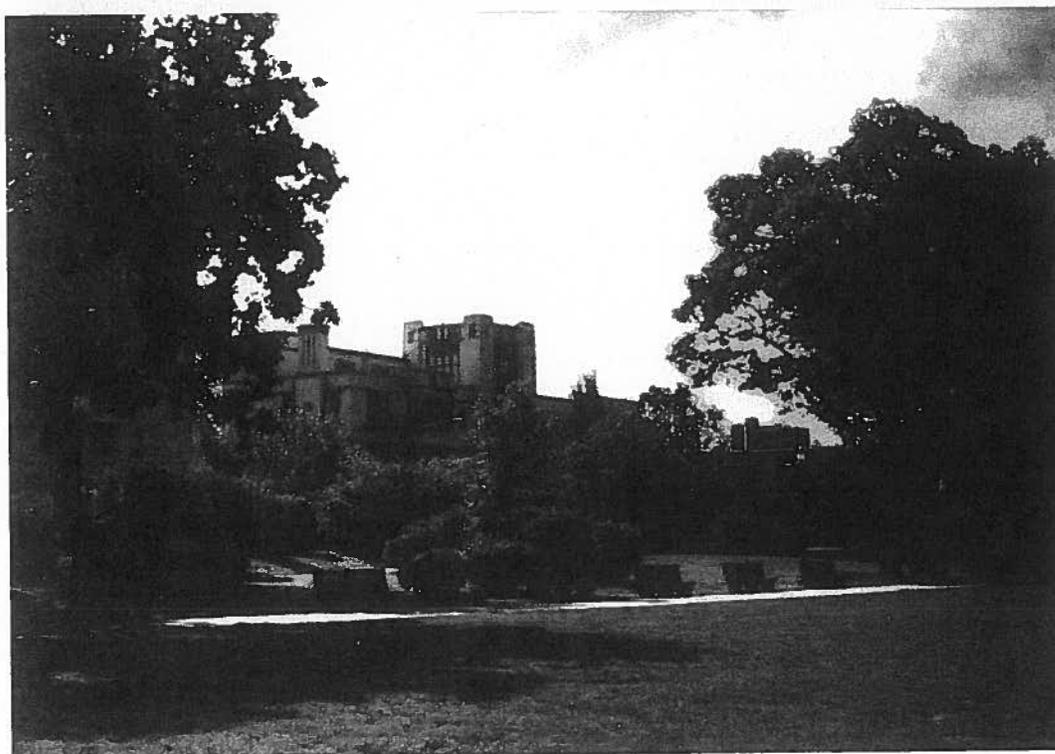
Planting in the borders along 15<sup>th</sup> and 16<sup>th</sup> Streets

Planting terminating minor axes at the southern ends of the axes from the east and west ascents

Missing view-defining trees and shrubs on either side of the Sixteenth Street overlook off the west ascent, on axis with the Dante statue

Missing street trees along Sixteenth Street and Euclid Street, working with the District of Columbia

<sup>4</sup> However, it is not feasible to replant the hedges along the mall or the masses of hornbeam at the lower plaza. The hemlock hedges behind the benches and in front of the trees along the mall cannot feasibly be replanted because of the likelihood of damage to the root systems of the existing trees. The densely planted masses of hornbeam at the lower plaza would be extremely difficult to establish and maintain due to environmental conditions and lack of resources. Safety concerns are another reason not to replant.



*Above:* This view south along the main axis of the park through the mall toward the great terrace overlook shows how effectively the mature oaks behind the mall walkways contain and define the mall space.

*Below:* However, as seen in this image, the loss of two of these mature trees leaves a substantial gap in that edge definition.

