National Park Service
U.S. Department of the Interior

George Washington Memorial Parkway
McLean, Virginia

Cultural Landscape Report

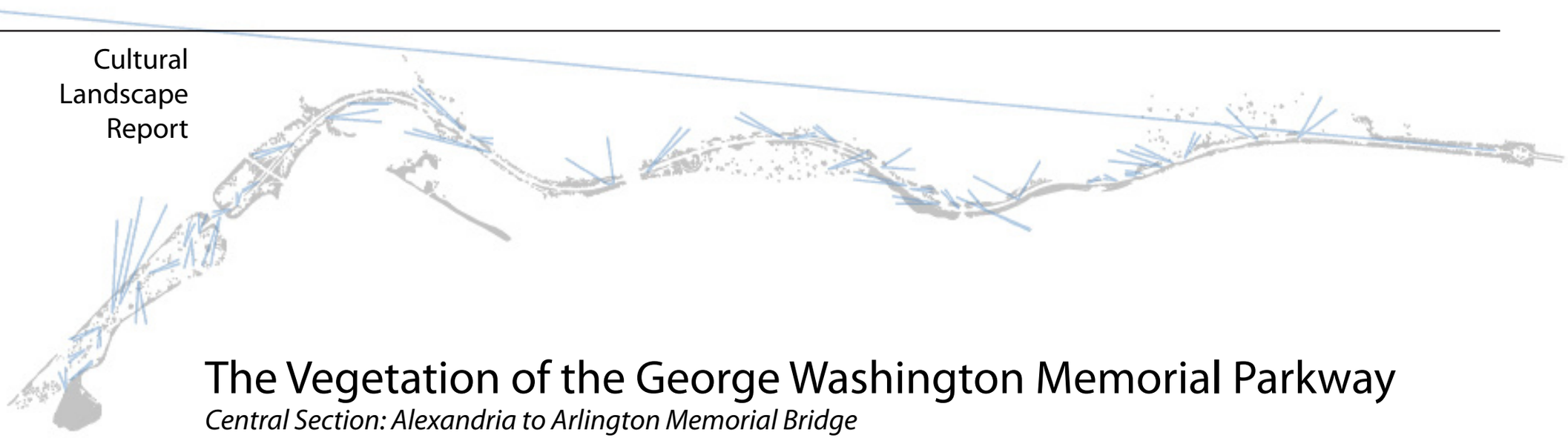
The Vegetation of the George Washington Memorial Parkway

Central Section: Alexandria to Arlington Memorial Bridge



August 2009
Volume One

Cultural
Landscape
Report



The Vegetation of the George Washington Memorial Parkway

Central Section: Alexandria to Arlington Memorial Bridge

National Park Service
August 2009

VirginiaTech
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Cover Illustration
Willow oaks in Daingerfield Island median, 2007, I. Mills

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FOREWARD

The National Park Service (NPS) is pleased to present *The Vegetation of the George Washington Memorial Parkway Cultural Landscape Report* (CLR), a document prepared for the NPS by the Virginia Polytechnic Institute and State University (Virginia Tech) Landscape Architecture program under the leadership of Dr. Paul Kelsch, ASLA. This CLR provides the NPS with critical information on the history, design intent, current condition, and recommended future management of the vegetation for the designed landscape of the George Washington Memorial Parkway (GWMP). The parkway serves as a memorial to the nation's first president as well as preserves the natural and cultural resources along the shorelines of the Potomac River. As the first modern motorway built by the federal government, it was also a model for subsequent parkway development.

Research efforts for this study concentrated on the central section of the GWMP from Alexandria to Arlington Memorial Bridge. The focus included landscape development, design philosophies and analysis of current conditions. This cooperative effort between the Virginia Tech team and NPS staff instilled a common passion for the parkway and has led to a more thorough understanding of the complex layers of the multiple landscape plans of the GWMP, from the original 1932 Mount Vernon Memorial Highway Planting Plan through the more recent additions to the GWMP landscape such as the Lyndon Baines Johnson Memorial Grove on the Potomac.

The information in this CLR is presented in format that is graphically pleasing and usable for future management of the landscape. It is a valuable addition to the NPS body of literature on the landscape of the GWMP. Congratulations are in order to the Virginia Tech team, and the NPS staff involved in the production of the report. We welcome the completion of this work and know that it will be used by future generations to guide the stewardship of this important resource.



Dottie P. Marshall
GWMP Superintendent
August 2009

ACKNOWLEDGEMENTS

A project of this scope relies upon much support, guidance and feedback on many fronts.

Maureen Joseph, Regional Historical Landscape Architect, National Capital Region (NCR), National Park Service (NPS), initiated this project. She compiled extensive resources including planting plans, previous studies of the Parkway, and Department of Interior guidelines for historic landscape assessment and management. She also offered organizational guidance throughout the project as well as critical feedback at several stages. It is not an exaggeration to say that without her initial vision and guidance, this project would not have occurred at all.

Various staff members of the George Washington Memorial Parkway provided first-hand knowledge of the Parkway, critical resources, and feedback at in-progress presentations. Kate Barrett, Eric Bibbs, Brandon Bies, Deborah Feldman, Barry Stahl, Brent Steury and Matthew Virta each attended presentations and offered their specific insights, encouragement and additional resources as appropriate. Their guidance was very valuable. Tammy Stidham provided GIS files, aerial photos and other critical resources to the project.

Likewise Darwina Neal, Chief, Cultural Resources Preservation Services, NCR, NPS, offered critical feedback and shared her files on the Parkway and the LBJ Grove and her personal recollections of working with Lady Bird Johnson and Meade Palmer. Her comments made the history of the Parkway that much more vivid and real.

The project was supported through a cooperative agreement with the Southern Appalachian Cooperative Ecosystem Study Unit whose staff were instrumental in getting the project approved and operating.

Administrative support from Virginia Tech was equally important in getting the project started and keeping it on track. Denise Orden negotiated the often-complicated process of filing the correct forms, editing the contract to conform to university guidelines, and acquiring necessary signatures.

Sharron MacElroy, Marcia Shumsky and Linda Goad provided critical budgeting and accounting support, which assured that the project stayed on budget.

Mark Sorenson, our computer technician, kept the account up and running, and provided valuable assistance without which the project would have been mired in technological problems.

Teresa Phipps, in her inimitable way, prevented many catastrophes in hiring, timesheets, payroll, expenses, etc. Without her experience and assistance, the project would have run aground many times over.

To all these individuals we are profoundly grateful.

EXECUTIVE SUMMARY

This report analyzes the historical integrity of vegetation along the George Washington Memorial Parkway between Old Town Alexandria, Virginia and Arlington Memorial Bridge Memorial Bridge). This central section of the Parkway has undergone significant change since initial construction in 1932, including development and expansion of Reagan National Airport, several changes to the road alignment, and the implementation of numerous additional planting plans. The cultural landscape report records the impact of these changes on the vegetative character of the Parkway and makes management recommendations for historic preservation and rehabilitation. Three methods of analysis inform the recommendations: development of layered historical maps showing the chronological development of the various plantings; analysis of vegetative character by field observation and interpretation of planting plans; and construction of visual "storyboards" that depict the sequential experience of driving the Parkway. Together these methods inform recommendations for restoration and rehabilitation of specific plantings, rehabilitation of critical views, and preservation of important open spaces.

The George Washington Memorial Parkway is distinct among other parkways. Whereas most others were designed primarily to create pleasurable driving experiences, it was constructed as a specific memorial to George Washington, physically connecting his home at Mount Vernon with places of historical importance to Washington and framing views across the Potomac River to such sites as the Washington Monument, the United States Capitol, and the other presidential memorials of Washington, DC. The planting design by Wilbur Simonson, the landscape architect respoonsible for onsite design and developement of the Parkway, created a landscape in which motorists passed through places of distinct vegetative character. Over time more vegetation has been added, changing Simonson's design. Comparing Simonson's plan with current conditions, it is evident that it would have looked quite different from the present day landscape had it matured without further additions. This investigation assesses the historical significance of Simonson's design and subsequent changes to the Parkway.

Simonson's design is presented as a benchmark for the investigation, depicted in terms of the vegetation planted, the character it created, and the views that it set up. Subsequent changes to the vegetation are then mapped as a set of layered historical maps that show the transformation of Simonson's design into its current condition. This allows for comparison of the current vegetation and character with that of Simonson's design. Panoramic photographs are used to study views and spatial sequences along the Parkway, and these are compared with those that Simonson marked on his 1932 plan in order to determine the degree to which the current views and sequential experience reflect the historical views and experience.

Management recommendations are proposed based on this assessment. This is complicated because vegetation does not easily conform to the four Department of Interior preservation treatments: Preservation, Rehabilitation, Restoration, and Reconstruction. Even the selection of a period of significance is difficult because differences in growth rates, life spans, and eventual size and shape of different species yield a landscape that is continuously changing. There is no clear time period or identifiable form that can be considered the definitive landscape to be preserved. Given that the vegetation in the central section of the Parkway has undergone significant changes since 1932, a different period of significance is recommended for each character area based on the plans that have shaped it the most. Taken as a whole, this philosophy effectively amounts to an acceptance of the multi-layered history of the vegetation, rather than a proposal, say, to return to the 1932 plan.

This management philosophy plays out in different ways at each of the different segments along the Parkway, but in general there are three types of recommendations. Restoration or rehabilitation is proposed for specific plantings that celebrate certain features of the Parkway and create distinct vegetative character. The improvement of important views is recommended to rehabilitate the sequence of alternating views of the Washington Monument and the U.S. Capitol when heading northbound, and widening views of the Potomac River when heading southbound. Preservation is recommended to contrast between open spaces and planted areas that characterize the sequential spatial experience of the Parkway.

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one

INTRODUCTION

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SCOPE OF THE REPORT

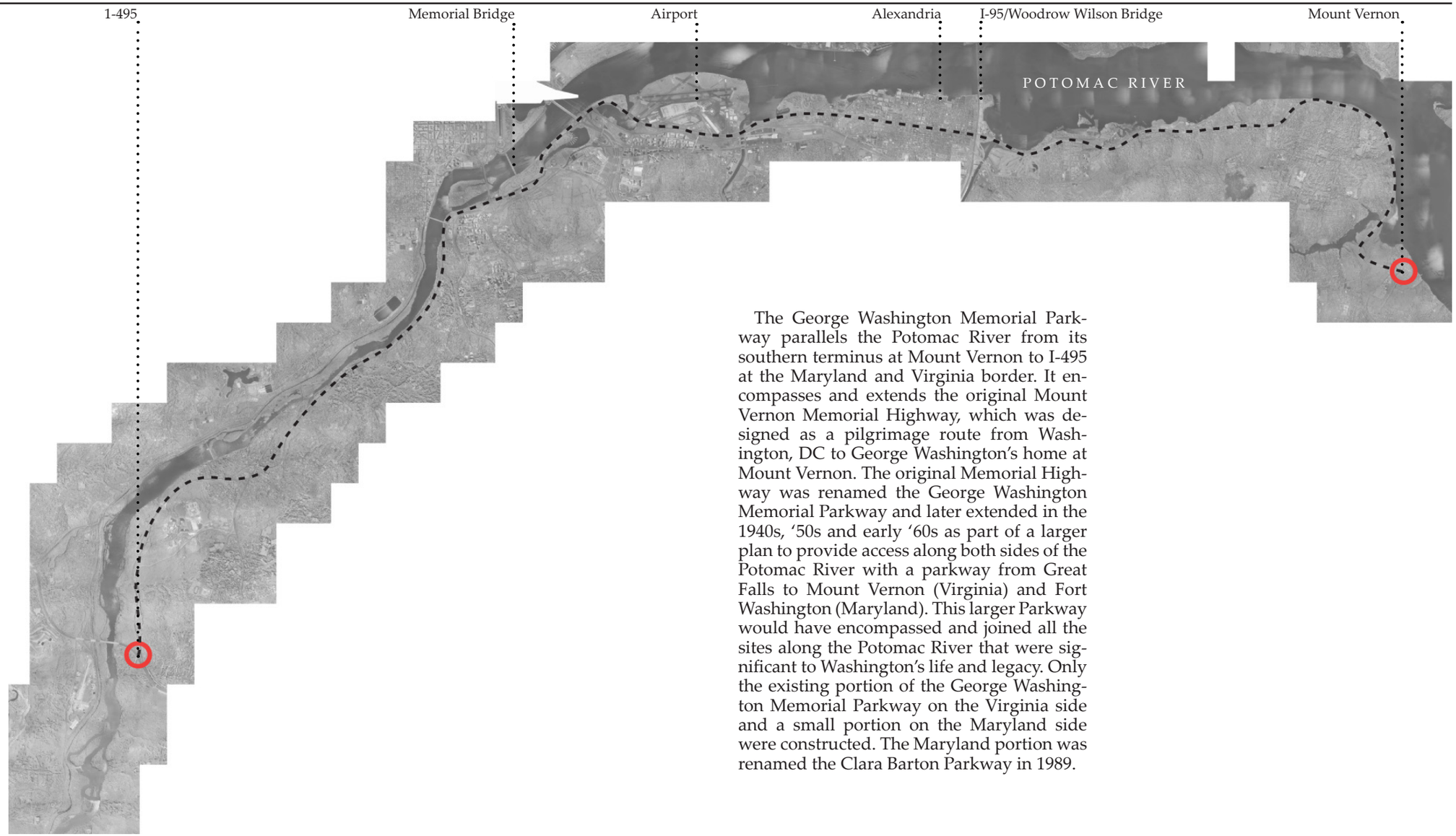
RIGHT PAGE
2007 view of southbound Parkway at Daingerfield Island.

This report is an analysis of the historical integrity of vegetation along the George Washington Memorial Parkway (GWMP) focused on the central section of the Parkway between Old Town Alexandria and Memorial Bridge. Historical planting plans are compared with historical and current aerial photographs and direct field observation in order to determine what vegetation was planted, what remains today, and the degree to which the current conditions conform to historical plans. The original 1932 planting plan by Wilbur Simonson is examined to discern the character he intended for the vegetation and how that character has changed due to subsequent planting and other changes. Existing views are analyzed and depicted as a sequential narrative that physically and visually connects places important in Washington's life and legacy. Current views are compared with views identified on the 1932 planting plan to see how they have changed due to other changes to the Parkway and its vegetation. Based on this analysis, recommendations are made for future management that will preserve and rehabilitate particular plantings, spatial relationships, and views.



LOCATION

RIGHT PAGE
Location map of the GWMP.



The George Washington Memorial Parkway parallels the Potomac River from its southern terminus at Mount Vernon to I-495 at the Maryland and Virginia border. It encompasses and extends the original Mount Vernon Memorial Highway, which was designed as a pilgrimage route from Washington, DC to George Washington's home at Mount Vernon. The original Memorial Highway was renamed the George Washington Memorial Parkway and later extended in the 1940s, '50s and early '60s as part of a larger plan to provide access along both sides of the Potomac River with a parkway from Great Falls to Mount Vernon (Virginia) and Fort Washington (Maryland). This larger Parkway would have encompassed and joined all the sites along the Potomac River that were significant to Washington's life and legacy. Only the existing portion of the George Washington Memorial Parkway on the Virginia side and a small portion on the Maryland side were constructed. The Maryland portion was renamed the Clara Barton Parkway in 1989.

METHODOLOGY

Due to the different scales of the investigation, various methodologies were applied depending on the segment of the landscape being studied and the subject of the investigation. In general, the analysis focuses on three major areas. The first is construction of a vegetative "palimpsest" (a layered, composite map) based on the historical chronology of the plantings. The second is a comparison of the intended effects of the original plantings with those of later plantings and current conditions. The third involves documenting and comparing the visual experience of driving the Parkway today with the views indicated on the 1932 Planting Plan.

