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Olmsted Center
for Landscape Preservation

Cultural Landscape Report for Vanderbilt Mansion National Historic Site

Volume II: Treatment



"It has been reserved for the good taste of our age to make many advantageous changes in the embellishment of gardens, and to reinstate Nature in the possession of those rights from which she has too long been banished by an undue regard to symmetry."
Andre Parmentier

CULTURAL LANDSCAPE REPORT FOR VANDERBILT MANSION NATIONAL HISTORIC SITE

HYDE PARK, NEW YORK

Volume II:

TREATMENT

By John W. Hammond, Historical Landscape Architect

Olmsted Center for Landscape Preservation
National Park Service, Boston, Massachusetts, 2009

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Cover Photo: View of Vanderbilt Mansion and the Hudson River looking northwest (Bill Urbin, 2009).

Title Page: View of the meadows of Vanderbilt Mansion National Historic Site looking north, with the Hudson River in the background (OCLP 2008).

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This report builds upon two published reports and one draft report. The site history is summarized from the Cultural Landscape Report for Vanderbilt Mansion National Historic Site, Volume 1, prepared in 1992 by Patricia M. O'Donnell, Charles A. Birnbaum and Cynthia Zaitzevsky, Ph.D. Excerpts are incorporated into the summary of historical significance from Vanderbilt Mansion: A Guilded-Age Country Place, Vanderbilt Mansion National Historic Site Historic Resource Study by Peggy Albee, Molly Berger, H. Eliot Foulds, Nina Gray, and Pamela Herrick. Recommendations are also excerpted from the draft

"Landscape Preservation Treatment Recommendations," prepared by Patricia O'Donnell, Barbara Wilson, and Peter Viteretto in 1994.

INTRODUCTION

Vanderbilt Mansion National Historic Site is a 211-acre historic site located 70 miles north of New York City in Hyde Park, Dutchess County, New York (Figure 1). Perched on a high terrace overlooking the Hudson River, Vanderbilt Mansion and its estate grounds represent a rare intact example of the grand estates and opulent lifestyles of the wealthiest Americans in the nineteenth and twentieth centuries. The Mansion grounds feature open parkland, with broad lawns and century-old specimen trees, formal gardens, a creek, native woodlands, and rolling meadows. The site also contains nine historic buildings in addition to bridges, dams, garden structures, roads, and paths. The estate grounds of Vanderbilt Mansion is a layered landscape that bears the imprint of five generations of owners who developed the grounds over nearly two centuries, embellishing rather than obliterating the work of previous owners.

Vanderbilt Mansion National Historic Site is significant for its association with the Gilded Age of American wealth and as an example of Country Place Era landscape design as practiced at the end of the nineteenth century. The site is also significant as an example of early American picturesque landscape design and as the only known extant landscape in America designed by Andre Parmentier. The period of significance extends from 1828, when the design by Parmentier was initiated, until the death of Frederick Vanderbilt in 1938.

The Designation Order for the creation of Vanderbilt National Historic Site in 1940 indicates that the estate was significant for its association with the Vanderbilts and because it was "representative and illustrative of their period and hence of national significance in the economic, sociological, and cultural history of the United States."[1] The site was given to the federal government by Margaret Van Alen for preservation as a memorial to her uncle, Frederick W. Vanderbilt. The original property mandate addresses three purposes: 1) explaining the significance of wealthy Americans like the Vanderbilts and the era they represent, 2) informing the public of the lifestyle of the Vanderbilts as reflected by their estate, and 3) illustrating a phase of human interaction with the environment.

PURPOSE AND METHODOLOGY

Vanderbilt Mansion retains a high degree of historical integrity, reflecting much of the character and composition it exhibited at the end of the historic period. Yet as a large public park, it is faced with a number of issues associated with a maturing landscape, viewshed management, visitor circulation and universal accessibility, educational and interpretive objectives, and maintenance requirements. A plan for the treatment of the historic landscape will help the

park address these issues and preserve and enhance the historic character of the site.

The Cultural Landscape Report (CLR) serves as the primary treatment document for cultural landscapes and the primary tool for managing those landscapes. It provides treatment guidance within the context of the site's history and significance, extant features and historic character, and current planning objectives and management goals. This report, the second volume of the CLR, includes overall treatment strategies for the site as well as direct treatment actions that are needed to ensure the long-term protection, preservation, and continued use of the landscape. Although ongoing park and volunteer efforts have succeeded in protecting and preserving many of the essential elements of the historic landscape, they have been operating without a comprehensive plan for managing the landscape as a whole. Volume 2 provides a comprehensive plan under the umbrella of the broader goals established in the park's General Management Plan.

Volume 1 of the CLR for Vanderbilt Mansion National Historic Site was completed between 1990 and 1992 by Patricia O'Donnell, Charles Birnbaum, and Cynthia Zaitzevsky and published by the North Atlantic Region Cultural Landscape Program, the predecessor of the Olmsted Center for Landscape Preservation. Volume 1 describes the physical and contextual history of the site, assesses its significance within its historical contexts, and documents the existing conditions of the estate in 1990 to 1992.[2] Volume 1, consisting of exhibits, photographs, and text, forms a baseline of information upon which a treatment framework and specific recommendations can be made.

The publication of Volume 1 was followed in 1994 by a draft "Volume 2: Landscape Preservation Treatment Recommendations" prepared by Patricia O'Donnell, Barbara Wilson, and Peter Viteretto. The unpublished draft includes implications for treatment alternatives and specific recommendations for the various areas of the site. Information contained in the 1994 draft was used to inform treatment strategies in this report, while being updated and supplemented to reflect current conditions and evolving park needs.

Treatment guidelines and recommendations developed in the CLR are grounded in research, inventory, documentation, and analysis and evaluation of the landscape characteristics and features that contribute to the site's historic character. The methodology used in this report follows *A Guide to Cultural Landscape Reports*.[3] Recommendations are based on the findings of CLR Volume 1 and on the work completed for the draft of Volume 2 in 1994. Additional research conducted for this volume includes documentation of existing conditions, examination of historic photos, aerial photos, maps, and primary documentation such as purchase ledgers kept by the Vanderbilt estate.

SUMMARY OF PARK PLANNING

Vanderbilt Mansion National Historic Site was designated in December 1940 by Secretary of the Interior Harold L. Ickes under the authority of the Historic Sites Act of 1935. The designation came after more than a year of effort by Ickes and President Franklin D. Roosevelt to acquire the property on behalf of the National Park Service. Roosevelt, whose own estate lay less than two miles south of the Vanderbilt property, expressed particular interest in seeing the Vanderbilt estate preserved as a historic site and used his considerable influence to usher the process along. From the beginning, management of Vanderbilt Mansion National Historic Site focused on the preservation of the buildings and grounds. In a letter to Acting Regional Director H. K. Roberts in 1940, President Franklin D. Roosevelt expressed his belief that the property "should remain permanently in its present condition," and provided recommendations for replacing historic trees so as not to "lose the general character of the present plantings."[4]

A Master Plan was developed in 1941 to help guide the management of the new park. The Master Plan consisted of a set of drawings of the estate and mansion interiors that both serve as a record of existing conditions in 1940-1941 and outlines direction for park management. The plan included photographs, detailed tree mapping, and a tree replacement plan that coordinated the replacement of thirty-three specimen trees over the next twenty-five years. The majority of the Master Plan was concerned with management of existing resources rather than new development of the park. The most significant new development proposed by the master plan was a large visitor parking lot in the same location as the current visitor parking lot, but of larger size.

The park's second Master Plan was completed in 1961 as part of the Service wide Mission-66 initiative. While the first master plan focused on preservation of existing resources and the accommodation of new park operations, the 1961 plan had to address issues that the twenty intervening years had generated, including correction of deferred maintenance issues, restoration or rehabilitation of dilapidated structures, reinstatement of lost features, and adjustment of management policies and resource use. The Master Plan describes the state of need for intervention in park resources:

> Even more of a threat to the long range perpetuation of the historic scene is the fact that funds and personnel have not been sufficient to prevent the accumulation of a backlog of deferred maintenance items. During the period of World War II, and the Korean outbreak, with resulting cutbacks in funds for maintenance of the site, the Italian gardens were of necessity abandoned in order to concentrate the limited funds that were available on the preservation and maintenance of even more vital aspects of the historic scene.
>
> The formal gardens became overgrown with vines, brush and scrub. In a similar manner, during World War II, the National Park Service was forced to allow the lovely lower meadows to grow up in brush and young trees. Time and great

> storms have taken their toll of the ancient specimen trees, and funds have not been available for an orderly tree replacement program. Time is taking its toll of fabrics and furnishings in Vanderbilt Mansion, with rehabilitation never quite keeping pace with deterioration. The heart of the great estate, including all of the major buildings, is in excellent condition but the backlog of deferred maintenance on gardens, garden structures, outlying areas, and furnishings is large.

Recommendations in the 1961 Master Plan include the restoration of structurally sound garden structures, which presumably included the greenhouses, and the reinstatement of the planting beds in the formal gardens, that by this time were planted with grass. A complete restoration of the formal gardens was not recommended due to the high level of maintenance involved. The tree replacement program directed by the plan is the same program outlined in the 1941 plan. As specimen trees neared the end of their lives, new trees were to be planted near the original and allowed to mature before the original died or was removed. Over time, this policy resulted in changes to the locations and arrangements of the specimen trees on the Mansion grounds.[5]

The most recent Master Plan was completed in 1976. The plan once again reiterates the importance of the resources and laments the lack of resources to manage the park effectively, but its guidance on the landscape is general without concrete specifics. The plan describes the overall philosophy for the management of the landscape:

> The estate was conceived as a managed landscape; accordingly, esthetic aspects should be carefully maintained. These include selective topping and removal of trees to maintain vistas; conscious balancing of open meadows, lawns, specimen trees, and shrubs; removal of dead trees and brush; and cleaning of ponds and waterfalls to preserve the delightful sound and sight of moving water.

No specific policy is given for the management or replacement of specimen trees. The plan suggests limited restoration of the formal gardens, which by this time were in poor condition:

> Today the plants and the greenhouses are gone. Wood arbors have been removed, and the gravel walks are covered with grass. The remaining brick walls and piers, statuary, urns, etc., need extensive repairs. The pools are empty.

The most notable deviation of the 1976 plan from the earlier Master Plans is the suggested interpretation date. The 1941 plan referred only to Vanderbilt's life at Hyde Park (1895-1938) as the focus of interpretation, while the 1961 plan specifically indicated that the property should be preserved as it was at the time of the National Park Service's acquisition of the property in 1940. The 1976 plan, however, indicates that the target interpretive period should be 1900-1917, representing the period during which the estate "was at the height of its grandeur."[6]

The 1976 Master Plan has been the guiding document for management of Vanderbilt Mansion National Historic Site for the past three decades. Currently a General Management Plan is being developed to coordinate the management of the three parks under the Roosevelt-Vanderbilt National Historic Site management unit: Vanderbilt Mansion National Historic Site, The Home of Franklin D. Roosevelt National Historic Site, and Eleanor Roosevelt National Historic Site. The General Management Plan has identified three alternatives for the management of the sites. The first alternative, called the No-Action Alternative, includes efforts consistent with the preservation of the existing resources. The second alternative, Action Alternative One, primarily involves the restoration of the resources to historic uses and conditions, while the third alternative, Action Alternative Two, includes recommendations consistent with adaptive reuse and rehabilitation of the buildings and landscape. The draft General Management Plan indicates that Action Alternative Two is the preferred alternative, and this treatment plan has been developed in accordance with that preferred alternative. The General Management Plan is scheduled to be finalized in the summer of 2009.

DESCRIPTION OF STUDY AREA

Vanderbilt Mansion National Historic Site is situated along the bank of the Hudson River in a long north-south parcel a quarter mile wide and over a mile long (Drawing 6). The Mansion sits on the edge of a terrace 170 feet above the river. The long terrace is characterized by open lawns, mature deciduous trees planted individually or in small informal groups, a complex of formal gardens, serpentine drives, and neoclassically styled buildings (Figures 2, 3, 4, and 5). Below the terrace, the grounds slope down to the river with hillocks, ravines, open meadows, and bands of woodland. The property is bounded on the southeast by Crum Elbow Creek, a perennial creek that winds and tumbles through a band of deciduous woodland down to the river. The creek is moderated by three dams that divide it into a series of small ponds and runs (Figure 6).

The Vanderbilt property originally consisted of an approximately 500-acre eastern portion where the farm and agricultural fields were developed and the 200-acre western portion where the estate and pleasure grounds were located (Drawing 3). The two parts of the property were divided by Albany Post Road (today Route 9). Although the boundaries of the property fluctuated to a degree throughout the historic period, this pattern of land use and development was perpetuated through the end of the Vanderbilts' ownership. The current historic site comprises 211 acres of the estate grounds on the west side of Route 9; the farm lands are not currently in federal ownership and are not within the site's

legislated boundary. This treatment plan addresses the 211-acre historic site as a whole.

SUMMARY OF SITE HISTORY

The CLR Volume 1 details the long history of Vanderbilt Mansion National Historic Site, beginning with its original patent in the early 1700s through the National Park Service ownership from 1940 to the present day. Volume 1 indicates that the property is significant not only for its association with the Vanderbilts and Gilded Age estates, but for its long and continuous use as a country seat and for the design of its landscape, elements of which remain as designed by Andre Parmentier, an important American landscape designer and practitioner of the French picturesque style of landscape design. The ownership periods are summarized from the history in the CLR Volume 1 as follows:

DR. JOHN BARD, 1764-1799

When Dr. John Bard acquired the property in 1764, it included the land of the current estate grounds along the Hudson River bank on the west side of Albany Post Road (today Route 9) in addition to a large area of land on the east side of the road, a total of 3,600 acres.[7] Dr. Bard first developed the eastern portion of the property, land well suited to agriculture. He built and lived in the Red House just east of Albany Post Road and developed a farm, which included a barn and other farm structures, a fruit orchard, and cultivated fields. Landings on the Hudson River were made at the south end of the property at Hyde Park Landing or at the north end of the property at a large flat rock outcropping known as Bard Rock. Bard Lane, a road built to access Bard Rock from Albany Post Road was constructed during this period.

DR. SAMUEL BARD, 1799-1821

John Bard's son, Dr. Samuel Bard, inherited the Hyde Park property upon his father's death in 1799. Unlike his father, the younger Dr. Bard was clearly interested in the scenic value of the western portion of the land overlooking the Hudson River. He built a grand house on the property's highest point at the precipice of the terrace above the rolling fields and forests that descended to the river. Illustrations from the period show Dr. Bard with his family on the grassy terrace near the house peering through a telescope at the view of the river and its activity of boats and steamships. In addition to the house, Dr. Bard built barns, stables, and other outbuildings, a store at Bard Rock, and a system of roads connecting the two river landings with the house and other structures. Dr. Bard also kept gardens and greenhouses to support his pursuit of horticulture and the collecting of rare and exotic plants, and he planted ornamental trees, vines, shrubs, and grasses to beautify his estate grounds.

Samuel Bard showed an interest in the discipline of landscape design early in his father's ownership of Hyde Park. In letters that he wrote home to John Bard while he was studying medicine in Edinburgh in 1764, Samuel excitedly implored his father to consider aesthetic attributes when laying out his estate grounds.

> Next, I think straight lines should be particularly avoided, except where they serve to lead the eye to some distant and beautiful object – serpentine walks are much more agreeable. Another object deserving of attention seems to be, to place the most beautiful and striking objects, such as water, if possible, a handsome green-house, a grove of flowering shrubs, or a remarkably fine tree, in such situations, that from the house they may almost all be seen; but to a person walking, they should be artfully concealed until he suddenly, and unexpectedly, comes upon them; so that by the surprise, the pleasure may be increased: and if possible, I would contrive them so that they should contrast each other, which again greatly increases their beauty.[8]

While it does not appear that John Bard took any of his son's suggestions to heart, Samuel clearly demonstrated not only an interest in the aesthetics of the estate grounds, but also a somewhat sophisticated understanding of the principles of landscape design as it was being practiced in Europe at the time. Historical documentation is insufficient to give us a complete picture of the estate grounds during Samuel Bard's ownership; however this interest in the composition of the landscape, together with his documented pursuit of ornamental plantings for his estate, suggests that he followed, at least to some degree, the advice he gave his father forty years prior. The letters also foreshadow the practice that would be followed throughout the site's history of carefully and artfully composing the landscape to appear natural (Figure 7).

DR. DAVID HOSACK, 1828-1835

David Hosack purchased Hyde Park from the heirs of his friend and colleague, Samuel Bard, in 1828. Like Bard, Hosack showed an enthusiasm for horticulture, having established in 1801 the Elgin Botanical Garden, the first public botanical garden in the country. After enlarging and rebuilding Samuel Bard's house and adding gate lodges, a pavilion, stables, gardens, and greenhouses, Hosack turned his attention to the estate grounds, soliciting the help of landscape designer and nurseryman Andre Parmentier.

Parmentier, an immigrant from Belgium, had been operating a nursery in Brooklyn since 1824. He specialized in country seats, designing estate landscapes in the fashion of European country estates. Parmentier espoused the principles of picturesque landscape design, in which elements of the landscape are arranged according to compositional rules borrowed from landscape painting to give the impression of a natural landscape vista. In picturesque landscape design, naturalistic forms and arrangements are preferred over geometric or formal arrangements. Parmentier followed these tenets when laying out the grounds at Hyde Park. The main drive from Albany Post Road to the house was realigned to

curve gently through the pastoral landscape and approach the Mansion obliquely. Other drives followed geographical features, like Crum Elbow Creek and the ridge line at the top of the bluff. Parmentier also favored the placement of classically inspired landscape ornamentation in the form of pavilions and sculptures. A number of these ornamental structures were placed throughout the estate grounds, including two rotunda pavilions. As a testament to the skill with which Parmentier composed the landscape at Hyde Park in the style of picturesque landscape design, drawings of the property made shortly after Dr. Hosack's death bear remarkable similarity to landscape paintings done during the same period, often intended to represent an idealized natural or pastoral landscape (Figures 8 and 9).

WALTER AND DOROTHEA LANGDON AND WALTER LANGDON, JR., 1840-1895

After Dr. Hosack's death, the property was purchased from his heirs by John Jacob Astor, who then gave it to his daughter and son-in-law, Dorothea and Walter Langdon, in 1840. The northern portion of the estate grounds, later known as the Sexton tract, was retained by Magdelena Hosack and then sold separately to a series of owners before being reunited with the rest of the property by Frederick Vanderbilt in 1905. Many of the changes to the overall layout of the grounds were done in the early years of the Langdons' ownership to accommodate this change in boundary. These changes included a new north gate and gatehouse and the realignment of the entry road to the north gate. The Langdons also built a new mansion after the Hosack mansion burned in 1845. The new house was built in the same site as the previous house.

Walter Langdon died in 1847, leaving Hyde Park to his many children. Over the next five years, Walter Langdon, Jr. bought the interest from his siblings so that by 1852 he was the sole owner. He also purchased other land that had been separated from the estate, including Crum Elbow Creek and the farm property on the east side of Albany Post Road. Walter Langdon, Jr.'s most significant contribution to the estate was the construction of new formal gardens and greenhouses (Figure 10). The complex consisted of two cottages (a Gardener's Cottage and a Tool House) connected by a greenhouse, a conservatory, and enclosing walls. These architectural elements enclosed a series of six rectangular terraces that stepped down the hill, each containing a formal garden of geometric beds. Elements of these gardens, including the Tool House and Gardener's Cottage, brick walls, and the terracing, remain today.

Apart from the reorganization of the northern portion of the property to accommodate the new gate location and the construction of the new gardens, there is little evidence that the Langdons effected any substantial changes to the landscape during their 55-year residency. As the landscape matured it appears that the Langdons took a less rigorous approach to its maintenance and up-keep.

In 1849, Andrew Jackson Downing wrote that "since the death of Dr. Hosack, the place has lost something of the high keeping which it formerly evinced,"[9] and by the time the Vanderbilts bought it, a Poughkeepsie newspaper described the place as "somewhat neglected and run down."[10] Yet despite this decline in the overall level of maintenance, descriptions of the property by landscape architect Charles Eliot in 1890 concur with descriptions by Thomas Wharton nearly 60 years earlier in presenting a highly scenic landscape that skillfully blended the natural and designed elements.

FREDERICK W. AND LOUISE VANDERBILT, 1895-1938

The Vanderbilts purchased the estate and farm from Langdon's heirs in 1895 and immediately began updating the property with new buildings. The Langdon house was demolished and a new mansion was built in its place (Figure 11). Other new buildings include a guest house called the Pavilion, the Coach House, two gatehouses, a perimeter wall and gates, and a pump and power house on Crum Elbow Creek. Structures associated with the creek that were constructed in the early years of the Vanderbilts' ownership include the White Bridge (Figure 12), the Coach House Bridge, and four dams that created a series of ponds. This flurry of construction was completed by 1899. After the Vanderbilts acquired the Sexton track in 1905, they proceeded to remove the majority of the structures on it and rework the circulation system to reflect the larger property boundaries. This included the removal of the Langdons' north gate and exit road and the construction of a new north gate.

Frederick Vanderbilt planted numerous trees over the course of his residency. These included specimen trees throughout the property, an allée of sugar maples along the entry drive, and a white pine buffer along Albany Post Road. The overall layout and character of the estate grounds, however, appears to have been largely retained. The Vanderbilts also employed a series of landscape architects to redesign the formal gardens constructed by Walter Langdon, Jr. in 1875. Early changes to the gardens included the replacement of the greenhouses with three new greenhouse structures: the Carnation House between the existing Tool House and Gardener's Cottage, the Rose House, and a pair of Palm Houses. The gardens were also redesigned and extended eastward, with major redesigns of the two eastern-most terraces designed by James L. Greenleaf and the addition of the rose garden designed by Thomas Meehan and Sons and Robert B. Cridland. New structures in the gardens included walks, walls, arbors, pavilions, pools, and fountains (Figure 13). Changes to the gardens were carried out over several years from 1905 to about 1932, when the Italian garden designed by Greenleaf, with its dense plantings of evergreen shrubs and hedges, was redesigned by Cridland as a flowering cherry allée with perennial border beds (Figure 14).

After Louise Vanderbilt died in 1926, Frederick Vanderbilt is said to have spent more time at Hyde Park and probably gave even closer attention to the

management of the landscape. A tree survey of the property completed in 1941 indicated a significant number of young trees, less than 13 inches in diameter, that were likely planted during the last twenty years of Frederick Vanderbilt's ownership. Plant purchases for the gardens documented in the estate's purchase ledgers during the 1920s and 1930s also indicate a continued interest in the upkeep of the estate grounds. Cridland's redesign of the Italian garden mentioned above was also undertaken during this period. When Frederick Vanderbilt died in 1938, he left his estate to his niece Mrs. James Van Alen, who gave it to the National Park Service in 1940.

NATIONAL PARK SERVICE, 1940-PRESENT

The National Park Service acquired the 211-acre estate property west of Albany Post Road as a National Historic Site in 1940. The farm property east of the road was not included in the acquisition and continued to be held in private ownership. President Franklin D. Roosevelt, a friend and neighbor of Frederick Vanderbilt, was instrumental in securing the estate as a National Historic Site, offering his strong endorsement and guiding the process through the legislature. Shortly after acquisition, the National Park Service conducted a thorough site inventory, including a detailed tree inventory, and developed a master plan for the park, although no substantial changes to the organization or character of the landscape were carried out. Two small parking lots, at the Coach House and at Bard Rock, and a larger parking lot on the terrace north of the Mansion were added for visitor use, and over the years the greenhouses, boat house, and tennis court were all removed.

SUMMARY OF SIGNIFICANCE

Vanderbilt Mansion National Historic Site is significant at the national level under National Register of Historic Places criterion A, association with a historic event or pattern of events, for its association with the Gilded Age of American wealth in the late nineteenth and early twentieth centuries. Country estates such as the Vanderbilt Mansion National Historic Site were the product of the economic, social, and cultural developments resulting from American industrialization following the Civil War. The site is also nationally significant under criterion C, distinctive design, as a rare example of early picturesque landscape design in America and for exhibiting the distinctive characteristics of Country Place Era landscapes. The period of significance spans the years from 1828, when then-owner David Hosack and landscape designer Andre Parmentier began developing the site layout, to 1938, when Frederick Vanderbilt died. While the history of the development of the site dates at least to 1797, extant design characteristics such as the circulation system, location of the main house, and overall landscape character were established with the Hosack-Parmentier design

beginning in 1828. Characteristics of the earlier designs do not appear to have survived with sufficient integrity to be included in the period of significance. The period of significance end date of 1938 marks the end of the site's association with Frederick Vanderbilt and the beginning of the transition to the National Park Service.

Vanderbilt Mansion National Historic Site was automatically placed on the National Register of Historic Places in 1966 by virtue of its status as a National Historic Site. At the time the park was created in 1940, its significance was specifically tied to the Vanderbilts and their residency. Additional research and analysis since then, however, has indicated that the site is also significant for its design, elements of which date to the early nineteenth century. Since 1797, four families have owned the estate, each adding a layer of design that retained elements of previous designs. Principles of the Romantic era of the late eighteenth century and picturesque landscape design that became popular in this country in the early nineteenth century are evident in the siting of buildings, selection of prominent views, the layout of the drives and paths, and the arrangement of the trees and other vegetation throughout the grounds.

PICTURESQUE LANDSCAPE DESIGN

Vanderbilt Mansion National Historic Site is significant under criterion C as a leading example of early picturesque landscape design as it was practiced in this country in the early nineteenth century is the only known landscape in America designed by Andre Parmentier (1780-1830) to survive. As such, the landscape embodies the distinctive characteristics and principles that guided much of American landscape design in the nineteenth century and that continue to influence both residential and public landscape design today.

Early development at Hyde Park was strongly influenced by perceptions of nature rooted in the ideals of the Romantic movement of the late eighteenth and early nineteenth centuries. Prior to this, nature was viewed as either savage and dangerous wilderness or as raw resources to be utilized and exploited. During the Romantic period, however, nature was often viewed as the unspoiled ideal, and proximity to nature, especially to visually dramatic scenes such as mountains and rivers, was considered proximity to God. Designed landscapes of the time both incorporated and emulated the natural features within and beyond their borders. Distant views were prized, and the built aspects of the landscape were laid out to showcase these views. Naturalistic forms were favored over geometric forms; paths and roads tended to follow organic curves, and trees and shrubs were planted in informal groupings.

This deference to natural forms was refined further in the nineteenth century by incorporating compositional rules borrowed from landscape painters. Picturesque landscape painters often took liberties with the landscape before

them, rearranging the elements to create a more balanced and aesthetically appealing composition. Landscape painting in the picturesque style was characterized by distinct foreground, middle ground, and background elements. Landscape forms that were favored include mountains, rivers, broken forest, and open fields, with large, mature trees often featured in the foreground. Structures such as pavilions and bridges, often inspired by classical architecture, were typically placed in the middle ground, occupying high knolls or tucked near the edges of the forest. The goal was to depict an ideal nature, one that exhibited equal parts balance and grandeur. Picturesque landscape designers applied these compositional principles to the landscape, arranging the features on the land as if they were the subject of a painting, with emphasis on views and aesthetic composition.

The principles of picturesque landscape design were first developed at the grand country estates in England in the eighteenth century. By the late 1820s, the style had come to the United States, strongly influencing the design of private estates, public parks, and institutional campuses through much of the nineteenth century. One of the earliest practitioners of picturesque design principles was Andre Parmentier. Andrew Jackson Downing, one of the principal landscape designers and scholars of the mid-nineteenth century, wrote in 1841, "The only practitioner of [landscape gardening], of any note, was the late M. Parmentier of Brooklyn, Long Island."[11] Downing elaborated:

> M. Andre Parmentier was the brother of that celebrated horticulturist, the Chevalier Parmentier, Mayor of Enghein, Holland. He emigrated to this country about the year 1824, and in the Horticultural Nurseries which he established at Brooklyn, he gave a specimen of the natural style of laying out ground, combined with a scientific arrangement of plants, which excited public curiosity, and contributed not a little to the dissemination of a taste for the natural mode of landscape gardening.
>
> . . .In short, we consider M. Parmentier's labors and examples as having effected, directly, far more for landscape gardening in America, than those of any other individual whatever.[12]

The full extent of Parmentier's contribution to the design of Hyde Park is unknown, but it is almost certain that he is responsible for the layout of the drives, the locations of the main buildings, and the arrangement of the major vegetation. Although none of the structures from the Hosack period survive and it is unknown whether any of the specimen trees date to the Parmentier design, the estate drives and overall layout of the grounds largely reflects Parmentier's layout of Hyde Park.

Consistent with the principles of picturesque landscape design, the layout of Vanderbilt Mansion National Historic Site as established by Parmentier reflects a conscious coordination of the designed elements and the natural features. The location of major structures, such as the main house and the drives, respond to topography, views, and the water features. Views from the areas around the

Mansion feature open grassy areas with mature specimen trees in the foreground, rolling meadows and bands of woodland in the middle ground, and the Hudson River and mountains in the background. Trees near the Mansion and main drive areas are either solitary or in small informal groups, arranged to frame and filter longer views. Roads and paths curve gently with the contours of the land and wind through small stands of trees. Arrangement of the buildings and other features is informal, relating to natural features such as slope, vegetation, or the creek. The effect is of an idealized pastoral landscape with balanced visual composition and an emphasis on sequential experience.

COUNTRY PLACE ERA LANDSCAPE DESIGN

Vanderbilt Mansion National Historic Site is also significant under criterion C as an example of Country Place Era landscape design as it was practiced in the late nineteenth and early twentieth centuries. When Frederick Vanderbilt purchased the Hyde Park estate in 1895, he began updating the property to reflect his needs and tastes. While honoring the overall layout of the property and retaining the main circulation system, Vanderbilt replaced nearly every structure on the property and added a number of new buildings, drives, bridges, and dams. The arrangement and style of these changes were characteristic of the period of residential landscape design called the Country Place Era.

The Country Place Era in American landscape design refers the period of design practice between 1880 and 1929 when the profession of landscape architecture was preoccupied with residential design commissions for the wealthy. The period spanned stylistic sub-periods, trends, and labels including Romantic, Victorian, Neoclassical, and Beaux-arts. Consistent throughout the period, however, were a number of principles that reflected the fashions and desires of an affluent class of clientele, including privacy, grandeur, neoclassical elements, and an integration of architecture and landscape.

The philosophy that guided country estate landscape design during the Country Place Era was summarized in the 1917 publication *An Introduction to the Study of Landscape Design*, a volume that served as the primary design textbook at Harvard University through the 1940s. As was typical of the period, the design philosophy was defined in terms of the desires of the wealthy owners:

> Each man will wish, first of all, a proper and convenient house in scale with the life which he expects to lead. He will also wish to own a piece of land which, together with the house, satisfies his sense of possession and plainly expresses his ownership. Usually a part of that expression will be some sense of boundary between what he owns and the neighboring properties. He will want a place for hospitality, for entertainment of his friends; and for himself and for his friends he will want a variety of interesting things to look at, and a number of interesting things which can be done. Further, he will wish to enjoy the expanse of free spaces, he will be glad to have a piece of property from which a distant view is obtained.[13]

Vanderbilt employed some of the most prominent designers of the time to create his country estate, including the firm of McKim, Mead, and White for the design of the Mansion and landscape architects James L. Greenleaf, Thomas Meehan and Sons, and Robert B. Cridland. These designers were strongly associated with the Country Place Era, working on numerous commissions for large country estates. The landscape as it was managed by Vanderbilt exhibited the characteristics typical of estates during the Country Place Era, including a naturalistic arrangement of elements, prominence and grandeur of the house, neoclassical styling of the architecture, and distinct sense of privacy.

THE GILDED AGE

Vanderbilt Mansion National Historic Site is significant under criterion A as a preeminent example of a country estate from the Gilded Age of American wealth. The Gilded Age refers to the period in America between Reconstruction and the early twentieth century marked by extravagant displays of wealth and excess by the country's upper class. The rapid industrialization of the country, population expansion, and other social and economic factors lead to a dramatic polarization of wealth. Industries such as steel, oil, and particularly railroads produced families of immense new wealth, who, eager to project an appearance of an established upper class, spent their money lavishly and conspicuously. Looking to the old European estates, many built extravagant estates in the country with large mansions, formal gardens, and extensive grounds.

The Vanderbilt family epitomized the patterns of the Gilded Age. A dynasty built by Cornelius Vanderbilt in the middle of the nineteenth century in the railroad industry, the family amassed great wealth over three generations. Frederick Vanderbilt, the grandson of Cornelius, inherited the railroad business and an enormous amount of money from his father, William Henry Vanderbilt. Frederick bought Hyde Park in 1895, toward the end of the Gilded Age, and proceeded to develop his grand estate.

Today, Vanderbilt Mansion National Historic Site continues to reflect the opulence, refinement, and grand ornamentation that characterized Frederick Vanderbilt's estate. The buildings, designed by some of the most prominent architects of the age, display the grand scale and classical style common in the estates and mansions of the time. The buildings are set in the extensive grounds with formal gardens, manicured parkland, and dramatic views. On the whole, the estate presents a showcase for Vanderbilt's fortune and a significant example of Gilded Age country estates.

UPDATED ANALYSIS AND EVALUATION

The existing conditions of Vanderbilt Mansion National Historic Site were documented as part of Volume 1 of the CLR from 1990 to 1992. This work was followed up by a Historic Plant Inventory in 1994 that documented the location and species of the specimen trees and shrubs in the historic core of the property. In the fourteen years that have lapsed since the conditions were recorded, the landscape has changed enough to warrant a summary and update of existing conditions and a comparison to historic conditions.

The analysis and evaluation of the historic character of the landscape is accomplished by examining the characteristics and features that help convey the site's integrity. Landscape characteristics are the tangible and intangible aspects of the landscape, ranging from large-scale patterns to site details and materials, that individually and collectively contribute to the site's historic character and aid in the understanding of its significance. At Vanderbilt Mansion National Historic Site, defining landscape characteristics include spatial organization, vegetation, circulation, views and vistas, and buildings and structures.

Each landscape characteristic is evaluated by comparing existing conditions to historic conditions to determine the extent to which the characteristic helps convey the historic character of the property. For each characteristic, the historic conditions of the landscape are described for the three primary periods that comprise the period of significance: the Hosack Period from 1828 to 1835; the Langdon Period from 1840 to 1894, covering the ownership of both Walter Langdon, Sr. and Walter Langdon, Jr.; and the Vanderbilt Period from 1895 to 1938. The existing conditions describe the property as it was surveyed in 2008. Finally, an evaluation is made of how intact the essential qualities of the landscape are based on conditions at the end of the period of significance, 1938, and whether the landscape characteristic contributes to the significance of the historic landscape.

SPATIAL ORGANIZATION

Spatial organization is the three-dimensional arrangement of features and spaces in the landscape. The arrangement of the buildings, structures, vegetation, and circulation elements at Vanderbilt Mansion National Historic Site follows the principles and characteristics of picturesque landscape design and Country Place Era design. Buildings are sited in conspicuous places intended to take advantage of the views and to make them visible throughout the property. Approaches are oblique and serpentine, following the topography and responding to vegetation. Emphasis is on sequential experience, views, and connection to the landscape.

Vanderbilt Mansion National Historic Site is situated on the eastern bank of the Hudson River on a high terrace that slopes steeply down to the water. The property is over a mile long north to south, but less than a half a mile wide at its

widest point, and is bordered by the river on the west and Route 9 on the east. Crum Elbow Creek flows across the southeast edge of the property, passing through a series of dammed ponds before emptying into the Hudson River at the southern point of the property. Built elements of the estate are organized in response to the natural features of the site, located primarily along the brink of the terrace or along the creek.

Historic Conditions

Hosack Period: The overall spatial organization at Vanderbilt Mansion National Historic Site was established in 1928 by then-owner David Hosack and designer Andre Parmentier (Drawing 1). Parmentier retained some of the aspects of the existing landscape, including the location of the main house, which was remodeled from Samuel Bard's house. Around the main house, Parmentier established a new system of curvilinear drives and paths that included a drive that wound along Crum Elbow Creek from Hyde Park Landing in the south, a new main entrance from Albany Post Road (now Route 9), and a serpentine approach road to the main house. The spatial sequence of the entrance drive was a defining element of the Hosack/Parmentier landscape, descending the grade via a straight section before crossing a bridge over the creek and ascending the opposite slope. This section of the drive swept wide to the south before switching back to the north and approaching the house at an angle. A greenhouse and ornamental gardens were located just south of the main house, north of their current location. Other structures added during Hosack's ownership included barns, cottages, and other outbuildings, and ornamental structures such as pavilions and large-scale urns, which were carefully located to compose aesthetically balanced views from the main house, drives, and terrace edge.

Langdon Period: Walter Langdon, Sr. and his son Walter Langdon, Jr. retained most of the site's organization as it existed when the elder Langdon acquired the property in 1840 (Drawing 2). The northern third of the property, which was separated from the rest of the property following Hosack's death, was developed as a separate estate by a series of owners between 1842 and 1905. In response to this, Walter Langdon, Sr. created a new exit at the new northern boundary of the property. Langdon also relocated the gardens further south to their present location, creating a walled garden on a series of terraces with elaborate greenhouses.

Vanderbilt Period: When Frederick Vanderbilt purchased Hyde Park in 1895, he proceeded to redevelop the estate to suit his needs. With the exception of the formal gardens that were built by Walter Langdon, Jr. in 1875, Vanderbilt removed all existing structures and replaced them with his own, while retaining the overall organization of the estate (Drawings 3, 4 and 5). The new Mansion was built in the same location as Hosack's and Langdon's houses were built. The Pavilion was built on or near the location that had been occupied by a coach

house since around 1829. Most of the drives were retained, including the main entrance drive and the drive along Crum Elbow Creek. All three entrances were also retained until 1905, when Vanderbilt acquired the northern portion of the property and relocated the northern entrance within it. Vanderbilt retained Bard Lane along the northern property boundary but removed all other aspects of the development from the Sexton Tract.

Existing Conditions

Today, the overall organization of Vanderbilt Mansion National Historic Site is essentially unchanged since Vanderbilt's death in 1938 (Drawings 6 and 7). The Mansion sits roughly in the center of the property on the edge of the terrace overlooking the river. The east façade of the Mansion faces onto a lawn populated by large specimen trees and encircled by the entrance drive, or Great Circle. Lawn also stretches to the south of the Mansion between it and the formal gardens. Like the East Lawn, the South Lawn also features large specimen trees, including the enormous ginkgo tree. Five hundred feet north of the Mansion is the Pavilion, also on the edge of the terrace. The Mansion and Pavilion, together with the gardens, entrance drive, and great lawns, comprise the historic core of the property.

The main entrance to the property is from Route 9 on the eastern edge. The semi-circular Main Gate features a gatehouse and iron gates. The entrance drive passes through the semi-circular gate, through an allée of sugar maples, and over the White Bridge before winding up the hill toward the Great Circle. Just west of the bridge, the road forks to the left and leads along Crum Elbow Creek toward the Coach House and the southern end of the property.

Two entrances provide access to the property in the south. One is an informal entrance at the Coach House, which after passing the Coach House, crosses the arched cobblestone bridge and connects to the drive along the creek. The other entrance is the South Entrance from Dock Street near the river, which like the Main Entrance, is formed by a semicircular alcove in the perimeter wall, and just inside the gate is a gatehouse that matches the one at the main gate.

North of the Pavilion, the main drive passes along the edge of the terrace, providing views of the rolling meadows, woodlands, and river below. On the east side of this road, a 140-car parking lot built by the National Park Service in the 1940s provides visitor parking. A large meadow, largely free of trees, spreads out to the north of the parking lot. The main drive continues on to the north exit gate, similar in design to the other two gates but without a gatehouse. Beyond the North Gate, the drive curves toward the west becoming Bard Lane, which leads down to Bard Rock on the northern corner of the property.

Evaluation

The existing spatial organization of Vanderbilt Mansion National Historic Site represents a continuum of development from 1828 through 1938, simultaneously reflecting the values that guided the early design of the property and the ways in which subsequent owners adapted the property to their needs. The spatial organization conveys the principles of picturesque landscape design and embodies many of the qualities that characterized Country Place Era design. Spatial organization is a contributing characteristic of the Vanderbilt Mansion National Historic Site landscape and helps to convey the site's significance.

VEGETATION

Vegetation refers to the trees, shrubs, grasses, groundcover, and other plant material, whether indigenous or introduced, as well as the larger patterns of vegetation cover of the site. The vegetation at Vanderbilt Mansion National Historic Site is a diverse mix of native and cultivated plants, including dense woodlands, open meadows, lawns, specimen trees, and formal gardens. The patterns of vegetation have remained remarkably stable throughout the history of the site, defining its historic character and articulating the principles that guided its design. Additionally, many of the individual trees can be dated to at least the Vanderbilt period, and some may date as far back as the Hosack or Bard period.