*It is also important to:*

- continue to install aquatic plantings annually
- replace the hedges along the east-west axis at the northern end of the mall
- replace the hedges along the linden alley

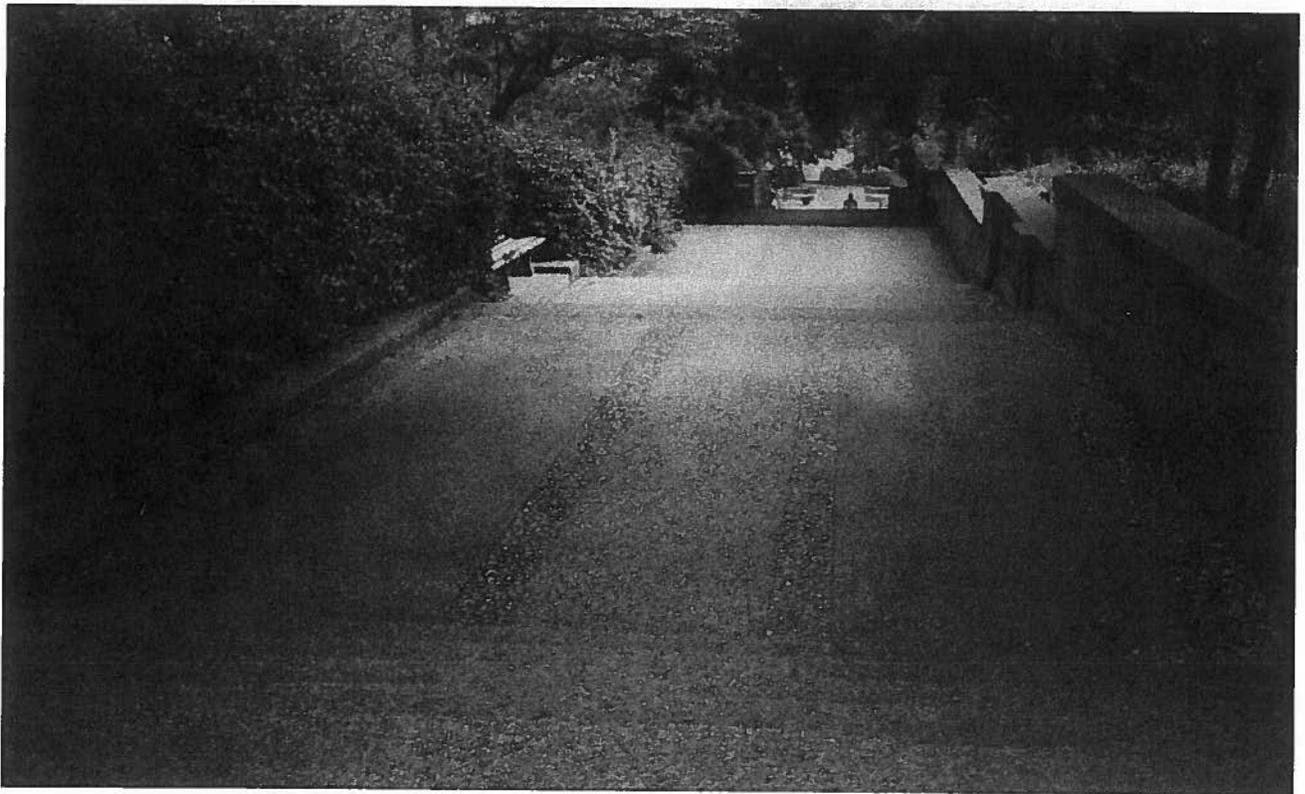
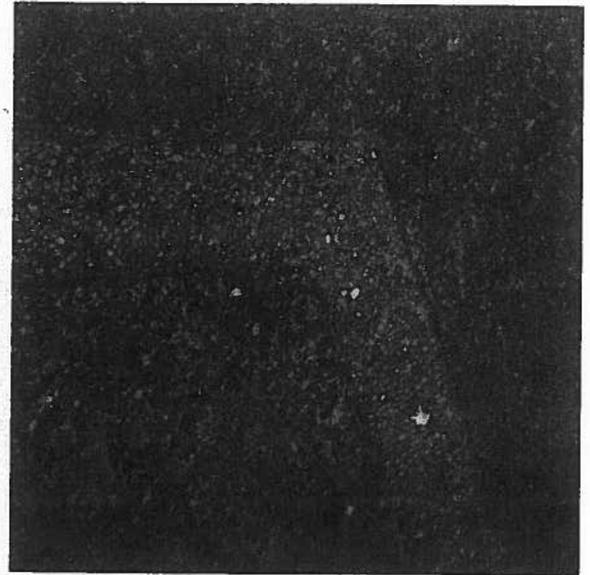
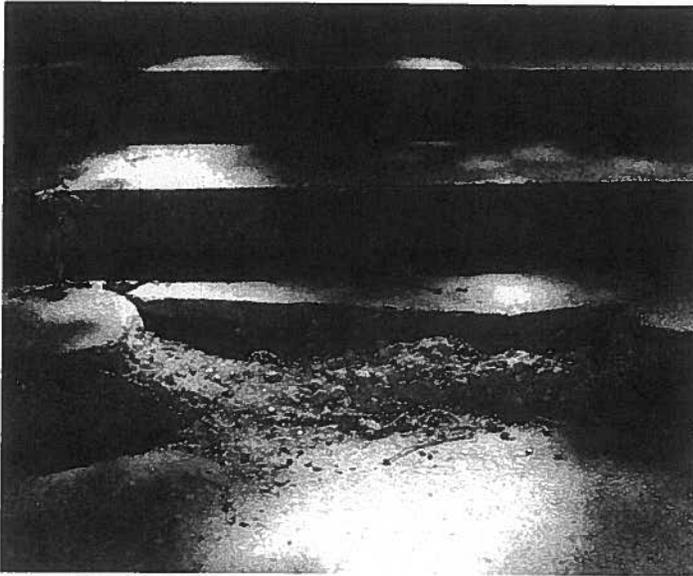
## **Desirable:**