Constructing the vegetative palimpsest involved comparing the historical planting plans with relevant aerial photography to identify what vegetation likely had been planted and what remains today. The planting plans are superimposed on the aerial photographs to construct the chronology of the planting and to develop the cumulative palimpsest, revealing which plans have most influenced each segment of the Parkway. The aerial photos and field identification confirm the degree of integrity that each segment has to its relevant plan(s).

Dating the layers of the palimpsest is a complicated matter. A specific planting design (e.g. Lady Bird Johnson Park) is typically associated with its earliest approved plan, but plans are often revised at later dates with different quantities or species of plants. For clarity and consistency, the identifying dates on the palimpsest are those of the earliest approved plans reviewed for this study. The vegetation shown in the maps is typically based on these original plans, altered on the basis of aerial photographic evidence. The vegetation quantified in the tables reflects revisions and later plans. Any future work should refer directly to the National Park Service plans, which are listed for each section by date, title, and NPS document number.

To analyze the intended effects of the 1932 plan, vegetation is color-coded by genus to identify patterns. Critical segments are examined in more detail, especially where there was intricate planting. Vegetation is categorized as follows: shade trees, medium size trees, ornamental trees, evergreens, shrubs, vines, groundcovers, and perennials. An extensive matrix documents the species and quantities of each that were proposed in all the plans in the southern and central sections. Though it is unclear if these are the actual numbers planted, the matrix depicts the plant palette used and how it has changed over time.

Panoramic photographs are used to study views and spatial sequences along the Parkway. These are arranged as "storyboards" to explain the visual story or narrative that unfolds as one drives along the Parkway. The role of vegetation in shaping that narrative is discussed in each view. The directions and extent of these views are noted on aerial photographs and compared with those that are marked on the 1932 planting plan to determine the degree to which the current views and sequential experience reflect the historical views and experience.

A Note on Sources

Because the emphasis of this report is on evaluating the existing vegetation for its integrity to historical plans, primary sources include the various historical plans, aerial photographs from different time periods, and the physical landscape itself studied through direct field observation. Other historical information was derived from the following secondary sources:

Timothy Davis, "Highways in Harmony: George Washington Memorial Parkway", National Park Service, (c. 1994).

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Timothy Davis, "Mount Vernon Memorial Highway: Changing Conceptions of an American Commemorative Landscape", Places of Commemoration: Search for Identity and Landscape Design, ed. Joachim Wolschke-Bulmahn. (Washington, DC: Dumbarton Oaks, 2001), 158.

EDAW, Inc., Cultural Landscape Report, Mount Vernon Memorial Highway, (1992).

National Park Service, Cultural Landscapes Inventory, Lady Bird Johnson Park, (1999, revised 2004).

National Park Service, "National Register of Historic Places: Inventory—Nomination Form, (Mount Vernon Memorial Highway)" (1981).

National Park Service, "National Register of Historic Places: Registration Form, (George Washington Memorial Parkway)" (1995).

Wilbur Simonson, "Final Landscape Report", (1933), included in EDAW, Inc., Cultural Landscape Report, Mount Vernon Memorial Highway, (1992).

Wilbur Simonson, "Roadside Planting", *Landscape Architecture*, (Vol 26, No. 4, July 1936).

DEFINITION OF TERMS

Character Area. An area defined by the physical qualities of a cultural landscape and the type and concentration of cultural resources. [1]

Design Intent. The creative objectives of a designer, architect, landscape architect, engineer, or artist that were applied to the development of a cultural landscape. [2]

Drought Tolerance. The degree to which a species can tolerate occasional very dry conditions.[3]

Even-aged Stand. A stand of trees consisting of one or two age classes. Even-aged stands are often the result of fire, or a harvesting method such as clearcutting or shelterwood.[4]

Genetic Authenticity. Exact replication of a plant by cloning or other means of asexual reproduction.[5]

Historical Integrity. (1) The authenticity of a cultural landscape's historic identity, evidenced by the survival of physical characteristics that existed during its historic or prehistoric period. (2) The extent to which a cultural landscape retains its historic appearance.[6]

Historical Significance. The meaning or value ascribed to a structure, landscape, object, or site based on the National Register criteria for evaluation. It normally stems from a combination of association and integrity.[7]

In-kind Replacement. Replacing plants with the same cultivar, variety, or species.[8]

Invasive Species. A species that is not native to the ecosystem under consideration and the introduction of which causes or is likely to cause economic or environmental harm or harm to human health. (USDA National Agricultural Library, National Invasive Species Information Center.) It should be noted that the National Park Service Management Policies of 2006 do not list any species as invasive that is native to the continental United States. This definition is much broader than the previous one and does not account for the possibility that a species beyond the region is locally invasive.[9]

Introduced Species. Introduced or non-native plants include species that have been brought to an area by people from other continents, states, ecosystems and habitats. Many non-native plants have great economic value for agriculture, forestry, horticulture and other industries and pose little to no threat to our natural ecosystems. Others have become invasive and pose a serious ecological threat.[10]

Management Zone. An area of a cultural landscape with specific objectives for treatment based on the integrity and significance of the property.[11]

Native Species. A native species is said to occur without human intervention in a defined place or in a specific ecosystem, and at a particular time period. The definition is linked to two important factors: site and time period. The site varies in scale from a local area, to an ecosystem, to a region or a continent. In North America, the relevant time period is generally considered to be before European settlement. For the purposes of this report, plant species are considered native if they occurred in the Coastal Plain area of the mid-Atlantic region prior to European colonization.[12]

Naturalized Species. Naturalized species are introduced species that are now reproducing and spreading in the wild without cultivation. By implication, this definition is a subset of introduced species, and includes

invasive species as a subset within it. For the purposes of this report, naturalized species are not considered to be invasive unless they are specifically identified as such.[13]

Palimpsest. A palimpsest is a metaphor used in landscape historical studies. A palimpsest was a manuscript page (typically parchment) that had been written on, scraped off, and used again, leaving traces of the previous text. In time, the surface would become a compilation of past writing layered on top of one another, with the top one most evident. It is used in archaeology and landscape studies to describe the equivalent layering process through which complex landscapes are formed over time, with new layers being added into old ones, forming a composite that bears the imprint of many previous layers and additions.[14]

Preservation. The act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.[15]

Reconstruction. 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 historical location.[16]

Rehabilitation. 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 or cultural values.[17]

Restoration. The act or process of accurately depicting the form, features, and character of a property as it appeared at a particular time period by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.[18]

Shade Tolerance. The ability of a tree species to germinate and grow in the shade of other trees; ones that do not require full sunlight in the early stages of growth. Usually the species becomes dominant as older trees die.[19]

Substitutions. Replacing plants with a different species, typically due to changes in growing conditions, disease, insect problems, invasiveness, or because the original is no longer available.[20]

Uneven-aged Stand. A group of trees that differ significantly in ages; by convention, the spread of ages exceeds 25% of the planned life span for an age class.[21]

Volunteer Plant. Plant that seeds-in and establishes on its own, as opposed to being planted intentionally.[22]

Footnotes

[1] Page, Robert R., Gilbert, Cathy A., and Dolan, Susan A, "A Guide to Cultural Landscape Reports: Contents, Process, and Techniques," (Washington, DC: US Department of the Interior, National Park Service), 1998.
[2] Page, Gilbert, and Dolan, "A Guide to Cultural Landscape Reports."
[3] Leopold, Donald J., Native Plants of the Northeast: A Guide for Gardening and Conservation, (Portland, OR: Timber Press, 2005.)
[4] British Columbia Ministry of Forests http://www.for.gov.bc.ca/hfp/training/00014/summary1.htm
[5] National Park Service, "Landscape Lines 12: Treatment of Plant Features," (Washington, DC: US Department of the Interior, National Park Service), date unknown.
[6] Page, Gilbert, and Dolan, "A Guide to Cultural Landscape Reports."
[7] Page, Gilbert, and Dolan, "A Guide to Cultural Landscape Reports."
[8] National Park Service, "Landscape Lines 12."
[9] National Park Service and US Fish and Wildlife Service, Plant Invaders of Mid-Atlantic Natural Areas http://www.nps.gov/plants/alien/pubs/midatlantic/
[10] National Park Service and US Fish and Wildlife Service, Plant Invaders of Mid-Atlantic Natural Areas http://www.nps.gov/plants/alien/pubs/midatlantic/
[11] Page, Gilbert, and Dolan, "A Guide to Cultural Landscape Reports."
[12] Adapted from National Park Service and US Fish and Wildlife Service, Plant Invaders of Mid-Atlantic Natural Areas http://www.nps.gov/plants/alien/pubs/midatlantic/
[13] Adapted from Shetler, Stanwyn G., and Orli, Sylvia Stone, "Annotated Checklist of the Vascular Plants of the Washington-Baltimore Area", botany.si.edu/DCFlora/Checklist/chklst1.pdf
[14] http://en.wikipedia.org/wiki/Palimpsest
[15] Birnbaum, Charles A., "Preservation Brief No. 36: Protecting Cultural Landscapes Planning, Treatment and Management of Historic Landscapes." (Washington, DC: US Department of the Interior, National Park Service), 1994.
[16] Birnbaum, "Preservation Brief No. 36."
[17] Birnbaum, "Preservation Brief No. 36."
[18] Birnbaum, "Preservation Brief No. 36."
[19] Alabama Forestry Commission, www.forestry.state.al.us/PDFs/ResourceSheets/Timber/Harvest/Shade_Tolerance.pdf
[20] National Park Service, "Landscape Lines 12."
[21] British Columbia Ministry of Forests http://www.for.gov.bc.ca/hfp/training/00014/summary1.htm
[22] http://en.wikipedia.org/wiki/Volunteer_(botany)

GENERAL DESCRIPTION

The George Washington Memorial Parkway is distinct among other parkways. Whereas most parkways were designed primarily as scenic driving experiences, this one was designed as a specific memorial to George Washington. The significance of this is evident in the alignment of the original highway. The chosen route was longer and more costly to build than other alternatives. It hugs the Potomac River, necessitating causeways of filled earth to cross the mouths of several tributaries.

Despite these complications, the longer route was chosen because it would physically and visually connect places important in Washington's life and legacy including Mount Vernon, Alexandria, Washington, DC, the U. S. Capitol, the Washington Monument, Abingdon (Washington's step-son John Parke Custis's House), and Fort Washington. Thus the views along the Parkway are critical to the highway's memorial purpose and are not just scenic embellishments.

The proximity to the river itself is also related to this memorial purpose. In Washington's time, the Potomac River was the primary geographic feature and transportation route of the region. By following the river and providing repeated and extensive views of it, the Parkway underscores the river's importance in Washington's time and today.

The Parkway travels through two physiographic provinces of Virginia: the Piedmont and the Coastal Plain. This is most evident near the mouth of Spout Run, where the Parkway ascends from its riverside location to the palisades along the Potomac Gorge. However, the boundary between the two provinces is not as simple as a line on a map. The route of the Parkway undulates along its length as it straddles this boundary, affording sweeping views in places adjacent to the river and in other places ascending hills that are away from the river making views more inward focused.

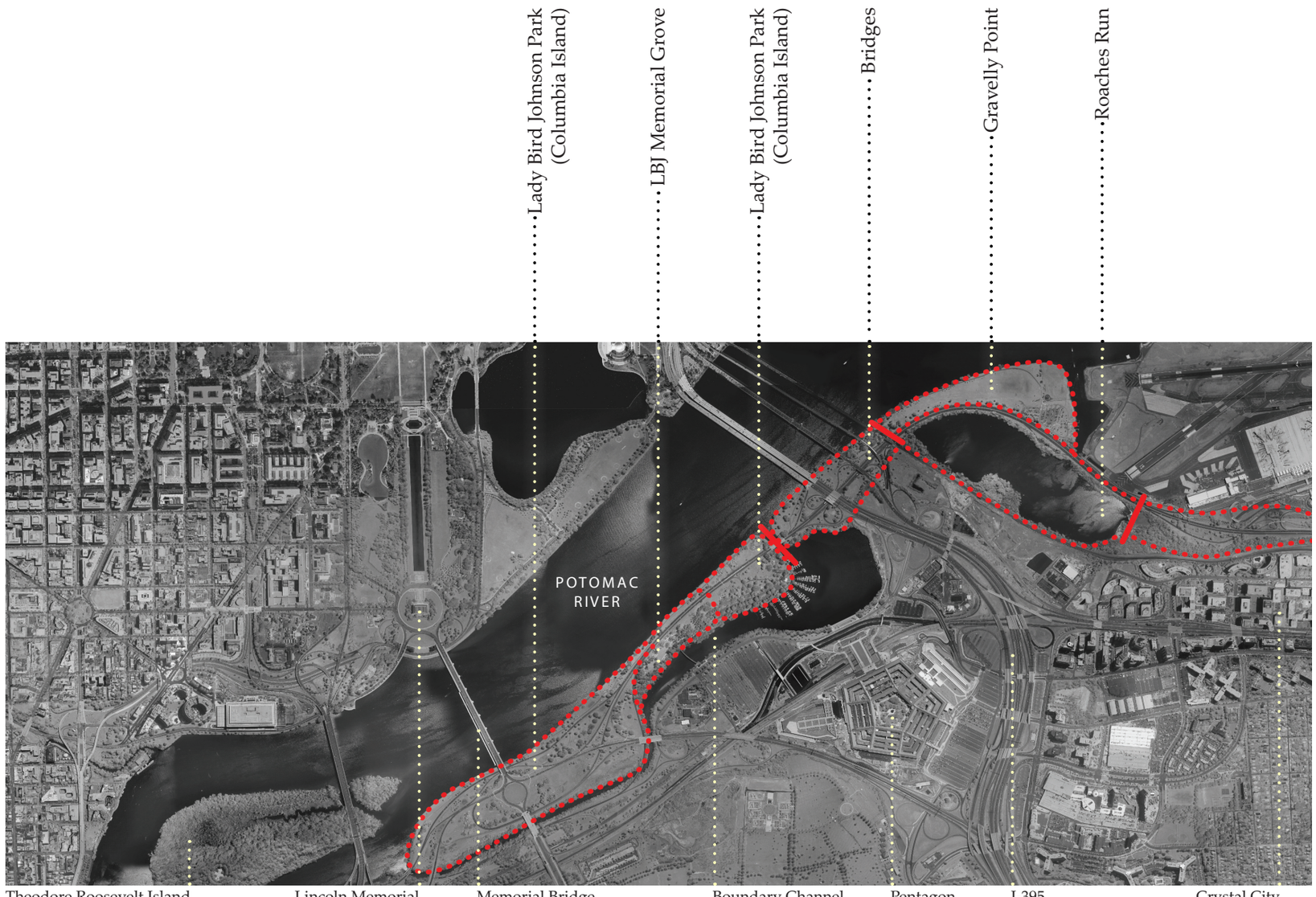
Vegetation reinforces these geographic and topographic conditions. It frames views along the shoreline; it defines distinct spaces along the route, especially in interior locations; and it is low along the causeways to open up views to the broad sweep of the river. In general, vegetation is more densely planted on the inland side, creating a clear boundary between the Parkway and adjacent land. Plants are also used to ornament and celebrate certain aspects of the Parkway such as important intersections and other transitions like the entrance to Alexandria.

The Parkway divides into three segments. The southern section runs from Mount Vernon to Alexandria; the central section from Alexandria to Lady Bird Johnson Park and Arlington Memorial Bridge (Memorial Bridge) the original northern terminus; and the northern section from Lady Bird Johnson Park to I-495.