Historic Conditions

Hosack Period: The larger patterns of vegetation at Vanderbilt Mansion National Historic Site were in place when the property was first developed in the late eighteenth century. The steep slopes between the river and the top of the terrace were covered by long north-south bands of deciduous woodlands interspersed with large open meadows. The top of the terrace was mostly open, with lawn and meadow punctuated with singular or small groupings of trees. The combined effect of the varied vegetation with the rolling topography created a visual scene of bucolic ideal, a quality strongly valued in picturesque landscape design and a perfect starting point for laying out a country estate (Figure 15). Early descriptions of the property extolled the exquisite views and prominently featured the vegetation as an asset of the estate. In 1830, Dr. Hosack's friend Dr. James Thacher described the vegetation of Hyde Park:

> The forest trees which surround the domicile are identically the natives which are found in our forest; some of the oaks are a century in age, and all are large and so grouped and intermingled over the lawn as to present at every step the most fantastic views that can attract the pencil of the artist.[14]

Another visitor to Hosack's estate, Thomas K. Wharton, described in 1832,

> . . .the lawns, parterres, walks, and broad winding carriage drives are all kept in the highest order—and nothing can exceed the beauty of the forest groups and clumps of ornamental trees and shrubs which are disposed with the utmost skill over the whole place. . .[15]

Vegetation was an integral aspect of Parmentier's design for Hyde Park. Parmentier would have utilized existing trees, many of which were planted by Samuel Bard during his thirty years residency, as well as extensive plantings from his own nursery in Brooklyn. Vegetation included ornamental trees and numerous shrubs carefully placed throughout the grounds to contrive specific views and to produce varying sequential experiences.

In an essay he published in 1928, at roughly the same time he was designing the Hyde Park landscape, Parmentier articulated many of the principles he saw as essential in creating a "modern" picturesque garden. In the essay, titled "Landscapes and Picturesque Gardens," he offers a number of suggestions for the use of vegetation that give clues to how he may have used plantings at Hyde Park. According to Parmentier, "the modern style presents to you a constant change of scene, perfectly in accordance with the desires of a man who loves, as he continues his walk, to have new objects laid open to his view."[16] He advocates screening undesirable prospects and neighboring buildings while emphasizing appealing distant views of neighboring lands in a way that suggests they are an extension of the owner's property.

Parmentier favored serpentine drives, but insisted that the "winding should have a reason—that is to say—some groups of trees should be so placed as to appear to be the cause of it."[17] Following this guidance, Parmentier would have placed trees along the curves of the entrance drive and other drives in Hyde Park so that they would appear to wind their way through an existing landscape. Other suggestions in the article include using trees of a deeper green near the house and of thin and light foliage in the distance to enhance the perception of perspective, emulating a similar technique used to suggest depth in a landscape painting, and using ornamental fruit trees for their visual virtues as well as for production.

Hosack's estate also featured a greenhouse with an ornamental garden. As founder of the Elgin Botanical Gardens in New York City, Hosack was an avid horticulturalist. Thatcher described Hosack's greenhouses and listed magnolia, bird of paradise, ficus, and a large collection of pines among their contents. He also describes the surrounding gardens:

> Contiguous to the greenhouse is an extensive ornamental garden, in which is arranged in fine style, a beautiful variety of trees, shrubs and flowers, among which stands that glory of the forest, the magnolia glauca [sic.], bearing large white flowers, perfuming the atmosphere with a delightful fragrance.[18]

Other descriptions of the ornamental gardens mention flower beds, lawn, parterres, and shrubs.[19]

It is unknown who designed the ornamental gardens around the greenhouses. Hosack may have laid them out himself, or Parmentier may have included them in his design for the larger estate, although he has expressed an unmistakable disdain for parterres.[20]

Langdon Period: While the development at Hyde Park during the Hosack ownership period was brief and intense, the landscape development during the nearly sixty years that the Langdons owned the property was more gradual. The most significant change to the landscape was the aforementioned relocation and redesign of the formal gardens by Walter Langdon, Jr. in 1875. Otherwise, the existing vegetation was allowed to mature with no major changes (Figure 16). In his later days, Walter Langdon, Jr. apparently allowed the condition of the property to decline. One writer described the grounds in 1896:

> When Mr. Vanderbilt purchased it…, the place was somewhat neglected and run down. Mr. Vanderbilt found a beautiful park all grown up to underbrush. The lawns were covered with the wild growth that nature puts forth under forest trees…"[21]

Another reporter described the trees in more detail:

> The brownstone staircase led to a fine lawn, beyond which was a grove of fir trees. On the east lawn there were also as on the river side some fine trees and all through the park could be seen English elms, maples, lindens, beeches and pines with occasional tamarack, dogwood and rare specimens of South American and Japanese trees.[22]

Vanderbilt Period: Vanderbilt's initial flurry of development in the first years after he bought Hyde Park focused on the construction of buildings, bridges, and other major structures, but there is evidence that he also planted a considerable number of new trees around the property. Property surveys in 1901 by Charles A. Platt and J. L. Burley show, in addition to large trees existing from the Hosack and Langdon periods, small trees that were likely planted by Vanderbilt between 1895 and 1900. The arrangement of the new trees largely followed the patterns established by Vanderbilt's predecessors, characterized by singular or groups of trees over lawn. Over the rest of Vanderbilt's residency, he continued to add trees incrementally to the estate in this fashion.

Like the previous owners of Hyde Park, Vanderbilt largely left the major patterns of woodlands as they were when he acquired the property, with the significant exception of planting stands of conifers in several places on the property. These stands consisted of evenly spaced monocultures of white pine, hemlock, or spruce. Vanderbilt may have simply planted these stands in an effort to establish forest cover quickly and economically, but it is possible he planted some of these trees as forays into the practice of forestry, intending to manage and harvest the trees. Forestry was a young profession in America at that time, and a pursuit of its practices would have been consistent with the image of a gentleman farmer. By 1938, conifer plantations grew near the main entrance drive, in a band along Route 9, and in the northwest portion of the property along the river.

The long conifer stand that extended along Route 9 on the eastern boundary of the property was intended as a screen to block views in and out of the property and increase the sense of privacy of the estate. This screen was planted in three

successive efforts separated by a number of years. The oldest, which is closest to the road and extends from the Great Circle to about half way to the northern boundary, was installed around the time the perimeter wall was built in 1898. The second row was planted in 1906 when the Vanderbilts acquired the northern portion of the property and extends along the west side of the first planting and then along the highway to the northern property boundary. The third planting consisted of hemlock trees planted around 1937 in a double row along the west side of the previous two groups. The effect was a tiered conifer screen with the tallest trees along the road and the newer trees toward the property.

Existing Conditions

Although the vegetation at Vanderbilt Mansion National Historic Site has evolved since the historic period, the larger patterns that help define the site's historic character are largely unchanged. Existing vegetation can be categorized by type as woodlands, meadows, lawn, trees over lawn, shrubs, and ornamental annuals and perennials.

Woodlands: Woodlands occur in long contiguous belts, primarily along the river bank, on the slopes below the terrace, and along the course of the creek (Figure 17). Woodlands include deciduous woodlands, dominated by oaks, maples, and tulip trees and nearly free of conifers; planted conifer groves consisting of single-aged stands of white pine, hemlock, and spruce; and mixed woodland, located primarily along the creek. The composition and character of the woodlands appears to have changed little over the years, but the extent of the woodlands have increased in recent years, with historical evidence indicating that woodlands today cover considerably more of the grounds than they did during the historic period. Aerial photos indicate that woodlands now cover ten to fifteen percent more area than they did in 1938.

Meadows: Meadow grasses and forbs cover nearly twenty-five percent of the property, and together with woodlands comprises the wilder portions of the property that form a foil for the cultivated park-like areas (Figure 18). The meadows, which occur in long bands on the slopes below the terrace, are characterized by both native and exotic grass and forb species between two and four feet tall. The meadow areas are mowed once or twice a year to maintain their character, encourage native species, and suppress woody shrubs and trees.

Where the meadows occur on steep slopes, it is difficult or dangerous to mow them effectively. In these places, woody vegetation has grown up, altering the meadow character. In many places this has impacted the views, especially below the Mansion and Pavilion. In other places, such as below the formal gardens, the meadows have reverted back to dense woodland.

Lawn: Much of the property is covered by lawns maintained with turf grass mowed regularly to a couple of inches (Figure 19). Lawn areas are concentrated

in the historic core around the Mansion and Pavilion and include the South Lawn, the East Lawn within the Great Circle, and the North Lawn north of the visitor parking lot. These lawns are an essential element of the landscape character, creating an open park-like setting for the estate. In addition to the large lawns, turf grass can be found throughout the historic core along roads, around structures, and within the formal gardens.

Trees over lawn: Also referred to as specimen trees, large singular or small clusters of trees planted over open lawn comprise a significant portion of the property and are a major character defining vegetation type (Figures 20 and 21). Extant specimen trees date at least to the Vanderbilt period, and many likely date to earlier periods. It has been speculated that some of the trees, such as the ginkgo on the South Lawn, may date to the ownership period of Samuel Bard in the early 1800s (Figure 22).[23]

The locations, sizes, and species of trees in the historic core have been recorded repeatedly over the years. In 1901, Charles Platt completed a survey for Frederick Vanderbilt which included specimen tree locations and species. A similar survey was conducted in 1940 as part of the master plan when the National Park Service acquired the property, and in 1994, a detailed Historic Plant Inventory was completed that recorded the location and size of specimen trees and shrubs in the historic core.

The park has in place a methodical plan for the replacement in kind of aging and failing specimen trees, involving the removal of the tree and the stump and the replanting of a replacement tree of the same species in the same location. This process has ensured continuity in the specimen tree composition of the historic landscape, at least in the recent years in which it has been in place. Although the replacement in kind of specimen trees has been a goal of the park since its inception, there were periods when resources did not allow for a strict adherence of this policy, and a number of trees indicated on the 1940 survey no longer exist.

Shrubs: Planted shrubs are scattered throughout the property and clustered around the formal gardens, but are not currently abundant enough to represent a conspicuous component of the landscape. Most of the shrubs are broad-leaf evergreens.

The Historic Plant Inventory for Vanderbilt Mansion National Historic Site completed in 1994 recorded a number of shrubs just outside the garden on the west side alongside the path from the Mansion. It is unknown if these shrubs, mostly mock orange, forsythia, and lilac, date from the Vanderbilt period or were planted during National Park Service's tenure. Most of these shrubs have been removed since the plant inventory was completed. More shrubs were recorded outside of the western end of the garden. These were mostly mock orange and privet (*Ligustrum sp.*). Some of these have been since removed and the remaining

shrubs are covered in honeysuckle (*Lonicera sp.*), akebia, and grape vines, which form large, indistinct mounds.

Other shrubs, including rhododendrons, are located throughout the property. Clusters of rhododendrons are growing along the drive along Crum Elbow Creek and near the South Gatehouse. Large rhododendrons grow as foundation plantings in front of the South Gatehouse.

Ornamental Annuals and Perennials: The vegetation at Vanderbilt Mansion relied largely on lawns and specimen trees and the natural features, with little seasonal ornamental vegetation. The exception was in the formal gardens, where beds were filled with a large variety of annuals and perennials. Today these beds are maintained by the Frederick W. Vanderbilt Garden Association and are planted with new plants each year. The plantings follow the larger patterns established by Vanderbilt's gardeners, with annuals on the top two garden terraces planted in single color, uniform geometric beds (Figure 23), perennials in the next two terraces in mixed variety and color (Figure 24), and roses in the lower terrace. The varieties planted today are based in part on historical documentation and on the recollections of one of Vanderbilt's gardeners, Alex Knauss, who in the 1960s drew maps of the planting beds as he remembered them. The available historical record was incomplete, however, and numerous substitutions have been made, so that the planting plans today represent a mix of historic and non-historic plants. The plants that are planted each year, as well as the condition and overall effect of the plantings, vary due to weather, plant sources, and available resources.

In addition to the annuals and perennials in the planting beds, the gardens contain a number of vines, including honeysuckle, trumpet vine, and grape, that are trained over the arbors and pavilions. These vines are consistent with the use of vines in Vanderbilt's garden, but even with routine pruning these vines grow lushly in the summer, eventually growing beyond their historic scale and obscuring the structures beneath them.

Evaluation

The overall patterns of vegetation that characterized the Vanderbilt Mansion National Historic Site landscape during the historic period are largely intact today. These include the bands of woodlands and meadows below the Mansion terrace, the woodlands along the creek, the broad lawns with specimen trees, and the ornamental plantings in the formal gardens. Although there have been changes to the elements of these patterns, the vegetation still strongly conveys the historical significance of the site.

CIRCULATION

The circulation system of Vanderbilt Mansion National Historic Site evolved over the years, with each successive owner retaining portions of the previous system while changing it to suit their needs and the prevailing style.

Historic Conditions

Hosack Period: Much of the basic structure of the circulation system was designed by Andre Parmentier in 1828. Parmentier believed that forms in the landscape should mimic nature, and that straight lines and geometric forms should be avoided. Accordingly, he laid out the Hosack estate with serpentine drives that wove their way over the topography and through the vegetation. This principle was exemplified by the Entrance Drive that, after crossing Crum Elbow Creek, climbed the hill toward the main house in a sweeping switchback that approached the house obliquely. The drive crossed the open terrace past the Mansion before curving back toward Albany Post Road to exit the property. A second drive extended from the Hudson River landing at the south end of the property to the Entrance Drive, following Crum Elbow Creek. Together, these drives provided the primary experience of the estate landscape, showcasing the unique natural features and views.

Bard Lane survived from Samuel Bard's residency (and possibly from John Bard's residency in the late 1700s). This drive extended from Albany Post Road along the north boundary of the property to the river at Bard Rock.

In addition to the wider drives that could accommodate wagons and carriages were a number of footpaths. One extended along the edge of the terrace from Crum Elbow Creek in the south, past the Mansion, to a point near Bard Lane. A second path descended from the terrace rim over the sloped meadows to Bard Rock.

Langdon Period: As with the spatial organization of the estate, the primary change to the circulation during the period that the Langdons owned Hyde Park was the change in the north exit to accommodate the new northern boundary. The majority of the rest of the circulation system otherwise appears to have been unchanged during the Langdon period.

Vanderbilt Period: Vanderbilt altered the circulation system to suite his needs and tastes, but retained much of the original system as it was laid out by Parmentier. The Entrance Drive from Albany Post Road to the Mansion, as well as the drive along Crum Elbow Creek, were retained. In the early years of his ownership, Vanderbilt constructed a new South Gate and a new drive through the lower woodlands along the river. When the Sexton Tract was reunited with the rest of the property in 1906, the Lower Woodland Drive was extended to Bard Rock and the North Gate was moved back toward the northern end of the property. The exit drive was realigned to follow the edge of the terrace toward

the North Gate, once again providing sweeping views of the river. In 1910, the drive that passed in front of the Mansion was realigned to the east, forming the Great Circle.

The surface of the drives during Vanderbilt's ownership was gravel or crushed stone. Many of the drives, including the Entrance Drive and South Drive, featured integrated concrete curbs and gutters. Other drives, including the Great Circle, were lined with cast stone curbs without gutters. Footpaths were also likely surfaced with gravel or crushed stone.

Existing Conditions

Vehicular Circulation: Today, vehicular circulation within Vanderbilt Mansion National Historic Site is accommodated by a system of paved drives, entrance gates, and parking lots. The main entrance is through the gate on the eastern boundary of the property off Route 9. From there, the entrance drive descends along a straight segment through an allée of sugar maples to the creek, which it crosses via the White Bridge. From there, the drive splits, with the main circulation route leading through a wide serpentine arc up the terrace to the Great Circle and the Mansion.

The Great Circle, the roughly circular main drive in front of the Mansion, was created in 1910 when the existing drive was redesigned to provide a more formal entry. Today, vehicular circulation from the Main Gate is routed along the eastern half of the Great Circle, with the western half blocked by moveable barricades. From the Great Circle, the drive continues north past the visitor parking lot toward the North Gate and Bard Rock. A one-way drive also leads from the two southern entrances (the South Gate and the Coach House entrance) northward along the creek, connecting to the main drive at the western end of the White Bridge.

During the Vanderbilt period, the roads were surfaced with crushed stone with concrete curb and gutter combinations or cast stone curbs styled to resemble cut blue stone. Today, paved drives throughout the property are surfaced with a dark gray or black asphalt of a uniform texture and color. The drives are typically 12 feet wide and edged with either concrete curb and gutter combinations, cast stone curbs, or turf shoulders. All of the curbing in the park was recently rebuilt using historically documented materials and design.

Pedestrian Circulation: Pedestrian circulation is accommodated primarily with gravel foot paths. These include paths that lead from the Pavilion to the Mansion and from the Mansion past the formal gardens to the South Drive between the South Gate and Coach House entrance. The alignment of the latter, which follows the edge of the terrace, is the same as it was during the Vanderbilt period and likely dates back to the earliest development of the property. Paths between

the formal gardens and the Pavilion have changed alignment in places, but follow the basic route that they did in the Vanderbilt period.

Two additional footpaths from the Vanderbilt period remain today. One leads from the White Bridge to the Great Circle, basically short-cutting the large arc that the vehicular drive makes. This path appears to be part of the Parmentier circulation plan. The path is about four feet wide and surfaced in places with gravel and other places either with larger stone aggregate or earth. The path is rutted and eroding, and weeds are growing in the trail matrix. The second path leads from the northeast corner of the formal gardens to the drive along the creek, and is of similar character and condition. Neither of these paths has been maintained to the level that those around the Mansion and formal gardens have, and they are showing signs of erosion, destabilization, and encroachment of weeds and turf.

A footpath leads through the forest along the south side of Crum Elbow Creek from the White Bridge to the Coach House. This path, which appears to date from the Vanderbilt period, has also been subject to some neglect, and it is washed out and hard to follow in places. In one segment just below the Power House, the path passes along the steep bank of the creek on a causeway of large flat flagstones. Many of the stones have collapsed or have been washed away, making passage along this section difficult. Most of the stones are still present in the creek bed nearby.

A forest drive that extends from the South Gate northward to Bard Rock was built by the Vanderbilts in the early twentieth century. Today this drive is closed to vehicular traffic and functions as a walking trail. The trail is the width of a single-lane road and thus wider than the footpaths elsewhere in the property. It is surfaced in dirt and gravel and passes over a number of masonry culverts as it winds along the river bank.

Beyond these pedestrian routes, there is little accommodation for pedestrian circulation within Vanderbilt Mansion National Historic Site. A short section of concrete sidewalk adjoins the western edge of the visitor parking lot. Pedestrians traveling elsewhere in the property tend to follow the paved vehicular drives or their grass shoulders.

Evaluation

The primary change to the circulation since the end of the historic period has been the surface material, a change from gravel to asphalt necessary to accommodate visitor traffic. Other changes, including the construction of parking lots and new footpaths, were also done for visitor service. No major circulation feature present in 1938 has since disappeared, resulting in a historic circulation system that is intact today. Furthermore, because earlier circulation features, particularly those designed by Andre Parmentier, were incorporated

into subsequent estate layouts, the existing circulation system still conveys those earlier designs. The circulation system at Vanderbilt Mansion National Historic Site contributes to the historical significance of the site.

VIEWS AND VISTAS

Views are an essential character defining element of Vanderbilt Mansion National Historic Site. Views of the river and the mountains beyond from the areas around the Mansion were a primary asset both of the location and the design of the estate landscape. Drawings, photographs, and descriptions of the property throughout the historic period prominently feature the dramatic views. Today, while reduced in places, views continue to characterize the historic landscape.

Historic Conditions

All Periods: Views to the west from the Mansion were of primary importance during all of the historic periods. These views conformed to idealized standards valued by picturesque landscape designers (and the landscape painters they looked to for inspiration). Such views typically had a foreground, middle ground, and background and contained a varied landscape of natural features such as rivers and mountains, forests, meadows or agricultural fields, and large mature trees. The views from the Mansion offered these characteristics with the Hudson River and Catskill Mountains in the background, a rolling landscape of woodlands and meadows in the middle ground, and large specimen trees and lawn in the foreground.

Samuel Bard was the first to locate his house in 1797 in the place that the Vanderbilt Mansion now occupies. The house was sited at the highest point in the property immediately on the verge of the steep terrace slope. To the west, the bands of forest and meadow spread out below the house over an undulating terrain, beyond which was the broad Hudson River, and in the distance, the Catskill Mountains. These elements composed an ideal picture of a country landscape that was so desired by the successive owners of Hyde Park. After Samuel Bard, David Hosack, Walter Langdon, Sr., and Frederick Vanderbilt all chose the same location for their respective mansions.

Descriptions and drawings from all of the historic ownership periods indicate that the slope immediately below the house was clear of tall vegetation, providing unimpeded views from the house and the lawn areas around it. A few large trees were located along the terrace edge to frame views. The primary views were to the southwest along the river and to the northwest, where a small island and a undulation of the eastern bank of the river provided interest to the middle ground, while the far bank and a series of distant mountains established a background that receded into the distance. Three drawings of this view done from the same vantage point, one from the Bard period, one from the Hosack

period, and one from the Langdon period, show the view to the northwest to be essentially unchanged during that time. Furthermore, aerial photographs from 1942 suggest that the view was the same at that time as well.

Other views throughout the property were mentioned in descriptions by Hyde Park visitors and depicted in drawings. These include views from the ridge that climbs from the southern end of the property up to the house on the terrace, views from the drive that extended from the Mansion northward to the north exit gate, views from Bard Rock, and shorter views within the property of features like Crum Elbow Creek, the White Bridge, ponds, lawns, and the Mansion. While these views did not typically have the prominence of the views from the Mansion, they nonetheless were essential characteristics of the estate landscape.

Existing Conditions

The quality and content of the views today are similar overall to those of the historic period. The primary views continue to be those from the Mansion, from the Pavilion, and from the overlook drive north of the Pavilion. The patterns of forest bands and open meadow still characterize the land below the terrace, and limited development along the opposite river bank has resulted in historically intact views. Some changes in vegetation, however, have altered historic views to a degree.

Views today are reduced from historic conditions, primarily by the growth of trees and brush on the slopes immediately below the terrace edge and the expansion of forested areas along the river. A number of conifers are growing on the slope between the Mansion and the Pavilion restricting or obscuring views altogether. Tree-of-heaven and other woody brush has also grown up in thick obscuring thickets on the slope. Periodic attempts to control the tree-of-heaven have restored the view for a time, but eventually the trees grow in again and once again block the view. The band of woodland on the slope below the formal gardens has also expanded to obscure westward views from the footpath that passes there, significantly altering the character.

Evaluation

Despite reduction or loss of some of the historic views at Vanderbilt Mansion National Historic Site, the majority of the historic views are still intact. The views of the river and mountains from the edge of the Mansion terrace still convey the sense of awe that first drew people to this site. The composition of the views, with foreground, middle ground, and background, continue to convey the picturesque principles that guided the early development of the estate. Furthermore, lost or compromised views can be recaptured through clearing of vegetation to restore historic conditions. The views at Vanderbilt Mansion National Historic Site contribute to the historic character of the landscape.

BUILDINGS AND STRUCTURES

Through each of the ownership periods at Vanderbilt Mansion National Historic Site the buildings and structures, showcased as the jewels of the property worthy of their setting, reflected the scale and style favored by the country's upper class through the early twentieth century. The focal point of each iteration of the estate was the main house, a classically styled mansion built on the highest and most prominent point of the property. The main house was supplemented by guest houses, coach houses, and other buildings, bridges, greenhouses and other garden structures, and ornamental structures located throughout the landscape.

Historic Conditions

Hosack Period: When David Hosack acquired Hyde Park in 1828, he set about redesigning the estate in the style of an English country landscape with the help of Andre Parmentier. Although the plan called for a substantial redesign of the landscape with new roads, outbuildings, gardens, and greenhouses, Hosack retained Samuel Bard's house, albeit significantly enlarged and remodeled. The location of Bard's house, perched at the edge of the terrace overlooking the Hudson to the west and a broad level lawn to the east, could hardly be improved upon, but Hosack added a large wing to each side of the house and a new façade. The house was symmetrical and classically proportioned, but somewhat simple in its decoration. In addition to the mansion were a number of outbuildings, including a coach house and stable, "built of stone in a chaste style of Grecian simplicity," two gate lodges with projecting porticos with Greek Doric columns, greenhouses, barns, and a gardener's cottage. [24]

Consistent with the principles of picturesque landscape design, structures were used in the landscape as decorative elements to evoke romanticized images of ancient Greece and Rome. These structures included two round pavilions with domed roofs and columns, ornamental bridges, and decorative elements such as a grossly oversized urn atop a large pedestal on one of the knolls in the north meadow between the mansion and Bard Rock.

Langdon Period: For five years after Walter Langdon, Sr. bought the property, he and his wife lived in Hosack's house, until it burned in 1845. The new house, which Langdon built in the same location, was similar in scale and character to Hosack's house, but with a somewhat more classical style. Notable style changes include a flat roof with a balustrade parapet and semi-circular porticos on the north, south, and west facades.

Walter Langdon Sr. died only seven years after purchasing Hyde Park, about the time the new mansion was finished. Walter Langdon, Jr. owned the estate for more than forty years following his father's death, but considering this time span, made few substantial changes to the buildings and structures. Most of the documented changes during this time include changes to the farm property to the

east, as well as the addition of the gardens and greenhouses. It isn't known exactly what became of the ornamental structures Hosack erected, including the round pavilions and the decorative urn. These features are mentioned in descriptions of Langdon's property early in his tenure, but are not mentioned in detailed descriptions in 1890, not long before Frederick Vanderbilt bought the estate.

In 1874, Langdon employed the architecture firm of Sturgis and Brigham to design a formal garden complex. The complex consisted of two cottages (a gardeners cottage and a Tool House) connected by a greenhouse, a conservatory, and enclosing walls. These architectural elements enclosed a series of six terraces that stepped down the hill, each containing a formal garden of geometric beds.

Vanderbilt Period: After initially planning to remodel and expand `the Langdon house, the Vanderbilts decided the structure was not worth saving and opted instead for a new house. The employed the firm of McKim, Mead and White to design the new house as well as many of the other structures that were to be built over the next few years. The first building to be built was a guest house called the Pavilion, which the Vanderbilts used as a residence while the Mansion was being constructed. The Pavilion was completed in a mere three months in the fall of 1895. The construction of the Mansion commenced the following summer and continued until its completion in 1899. McKim, Mead and White designed a number of other buildings for the estate during this time, including the two Gatehouses, but they were not the exclusive architects for the Vanderbilt estate. The Coach House was designed by the New York architect Robert H. Roberts and completed in 1897. The engineering firm of W.T. Hiscox designed and built many of the structures associated with Crum Elbow Creek including three dams, the White Bridge, and the rustic fieldstone Power House. The other rustic fieldstone structure, the Coach House Bridge, was apparently designed by the construction firm Norcross Brothers, who built most of the structures at Hyde Park. Another bridge was built in 1912 to carry Bard Lane over the New York Central Railroad tracks to Bard Rock.

Vanderbilt employed a series of architects and landscape designers to redesign the gardens that Walter Langdon, Jr. had built in 1875. The Tool House and the Gardener's Cottage from Langdon's gardens were retained (although the greenhouse between them was replaced), as was the potting shed, which was originally part of one of Landon's greenhouses and was saved and incorporated into a new greenhouse. Also retained were many of the perimeter walls and the terraced structure of the gardens. To these were added new greenhouses, walls, pergolas, pools, and garden pavilions.

Existing Conditions

Today, nine buildings remain from the Vanderbilt period: the Mansion, Pavilion, Coach House, the two Gatehouses, the Power House, Gardener's Cottage, Tool

House, and Potting Shed. In addition to these buildings, numerous structures remain, including the White Bridge, Coach House Bridge (Rustic Bridge), Railroad Bridge (Bard Rock Bridge), the subway, three formal gates and stone perimeter wall, an iron fence along the railroad tracks, creek dams, and garden structures. The most notable losses to the structures at Vanderbilt Mansion National Historic Site are the three greenhouses, as well as the boat house at Bard Rock, which were removed by the National Park Service.

The extant buildings of the Vanderbilt estate represent a variety of complementary architectural styles. The mansion, the centerpiece of the estate and in the most prominent position, is grand and formal, representing classic Beaux-Arts design. Other structures, such as the Gatehouses, the gates, and the perimeter wall, exhibit similar formal and restrained style. The Pavilion is more understated than the Mansion, both in scale and design, and demonstrates somewhat more refined Palladian features. The Coach House contrasts these structures with its more rustic Queen Anne styling, Roman brick walls, stucco, and half-timber gables. More rustic still are the Coach House Bridge and the Power House, with their exposed fieldstone construction. These structures are tucked along the creek in the deep shade of the forest. Although all of these structures differ stylistically from each other, all of the structures represent styles that were popular in Country Place and estate design of the period, and each building complements its immediate surroundings.

Evaluation

The buildings and structures at Vanderbilt Mansion National Historic Site contribute to the historical significance of the site. The Mansion, Pavilion, Coach House, bridges, and garden structures in particular are focal points and organizational elements that strongly reflect the character of the historic period. Most of these buildings and structures have been well maintained or recently restored and are in good condition with few non-historic alterations. The loss of the greenhouses negatively impacts the character and spatial organization of the gardens, but overall does not detract significantly from the integrity of the landscape.

SUMMARY OF INTEGRITY

Integrity, as defined by the National Register program, is the ability of a property to convey its historical identity during the period of significance. The Vanderbilt Mansion property retains all seven aspects of integrity including location, design, setting, materials, workmanship, feeling, and association. The site retains its historical location, setting, and association with its former property owners, strongly evoking the historic scene through its extant features, landscape patterns, and views to the Hudson River. Alterations to the site have been made

since the end of the period of significance to accommodate park operations and visitor services, including the removal of the garden greenhouses, remaining buildings on the Sexton tract, addition of a visitor parking lot, and removal of foundation plantings around the mansion. Despite these changes, the defining features have been retained, thereby preserving the site's ability to convey its significance. The majority of the buildings and structures at Vanderbilt Mansion National Historic Site reflect the design, materials, and workmanship of the period of Vanderbilt ownership from 1895 to 1938. These include the Mansion (1899), the Pavilion (1895), the Coach House and a Power House (1897), two gatehouses (1898), and two bridges and three dams (1897-1898). The basic structure of the formal gardens and the two structures associated with the gardens, the Tool House and the Gardener's Cottage, date from the Langdon ownership in 1878. Redesigns of the gardens, including changes to the bed layout, garden organization, and walls, steps, and other structures, were carried out during the Vanderbilt period. Finally, the primary elements of the circulation system, the basic site layout, and the overall character of the landscape vegetation were established as far back as the 1828 Hosack-Parmentier design. The current landscape is a layered combination of materials from each period and conveys the site's historic associations and feeling of an early American picturesque landscape design and an impressive Country Place Era estate.

INTRODUCTION ENDNOTES

[1] Order Designating the Vanderbilt Mansion National Historic Site, Hyde Park, N. Y., Dec. 18, 1940—5 F. R. 5282.

[2] Patricia M. O'Donnell, Charles A. Birnbaum, and Cynthia Zaitzevsky, *Cultural Landscape Report for Vanderbilt Mansion National Historic Site, Volume 1: Site History, Existing Conditions, and Analysis* (hereafter CLR Volume 1) (Boston: North Atlantic Region Cultural Landscape Program, National Park Service, 1992).

[3] Robert Page, Cathy Gilbert, and Susan Dolan, *A Guide to Cultural Landscape Reports: Contents, Processes and Techniques* (Washington: National Park Service, 1998).

[4] CLR Volume 1, 187.

[5] "Master Plan for the Preservation and Use of Vanderbilt Mansion National Historic Site, Mission 66 Edition," United States Department of the Interior, National Park Service.

[6] "Final Master Plan, January 1976, Vanderbilt Mansion National Historic Site, New York," United States Department of the Interior, National Park Service.

[7] The property was originally patented in 1704 by Peter Fauconnier through a grant from Sir Edward Hyde, Lord Cornbury. Although Fauconnier doesn't appear to have implemented any physical improvements to the land during his sixty-year ownership, it is likely that it was he who named the estate Hyde Park in honor of Lord Cornbury, a century before the nearby town of Stoutenburg was renamed Hyde Park in 1812. The name Hyde Park would continue to be used to refer to this particular estate property throughout its history.

[8] Samuel Bard to John Bard from Edinburgh, April 1 1764, quoted in CLR Volume 1, originally published in John McVickar, *A Domestic Narrative of the Life of Samuel Bard* (New York 1822), 56-59.

[9] A. J. Downing, *A Treatise on the Theory and Practice of Landscape Gardening* (New York: A. O. Moore & Co., 1859), quoted in CLR Volume 1.

[10] Poughkeepsie Sunday Courier, July 19, 1896, p.2, quoted in CLR Volume 1, originally quoted by Charles W Snell, "The Early History of 'Hyde Park' (Vanderbilt Mansion National Historic Site), 1705 to 1894" (Typescript, 17 February 1955) 60.

[11] Downing, *A Treatise on the Theory and Practice of Landscape Gardening*, quoted in CLR Volume 1, 291-292.

[12] Ibid.

[13] Henry Vincent Hubbard and Theodora Kimball, *An Introduction to the Study of Landscape Design* (New York: Macmillan Press, 1917), 248.

[14] James Thacher, "An Excursion on the Hudson – Letter II," *New England Farmer,* Vol. IX, no. 20 (December 3, 1830), quoted in CLR Volume 1, 37.

[15] Thomas K. Wharton, Diary, Entries, July 1832, cited in CLR Volume 1, 46.

[16] Andre Parmentier, "Landscape and Picturesque Gardens," *The New American Gardener,* Nineteenth Edition (Boston: Otis, Broaders, & Company, 1847), 185.

[17] Ibid.

[18] Thacher, "An Excursion on the Hudson," quoted in CLR Volume 1, 52.

[19] Wharton, Diary, Entries, July 1832, cited in CLR Volume 1, 52.

[20] Parmentier, "Landscape and Picturesque Gardening," 185.

[21] *Poughkeepsie Sunday Courier,* July 19, 1896, quoted in CLR Volume 1, 88.

[22] *Poughkeepsie Sunday Courier,* September 15, 1895, quoted in CLR Volume 1, 88.

[23] CLR Volume 1.

[24] James Thacher, "An Excursion on the Hudson – Letter II," *New England Farmer*, Vol. IX, no. 20 (December 3, 1830), quoted in CLR Volume 1, 31.

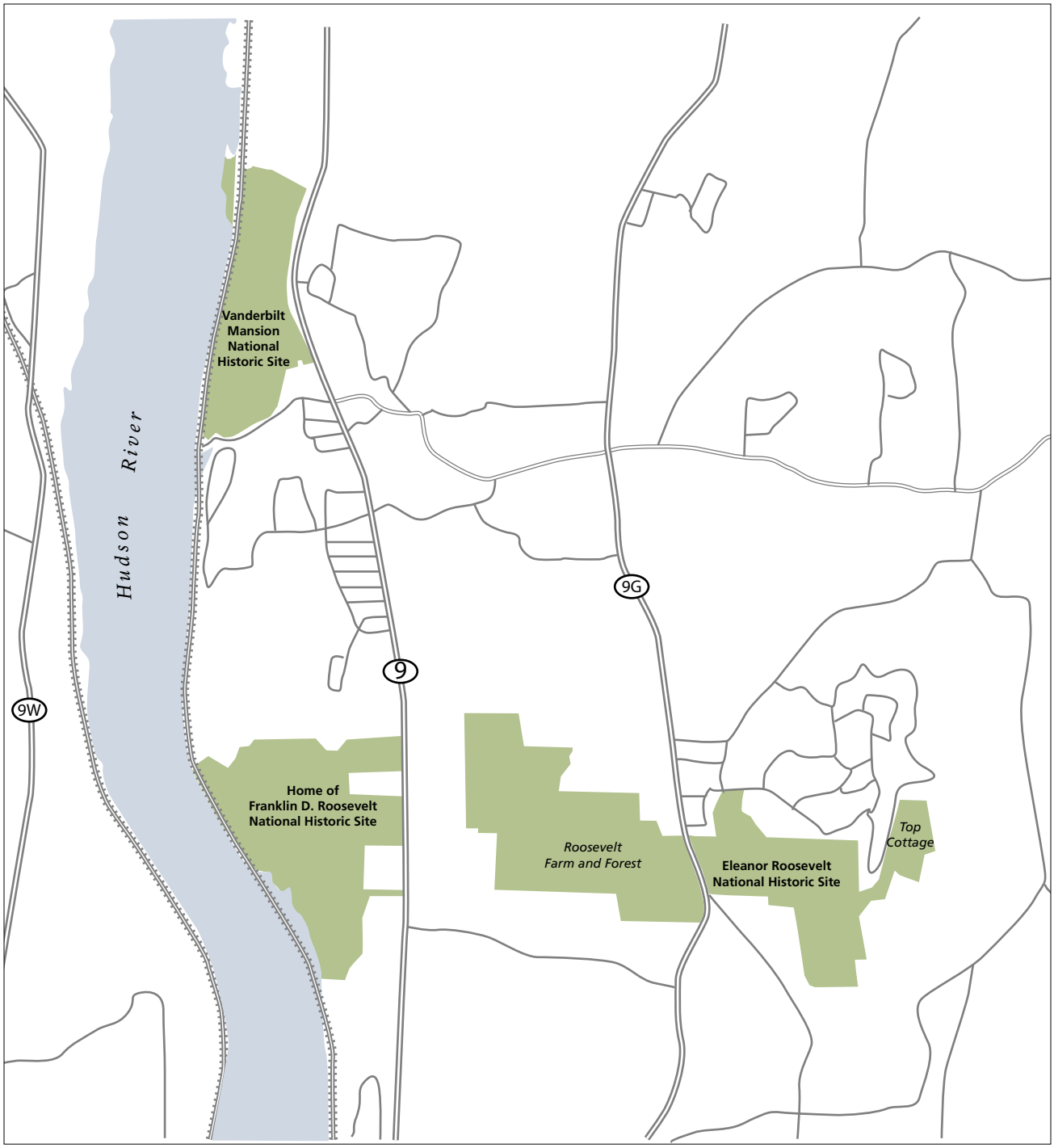


Figure 1. Map showing the location of Vanderbilt Mansion National Historic Site as well as the Home of Franklin D. Roosevelt National Historic Site and Eleanor Roosevelt National Historic Site. The three national park units are managed together as a single administrative unit, Roosevelt-Vanderbilt National Historic Sites. The Roosevelt Farm and Forest and the Top Cottage properties are part of the Home of Franklin D. Roosevelt National Historic Site (OCLP 2008).



Figure 2. Vanderbilt Mansion looking south (Olmsted Center for Landscape Preservation (OCLP 2008).



Figure 3. View of the White Bridge looking northwest (OCLP 2008).



Figure 4. View of the lower perennial garden in the formal gardens looking north (OCLP 2008).



Figure 5. North Drive looking north (OCLP 2008).



Figure 6. Crum Elbow Creek looking north with the Power House dam visible upstream (OCLP 2008).

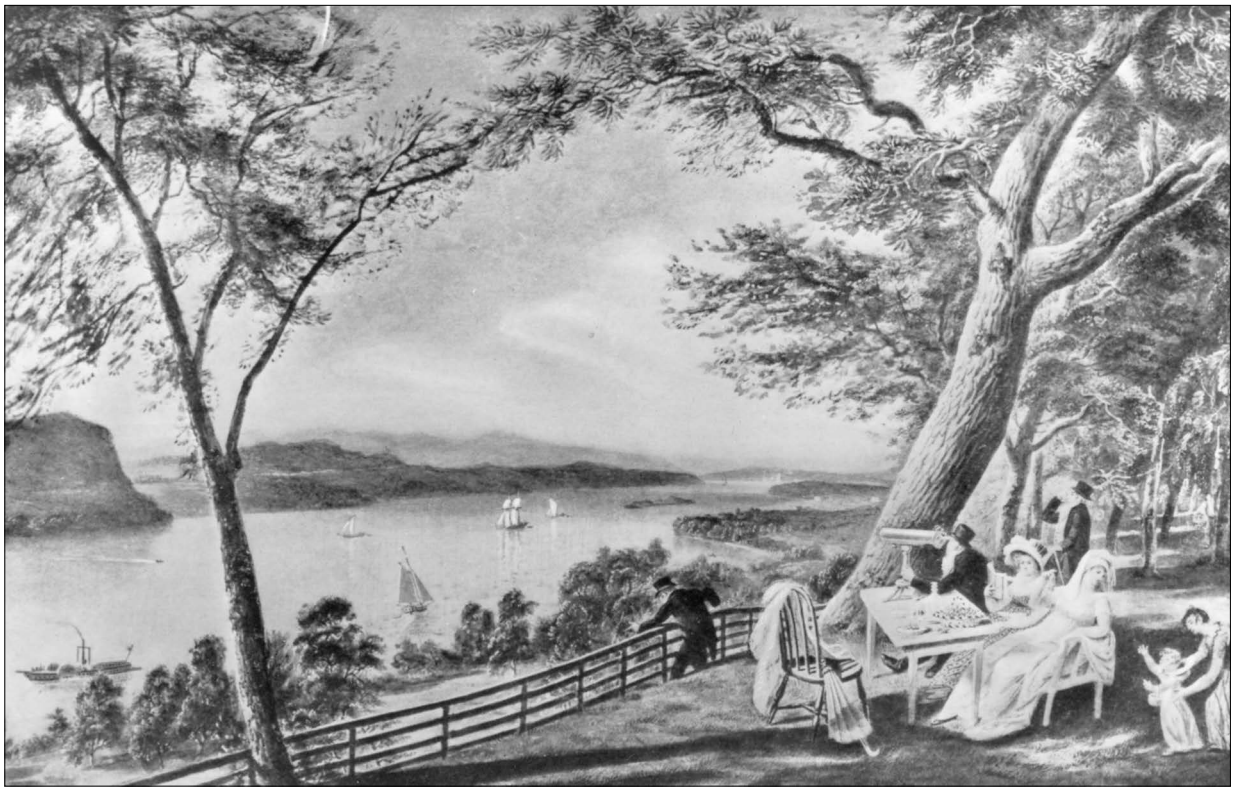


Figure 7. "Samuel Bard and His Family on the Terrace of Hyde Park, 1806." Drawing by John R. Murray. (Courtesy of Mr. Brett E. Langstaff, Morristown, New Jersey. Reproduced in CLR Volume 1).