*It is desirable to replace the secondary space-defining hedges along the cross axis from the Chapin Street entrance to the Sixteenth Street entrance.*

*It is desirable, if feasible relative to maintenance and environmental constraints, to replace missing small-scale vegetation, such as:*

- vines
- herbaceous materials
- other missing detail plantings
- ground covers

*Below left:* Corroboration that the method called for in the specifications for pouring pavement in two layers is provided in this picture of the deteriorated steps at the upper 16th Street entrance.



*Above and above right:* While the colors are not seen in these pictures, the tonal and textural differentiation created by polychromy in the concrete aggregate is nonetheless visible. It is critical that the colors and types of aggregates used in the historic concrete in the park be matched exactly in any new or repair concrete work.

## Structures, Furnishings, and Objects

The repair and limited replacement in kind the structures, furnishings, and objects of this park will return them as much as physically possible to their historic appearance. Because of the high level of integrity of the structures, furnishings, and objects at this site (i.e., that they are largely present, although deteriorated in some instances), most of the required work centers around new repairs and reversal of previous unsuccessful repairs.

Some of the furnishings are missing, such as the benches and ornamental fence at the linden alley and the upper play area; the original drinking fountains have been replaced with a different design; and there are many types of non-original trash receptacles.

### Critical:

*Critical actions include:*

- development of a short term, interim, emergency stabilization and patching approach to arrest deterioration of built site elements as longer-term efforts proceed
- amelioration of heaved and irregular joints in paving to eliminate tripping hazards and facilitate access
- continued immediate removal of graffiti
- removal of the existing inappropriate stage. It should be replaced with a new seasonal stage that complies with code requirements and that can be disassembled.

*It is critical that existing causes of deterioration of the character-defining concrete work on this site be identified and diagnosed, and strategies for preservation developed. It is also critical that methods to repair the particular concrete on this site, in all its various profiles, colors, textures, and applications be developed and implemented. These methods must result in reliable and consistent concrete to match the appearance of the site's original concrete. Categories of these investigations include: construction methods used in the original concrete work, settlement/movement analysis, and analysis of the mechanical, electrical, plumbing, and drainage systems. All these areas are related, but will require different professional specialties. It is critical that communication is maintained between disciplines. For example, electrical proposals cannot be made without consideration of concrete and settlement issues. Critical collateral investigations include:*

### ***Concrete Construction Methods***

Critical concrete investigative efforts must include:

- review of previous patching and repair work to identify successful efforts and consultation with the contractors who have worked on the site to discover both successful and unsuccessful methods.
- development of mixes for the various types of concrete used on the site (structural, decorative, and paving).
- identification and location of colored aggregates to match those used in the park
- development of a methodology for concrete repair and restoration, specific to each type and color of aggregate; each application of concrete, paving, walls, objects; and each method, site-cast or precast. Part of the protocol for concrete repair must also be diagnosis of causes of efflorescence and recommendations both to halt continuing efflorescence and to remove existing.
- demonstration of the efficacy of methods, accuracy of aggregate selection and mix design by construction of samples at the site for comparison with *in-situ* work.
- recording of detailed methods, materials, and sources involved in the process, once acceptable samples are provided.