The central section has undergone the most change and is the focus of this investigation. The biggest change was the construction of Washington National Airport (Ronald Reagan Washington National Airport) in 1940, which necessitated relocating the roadway, but other changes occurred as well. Gravelly Point was filled with dredge material from the river and expanded to its present size in the 1950s and early '60s. Instead of crossing a narrow causeway, the Parkway is now separated from the river by a heavily used park. Columbia Island was extensively redesigned, planted, and renamed Lady Bird Johnson Park in the 1960s, and within it, the Lyndon Baines Johnson Memorial Grove on the Potomac was constructed in the 1970s. All of these changes were accompanied by extensive additional plantings, changing the character of the parkway accordingly.

In order to examine and document these changes closely, the central section is further subdivided into several character areas based on history, geography, and the character of each segment. From south to north, these character areas are: Alexandria Circle, Daingerfield Island, Airport, Roaches Run, Gravelly Point, Bridges, Lady Bird Johnson Park (1932: "Columbia Island"), and the Lyndon Baines Johnson Memorial Grove (LBJ Memorial Grove). Lateral boundaries of each segment were determined based on the limits of perceivable land from the roadway. (See page 12-13.)

CHARACTER AREAS



RIGHT AND LEFT PAGE
(2004 Aerial) defined character areas for Central Section.


Airport
Daingerfield Island
Alexandria Circle
POTOMAC RIVER
'40 Realigned Parkway
Four Mile Run
Potomac Yards Residential Development
Washington Street
I-95
Hunting Creek
0
500
1000
1500
2000
scale
north

SITE HISTORY

Mount Vernon Memorial Highway

Unlike most parkways of the same time period, which were designed primarily to create pleasurable driving experiences, the Mount Vernon Memorial Highway was constructed in 1932 as a specific memorial to George Washington on the 200th anniversary of his birth. The Highway connected places of historical importance to Washington by creating a direct physical link between Washington DC and Washington's home at Mount Vernon, and by framing views across the Potomac River to such sites as the Washington Monument, the United States Capitol, the Lincoln Memorial and Fort Washington.[1]

Construction of the original Memorial Highway was the culmination of decades of efforts to create a fitting pilgrimage route to Mount Vernon. Visitors traveled to Mount Vernon when Washington was alive, but visitation increased after his death in 1799, and the especially after the estate was purchased and restored by the Mount Vernon Ladies' Association in 1858 and after the end of the Civil War. At the time most visitors to Mount Vernon and Washington's tomb traveled by steamboat down the Potomac River, and in the 1880s, the Mount Vernon Avenue Association proposed a grand memorial boulevard as an American version of the Appian Way, lined with statues and memorials. Construction of the Washington, Alexandria and Mount Vernon Electric Railway increased visitation to Mount Vernon, and also diminished support for the more grand vision the Mount Vernon Avenue Association.[2]

The idea of a memorial roadway to Mount Vernon was revived in connection to the upcoming bicentennial of Washington's birth, and Congress authorized the Mount Vernon Memorial Highway in 1928, "on a tidal wave of patriotic sentiment generated by Washington's bicentennial."[3] The Bureau of Public Roads was charged with the development of the Memorial Highway, who in turn commissioned Gilmore Clarke and Jay Downer, the landscape architects of the Bronx River Parkway, to design it as a modern parkway. They, in turn, convinced the Bureau of Public Roads to employ their assistant, Wilbur Simonson, as their on-site landscape architect. Simonson was responsible for the planting design that begins this historical analysis of the parkway vegetation.[4]

Before the Memorial Highway was completed, Congress passed the Capper-Cramton Act in 1930, authorizing an expanded vision of the parkway and renaming it the George Washington Memorial Parkway. The newly envisioned Parkway would incorporate the Mount Vernon Memorial Highway, and would extend all the way along both sides of the Potomac River from Great Falls at the northwestern end to Mount Vernon on the Virginia side of the river and to Fort Washington on the Maryland side. In addition to connecting these additional places connected to Washington's life, it would also protect the shoreline of the river and especially the Potomac River Gorge.[5] The Parkway was extended along the Virginia side as far as the Washington Beltway (I-495), and a small portion was built on the Maryland side, later renamed the Clara Barton Parkway. The rest of the planned extension was never built.

In January of 1932, the George Washington Memorial Parkway, Arlington Memorial Bridge, the Arlington Memorial Bridge Boundary Channel Extension were opened for limited use with a temporary intersection. The Parkway was officially dedicated in November 1932, so that the new plantings would have the benefit of a full growing season. In July 1932, responsibility for the completed roadway was transferred to the Office of Public Buildings and Public Parks of the Nation's Capital and then in 1933 to the National Park Service. Development of Arlington Memorial Circle (Memorial Circle) and its supporting loop roads did not occur until the late 1930s and into 1940.[6]

Simonson Planting Design

The vegetation has its own history as evidenced in the various plans implemented in the 75 years since the initial construction. At the time of construction, 250,000 trees, shrubs, and vines were planted along the entire length of the Mount Vernon Memorial Highway to create as great a sense of completeness as possible for Washington's 200th birthday. Wilbur Simonson envisioned a landscape of varied character so that a traveler would experience a continuously changing sequence of distinct spaces. However, since the vegetation was young at the time of planting, the character of the Parkway was much more continuously open in 1932 than it is today after 75 years of growth.

Comparing Simonson's plan with current conditions, it is evident that, it would have looked quite different from the present day landscape had it matured without further additions. In particular it would have had much more varied character to the spaces through which one traveled. In his design, for example, the entrance to Alexandria was a symmetrically planted, formal circle. The causeways across the mouth of Four Mile Run and Roaches Run were planted with low-growing shrubs, especially spreading roses, so that the traveler would be immersed in the wide space of the river. A grove of widely spaced oaks surrounded the ruins of Abingdon (the Custis house) atop a hill overlooking the river. A flourish of vegetation framed Capital Overlook, the most dramatic view of the capital, just before the traveler emerged onto the open causeway along Gravelly Point. The Fourteenth Street Bridge intersection, the first federally built cloverleaf interchange, was celebrated with roses, elms and other vegetation that celebrated this new highway feature. Flowering dogwoods were scattered along much of the route, and vines were planted on guardrails and lampposts.[7]

Since the design for the connection between the Parkway and Arlington Memorial Bridge was still unresolved in 1932, only a limited number of trees were planted on the southern part of the island, mostly pears, cherries, crabapples and other flowering trees. Volunteer vegetation, mostly willows and cottonwoods, also had established along the edges and the centerline of the island.

Subsequent Changes to Vegetation

Over time additional vegetation has been added to Simonson's plantings. Sometimes this has been done from a master plan with an intentional change in character; other times it has been incremental with gradual changes to the character of the parkway. Some of the vegetation has died and been replaced, other times it has not been replaced, and in other places vegetation has seeded in on its own. Amidst this continual change there are some plans and dates that have had greater impact. The result is a complex palimpsest, a layering of different plans and plantings that has developed into a richly vegetated landscape but one that is quite different than that proposed and planted by Simonson in 1932. This brief history outlines those changes.

In 1935 and 1936, just a few years after initial construction, more trees were added along the western edge of the Highway between Four Mile Run and Alexandria. These trees, including numerous pines that were not part of the original planting plan, filled in gaps in the 1932 plantings, so that the vegetation would create a more consistent mass on the inland side of the Highway and screen the adjacent railroad yards.[8]

Washington National Airport (Ronald Reagan Washington National Airport) was constructed in 1940, and the Parkway was realigned to accommodate it. The original route of the Highway became the main road to the terminal, and a new route for the Parkway was constructed to the west of the airport. The new alignment and substantial new landfill for the runways placed the road further inland from the Potomac River shoreline.[9] Numerous views to the U.S. Capitol and other monuments were lost as a result. Most significant was the loss of the Capital Overlook, a roadside parking area with a sweeping view over the river to the Capitol Building and the rest of monumental Washington. New plantings in 1942 marked the northern and southern entrances to the airport, in much the same way that Simonson had marked and celebrated important interchanges, including the original entrance to the highway.[10] In 1949 plantings along either side of the new segment of the Highway established its dominant spatial character of gently undulating spaces on either side of the Parkway.[11]

During the 1940s, 50s and 60s, a few significant changes to the road alignment and adjacent lands changed the structure of the Parkway in the central section and led to further new plantings. With the construction of the Pentagon during World War II, new roadways were added across Columbia Island to connect the Pentagon to the Parkway and Memorial Bridge. A stand of oaks was planted in the center of the island around the new and existing lanes of travel. Between 1955 and 1959 Columbia Marina was developed on the southern end of Columbia Island and new vegetation was planted in and around the parking lot medians.[12]

Beginning in the 1950s, additional dredge material from the river was added to Gravelly Point, which expanded to its current configuration by 1963. The additional land is a heavily used active recreation park today that separates the Parkway from the river's edge, so that the river is barely visible along the Parkway from the mouth of Four Mile Run to Humpback Bridge. In the original design, it had been very visible along much of that route.

A second lane of traffic was constructed in 1961 along Daingerfield Island.[13] This new lane created a divided highway with a wide median that preserved many of the previously planted trees, including numerous willow oaks that are among the more memorable stands of trees along the Parkway. Also in 1961 Alexandria Circle (Memorial Circle on the original plan) was removed, and the lanes of traffic went straight through the former circle.[14]

The most extensive planting plan since Simonson's 1932 plan was implemented in 1963, perhaps in response to these numerous changes to the alignment and the surrounding land. New trees were planted from the northern end of Gravelly Point all the way to Alexandria. In contrast to the changing character of Simonson's design, the 1963 plantings established a more continuous character

along the Parkway. Large, deciduous shade trees lined both sides of the Parkway, and Memorial Circle in Alexandria was transformed into a more picturesque landscape, similar to the rest of the Parkway landscape.[15]

Lady Bird Johnson Park

Columbia Island was the focus of major plantings in the late 1960s as part of Lady Bird Johnson's Beautification Program. Landscape architect Edward D. Stone, Jr. designed an extensive planting plan for Columbia Island consisting primarily of white pines, scarlet oaks, sugar maples, flowering dogwoods, and a million daffodils. The plan is the only overall plan for the island and has been implemented in phases. The dogwoods, daffodils and some of the pines, oaks and maples around Memorial Circle were planted by the end of the decade, but most of the trees were planted in the 1970s, 80s and 90s, as funds became available. The island was renamed Lady Bird Johnson Park in 1968 to honor the First Lady and her Beautification Program.[16]

The Lyndon Baines Johnson Memorial Grove on the Potomac (Lyndon Baines Johnson Memorial Grove) was designed in 1975 by landscape architect Meade Palmer and constructed within Lady Bird Johnson Park. It is comprised of two distinct parts. The first is a white pine stand encircling a megalith of Texas granite that opens to a wide view across the river to the Capitol, the Washington Monument, and the Lincoln and Jefferson Memorials. The second part is an open lawn enclosed by more varied and ornamental plantings that is intended as an area for picnics and strolling.[17]

During the 1970s and 80s, several smaller plantings have responded to specific conditions and changes along the Parkway. More vegetation was added around the set of bridges immediately south of Lady Bird Johnson Park, at the entrance to Gravelly Point, and along the airport to screen the new buildings of Crystal City and new airport structures.

Overall, from the initial plantings of 1932 to the various plantings of the 1980s, the vegetation of the Parkway has changed significantly. Not only have the trees grown tremendously, but additional plantings and volunteer vegetation have added to the total amount of vegetation. The character has changed, too. Whereas Simonson envisioned a Parkway where one traveled through varied places with distinct character from one another, the present Parkway has a more consistent character.

Footnotes

[1] National Park Service, "National Register of Historic Places: Inventory—Nomination Form" (1981).
[2] Timothy Davis, "Highways in Harmony: George Washington Memorial Parkway", National Park Service, (c. 1994).
[3] Timothy Davis, "Mount Vernon Memorial Highway: Changing Conceptions of an American Commemorative Landscape", Places of Commemoration: Search for Identity and Landscape Design, ed. Joachim Wolschke-Bulmahn. (Washington, DC: Dumbarton Oaks, 2001), 158.
[4] Davis, "Mount Vernon Memorial Highway", 161.
[5] Davis, "Highways in Harmony"
[6] National Park Service, Cultural Landscapes Inventory, Lady Bird Johnson Park (1999, revised 2004), 34-37.
[7] Wilbur Simonson, "Planting Plan of Proposed Mt. Vernon Memorial Highway", NPS #850/80156 (1932).
[8] National Park Service – National Capital Parks, "Mt. Vernon Memorial Highway, Supplemental Planting Plan, Stations 190-287", NPS #850/85168 (1936). National Park Service – National Capital Parks, "MVMH Tree Planting", NPS #850/85073 (1936).
[9] EDAW, Inc., Cultural Landscape Report, Mount Vernon Memorial Highway, Volume II: Documentation (1991), 49-50.
[10] Unknown, "Washington National Airport, Gravelly Point – Virginia, Planting Plan", NPS #850/85167 (1942).
[11] National Park Service – National Capital Parks, "Planting Plan: Section Through Airport, Mt. Vernon Parkway", NPS #850/85291, (1949. rev. 1950).
[12] National Park Service, Cultural Landscapes Inventory, Lady Bird Johnson Park, 32-39.
[13] EDAW, Inc., Cultural Landscape Report, Mount Vernon Memorial Highway, Volume II: Documentation (1991), 91.
[14] EDAW, Inc., Cultural Landscape Report, Mount Vernon Memorial Highway, Volume II: Documentation (1991), 103.
[15] National Park Service, National Capital Office "Planting Plan, 14th St. Bridge to Alexandria, GWMP – Arlington County & Alexandria", NPS #850-85634A, (1964).
[16] National Park Service, Cultural Landscapes Inventory, Lady Bird Johnson Park, 46-50.
[17] National Park Service, Cultural Landscapes Inventory, Lady Bird Johnson Park, 56-58.

MANAGEMENT PHILOSOPHY

The management of an historic landscape is complicated significantly by the dynamics of vegetation. In particular, the four treatments identified in *A Guide to Cultural Landscape Reports: Contents, Processes, and Techniques* are problematic when applied to vegetation. These treatments—Preservation, Rehabilitation, Restoration, and Reconstruction—emphasize specific objects, such as buildings, fences, roads, walkways, and other structures, which are easily identified and described. Although change is recognized and acknowledged in the treatment guidelines, these kinds of structures can often be traced to a specific time period and a specific form within that period. Consequently differences between the four different treatments are more clear-cut.

Vegetation is inherently much more dynamic than structures and does not easily conform to the four treatments identified. Individual trees or specific plantings can be treated in much the same way as structures, as outlined in "Landscape Lines 12: Treatment of Plant Features," but larger-scale plantings are more difficult to fit into preservation practices. With individual historic plants, protection of the actual specimens and their genetic stock is important to maintaining the historical integrity of the property. However, larger scale plantings of vegetation, like those that define the Parkway landscape, are more problematic. In this case, most individual specimens do not have the same historical importance. Their significance lies in their contribution to the character of the landscape, its experience, and the length of their contribution, i.e their age. (A few plantings do have individual historical importance, most notably the numerous donated plantings along the parkway by various patriotic groups, usually women's groups. Most of these that remain are in the southern section of the Parkway, but in the central section, there were plantings in 1932 near the Bridges by the Garden Club of America, at Abingdon by the Association for the Preservation of Virginia Antiquities, and at Capital Overlook by the Colonial Dames of America. In addition, Governors Grove was planted in 1967 at Gravelly Point in honor of the First Ladies of all U.S. states and territories.)