Figure 8. Thomas Cole, The Course of Empire: Pastoral. Typical of the Hudson School of picturesque landscape paintings, Thomas Cole's The Course of Empire: Pastoral presents an idealized nature as utilized by humans, characterized by rolling terrain, open meadows, large, mature trees, and a foreground, middle ground, and background (Image in public domain).

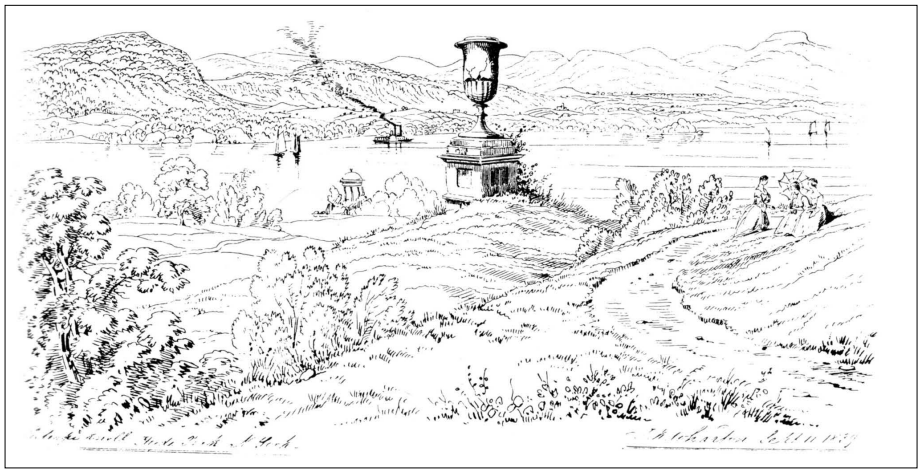


Figure 9. A drawing of the Hyde Park estate by Thomas K. Wharton during the Hosack ownership in 1839 exhibits many of the characteristics present in the Cole painting (New York Public Library, Manuscripts Division).

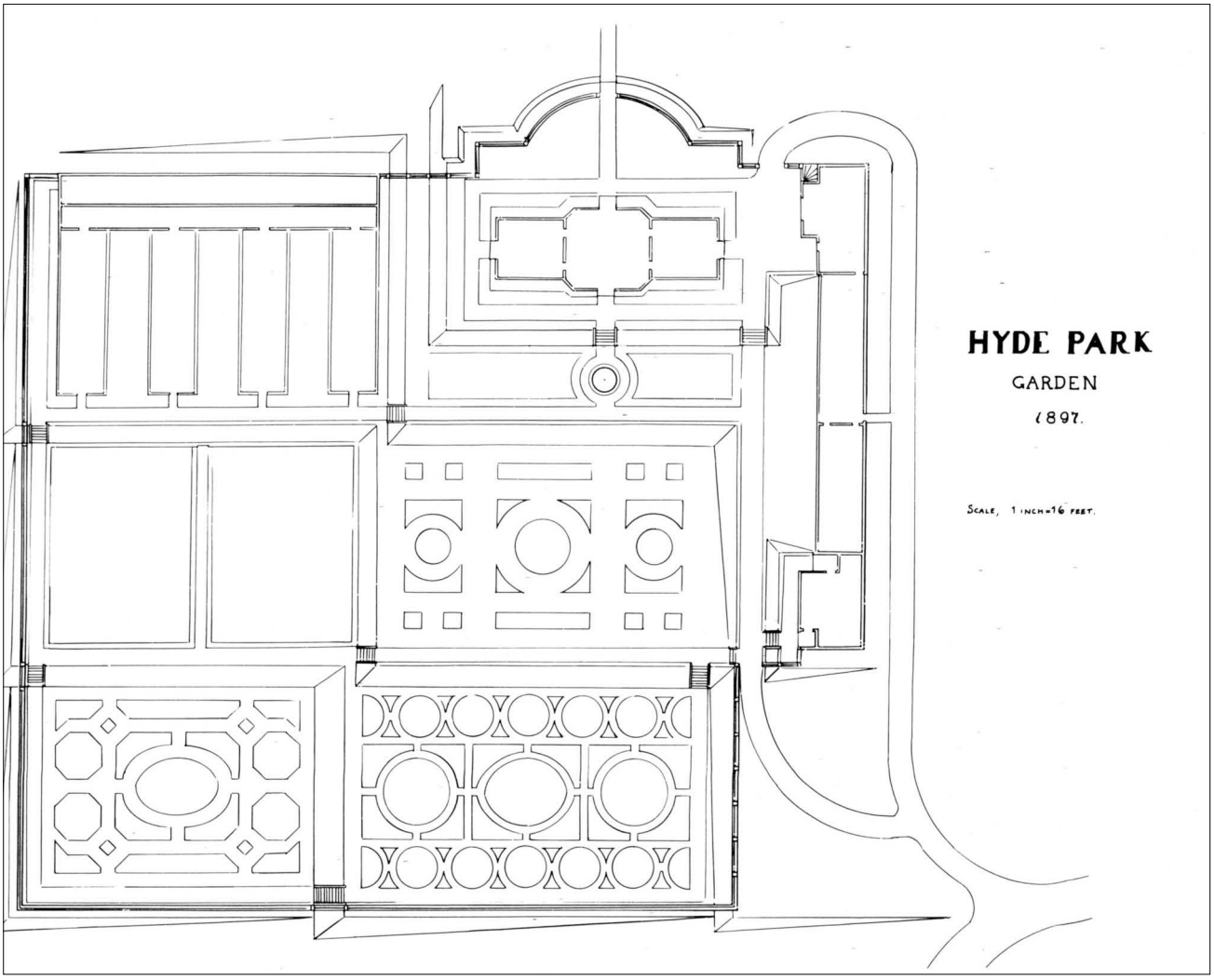


Figure 10. Diagrammatic plan view of Walter Langdon's gardens in 1875 (Traced from an 1897 survey of Hyde Park, CLR Volume 1).



Figure 11. Vanderbilt Mansion during construction, 1898. Photo by Charles Sylvester Piersaull (Roosevelt Library, no. 43-183-208).



Figure 12. White Bridge looking southwest, circa 1900. Photograph by Charles Sylvester Piersaull (Roosevelt Library no. 43-183-217).



Figure 13. View of the pool and pool house in the formal gardens looking south, circa 1930 (Vanderbilt Mansion National Historic Site (hereafter VAMA) no. V-114).



Figure 14. View of the upper perennial garden looking south, circa 1934 (VAMA no. V-114).



Figure 15. "Hyde Park, Hudson River." Currier and Ives Print, circa 1835 (VAMA no. 072292).



Figure 16. View of Langdon's House looking north, circa 1890. Photograph by Charles Sylvester Piersaull (Roosevelt Library no. 43-183-77).



Figure 17. View of woodlands along the banks of the Hudson River looking south from near the Mansion (OCLP 2008).



Figure 18. View of north meadows looking north from the overlook (OCLP 2008).



Figure 19. View of Vanderbilt Mansion and East Lawn looking west (OCLP 2008).



Figure 20. Specimen trees and the view toward the river looking northwest from near the Mansion (OCLP 2008).



Figure 21. View of the large ginkgo specimen tree, the South Lawn, and the Mansion looking north (OCLP 2008).



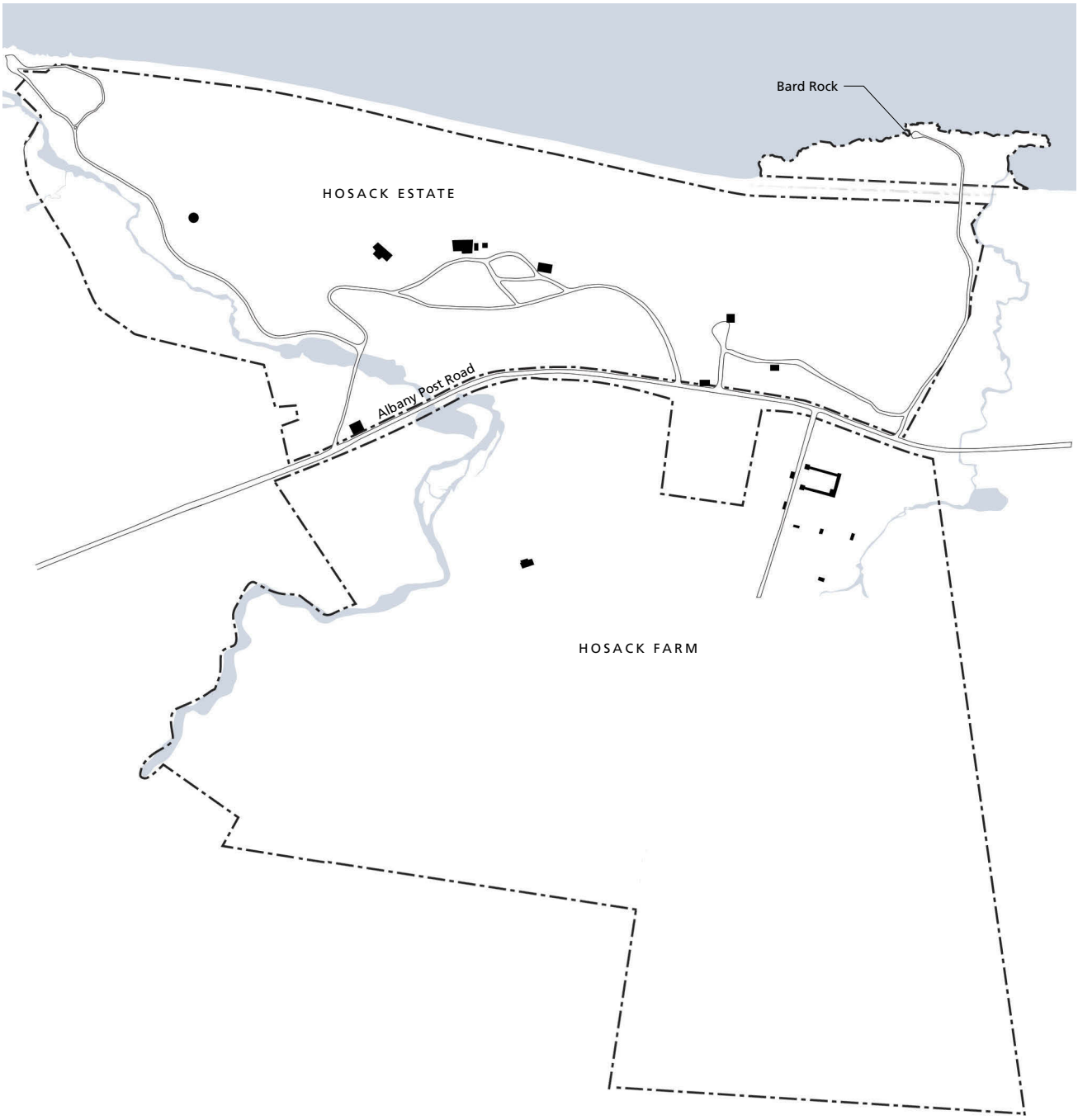
Figure 22. The large ginkgo specimen tree and the South Lawn looking south (OCLP 2008).



Figure 23. Perennials on the lower perennial terrace in the formal gardens looking southeast (OCLP 2008).



Figure 24. Solid geometric beds of annuals on the upper annual terrace in the formal gardens looking northeast (OCLP 2008).



Cultural Landscape Report

Vanderbilt Mansion
National Historic Site
Hyde Park, NY

1830 Period Plan
Hosack Estate

National Park Service

Olmsted Center for Landscape Preservation
www.nps.gov/oclp

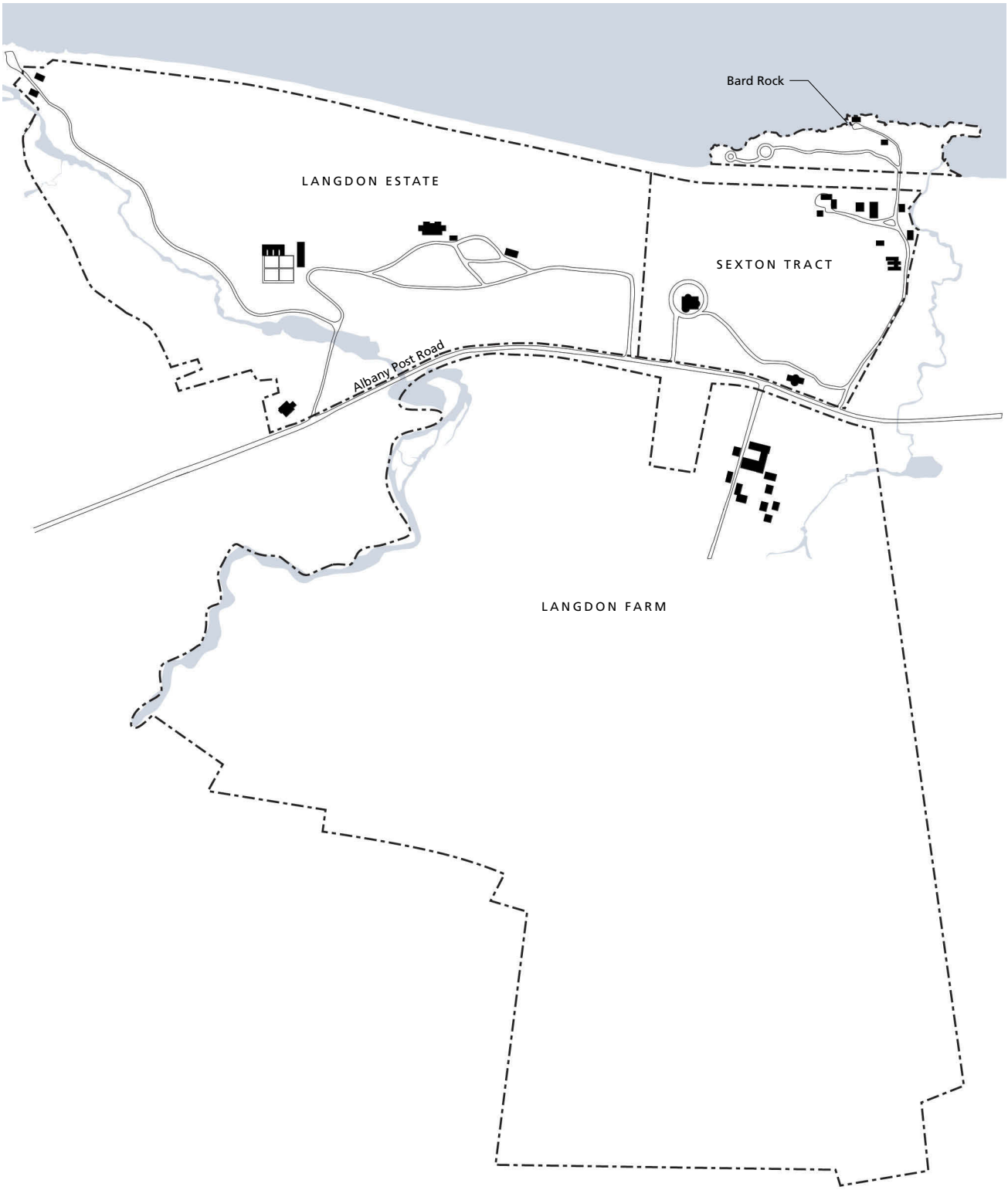
SOURCES
1. CLR Volume 1

DRAWN BY
John Hammond, OCLP
Adobe Photoshop CS3, 2008

NORTH

0 1000 2000
FEET

Drawing 1



Cultural Landscape Report

Vanderbilt Mansion
National Historic Site
Hyde Park, NY

1890 Period Plan
Langdon Estate

National Park Service

Olmsted Center for Landscape Preservation
www.nps.gov/oclp

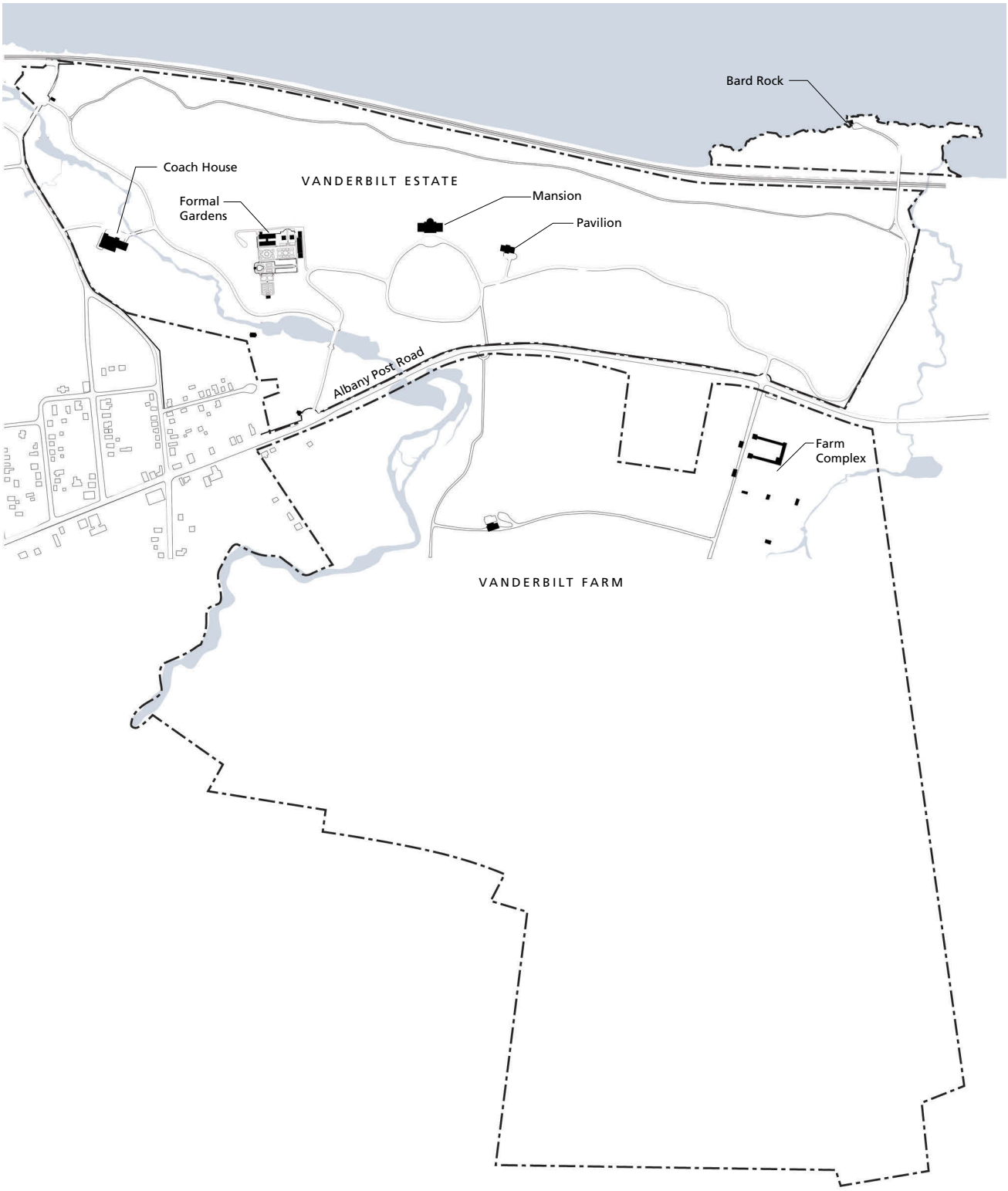
SOURCES
1. CLR Volume 1

DRAWN BY
John Hammond, OCLP
Adobe Photoshop CS3, 2008

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Drawing 2



Cultural Landscape Report

Vanderbilt Mansion
National Historic Site
Hyde Park, NY

1938 Period Plan
Property Overview

National Park Service

Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES
1. CLR Volume 1

DRAWN BY
John Hammond, OCLP
Adobe Photoshop CS3, 2008

NORTH

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Drawing 3

Cultural Landscape Report

Vanderbilt Mansion National Historic Site

Hyde Park, New York

1938 Period Plan



National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES
1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946

DRAWN BY:
John Hammond, OCLP
Adobe Photoshop CS3, 2008

LEGEND

- Conifer Trees
- Deciduous Trees
- Lawn
- Meadow
- Water
- Footpath
- Property Boundary
- Contours

NORTH

0 500 1000 FEET

Drawing 4

Carnation House
Gardener's Cottage
Tool House
North Pergola
Arched Stair Arbor
TERRACE
Main Garden Entrance
Annual Beds
Palm Houses
FOUNTAIN
UPPER ANNUAL GARDEN
UPPER PERENNIAL GARDEN
Central Stair Pergola
Arched Trellises
Ornamental Shrubs
Potting Shed
Rose House
LOWER PERENNIAL GARDEN
LOWER ANNUAL GARDEN
ROSE GARDEN
Rose Garden Fountain (Orpheus Fountain)
Rose Garden Loggia
South Stair Pergola
Pool
Cold Frame
Pool Pergola
Pool House
Cutting Garden

Cultural Landscape Report

Vanderbilt Mansion National Historic Site
Hyde Park, New York

1938 Period Plan
Formal Gardens

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES
1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946

DRAWN BY:
John Hammond, OCLP
Adobe Photoshop CS2, 2008

LEGEND
- Trees
- Shrubs
- Lawn
- Planting Beds
- Water Feature
- Wooden Trellis

NORTH

0 50 100 FEET

Drawing 5

Cultural Landscape Report

Vanderbilt Mansion National Historic Site
Hyde Park, New York

2008 Existing Conditions



National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES
1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946

DRAWN BY:
John Hammond, OCLP
Adobe Photoshop CS3, 2008

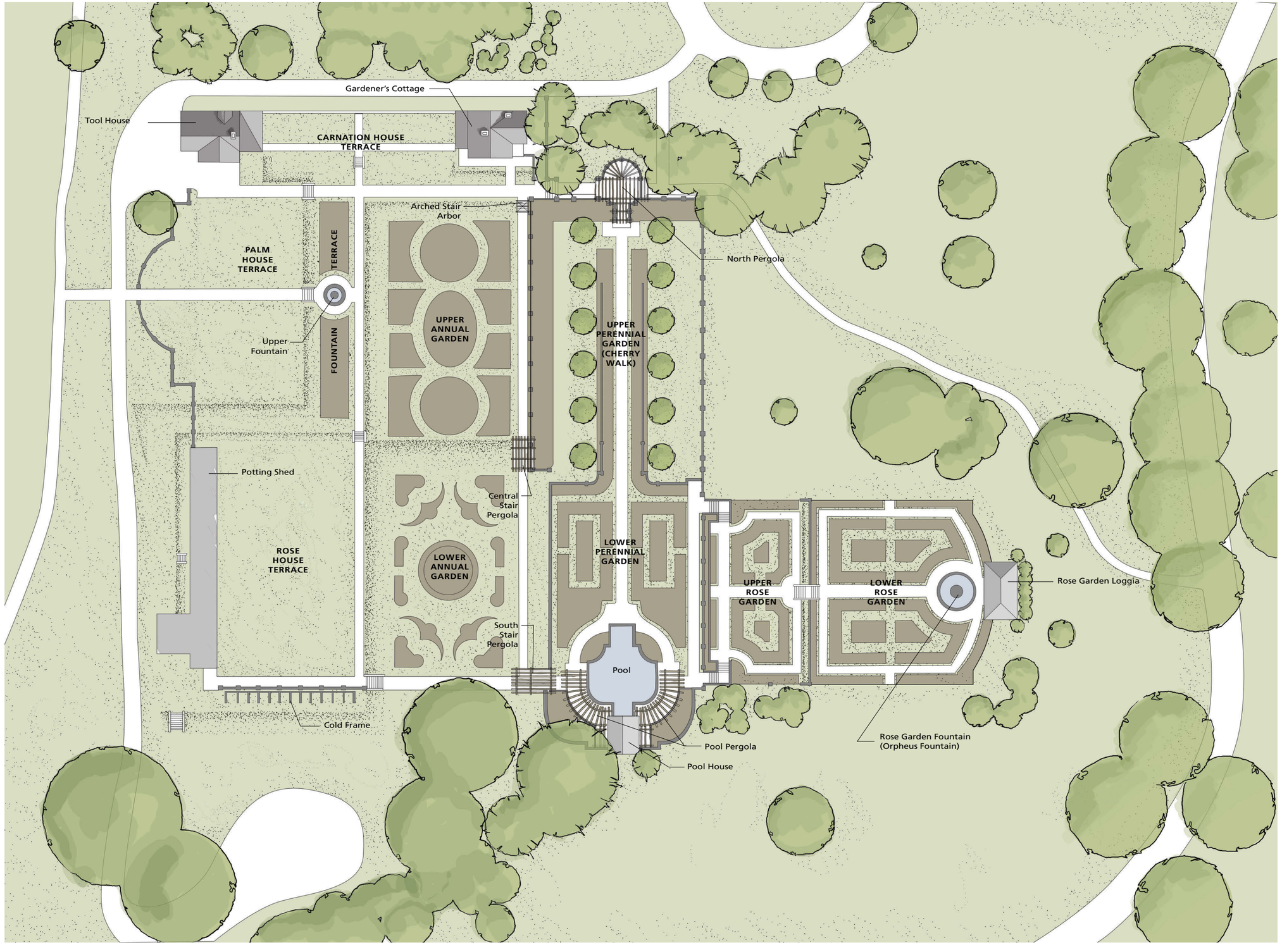
LEGEND

- Conifer Trees
- Deciduous Trees
- Lawn
- Meadow
- Water
- Footpath
- Property Boundary
- Contours

NORTH

0 500 1000 FEET

Drawing 6



Cultural Landscape Report

Vanderbilt Mansion National Historic Site
Hyde Park, New York

2008 Existing Conditions Formal Gardens

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES
1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946

DRAWN BY:
John Hammond, OCLP
Adobe Photoshop CS3, 2008

LEGEND

- Trees
- Shrubs
- Lawn
- Planting Beds
- Water Feature
- Wooden Trellis

NORTH

0 50 100 FEET

Drawing 7

I. FRAMEWORK FOR TREATMENT

The primary park management goal at Vanderbilt Mansion National Historic Site is to interpret the Vanderbilt ownership period and the associated historical contexts of the Gilded Age, American industrial wealth, and grand country estates. Since the acquisition of the property by the National Park Service, efforts have been focused on the preservation of the historic character of the buildings and grounds as Frederick Vanderbilt might have recognized them. Changes to the landscape to accommodate park operation and visitor services, including adaptive reuse of the structures, the addition of a visitor parking lot, and updates to the circulation and utility systems, have been carried out with effort to minimize their intrusion on the historic scene. Management efforts have been focused on presenting as closely as practicable an image of the grounds during the Vanderbilts' residency.

This desire to interpret the Vanderbilt ownership through preservation of the buildings and grounds was articulated repeatedly at the time of the creation of the National Historic Site. From the time she inherited the property in 1938, Mrs. Van Alen expressed a desire to donate it to a "worthy organization" as a memorial to her uncle. President Roosevelt took up the cause and championed the site's significance, going so far as to become directly involved in guiding its management goals and practices.

While preservation of the character of the Vanderbilt-era landscape remains the primary management goal at Vanderbilt Mansion National Historic Site, the first volume of the cultural landscape report identified significance of the landscape that goes beyond the Vanderbilt ownership and extant features and patterns that help convey this significance. The principles of picturesque landscape design and the contribution to the landscape of Andre Parmentier, for instance, are still reflected in the site's organization, circulation, and vegetation. Treatment principles should take into account the full significance of the property and the associated qualities of the landscape.

To fully understand the implications of treatment, the sections below define landscape character areas within the property, present alternative approaches to treatment, and articulate a preferred treatment approach and a preferred treatment period. This preferred treatment is followed by a list of treatment principles that support the treatment philosophy for Vanderbilt Mansion National Historic Site.

LANDSCAPE CHARACTER AREAS

Vanderbilt Mansion National Historic Site features a diverse landscape with a variety of predominant characters, from the wilder woodland areas to the manicured gardens and Mansion lawns. These areas not only have divergent characters, but they also differ significantly in the role each plays in the overall landscape and their management goals and strategies. It is therefore useful to establish landscape character areas that have similar treatment issues and approaches. These character areas serve to organize the presentation of the treatment guidelines and tasks. The five landscape character areas at Vanderbilt Mansion National Historic Site, defined below, are parkland, deciduous woodlands, meadows, conifer stands, and formal gardens (Drawing 8).

Parkland

The parkland at Vanderbilt Mansion National Historic Site comprises the designed grounds of the high terrace surrounding the Mansion, Pavilion, and formal gardens. The parkland exhibits a decidedly open character with mown lawns and singular specimen trees or small groups of trees. Shrubs are few and tend to be concentrated in the area of the formal gardens or as foundation plantings around structures. There are no planting beds outside of the gardens, and areas beneath the trees are largely open lawn. The parkland provides the setting for the buildings and main drives, establishes the entry and arrival experience, and largely defines the overall character of the estate. The immediacy of the parkland to the main inhabited areas of the estate highlights the details of the landscape such as the location and species of the trees.

Descriptions of the property throughout its historic period consistently feature the park-like characteristics of the estate. In 1890, Charles Eliot described the "broad terrace of grass-land, set with numerous and variously grouped and scattered trees of noble age and stature," and noted that "its strikingly simple, open and stately effect is greatly heightened by the fact that from every part of it is visible in the west, beyond and behind all the massive tree trunks, an indefinite expanse of blue distance." [25] It was in this parkland that the property's various landscape designers exerted their greatest control, carefully laying out drives and placing trees according to the principles of picturesque landscape design. The result was a landscape that was meticulously contrived, but that ostensibly portrayed an ideal nature.

Woodlands

Deciduous and mixed woodlands occur in long bands throughout the property, cloaking the slopes of the terrace and lining the banks of the Hudson River and Crum Elbow Creek. These woodlands consist primarily of deciduous trees with scattered clusters of conifers. Predominant trees include oaks, maples, beeches, and tulip trees. The understory is mostly sparse and open, with thickets of small

trees and woodland understory plants. From within the woodlands, the character is deep and shady in the summer and open in the winter. From a distance, the effect is of dense forest.

The attraction of this site for a country estate was from the beginning its singular natural beauty. The high terrace, slopes, and riverbank were already adorned with a combination of forest and rolling, open meadows. As the site's developers carved out the estate grounds, they focused the development on the top of terrace, leaving the lower areas much as they found them. This was important for establishing a natural setting for the more manicured estate grounds. The woodlands provided a connection to the natural world that would have been important through all periods of the site's development, from the picturesque and romantic periods of the eighteenth and nineteenth centuries through the Gilded Age of the Vanderbilt ownership.

Meadows

Meadows cover the slopes below the terrace in long bands, characterized by native and exotic grasses with singular and small clusters of trees at infrequent intervals. The meadows are bordered by woodlands and by the parkland on the terrace above. Portions of the meadows are on quite steep slopes.

As part of the picturesque natural setting of the estate, the meadows provide the counterpoint to the deciduous woodlands. Together they create the rolling patchwork of forest and clearing that exemplifies pastoral landscapes that were so popular during the historic period. Intended to be viewed from some distance, the meadows have much the same visual effect as the parkland, with open areas and scattered specimen trees.

Conifer Stands

Conifer stands are located in various places within the property. While these have a similar character to the deciduous woodlands, they differ in both composition and origin. The conifer stands are composed of white pine, spruce, and fir in nearly uniformly aged plantations. The trees are tall and straight and are closely planted in regular rows. The density of the stands creates a solid mass of foliage overhead and open, straight trunks beneath. The ground beneath the trees is blanketed in needle litter and low underbrush, and dead branches and fallen trees create dense tangles in places.

While the deciduous woodlands represent vestiges of the natural landscape, the conifer stands were planted for specific effect, namely as screens from the public areas along the periphery of the property. The primary stand extends for more than a half a mile along the edge of the property at Route 9. This band of trees, ranging in width from a little over a hundred feet to nearly two hundred feet, was first planted by Vanderbilt in the early years of his occupancy. Two smaller stands, one at each end of the Route 9 screen, were planted in similar fashion. A

small plantation of spruce was planted in the midst of the deciduous forest near Bard Rock sometime around 1940. It is unknown whether this stand was planted during the last years of Vanderbilt's life or shortly after the National Park Service acquired the property.

Formal Gardens

The formal gardens, sitting atop the terrace south of the Mansion, comprise a series of terraces with formal arrangements of geometric beds, small lawns, ornamental trees and shrubs, walls, fountains, arbors, and garden structures. The formal gardens are by far the most architectural element of the designed landscape, combining built structures with ornamental plantings. They are highly ordered and meticulously contrived, with all pretense of the natural landscape dropped.

Although the location and layout of the formal gardens changed throughout the historic period, gardens were an important part of the country estate since Samuel Bard built his gardens and conservatory in the area that is now the South Lawn. As was the fashion of the time for country gentlemen, Dr. Bard was keenly interested in horticulture and in obtaining and growing rare and exotic plants from around the world. Every owner after Samuel Bard continued the pursuit, each maintaining his own gardens and greenhouse complex and collecting and propagating ornamental trees, shrubs, and flowers. The gardens were a showcase for their talent and their means, a place for family leisure and to entertain guests.

TREATMENT ALTERNATIVES AND IMPLICATIONS

As a National Historic Site listed on the National Register of Historic Places, treatment actions at the Vanderbilt Mansion National Historic Site should conform to the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (1996), and to the *Guidelines for the Treatment of Cultural Landscapes* (1996). These guidance documents specify four distinct but interrelated alternatives for the treatment of historic properties, preservation, restoration, rehabilitation, and reconstruction, and establish standards, approaches, and considerations for each. These alternatives allow for the treatment of historically significant properties while protecting historic material and the intangible essential qualities that contribute to a property's historic character.

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.

Restoration is the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.

Rehabilitation is the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

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.

From these treatment alternatives, a primary treatment must be chosen to apply to the property as a whole. The primary treatment ensures consistency in treatment activity throughout the property and provides an umbrella under which specific treatment actions can be developed. Selection of a primary treatment is based on the site's significance, level of integrity, and management goals and intended uses.

The following sections examine the implications of three of the four treatment alternatives for Vanderbilt Mansion National Historic Site. Because the landscape at Vanderbilt Mansion retains much of its historic fabric and many of its character-defining features, reconstruction is not considered an appropriate primary treatment for the landscape as a whole. The three other alternatives – preservation, restoration, and rehabilitation – are considered broadly for each character zone to understand how each alternative might be applied to the specific resources.

PRESERVATION

Preservation seeks to sustain the materials, features, and spatial relationships of the property in their present state through conservation, maintenance, and repair. Not to be confused with no action, preservation is the active effort to slow or stop the natural deterioration of features or other changes in the landscape that may negatively affect its integrity. It may involve repair of damaged features, routine maintenance, and protection and stabilization measures for threatened or declining features. Preservation may also involve the limited replacement in kind of features that cannot be repaired, but does not include large-scale replacement of features or the reconstruction of historic features that have been lost.

The selection of a preservation treatment implies that the character-defining features of the landscape are intact and portray the historic identity of the

property effectively as they exist today. With preservation, changes to the property over time that are significant in their own right are retained. Changes over time that are not historically significant may also be retained if they are not encroachments that degrade historic character. All interventions to stabilize, conserve, repair or replace need to be undertaken at the appropriate level matching the level of deterioration. New materials are to match old in all aspects of design, color, composition, and physical and visual compatibility. These repairs or replacements should also be identifiable upon close inspection and documented as to scope and conditions requiring the work. Archaeological resources are generally preserved in place in a preservation treatment.

Parkland

Preservation of the parkland would retain the open character dominated by mature specimen trees and clumps of trees over open lawn, as well as the landscape's highly maintained appearance. Preservation would primarily involve comprehensive and diligent maintenance to the buildings and structures, circulation features, trees, shrubs, and lawn to ensure a manicured appearance. All effort would be made to prolong the lives of the specimen trees, including pest management, pruning for form, health, and safety, and irrigation when needed. Preservation would also involve the replacement of specimen trees in kind when they died or had to be removed. Efforts would be made to prevent the introduction of non-historic vegetation into the parkland, including weeds and naturally sown trees and the encroachment of woodlands on the parkland's margins.

Deciduous Woodlands

Preservation of the woodlands would retain their overall composition, extent, and location. Preservation of these areas would involve the perpetuation of the current woodland characteristics through forest management practices. These practices would endeavor to sustain the overall health of the woodland communities and might involve thinning, control of exotic species, pruning for safety, and protection of mature trees. Some management of the woodland edges to reduce the encroachment into unforested areas could be included, but clearing of land to reclaim historically clear areas or to reinstate lost views would be outside of the scope of preservation.

Meadows

Under preservation, the meadows would be managed to retain their open character, prevent encroachment of adjacent woodlands, reduce the incidence of woody vegetation, and protect and sustain the isolated and clustered trees within the meadows. This would involve regular but infrequent mowing to maintain the meadows' height and reduce woody vegetation. Mowing may be timed throughout the year to encourage the natural seeding of native grasses. Measures

would also include clearing of meadow edges where encroachment is occurring, but as discussed above, large areas would not be cleared to restore lost meadows. Preservation measures would also include pruning or other stabilization actions to ensure the health of trees within the meadows and replacement in kind of trees that die.

Conifer Stands

Like in the woodlands, preservation of the conifer stands would be aimed at the overall health of the stands, with emphasis on their composition, density, and extent. For the stands intended as visual or auditory screens, such as the pine buffer along Route 9, efforts should also address the function of the stand as a screen. Treatment actions might involve the removal of non-historic vegetation that does not conform to the stands' character, such as the removal of underbrush or deciduous trees. It would also involve the removal of aging historic trees that are deemed a hazard and the in-planting of replacement trees to preserve the stand density. This would best be done on an in-kind and in-location basis to preserve the density, spacing, and arrangement of the trees. A preservation treatment alternative would not involve the wholesale removal of conifer stands, whether it is because the stand itself is not historic or so that an aging historic stand can be replanted with younger trees.

Because the conifer stands consist of dense plantings of single-aged trees, however, efforts consistent with a strict preservation treatment approach would likely be ineffective, and more extensive effort would be needed to ensure the stands' continued viability. The density of the stands would preclude replacement of individual trees with new trees due to light and nutrient competition. A more intensive treatment, such as removing a section of a row or an entire row, may need to be undertaken to assure some level of success.

Formal Gardens

In the gardens, preservation would involve the conservation of extant historic features, such as the two cottages, garden walls, steps, arbors, pavilions, and walks. The topography, manipulated into steeply sloped terraces and supported by retaining walls, would be retained and kept in lawn cover for stability. The perimeter brick walls, pergolas and rose garden pavilion would be maintained and repaired as needed. The former greenhouses would not be replaced. The Gardener's Cottage and Tool House would be retained and repaired as needed. The drainage system could be cleaned and repaired to be fully functional. All treatments provide for the limited and sensitive upgrading of drainage and utility systems as needed to functional. Interior paths and related stone steps would be retained and repaired as needed.

The reflecting pool and the rose garden fountain and their related sculptures would be stabilized and protected from further deterioration as necessary, but

would not be significantly retooled or replaced in kind in a preservation treatment. Display during peak season and removal and storage to a more stable environment during the balance of the year would also be a preservation treatment approach, based on the goal of reducing environmental degradation.

Under a preservation treatment the perennial flower beds and the roses, cherry trees, vines and other woody plantings would be retained and protected from damage as they exist. Preservation would also involve the control of invasive and inappropriate plant materials and the appropriate care and pest management to protect existing materials. Replacement of vegetation in kind is also considered appropriate when required.