### ***Settlement***

*It is critical to establish existing conditions for the settled areas in the park and then monitor continued movement, if present, at the following locations:*

- The south-east corner of the reflecting pool in the lower plaza has settled, allowing water from the pool to splash over the top of the containing wall coping.
- The Sixteenth Street retaining wall, just north of the great terrace, was stabilized in 1982 with installation of dead-man ties, but movement appears to be continuing at the south end.
- The great terrace, where a great deal of settlement has occurred, needs to be evaluated to determine whether settlement is active or most of it occurred soon after construction.

Action cannot be taken to remedy any of these conditions until it is known whether they are progressive or occurred soon after construction and have stabilized.

*Once collateral investigations are complete, critical concrete preservation work in the park includes repairing and replacement in kind of the major areas of concrete deterioration, including:*

- all cracks and spalls in walls, piers, and paving
- the lip of the western bowl fountain on the great terrace
- damaged stairs
- heaved and deteriorated paving
- all locations of exposed reinforcing steel

*Once each settlement condition has been identified in the collateral investigation as progressive or historic/stable, feasible interventions or repairs must be developed and implemented.*

***Site Furnishings:***

*benches:* As part of routine maintenance, the park will begin to implement a revised bench slat securing detail that both preserves the integrity of the historic design and also responds to the practical demands of contemporary maintenance. All bench slats that do not match the original ones in size, shape, material, and appearance will be removed and replaced with conforming ones. The park will restore contoured configurations of all originally contoured wood-slat benches.

*trash receptacles:* Because no record of original trash receptacles at the park has been found, ROCR must select an appropriate trash receptacle for this park.

Because the existing locations of trash receptacles are not historic and original locations are not known, locations of new trash receptacles should be determined on the basis of need and compatibility with the historic park design.

***Signage:***

The park will develop recommendations for signage to address interpretive, identification, directional, regulatory, accessibility, and safety needs. Any such signage will be kept to a minimum and be compatible with the historic and visual integrity of the park.

The park will implement components of the interpretation plan currently under development as the related elements of the park are restored.

*Other structural, furnishing, or object elements that affect the spatial definition in that park and are critical to remedy include:*

Removal of non-original posts and chains on mall and exploration of alternative visually non-intrusive ways to control service vehicle traffic on the mall.

**Important:**

*It is important, once the structures, furnishings, and objects of the site are stabilized and any threats to them through deterioration halted, that specific elements be restored to as near as possible to their original condition:*

Return Lodge to its 1924-36 exterior appearance. Incorporate a U. S. Park Police office, accessible rest rooms, an accessible drinking fountain, and visitor information. Consider incorporating interpretation opportunities.

Replace missing elements, including:

- two benches, missing fence finials, and gate at upper sand play area;
- missing benches and fence at linden allee;
- hooded lights inset in walls, steps, and around pool.

Remove efflorescence on concrete and treat to prevent further deterioration if study determines that is the appropriate action.

Replace all missing and non-original drain inlet covers with covers of the original configuration. The material may be changed to cast iron or other material to make the covers less attractive targets for theft. The drain covers should be secured with tamper-proof fasteners, rather than welded, to facilitate maintenance.

Implement integrated signage program, including indication of accessible routes.

Remove non-original additions such as triangular corner paving at the north end of the mall and the non-original concrete slab north of the secondary Sixteenth Street entrance, south of the main entrance at Sixteenth and Euclid.

## Desirable:

*It is desirable to replace some otherwise functioning, but not original, materials and features with ones more consistent with the historic originals.*

Replicate drinking fountains according to the original designs and install them at all original locations.

Remove replacement paving that is not consistent with original paving, including:

- flagstone paving at lower sand play areas. Consider replacing with large, beige pebble, exposed aggregate to suggest the gravel originally present there.
- new sections of paving that do not match either their immediate surroundings or the original paving.

Reverse all instances of previous repair work and patches to the concrete that do not match either their immediate surroundings or the rest of the concrete work, as they fail or as part of other projects, using the results of the concrete methods investigations previously done to insure good matches.

*It is desirable to replace the missing fountain lip at the main 16<sup>th</sup> Street entrance fountain.*