The growth and dynamics of vegetation make even the selection of a period of significance difficult. Differences in growth rates, life spans, and eventual size and shape of species and individual plants yield a landscape that is continuously changing. Not only is it challenging to determine a period of significance, but it is difficult to determine what the relevant form of the landscape is for that period of significance. For example, although Wilbur Simonson's design was implemented in 1932, it never grew into the landscape he envisioned because additional plants were intentionally added, starting as early as 1936 and continuing to the present day. Others died and were not replaced, and in other places volunteer vegetation has established and been allowed to grow. Even though Simonson's design seems to have been implemented for the most part according to the drawings, these subsequent changes have resulted in a different landscape than Simonson had planned. Some of the changes to Simonson's plan are relatively permanent, such as the construction of Ronald Reagan Washington National Airport and the filling of Gravelly Point. Other changes are less permanent and could be rolled back to restore the 1932 plan or another historically significant plan, if so desired. But since that design

never reached maturity and no one ever experienced it, what is its historical significance? Only at the approach to Alexandria, is the current Parkway still largely true to the intention of the 1932 plan. In other places, like Gravelly Point, changes to the landform have radically transformed the conditions for which the 1932 plan was designed. This does not mean that the 1932 plan is insignificant, but its significance must be evaluated in the context of the specific character areas and their individual histories.

In addition, as vegetation matures or dies, the environmental conditions change for adjacent plants. Competition for water increases as trees grow, making it harder, if not impossible, for less competitive plants to continue to grow, even though they may have been a suitable choice at the time of planting. At the same time, a shadier environment from maturing trees impedes the reestablishment of shade-intolerant species.

The age of the plantings, 75 years for the oldest and much younger for more recent plantings, is also a factor. Even at 75 years old, many species are not fully mature, while others are long past their expected life span. How then does one determine an appropriate time or age to which to preserve or restore the vegetation?

It is not the intention of this document to resolve all these issues, but it would be unwise to gloss over them. Future landscape historians, preservationists, landscape architects, and maintenance personnel will need to grapple with these issues in order to adequately protect cultural landscapes.

All of these factors make assigning a clear management philosophy difficult albeit necessary to protect the cultural and historical values of the Parkway. Perhaps the most critical decision is determining the period of significance. Given that the vegetation in the central section has undergone significant changes since 1932, an indiviudal period of significance is recommended for each character area on the basis of its individual planting history rather than assigning an overall period of signfiicance for the entire central section. This reflects the complex planting histories of the different character areas that make up the central section of the Parkway. The beginning date is typically 1932 (except for the Airport segment) but the end date varies depending on the history of each section. For example, very little planting has occurred at Alexandria Circle and Daingerfield Island since 1963, whereas the most important designs for Lady Bird Johnson Park and the Lyndon Baines Johnson Memorial Grove did not occur until 1967 and 1975, respectively. So each of these segments has different recommended periods of significance.

Taken as a whole, this philosophy effectively amounts to an acceptance of the palimpsest, of the multi-layered history of the vegetation, rather than a proposal, say, to return to the 1932 plan. The 1932 plan is accepted as the genesis of the design, but later plans are included in the period of significance where they significantly altered the character of the landscape and/or responded to changes to the physcial environement. In effect this is a recommendation to preserve much of the existing landscape, with exceptions noted below that proprose restoring or rehabilitating specific plantings, views and open spaces. Where there are critical issues or conflicts identified through the historical analysis, a balance is proposed between preservation, rehabilitation, and occasionally restoration.

In this case, preservation refers to maintaining the integrity of the design as it has developed over the decades. This generally means maintaining the intended composition of plants, spatial effects, and critical views created by the plans that are most relevant to a given character area. Usually the 1932 planting plan serves as the foundation of the design of the vegetation, but often it is augmented significantly by subsequent plans.

Rehabilitation often includes negotiating conflicts between the 1932 plan and later plans that repsond more directly to changed conditions of the Parkway. This typically involves differences in planting design, views, open spaces and plant palettes. In each case, the relative importance of each planting plan is weighed in relation to each other, to the existing conditions of the environment, and to the overall character of the character area.

In a few instances, restoration is recommended where a specific historic planting is deemed to be still relevant and able to be restored to its original plan.

Any or all of these treatments may be applied to individual plants in an overall planting design, to an aggregation of plants such as the grove of pines at the Lyndon Baines Johnson Memorial, or to an ecological system such as shrubs planted to stabilize the banks of Roaches Run.

This management philosophy plays out in different ways at each of the different segments along the Parkway and is applied carefully in each section. Thus, this is a strategy tailored to specific conditions of the character areas rather than a sweeping strategy for the entire central section of the Parkway.

This strategy also allows for future changes to the Parkway. Because the Parkway is a major traffic artery as well as a memorial highway, it faces modern demands that are not typical of most historic properties. Given the amount and scope of changes in use thus far, it is unreasonable to expect that there will be no more changes. The ongoing work (2009) at Humpback Bridge (the colloquial nickname for the bridge at the southern end of Lady Bird Johnson), which would be considered a rehabilitation of the Parkway in this context, serves as an example of how this philosophy can be used to guide future decisions. The new bridge construction necessitated the removal of several trees, including some that dated back to the 1932 plantings, and Barry Stahl, the GWMP horticulturalist/nursery manager is currently attempting to propogate cuttings from two existing 1932 pears that remain but are threatened by the construction. If these cuttings take, then they can be used to replace the lost trees with trees of similar genetic stock. In this way, the construction work follows the guidelines of rehabilitation to protect some of the historically and culturally important aspects of the Parkway while accommodating new uses.

STRUCTURE OF THE ANALYSIS

This analysis begins by examining Wilbur Simonson's 1932 planting plan as a baseline for comparison with later plans and with current conditions (Chapter Two). It begins by overlaying Simonson's plan on a composite aerial photograph (from 1937 and 1943 aerials, the most accurate available images) to show Simonson's design in its own time period (approximately). Simonson's plan indicates important views, and these are mapped on a 2004 aerial to depict their focus, frequency and repetition. These reveal a northbound narrative sequence of views focused on the Washington Monument and U. S. Capitol and a southbound sequence focused on the Potomac River.

A series of colorized details of the 1932 Planting Plan examine and interpret the design intention of Simonson's plantings. These details reveal that Simonson designed a more varied experience for travelers than is evident today, and that he used a broader plant palette. These details are coupled with a set of tables that categorize the richness of Simonson's plant palette and the dominant species he used in each character area of the Parkway.

Following the analysis of the original design, the subsequent planting plans are examined in Chapter Three for their influence on the current Parkway landscape. First, the six most influential planting plans are depicted individually, and then all the plans are layered on relevant aerial photos to construct a cumulative palimpsest, a layered composite of all the plantings. When compared with field observations, the resultant palimpsest reveals which plans have had the most influence in each character area, and it is critical in establishing the period of significance for each. The cumulative plant palette for each character area illustrates how the palette has changed with subsequent plantings.

The Lyndon Baines Johnson Memorial Grove is treated individually because of its importance as a presidential memorial and because it is the result of a single plan (implemented in phases) not a composite of several of them. In this case, Meade Palmer's plan is compared with existing conditions to determine the integrity of the current landscape. Overstory trees are analyzed separately from understory shrubs and perennials to reveal differences in the integrity of each.

In Chapter Four, views are analyzed. An overview of northbound and southbound views shows the 1932 views depicted on Simonson's plan and indicates which of these remain and which have been lost due to subsequent development and plantings. A second set of overall view diagrams depicts current views that result from later development of the Parkway and later plantings plans. These northbound and southbound overviews serve as an introduction to a set of storyboards that depict the sequential experience of the present day Parkway. These are shown, first, as a northbound sequence from Alexandria to Lady Bird Johnson Park and then a southbound one from Lady Bird Johnson Park to Alexandria. In each case, a view cone indicates the location of the view, and text identifies the plan from which the view derives, its current condition, and recommendations for managing the view. This dual emphasis on analysis and recommendations makes a transition between the purely analytical content of the first three chapters (Volume One) and the fifth chapter, which includes more comprehensive recommendations.

Chapter Five begins with an overview of each of the previous chapters before synthesizing the material and making management recommendations. The chapter begins with the Simonson plan overlaid on a 2004 aerial photograph to show how the landscape has changed since the time of the original design. Then the entire palimpsest is shown also on the 2004 aerial photograph to illustrate the cumulative effect of all the plantings on the present day Parkway landscape. Then current views are shown, indicating the proposed changes discussed in Chapter Four. Before making specific proposals, two sets of general issues are discussed relative to the plant palette and planting strategies. First, issues related to the use of native, introduced and invasive species are discussed within the context of the overall plant palette in order to recommend "period plant palettes" for each character area. Then, overall planting strategies derived from Simonson's use of plants are discussed to guide general planting along the Parkway.

After laying out these general issues, then each character area is discussed individually. The period of significance is determined based on the specific planting history of the character area, and existing conditions and integrity are examined in terms of vegetation, views, relationship to the surrounding landscape, and overall character. The assessment of existing conditions and integrity inform management proposals for each of the character areas. Finally, all of the proposals for the character areas are combined into one overall plan showing the total effect of the recommendations.

Each of the chapters of this report is designed and written with a certain autonomy so that a reader does not have to read the entire document to understand, say, the analysis of views in Chapter Four or the proposals in Chapter Five. Throughout the document there is an intentional redundancy; information is repeated before it is developed in more detail with each chapter. Still, the book makes most sense when read sequentially, so that later chapters are informed by the earlier ones.

two

1932 SIMONSON PLAN

In order to understand the development of the vegetation in the central section of the Parkway, it is helpful to understand the plantings, views, and character of the original planting design by Wilbur Simonson. In the beginning of this chapter, the 1932 planting plan is superimposed on a composite aerial photograph from 1937 and 1943 to depict as closely as possible what Simonson's design would have been like in its own time. There is no complete aerial photograph before National Airport was constructed, so this composite more closely depicts the 1930s landscape.

Next, identifiable views that are marked on Simonson's plan are illustrated on the 2004 aerial photo to infer the sequential experience that motorists would have enjoyed as they drove along the original Mount Vernon Memorial Highway. The sequences of views are described as northbound and southbound visual narratives.

Finally, the planting design for each character area is studied in a series of colorized details of the planting plan. Significant details within each character area are described and summarized with an overview of the character. Colorization allows for the character of the planting plan to be read more easily, since it distinguishes between major genera of shade trees, medium size trees, flowering trees, and shrub masses. These are for illustrative purposes only. For detailed planting information, refer to the original documents. Then, tables of plants quantify the plant palette specified for each character area. The species are listed in the order of their predominance within the character area, so that the tables give a sense of the species that most characterized the plantings in each character area. Bold text is used for the dominant species used in each category.

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Gravelly Point 64

Bridges 68

Columbia Island 74

1932 SIMONSON PLAN

One of the central methods of analysis of this study involves overlaying the various planting plans for the Parkway on aerial photos from similar time periods. Overlaying Simonson's 1932 planting plan on a composite aerial photo from 1937 and 1943 (the most accurate depiction of the 1930s Parkway landscape before construction of National Airport in 1940), makes several things evident about the original design and the earliest changes to the Parkway landscape. (See pp. 25-27)

Simonson's plantings created a varied experience as motorists moved through places with distinct character. These distinctions are evident even on an overview of the plan, when trees are color-coded according to their use as shade trees, medium trees, ornamental trees, and shrubs. Elms are called out individually because they are used to mark special places along the Parkway, and willows are identified because they are used in wetter areas.

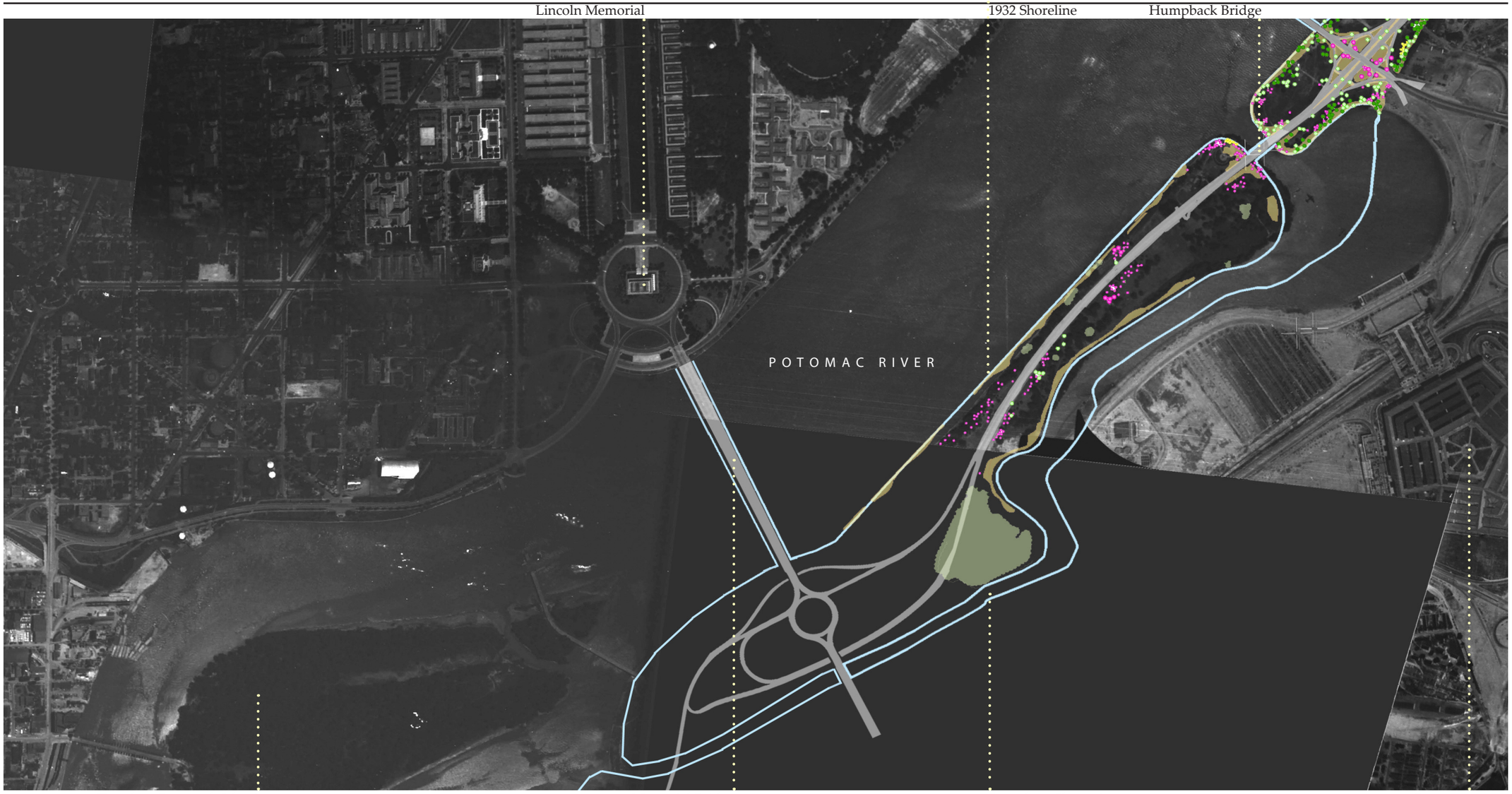
The formality of Alexandria Circle (identified as Memorial Circle in Simonson's plan) and the loose symmetry of plantings leading up to it are clearly identifiable on the plan. The Daingerfield Island segment has asymmetric plantings. Consistent plantings along the western side, mostly shrubs and smaller trees apparently were intended to create a naturalized border to screen the railroad yards immediately to the west, but the eastern side is much more open to allow for views across the "island" to the river. Similarly, the west side of Four Mile Run is more densely planted, but low shrubs line the water's edge providing a sweeping view across the wide mouth of the run.