The yearly planting of annuals and perennials in the garden beds would be appropriate under a preservation alternative. The yearly replacement of appropriate plant materials could be viewed as a maintenance effort that helps preserve the bed arrangements, discourage weeds and unwanted woody vegetation, and present a cultivated, manicured appearance that is essential to the garden's historic character. Plant material would be chosen for the goals of protecting and preserving existing historic fabric and maintaining a character consistent in style, massing, size, and texture with the historic gardens.

RESTORATION

Restoration involves implementing changes with the goal of accurately portraying the character-defining features of the landscape at a period in its history. Restoration may include the removal of features from other periods and the reconstruction of missing features from the restoration period. Substantial physical and documentary evidence is required and minimal conjecture allowed. Contemporary alterations or additions are not generally included in this treatment, though issues such as universal access may be addressed.

While determination of a treatment date or period to help guide recommendations is desirable for any treatment approach, it is critical in restoration. Restoration efforts must attempt to bring a property's features and character as close as possible to a specific time in its history. Elements of the property that were lost or changed before the treatment period are not restored, and elements that were introduced after the treatment period are removed, even though they may fall within the property's larger period of significance. The goal of restoration is to create a snapshot of the property in time, avoiding anachronistic settings of elements that were not concurrently present.

Parkland

Ongoing efforts in the areas around the Mansion, gardens, and main drives have preserved the parkland landscape to a high degree. Current management practices include the maintenance of the overall vegetation composition and

arrangement, the maintenance and stabilization of extant historic trees, and the replacement of failing trees in kind and in location based on historical documentation. However, with examination of the historical record, including tree surveys, aerial photographs, and historic photographs, it would be possible to return the parkland even closer to their historic condition.

The missing foundation plantings on the east side of Mansion would be replaced under a restoration treatment, based on documentation from the Cridland plan and historic photographs. Specimen trees throughout the parkland and the lawn areas south, east, and north of the Mansion would be retained and augmented to replace any missing elements. Known historic trees missing along the ridge would also be replaced based on historic documentation. A limited number of additional volunteer plants, not dating to the Vanderbilt-era or replacements for historic plants since the Vanderbilt-era, would be removed.

At the north side of the Pavilion, the former drying yard would be reconstructed based on historical documentation. The National Park Service-era pedestrian paths, signage and lighting would also be removed and the Vanderbilt-era path system, from the Pavilion to the Mansion to the Formal Garden, would be restored to its earlier configuration and materials. The remnant path segment dropping downhill, with its related shrub planting, would also be restored. Archaeological investigation may be required to verify original locations and materials for these paths.

Drive surfaces could also be restored to their historic gravel surfaces under a restoration approach. While this would increase the required maintenance on the roads, it would be essential to accurately restore the parkland to its historic character.

Deciduous Woodlands

Restoration of the deciduous woodlands would involve reestablishing their character, composition, and extent during the historic period. This would primarily involve reducing the extent of the woodlands and reestablishing meadows to reflect their configuration during the treatment period. Aerial photographs from the end of the period of significance can be used to determine the historic footprint of the woodlands. Restoration of the woodland extent would not only restore the spatial relationship between the woodlands and the meadows, but would also restore views from the Mansion and grounds that have been altered since the historic period due to woodland encroachment.

Beyond woodland clearing, treatment actions under a restoration approach would be similar to those of a preservation approach. The woodlands would be managed for overall health, the suppression of invasive species, and the removal of hazard trees.

Meadows

Restoration of the meadows would involve their reestablishment in areas that have been encroached upon by woodlands since the historic period. It would also involve the reestablishment of the historic form and character of the meadows based on historic photographs, aerial photographs, first-hand descriptions, and scientific information about the native meadow species and character. In some cases, it might be possible to identify individual trees or groups of trees on the meadows that have been lost and could be replaced. Historical documentation for the meadows that would guide restoration efforts is not as extensive as for other areas of the grounds.

Conifer Stands

The conifer stands, which were planted during the Vanderbilt period, exhibited a distinctly different character at that time. The younger trees would have been shorter and fuller, with sight lines through the stands nearly or completely blocked by foliage. The effect would have been of a solid mass of green, rather than the tall, bare trunks that currently filter the views into and out of the estate. There is also evidence that the long screen along Route 9 was planted in three successive rows, the oldest along the road and the youngest on the side of the estate. Whether was done for specific effect or if the screen was simply added to over time as the front trees grew taller, it created a distinctive character in the screen.

As the conifer stands have matured, they have lost the screening effect. To restore this effect and to recreate the three levels of the trees, the three rows of pine trees will need to be replaced sequentially, one row at a time. This process would follow the original planting pattern, beginning with the oldest row closest to Route 9. Photographic views indicate that this sequence could be on a $\pm$ 40 year cycle, although a more accurate determination of the planting intervals can be obtained through examination of the rings. While the trees would not need to be planted in exactly the same location as the removed trees, the density and arrangement of the rows should be duplicated in the replanting.

Formal Gardens

Restoration of the formal gardens would be intensive due to the complexity of the gardens and the large number of features and plants that would be involved. It would also, however, be one of the more feasible areas to attempt a restoration given the high level of documentation from the mid to late Vanderbilt period in the form of photos, drawings, planting plans, and ledgers that recorded plant purchases.

Many elements of the formal gardens have been lost over time, though recent efforts have replaced and rebuilt the brick wall surrounds and the Vanderbilt-era pergolas, pool, and fountains. Restoration would replace missing historic

elements such as the greenhouses, a number of fences and vine hoops, and many woody and herbaceous plantings.

Restoration of the formal gardens would include the planting of historically accurate plants throughout the garden, including bedding plants, shrubs, trees, hedges, and rose species. Selection of plants would be based primarily on photographic documentation and the purchase ledgers that indicate plant varieties and quantities. Other sources that are available include plans drawn from memory by former Vanderbilt gardener Alex Knauss in the 1960s and planting plans drawn up by Robert B. Cridland in the 1920s and 1930s. Since the former is subject to the limitations of memory after more than thirty years and the latter are plans rather than as-built records, these sources should be secondary and substantiated by photographic evidence.

REHABILITATION

The goal of rehabilitation is to bring a property to a state of efficient utility while protecting those portions of the property that contribute to its significance. Rehabilitation retains the historic character of a property while allowing limited changes to meet contemporary needs. These needs may include visitor use, circulation, accessibility, safety, or reduced maintenance. Under rehabilitation, extant historic features are retained, repaired, and maintained whenever feasible, and historic patterns and relationships within the landscape are preserved. Changes may include the addition of new buildings, rehabilitation of historic buildings for new uses, the addition or modification of parking or circulation features, or the introduction of interpretive elements. Rehabilitation may also allow compatible but non-historic uses of the land, such as modern farming and forestry practices, research and demonstration, or habitat improvement.

Although rehabilitation allows non-historic changes to the landscape, new additions, exterior alterations, or related new construction must not destroy historic materials, features, and spatial relationships that characterize the property. New work must be differentiated from the old and be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

Of the treatment approaches, rehabilitation offers the most flexibility in meeting current park needs with existing resources. Rehabilitation seeks a balance between presenting the historic scene as accurately as possible while responding to contemporary needs. Compared to restoration, rehabilitation would result in a less authentic historic scene due to the inclusion of modern elements and uses. Compared to preservation, however, rehabilitation may in some cases result in a *more* authentic historic scene, since it allows for the replacement of missing historic features based on historical documentation.

Parkland

Like restoration, rehabilitation in the parkland would involve the retention and protection of extant historic features and the repair or replacement in kind of damaged features and declining or hazardous vegetation. It would also allow for the selective reinstatement of missing historic features, such as the foundation plantings around the Mansion or lost specimen trees, to enhance the historic character. Rehabilitation would allow for changes in the parkland to accommodate visitor or park needs. For instance, roads could continue to be surfaced with asphalt to minimize maintenance, but they might be surfaced with a chip-seal or other surface treatment to reduce their visual impact.

Because of the role the parkland plays in the historic character of the Mansion grounds, it would be difficult for this area to accommodate extensive new development such as new buildings or expanded formal parking areas without significant change to the historic character. Adaptive reuse of some of the structures within the parkland setting, such as the Coach House or Pavilion, would be allowed provided that they conform to the Secretary's Standards and they don't significantly alter the exterior appearance of the buildings.

Deciduous Woodlands

Under rehabilitation, the overall location, extent, and visual effect of the woodlands would be preserved or returned to historic conditions based on historical documentation. While the woodlands would be managed to maintain their overall health and character, rehabilitation would allow alternative management practices aimed at increased recreational use, ecological diversity, habitat improvement, research, or demonstration. This might entail the construction of new trails or other services within woodlands or meadows, active management to improve forest density and species composition, removal of invasive species, or the development of interpretive programs to demonstrate ecological value.

Meadows

Rehabilitation of the meadows would involve many of the actions included under preservation and restoration. The open character of the meadows and their location and extent would be maintained or returned to historic conditions. Woodlands that have encroached into the edges of the meadows since the historic period would be cleared and returned to meadow species, and woody shrubs and exotic meadow vegetation would be suppressed throughout the meadows. Individual and small groups of trees within the meadows would be maintained or replaced in kind. Because of their open character and the visual contribution the meadows make to the landscape, they could not accommodate significant new construction, buildings, roads, or parking without impacting their historic character.

Conifer Stands

The location and character of the conifer stands would be preserved under a rehabilitation plan. Rehabilitation would allow for some changes in the composition of the stands or in the way the stands are managed. For instance, fast growing pine trees might be replaced with a slower growing conifer to increase the period of their inevitable replacement. Alternatively, the stands might be managed for rapid growth and frequent harvesting, never letting them reach full maturity. This would maximize the amount of time that the trees are younger and fuller, thus increasing their function as a screen. The cost of the removal and replacement of the trees could be offset by selling the harvested trees.

Formal Gardens

In rehabilitation of the formal gardens, all extant historic features would be preserved and maintained, including the physical features, structures, circulation, topography, bed layout, and overall organization of the gardens. Rehabilitation would allow the gardens to be brought closer to their historic conditions through the replacement of missing features like the statues, arbors, fences, and other garden furnishings. New greenhouses could be constructed, either in the location of the historic greenhouses or in the parking and maintenance area just to the south of the garden boundary to support the horticultural operations of the park.

Rehabilitation would also allow greater flexibility in the planting of the beds. While historically accurate species and varieties would be favored, modern varieties with similar character could be substituted for hard-to-obtain plants or to address pest or maintenance issues. A larger, more flexible plant palette could be used to develop a number of rotating planting schemes for long-term interest and variety. Any rehabilitation plan for the gardens should honor the historic organization of the contents of the beds; i.e. annuals should not be planted in beds that historically contained roses.

Table 1 provides a summary comparison of the treatment alternatives.

TABLE 1: COMPARISON OF TREATMENT ALTERNATIVES

	Preservation	Restoration	Rehabilitation
Parkland	Preserve existing vegetation and features or replace in kind.	Reestablish foundation plantings around the Mansion and specimen trees along the ridge and remove volunteer trees. Restore drying yard, path system, and gravel drive surfaces.	Reestablish foundation plantings that do not negatively impact the structure. Rehabilitate the drive surfaces to achieve the historical appearance that does not require high maintenance. Reuse structures to meet current needs.
Deciduous Woodlands	Preserve deciduous woodlands in their current condition. Sustain overall forest health but do not reestablish meadows or lost views.	Restore deciduous woodlands to their historic extent and character. Remove some woodlands and reestablish meadows and views to the Hudson River.	Rehabilitate forest to promote overall health and historical character as well as ecological diversity. Remove some woodlands and reestablish meadows and views to the Hudson River.
Meadows	Retain existing open areas but do not reestablish lost meadows.	Restore form of meadows and meadow species to their historic extent and character.	Rehabilitate meadows where feasible to bring back form of meadows and meadow species.
Conifer Stands	Sustain overall tree stand health, replace in kind where feasible.	Restore density and planting configuration of historic conifer screen.	Replace as needed and consider substitute, slower-growing species.
Formal Gardens	Conserve and stabilize extant features, preserve the character of garden beds.	Restore greenhouses, fences and extensive plantings to their historic character.	Replace missing features as feasible. Use historic species, but allow for substitution if plants are no longer available or allow for new species that are disease-resistant.

PREFERRED TREATMENT: REHABILITATION

Based on the level of integrity of the historic landscape, the historical documentation, and park's management goals outlined in the draft General Management Plan, the preferred primary treatment alternative for Vanderbilt Mansion National Historic Site is rehabilitation. Rehabilitation of the historic landscape will protect the intact historic character and features while allowing the park to meet current and future operations and visitor needs. This approach will provide the flexibility to find the best management practices of the various landscape components to ensure the endurance of the site's historic character.

While rehabilitation standards allow for change, emphasis will continue to be on preservation of the extant features and important landscape patterns. Parkland around the Mansion and other buildings, gardens, and main drives will continue to be managed for the retention of historic fabric and visual character, with individual features preserved or replaced in kind. Any changes to the landscape would be made with minimal visual intrusion on the historic scene. Among other things, rehabilitation would allow flexibility in the treatment of the gardens; contemporary resource management practices for the woodlands and meadows, providing interpretive and recreational opportunities while enhancing ecological health and species diversity; and adaptive reuse of the buildings like the Coach House.

The Secretary of the Interior provides standards for the rehabilitation of historic properties under the authority of the Department of the Interior. The Standards pertain to historic buildings, related landscape features, and the building's site and environment. The Standards are applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.[26]

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

TREATMENT PHILOSOPHY

In accordance with applicable legislation, policy, and park planning, the overall treatment philosophy for the Vanderbilt Mansion cultural landscape is to preserve and enhance the historic characteristics of the landscape while managing cyclical and long-term changes inherent in natural systems and land-use practices. Treatment actions will accommodate public use and park operations and preserve landscape features while rehabilitating, restoring, or reconstructing lost or altered features to enhance historic character. Park furnishings and other changes necessary for public use will be inconspicuous and compatible with the historic estate character of the landscape. Development adjacent to the park will be screened where feasible with the long-term goal of restoring the rural setting.

Treatment at Vanderbilt Mansion National Historic Site should be consistent with the following principles:

- Spatial relationships among and between the built and natural features of the site should be preserved. Particular attention should be given to the patterns of open and wooded areas and how these relate to the inhabited areas and built elements of the site.

- Historic visual relationships are essential in establishing the historic scene as well as conveying the compositional principles of picturesque landscape design. These visual relationships, including views of the grounds, river, and mountains from the Mansion and terrace edge, visual sequences when moving through the landscape, and the presence or absence of site lines between elements of the property, should be preserved.

- Historic fabric throughout the property should be retained and preserved whenever possible. Buildings and structures, brick and stonework, trees, and other physical material that existed on the property during the period of significance provide a direct link to the property's past. When retention of historic fabric in situ is not practicable, removal and replacement of the material should be carefully considered.

- The location, arrangement, and species of the specimen trees on the Mansion grounds were carefully considered by each of the property's owners and landscape designers. Solitary and small groups of trees contribute strongly to the historic character and should be carefully managed to prolong their lives. Replacement of declining trees should be done when and in such a way as to preserve the compositional characteristics of the landscape.

- The estate grounds, especially the more inhabited areas around the Mansion and other buildings, the main drives, and the formal gardens, were designed to exhibit a certain level of care and up-keep. The grounds and features should be maintained at a level appropriate to this cultivated aesthetic.

- The natural systems of the estate grounds, including the woodlands, meadows, wetlands, and wildlife, established the setting for the Hyde Park estate, not only creating the important views from the Mansion but also providing a characteristically wild experience for the owner or visitor during walks or drives through the property. Treatment efforts should strive to maintain the health of these natural systems to ensure their continued viability and contribution to the estate landscape.

- Cultivated formal gardens were an essential element of each of the estate's historic periods. The formal gardens should be kept in a state of apparent care and cultivation. This would include not only the

maintenance of the structural elements, but also the seasonal planting and maintenance of the planting beds with historically appropriate annuals, perennials, and shrubs.

- While any plantings within the gardens would have to conform to the character of the historic plantings in style, size, texture, and color, the plantings would not necessarily need to represent a specific planting arrangement at a specific time in history. Rather, in keeping with the historic function and operation of the garden, a larger palette should be used to develop a number of rotating planting schemes for long-term interest and variety.

TREATMENT DATE

The character and composition of the landscape at Vanderbilt Mansion National Historic Site evolved throughout its 110-year period of significance from 1828 to 1938. In order to develop a treatment plan, it is necessary to identify the historic character to which the landscape will be managed. The treatment date provides a reference to guide treatment efforts by identifying a time during the period of significance when the landscape reached its height of development and when it best reflected the characteristics for which it is significant. Further consideration is given to the level of historical documentation and to the existing conditions. The determination of a treatment date is informed by the site's history, documentation, existing conditions, and interpretive goals.

For Vanderbilt Mansion National Historic Site, it is recommended that the landscape be managed to preserve the character as it had developed through 1938, the year Frederick Vanderbilt died and the end of the period of significance. In 1938, the landscape retained much of the character it had exhibited through most of the Vanderbilt ownership. This date incorporates all of the major changes to the landscape that happened in the later Vanderbilt period, including changes to the formal gardens and to the site's trees. Additionally, the following reasons support a treatment date of 1938:

- The CLR Volume 1 indicates that after Louise Vanderbilt died in 1926, Frederick Vanderbilt spent even more time at Hyde Park. There is little indication that the property experienced any significant decline in care and maintenance during this period. To the contrary, tree inventories from the 1940s suggest that Vanderbilt planted numerous trees in the later years of his residency at Hyde Park, and purchase ledgers for the estate show that plants and trees for the formal gardens and the estate grounds were purchased throughout the 1930s.

- Significant changes to the landscape in the later Vanderbilt period include a redesign of the Italian garden by Robert Cridland in about

1930. The mature evergreen shrubs and hedges that had comprised the garden since the early twentieth century were replaced with two rows of flowering cherries and perennial border beds. This design is largely reflected in the existing garden. The 1938 date accommodates this change.

- When the National Park Service acquired the property in the early 1940s, they carefully documented the landscape in preparation for the park's master plan. Documentation from this period includes a detailed tree survey, site base maps, photographs, and verbal descriptions. This documentation is augmented by a detailed USGS map from 1946 and aerial photos from 1936 and 1943. The historical record gives a relatively complete picture of the character, composition, and condition of the landscape in the early 1940s, and by reasonable estimation, in 1938. The only period with a comparable level of documentation is the initial construction period of 1895-1906; the record for the intervening years is more fragmented and less complete. This documentation of the landscape at the end of the period of significance will help reduce conjecture and allows a higher level of detail and specificity in treatment recommendations.

- Choosing a date at the end of the period of significance allows the use of the information contained in the estate's purchase ledgers throughout the 1930s. These ledgers contain records of the purchases of plants for the formal gardens which, together with the planting plans drawn up by garden designers Greenleaf and Cridland and the recollections of Vanderbilt gardener Alex Knauss, provide a more complete picture of the gardens' contents. This information will allow for treatment of the gardens in a manner that reflects their cyclical and evolving nature.

- Vanderbilt Mansion National Historic Site currently retains a high level of historic integrity to the end of the period of significance. Using 1938 as the treatment period will ensure that many of the preservation practices will continue at an appropriate level of intervention.

Implications of managing toward a 1938 treatment date would allow for the possibility, for example, the reconstruction of the greenhouses in the formal gardens or the boathouse by Bard Rock (removed by the National Park Service). While the 1938 treatment date emphasizes the character of the landscape at that time, it does not preclude interpretation of either earlier or later history. Features lost prior to 1938 can still be interpreted in the landscape through surviving traces or their physical sites.

FRAMEWORK FOR TREATMENT ENDNOTES

[25] Charles Eliot, quoted in CLR Vol. 1.

[26] U.S. Department of Interior regulations, 36 CFR 67.

II. SITE-WIDE TREATMENT GUIDELINES

Based on the preferred treatment of rehabilitation, this section establishes general treatment guidelines for the landscape character areas defined in the previous chapter. These guidelines are applicable within their respective character areas throughout the property and inform specific treatment tasks described in the following section. The five character areas described below are parkland, woodlands, meadows, conifer stands, and formal gardens.

Parkland

Treatment of the parkland should focus on the preservation of the historic character and remaining historic fabric, repair or replacement in kind of failing elements, and the selective reinstatement of missing elements. Principles of picturesque landscape design that guided the original design of the parkland, including a clean, open character, singular specimen trees or small informal groups of trees, careful composition of views, and an emphasis on sequential experience, should guide any treatment decisions. Locations and species of individual trees are essential qualities that should be preserved. The level of maintenance as well as the level of the treatment actions should be highest in the parkland areas.

The open park-like character of the historic core should be preserved. Characterized by a clean, uncluttered appearance, open well-cared-for lawns, and large specimen trees, the historic core should exhibit a sense of care and cultivation. This basic pattern should be perpetuated with the maintenance of both the lawns and the large specimen trees. Non-historic elements should be limited to only what is necessary and should be included in an inconspicuous or compatible manner.

The existence of large, old specimen trees is an essential part of the site's historic character. The large trees contribute to the scale of the property, compliment the grand architecture, and enforce the historic proportions of tree size to the open space between them. Additionally, their size and visible age enhance the sense of time passage and the age of the property. The fact that the trees were extant during the historic period enforces the historic associations for which the site is significant.

All efforts should be made to retain historic specimens for as long as possible. Trees should be considered for replacement only once they are in advanced decline, pose a safety threat, or pose a potential for damage to other historic features. Actions to perpetuate trees might include bracing or wiring, rejuvenative pruning, or removal of hazard branches.

When it becomes impossible to retain historic specimen trees, the process currently in place for their replacement will ensure that the composition and character of the historic core will endure. Failing specimen trees should be carefully documented before removal for size, form, age, and species and variety. Once the tree is removed, the stump should be ground below grade and the hole filled with soil and compost. After one year, a replacement tree of the same species should be planted in the same location as the original.

The 1940 survey of specimen trees should be used to determine whether a tree is historic or not. Trees planted after the 1938 end of the period of significance may be retained provided they do not detract from the historic character of the landscape. Historic specimen trees that have been replaced since 1938 with a different species or in a different location should be assessed for compatibility with the historic character of the landscape. Non-historic trees that are not themselves replacements for historic trees should not be replaced when removal is necessary.

The paved drives throughout the property differ significantly from the historic character of the crushed stone surface exhibited by the historic drives. The dark, uniform asphalt produces a modern aesthetic that diminishes feeling of the historic landscape. Current park needs, including durability and maintenance, winter snow plowing, and accommodation of the volume of visitors the park experiences, however, make a return to gravel or crushed stone impractical.

A hard surface that has the durability of asphalt but that more closely resembles the lighter stone surface of the historic period would meet park needs while enhancing the site's historic character. Such surfaces include chip-seal or other asphalt surface that features a large, light-colored aggregate surface, or a bound stone aggregate. The drives have recently been resurfaced and will not need to be repaved again for a number of years, but when they do, such an alternative surface should be considered.

The concrete curb and gutter combination that edges the entry road and part of the drive along Crum Elbow Creek as well as the cast stone curbs around the Great Circle and in other areas were recently remade using historical documentation. These curbs should be maintained and repaired or replaced in kind when necessary.

Deciduous Woodlands

Treatment of the woodlands should strive to preserve their role as natural elements of the landscape. Management should be aimed at maintaining healthy forest communities, protecting mature trees, managing overall composition and density, and controlling exotic species. Attention should also be given to managing the extent of the forested land, with particular consideration for the spatial arrangement of the landscape and the quality and composition of views.

Location, size, and type of individual trees are less important in the forested areas than the overall effect of the woodland masses.

Deciduous woodlands should be managed for overall health and species composition. Invasive species should be removed where feasible and native species encouraged.

Meadows

The meadows should be maintained to preserve their open character and their relationship with the woodlands. Meadow species should be sustained and woodland trees and shrubs suppressed. Attention should be given to the location and extent of the meadows and to the role they play in the composition of views from the upper terrace. Individual trees that occupy the meadow slopes are important elements as focal points within the meadows and should be preserved or replaced in kind.

Yearly or twice-yearly mowing should be timed to encourage self seeding of desirable annual species. Where woodland has been cleared, meadow should be restored by seeding of native annual grasses and forbs. Diligent attention will likely be needed for a period of time to ensure the cleared areas are not quickly reclaimed by the forest.

Concerted effort should be made to maintain meadow species on the steep slopes below the Mansion and Pavilion. The brush and trees, particularly tree-of-heaven which grows densely in places, should be removed and treated to prevent return. Frequent mowing of these areas will be needed to keep them free of unwanted vegetation.

Larger individual trees and groups of trees in the meadows should be retained. It is known from photographs and drawings that trees dotted the meadows during the historic period, but there are no surveys that documented trees in these outlying areas. The 1943 aerial photo and photos taken in 1940 for the master plan should be consulted to help determine the number, location, and species of the meadow trees.

Conifer Stands

Treatment of the conifer stands should address their original intent and function within the landscape. Like the woodlands, individual trees are not as essential as the overall effect. Important characteristics of the woodland stands include their location and extent, the uniform age of the trees, the spacing and arrangement of the trees, and the exclusion of deciduous species. The primary effect of screening views and noise from adjacent lands should guide treatment of the conifer stands.

The conifer stands within Vanderbilt Mansion National Historic Site differ in significant ways from the deciduous woodlands and should be managed for their unique characteristics. The stands were planted either all at once or in discrete

phases, resulting in mono-species and mono-aged stands. Trees in such stands tend to grow tall and straight, but may exhibit some structural weakness, especially as they age. The uniform age of the stands also mean that the trees in the stand will reach the end of maturity and begin to decline at about the same time.

Conifer stands should be managed for overall stand health and character. Hazardous trees and trees that have fallen should be removed, and the understory should be kept free of invasive species such as Norway maple. Because of poor growing conditions in the dense stands and to preserve the uniform age of the stands, individual trees should not be replaced in kind as they die or are removed. Rather, the stand as a whole should be removed and replaced when appropriate, using the same species and layout of the original stand.

Formal Gardens

In the treatment of the formal gardens, plant species and variety choices, location within the garden, and arrangement within each bed is important. As would have been the case during the historic period, particular attention should be paid to the colors, texture, and timing of the blooms and foliage of the garden plantings, ensuring that the gardens produce interest throughout the season. The historical record should be consulted to ensure authenticity of the content, arrangement, and overall style of the gardens. The formal nature of the gardens together with the composition of annuals and perennials dictate a high level of maintenance to present a well-kempt appearance.

The formal gardens are currently being maintained by the Frederick W. Vanderbilt Garden Association (FWVGA). This maintenance includes the seasonal planting of annuals and perennials, the mowing of lawns, pruning of vines and shrubs, and control of weeds. This has kept the gardens in overall good condition and maintained a character appropriate for an estate formal garden. Numerous elements, however, have been lost since the historic period and current plantings are in some instances at odds with the historic character. Reestablishment of garden elements such as walls, fences, hedges, and shrubs and a cohesive plan for seasonal plantings will enhance the historic character of the garden.

III. TREATMENT TASKS

The following section provides specific treatment tasks associated with rehabilitation of the Vanderbilt Mansion National Historic Site landscape. The recommended treatment tasks have been developed within the context of the general treatment philosophy and principles outlined for the property as a whole and the five landscape character areas of the park. To help organize these tasks, the park has been further divided into ten treatment zones based on spatial and functional characteristics. The ten treatment zones, as well as the landscape character areas that comprise them, are delineated in Drawing 8. The individual treatment tasks are indicated on Drawings 9 and 10, which divide the property into north and south, as well as Drawings 11-16, which provide more detailed plans for some of the treatment zones.

TREATMENT ZONE 1: MAIN GATE AND ENTRANCE DRIVE

Treatment Zone 1 comprises the Main Gate, Entrance Drive and maple allée, White Bridge, and the main pond on either side of the bridge (Drawing 11). Character-defining features within this area include the Main Gatehouse and its yard area; the Main Gate dressed stone walls, piers, urns, and iron gates; the semicircular asphalt turnout from Route 9 and the planting areas along the east side of the gate wall; the Entrance Drive from the Main Gate to the White Bridge; and the White Bridge itself. Vegetation features include the double row of sugar maples that line the Entrance Drive, as well as a number of large specimen trees of other species.

The landscape in Treatment Zone 1 is characterized by parkland. Treatment within this zone should focus on maintaining the open and well-kempt character of the parkland, maintaining (or reestablishing) the intended character of the maple allée, and perpetuating the health and vitality of the extant specimen trees. Furthermore, actions should be taken to reestablish the historic character of the entrance plantings at the Main Gate. The following treatment tasks are recommended for Treatment Zone 1.

BUILDINGS AND STRUCTURES

Task 1.1: Preserve Main Gate Piers, Walls, and Iron Work.

The Main Gate structures, comprising dressed stone walls and piers with a rubble core, iron gates, and stone urns, have been a prominent feature of the Vanderbilt Estate since they were built in 1898. The Main Gate, together with the Main Gatehouse, were the only that most of the public ever saw of the private estate. The Main Gate was repaired in about 1998, including repair and replacement of

parts of the iron work and repointing of the stone. Harsh elements, however, have continued to deteriorate the front gate since then. To prevent the need for major repair work, the gates should be inspected carefully and monitored regularly for rust and deterioration and repaired as needed. Rust should be removed when found and the iron repainted to retard further rust, and rust stains should be cleaned from the stone faces. Mortar should be inspected for cracks and repaired as necessary to prevent damage from freezing water.

Encroaching vegetation poses an additional risk of damage to the gate elements. Moss and dead leaves on the tops of the walls and piers and along the stone joints can stain the stones and hold moisture against the mortar. Weeds that become established on or near the gate elements can cause damage from their roots. To prevent damage to the structures, remove weeds and moss currently growing on the piers and urns and keep all structures free of vegetation and debris. Prune tree branches away from the Main Gate features (Figure 25).

Task 1.2: Preserve White Bridge.

The White Bridge, designed by W.T. Hiscox and Co. and constructed in 1897, spans Crum Elbow Creek on the Entrance Drive, creating an elegant approach to the estate. Said to be one of the first steel and concrete bridges to be erected in the country, it is a Melan single-arch bridge.

The White Bridge was restored in 1998 using both new and original material (Figure 26). Continue to monitor the condition of the bridge, making repairs and replacements in kind when necessary. Keep the bridge free of weeds, moss, lichens, and stains.

Task 1.3: Preserve Cast Stone Curb.

Cast stone curbs were used in several places on the estate during Vanderbilt's residency, including the Main Gate. The curbs were restored around 2000, but they continue to suffer damage, cracking, and chipping (Figure 27). Repair sections of the curb using compatible materials and construction. As some of this damage is perhaps being caused by snow plows, snow removal methods and practices should be assessed to reduce further damage to these structures.

VEGETATION

Task 1.4: Reinstate Main Gate plantings.

The plantings that once adorned the Main Gate have been lost since the historic period. The only two trees that remain, Colorado blue spruces (*Picea pungens*), are overgrown from the original low shrubs that occupied the planting beds along the gate walls.

There is little documentation indicating exactly what was planted in the Main Gate beds. No plan drawings have been located for the Main Gate, and no

information is known about who designed the plantings. One of the few possible references to this planting was in a correspondence between Vanderbilt and Superintendent Herbert Shears in 1924:

> I think Cridland's estimate is more than I care to spend on main entrance planting. If nothing better turns up, I will accept the Poughkeepsie Nursery Co. bid for $400.00. I think putting in all yews anyway is too somber an effect in that place and would prefer a variety.[27]

This appears to refer to the Main Gate plantings, although "main entrance" may refer to other areas along the Entrance Drive or to the Mansion foundation plantings, for which Cridland had developed a planting plan the year before.

A photograph from the 1930s of the Main Gate provides our best record of the character of the plantings (Figure 28). The photo shows a variety of mainly conifer shrubs planted in the beds along the gate walls. Although it is not possible to determine the plant species from the photograph, the shrubs have a variety of forms and sizes, from young upright trees about four feet high to small conical trees and lower mounding shrubs.

The reinstatement of the Main Gate plantings should take several factors into account. The lack of historical documentation precludes an authentic restoration, however, the character of the plantings can be reasonably reproduced based on the historic photo. Any new plantings must also accommodate the harsh conditions present at the Main Gate and along Route 9, including heat, wind, drought, winter road salt, and snow removal. Finally, consideration should be given to the ultimate height of the plants. Originally, trees were planted that had mature heights much greater than what was intended for the location. It is doubtful that the shrubs were intended to get much taller than the gate wall at their tallest. As was common in a time when dwarf varieties were less numerous and less available than today, it was likely that the intention was to remove and replace the trees as they grew too big. This practice is evidenced at the Main Gate by the two overgrown spruces that remain.

Replant the beds with a variety of dwarf and slower-growing conifer plants reflecting upright, conical, mounding, and spreading habits. Variety should be sought in height, form, color, and needle shape, with plants planted either singly or in small groups. At least five different species or cultivars should be used to create the desired variety in the planting. Plants should be chosen for character, suitability to the location and its constraints, small maximum size, or slow growth. Some suggested species include *Taxus canadensis*, *Picea pungens*, *Picea orientalis* 'Nana', *Chamaecyparis obtusa*, *Juniperus chinensis*, and *Pinus mugo*.

Before reinstatement of the entry plantings, the beds at the face of the entry walls should prepared by first removing the salt-laden soils. Excavate to a depth of three feet and install a gravel drainage layer of three inch depth with filter fabric before refilling the planters with fertile, well drained topsoil. After the plants are

installed, provide irrigation as needed until they are well established, and ensure that snow removal and storage practices do not damage the plants. Continue to monitor the health and viability of the plants, replacing poor performers with other suitable varieties. Remove and replace plants as they reach a height of about six feet.

Task 1.5: Prune historic trees for form and health.

Large specimen trees and small clusters of trees comprise an essential characteristic of the historic landscape. The trees range in ages from around eighty years to more than two hundred years old. The trees provide a direct link to the past and instill a character of age and maturity to the landscape. These trees face issues that are inevitable in trees of advanced age, including poor structure, declining vigor, dieback, and windthrow. While these trees can not be preserved forever, efforts should be made to prolong their life and their contribution to the historic landscape as long as feasible.

Prune historic specimen trees to maintain form and promote health and longevity. Remove dead branches and weak or diseased wood, as well as crossing branches and other formal irregularities, but limit the extent of pruning of mature trees to maintain balance between the canopy and roots. Ensure that pruning actions are consistent with best practices for the maintenance of individual tree species.

The large oak to the west of the gate wall should be managed to ensure that it does not threaten the structure of the Main Gate. It is appropriate for branches to overhang the gate, as is evident in Figure 28, but branches that are in contact with the gate walls, piers, or urns should be cabled, supported, or removed.

Task 1.6: Monitor maple allée; replace all trees when loss is fifty percent.

The formal allée of sugar maples (*Acer saccharum*) is a major character-defining feature of the main entrance and should be managed as a single feature. Historically, the allée was characterized by a double row of about ten pairs of maple trees of the same age spaced evenly between the main gate and the White Bridge (Figure 29). Today, at least twelve of the original trees survive and have matured into large specimens with trunk diameters of between thirty and forty inches. Some of the trees have been lost and have been replaced in kind with young trees, with the younger trees varying from small saplings of about three-inch trunk diameter to young trees with a diameter of ten inches or more. By virtue of the extant historic trees, the feature still reads as a formal allée of mature maples, but a continued policy of replacement in kind of individual trees as they die will continue to degrade this effect (Figure 30).

To preserve the historic character of the allée, the trees should be all replaced at the same time, resulting in a unified feature of single-aged trees. This should be done when the feature no longer reads as an allée, or when about half of the

remaining historic trees are lost, or when about six original trees remain. In the mean time, however, it is not desirable to have gaps in the allée, so trees should be replaced in kind as they are lost.

Continue to monitor the remaining historic trees, pruning as necessary to prolong their viability and removing trees that cannot be maintained or that pose a safety hazard. As the trees are removed, replace the trees in kind. At the point when the feature no longer reads as an allée, all of the remaining trees should be removed and replanted together. Young trees that have recently been planted and are the same size as the new trees being planted may be retained, but mid-aged trees that are larger than the new trees should be removed and replaced. This will result in an allée of twenty trees (ten on each side) of the same size. Use the current tree-replacement procedure of removing the trees, grinding the stumps, and replanting in the same location. Prune trees along the margin of the adjacent wooded area to ensure that the new trees are not shaded or crowded.

Task 1.7: Manage pond edge vegetation. Suppress invasive species and reinstate emergent vegetation.

Crum Elbow Creek was controlled with dams creating ponds, pools, and runs from the earliest periods of development at Hyde Park. It is unknown what the exact configuration of the creek and ponds was during the earlier ownership periods, but the current configuration dates at least to the beginning of Vanderbilt's residency, when the White Bridge and the dams were built in 1897. The two ponds flanking the bridge, created by the White Bridge dam and the Power House dam, create a striking visual scene that complements the architecture of the bridge. Images from the historic period show that the pond around the White Bridge featured ornamental vegetation along its edge. Figure 31 shows emergent vegetation similar to arrowhead (*Sagittaria sp.*) and perhaps irises on the shore.

Today, the pond lacks ornamental aquatic and emergent vegetation along its edge. Lawn is mowed to the pond edge, and weeds colonize the pond banks and areas that aren't mowed (Figure 32). To recapture the historic character of the pond, reinstate aquatic vegetation along the shoreline of the main entrance pond, including both emergent and shore species. Suppress invasive species and woody vegetation such as tree-of-heaven from shoreline and around bridge abutments.

Several aquatic species were listed in the purchase ledgers between 1902 and 1938. It is not known whether these were intended for the ponds, the pools in the garden, or for the greenhouses. All of the species listed are non-native, and some, including milfoil (*Myriophyllum proserpinacoides*), are known to be invasive. The ponds at Vanderbilt Mansion are within a matrix of critical aquatic habitat including the Hudson River, smaller creeks, and ponds. In order to avoid introducing potentially invasive species into open waters, it is not recommended that the historic species be reintroduced to the ponds. To reinstate the historic

character of the ponds, plant native aquatic and emergent species along the shoreline of the entrance pond. Plants should have showy flowers and ornamental foliage. Suggested species include common arrowhead (*Sagittaria latifolia*) and blue flag iris (*Iris versicolor*).

Task 1.8: Preserve fern masses along woodland edge.

An understory of New York fern (*Thelypteris noveboracensis*) and hayscented fern (*Dennstaedtia punctilobula*) carpets the slope on the south side of the entrance drive in Zone 1 and inside the south bend along Bard Lane in Zone 8 (Figures 33).[28] The purchasing records indicate that the Vanderbilts bought hundreds of ferns, but most orders were small and of "assorted ferns," thus they were most likely for the greenhouses and floral displays. Documentation is lacking on the origin of these plantings along the entrance drive and Bard Lane. However, both ferns are common woodland species in the region and these areas offer ideal growing conditions for ferns—partial to heavy shade and moist soil. The fern masses should be preserved. In these same areas non native invasive Oriental bittersweet and poison ivy are growing on the sunny perimeter of the woods and should be removed by mechanical and chemical treatments.

Task 1.9: Rehabilitate spring flowering bulb plantings in lawn areas and in woodland edge.

The purchasing records indicate that the Vanderbilts ordered a large number of bulbs and groundcovers, but documentation is lacking on the locations where these were planted. Spring flowering bulbs are currently found in three locations. Daffodils (*Narcissus spp.*) grow to the east of the pond in the grove of trees and lawn area near Route 9 (Figures 35 and 36). Siberian squill (*Scilla siberica*) grows between the pavilion and the overlook. Grape hyacinth (*Muscari botryoides*) grows on the west side of the road between the parking lot north exit and the overlook (Zone 3). Daffodils also grow to the southwest of the mansion (Zone 8).[29]

In 1902 the Vanderbilts ordered a particularly large number of bulbs and groundcovers: 5,000 crocus, 2,000 snowdrops, 1,000 blue grape hyacinths, 2,600 daffodils, 1,000 Siberian squill, 1,000 spring starflower, and 2,000 lily-of-the-valley. Large orders followed in 1903 but thereafter diminished, with the exception of tulip orders in the 1920s. Most of the bulbs ordered in 1902–03 were small bulbs and groundcovers typically used for adding color to woodland edges, thus were likely planted throughout the grounds.

Many larger bulbs ordered by the Vanderbilts were likely for the formal gardens. A photograph of the lower perennial garden in c. 1916 shows the outer beds filled with daffodils.[30] In an interview with Alex Knauss, gardener for the Vanderbilts, he described the annual task of digging up bulbs and tubers for storage in the root cellar.[31] The purchasing records indicate that the Vanderbilts ordered over 7,000

tulip bulbs in 1920s, but most were ordered as 100 of a particular variety. An exception was a single order of 2,900 tulips in 1924. Some spring bulbs purchased in smaller quantities, which may have been incorporated into the garden beds.[32] The treatment of bulbs in the formal gardens is addressed in a separate volume.