Along the Airport stretch the original Memorial Highway ascended a hill, on the top of which were the ruins of Abingdon, the home of George Washington's stepson and step-granddaughter. Simonson designed an extensive oak grove surrounding the house on the western side of the broad curve on the hill. The entrance to the proposed airport was highlighted with flowering trees amidst larger shade trees, quite distinct from the open oak grove around Abingdon.

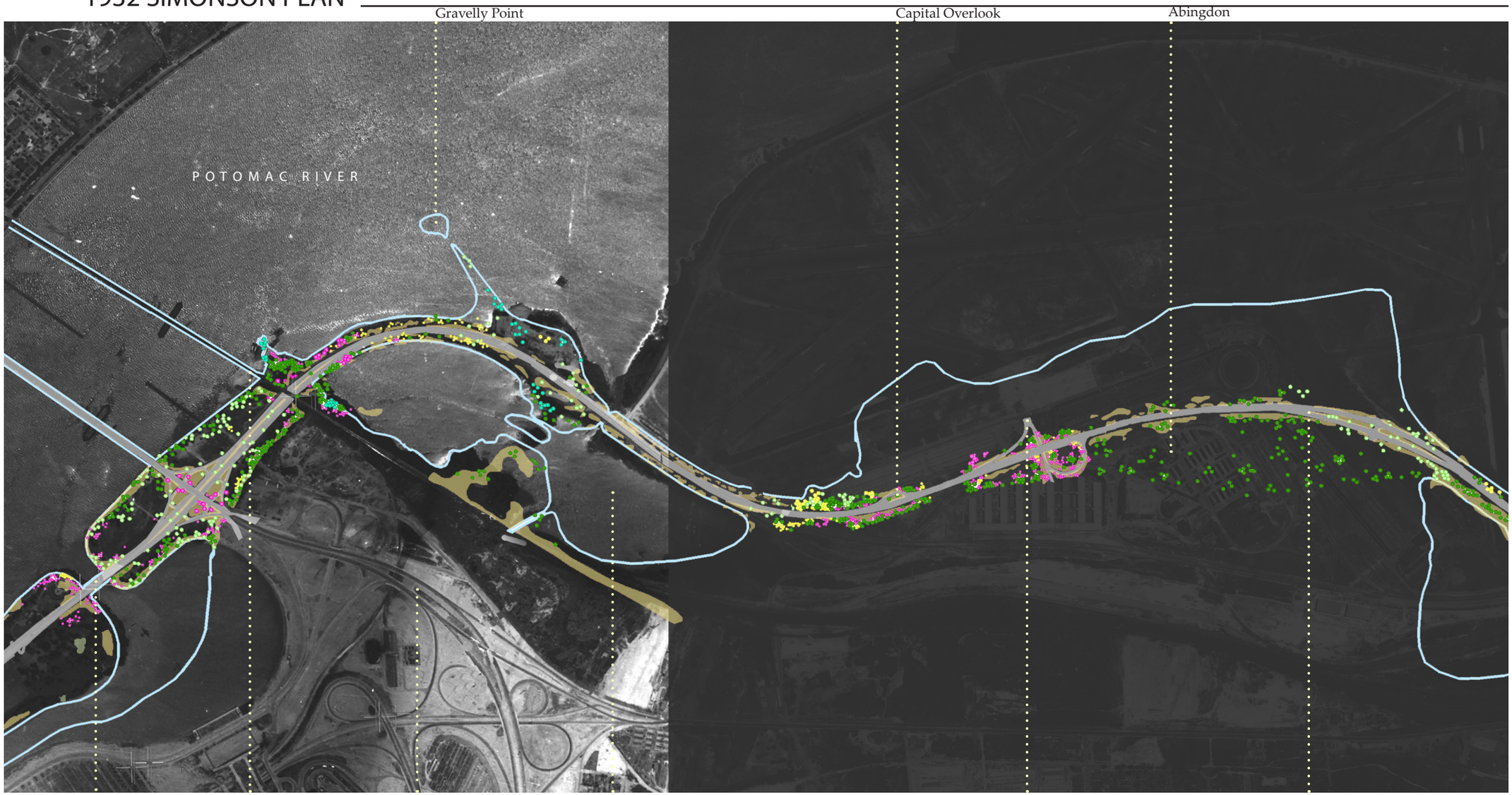
At Roaches Run a dense planting of diverse trees gives way quickly to low shrubs along the causeway that carries the Parkway across Gravelly Point and then back to solid ground. Further north, plantings around the cloverleaf intersection with the 14th Street Bridge set off this new technological feature.

In 1932, the final road connection to Memorial Bridge had yet to be designed, and consequently Simonson's plantings only include the southern end of Columbia Island, today's Lady Bird Johnson Park. That connection was completed before 1943, as were the roadways linking to the newly constructed Pentagon, but the aerial photograph does not cover that segment of the landscape.

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(1937/43 Aerial) with the 1932 Simonson Plan.


Lincoln Memorial
1932 Shoreline
Humpback Bridge
POTOMAC RIVER
Theodore Roosevelt Island
Memorial Bridge
Boundary Channel
Pentagon
Elm
Willow
shade
medium
orna-mental
shrubs
volun-teer
'32 shore
25
0
250
500
750
1000
scale
north

1932 SIMONSON PLAN



1932 Shoreline

Monument View Hill



Four Mile Run

Potomac Yard

Slater's Lane

Alexandria Circle

Elm

Willow

shade

medium

orna-mental

shrubs

volun-teer

'32 shore

27

0

250

500

750

1000

scale

north

PLANT PALETTE AND CHARACTER

Introduction

Four years after the completion of the Mount Vernon Memorial Highway, Wilbur Simonson published "Roadside Planting" in *Landscape Architecture*, in which he articulated his goals and intentions for planting along highways.[1] In the article he does not mention the Memorial Highway specifically, but its publication so soon after construction, and the evident similarity between his writing and his design for the parkway, suggests that it is an important articulation of his ideas about the use of plants along the parkway.

Like other parkway designers of the time, Simonson's overriding goal was "the fitting of the highway into its landscape surroundings."[2] He further articulates this as follows.

> *The primary purpose of highway planting is to enhance the peculiar qualities in the views and scenery of the surroundings through which a highway passes so that the development within the highway limits will be properly consistent and appropriate to that which lies over the fence or beyond the highway borders, and will, therefore, present to the motorist the best of the landscape qualities inherent in it.*[3]

This dual emphasis on enhancing the "peculiar qualities" of the site and being "consistent and appropriate" with the adjacent conditions explains much about his overall planting strategy for the Parkway. On one hand, his planting design creates places of vegetative and spatial distinctiveness, so that motorists would pass through a series of changing scenes as they drive to or from Mount Vernon. Different species are used to emphasize different qualities of the landscape such as critical views, wet areas, bridges, etc., giving each area a distinct character. On the other hand, he establishes continuity to the parkway landscape by using large numbers of certain species to give the parkway an overall character compatible with its surroundings.

These two strategies, emphasizing the distinct conditions of the site and blending the landscape into its surroundings, help explain much of the specifics of his planting design. Certain species of plants (elms, dogwoods and roses, for example) are used primarily to accentuate specific characteristics, whereas others (oaks, maples and medium-size trees, for example) are used typically to establish a backdrop for the parkway.

Consistent with this intention, he emphasized the use of native plants to blend with the surroundings, but he was not interested in just mimicking the adjacent landscape. Instead he consciously composed it to be an interpretation of the surrounding landscape.

> *A systematic study of the native flora along and immediately adjacent to the highway will indicate the most appropriate plant materials to be used, and such an analytical process should develop selective appreciation of natural plantings upon the highways. This means that an understanding* interpretation of nature *(original emphasis) is necessary to obtain an effective improvement.*[4]

Critical to this approach was the use of large numbers of the same species of plants for particular compositional effect.

> *A few kinds of plant material, selected and used in large quantities, and arranged in natural groupings or colonies, appear to offer the best means for creating a unified impression in general fitness and scale with the countryside.* [5]

Despite his emphasis on the use of native plants, often purchased and transplanted from adjacent landowners, he was not dogmatic about their use. He advocated the "fullest utilization of native materials or *harmonizing types*" (italics added)[6], and also purchased, for example, large quantities of English ivy (*Hedera helix*) from adjacent landowners, including Mount Vernon.[7]

Simonson categorized plants in only three categories, trees, shrubs and ground covers, but these categories do not reveal the nuance of his planting design. A more revealing categorization is one that distinguishes among shade trees, medium size trees, ornamentals, evergreens, shrubs, vines and groundcovers, and perennials and enables a consistent methodology for analyzing the numerous planting plans from 1932 to the present. Based on plant characteristics from USDA PLANTS database and Dirr's *Manual of Woody Landscape Plants*[8], shade trees are defined as large, woody, deciduous trees used primarily to create shade canopy and having a mature height greater than sixty feet. Medium size trees reach a height of twenty feet or more, but less than sixty feet, and have no conspicuous flowers or fruits. Ornamental trees have conspicuous flowers, fruit or foliage and therefore include more than just "flowering" trees.[9] Evergreens typically include conifers and broad-leaved evergreen trees. Shrubs are woody, typically multi-stemmed plants, generally small in stature to a height of less than twenty feet. Vines are plants with climbing characteristics and are grouped with groundcovers, species which tend to remain prostrate. Perennials are herbaceous plants and include woodland as well as cultivated flowers. Bulbs are listed as a separate category when they are used.

Because this categorization is based on multiple characteristics: size, aesthetics, and

growth habit and are used for different reasons, certain species can fit into more than one category. Sometimes, different planting plans used the same species in different ways, suggesting that it belongs in two different categories. American holly (*Ilex opaca*), for example, is listed as a flowering tree on the 1963 plan for Alexandria Circle, and at other times it is used as an evergreen. In order to be consistent and in line with its frequent use in screening, American holly is categorized as an evergreen. Japanese pagoda tree (*Sophora japonica*) grows to the size of medium size trees, but has conspicuous flowers and fruits, which give it ornamental qualities. Simonson used it as he used other ornamental trees, so it is included with them. Memorial rose (*Rosa wichuriana*) has climbing characteristics, like vines and it is listed as such, even though the rest of the roses used by Simonson are considered shrubs. The Appendix contains a complete list of the plants used along the Parkway in alphabetical order by botanical name, grouped in the category deemed most appropriate according to their use and footnoted where needed to explain categorization.

With this more detailed categorization, it is easier to see patterns in Simonson's use of certain kinds of plants. As mentioned above, large shade trees are used to give structure and continuity to the parkway and to blend it into its surroundings. In the central section, where the surrounding landscape was comprised largely of railroad tracks and other unsightly land uses, his goal was to *create* a natural-seeming landscape, separating the Parkway from the surrounding landscape rather than blending in with them. Thus, an important use of shade trees was to define the western edge, screening the parkway from adjacent land uses. Two species of shade trees stand out in their use. Willows are used in wet areas, especially at Daingerfield Island and along the river edge, and elms are used as large specimen trees rather than as true shade trees. They are usually free standing, instead of massed with other trees, and mark distinct places like the entrance to Alexandria, the Four Mile Run bridge, the view to the U.S. Capitol at Gravelly Point, and the cloverleaf interchange. Medium size trees complement shade trees in larger plantings, but they are also used to create thinner and smaller groupings, such as along the northern edge of Gravelly Point. Ornamental trees are used to accentuate distinct places along the route, for example, Alexandria Circle, the entrance to the airport, Capital Overlook, the cloverleaf interchange and Columbia Island.

Although he used native pines and cedars liberally in the southern section, Simonson only used one species of evergreen in the central section, deodar cedar (*Cedrus deodara*), planting only four near the cloverleaf interchange. He used shrubs to stabilize the banks of the river, especially along the newly filled causeways that carried the parkway across the mouth of Four Mile Run and Roaches Run. Among the shrubs, he used roses extensively along the edge of the roadway, presumably for the ornamental quality of their flowers and hips. He used vines extensively along the parkway on the guardrails and light posts. (Many of these have proven to be invasive, and this is addressed in Chapter Five, with existing conditions and recommendations.) He used groundcovers to add to the ornamental vegetation at places like Alexandria Circle and the loops of the cloverleaf intersection, particularly where the foreground needed to be low for motorist visibility. Simonson used few perennials except for a few native species in the southern section.

Because additional plans were implemented starting as soon as four years after Simonson's plan, his plantings never matured into the landscape that he envisioned, except at the approach to Alexandria. Imagining the vegetation depicted in Simonson's plan from the motorist's point of view as masses and clusters of tall shade trees, with graceful elms, flowering trees or shrubs, one develops a sense of the varied and changing experience Simonson intended for travelers as they passed through different places along the route. It is evident that each segment was intended to have a distinct identity, held together in a framework defined by the shade trees and wooded western edge.

FOOTNOTES

[1] Wilbur Simonson, "Roadside Planting", Landscape Architecture, Vol 26, No. 4, July 1936.
[2] "Roadside Planting", p. 172
[3] "Roadside Planting", p. 172-3
[4] "Roadside Planting", p. 173
[5] "Roadside Planting", p. 174
[6] "Roadside Planting", p. 174
[7] Simonson, "Final Landscape Report", in EDAW, Cul tural Landscape Report: Mount Vernon Memorial Highway, p. 81
[8] Dirr, Michael A. 1998. Manual of Woody Landscape Plants.
[9] From PLANTS: "…conspicuous from a landscaping aesthetics standpoint."

VISUAL NARRATIVE

Northbound 1932 Views

Selected Views

Wilbur Simonson's 1932 planting plan identifies many specific views with small V-shaped symbols indicating the direction and breadth of the view. Extending lines of sight from these V's, it is often possible to identify the object of the view and then construct a narrative of the sequence of views that travelers would have experienced while driving the Parkway had his design remained intact and matured. Any interpretation of historical views on a plan is at best an educated guess, because the presence or absence of a single tree can change the view considerably. Moving the point of view by just a few feet can similarly change the view. However, Washington, D.C. has relatively few tall monuments visible from a distance, and the design of the city sets them up as the critical icons of the nation's capital. Coupling Simonson's view cones with the landmarks of Washington, it is not difficult to identify the subject of many of the views with confidence. These are the views identified as making a visual story or narrative that unfolds as one drives along the Parkway; they are shown in yellow. The Washington Monument, the U. S. Capitol, and the Potomac River itself are the focus of most of the views. Several of the V-shaped symbols are small and oriented in a direction that makes identifying their focus difficult, if not impossible. Consequently they have not been identified as part of the visual narrative even though they are marked on Simonson's plan. They are indicated just with the cone from Simonson's plan, but no shading.

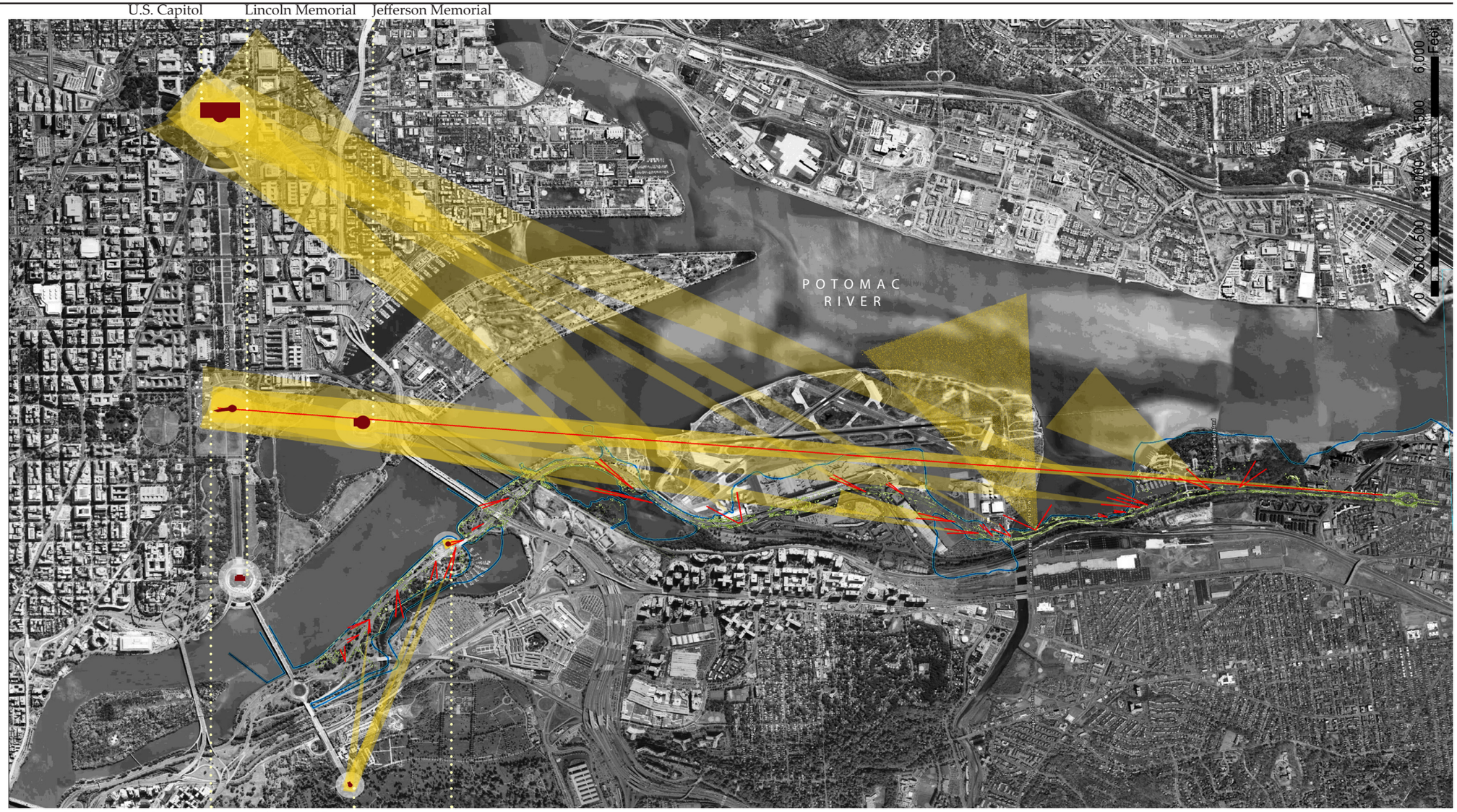
Had Simonson's design matured, a motorist departing Alexandria would be immediately confronted by a long straight view of the Washington Monument from atop the aptly named Monument View Hill. The Parkway aligns directly with the Washington Monument here, and trees frame the view, so the Monument would have been unmistakable. Continuing north along Daingerfield Island, the traveler would encounter the first of several views across the Potomac River. Just north of Daingerfield Island would be a broad view of the river with the U.S. Capitol visible in the distance for the first time, followed immediately by a view of the Washington Monument. Before crossing the mouth of Four Mile Run, a traveler would encounter a sweeping view of the river with the U.S. Capitol again visible in the distance.

From this point, northbound views would alternate between the Monument and the Capitol, repeatedly reinforcing the two most prominent elements of the Washington skyline. Continuing north, the Parkway would rise up and over a hill passing the ruins of Abingdon, the home of Washington's stepgranddaughter. At the base of the hill would be Capital Overlook, a scenic pullout with what would have been the most panoramic view of the capital city. A flourish of ornamental vegetation would frame the pullout and enclose the Parkway. Immediately after passing the overlook, travelers would burst out into the wide space of the river, driving along the causeway across Roaches Run. This would have been the crescendo of the northbound experience with the Washington Monument rising prominently above the waters of Roaches Run on the left and the Capitol, almost straight ahead, rising over the Potomac. As the traveler curves past Gravelly Point and under the 14th Street Bridge, the narrative would change direction and focus. Arlington House, Robert E. Lee's home, would be visible from the top of Humpback Bridge, and driving along the eastern edge of Columbia Island, the focus would be on the Lincoln Memorial and Arlington Memorial Bridge (Memorial Bridge), the ceremonial entrance to the city.

As stated earlier, this visual sequence is more than a scenic embellishment, it is central to the memorial purpose of the Parkway. Locating it along the Potomac River afforded unfolding views to the monuments to Washington and his successors, the seat of the government that he led, and the river that had been the main artery between his home and the capital city.

Simonson's design would have made the riverfront more scenic from Washington. Aside from this very general goal there is nothing on his plan that indicates any specific intention about the Parkway landscape being the subject of views from Washington,DC. Views from Washington are beyond the scope of this report.

RIGHT PAGE
(2004 Aerial) northbound selected views (yellow) identified in the 1932 Simonson Plan.



1932
views '32
shore '32
plntg '32

0
750
1500
2250
3000
scale

north

VISUAL NARRATIVE

Southbound 1932 Views

Selected Views

Judging from Simonson's plan, the narrative of views heading southbound was simpler than the northbound narrative. This was in large part because there were no memorials to focus the views, so instead the narrative is structured around diverse and expanding views of the Potomac River. The driving experience of a southbound traveler would have been quite different from that of northbound travelers.

Heading south from Memorial Bridge, the Parkway runs along the river's edge with scattered plantings of flowering trees and Simonson's plan is revealed to the motorist. This alignment of the Parkway would afford a nearly continuous view of the river and of the 14th Street Bridge, filtered between young trees. Glimpses of the Washington Monument would be possible if one turned sharply to the left, however, the Monument would be out of the normal cone of vision of a driver or passenger looking through a windshield. Simonson apparently anticipated and allowed for a view to the future site of the Jefferson Memorial (completed 1943). The Navy Marine Memorial would be the last memorial visible as the traveler approached and crossed Humpback Bridge.

Passing under the bridges, Roaches Run immediately would open on the right with a view down its length. An open body of water edged by low, water-loving species and punctuated by cypresses and willows on an island and on the far shore, it would be quite distinct from the wide river on the other side of the causeway. Cresting the hill along the ruins of Abingdon, the river would open very wide with panoramic views. Continuing south, the Parkway would descend and arc around the mouth of Four Mile Run where, to the west, the Masonic Temple could be seen in the distance and to the east, again the motorist would be rewarded with very wide views, before pulling away from the river and ascending the hill toward Alexandria. Alexandria Circle with its crescendo of vegetation and formal plantings would be a dramatic entrance to the city where Washington had lived and worked.

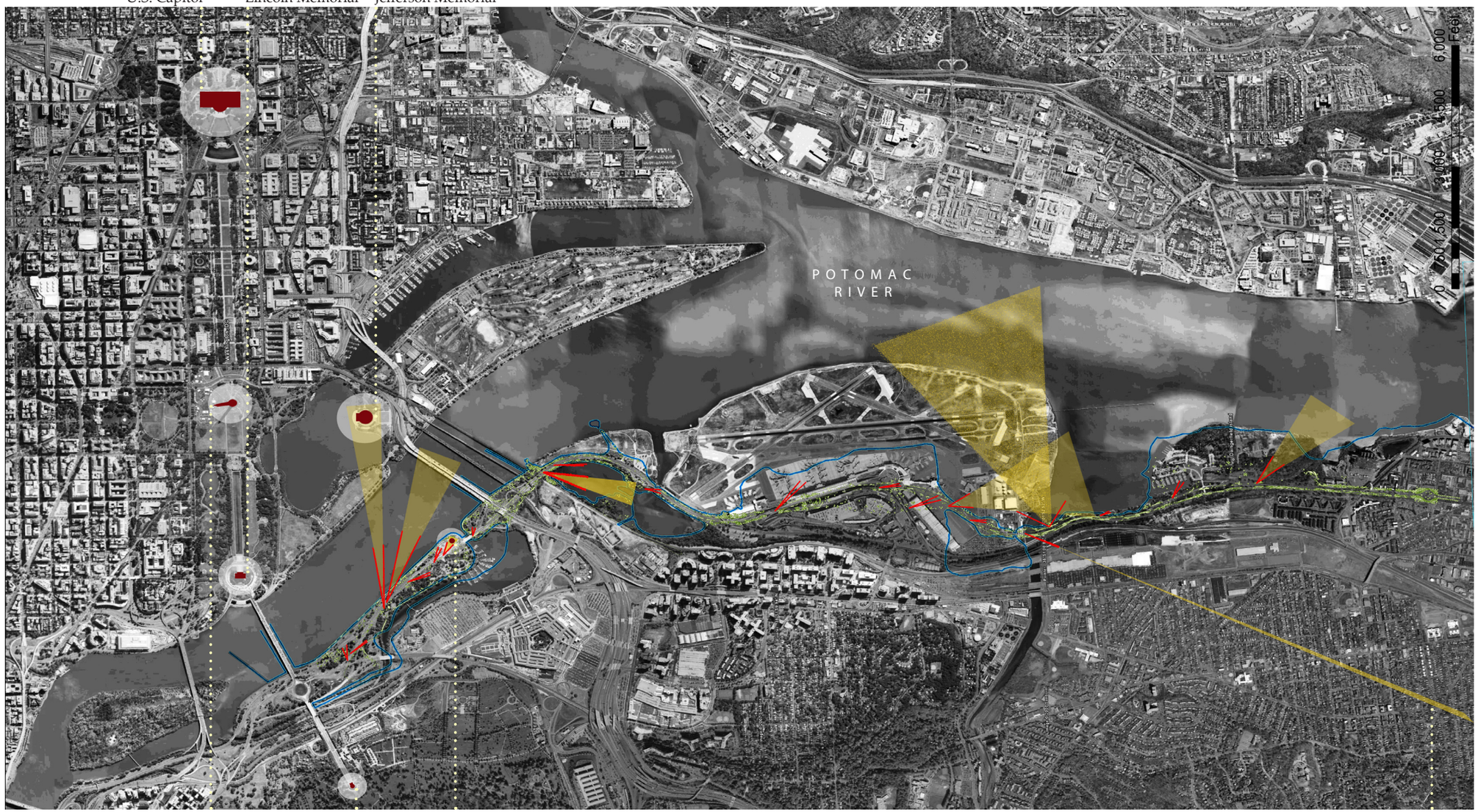
The southbound narrative continues all the way to Mount Vernon. Even though it is beyond the scope of this report, it is important to understand the continuation of the narrative sequence, in order to appreciate its relationship to the narrative of the central section.

Continuing south from Alexandria, motorists would encounter the river again at Hunting Creek, then at Dyke Marsh, and then again at Riverside Park, each time, the river would be wider and more natural in appearance. At Riverside Park, the view would extend down the length of the Potomac, beckoning one toward its mouth and the Chesapeake Bay. Drawing away from the river, a motorist would ascend a large forested hill and arrive at the broad circle that marked the arrival at Mount Vernon. The circle would be mostly open, providing a peaceful and solemn terminus to the southbound pilgrimage to Washington's home.

The southbound narrative presumably lacked the monumental drama of the northbound journey, but its views of the river, gradually widening as the traveler progressed further south, reinforced the water journey that would have been typical in Washington's own time.

RIGHT PAGE
(2004 Aerial) southbound selected views (yellow) identified in the 1932 Simonson Plan.

U.S. Capitol Lincoln Memorial Jefferson Memorial



Washington Monument Arlington House Navy Marine Memorial to Masonic Temple

1932
'32 views
'32 shore
'32 plntg

0
750
1500
2250
3000
scale

north

ALEXANDRIA CIRCLE
Vegetation Character

Alexandria Circle makes a formal transition between Old Town Alexandria and the Parkway. Simonson's plan identifies it as Memorial Circle, but in this report, it is referred to as Alexandria Circle so as not to confuse it with Arlington Memorial Circle in Lady Bird Johnson Park.

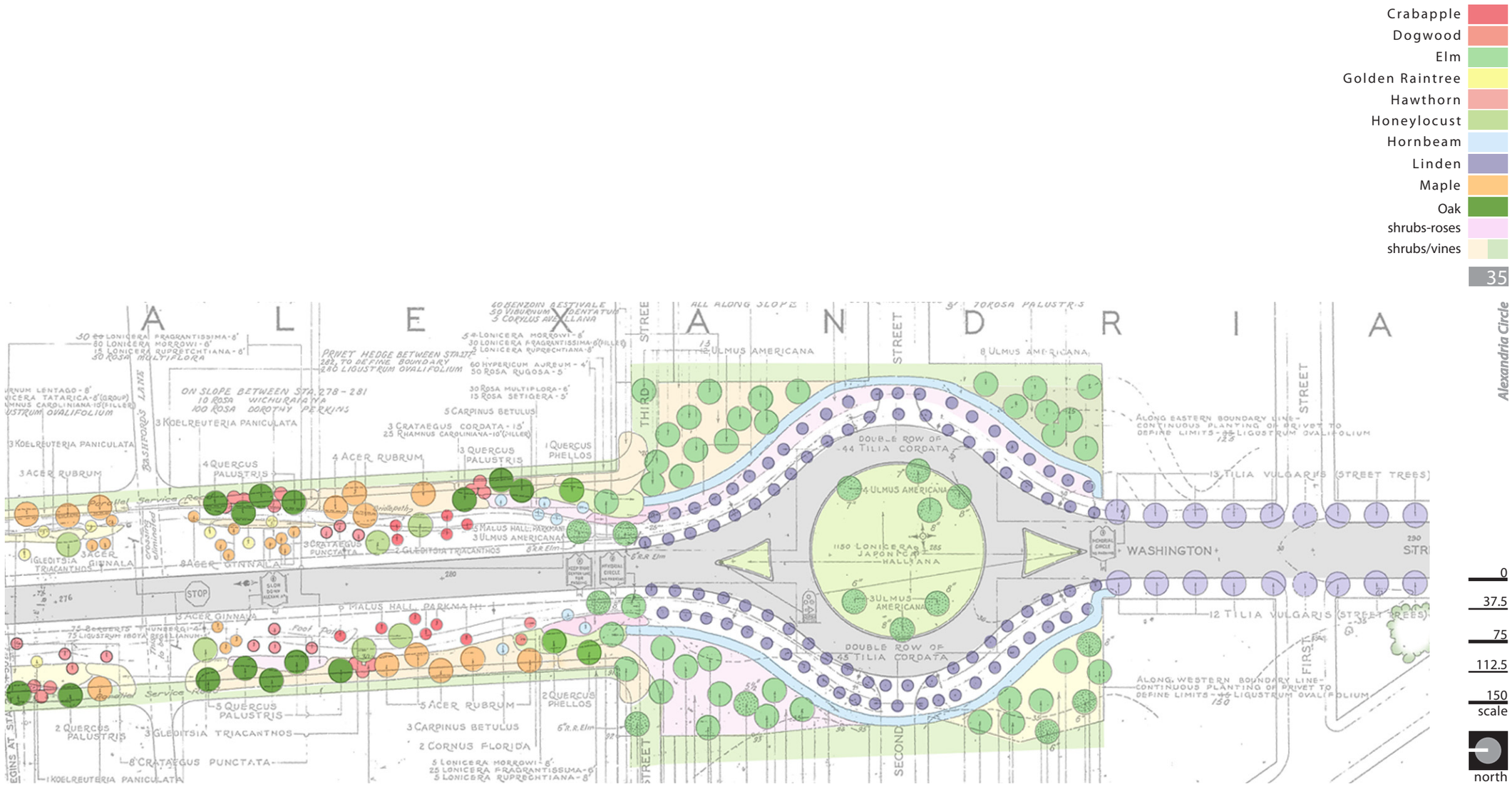
In the plan, Alexandria Circle is a much more formal entrance to the city than it is today. In his design, the Parkway forms an open circle at North Washington Street with a few elms in the center. The circle sits inside a rectangular landscape of trees and shrubs which frame the space and create a screen between the road and city.