The existing bulb and groundcover plantings throughout the Vanderbilt Mansion grounds should be rehabilitated to improve their blooming. Existing plantings should be preserved. Hardy bulbs, such as daffodil, squill, and grape hyacinth require partial sunlight and a moist well drained soil to bloom each year. After flowering, the foliage of bulbs in lawn areas needs to die down naturally rather than be cut, thus spring mowing should be delayed in areas with spring-flowering bulbs until the foliage lies down, or 2 to 3 weeks after blooming. While a high phosphorus fertilizer benefits bulbs, surface applications should not be applied adjacent to the pond. Ideally existing bulbs would be dug up, divided, and the soil amended, and the bulbs replanted. Divisions are best done when the foliage dies down and the bulb enters a dormant period.[33] If additional bulbs are added, they should be of the species and colors identified in the purchasing ledgers and should be added where bulbs of that species are currently present in Zones 1, 3 and 8.

CIRCULATION

Task 1.10: Replace drive surface with chip-seal or stabilized aggregate when repaving is necessary.

During the historic period, the drives throughout the estate were surfaced with gravel or crushed stone. The current use of dark, uniform asphalt for the park drives is out of character with the historic landscape (Figures 37 and 38). Resurfacing the drives with a material that is lighter in color and coarser in texture will give the roads a character that is more in line with historic conditions. Consideration should be given to using a chip-seal surface or stabilized aggregate that will be closer in color, texture, and character to the historic gravel drives, but will have the durability and safety needed for park circulation. This may either be done as a top dressing on existing roads or at a future time when life-cycle replacement necessitates the resurfacing of the drives.

CONSTRUCTED WATER FEATURES

Task 1.11: Manage pond depth.

The pond is filling up with silt through natural succession accelerated by a dramatic increase in development in upstream areas since the historic period. If corrective action is not taken, the pond will soon become a shallow bog. Such a change would alter the historic character of the entry area dramatically. Ideally the pond should be dredged to increase the depth and maintain its footprint and character. There may be other methods of either reducing the silt in the pond or

at least slowing its accretion. Efforts upstream from the park may be pursued in coordinated with the town's conservation administrator to reduce the inflow of silt. A hydrologist or other specialist should be consulted and the appropriate action taken to prevent the loss of this important feature. Dredging of the pond may be planned in conjunction with repairs to the White Bridge dam.

SMALL-SCALE FEATURES

Task 1.12: Reduce signage at Main Gate.

Current signs and traffic control devices, whether affixed to the Main Gate Structures or used temporarily to control traffic, are incompatible with the historic character of the Main Gate. While signage is needed to for visitor safety and information and to identify the park, efforts should be made to reduce the visual impact of these signs. For example, a large National Park Service arrowhead sign, approximately two feet by three feet, affixed to the southernmost pier of the Main Gate should be removed or incorporated into the park identification sign (Figure 39). Temporary traffic control features, such as orange traffic cones, should be used only when needed and promptly removed to reduce the visual clutter at the Main Gate.

TREATMENT ZONE 2: MANSION GROUNDS

Treatment Zone 2 comprises the core of the former estate property, including the Mansion and Pavilion, the lawns and specimen trees around the Mansion, the Great Circle and the Entrance Drive between the White Bridge and the Great Circle, and the landscape surrounding the formal gardens (Drawings 9 and 10). Character-defining features of this area include the nearly level topography which unifies the area, the extant specimen trees dating from each owner period, the spatial organization of open area and informal tree groupings, the placement and character of the mansion and Pavilion, and the distinctive organization of the drives. The notable tree collection is concentrated in the South Lawn, Great Circle, and Pavilion areas and includes the large ginkgo tree, a multi-trunk weeping birch, and a number of other notable trees.

BUILDINGS AND STRUCTURES

The treatment of the major buildings at Vanderbilt Mansion National Historic Site, including the Mansion and the Pavilion, should be undertaken in accordance with a comprehensive plan based on Historic Structure Reports or in consultation with a historical architect. Treatment recommendations for these structures will not be addressed in the CLR.

VEGETATION

Task 2.1: Preserve specimen trees. Replace dying and hazard trees in kind and in location.

Large specimen trees and small clusters of trees comprise an essential characteristic of the historic landscape. The trees range in ages from around eighty years to more than two hundred years old. These trees are invaluable contributors to the park's historic character and significance, creating the important spatial relationships, conveying a sense of age, and providing a direct link to the historic period. These trees face issues that are inevitable in trees of advanced age, including poor structure, declining vigor, dieback, and windthrow. While these trees can not be preserved forever, efforts should be made to prolong their life and their contribution to the historic landscape as long as feasible.

Every effort should be made to retain and nurture the park's specimen trees. Preservation efforts should be made in accordance with best practices for the treatment of mature historic trees, and should include pruning for health, form, and safety and cabling when necessary. Care should be taken not to over prune mature trees thereby creating an imbalance between the roots and canopy. Tree roots should be protected from compaction by heavy equipment.

As the trees reach a point where they can no longer be maintained or they pose a significant safety hazard, they should be removed and replaced in kind and in location. The park should continue its current procedure of removing the tree, grinding the stump, and replanting in the same location. Prominent and rare specimens should be propagated in anticipation of replacement to ensure the preservation of genetic material.

Task 2.2: Repair damaged lawn areas.

Turf grass was a major landscape component during the historic period, contributing strongly to the character of the parkland areas. Several areas around the Mansion that see concentrated visitor use have suffered damage to the turf grass (Figure 40). Repair these areas by aerating the soil and reseeding with a suitable turf grass species. Protect the areas until they have become well established.

Task 2.3: Reinstate Mansion foundation plantings.

In 1923 Robert Cridland designed plantings for the front of the Mansion. Cridland's plan was very specific, both in species and variety as well as plant height and number (Figure 41). Although it is not known when exactly the plantings were installed or whether they were installed exactly as Cridland had designed them or as a variation of his design, by the end of the historic period, well established conifer shrubs adorned the Mansion façade. Images of the Mansion in the 1940s show plantings that could well have been those that

Cridland designed, but by that time they no longer reflected the character that Cridland had intended (Figures 42 and 43).

The reinstatement of the Mansion foundation plantings is being proposed here as an optional treatment task. Doing so would enhance the historic character of the landscape, returning it closer to its condition in 1938. However, planting shrubs along the front of the Mansion would also introduce a number of issues, including the potential for damage to the Mansion structure from roots and moisture and an increase in the resources required to prune and maintain the plants.

If the reinstatement of the foundation plantings is undertaken, the 1923 Cridland plan should be used as a guide for both plant species and arrangement. Most of the shrubs should be kept low beneath the bottom of the windows, with the exception of the taller columnar forms specified in the plan. As in the Main Gate plantings, slow-growing or dwarf substitution varieties may be used to reduce maintenance and delay the eventual need to replace overgrown plantings (Drawing 12).

Task 2.4: Reinstate shrubs around formal gardens.

There are two sources of detailed planting plans for the flowering and evergreen shrub plantings around the rose garden. In 1910, Thomas Meehan and Sons designed the loggia garden, known today as the rose garden, as an eastern extension to the original formal garden terraces (Figure 44). The plans included a diverse planting of shrubs along the outside of the enclosing fence. In 1916, the shrub plantings were altered and augmented by Robert Cridland (Figure 45). Cridland's plan included a replanting of the north and east sides of the garden, while along the south side, the Meehan plantings were retained. These plans are complete with plant species and variety, and in the case of the Cridland plan, quantity and size of the plants. The existence and layout of these plantings is confirmed in the 1930s aerial photo of the garden (Figure 46).

Today, only a few remnant shrubs remain from these plantings, and these have become overgrown and choked with vines and invasive plants. There are also a number of junipers around the rose garden pavilion, as Cridland calls for in his plan, but it is unknown at this time if these are original plants or if they have been replaced since then. In either case, these are overgrown and in poor health.

To reinstate the full shrub planting around the rose garden, the existing shrubs should be removed and the area planted completely with new plants. The Cridland and Meehan plans should be used as a guide for plant selection and placement. The composite of the two plans, as it would have been planted after 1916, is shown in Drawing 13.

If the shrubs around the rose garden are not to be reinstated at this time, the alternative is to stabilize and rejuvenate the existing shrubs. This would entail

removing the vines and invasive plants and pruning the shrubs to improve form and health. Shrubs should be protected, mulched, and kept free of vines.

Task 2.5: Preserve redbud and dogwood grove.

The redbud and dogwood grove is located prominently on the east-facing slope just south of the formal gardens. As a landscape feature, the grove bore an orchard-like character of evenly spaced trees with an open understory. During the spring, the blossoms on the trees would have created a striking effect.

Today, the trees in this grove continue to suffer health issues related to their advanced age and from competition from invasive species in the understory, which not only compete with the trees for resources but also detract from the historically open character of the grove (Figure 47). Continued efforts are needed to prevent the growth of vines and woody plants in the grove and encourage the growth of meadow grasses and forbs beneath the trees. This would involve seasonal mowing as well as some hand removals of troublesome plants. Seeding with an understory grass may help establish desired species and discourage unwanted plants.

The trees themselves should receive appropriate preservation efforts to ensure their health and longevity, including pruning and cabling where necessary. Replace in kind any dead and missing trees and those that can not be sustained.

Task 2.6: Rejuvenate rhododendron.

Several rhododendron plantings are located in the vicinity of the formal gardens and along the drives (Figures 48, 49, and 50). See also Zone 8 for azalea plantings west of the walk between the formal gardens and mansion.

The purchasing records indicate that the Vanderbilts ordered many rhododendron and azaleas between 1903 and 1926, including 400 small Amoena azaleas (*Rhododedron x Kurume 'Amoena'*) in 1903 (most likely for the formal gardens), 50 hybrid rhododendron of assorted colors in 1911, 75 rosebay rhododendron (*Rhododendron maximum*) in 1914, 36 rhododendron in 1916, 12 rhododendron in 1917, and 42 rhododendron in 1926.

Two groups of rhododendrons are located near the intersection of the entry drive with the road to the Gardener's Cottage. A healthy grouping is located to the north of the service drive to the Gardener's Cottage and a declining planting is located to the south of the service drive amidst other plantings. The plantings are composed of Catawba rhododendrons (*Rhododendron catawbiense*), which bloom with mixed colors in late May to early June. A plan representing the garden area 1938 shows the former extent of the rhododendron plantings.[34] The plantings should be rejuvenated and the existing plants propagated by the layering method in order to expand the plantings to their former size to screen the service drive.

Another Catawba rhododendron plantings is located between the South Drive and Crum Elbow Creek, opposite the formal gardens and redbud and dogwood grove. This planting is representative of several groupings along the South Drive. One grouping is further down the South Drive, about halfway to the South Gate in Zone 4, and the other is near the South Gate House. Based on the entries in the purchasing records, it is likely that these plantings were added during the Vanderbilt period. Each planting should be rejuvenated to improve its health and appearance. Remove encroaching vines and invasive vegetation and prune the rhododendron as needed for health and form. The plantings along the South Drive are not well documented in the first volume of the Cultural Landscape Report (1992) and partially documented in the Historic Plant Inventory (1995) as they are at the edge of the historic core.[35] An inventory and associated map of the plantings along the South Drive and around the South Gate House is needed to aid in ongoing preservation maintenance. The ordering records and historic plant inventory indicate that at least two species are present, Catawba, which blooms in late May to early June, and Rosebay, which blooms in early June. A more detailed inventory will indicate where each species is located.

CIRCULATION

For treatment of the drive surfaces, including the Entrance Drive and the Great Circle, see Task 1.6.

Task 2.7: Restore pedestrian circulation paths.

Two pedestrian circulation paths are in need of repair to restore their historic character. The first extends from the White Bridge to the Great Circle and the second from the northeast corner of the formal gardens to the South Drive (Figure 51). Both of these paths date to the historic period, and the first dates as far back as Parmentier's layout for the estate grounds. Today the paths are suffering from loss of surface material, lack of edge definition, and encroachment by vegetation.

Restore these paths using quarter-inch-minus crushed stone at a width of two feet. Use stabilized fill where the paths have eroded to bring the path bed to grade. Gullying and erosion of path material should be prevented by crowning the path surface, creating drainage dips, or installing subsurface checks to direct water away from the path. Maintain the paths to suppress grass and weeds.

TREATMENT ZONE 3: NORTH LAWN, NORTH DRIVE, AND NORTH GATE

Treatment Zone 3 contains the large lawn area north of the Great Circle, the North Drive between the Pavilion and the North Gate, as well as the North Gate

itself (Drawing 10). The area immediately west of Route 9 containing the white pine buffer is discussed in Treatment Zone 6 below.

The dominant character-defining feature of this zone is the North Drive, lined with sugar maples, that winds northward toward the North Gate and Bard Rock. To the left of the drive, the ground drops off steeply, offering some of the most dramatic views on the property; to the right, the broad North Lawn opens up, dotted with solitary trees. This zone also contains the largest non-historic addition to the landscape, the visitor parking lot, which occupies the southern third of the original north lawn.

BUILDINGS AND STRUCTURES

Task 3.1: Preserve North Gate Piers, Walls, and Iron Work.

The north gate was constructed in 1906 after Vanderbilt acquired the Sexton Tract in the same style but of slightly simpler design than the main gate. Like the main gate, the North Gate is subjected to impacts from the elements, such as excessive and persistent moisture, moss and weed growth, and vegetation encroachment. Appropriate action should be taken to preserve the structural elements of the North Gate. The discussion of Task 1.1 describing the issues and actions associated with the preservation of the Main Gate applies to the preservation of the North Gate as well.

VEGETATION

Task 3.2: Reinstate North Gate plantings.

As was the case with the Main Gate, the North Gate also featured ornamental plantings in the beds along the gate walls. Although there are no known photographs of the North Gate plantings, the existing spruce trees in the beds today suggest that the North Gate was planted in a similar fashion as the Main Gate (Figure 52). Reinstatement of the North Gate plantings should be undertaken with the same parameters as the Main Gate plantings, using the same species arranged using the same guidelines. See Task 1.3 for further discussion.

Task 3.3: Repair turf grass at overlook.

The turf grass at the overlook is suffering from compaction due to concentrated visitor use (Figure 53). Repair these areas in the early spring or late summer by aerating the soil, taking care to prevent damaging the roots of shade trees, and reseeding with a suitable turf grass species. Protect the areas until they have become well established.

Task 3.4: Rehabilitate spring flowering bulb plantings in lawn areas and in woodland edge.

In the spring Siberian squill (*Scilla siberica*) grows between the pavilion and the overlook and grape hyacinth (*Muscari botryoides*) blooms on the west side of the road between the parking lot north exit and the overlook See Task 1.9 for further discussion.

CIRCULATION

The circulation in Treatment Zone 3 has changed in character since the historic period, primarily to accommodate increased use and visitor access. The significant changes include the main visitor parking lot, angled parking along the North Drive, hard surfacing of the North Drive with smooth black asphalt, and timber-and-cable traffic guards along the road. Although these changes alter the drive's historic character, they have been done in a largely compatible fashion and are needed to provide adequate visitor service.

The North Drive accommodates a considerable amount of pedestrian traffic of people walking between the visitor parking lot and Bard Rock. This is a popular walking route, offering some of the most dramatic views of the property. In the absence of a suitable footpath, most visitors walk on the road, which, although not ideal, is mitigated by the slow traffic speed, one-way direction, and moderate to light volume on most days. Construction of a dedicated pedestrian path would be difficult due to the proximity of trees and the edge of the steep slope to the road edge. Construction of such a footpath would require realignment of the road in places to provide enough room. Furthermore, a footpath along the road would increase the overall width of the road bed, markedly altering its historic character (Figures 54, 55, and 56).

In an effort to balance historic character, visitor services, and the needs of the park, it is recommended that the existing configuration of the North Drive, the main visitor parking, and the angled parking at the overlook be retained.

For discussion of the road surface, please see Task 1.6 above.

TREATMENT ZONE 4: SOUTH GATE AND SOUTH DRIVE

Treatment Zone 4 includes the South Gate, South Gatehouse, and the portion of the South Drive between the South Gate and the redbud and dogwood grove south of the formal gardens (Drawing 14). Like the Main Gate and the North Gate, the South Gate and South Drive is characterized by parkland, with mown lawn and specimen trees lining the road. A short segment of approximately 500 feet of the South Drive is characterized by deciduous woodland. Along this section, the drive passes through forest with no landscaped areas on either side.

BUILDINGS AND STRUCTURES

The treatment of the major buildings at Vanderbilt Mansion National Historic Site, including the South Gatehouse, should be undertaken in accordance with a comprehensive plan based on Historic Structure Reports or in consultation with a historical architect. Treatment recommendations for these structures will not be addressed in the CLR.

Task 4.1: Preserve South Gate Piers, Walls, and Iron Work.

The south gate was constructed at the same time as the main gate in 1898. Issues impacting the South Gate are similar to those of the other two gates, and appropriate action should be taken to preserve the structural elements of the South Gate. The discussion of Task 1.1 describing the issues and actions associated with the preservation of the Main Gate applies to the preservation of the North Gate as well.

VEGETATION

Task 4.2: Reinstate South Gate plantings.

Unlike the Main Gate and the North Gate, the South Gate did not have a mixed conifer planting, but was planted with a continuous low hedge of Japanese barberry (*Berberis thunbergii.*) with Boston ivy (*Parthenocissus tricuspidata*) covering the walls and gate piers. These plantings have been lost since the historic period. To enhance the historic character of the South Gate, reinstate the plantings, using Figure 57 as a guide. Japanese barberry has a tendency to escape cultivation and is considered a on-native invasive species. A substitute species may be used to reduce the impact of invasive species in the natural areas of the park. Suitable substitutions may include boxwood (*Buxus serpervirens*), mountain laurel (*Kalmia latifolia*), inkberry (*Ilex glabra*), or Japanese holly (*Ilex crenata*). Maintain the clipped hedge with a maximum height of eighteen to twenty-four inches. Prior to planting, the beds should be prepared in a manner described in Task 1.3.

Task 4.3: Remove South Gatehouse plantings and reinstate yews.

Documentation for plantings at the South Gatehouse is sparse. The only located photo from the historic period is a 1899 Charles S. Piersaull photo, taken shortly after the building was completed, that does not show any foundation plantings at all (Figure 58). A photo from 1956, nearly twenty years after the end of the historic period, shows a number of small foundation plants of a variety of species along the front and sides of the South Gatehouse (Figure 59 and 60). Two site surveys from the historic period include the South Gate are. The first, a J.S. Burley survey from 1899, shows two yews flanking the entrance walk to the Gatehouse, adjacent to the road (Figure 61). These were likely installed shortly after the building was completed and after the Piersaull photo was taken. The

second survey was done in conjunction with the 1941 master plan and does not indicate any plantings in front of the Gatehouse. There may have been no plantings at the time, or the survey may not have been at a sufficient scale to record them.

The existing rhododendron shrubs at the front of the South Gatehouse are not historic and are overgrown well beyond the scale of any historic plantings (see Figure 60). All foundation plantings along the front of the South Gatehouse should be removed to restore the simpler and more open character of the building's façade. The front of the building may be left unplanted with foundation shrubs, or the two yews recorded on the Burley survey may be reinstated. To reinstate the yews, plant one on each side of the entrance walkway, approximately four feet from the edge of the walkway pavement and four feet from the edge of the drive. Maintain these to a maximum crown diameter of four feet and a maximum height of six feet.

Task 4.4: Rejuvenate rhododendron.

The large rhododendron at the intersection between the South Drive and the road along the river is being encroached by vines and other vegetation. The rhododendron likely dates to the Vanderbilt period (see Task 2.6) and should be rejuvenated to improve its health and appearance. Remove encroaching vines and invasive vegetation and prune the rhododendron as needed for health and form (Figure 62).

CIRCULATION

Task 4.5: Remove temporary auto shelter.

Non-historic and incompatible structures and features near the South Gatehouse include a Quonset-hut-style temporary auto shelter. This feature is conspicuous and incongruous with the historic landscape (Figure 63). Remove the Quonset-hut-style auto shelter adjacent to the South Gatehouse and remove asphalt paving. If parking is desired for residents of the South Gatehouse, provide gravel surface parking space for one vehicle in the current location. Surfaced parking space should be no larger than nine feet by eighteen feet.

SMALL-SCALE FEATURES

Task 4.6: Remove incompatible small-scale features from the front of the South Gatehouse.

Non-historic incompatible elements in front of the South Gatehouse, including incompatible drainage structures and lawn ornaments, detract from the historic character of the South Gatehouse. The current General Management Plan addresses the storage of outdoor equipment, garden furnishings, car parking, and other personal affects within high visibility areas to minimize visual intrusion of

cars and other modern elements into the historic scene. In accordance with this guidance, incompatible features such as lawn ornaments should be removed from the front of the South Gatehouse. Remove the white drain pipe that feeds roof drainage to the street gutter, addressing roof drainage so that the pipe is not necessary (Figure 64).

Task 4.7: Move bicycle sign.

A road sign indicating no bicycles are allowed on the Lower Woodland Drive is currently located prominently near the South Drive in front of a historic juniper tree. In order to make this sign less conspicuous, it should be relocated further from the paved drive and closer to the gated entrance to the Lower Woodland Drive (Figure 65).

TREATMENT ZONE 5: COACH HOUSE AND COACH HOUSE MEADOW

Treatment Zone 5 includes the Coach House and the adjacent meadow, as well as the entrance drive and parking lot, and the row of trees along River Rd (Drawing 15). The entrance at the coach house has functioned, both historically and currently, primarily as a service entrance and is a less formal entrance than the Main Gate, South Gate, or North Gate. Nonetheless, the areas directly around the Coach House and the entrance drive were consciously designed and are characterized by parkland landscape character area.

BUILDINGS AND STRUCTURES

The treatment of the major buildings at Vanderbilt Mansion National Historic Site, including the Coach House, should be undertaken in accordance with a comprehensive plan based on Historic Structure Reports or in consultation with a historical architect. Treatment recommendations for these structures will not be addressed in the CLR.

VEGETATION

Task 5.1: Reduce lawn area and reinstate meadow on either side of the Coach House Entrance Drive.

There is no evidence that significant areas around the Coach House were maintained as lawn. Consistent with other drives in the estate, the entrance drive at the Coach House was likely bordered by a narrow mown band, with the remainder of the area maintained as meadow. Convert much of what is maintained as lawn area on either side of the entrance drive to meadow, maintaining a five-foot band of mown turf grass on the drive's shoulders. Meadow areas should be mowed two times a year in the late spring and early fall

to encourage a mix of native grasses and wildflowers and to discourage woody vegetation.

Task 5.2: Remove and replace failing trees in-kind.

Three white pine trees historically grew along the south façade of the Coach House. One of these trees has recently been replaced, and the other two are of an advanced age and in declining health (Figure 66). Remove and replace the two remaining trees in kind. The replacement trees should match the one already replaced in age and variety so that the three trees grow similarly.

Task 5.3: Replant the two spruce trees on the west side of the Coach House.

Photographs and aerial photographs from the historic period indicate that two large spruce trees were planted on the west façade of the Coach House (Figure 67). While the species of the trees is unknown, the trees exhibit the branching habit and density of Colorado blue spruce. To reinstate these spruce trees, plant one Colorado blue spruce (*Picea pungens*) in the planting bed in front of each of the Coach House wings.

Task 5.4: Reinstate lost sugar maple trees.

A row of historic sugar maple trees line the southern boundary of the estate on the inside of the stone wall along River Road. While the majority of these trees survive today, some have been lost, resulting in gaps in the row. Plant sugar maple trees to replace missing trees, using the spacing of existing trees to determine the number and location of missing trees (see Drawing 15).

TREATMENT ZONE 6: CONIFER SCREEN

Treatment Zone 6 comprises the long conifer screen along Route 9 between the North Gate and the Main Gate, as well as the subway (Drawing 16). The screen consists of mature white pines and hemlocks and forms a visual barrier between the estate and the road and creates an important enclosure for the open areas of the Mansion grounds.

BUILDINGS AND STRUCTURES

Task 6.1: Stabilize and repair the subway.

The subway, used by the Vanderbilts to travel from the estate property to the farm property under Route 9, is suffering from damage and deferred maintenance. The walls of the subway are cracked and spalling, and are being impacted from adjacent trees. Weeds and invasive woody vegetation is growing in the earthen floor of the subway. Immediate action is needed to prevent further deterioration of the subway structure (Figures 68 and 69).

The subway walls should be stabilized and repaired. Add temporary structural support where the walls are in danger of collapse until necessary repairs can be made. Repair cracks, spalling concrete, and damaged core structures to prevent water infiltration and weed growth in the walls. Remove trees growing along the outer perimeter of the structure that are impacting the walls' structural integrity. Remove weeds and woody invasives from the subway floor and walls, and surface the floor with compacted gravel to inhibit new weed growth.

Ultimately the subway should undergo restoration work to repair and rebuild the walls using original or compatible materials and methods.

VEGETATION

Task 6.2: Replace the conifer screen along Route 9.

The stand on the eastern boundary of the property along Route 9 was planted as a screen to increase the privacy of his estate. The screen was planted in three successive phases, the earliest along the road in about 1898 and the next in 1906. These two phases were white pines planted in regularly spaced rows. In photographs from the 1940s, the different ages of these two rows are evident, but today the trees are the same size and the different ages are not discernible (Figure 70). The third phase of planting was of Canadian hemlocks in about 1937. This row is clearly discernible today, both by the different species and by the younger age.

The entire screen is beginning to show signs of age and decline, particularly the white pines that are now over a century old. Some have already been lost to wind throw, and others have needed to be removed for safety concerns. Safety is of particular concern along Route 9, as falling trees pose a serious threat to drivers. Furthermore, the taller trees exhibiting an open character below high canopies no longer function as a dense screen as they were originally intended. Therefore, the screen should be removed and replanted in kind, following a schedule that will replicate the original three-level arrangement.

To replace the screen, it should first be removed in its entirety. While a phased removal is a management option, it is not recommended as the amount of site disturbance would be greater and the competition between mature trees and seedlings would hamper growth of the screen. Establishing the entire screen in continuous rows will result in a screen that is more in character with the original screen during the Vanderbilt period.

Clear and remove all of the pine and hemlock trees from the North Gate to White Bridge (see Drawing 16). Replant the screen, beginning with the easternmost row of pines along Route 9 and following the existing spacing and arrangement. After a period of about ten years, plant the second row of pines along the inside of the first row. Finally, after another ten year interval, the hemlocks should be

replanted. Careful documentation of the location and species of all of the trees should be completed before their removal so that the stand's layout can be replicated with the new plantings. While this schedule does not duplicate the original timeline of planting, it does replace the entire screen over a twenty year period, maximizes the survival chances of the new trees, and results in a historically appropriate three-level screen.

This process for replacement of the conifer screen applies to the densely and regularly planted pines and hemlocks along Route 9. Immediately west of the Great Circle, between it and the conifer screen, is an area planted with large pines less densely and irregularly planted. While these irregularly planted trees at first glance appear to be part of the screen, their arrangement and character are different from the screen and should be treated differently. Beneath these trees, the ground is maintained as open lawn, giving it the character of parkland. These trees should not be considered part of the conifer screen and should be treated individually as specimen trees. Retain these trees and replace them in kind and in location when necessary.

TREATMENT ZONE 7: CRUM ELBOW CREEK

Treatment Zone 7 includes Crum Elbow Creek and the woodland around it between the South Gate and the White Bridge (Drawing 9). The predominant landscape character type in this zone is deciduous or mixed woodland, with the exception of the conifer stand just south of the Main Gate and entrance maple allée. Within this zone, there are a number of structures, including the Power House, Coach House Bridge, and two dams.

BUILDINGS AND STRUCTURES

The treatment of the major buildings at Vanderbilt Mansion National Historic Site, including the Power House, should be undertaken in accordance with a comprehensive plan based on Historic Structure Reports or in consultation with a historical architect. The Power House, in particular, because it is not in regular use, is suffering from deferred maintenance issues and structural problems. The building should be stabilized and maintained to prevent structural deterioration.

Task 7.1: Stabilize and repair Power House retaining wall.

The Power House retaining wall was constructed as part of the Power House to retain the steep slope above the creek. It is of the same construction and materials as the Power House. The retaining wall shows considerable damage and deterioration (Figure 71). Stones are loose and the mortar is cracked throughout the wall, and sections of the wall are leaning or have collapsed altogether. Seeping water down the hillside continues to undermine the wall and makes failure of significant portions of the wall likely.

The retaining wall at the Power House should be immediately stabilized to prevent further deterioration. Use support structures to shore up sagging and leaning sections of the wall. Collect and stock pile stones that have fallen from the wall to be used in repairs or restoration. In some places the slope below the wall should be stabilized. Once the wall has been stabilized, it should be repaired using original or compatible materials and methods.

VEGETATION

Task 7.2: Manage deciduous woodland for overall health and species composition.

Crum Elbow Creek and its woodland setting feature prominently in descriptions of the property from the earliest visitors in Samuel Bard's and David Hosack's ownership periods through the end of the Vanderbilt ownership period. The mostly deciduous woodlands provide a distinctly different character from the more open parkland areas near by. The woodland vegetation along Crum Elbow Creek should be managed to maintain its historic character. Invasive trees, shrubs, and vines should be removed throughout the woodland area between the South Gate and the Main Gate. Removal methods should protect the intact forest, and would include hand removal using a weed wrench for smaller diameter plants and cut and paint with herbicide for larger plants. Following removal, invasive species should be monitored and removed regularly. Overall the forest should be managed to create a well kempt appearance.

CIRCULATION

Task 7.3: Repair and preserve the footpath between the White Bridge and the Coach House.

The path that follows the creek along the east side from the White Bridge to the Coach House provides an experience unlike any other place in Vanderbilt Mansion National Historic Site (Figure 72). There is little documentation of this path, but it is likely that it dates to at least the Vanderbilt period. The path includes a number of small culverts constructed of large flat stones to convey runoff across the path.

Today, the path is in good condition for much of the route, but numerous places have been washed out on the slopes above the creek. These sections are impassible and prevent a complete trip between the White Bridge and the Coach House. The path should be repaired and maintained as a pedestrian route for visitors. The planned conversion of the Coach House from maintenance facilities to visitor service building as indicated in the current General Management Plan enhances the potential of this trail as a visitor amenity. To reinstate the path, damaged sections of the trail should be repaired and the drainage issues addressed to prevent continued damage. The path should be maintained to provide safe and convenient access to visitors.

The historic route of the path from the White Bridge veered to the west at the Power House, descending the slope to the bank of the creek. Along this very steep section of bank, the path traveled along a causeway constructed of large, flat stones on the eastern edge of the creek. The stones that made up this portion of the path are largely still along the creek bank, although some have been washed away and the path is not currently passable (Figure 73). Consideration should be given to repairing the causeway this portion of the path along the creek using the original stones, supplemented with compatible materials if not enough of the stones remain. Plans for its repair should be done in consultation with appropriate specialists, including stone masons and hydrologists, to determine the feasibility of reinstating the path here.

If repair and use of the stone causeway is not feasible, a new portion of footpath should be constructed above the Power House, descending the slope to the south, and reconnecting to the historic alignment. The new portion of path should match the historic path in width, materials, and character.

NATURAL SYSTEMS AND FEATURES

Task 7.4: Stabilize slope and correct drainage.

The slope above Crum Elbow Creek on the east side is suffering damage in several places from poor drainage and erosion. Broken or exposed clay pipes in this area are evidence of a previous drainage system, but the system does not appear to be functioning today (Figure 74). The result of the poor drainage is boggy areas, slick exposed muddy slopes, and drainage ruts and gullies. The drainage should be corrected both for the health and character of the forest and to facilitate the maintenance of the creek footpath.

A comprehensive solution to the drainage problem should be developed in consultation with appropriate specialists. Methods may include the installation of perforated drain pipes, gravel trenches, or other appropriate methods. All new drainage elements should be covered with biodegradable geotextile fabric and soil to conceal them from view.

Eroded areas and exposed slopes should be stabilized using appropriate techniques, including biodegradable textiles, such as jute mesh, and stabilizing woodland understory plant material. All stabilization efforts should be concealed to preserve the historic character of the forest.

TREATMENT ZONE 8: LOWER WOODLANDS AND MEADOWS

Treatment Zone 8 is the largest and most diverse treatment zone at Vanderbilt Mansion National Historic Site, comprising all of the woodlands and meadows between the Mansion terrace and the railroad tracks along the river, and a

portion of the former Sexton Tract (Drawings 9 and 10). This includes a long continuous band of deciduous woodland along the river, two meadows covering the rolling slopes below the Mansion and on the northern portion of the property, as well as the steep slopes directly below the Mansion and formal gardens. This portion of the estate composes the middle ground of all of the major views from the Mansion terrace toward the river, and so management of these views will largely involve treatment tasks in Zone 8. The treatment zone also includes the upper portion of the Curtis/Sexton estate (the lower portion is in the Bard Rock area). Prior to removal by the Vanderbilts in 1905, the area included greenhouses, farm structures, a Carriage House, Coachman's Cottage, and the Superintendent's Cottage, and the foundation of the Curtis/Sexton house "Torham," which burned in 1899.[36]

BUILDINGS AND STRUCTURES

Task 8.1: Preserve stone walls, retaining walls, and archeological remnants of buildings and structures associated with the former Curtis/Sexton estate.

A stone wall along Bard Lane, a retaining wall near the former Gardeners cottage, andrcheological remains and vegetation associated with the former Curtis/Sexton estate should be preserved. Features include the foundation of the Sexton Coachman's Cottage, materials from the Sexton Superintendent's Cottage just inside the north property line at the juncture of Bard Lane and the road paralleling the railroad, the cellar foundation and steps of the Vegetable Gardener's Cottage, and associated plantings (Figures 75 through 78).[37]

VEGETATION

Task 8.2: Remove vegetation on the slope below the Mansion and Pavilion.

Some of the most important views at Vanderbilt Mansion National Historic Site are from the areas around the Mansion and Pavilion toward the river and mountains to the west. During the historic period, these views were open and sweeping, with a limited number of specimen trees directly on the edge of the terrace to frame the views. The slopes below the Mansion and Pavilion were free of obscuring trees and brush. Today, the difficulty in keeping these steep slopes mowed has led to recurring colonization by trees and shrubs, especially dense thickets of tree-of-heaven (*Ailanthus altissima*). Periodic efforts to remove the tree-of-heaven, including one completed recently, are effective in the short term in opening up the views, but the plants eventually return to once again obscure the views (Figure 79).

Diligent efforts to suppress the tree-of-heaven and other brush on the slopes below the Mansion and Pavilion should continue. Hand removal with a weed wrench may be effective for smaller plants, while larger plants should be cut and painted with herbicide. Other methods of keeping the slopes clear may be

explored for feasibility, including the use of sheep or goats in moveable pens. Portions of the slopes that are not too steep to mow should be mowed on a schedule to suppress woody vegetation and encourage meadow species.

Task 8.3: Remove conifer trees below the Pavilion.

There are five or six conifer trees on the slope between the Pavilion and the Mansion that appear to have grown up since the historic period. These trees block significant portions of the views from this area and should be removed (Drawing 9).

Task 8.4: Clear woodlands from the slope to the west of the formal gardens to 1938 footprint.

The slope below the formal gardens was open meadow during the historic period, providing a significantly different character than the densely forested slope today. The path that climbs the ridge from Crum Elbow Creek in the south to the formal gardens would have offered views of the river to the west through a line of specimen trees that grew along the top of the slope (Figure 80). Since the historic period, the slope was not mowed and the forest grew up, blocking the views and casting the path into deep shade. Today, the forest is composed mostly of Norway maples with scattered large tulip trees and other species (Figures 81 and 82).

To reestablish the open character of the path along the top of the slope and to help reestablish the overall spatial organization of the estate, the forest on the slope to the west of the formal gardens should be cleared. See Drawing 9 for the extent of the clearing. Clear and grub the area, retaining mature tulip trees and any trees above twenty-four inches diameter as specimen trees. After clearing the area will need to be managed aggressively to suppress the reestablishment of the forest species and opportunistic species that will try to colonize the disturbed area. Plant and encourage meadow species with regular mowing or with the use of sheep or goats in the steepest areas.

Task 8.5: Clear woodlands south of the formal gardens to 1938 footprint.

Like the slopes below the formal gardens, the area directly to their south between the edge of the ridge and the South Drive has grown up from open meadow with clusters of trees into dense woodland (Drawing 9). To restore the open character and historic spatial organization, this area should be cleared, leaving the largest trees as specimens. Clear and grub the woodland, leaving mature tulip trees and any tree greater than twenty-four inches diameter. After clearing, manage the area to suppress woody vegetation and invasive species and encourage native meadow species.

Task 8.6: Reduce woodlands to 1938 footprint. Remove invasive species, vines, and all trees under twelve inches diameter.

The bands of deciduous woodlands along the river are an essential element of the historic landscape, but they have increased in extent since 1938, reducing the amount of meadow and obscuring important views. Woodland areas should be reduced to their historic footprint based on a 1943 aerial photograph, and the cleared areas restored to meadow (Drawings 9 and 10). Clear and grub all vegetation in the target areas and manage the areas to suppress woody vegetation and encourage meadow species.

In addition to reducing the woodlands to the 1938 footprint, the remaining woodlands should be managed for overall health and species composition. Along the woodland perimeter, remove all invasive trees and vines and all trees under twelve inches diameter. In the woodland interior, invasive species should be targeted for removal, including Norway maple (*Acer platanoides*), tree-of-heaven (*Ailanthus altissima*), and Oriental bittersweet (*Celastrus orbiculatus*). Removal of sapling trees under one and one-half inches diameter can be done by hand with a weed wrench. Larger trees should be cut and painted with herbicide to limit resprouting.

At the north end of the band of woodland along the river is a stand of spruce that reflects the characteristics of other conifer stands in the property. The trees, planted during the Vanderbilt period, are evenly spaced and of the same age. Remove dead and hazardous trees from the stand, but do not replace them. Manage the understory to remove other woodland species and invasives, especially in gaps left by deadfall. When the stand must be replaced, clear the entire stand together and replant using the same species and replicating the original layout.

Task 8.7: Maintain meadows with semiannual mowing and removal of woody vegetation. Preserve large trees within the meadow in kind.

The broad swaths of meadow on the slopes between the river and the Mansion terrace are one of the primary vegetation types at Vanderbilt Mansion National Historic Site. Together with the bands of woodlands along the river, the meadows composed the important views that were so valued by all of the owners at Hyde Park. Today, most of the meadow area is maintained with regular mowing to suppress woody vegetation. The most significant impact to the meadows is encroachment of the adjacent woodland areas and the transition of some of the steeply sloped areas from meadows to woodlands. The meadows are also being impacted by the colonization of invasive species in the meadow interiors.

The reclamation of meadows that have transitioned to woodlands is covered in Task 8.5 above. Once the woodlands have been cleared, reseed with native

meadow grass species and monitor regularly to suppress the resurgence of the woodland vegetation.

Maintain existing meadows and newly reclaimed meadows with annual mowing to suppress woody shrubs and trees. The number and timing of each mowing should be developed in consultation with a natural resource specialist to encourage native grasses and meadow forb species and discourage invasive non-native meadow species. The meadow vegetation should be composed primarily of grasses maintained to a height of between one and three feet.

Large extant trees in the meadows should be retained and replaced in kind when they die or must be removed.

Task 8.8: Rejuvenate azaleas along the west side of the walk between the formal gardens and mansion.

The purchasing records indicate that the Vanderbilts ordered many azaleas between 1903 and 1934. The largest quantity was 400 small Amoena azaleas (*Rhododendron x Kurume*) in 1903, which may have been for the formal gardens. Other orders included some eighteen different varieties, though quantities only ranged from six to fifteen plants.[38]

The Historic Plant Inventory (1995) indicated that only three azaleas remain in the historic core of the mansion grounds. These torch azaleas (*Rhododendron kaempferi*) are located to the west of the walkway between the mansion and formal gardens. Although this variety is not recorded in the purchasing ledgers, these azaleas should be preserved or replaced in kind.

Task 8.9: Preserve vegetation associated with the former Curtis/Sexton estate.

In addition to preserving the building and structure remnants from the Curtis/Sexton estate identified in Task 8.1 above, the plantings associated with the Vegetable Gardener's Cottage should be preserved.[39] Cultivated plant species that have naturalized in the area include hosta and day lily. Preserve these species in proximity to the building foundation, but remove cultivated species that spread into the surrounding woodlands.

Task 8.10: Preserve conifer stand and fern understory on former Curtis/Sexton estate.

Preserve the stand of conifers on the hill adjacent to the former site of the Curtis/Sexton home and coachman's cottage. As detailed in Task 1.8, preserve the understory of New York and hayscented ferns but remove Oriental bittersweet vines and poison ivy.

Task 8.11: Rehabilitate spring flowering bulb plantings in woodland edge.

Preserve daffodils growing to the southwest of the mansion. See Task 1.9 for further discussion.

CIRCULATION

Task 8.12: Preserve Lower Woodland Drive.

The unpaved drive in the lower woodland along the river was used for access to Bard Rock and as a pleasure drive during the Vanderbilt period. The southern portion of this drive was constructed in around 1898, and the northern portion about eight years later when Vanderbilt acquired the Sexton Tract. Today it is closed to vehicular traffic, but is used as a pedestrian route (Figure 83). Retain this feature as a pedestrian route between the South Gate and Bard Rock. Maintain the drive at its current width of sixteen feet with a gravel surface, making repairs when necessary.

Task 8.13: Repair drainage structures on Lower Woodland Drive. Repair and preserve stone headwalls.

Lower Woodland Drive contains a number of large culverts with mortared stone headwalls (Figure 84). While not conspicuous from the road, these headwalls demonstrate the quality materials and workmanship embodied in even utilitarian structures during the historic period. Several of the drainage culverts that convey water across the Lower Woodland Drive are blocked or otherwise in need of repair. The resulting improper drainage threatens further damage to the drive itself. Repair or replace the culverts as needed to restore proper drainage. New culverts should be inconspicuous from the drive to be compatible with the historic character. Stone headwalls should be repaired or rebuilt as needed. Repairs should be made with original or compatible materials and methods.

TREATMENT ZONE 9: BARD ROCK

This treatment zone includes the Bard Rock area with its rock outcrops, meadows, and woodlands (Drawing 10). Located in the northwest corner of the property, Bard Rock featured prominently in early descriptions and was significant as a deep-water river landing.

Part of the Sexton Tract, the Vanderbilts purchased the land in 1905, reuniting the estate grounds as they had been during the Hosack ownership. The Vanderbilts demolished the numerous buildings in the Bard Rock area including the Boat Captain's cottage, a pumphouse, outbuilding near the boat house, and road to the shore, as well as several buildings up the hill to the east. Only the Boat House at Bard's Rock was retained (see Figure 55), which was subsequently removed by the National Park Service in 1953.[40]

Today the area serves as a picnic area and hiking destination and is one of the only places within the park that visitors can gain such proximity to the river.

The Bard Rock area is characterized by the rock outcrops, meadow, and open tree cover that filters views of the river. This area is dominated by the presence of the river, which surrounds Bard Rock on three sides. A few features are visible from the historic period near the boat landing and nineteenth century subsurface artifacts from the Sexton period have been documented.[41] A parking lot provides visitor parking and tables and garbage cans accommodate picnicking.

VEGETATION

Task 9.1: Reduce woodlands to 1938 footprint.

The woodlands have increased in area since the historic period and should be cleared to regain the open character and historic spatial organization of Bard Rock. See Drawing 10 for the extent of clearing. Clear and grub the target areas, retaining any tree above twenty-four inches diameter. Manage the area to suppress invasive species and the resurgence of the woodland vegetation and to encourage meadow species. Also clear trees below twelve inches diameter and all invasive trees and vines from the margins of the remaining woodland.

CIRCULATION

Task 9.2: Preserve Bard Lane, boat house road trace, scenic loop trace, and walking paths.

Prior to the Vanderbilt purchase of the Bard Rock area, the land was part of the Sexton tract, which contained a fashionable late 1800s estate. Circulation features in the Bard Rock area included Bard Lane extending downhill to Bard Rock, a service drive turning south to numerous outbuildings, and a crossing over the railroad. After the rail road crossing, the drive forked with a short scenic loop extending south from Bard Lane to the bank of the river with two circular areas that could have served as settings for sculpture or plantings. There is no further documentation on this loop. The other fork led past a Boat Captain's Cottage to a boat house and landing with numerous walking paths throughout the Bard Rock area.[42] When the Vanderbilts purchased the property in 1905, they demolished all of the buildings except for the Boat House, which stood until 1953 and abandoned the short scenic loop and many of the paths. Despite, their apparent disuse during the Vanderbilt period, many of the drive and path traces are extant and still used.

In 1964, the National Park Service improve Bard Lane, upgraded the Bard Rock area, and opened the area to the public with a 25-car parking lot and lawn area with rustic benches. All that remained from the Vanderbilt period was a boat hook, a ring attached to Bard Rock, a trace of the Boat House foundations, and a drive trace to the boat house site.

The draft General Management Plan (2008) identifies this area as part of the "Cultural Landscape Preservation Zone," within which character-defining

features including the roads, trails, stone walls and archeological site should be preserved. Under the preferred Alternative Two, the park would collaborate with partners to designate the Bard Rock area as an undeveloped "day use" site on the Hudson River Water Trail to promote river-related access and interpretation.

Bard Lane, the drive traces, and paths should be preserved as the Bard Rock area is popular for passive recreation. Bard Lane is one of the oldest extant features on the property and highlights the early connection to the Hudson River as well as the introduction of the railroad along the river corridor.

SMALL-SCALE FEATURES

Task 9.3: Preserve historic iron features.

Historic iron features associated with mooring boats at Bard Rock, including the iron boat hook and the iron eyelet, should be preserved (Figures 85 and 86). Treat the features to remove rust and paint with rust-inhibiting paint.

TREATMENT ZONE 10: FORMAL GARDENS

The formal gardens are by far the most complex portion of the Vanderbilt Mansion National Historic Site cultural landscape (Drawings 5 and 7). The gardens contain numerous structures and features with a range of origin dates from 1875 to 1932. The history is intricate, with several designers effecting multiple changes throughout the historic period. Plantings in the garden varied from season to season, and the plant palette used over the years included hundreds of varieties of annuals, perennials, vines, ivies, roses, trees, and shrubs. Treatment guidance for the formal gardens should be developed holistically with consideration for structural and vegetative features together. The complexity of the formal gardens warrants a thorough and focused treatment plan to address the issues comprehensively.

This CLR for park-wide treatment of Vanderbilt Mansion National Historic Site is being accompanied by a separate report that focuses on treatment of the formal gardens. In this report, some of the broad issues and treatment approaches are outlined for the formal gardens area, but specific treatment tasks will be included in the formal gardens treatment plan. The tasks in the formal gardens treatment plan will elaborate on and supplement the information provided here.

BUILDINGS AND STRUCTURES

The structural elements of the garden, including the walls, steps, pergolas, pavilions, pools, and pathways, date as far back as Walter Langdon's garden in 1874. The vast majority of the structural elements that were present in 1938 are still there today. Three buildings – the Gardener's Cottage, the Tool House, and

the Potting House – remain, as well as the pavilions, pergolas, and most of the walls. The notable exception is the greenhouses, all of which have been removed since the end of the historic period. Due to the expense of construction as well as the resources needed to maintain them, it is not recommended that the greenhouses be rebuilt, unless the park has a specific need or desire to do so. If that is the case, one or more of the green houses may be reconstructed in their original locations using original designs. If the decision is made to build a new greenhouse that is different in design from the historic greenhouses, it should not be placed in one of the historic locations, but should be in a less conspicuous location, or preferably, off site.

Portions of the brickwork on the extant walls and structures show signs of surface erosion and loss of pointing. Some structures have been impacted to the point that their structural integrity is significantly compromised and collapse is possible. Immediate efforts should be made to stabilize these areas, slow the rate of erosion, and repair them where feasible. Where walls must be rebuilt, historic material should be reused as much as possible, and new material should be chosen to match color and character of the historic materials.

VEGETATION

During the historic period, the formal gardens were as much defined by vegetation elements as structural ones. Such elements included hedges that separated spaces, shrubs that created mass, and vines that softened hard surfaces. With the exception of the vines that currently cover walls and pergolas, most of these vegetative elements have been lost, and the spatial relationships and overall character of the garden has changed as a result. Notable hedges that have been lost include the double hedge that separated the lower annual bed terrace and the lower perennial garden terrace and the hedge along the top of the retaining wall between the upper and lower perennial gardens. Several evergreen shrubs in the perennial garden have also been lost, including juniper and arborvitae shrubs. The reestablishment of these elements will help restore some of the spatial organization and historic character of the gardens.

Vines, including honeysuckle, trumpet vine, akebia, and grape vines currently cover a number of elements, including walls, fences, and pergolas. During the historic period, such vines and ivies covered nearly every structural element in the garden, creating a very lush and mature character and softening the hard surfaces of the built features. Historic photos show vines and ivy on the walls of the Tool House and Gardener's Cottage, the fences and walls, pavilions, and pergolas. Vines should be maintained on such features today and reintroduced where they no longer grow. Diligent maintenance, including pruning to maintain health and prevent over growth, will be needed to control existing and new vine plantings.

Seasonal Plantings

The seasonal planting of herbaceous annuals and perennials in the garden beds is critical to maintaining the historic character of the gardens. Of primary importance is that the beds in the garden be planted and cared for every year in a fashion that is compatible with historic conditions. This would include following the historic arrangement of the beds, planting each bed in the appropriate category of plants (annuals, perennials, roses), and ensuring that the species and varieties chosen conform to the style, height, texture, and color that would have been used in the gardens during Vanderbilt's residency. The gardens are currently being maintained in such a way, largely through the dedicated and donated efforts of the Frederick W. Vanderbilt Garden Association (FWVGA).

Beyond merely being faithful to an overall character, however, steps can be taken to bring the garden closer to its original condition through the careful choice of plant varieties based on historic documentation. The purchase ledgers that were kept for the Vanderbilt estate contain information about many of the species and varieties that were purchased from the turn of the twentieth century through the 1930s. This information, together with historic photos and the recollections and drawings of Alex Knauss, a long-time Vanderbilt gardener, can help create a palette of plants that were used in the historic period. Using the historic plant palette and general guidelines for the arrangement of the gardens will result in a planting plan that is reasonable accurate to the historic conditions while providing flexibility needed to create and maintain a vibrant and engaging, but manageable, garden.

TABLE 2: TREATMENT TASKS AND PRIORITIZATION

Task ID	Task Name	Priority 1=High 2=Medium 3=Low	Related Tasks/Notes
BUILDINGS AND STRUCTURES			
1.1	Preserve Main Gate piers, walls, and iron work.	1	3.1, 4.1, 1.3, 1.4, 1.12
1.2	Preserve White Bridge.	1	
1.3	Preserve cast stone curb.	1	1.1, 1.4
3.1	Preserve North Gate Piers, Walls, and Iron Work.	1	1.1, 4.1, 3.2
4.1	Preserve South Gate Piers, Walls, and Iron Work.	1	1.1, 3.1, 4.2
6.1	Stabilize and repair the subway.	1	
7.1	Stabilize and repair Power House retaining wall.	1	7.4
8.1	Preserve stone walls, retaining walls, and archeological remnants of buildings and structures associated with the former Curtis/Sexton estate.	2	8.9, 8.10
VEGETATION			
1.4	Reinstate Main Gate plantings.	2	1.1, 3.2, 4.2
1.5	Prune historic trees for form and health.	1	1.6, 2.1
1.6	Monitor maple allée; replace all trees when loss is fifty percent.	1	1.5, 2.1
1.7	Manage pond edge vegetation; suppress invasive species and reinstate emergent vegetation.	1	1.11
1.8	Preserve fern masses along woodland edge .	1	
1.9	Rehabilitate spring flowering bulb plantings in lawn and in woodland edge.	2	3.4, 8.11
2.1	Preserve specimen trees. Replace dying and hazard trees in kind and in location.	1	1.5, 1.6
2.2	Repair damaged lawn areas.	1	3.3
2.3	Reinstate Mansion foundation plantings.	3	2.4
2.4	Reinstate shrubs around formal gardens.	3	2.3
2.5	Preserve redbud and dogwood grove.	1	
2.6	Rejuvenate rhododendron.	1	4.4, 8.8
3.2	Reinstate North Gate plantings.	2	3.1, 1.4, 4.2
3.3	Repair turf grass at overlook.	1	2.2

TABLE 2: TREATMENT TASKS AND PRIORITIZATION

Task ID	Task Name	Priority 1=High 2=Medium 3=Low	Related Tasks/Notes
3.4	Rehabilitate spring flowering bulb plantings in lawn areas and in woodland edge.	2	1.9, 8.11
4.2	Reinstate South Gate plantings.	2	4.1, 1.4, 3.2
4.3	Remove South Gatehouse plantings and reinstate yews.	2	
4.4	Rejuvenate rhododendron.	1	2.6, 8.8
5.1	Reduce lawn area and reinstate meadow on either side of the Coach House Entrance Drive.	2	
5.2	Remove and replace failing trees in-kind.	1	
5.3	Replant the two spruce trees on the west side of the Coach House.	2	
5.4	Reinstate lost sugar maple trees.	1	
6.2	Replace the conifer screen along Route 9.	1	
7.2	Manage deciduous woodland for overall health and species composition.	1	
8.2	Remove vegetation on the slope below the Mansion and Pavilion.	1	8.3
8.3	Remove conifer trees below the Pavilion.	1	8.2
8.4	Clear woodlands from the slope to the west of the formal gardens to 1938 footprint.	2	8.5, 8.6, 9.1
8.5	Clear woodlands south of the formal gardens to 1938 footprint.	2	8.4, 8.6, 9.1
8.6	Reduce woodlands to 1938 footprint. Remove invasive species, vines, and all trees under twelve inches diameter.	2	8.4, 8.5, 9.1
8.7	Maintain meadows with semiannual mowing and removal of woody vegetation. Preserve large trees within the meadow in kind.	1	
8.8	Rejuvenate azaleas along the west side of the walk between the formal gardens and mansion.	1	2.6, 4.4
8.9	Preserve vegetation associated with the former Curtis/Sexton estate.	1	8.1, 8.10
8.10	Preserve conifer stand and fern understory on former Curtis/Sexton estate.	1	8.1, 8.9
8.11	Rehabilitate spring flowering bulb plantings in woodland edge.	2	1.9, 3.4
9.1	Reduce woodlands to 1938 footprint.	2	8.4, 8.5, 8.6

TABLE 2: TREATMENT TASKS AND PRIORITIZATION

Task ID	Task Name	Priority 1=High 2=Medium 3=Low	Related Tasks/Notes
CIRCULATION			
1.10	Replace drive surface with chip-seal or stabilized aggregate when repaving is necessary.	3	
2.7	Restore pedestrian circulation paths.	1	
4.5	Remove temporary auto shelter.	1	
7.3	Repair and preserve the footpath between the White Bridge and the Coach House.	2	
8.12	Preserve Lower Woodland Drive.	1	8.13
8.13	Repair drainage structures on Lower Woodland Drive. Repair and preserve stone headwalls.	1	8.12
9.2	Preserve Bard Lane, boat house road trace, scenic loop trace, and walking paths.	1	
CONSTRUCTED WATER FEATURES			
1.11	Manage pond depth.	2	1.7
SMALL-SCALE FEATURES			
1.12	Reduce signage at Main Gate.	1	1.1
4.6	Remove incompatible small-scale features from the front of the South Gatehouse.	1	
4.7	Move bicycle sign.	1	
9.2	Preserve historic iron features.	1	
NATURAL SYSTEMS AND FEATURES			
7.4	Stabilize slope and correct drainage.	1	7.1

TREATMENT TASKS ENDNOTES

[27] Frederick W. Vanderbilt to Herbert Shears, April 26 (1924), on file at Vanderbilt Mansion National Historic Site.

[28] http://www.ct-botanical-society.org/ferns/index.html, accessed July 2009.

[29] Notes on existing conditions from correspondence, David Hayes, VAMA, to Margie Coffin Brown, OCLP, March 31, 2009.

[30] CLR Volume 1, 1992, p. 152.

[31] CLR, Rieley and Associates, 1988, p. 28; Interviews of Alex Knauss by National Park Service staff, 1971 and 1975.

[32] Montebretia (Crocosmia masoniorum and c. crocosmiiflora): 100 in 1902 and 100 in 1921.

Hyacinth (Hyacinthus sp.): 500 in 1902 and 450 in 1903.

Iris (Iris sp.): 700 in 1903, 100 in 1915, 100 in 1919, and 150 in 1926.

[33] Michael Dana, Paul Pecknold, and Cliff Sadof. "Flowering Bulbs."Purdue University Cooperative Extension Service, Department of Horticulture, June 2001. Online: http://www.hort.purdue.edu/ext/ho-86.pdf, accessed July 2009.

[34] "Historical Information Garden Plan of 1938, Part of the Master Plan, Drawing NHS-VM-3016, September 1965."

[35] For Historic Plant Inventory documentation, refer to notes Rhododendrons for Area 5, which includes notes on rhododendrons by the South Gate House and Coach House.

[36] "Plan of Torham, Estate of the late Samuel B. Sexton, near Hyde Park, Dutchess County." Benjamin Brefoort, Civil Engineer, n.d., VMHNS, no. V-244. in CLR Vol 1, 98.

[37] CLR, 1992, 246.

[38] Orders included: 5 Empereur de Brisel azaleas in 1913, 5 Vervaeneana azaleas in 1910 and 5 in 1913, 5 Schryveriana azaleas in 1910 and 5 in 1913, 10 Niobe white azaleas in 1910 and 10 in 1913, 5 Memoire de Louis Van Houtte azaleas in 1910 and 5 in 1913, 10 Breuhard Andreas white azaleas in 1910 and 10 in 1913, 5 Ernst Thiers azaleas in 1910 and 5 in 1913, 6 Firelight azaleas in 1927, 6 Yellow Frost azaleas in 1927, 6 Yellow Normandie azaleas in 1927, 15 Hindiflora azaleas in 1927, 6 Normandie Early azaleas in 1927, 5 Sacountala azaleas in 1910 and 5 in 1913, 6 Henri

Vincent azaleas in 1927, 6 Charles Jolly azaleas in 1927, 6 Bacchus azalea in 1927, and an unknown quantity and species in 1934.

[39] CLR, 1992, 246.

[40] CLR, 1992, 128.

[41] CLR, 1992, 246.

[42] Ibid.



Figure 25. View looking northwest of the Main Gate piers and urns with encroaching limbs, moss, and weeds (OCLP 2008).



Figure 26. View looking northeast of the White Bridge, showing recent restoration work. Construction associated with the Route 9 bridge is visible in the background (OCLP 2008).



Figure 27. Damaged cast stone curb at the Main Gate (OCLP 2008).



Figure 28. View of the Main Gate circa 1930s, looking northwest. The photo shows a variety of mostly conifer shrubs planted irregularly in front of the gate walls. Note that none of the shrubs extends above or fully obscures the wall (Hyde Park Historical Society).



Figure 29. View of the White Bridge and the maple allée looking east toward the Main Gate, circa 1900. Photo by Charles Sylvester Piersaull (VAMA V-2504).



Figure 30. View of the White Bridge and the maple allée looking east toward the Main Gate, 2008. Orange construction netting associated with Route 9 Bridge construction is visible at left (OCLP 2008).



Figure 31. View of entrance pond, White Bridge and the White Bridge dam looking north from South Drive, showing aquatic and emergent vegetation along the near bank, circa 1900 (Hyde Park Historical Society).



Figure 32. View of the entrance pond and Route 9 bridge looking north from the White Bridge, 2008. Ailanthus and other woody vegetation is evident in the foreground of the photo, and weeds and tall grasses are growing along the water edge beyond the mowable area. The photo also shows algae and other undesirable plants growing in the center of the pond as a result of increased silt and decreased depth (OCLP 2008).



Figure 33. View east of ferns in the woodland understory near the main gate (OCLP 2009).



Figure 34. View south of dense understory of New York ferns to the south of the entrance drive (OCLP 2009).



Figure 35. Dark green foliage of bulbs that no longer flower in the lawn by the main entry gate that slopes down to the creek near the pond. (VAMA 2009).



Figure 36. Daffodil flowering along the wooded edge between the main entry gate and pond (VAMA 2009).



Figure 37. View of the Entrance Drive and maple allée, 1926 (VAMA).



Figure 38. View of the Entrance Drive and maple allée, 2008 (OCLP 2008).



Figure 39. Oversized National Park Service arrowhead sign affixed to the Main Gate, looking south (OCLP 2008).



Figure 40. View of damaged lawn areas west side of the Mansion, looking north (OCLP 2008).

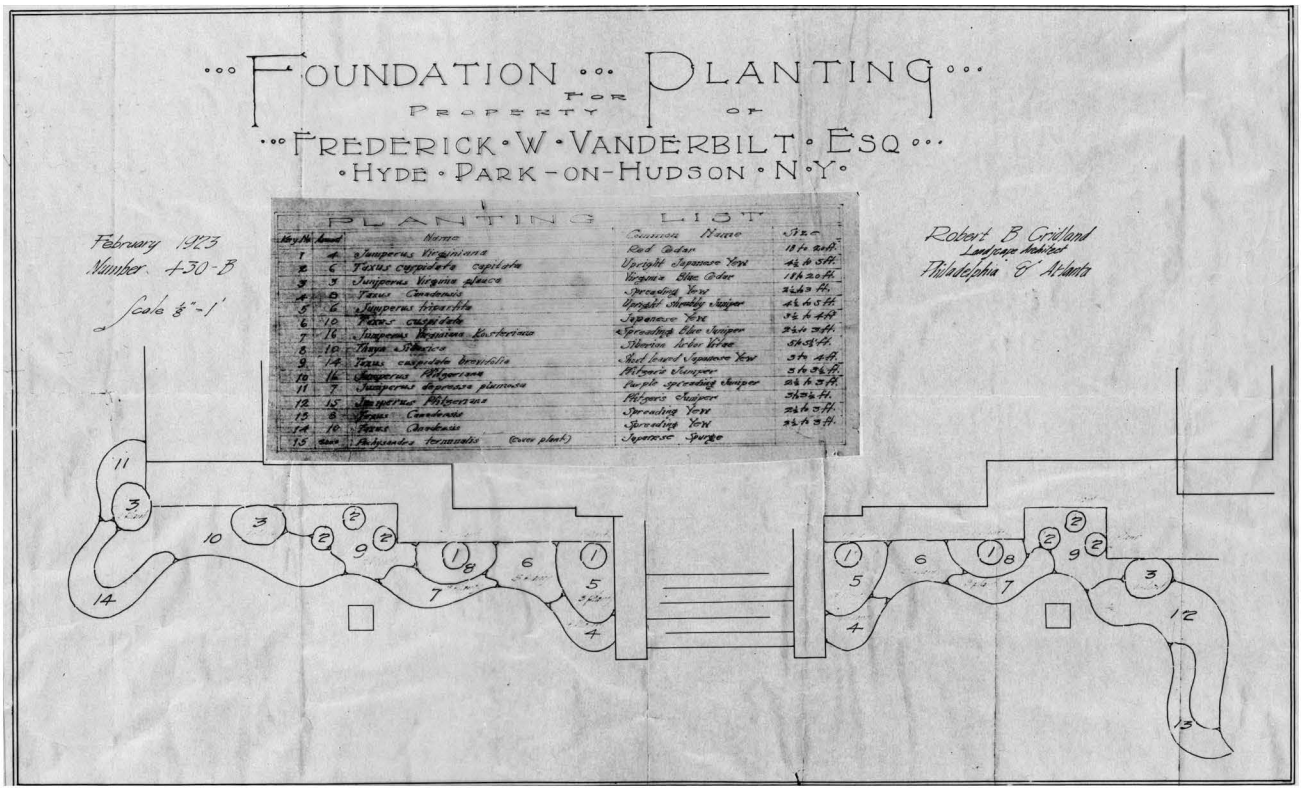


Figure 41. Plan drawn by Robert Cridland for the Mansion foundation plantings, 1923 (VAMA).



Figure 42. View of the Mansion looking west, showing the foundation plantings, circa 1940s (VAMA no. V-18).



Figure 43. View of the Mansion foundation plantings looking north, circa 1940s (VAMA no. V-1980).

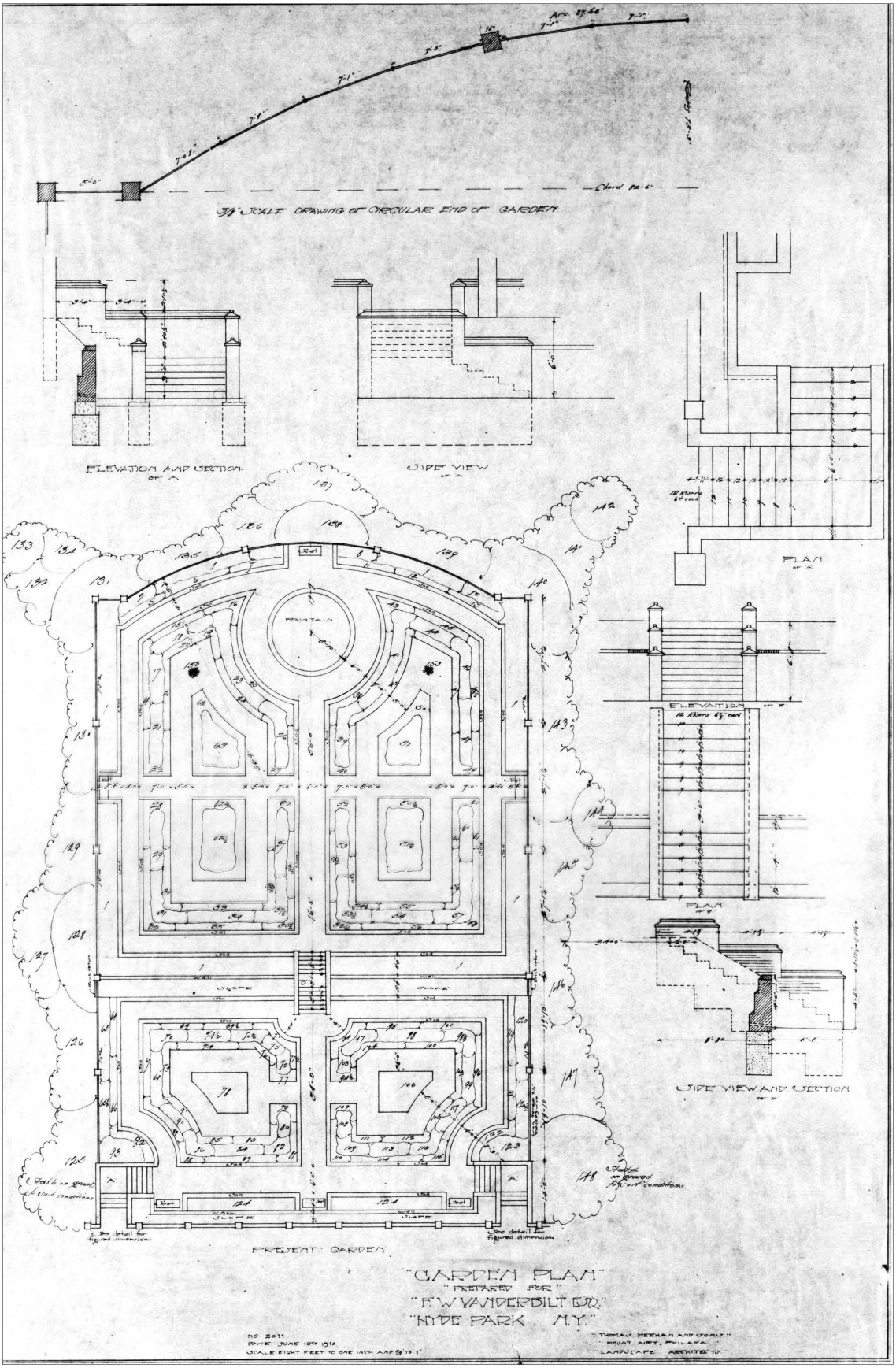


Figure 44. "Garden Plan prepared for F.W. Vanderbilt, Esq., Hyde Park, N.Y.," specifying the shrubs planted along the outside of the wall by Thomas Meehan and Sons, 1910 (VAMA no. V-170A).

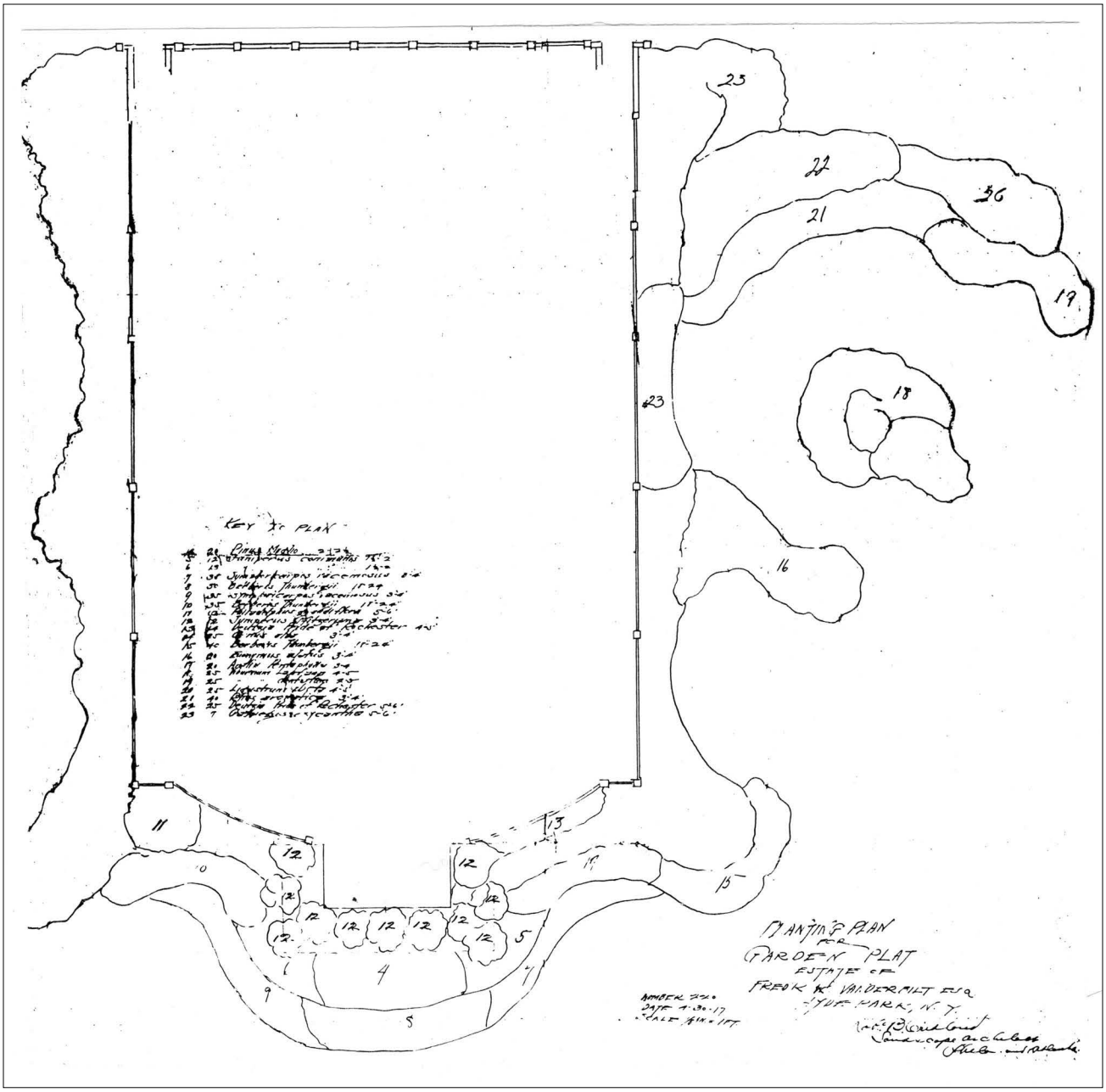


Figure 45. "Planting Plan for Garden Plat, Estate of Fred'k W. Vanderbilt Esq., Hyde Park, N.Y.," by Robert Cridland 1917 (VAMA no. V-121).

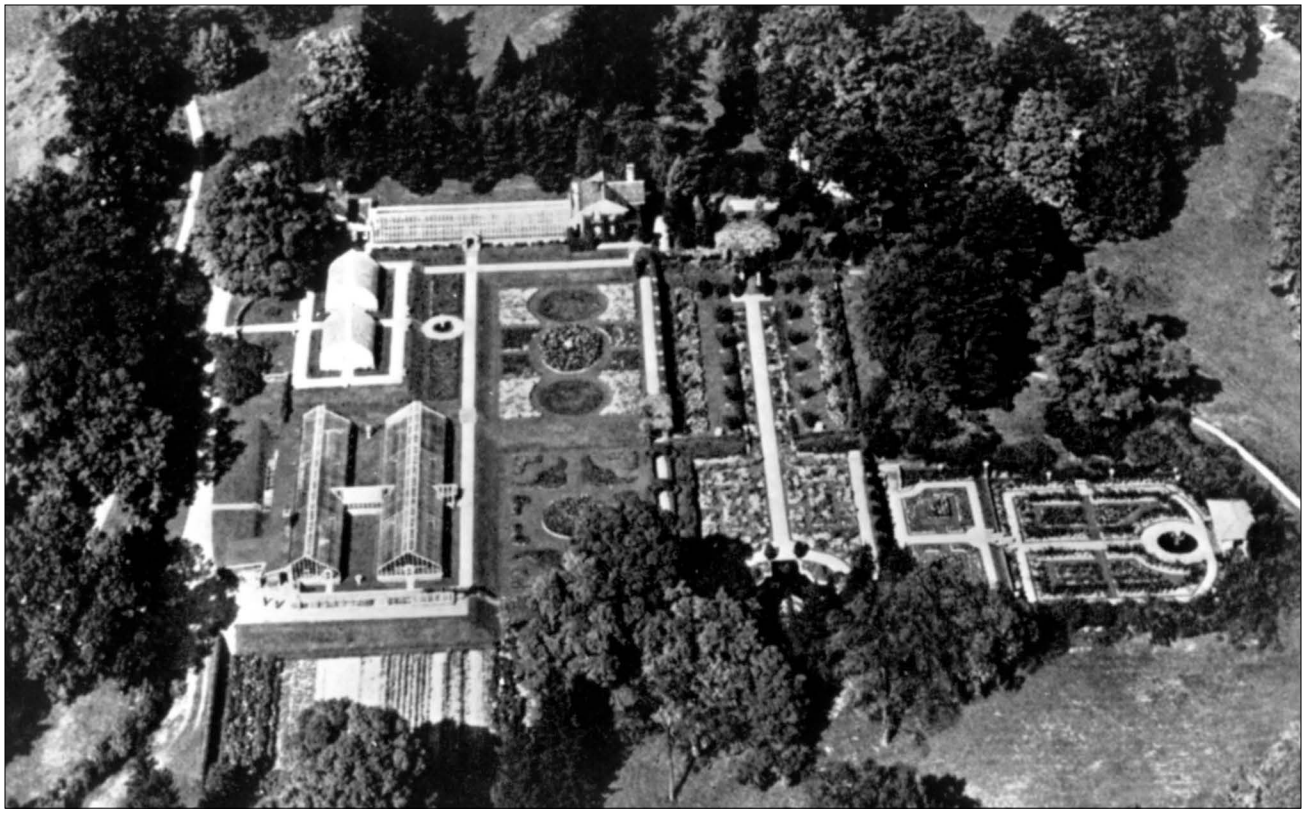


Figure 46. Aerial view of the formal gardens and surrounding landscape, circa late 1930s. Photograph by New York Daily News and published in Dr. Bard of Hyde Park, J. Brett Langstaff, 1942, reproduced in CLR Volume 1.



Figure 47. Dogwood and redbud grove south of the formal gardens looking north, showing dense vines and underbrush (OCLP 2008).



Figure 48. View looking north of a cluster of rhododendrons near the intersection of the entrance drive and road to the formal gardens. The grove consists of approximately eighteen plants in fair condition (OCLP 2009).



Figure 49. A single rhododendron in need of rejuvenative care remains to the south of the road to the formal gardens (OCLP 2009).



Figure 50. View looking east of grove of rhododendrons between the South Drive and Crum Elbow Creek. The rhododendrons are covered in vines (OCLP 2009).



Figure 51. View looking east from the north pergola in the northeast corner of the formal gardens toward South Drive. The historic footpath that leads from the north formal gardens to South Drive is faintly visible in the center of the photo (OCLP 2008).



Figure 52. North Gate, showing remnant spruce from historic gate plantings (OCLP 2008).



Figure 53. Damaged lawn area under the bench at the overlook north of the Mansion, view looking southwest (OCLP 2008).

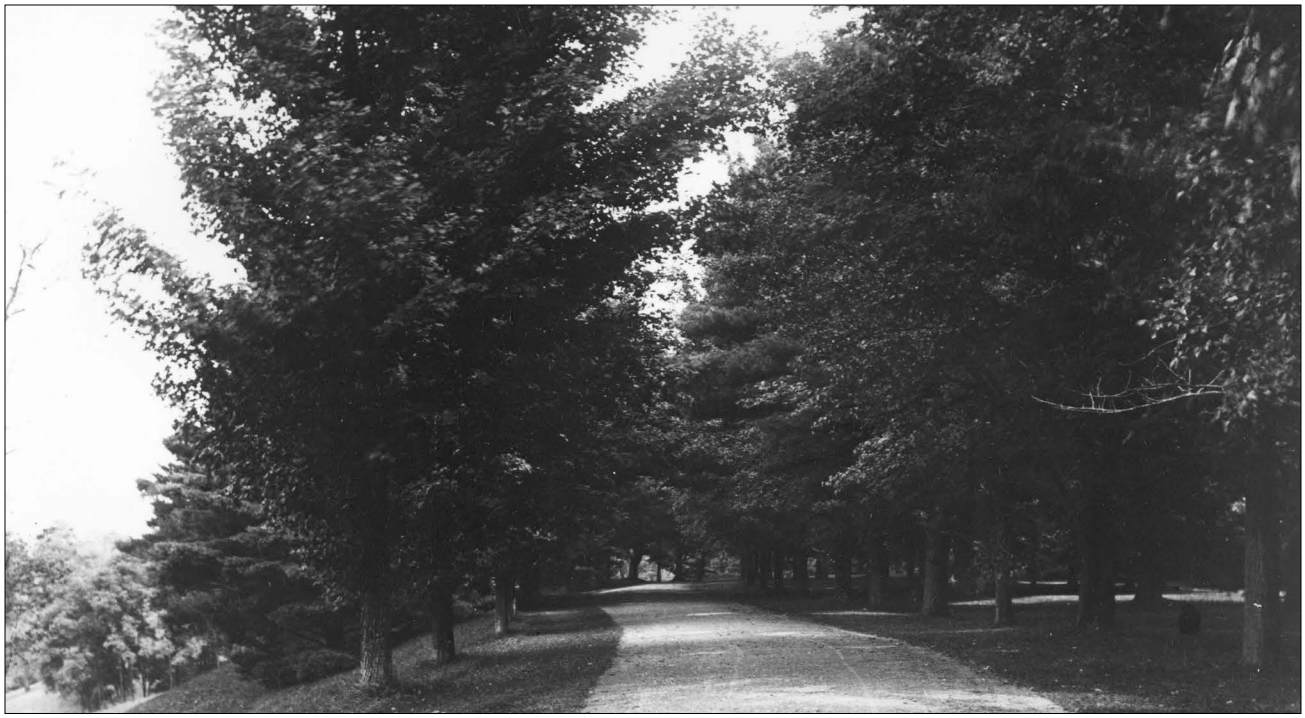


Figure 54. North Drive looking north, circa 1907. Photograph by Charles Sylvester Piersaull (Roosevelt Library no. 43-183-227).



Figure 55. North Drive looking north, 1941 (VAMA V-731).



Figure 56. North Drive looking north, 2008. Although the character of the road has been changed somewhat from its historic conditions by the enlarged gravel shoulders and cable and post traffic guards, the road still displays much of the character that is evident in the historic photos above. Additional elements, however, such as curbs or footpaths, would significantly alter the drive's historic character (OCLP 2008).



Figure 57. South Gate, showing Boston ivy and barberry hedge, circa 1960 (National Park Service, Harpers Ferry).



Figure 58. South Gatehouse without foundation plantings, 1898 (VAMA).



Figure 59. South Gatehouse, showing low foundation plantings, 1956 (VAMA V-153).



Figure 60. South Gatehouse looking west, showing overgrown foundation plantings (OCLP 2008).