A double row of littleleaf lindens (*Tilia cordata*) line the outer edge of the road around the circle. Behind them, a double row of European hornbeam (*Carpinus betulus*) forms an encircling hedge. Each of the four corners outside the circle contains a grove of American elm (*Ulmus americana*) and an understory of mixed shrubs that include arrowwood viburnum (*Viburnum dentatum*), fragrant sumac (*Rhus canadensis*), beach plum (*Prunus maritima*), and several species of roses (*Rosa palustris, R. rubiginosa,* and *R. nitida*). California privet (*Ligustrum ovalifolium*) defines the limits of the property. Seven American elms (*Ulmus americana*) are sprinkled asymmetrically within the circle. Japanese Honeysuckle (*Lonicera japonica 'Halliana'*) covers the ground inside the circle under the elms. Once the motorist leaves the circle into the city proper, larger common lindens (*Tilia vulgaris*) line Washington Street for two blocks.

A cluster of mixed vegetation marks the entrance on the north side of the circle. St. Johnswort (*Hypericum aureum*) and rugosa rose (*Rosa rugosa*) fill the foreground; in the middle are honeysuckles, (*Lonicera morrowi, L. fragrantissima,* and *L. ruprechtiana*); and American hornbeam (*Carpinus caroliniana*) and filbert (*Corylus avellana*) create a backdrop.



LEFT PAGE
1932 map with Simonson Plan indicating location of Alexandria Circle.
RIGHT PAGE
Alexandria Circle detail from 1932 Simonson Plan.
1932 Simonson Plan *Sheet 17*
(NPS TIC 850/80156)

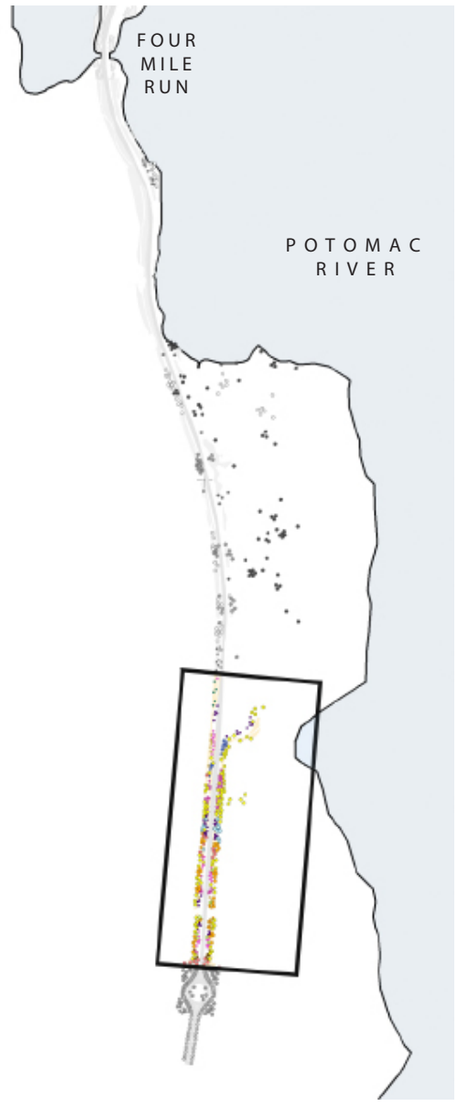

Crabapple
Dogwood
Elm
Golden Raintree
Hawthorn
Honeylocust
Hornbeam
Linden
Maple
Oak
shrubs-roses
shrubs/vines
35
Alexandria Circle
A L E X A N D R I A
WASHINGTON
DOUBLE ROW OF 44 TILIA CORDATA
DOUBLE ROW OF 45 TILIA CORDATA
4 ULMUS AMERICANA
3 ULMUS AMERICANA
1150 LONICERA JAPONICA HALLIANA
13 TILIA VULGARIS (STREET TREES)
12 TILIA VULGARIS (STREET TREES)
ALONG EASTERN BOUNDARY LINE - CONTINUOUS PLANTING OF PRIVET TO DEFINE LIMITS - 45 LIGUSTRUM OVALIFOLIUM
ALONG WESTERN BOUNDARY LINE - CONTINUOUS PLANTING OF PRIVET TO DEFINE LIMITS - 45 LIGUSTRUM OVALIFOLIUM
PRIVET HEDGE BETWEEN STA. 277 TO DEFINE BOUNDARY
280 LIGUSTRUM OVALIFOLIUM
ON SLOPE BETWEEN STA. 278 - 281
10 ROSA WICHURAIANA
100 ROSA DOROTHY PERKINS
3 KOELREUTERIA PANICULATA
4 ACER RUBRUM
4 QUERCUS PALUSTRIS
3 QUERCUS PALUSTRIS
1 QUERCUS PHELLOS
5 CARPINUS BETULUS
3 CRATAEGUS CORDATA - 15'
25 RHAMNUS CAROLINIANA - 10' (MILLER)
30 ROSA MULTIFLORA - 6'
15 ROSA SETIGERA - 5'
60 HYPERICUM AUREUM - 4'
50 ROSA RUGOSA - 5
60 LONICERA MORROWI - 6'
30 LONICERA FRAGRANTISSIMA - 6' (MILLER)
5 LONICERA RUPRECHTIANA - 8'
60 BENZOIN AESTIVALE
30 VIBURNUM DENTATUM
5 CORYLUS AVELLANA
ALL ALONG SLOPE
70 ROSA PALUSTRIS
8 ULMUS AMERICANA
5 MALUS HALL PARKMANI
3 ULMUS AMERICANA
2 GLEDITSIA TRIACANTHOS
6" R.R. Elm
3 ACER GINNALA
8 ACER GINNALA
GLEDITSIA TRIACANTHOS
STOP
5 QUERCUS PALUSTRIS
3 GLEDITSIA TRIACANTHOS
8 CRATAEGUS PUNCTATA
1 KOELREUTERIA PANICULATA
5 ACER RUBRUM
3 CARPINUS BETULUS
2 CORNUS FLORIDA
2 QUERCUS PHELLOS
5 LONICERA MORROWI - 8'
25 LONICERA FRAGRANTISSIMA - 6'
5 LONICERA RUPRECHTIANA - 8'
BASHFORDS LANE
THIRD STREET
SECOND STREET
FIRST STREET
Parallel Service Road
Bridle path
Foot path
crossing eliminated
HISTORICAL CIRCLE
KEEP RIGHT EXCEPT WHEN PASSING
0
37.5
75
112.5
150
scale
north

ALEXANDRIA CIRCLE
Vegetation Character

Immediately north of Alexandria Circle, the plantings make a transition between the formal symmetry of the circle itself and the naturalistic plantings of the rest of the Parkway. The vegetation is loosely symmetrical in design, with groups of four or five trees of the same species roughly facing each other across the Parkway. For example, a group of four red maples (*Acer rubrum*) on the east side is located roughly across from a group of five more on the west side. Another set of four pin oaks (*Quercus palustris*) faces a loose group of five more of the same. Oak groupings seem to alternate with other species. Clusters of three to eight smaller ornamental trees, such as Parkman crabapple (*Malus hall parkmani*), dotted hawthorn (*Crataegus punctata*), or amur maple (*Acer ginnala*) grow under and in front of the taller shade trees. Other species are mixed into the groupings, such as American elm (*Ulmus americana*), or honeylocust (*Gleditsia triacanthos*) perhaps to make the plantings appear more natural. The overall pattern seems to be one of small, tight groups of shade trees generally facing each other in an even tempo of 100 to 150 feet, with flowering trees in the foreground.

A tight cluster of fourteen ornamental Japanese snowbells (*Styrax japonicus*) and three willow oaks (*Quercus phellos*) marks the place where the bridal path diverges from the Parkway. Eight hawthorns (*Crataegus sp.*) lead pedestrians further toward Daingerfield Island. The ornamental trees seem designed to direct the pedestrian as well.

Anchored in the background by privet to define the boundary, a ribbon of large shrubs, vines and small trees connects the large shade trees together. One "bubble" of shrubs contains three Washington hawthorns (*Crataegus phaenopyrum*, formerly *Crataegus cordata*) in a group with seven tatarian honeysuckles (*Lonicera tatarica*) in groups, and twenty arrowwood viburnums (*Viburnum dentatum*) as filler. In this example, one reads the general intention of the ribbon: small ornamental trees in a group, one species of large shrubs in groups, and another shrub species as filler. In this case, the hawthorn grows to 25 feet, blooms with white flowers in spring and is prolific with red berries in fall and winter. The honeysuckle grows in erect form to nine feet with dark green leaves, red flowers, and prolific red berries in the late summer and early fall. And arrowwood grows from three to nine feet, rounded in form with arching branches and flat-topped white flowers in spring, blue/black berries in late summer and yellow, red and purple foliage in fall. Together, they form a "thicket"—a dense growth of shrubs and small trees out of which a group of four or five tall shade trees grow. They form the backdrop and structure for the flowering ornamental trees, which are sprinkled along the edge of the road under the protective canopy of the larger trees.



LEFT PAGE
1932 map with Simonson Plan indicating location of Alexandria Circle approach.
RIGHT PAGE
Alexandria Circle approach detail from 1932 Simonson Plan.
1932 Simonson Plan *Sheet 16*
(NPS TIC 850/85197A)

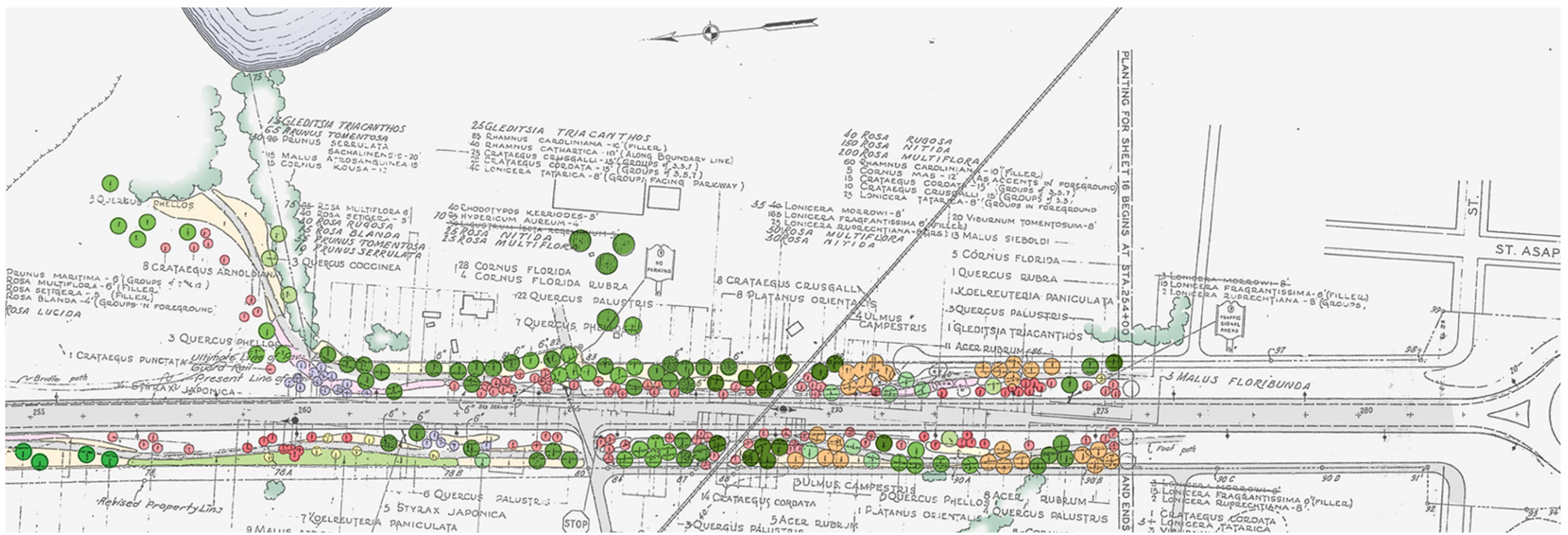
Character Overview

The approach to Alexandria is characterized as a botanical crescendo that leads the southbound motorist to the circle and into Alexandria. Smaller groups of shade trees are planted more tightly together here than in many other sections of Simonson's design, and they are mixed with a colorful understory. The plantings accentuate the arrival in the City of Alexandria.

Plant selection for the entrance to Alexandria includes both native and introduced species of trees and shrubs. The approach has tightly clustered trees with a thick understory that hides the city until motorists come to the circle. Along the roadside, small ornamental trees and shrubs create visual variety along the approach until the more intense plantings become noticeably designed and formal at the circle. There, the landscape opens up under a small forest of elms, but the city is still obscured by the hornbeam hedge. The motorist rounds the circle along the double row of lindens and enters the City of Alexandria through a formal allee of common linden (*Tilia vulgaris*).

shrubs-roses
shrubs mixed

Corktree
Crabapple
Dogwood
Elm
Golden Raintree
Hawthorn
Honeylocust
Maple
Oak
Planetree
Snowbell



ALEXANDRIA CIRCLE

Plant Palette

Shade, Ornamental and Evergreen Trees

The tables list the shade trees, medium trees, and ornamental trees used on the approach to Alexandria in 1932. Honeylocust (*Gleditsia triacanthos*), American elm (Ulmus americana), pin oak (*Quercus palustris*) and red maple (*Acer rubrum*) are the dominant trees. Eight more species of shade trees are used in this area: European hornbeam (*Carpinus betulus*) in the circle is used twice as often as American hornbeam (*Carpinus caroliniana*) which is generally placed in a thicket with shrubs.

Nanking cherry (*Prunus tomentosa*) is the dominant ornamental tree, but at a mature height of only eight feet, it could be viewed as a shrub. They are planted in masses of about 100 at the north end of the approach. Five species of hawthorns are used liberally along the roadside and probably had more presence as an ornamental tree than the cherry. Flowering dogwood *(Cornus florida)* is used along the approach but not within the circle proper. The plant tables show that the palette was not exclusively native or ornamental; both were used. In 1932, Chinese dogwood (*Cornus kousa*) is planted along the bridal path leading to Daingerfield Island while the native flowering dogwood (*C. florida*) is planted along the street. Golden rain tree (*Koeleuteria paniculata*) is used as an ornamental street tree or as part of a thicket.