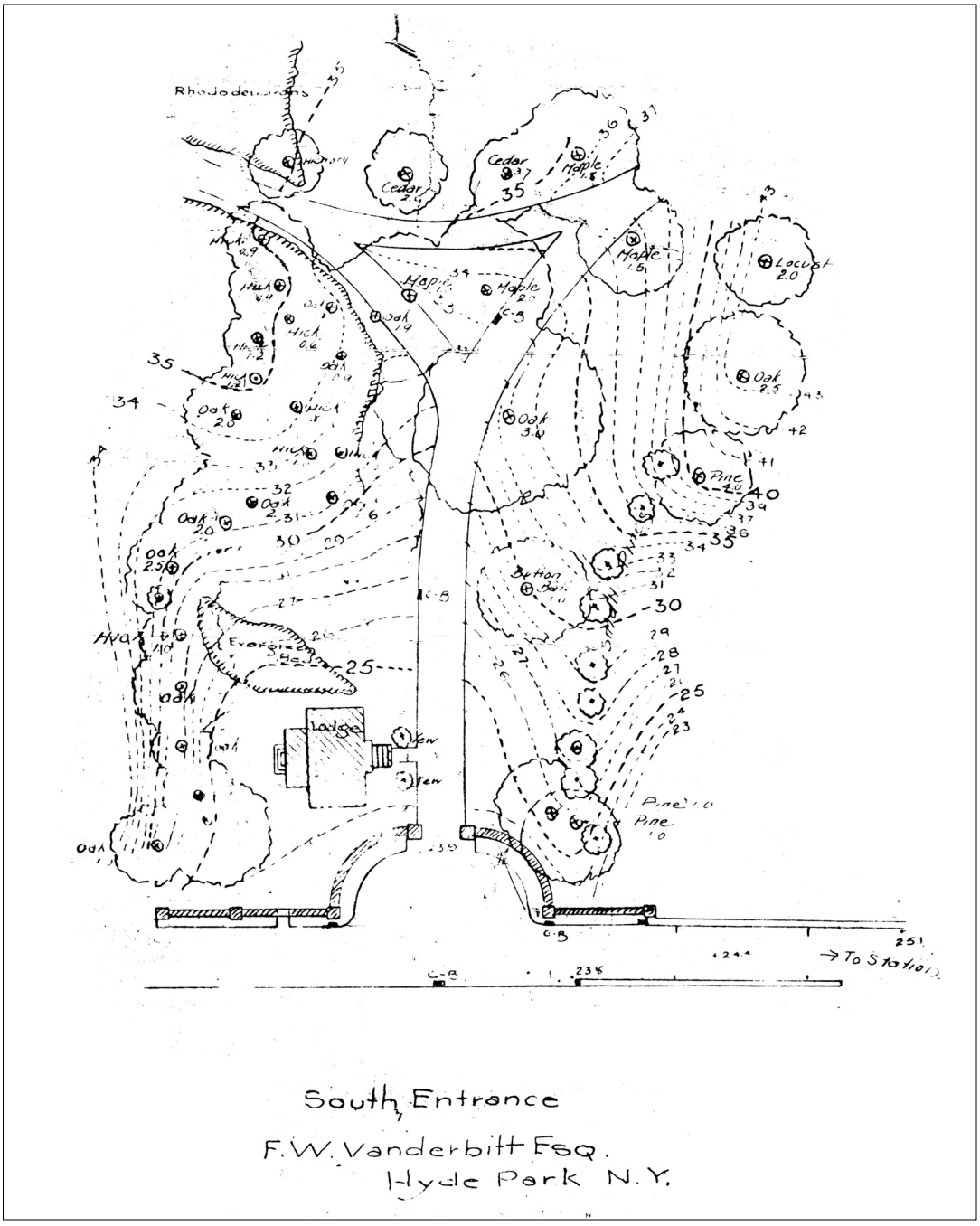


Figure 61. "South Entrance, F.W. Vanderbilt Esq., Hyde Park, N.Y.," circa 1898 (VAMA).



Figure 62. View of South Drive looking north, showing rhododendron covered in vines (OCLP 2008).



Figure 63. View of South Drive looking north, showing incompatible temporary parking shelter (OCLP 2008).



Figure 64. Downspout drain pipe and lawn ornaments at the South Gatehouse (OCLP 2008).



Figure 65. Bicycle sign in front of a historic juniper near the entrance to the Lower Woodland Drive (OCLP 2008).



Figure 66. View of the Coach House south elevation looking north, showing the two historic white pine trees that are in decline. The third replanted tree is visible behind the white trailer (OCLP 2008).



Figure 67. View of the Coach House west elevation with two large spruce trees in front, date unknown. The species of the spruce is unknown, however, the trees exhibit the branching habit and density of Colorado blue spruce (VAMA V-3120).



Figure 68. View of the subway looking west, showing invasive vegetation, including a large ailanthus growing at the base of one of the walls (OCLP 2008).



Figure 69. View of one of the subway walls, showing cracking and spalling (OCLP 2008).



Figure 70. View of the conifer screen looking east, showing the three-tiered planting, 1941. The photo shows a row of mature white pines with a row of younger white pines in front of them. In front of those two rows is a newly-planted row of Canadian hemlocks (VAMA V-742).



Figure 71. View of the Power House retaining wall with a collapsed portion in the lower left of the photo (OCLP 2008).

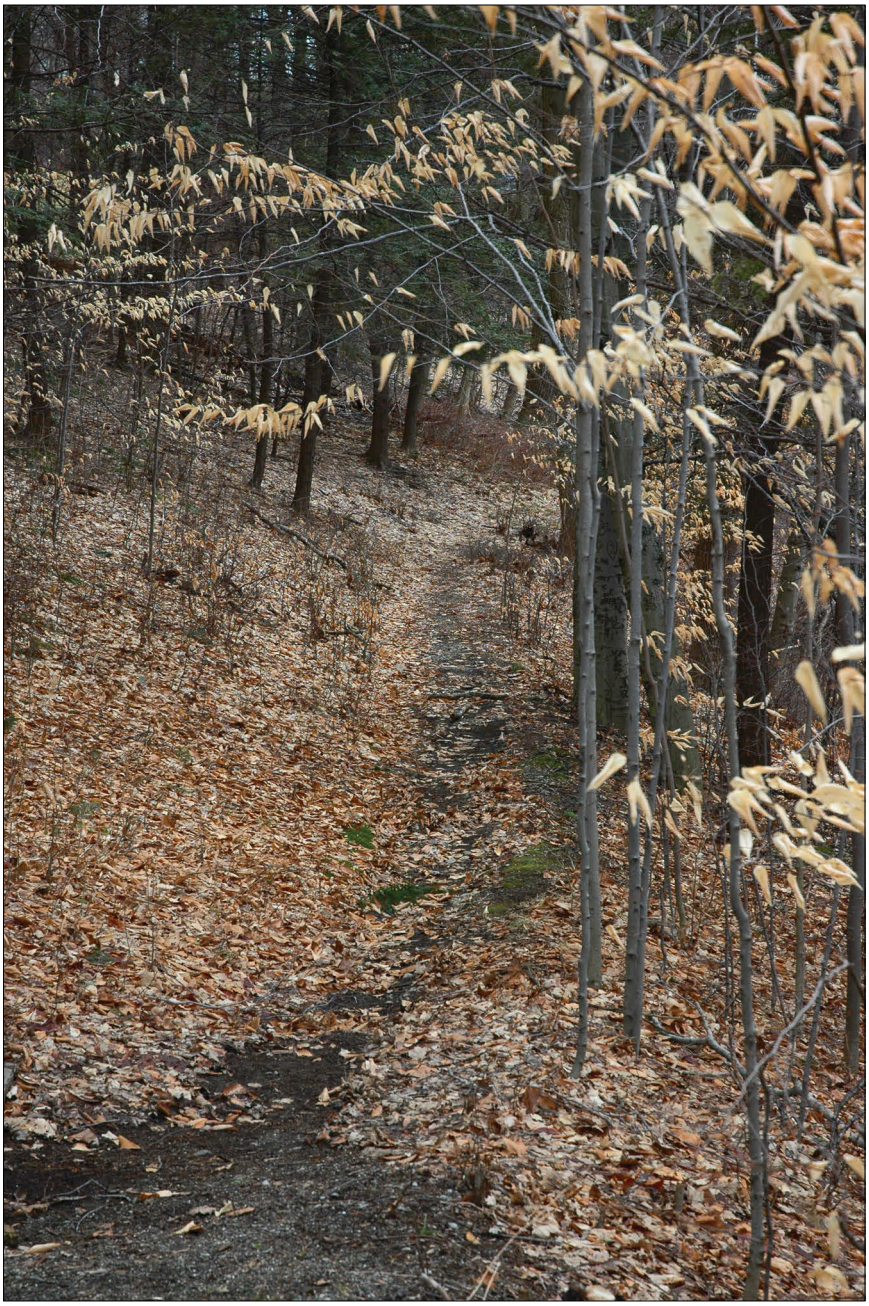


Figure 72. View of the path along Crum Elbow Creek looking south from the White Bridge. While there is no historical documentation of this path, its location, construction, and the materials used suggest that it dates to the historic period. The path is currently in poor condition in places and is underutilized (OCLP 2008).



Figure 73. View of Crum Elbow Creek looking north. The remnants of the stone causeway associated with the path from the White Bridge to the Coach House are visible along the right side of the photo (OCLP 2008).



Figure 74. Broken clay drain pipe near the Power House (OCLP 2008).



Figure 75. View looking west of the dry laid field stone wall along the north side of Bard Lane (OCLP 2009).



Figure 76. View looking north of a collapsed section of the dry laid fieldstone wall north of Bard Lane. The collapsed sections are routinely restacked by park maintenance staff (OCLP 2009).



Figure 77. View looking south from the Gardener's cottage site to the steps and retaining wall along the north side of Bard Lane near the railroad bridge. Hosta carpets the understory (OCLP 2009).



Figure 78. View looking northeast from Bard Lane of railroad line, fence, and day lilies growing near the Gardener's cottage site (OCLP 2009).



Figure 79. View looking northwest from the Mansion, showing ailanthus and other brush obscuring the view (OCLP 2008).



Figure 80. Aerial photo from 1943, showing a narrow row of trees (arrow) but no forest on the slopes below the formal gardens (OCLP 2008).



Figure 81. View of the footpath along the ridge south of the formal gardens looking north, showing the current dense forest character (OCLP 2008).



Figure 82. View of the footpath between the Mansion and the formal gardens looking south. Historically clear or filtered views to the west (right of the photo) are currently obscured by dense forest (OCLP 2008).

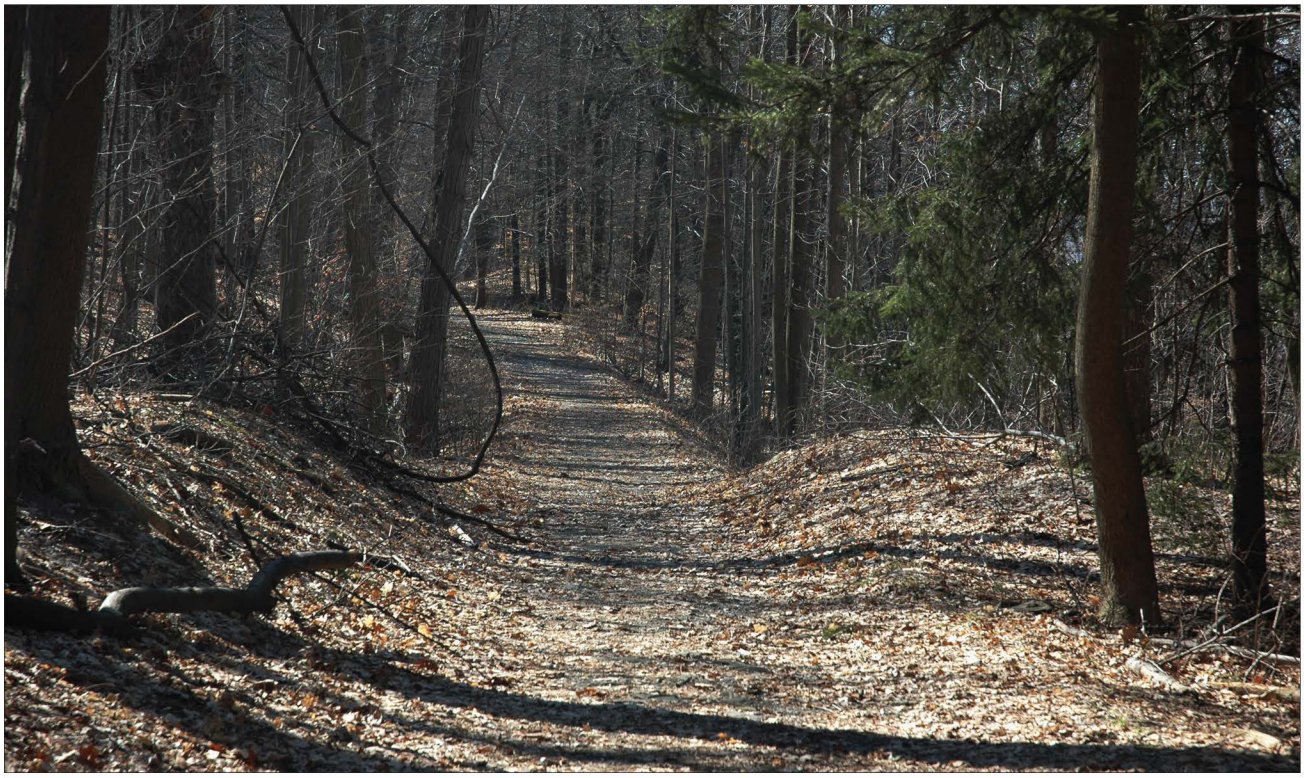


Figure 83. View of the Lower Woodland Drive looking south, showing the deep wooded character of the drive (OCLP 2008).



Figure 84. Stone headwall and culvert on Lower Woodland Drive. The culverts and headwalls along the Lower Woodland drive convey the exceptional workmanship in even the most utilitarian structures (OCLP 2008).



Figure 85. The iron boat hook at Bard Rock is currently unprotected from the elements and is covered in a layer of rust (OCLP 2008).



Figure 86. The iron eyelet affixed to Bard Rock is also being impacted by rust (OCLP 2008).

Cultural Landscape Report

Vanderbilt Mansion National Historic Site
Hyde Park, New York

Treatment Zones and Landscape Character Areas



National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES
1. Aerial Photograph: NY GIS, 2006

DRAWN BY:
John Hammond, OCLP
Adobe Photoshop CS3, 2008

LEGEND

Landscape Character Areas

- Parkland
- Deciduous Woodlands
- Meadows
- Conifer Stands
- Formal Gardens

Treatment Zones

1. Main Gate and Entrance Drive
2. Mansion Grounds
3. North Lawn, Overlook Drive, and North Gate
4. South Gate and South Entrance Drive
5. Coach House and Coach House Meadow
6. Conifer Screen
7. Crum Elbow Creek
8. Lower Woodlands and Meadows
9. Bard Rock
10. Formal Gardens

NORTH

0 500 1000 FEET

Drawing 8

TREATMENT ZONE 4

For Treatment Zone 4 see Drawing 14.

Task 8.12: Preserve Lower Woodland Drive.

For north portion of property see Drawing 10.

Task 8.6: Reduce woodlands to 1938 footprint. Remove invasive species, vines, and all trees under twelve inches diameter.

Task 8.4: Clear woodlands from the slope to the west of the formal gardens to 1938 footprint.

TREATMENT ZONE 8

Task 8.5: Clear woodlands south of the formal gardens to 1938 footprint.

Task 8.3: Remove conifer trees below the Pavilion.

Task 8.2: Remove vegetation on the slope below the Mansion and Pavilion.

For Treatment Zone 5 see Drawing 15.

Task 2.5: Preserve redbud and dogwood grove.

Task 8.8: Rejuvenate azaleas along the west side of the walk between the formal gardens and Mansion.

Task 2.2: Repair damaged lawn areas.

Task 8.11: Rehabilitate spring flowering bulb plantings in woodland edge.

Task 2.3: Reinstate Mansion foundation plantings. (See Drawing 12.)

TREATMENT ZONE 5

TREATMENT ZONE 7

Task 2.4: Reinstate garden surround shrubs. (See Drawing 13.)

Task 2.1: Preserve specimen trees. Replace dying and hazard trees in kind and in location.

TREATMENT ZONE 2

Task 2.6: Rejuvenate rhododendrons.

Task 2.7: Restore pedestrian circulation paths.

Task 7.2: Manage deciduous woodland for overall health and species composition.

TREATMENT ZONE 6

Task 7.4: Stabilize slope and correct drainage.

Task 7.3: Repair and preserve the footpath between the White Bridge and the Coach House.

Task 7.1: Stabilize and repair Power House retaining wall.

TREATMENT ZONE 1

For Treatment Zone 1 see Drawing 11.

Cultural Landscape Report

Vanderbilt Mansion National Historic Site

Hyde Park, New York

Treatment Plan South Portion of Property

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946
3. Aerial Photograph, 1943

DRAWN BY:

John Hammond, OCLP
Adobe Photoshop CS2, 2008

LEGEND

- Existing Conifer Trees To Be Retained
- Existing Deciduous Trees To Be Retained
- Existing Trees To Be Cleared
- Treatment Zone Boundary
- Footpath
- Contours

NORTH

0 250 500 FEET

Drawing 9

Task 9.3: Preserve historic iron features.

Task 9.3: Preserve Bard Lane, boat house road trace, scenic loop trace, and walking paths.

Task 9.1: Reduce woodlands to 1938 footprint.

TREATMENT ZONE 9

Task 8.13: Repair drainage structures on Lower Woodland Drive. Repair and preserve stone headwalls.

For south portion of property see Drawing 9.

Task 8.12: Preserve Lower Woodland Drive.

Task 8.5: Reduce woodlands to 1938 footprint. Remove invasive species, vines, and all trees under twelve inches diameter.

Task 8.10: Preserve conifer stand and fern understory on former Curtis/Sexton estate.

Task 8.9: Preserve vegetation associated with the former Curtis/Sexton estate.

TREATMENT ZONE 8

Task 8.1: Preserve stone walls, retaining walls, and archeological remnants of buildings and structures associated with the former Curtis/Sexton estate.

TREATMENT ZONE 2

Task 3.4: Rehabilitate spring flowering bulb plantings in lawn areas and in woodland edge.

Task 3.3: Repair turf grass at overlook.

Task 8.7: Maintain meadows with semiannual mowing and removal of woody vegetation. Preserve large trees within the meadow and replace missing meadow trees in-kind.

TREATMENT ZONE 3

For Treatment Zone 6 see Drawing 16.

TREATMENT ZONE 6

Task 3.1: Preserve North Gate Piers, Walls, and Iron Work.

Task 3.2: Reinstate North Gate plantings.

Cultural Landscape Report

Vanderbilt Mansion National Historic Site

Hyde Park, New York

Treatment Plan
North Portion of Property

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946
3. Aerial Photograph, 1943

DRAWN BY:

John Hammond, OCLP
Adobe Photoshop CS2, 2008

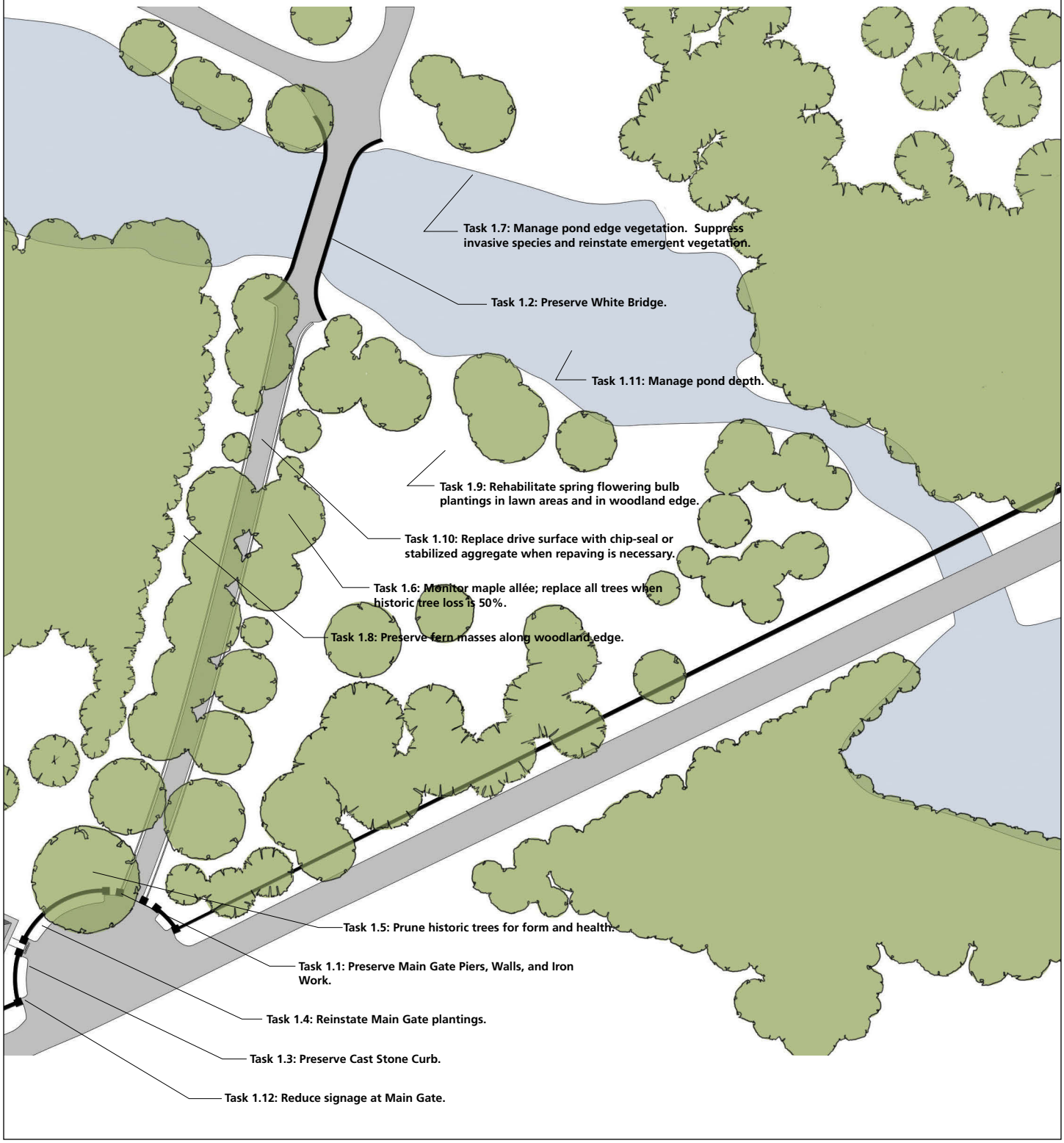
LEGEND

- Existing Conifer Trees To Be Retained
- Existing Deciduous Trees To Be Retained
- Existing Trees To Be Cleared
- Treatment Zone Boundary
- Footpath
- Contours

NORTH

0 250 500 FEET

Drawing 10



Cultural Landscape Report

Vanderbilt Mansion
National Historic Site
Hyde Park, NY

Treatment Plan
Treatment Zone 1:
Main Gate and Entrance Drive

National Park Service

Olmsted Center for Landscape Preservation
www.nps.gov/oclp

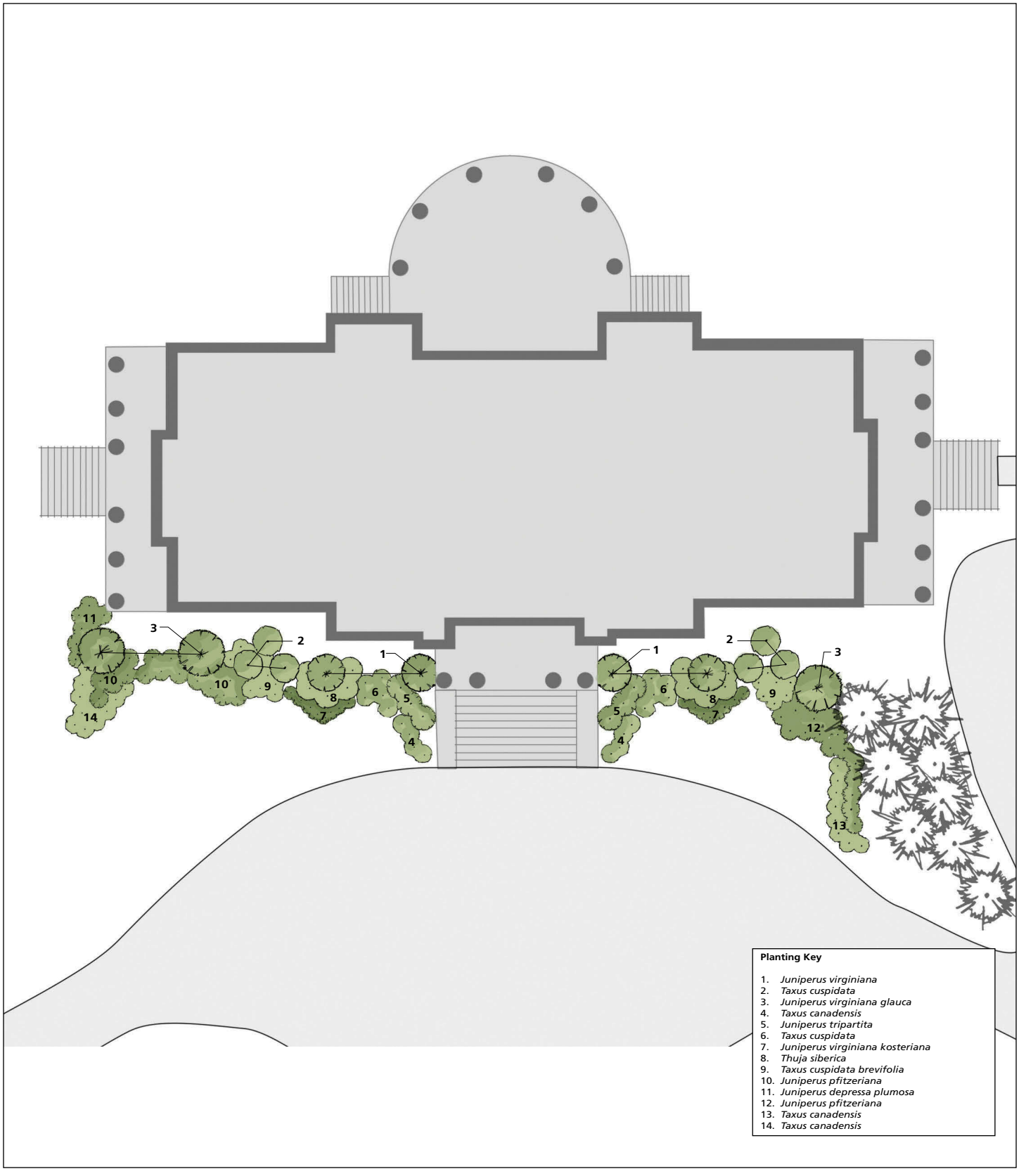
SOURCES
1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946
3. Aerial Photograph, 1943

DRAWN BY
John Hammond, OCLP
Adobe Photoshop CS3, 2008

NORTH

0 100 200 FEET

Drawing 11



Cultural Landscape Report

Vanderbilt Mansion National Historic Site

Hyde Park, NY

Treatment Plan
Mansion Foundation Planting

National Park Service

Olmsted Center for Landscape Preservation
www.nps.gov/oclp

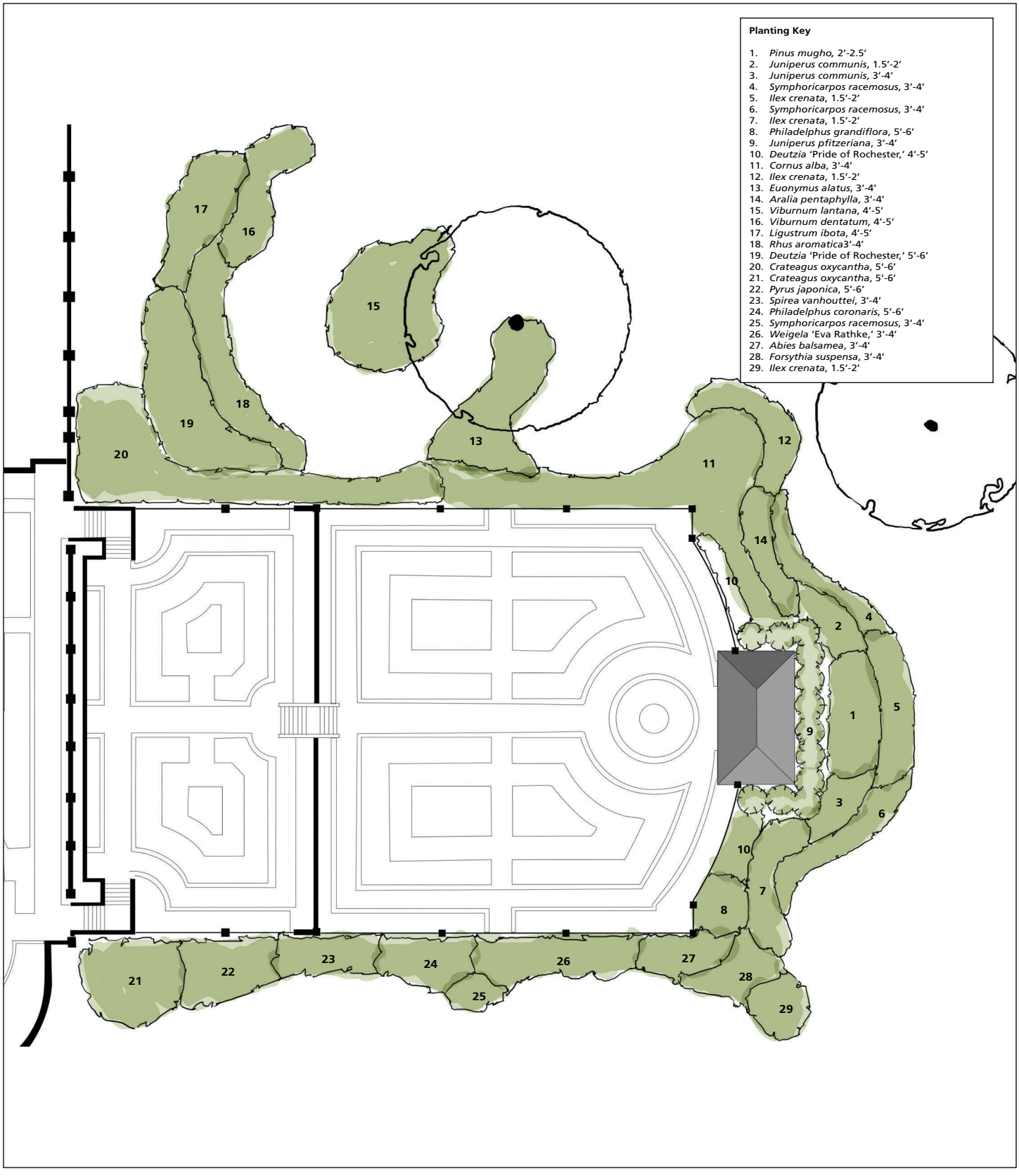
SOURCES
1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946
3. Aerial Photograph, 1943

DRAWN BY
John Hammond, OCLP
Adobe Photoshop CS3, 2008

NORTH

0 30 60 FEET

Drawing 12



Cultural Landscape Report

Vanderbilt Mansion National Historic Site

Hyde Park, NY

Treatment Plan
Rose Garden Surrounding Shrubs

National Park Service

Olmsted Center for Landscape Preservation
www.nps.gov/oclp

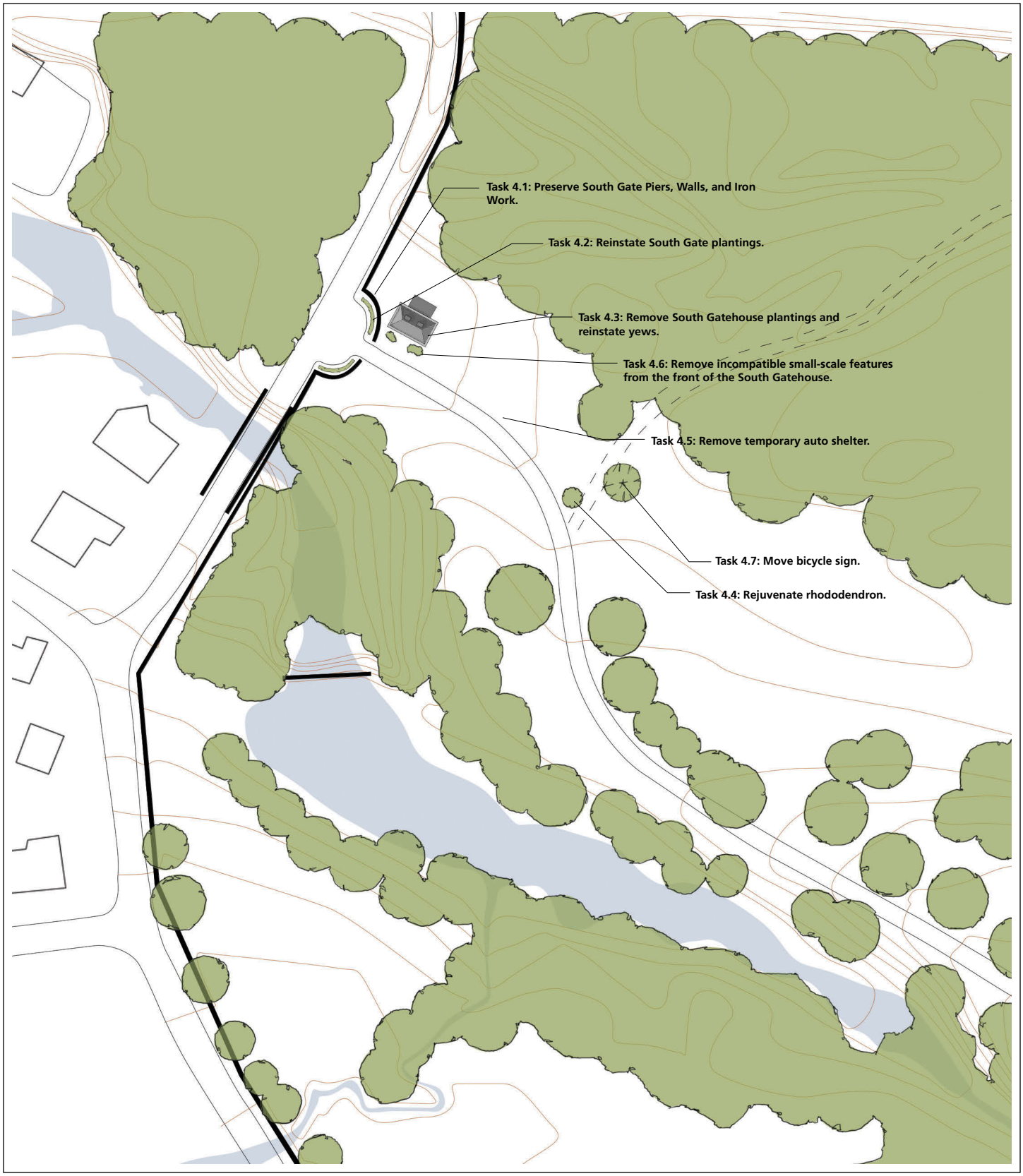
SOURCES
1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946
3. Aerial Photograph, 1943

DRAWN BY
John Hammond, OCLP
Adobe Photoshop CS3, 2008

NORTH

0 30 60 FEET

Drawing 13



Cultural Landscape Report

Vanderbilt Mansion
National Historic Site
Hyde Park, NY

Treatment Plan
Treatment Zone 4:
South Gate and South Drive

National Park Service

Olmsted Center for Landscape Preservation
www.nps.gov/oclp

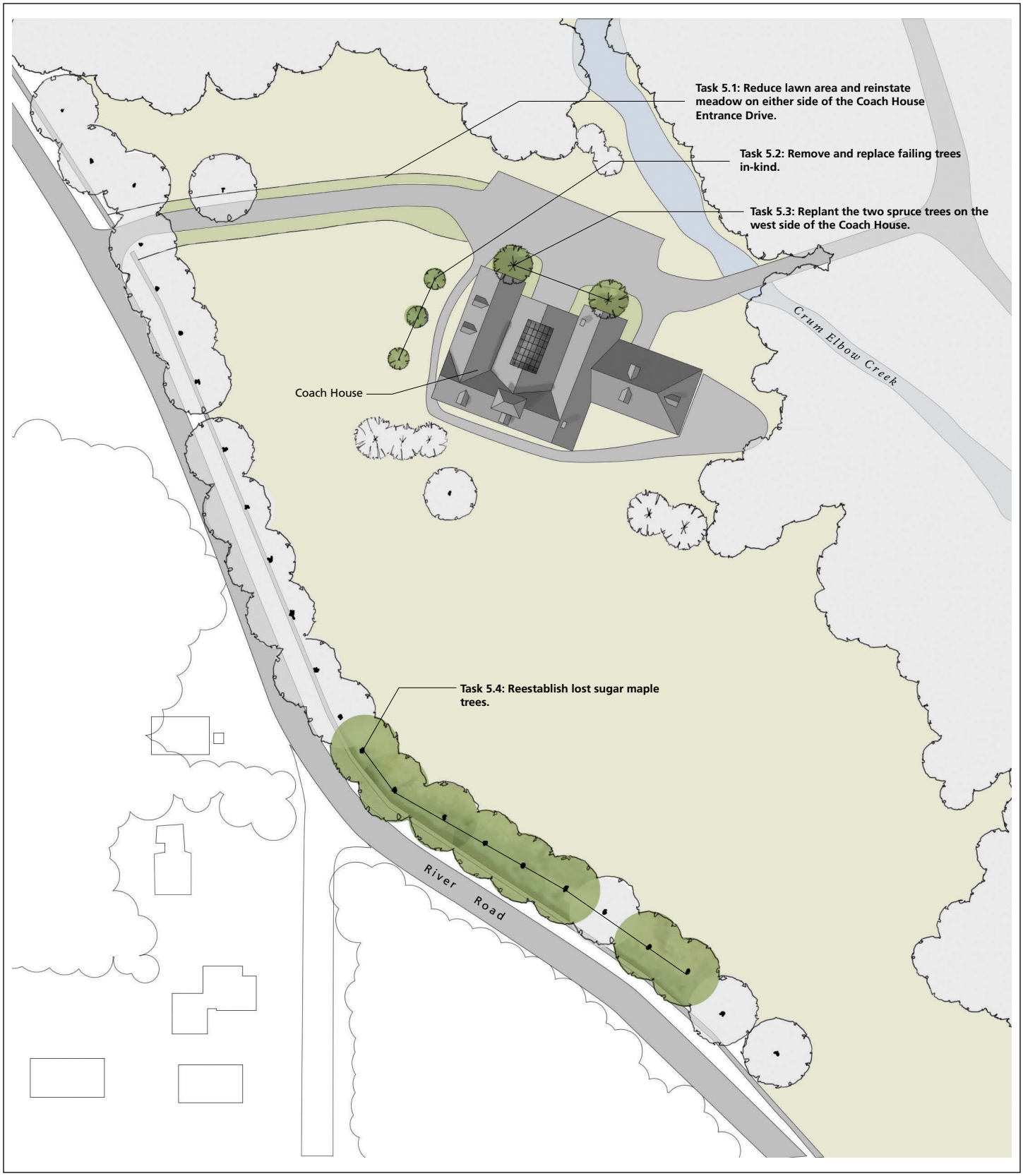
SOURCES
1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946
3. Aerial Photograph, 1943

DRAWN BY
John Hammond, OCLP
Adobe Photoshop CS3, 2008

NORTH

0 100 200 FEET

Drawing 14



Cultural Landscape Report

Vanderbilt Mansion
National Historic Site
Hyde Park, NY

Treatment Plan
Treatment Zone 5:
Coach House and Coach House Meadow

National Park Service

Olmsted Center for Landscape Preservation
www.nps.gov/oclp

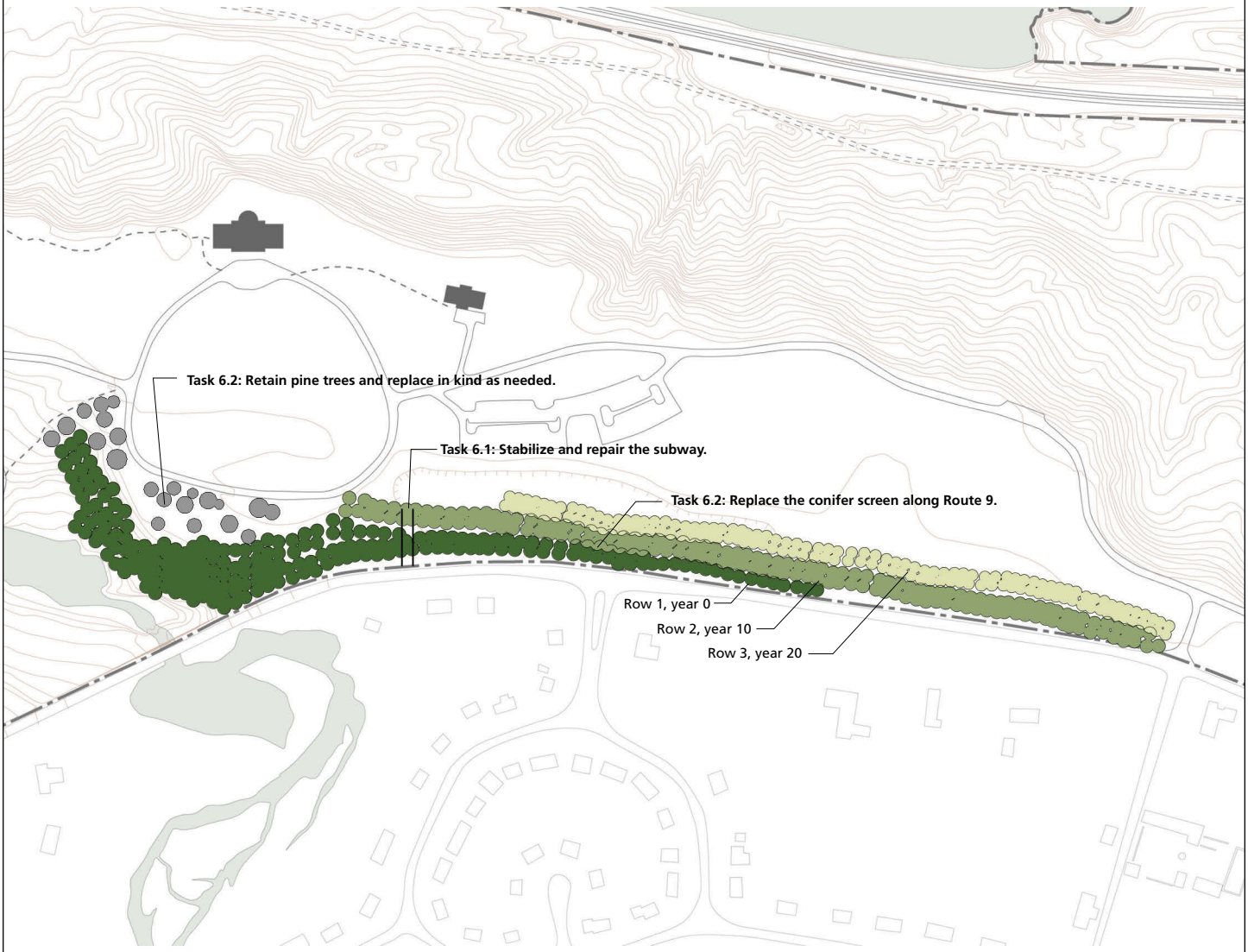
SOURCES
1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946
3. Aerial Photograph, 1943

DRAWN BY
John Hammond, OCLP
Adobe Photoshop CS3, 2008

NORTH

0 100 200 FEET

Drawing 15



Cultural Landscape Report

Vanderbilt Mansion
National Historic Site
Hyde Park, NY

Treatment Plan
Treatment Zone 6: Conifer Screen

National Park Service

Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES
1. Aerial Photograph: NY GIS, 2006
2. USGS Map, 1946
3. Aerial Photograph, 1943

DRAWN BY
John Hammond, OCLP
Adobe Photoshop CS3, 2008

LEGEND
- Row 1, White Pine
- Row 2, White Pine
- Row 3, Canadian Hemlock
- Pines to be treated as specimen trees

NORTH

0 500 1000 FEET

Drawing 16

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APPENDIX 1: CHRONOLOGY

Year	Ownership	Description	Source
1705	Peter Fauconnier	Sir Edward Hyde, Lord Cornbury, then Governor of New York, granted the patent for the land that would eventually include Hyde Park to a group of four partners in 1705. Peter Fauconnier, one of the four, was the patentee of the Hyde Park land. Although Fauconnier held onto the land for more than forty years until his death in 1746, there is no evidence that he made any physical improvements on the land.	VM CLR 1 p. 5
1746	Peter Fauconnier	Upon Fauconnier's death, his property passed to his daughter, Magdalene Fauconnier Valleau.	VM CLR 1 p. 5
1764	John Bard	By 1764, Dr. John Bard had inherited through his wife, Suzanne Valleau, most of the Fauconnier patent. In addition, he proceeded to purchase land that had since been sold by Fauconnier.	VM CLR 1 p. 6
1764-1768	John Bard	Shortly after acquiring the land, Bard established a farm on the east side of what would become Albany Post Road. A description of the property from 1768 includes reference to a farm house, barn, and an orchard of 500-600 apple trees. The description also mentions woodlands, swamps, upland meadows, and the large flat rock that would become known as Bard Rock.	VM CLR 1 p. 9
1772	John Bard	In 1772, John Bard built a house, known as the Red House, on the farm property east of Albany Post Road. The house would stand until 1875 when it was torn down.	VM CLR 1 p. 6
1797-1799	Samuel Bard	The first known development on the west side of Albany Post Road was the house built by Samuel Bard. Unlike his predecessors, Samuel was keenly interested in the scenic aspects of Hyde Park. The west side of Albany Post Road, with its limited level ground, steep slopes and ravines, and belts of woodland, was unsuited for farming. These qualities, however, made it the ideal location for a house and pleasure landscape. The house was built at the edge of the land table overlooking the rolling slopes, parkland, and woodland that descended to the river.	VM CLR 1 p. 14
1799	John Bard	Upon John Bard's death in 1799, Hyde Park passed to his son, Dr. Samuel Bard.	VM CLR 1 p. 11
1799-1821	Samuel Bard	In addition to the house, Samuel Bard developed Hyde Park to eventually include several outbuildings and a garden and greenhouse. The road system included a road or footpath from Hyde Park Landing at the south end of the property to the house, a central drive from Albany Post Road to the house, and Bard Lane, a road from Albany Post Road to Bard Rock. The exact composition and layout of Samuel Bard's estate is not known.	VM CLR 1 p. 18

Year	Ownership	Description	Source
1799-1821	Samuel Bard	During Samuel Bard's tenure at Hyde Park, he collected and planted numerous rare and exotic plants and trees. Records indicate his pursuit or acquisition of locust tree seeds and grass seeds for the landscape, as well as fruits and flowers for his greenhouses. It is conjectured that the large ginkgo tree on the South Lawn dates from early in S. Bard's ownership, possibly from the turn of the nineteenth century, although this date has not been substantiated. It is unknown which if any of the landscape trees present today date from the Samuel Bard period.	VM CLR 1 p. 18
1828	David Hosack	Samuel Bard died in 1821, and in 1828 his long-time friend Dr. David Hosack bought Hyde Park from Bard's heirs.	VM CLR 1 p. 29
1829-1830	David Hosack	Hosack retained the services of architect Martin Thompson to substantially remodel and rebuild Samuel Bard's house. The enlarged house was described at the time as having a spacious beautiful lawn on the east side.	VM CLR 1 p. 31
1829-1830	David Hosack	A coach house was built north of the house. The house, built of stone in a Greek style, was 60 feet by 40 feet. The coach house was in the vicinity of the current Pavilion.	VM CLR 1 p. 31
1829-1830	David Hosack	A greenhouse was built south of the house. The greenhouse consisted of a central portion and two wings, and measured about 110 feet long and 20 feet deep. Plants kept inside included a collection of pines, Magnolia grandiflora, strelitzia, farnesiana, and Ficus elastica.	VM CLR 1 p. 31
1829-1830	David Hosack	A gate lodge was built at each of two gates to the property. Designed by Martin Thompson, the lodges were probably located near the current gate lodges.	VM CLR 1 p. 31
1829-1830	David Hosack	With Thompson designing the buildings, Hosack employed Andre Parmentier to lay out the grounds of his estate. Parmentier established the circulation system of the park, altering it considerably from the Bard period. Current circulation that dates from the Hosack period includes the main entrance from Albany Post Road across the creek, the serpentine drive from the creek bridge nearly to the main house drive, and the drive from the river gate along Crum Elbow Creek. It also appears that the footpath that runs along the top of the ridge from near the present Coach House to the main house also dates from Parmentier's plan.	VM CLR 1 p. 33
1829-1830	David Hosack	Parmentier's plan would have certainly included the planting of trees and plants in the estate grounds. The landscape of the upper park and the grounds around the house was likely a combination of planted trees and trees retained from the Bard period as well as naturally occurring trees. It is possible that some trees that were in place or planted at the time of Parmentier's design remain today, but without aging the trees by coring (or counting rings on felled trees) it is impossible to tell which, if any, of the extant trees date to that period.	VM CLR 1 p. 37
1829-1830	David Hosack	Several ornamental structures were placed throughout the pleasure grounds, including two circular pavilions, one near the southern entrance and one at Bard Rock, and a colossal urn atop a plinth.	VM CLR 1 p. 44-46
1835	David Hosack	In 1835, David Hosack died suddenly from a stroke. His heirs deeded 60 acres on the northern end of the property to his widow and sold the Red House and farm to John A. Degraff.	VM CLR 1 p. 55

Year	Ownership	Description	Source
1840	Walter Langdon	John Jacob Astor purchased the remainder of the Hosack estate (south of the acres deeded to Mrs. Hosack and west of Albany Post Road) in 1840 and gave the estate to his daughter, Dorothea (Astor) Langdon and her husband Walter.	VM CLR 1 p. 63
1845-1847	Walter Langdon	After the Hosack house burned in 1845, the Langdons built their own house on the same site.	VM CLR 1 p. 64
1847	Walter Langdon, Jr.	Walter Langdon died in 1847, leaving the estate to his children. Over the next five years, Walter Langdon, Jr. bought out the interest of his siblings so that by 1852, he was the sole owner.	VM CLR 1 p. 64
1849	Walter Langdon, Jr.	Walter, Jr. purchased Crum Elbow Creek and land to its south.	VM CLR 1 p. 64
1872	Walter Langdon, Jr.	Walter, Jr. purchased the Red House and farm.	VM CLR 1 p. 64
1872	Walter Langdon, Jr.	In 1872 the barns and their contents of hay and grain burned and were rebuilt.	VM CLR 1 p. 64
1874-1875	Walter Langdon, Jr.	In 1874, Langdon employed the architecture firm of Sturgis and Brigham to design a formal garden complex. The complex consisted of two cottages (a gardeners cottage and a Tool House) connected by a greenhouse, a conservatory, and enclosing walls. These architectural elements enclosed a series of six terraces that stepped down the hill, each containing a formal garden of geometric beds. Of these elements, the Gardener's Cottage and the Tool House, as well as some of the brick walls and terraces, remain today.	VM CLR 1 p. 66
1875	Walter Langdon, Jr.	Walter, Jr. tore down the Red House in 1875.	VM CLR 1 p. 64
1883	Walter Langdon, Jr.	The Langdons' new barns were struck by lightning and again burned to the ground in 1883. New barns were built in 1884.	VM CLR 1 p. 74
1895	Frederick Vanderbilt	Frederick Vanderbilt purchased Hyde Park in 1895.	
1895	Frederick Vanderbilt	The first structure to be completed by the Vanderbilts was the Pavilion. Designed by McKim, Mead, and White, the Pavilion was used as a residence for the Vanderbilts while they rebuilt the Mansion.	VM CLR 1 p. 114
1896-1899	Frederick Vanderbilt	The Vanderbilts initially intended to renovate the Langdon house, but when it was discovered that the house had severe structural problems, they decided to rebuild it in its entirety. The new house was located in the same place as all of the previous houses, and while it resembled the Langdon house in general appearance, it featured the latest in modern conveniences, including electricity, plumbing, and central heat.	VM CLR 1 p. 114
1897	Frederick Vanderbilt	Designed and constructed by W. T. Hiscox, the White Bridge was built to carry the main entry drive over Crum Elbow Creek.	VM CLR 1 p. 114
1897	Frederick Vanderbilt	The double-arched bridge at the Coach House was designed and built by Norcross Brothers. It was constructed of reinforced concrete with cobble-stone facing.	VM CLR 1 p. 114

Year	Ownership	Description	Source
1897	Frederick Vanderbilt	Four new dams were constructed between 1895 and 1900, including the dam at Albany Post Road, the dam under the White Bridge, the Power House dam, and the lower dam near the Coach House.	VM CLR 1 p. 114
1897	Frederick Vanderbilt	In 1897 and 1898, two pump houses were built. One, a rustic stone power house on the east side of Crum Elbow Creek near the dam, is extant. The other was located on the lower road near the river and the Sexton Tract boundary line. These were both by W. T. Hiscox.	VM CLR 1 p. 118
1897	Frederick Vanderbilt	The Coach House was designed by New York architect Robert H. Robertson and built by Norcross Brothers.	VM CLR 1 p. 118
1898	Frederick Vanderbilt	In 1898, the gates and stone wall around the entire estate were completed. The latter was the work of a local mason, Henry Myers.	VM CLR 1 p. 118
1898	Frederick Vanderbilt	Two gatehouses were designed by McKim, Mead, and White and built by Norcross Brothers. The contract also included a third gatehouse, but it is unknown whether it was ever built or where its location was to have been.	VM CLR 1 p. 118
1898	Frederick Vanderbilt	Shortly after Vanderbilt bough the property, some changes were made to the estate's system of drives. Existing drives - from the south entrance to the main entrance along Crum Elbow Creek, from the main entrance to the house, and from the house northward - were improved with a crushed stone or gravel surface and formed concrete gutters. When the new mansion was under construction, the main drive passing directly in front of the house was reshaped and the drive leading past the Pavilion to the north gate was straightened, reflecting more Victorian values of form and symmetry. New drives include the lower woodland drive along the river bank that extended from the south gate to just south of what was then the northern boundary of the property.	VM CLR 1 p. 108
1898-1901	Frederick Vanderbilt	A survey of the estate's trees conducted by Platt and Burley shows over fifty trees that appear to be very small and were probably planted after the Vanderbilts bought the property.	VM CLR 1 p. 118
1901	Frederick Vanderbilt	Despite repairs made only a few years earlier to the Langdon farm buildings, in 1901 they were replaced with a new farm group.	VM CLR 1 p. 128
1902-1904	Frederick Vanderbilt	James L. Greenleaf developed plans for an Italian style garden on the eastern two terraces of the formal gardens. The linear space was oriented along a north-south axis, about 320 feet long and 90 feet wide. The space was enclosed on the north by a pergola and on the south by an aquatic plant pool and pavilion. Framing elements included walls, piers, iron work, trellis elements, and a circulation system of walks and steps. The plantings in the Italian garden included perennial flowers and shrubs, such as flox and irises, vines, and massed evergreen shrubs. A tall trimmed cedar hedge divided the garden into two distinct spaces. The character of this garden was dense and lush, especially in the 1910s and 1920s when the plantings had matured.	VM CLR 1 p. 146

Year	Ownership	Description	Source
1905	Frederick Vanderbilt	In 1905 plans were put forward by the Pierson-Sefton Co. for simple twin palm houses intended to replace the conservatory built thirty years prior. The two palm houses were located on the top terrace in the northwest corner of the garden.	VM CLR 1 p. 135
1906	Frederick Vanderbilt	In 1905, Vanderbilt acquired the northern portion of the estate that consisted of 64 acres that had been withheld by David Hosack's heirs when the property was sold to Walter Langdon. This reconstituted the original estate property as it had been known by Hosack and the Bards. Shortly after acquiring the tract, Vanderbilt set out to reorganize the northern portion of his estate to reflect the new boundaries. This included the removal of nearly all of the structures that had been built on the Sexton tract in the intervening years, as well as the relocation of the north gate. Both the lower woodland drive and the upper drive past the Pavilion were extended into the new land, connecting to Bard Rock and the north gate respectively.	VM CLR 1 p. 128
1906	Frederick Vanderbilt	Two gates were removed after the Vanderbilts acquired the Sexton tract: the north gate Walter Langdon had installed when he purchased the land and the main gate of Torham, as the Sexton estate was known. A new gate was constructed further north near the northern border of the property with flanking stone pillars and integrated into the newly extended stone perimeter wall.	VM CLR 1 p. 128
1906	Frederick Vanderbilt	In 1906 an underground drive, referred to as the subway, was constructed beneath Albany Post Road between the estate property and the farm lands.	VM CLR 1 p. 132
1906	Frederick Vanderbilt	In 1906 the Vanderbilt extended the pine screen into the newly acquired Sexton tract. The trees, planted in tight rows, extended along the road from the new north gate to where the old gate had been and then along the inside (west) margin of the pine screen that had been planted a number of years before. This created a second layer of younger trees along the inside of the screen.	VM CLR 1 p. 132
1907	Frederick Vanderbilt	In 1907 the Pierson U-Bar Co., likely a successor form of the Pierson-Sefton Co., developed drawings and construction details for the greenhouse between the Gardener's Cottage and Tool House. This greenhouse was generally referred to as the carnation house.	VM CLR 1 p. 138
1908	Frederick Vanderbilt	The Pierson U-Bar Co. also designed a large two-wing greenhouse, called the rose house, to replace the four Langdon greenhouses on the southwest terrace.	VM CLR 1 p. 138
1910	Frederick Vanderbilt	In 1910, the sweep of the drive directly past the house was realigned eastward to form a more circular configuration. This reconfiguration, often referred to as the Great Circle, doubled the size of the Mansion lawn.	VM CLR 1 p. 132
1910	Frederick Vanderbilt	In 1910, the firm of Thomas B. Meehan and Sons designed the loggia garden, an eastward extension of the garden on a lower level that was later known as the Rose Garden. The garden featured geometric planting beds, a circular fountain, and a pavilion, as well as walks, steps, and enclosing fence and piers. The planting plan developed by Meehan and Sons originally featured a variety of shrubs and perennials, similar in character to the Italian garden immediately to the west. It is unknown what exactly was planted at that time, since historic images of the garden date from after 1916 when the garden was replanted with roses.	VM CLR 1 p. 154

Year	Ownership	Description	Source
1916-1934	Frederick Vanderbilt	In 1916, the Vanderbilts engaged Robert B. Cridland as garden designer. Over nearly twenty years, Cridland developed a number of plans for the formal gardens. These plans, some of which were executed and some were not, dealt primarily with the garden plantings. The overall structure of the gardens remained much as it had been established between 1875 and 1910.	VM CLR 1 p. 157
1916	Frederick Vanderbilt	In 1916, Cridland developed an overall plan for the gardens that included a redesign and new plantings for nearly every garden area from the top terraces near the greenhouses to the new loggia garden. The only part of this that appears to have been executed was the lower half of the perennial garden near the pool and pavilion. The planting plan featured 22 conical arborvitae shrubs and perennial plantings.	VM CLR 1 p. 157
1916	Frederick Vanderbilt	Sometime after he developed the overall planting plan for the formal gardens, Cridland developed a new plan for the loggia garden that specified that it be planted nearly entirely in roses. The roses, including standard roses, climbing roses, and hybrid tea roses, were arranged by color rather than by cultivars.	VM CLR 1 p. 158
1919	Frederick Vanderbilt	In 1919, an iron fence was installed atop the entire length of the perimeter wall. This fence was removed during World War II in support of wartime scrap drives.	VM CLR 1 p. 132
1922	Frederick Vanderbilt	Cridland developed plans in 1922 to that altered the structural elements of the garden along the western edge of the perennial garden. These changes included wire arches, pergolas, retaining walls, and plantings. Greenleaf had designed this area as a continuous trellis wall with window openings into the perennial garden. Cridland's design featured hedges that framed both sides of the walk and were joined overhead with a trellis over the steps, and a series of vine-covered wire arches.	VM CLR 1 p. 164
1922	Frederick Vanderbilt	Another Cridland design of 1922 involved remodeling the pergola at the north end of the perennial garden. The design reused the brick piers developed by Greenleaf, but replaced the peaked rafters with a series of ogee curved members.	VM CLR 1 p. 164
1923	Frederick Vanderbilt	In 1923, Cridland developed a plan for foundation plantings at the front of the Mansion. The plan featured tall columnar junipers and mounded massings of yews.	VM CLR 1 p. 177
Ca. 1930	Frederick Vanderbilt	In an undated design believed to date to the early 1930s, Cridland remade the perennial garden, replacing the lush evergreen shrubs with a more simplistic design. The new design comprised a double row of flowering cherries over lawns flanking the walk. Narrow beds of perennials fronted retaining walls along each of the lawns. The design produced a strikingly different character than the previous plantings, which had by that time become mature and overgrown.	VM CLR 1 p. 164

APPENDIX 2: CHARACTER-DEFINING FEATURES

Feature	Year	Ownership	Extant?	Description
Buildings and Structures				
Farm house, barn, orchard; east of Albany Post Road	1764-1768	John Bard	No	The farm complex east of Albany Post Road was developed in the early years of John Bard's ownership. The complex contained a farm house, barn and and orchard of 500 to 600 apple trees. No extant elements of this early farm have been identified.
Red House	1772	John Bard	No	The Red House was built by John Bard on the east side of Albany Post Road near the farm complex in 1772. The house would stand until 1875 when it was torn down by Walter Langdon.
Bard House	1797-1799	Samuel Bard	No	The first known development on the west side of Albany Post Road was the house built by Samuel Bard. The house was built at the edge of the terrace overlooking the rolling slopes, parkland, and woodland that descended to the river. The house was remodeled and substantially rebuilt by David Hosack in 1829. In 1845, during Walter Langdon Jr.'s residency, the house was destroyed by fire.
Bard Outbuildings	1799-1821	Samuel Bard	No	In addition to the house, Samuel Bard developed Hyde Park to eventually include several outbuildings and a garden and greenhouse. None of these structures is known to have survived beyond the end of the nineteenth century.
Hosack Coach House	1829-1830	David Hosack	No	A coach house was built north of the house. The house, built of stone in a Greek style, was 60 feet by 40 feet. The coach house was in the vicinity of the current Pavilion.
Hosack Greenhouse	1829-1830	David Hosack	No	A greenhouse was built south of the house. The greenhouse consisted of a central portion and two wings, and measured about 110 feet long and 20 feet deep. Plants kept inside included a collection of pines, Magnolia grandiflora, strelitzia, farnesiana, and Ficus elastica.
Hosack Gate lodges	1829-1830	David Hosack	No	A gate lodge was built at each of two gates to the property. Designed by Martin Thopmpson, the lodges were probably located near the current gate lodges.
Hosack Landscape Structures	1829-1830	David Hosack	No	Several ornamental structures were placed throughout the pleasure grounds, including two circular pavilions, one near the southern entrance and one at Bard Rock, and a colossal urn atop a plinth.
Langdon House	1845-1847	Walter Langdon	No	After the Hosack house burned in 1845, the Langdons built their own house on the same site.
Langdon Barns	1872	Walter Langdon, Jr.	No	In 1872 the barns and their contents of hay and grain burned and were rebuilt. These structures were struck by lightening and again burned to the ground in 1883. New barns were built in 1884.

Feature	Year	Ownership	Extant?	Description
Tool House	1875	Walter Langdon, Jr.	Yes	The Tool House and Gardener's Cottage were part of the formal gardens complex that was designed by Sturgis and Brigham for Walter Langdon, Jr. in 1874-1875. Originally these two buildings had a green house that spanned the distance between them, referred to as the grapery. In 1907, Vanderbilt had this greenhouse replaced with a new one, thereafter called the carnation house. The carnation house is no longer extant, but the Tool House and the Gardener's Cottage remain. The Tool House is the westernmost of the two structures.
Gardener's Cottage	1875	Walter Langdon, Jr.	Yes	The easternmost of the two structures built by Sturgis and Brigham in 1875.
Pavilion	1895	Frederick Vanderbilt	Yes	The first structure to be completed by the Vanderbilts was the Pavilion. Designed by McKim, Mead, and White, the Pavilion was used as a residence for the Vanderbilts while they rebuilt the Mansion.
Mansion	1896-1899	Frederick Vanderbilt	Yes	The Vanderbilts initially intended to renovate the Langdon house, but when it was discovered that the house had severe structural problems, they decided to rebuild it in its entirety. The new house was located in the same place as all of the previous houses, and while it resembled the Langdon house in general appearance, it featured the latest in modern conveniences, including electricity, plumbing, and central heat.
White Bridge	1897	Frederick Vanderbilt	Yes	Designed and constructed by W. T. Hiscox, the White Bridge was built to carry the main entry drive over Crum Elbow Creek.
Coach House Bridge	1897	Frederick Vanderbilt	Yes	The double-arched bridge at the Coach House was designed and built by Norcross Brothers. It was constructed of reinforced concrete with cobble-stone facing.
Dams	1897	Frederick Vanderbilt	Yes	Four new dams were constructed between 1895 and 1900, including the dam at Albany Post Road, the dam under the White Bridge, the Power House dam, and the lower dam near the Coach House.
Powerhouse	1897	Frederick Vanderbilt	Yes	In 1897 and 1898, two pump houses were built. One, a rustic stone power house on the east side of Crum Elbow Creek near the dam, is extant. The other was located on the lower road near the river and the Sexton Tract boundary line. These were both by W. T. Hiscox.
Coach House	1897	Frederick Vanderbilt	Yes	The Coach House was designed by New York architect Robert H. Robertson and built by Norcross Brothers.

Feature	Year	Ownership	Extant?	Description
Perimeter Wall and Gates	1898	Frederick Vanderbilt	Yes	In 1898, the gates and stone wall around the entire estate were completed. The latter was the work of a local mason, Henry Myers. In 1906 when the Vanderbilts acquired the Sexton tract, they removed two existing gates: the north gate Walter Langdon had installed when he purchased the land and the main gate of Torham, as the Sexton estate was known. A new gate was constructed further north near the northern border of the property with flanking stone pillars and integrated into the newly extended stone perimeter wall. In 1919, an iron fence was installed atop the entire length of the perimeter wall. This fence was removed during World War II in support of wartime scrap drives.
Gatehouses	1898	Frederick Vanderbilt	Yes	Two gatehouses were designed by McKim, Mead, and White and built by Norcross Brothers. The contract also included a third gatehouse, but it is unknown whether it was ever built or where its location was to have been. The gatehouses remain today much as they were during the historic period,
Farm buildings	1901	Frederick Vanderbilt	Yes	Despite repairs made only a few years earlier to the Langdon farm buildings, in 1901 they were replaced with a new farm group. The remnants of these buildings remain today, but are outside of the park boundary.
Palm Houses	1905	Frederick Vanderbilt	No	In 1905 plans were put forward by the Pierson-Sefton Co. for simple twin palm houses intended to replace the conservatory built thirty years prior. The two palm houses were located on the top terrace in the northwest corner of the garden.
Subway	1906	Frederick Vanderbilt	Yes	In 1906 an underground drive, referred to as the subway, was constructed beneath Albany Post Road between the estate property and the farm lands. The subway remains today, but it is not used and is gated beneath the road. The wing walls on the west side are deteriorating, with the concrete surface cracked and flaking in places, revealing the bricks beneath. Water seepage and wall spalling are also an issue with the wing walls. The soil drive that passes through the subway is covered with weeds, including a tree-of-heaven growing from the base of one of the walls.
Carnation House	1907	Frederick Vanderbilt	No	In 1907 the Pierson U-Bar Co., likely a successor form of the Pierson-Sefton Co., developed drawings and construction details for the greenhouse between the Gardener's Cottage and Tool House. This greenhouse was generally referred to as the carnation house.
Rose House	1908	Frederick Vanderbilt	No	The Pierson U-Bar Co. also designed a large two-wing greenhouse, called the rose house, to replace the four Langdon greenhouses on the southwest terrace.

Feature	Year	Ownership	Extant?	Description
Potting Shed	1898	Frederick Vanderbilt	Yes	The brick Potting Shed in the southwest corner of the gardens was originally part of the two-winged greenhouse built here by Vanderbilt in 1908, referred to as the rose house. The brick portion comprised the western half of the western wing of the greenhouse. When the greenhouse was removed the brick portion was retained and is extant today.
Circulation				
Samuel Bard Drives and Landscape Layout	1799	Samuel Bard	Yes	The road system developed by Samuel Bard for his estate grounds included a road or footpath from Hyde Park Landing at the south end of the property to the house, a central drive from Albany Post Road to the house, and Bard Lane, a road from Albany Post Road to Bard Rock. The exact composition and layout of Samuel Bard's estate is not known. Elements of Bard's road system were incorporated into subsequent layouts. The road from Hyde Park Landing to the house likely followed the creek and the ridge, a route that has been followed by a footpath ever since. Bard Lane is also extant today, but the rest of the circulation was significantly changed in the 1829 Parmentier design.
Hosack/Parmentier Drives and Landscape Layout	1829-1830	David Hosack	Yes	Hosack employed Andre Parmentier to lay out the grounds of his estate. Parmentier established the circulation system of the park, altering it considerably from the Bard period. Current circulation that dates from the Hosack period includes the main entrance from Albany Post Road across the creek, the serpentine drive from the creek bridge nearly to the main house drive, and the drive from the river gate along Crum Elbow Creek. The footpath that runs along the top of the ridge from near the present Coach House to the main house, probably in place to some extent from the Bard estate, was incorporated into Parmentier's plan.
Vanderbilt Drive System	1898	Frederick Vanderbilt	Yes	Shortly after Vanderbilt bough the property, some changes were made to the estate's system of drives. Existing drives - from the south entrance to the main entrance along Crum Elbow Creek, from the main entrance to the house, and from the house northward - were improved with a crushed stone or gravel surface and formed concrete gutters. When the new mansion was under construction, the main drive passing directly in front of the house was reshaped and the drive leading past the Pavilion to the north gate was straightened, reflecting more Victorian values of form and symmetry. New drives include the lower woodland drive along the river bank that extended from the south gate to just south of what was then the northern boundary of the property. In 1905 when the Vanderbilts acquired the Sexton tract, both the lower woodland drive and the upper drive past the Pavilion were extended into the new land, connecting to Bard Rock and the north gate respectively. In 1910, the sweep of the drive directly past the house was realigned eastward to form a more circular configuration. This reconfiguration, referred to as the Great Circle, doubled the size of the Mansion lawn.

Feature	Year	Ownership	Extant?	Description
Vegetation				
Bard Landscape Plantings	1799-1821	Samuel Bard	Unknown	During Samuel Bard's tenure at Hyde Park, he collected and planted numerous rare and exotic plants and trees. Records indicate his pursuit or acquisition of locust tree seeds and grass seeds for the landscape, as well as fruits and flowers for his greenhouses. It is conjectured that the large ginkgo tree on the South Lawn dates from early in S. Bard's ownership, possibly from the turn of the nineteenth century, although this date has not been substantiated. It is unknown which if any of the landscape trees present today date from the Samuel Bard period.
Hosack Landscape Plantings	1829-1830	David Hosack	Yes	Parmentier's plan would have certainly included the planting of trees and plants in the estate grounds. The landscape of the upper park and the grounds around the house was likely a combination of planted trees and trees retained from the Bard period as well as naturally occurring trees. It is possible that some trees that were in place or planted at the time of Parmentier's design remain today, but without aging the trees by coring (or counting rings on felled trees) it is impossible to tell which, if any, of the extant trees date to that period.
Langdon Formal Gardens	1874-1875	Walter Langdon, Jr.	Yes	In 1874, Langdon employed the architecture firm of Sturgis and Brigham to design a formal garden complex. The complex consisted of two cottages (a gardeners cottage and a Tool House) connected by a greenhouse, a conservatory, and enclosing walls. These architectural elements enclosed a series of six terraces that stepped down the hill, each containing a formal garden of geometric beds. Of these elements, the Gardener’s Cottage and the Tool House, as well as some of the brick walls and terraces, remain today.
Trees	1898-1901	Frederick Vanderbilt	Yes	A survey of the estate's trees conducted by Platt and Burley shows over fifty trees that appear to be very small and were probably planted after the Vanderbilts bought the property.
Perennial Garden Plantings	1902-1904	Frederick Vanderbilt	No	James L. Greenleaf developed plans for an Italian style garden on the eastern two terraces of the formal gardens. The linear space was oriented along a north-south axis, about 320 feet long and 90 feet wide. The space was enclosed on the north by a pergola and on the south by an aquatic plant pool and pavilion. Framing elements included walls, piers, iron work, trellis elements, and a circulation system of walks and steps. The plantings in the perennial garden included perennial flowers and shrubs, such as flox and irises, vines, and massed evergreen shrubs. A tall trimmed cedar hedge divided the garden into two distinct spaces. The character of this garden was dense and lush, especially in the 1910s and 1920s when the plantings had matured.

Feature	Year	Ownership	Extant?	Description
Pine Screen	1906	Frederick Vanderbilt	Yes	In 1906 the Vanderbilt extended the pine screen into the newly acquired Sexton tract. The trees, planted in tight rows, extended along the road from the new north gate to where the old gate had been and then along the inside (west) margin of the pine screen that had been planted a number of years before. This created a second layer of younger trees along the inside of the screen. A third layer of hemlock trees was planted along the west side of the screen around 1938.
Rose Garden Plantings	1910	Frederick Vanderbilt	No	In 1910, the firm of Thomas B. Meehan and Sons designed the loggia garden, an eastward extension of the garden on a lower level that was later known as the Rose Garden. The garden featured geometric planting beds, a circular fountain, and a pavilion, as well as walks, steps, and enclosing fence and piers. The planting plan developed by Meehan and Sons originally featured a variety of shrubs and perennials, similar in character to the Italian garden immediately to the west. It is unknown what exactly was planted at that time, since historic images of the garden date from after 1916 when the garden was replanted with roses.
Formal Garden Plantings	1916-1934	Frederick Vanderbilt	No	In 1916, the Vanderbilts engaged Robert B. Cridland as garden designer. Over nearly twenty years, Cridland developed a number of plans for the formal gardens. These plans, some of which were executed and some were not, dealt primarily with the garden plantings. The overall structure of the gardens remained much as it had been established between 1875 and 1910. In 1916, Cridland developed an overall plan for the gardens that included a redesign and new plantings for nearly every garden area from the top terraces near the greenhouses to the new loggia garden. The only part of this that appears to have been executed was the lower half of the perennial garden near the pool and pavilion. The planting plan featured 22 conical arborvitae shrubs and perennial plantings.
Rose Garden Plantings	1916	Frederick Vanderbilt	No	Sometime after he developed the overall planning plan for the formal gardens, Cridland developed a new plan for the loggia garden that specified that it be planted nearly entirely in roses. The roses, including standard roses, climbing roses, and hybrid tea roses, were arranged by color rather than by cultivars.
Arborvitae Hedges	1922	Frederick Vanderbilt	No	Cridland developed plans in 1922 to that altered the structural elements of the garden along the western edge of the perennial garden. These changes included wire arches, pergolas, retaining walls, and plantings. Greenleaf had designed this area as a continuous trellis wall with window openings into the perennial garden. Cridland's design featured hedges that framed both sides of the walk and were joined overhead with a trellis over the steps, and a series of vine-covered wire arches.
Foundation Plantings	1923	Frederick Vanderbilt	No	In 1923, Cridland developed a plan for foundation plantings at the front of the Mansion. The plan featured tall columnar junipers and mounded massings of yews.

Feature	Year	Ownership	Extant?	Description
Cherry Walk (Perennial Garden) Plantings	Ca. 1930	Frederick Vanderbilt	Yes	In an undated design believed to date to the early 1930s, Cridland remade the perennial garden, replacing the lush evergreen shrubs with a more simplistic design. The new design comprised a double row of flowering cherries over lawns flanking the walk. Narrow beds of perennials fronted retaining walls along each of the lawns. The design produced a strikingly different character than the previous plantings, which had by that time become mature and overgrown.
Formal Gardens Structures				
North Pergola	1903	Frederick Vanderbilt	Yes	In 1903, James L. Greenleaf designed a pergola for the north end of the perennial garden. The pergola consisted of a brick wall and large brick and stone piers topped with a peaked chestnut timber arbor. In about 1922, Robert Cridland redesigned the timber arbor for the pergola with a flat top and ogee curved members at the southern steps.
Pool Pergola	1903	Frederick Vanderbilt	Yes	The pool pergola at the southern end of the perennial garden, also designed by Greenleaf in 1903, is a two-part timber pergola that wraps around either side of the aquatic plant pool. The curved pergolas meet in the middle at the pool house.
Pool House	1903	Frederick Vanderbilt	Yes	The roofed pool house on the southern end of the perennial garden was part of the Greenleaf plan for the garden.
Rose Garden Loggia	1903	Frederick Vanderbilt	Yes	The loggia at the eastern end of the rose garden was part of the 1910 design by Thomas Meehan for that garden.
Stair Pergolas (2)	1903	Frederick Vanderbilt	Yes	Part of the Greenleaf design included four timber pergolas along the walk between the lower annual bed terrace and the lower perennial garden terrace. The two pergolas in the middle of the walk were later removed, but the two pergolas over the steps were retained. The pergolas consist of brick piers with timber arbors above.
Stair Arbor	1903	Frederick Vanderbilt	Yes	At the north end of the walk between the annual bed terraces and the perennial garden, a wire arch arbor covers the steps in front of the Gardener's Cottage, a part of the Greenleaf design for the garden walls and pergolas.
Cold Frame		Frederick Vanderbilt	Yes	The cold frame lies to the south of the rose house terrace along the south side of the boundary wall. The date of construction of the frame is unknown, but it likely dates to the early Vanderbilt period.
Pool		Frederick Vanderbilt	Yes	The aquatic plant pool at the south end of the perennial garden was built as part of the Greenleaf design.

Feature	Year	Ownership	Extant?	Description
Upper Fountain		Frederick Vanderbilt	Yes	The upper fountain is located in the long narrow terrace directly east of the palm house terrace. Plans for the Langdon gardens in 1876 show a fountain in this location, but it is unknown if the existing fountain dates from this time, or if it was replaced during Vanderbilt's ownership.
Rose Garden Fountain Pool		Frederick Vanderbilt	Yes	The circular fountain pool at the eastern end of the rose garden was part of the Meehan design for that garden. Originally the fountain had a frog fountainhead at its center that spurted water from its mouth. The frog was replaced in the 1925 by a statue of Orpheus, which remained in the garden until 2005, when it was removed to storage to protect it from further deterioration. Today the pool stands empty.
Northwest Wall		Frederick Vanderbilt	Yes	The wall marking the northwest corner of the formal gardens is an curved brick wall with a gated entry that leads onto the uppermost (palm house) terrace. This wall, along with several of the other brick walls in the gardens, was part of the Langdon gardens that was incorporated into Vanderbilt's gardens. The brick wall is capped with a terra cotta coping tiles with brick piers.
Southwest Wall		Frederick Vanderbilt	Yes	The wall marking the southern border of the rose house terrace was also part of the Langdon gardens and is similar in form to the arced northwest wall. Originally, this wall continued eastward along the southern edge of the lower annual bed terrace, but this section of the wall is no longer there.
Pool Grotto Wall		Frederick Vanderbilt	Yes	The large curved wall around the south end of the perennial garden wraps around the pool and pool pergola, forming an intimate grotto on either side of the pool house. The pool grotto wall was built as part of Greenleaf's design in 1903.
Perennial Garden West Fence		Frederick Vanderbilt	Yes	Along the west side of the upper perennial garden terrace is a lattice fence consisting of iron wire lattice panels between brick piers.
Upper Perennial Garden East Wall		Frederick Vanderbilt	Yes	The brick wall along the east side of the upper perennial garden is constructed of brick wall segments between brick piers capped with tile. This portion of the wall was part of the perimeter wall around Langdon's garden constructed in 1875 and is of the same style as sections of perimeter wall on the west and southwest sides of the formal gardens.
Lower Perennial Garden East Wall		Frederick Vanderbilt	Yes	The wall between the lower perennial garden and the rose garden consists of a low brick wall with a tile cap, high brick pillars, and decorative iron scrolls that bridge the gaps between the pillars over the wall segments. This wall was part of the Greenleaf design in 1903.
Perennial Garden Retaining Walls		Frederick Vanderbilt	Yes	Brick retaining walls were built between the upper and lower perennial garden to accommodate the changes to the terrace grades when Greenleaf designed the Italian garden.

Feature	Year	Ownership	Extant?	Description
Rose Garden Steps and Retaining Wall		Frederick Vanderbilt	Yes	Part of Meehan and Sons' design of the rose garden included two sets of steps leading down from the lower perennial garden. The bluestone steps with brick walls flank a retaining wall that accommodates the change in grade from the perennial garden to the upper rose garden terrace. The brick retaining wall is approximately three and a half feet high.
Rose Garden dividing Retaining Wall and steps		Frederick Vanderbilt	Yes	The change in grade from the upper to the lower rose garden is accommodated by a three-foot brick retaining wall and two flights of five bluestone steps with brick sidewalls.
Rose Garden Fence Pier		Frederick Vanderbilt	No	The lattice fence with brick piers that was built as the perimeter of the rose garden in 1910 is no longer extant with the exception of one brick pier at the south side of the upper rose garden.
Stairs (13)		Walter Langdon, Jr.	Yes	In addition to the stairs in the rose garden, there are a total of thirteen sets of stairs throughout the formal gardens. Eight of these date to the Langdon period and were constructed to accommodate circulation between the terraces. The remainder of the stairs were constructed as part of the various redesigns by Greenleaf and Meehan and Sons. The steps are primarily of bluestone treads with either bluestone curbs or brick side walls.
Garden Paths		Walter Langdon, Jr.	Yes	Paths throughout the formal gardens are between three and five feet in width and are primarily surfaced with gravel. On the upper terraces these paths date to the Langdon period, while paths in portions of the gardens redesigned in the Vanderbilt period date to then.

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