RIGHT PAGE
1932 Simonson Plan *Sheet 16-17.*
(NPS TIC 850/80156, NPS TIC 850/85197A)

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932
Tilia cordata	**Littleleaf Linden**	**89**
Gleditsia triacanthos	**Honeylocust**	**76**
Ulmus americana	**American Elm**	**56**
Quercus palustris	**Pin Oak**	**52**
Acer rubrum	**Red Maple**	**37**
Quercus phellos	Willow Oak	28
Tilia x europaea (T. vulgaris '32)	Common Linden	25
Quercus macrocarpa	Bur Oak	16
Platanus orientalis	Oriental Planetree	14
Ulmus procera (U. campestris '32)	English Elm	7
Quercus coccinea	Scarlet Oak	3
Quercus rubra	Red Oak	1

MEDIUM SIZED TREES

BOTANICAL NAME	COMMON NAME	1932
Carpinus betulus	**European Hornbeam**	**188**
Carpinus caroliniana	**American Hornbeam**	**93**
Maclura pomifera	Osage Orange	15
Phellodendron amurense	Amur Corktree	3

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932
Crataegus phaenopyrum (C. cordata '32)	**Washington Hawthorn**	**86**
Crataegus crus-galli	Cockspur Hawthorn	43
Cornus florida	Flowering Dogwood	40
Koelreuteria paniculata	Golden Raintree	30
Prunus serrulata var sachalinensis '32	Japanese Flowering Cherry	30
Malus × atrosanguinea	Carmine Crabapple	24
Crataegus mollis	Downy Hawthorn	23
Styrax japonicus	Japanese Snowbell	19
Cornus kousa	Chinese Dogwood	15
Acer ginnala	Amur Maple	14
Malus zumi (M. sieboldii '32)	Toringa Crabapple	13
Crataegus punctata	Dotted Hawthorn	12
Malus halliana var parkmanii	Parkman Crabapple	11
Prunus serrulata	Japanese Flowering Cherry	10
Crataegus ×anomala (C. arnoldiana '32)	Arnold Hawthorn	8

ORNAMENTAL TREES (cont.)

BOTANICAL NAME	COMMON NAME	1932
Cornus mas	Cornelian Cherry	5
Cornus florida 'Rubra'	Pink Flowering Dogwood	4
Diospyros virginiana	Common Persimmon	3
Malus floribunda	Japanese Flowering Crabapple	3

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932
none		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (AppendixA)

ALEXANDRIA CIRCLE

Plant Palette

Shrubs, Vines, Perennials and Groundcover

Nearly a thousand California privet, (*Ligustrum ovalifolium*) are used as a hedge, as Simonson notes, "along eastern [and western] boundary line[s] – continuous planting of privet to define limits". Although nine species of roses are used in this area, they do not dominate the shrub groupings as they do at other parts of the Parkway. They generally form part of the surrounding thicket except in and near the circle where they are planted "all along the slope".

Vines fill the planting beds, particularly introduced species of honeysuckle, and the circle must have been fragrant in springtime with Japanese honeysuckle (*Lonicera japonica halliana*) planted extensively. The evergreen character of this groundcover would also give the circle a more formal quality in winter.

RIGHT PAGE
1932 Simonson Plan *Sheet 16-17.*
(NPS TIC 850/80156, NPS TIC 850/85197A)

SHRUBS

BOTANICAL NAME	COMMON NAME	1932
Ligustrum ovalifolium	**California Privet**	**2135**
Rosa multiflora	**Multiflora Rose**	**715**
Rosa nitida	**Shining Rose**	**470**
Lonicera fragrantissima	**Sweet Breath of Spring**	**365**
Frangula caroliniana (Rhamnus caroliniana '32)	**Carolina Buckthorn**	**302**
Viburnum dentatum	Arrowwood Viburnum	226
Lonicera tatarica	Tatarian Honeysuckle	185
Rhus aromatica (R. canadensis '32)	Fragrant Sumac	170
Lonicera morrowii	Morrow's Honeysuckle	155
Ligustrum ibota var regelianum	Privet	150
Hypericum frondosum (H. aureum '32)	Cedarglade St Johnswort	130
Rosa rugosa	Rugosa Rose	120
Prunus tomentosa	Nanking Cherry	100
Rosa 'Dorothy Perkins'	Dorothy Perkins Rose	100
Rosa blanda	Smooth Rose	85
Rhamnus cathartica	Common Buckthorn	82
Prunus maritima	Beach Plum	77
Rosa eglanteria (R. rubiginosa '32)	Sweetbriar Rose	77
Rosa setigera	Climbing Rose	55
Rosa palustris	Swamp Rose	70
Berberis thunbergii	Japanese Barberry	75
Lonicera ruprechtiana	Manchurian Honeysuckle	54
Viburnum nudum var cassinoides (V. cassinoides '32)	Withe-rod	50
Lindera benzoin (Benzoin aestivale '32)	Spicebush	40
Rhodotypos scandens (R. kerrioides '32)	Jetbead	40
Zanthoxylum americanum	Common Pricklyash	35
V. plicatum var tomentosum (V. tomentosum '32)	Doublefile Viburnum	30
Rosa virginiana (R. lucida '32)	Virginia Rose	30
Viburnum lentago	Nannyberry	27
Corylus avellana	Common Filbert	20

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932
***Lonicera japonica* 'Halliana'**	**Japanese Honeysuckle**	**1150**
Ampelopsis brevipedunculata (A. heterophylla '32)	Porcelainberry	18
Bignonia radicans	Trumpetcreeper	11
Rosa wichuraiana	Memorial Rose	10

VINES & GROUNDCOVER (cont.)

BOTANICAL NAME	COMMON NAME	1932
Clematis terniflora (C. paniculata '32)	Sweet Autumn Virginsbower	8
Parthenocissus quinquefolia (Ampelopsis quinquefolia '32)	Virginia Creeper	5

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932
none		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)

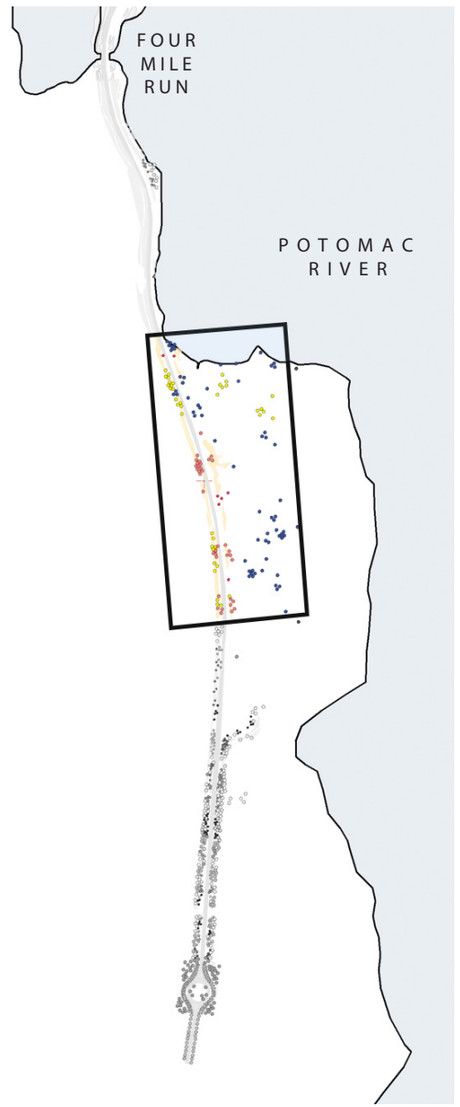
DAINGERFIELD ISLAND
Vegetation Character

The Daingerfield Island section is a low-lying portion of the Parkway adjacent to the wide mouth of Four Mile Run on the east side and a swamp and rail yards on the west side. Simonson proposes an asymmetrical planting scheme to respond to these different conditions. On the west side plantings are used to screen the swamp and the rail yards, while in the east the vegetation is used to foreground views of the river and the U.S. Capitol in the distance. The planting areas addressed are larger in this section, which accounts for larger quantities of plants specified. The larger groupings correspond with the more wide-open spaces along the river in contrast to the smaller spaces closer to Alexandria.

Plantings are much denser on the west side in order to create a thick vegetative screen. The planting plan calls for shade and medium size trees or shrubs to be used singly as accents and in groups as filler. Four large groupings of about fifteen oaks and elms on the west side set the cadence of the landscape along this section. They are spaced widely apart, from two to four hundred feet, sometimes in combination with eleagnos willow (*Salix incana*). In one example, twelve American elms (*Ulmus americana*), four water oaks (*Quercus nigra*) and five red maples (*Acer rubrum*) anchor nearly three hundred feet of roadside. Medium size trees and a mass of large shrubs are planted between the large trees, leaving few glimpses into the swamp. Ornamental trees, such as white fringetree (*Chionanthus virginicus*), are kept in groups in the foreground where they are closer to motorists, but they are easily outnumbered by the shade and medium size trees.

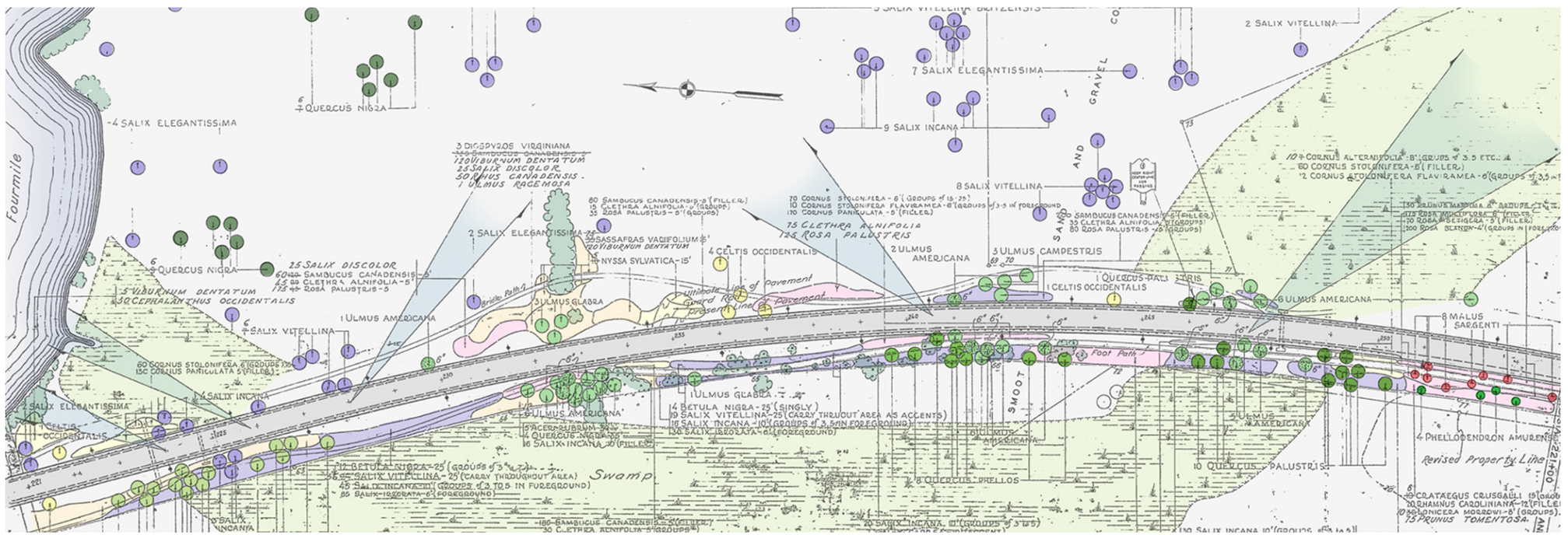
On the east side of the Parkway, willows dot the landscape in the southern half of the character area. Planted far enough apart, they would not block views to the river but seem to create fluid space leading to the river. American elm (*Ulmus americana*), wych elm (*U. glabra*) and hackberry (*Celtis occidentalis*) are planted closer to the road, loosely framing views with the willows.

The terrain on either side of the highway at Daingerfield Island is lower than the road itself, and the overall wet conditions drive the selection of plant species in this area. Plants chosen are adaptable to flooding and sustained wet conditions. On the west side, a group of amur cork trees (*Phellodendron amurense*) with Sargent's crabapples (*Malus sargentii*) in the foreground marks the change from mesic to wet soils and also makes a transition from the Alexandria approach.



LEFT PAGE
1932 map with Simonson Plan indicating location of Daingerfield Island.
RIGHT PAGE
1932 Simonson Plan of Daingerfield Island detail.
1932 Simonson Plan *Sheet 15*
(NPS TIC 850/80156)

Corktree
Crabapple
Elm
Hackberry
Oak
Willow
Willow masses
shrubs-roses
shrubs mixed
swamp



0
150
150
225
300
scale

north

DAINGERFIELD ISLAND
Vegetation Character

At the north end of the character area, additional plants are added to a mass of existing vegetation, integrating it into the overall landscape of the Parkway. Medium size trees and large shrubs are added to either side of the existing mass of vegetation pulling it closer to the roadway and giving it more presence in the landscape. Roses dominate the shrub masses at either end where Simonson indicates important views.

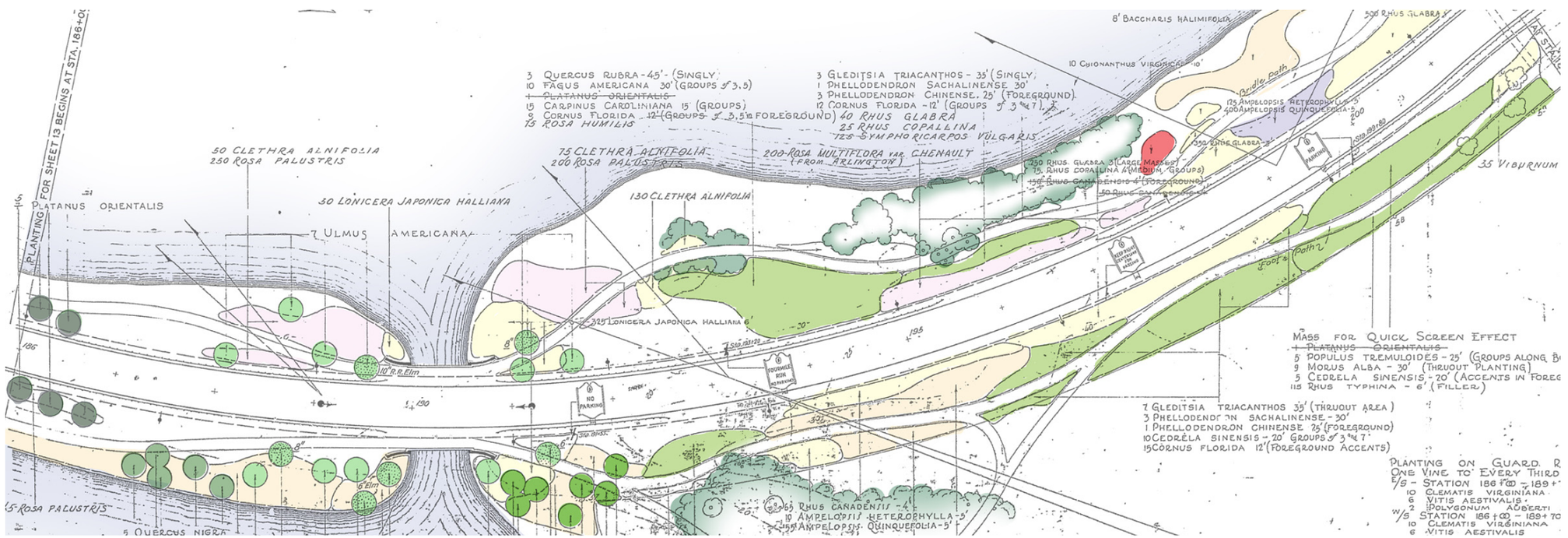
Groups of similar trees in large masses face each other across the Parkway south of Four Mile Run. Honeylocust (*Gleditsia triacanthos*), and cork tree (*Phellodendron spp*.) face each other with an understory of flowering dogwood (*Cornus florida*) and Chinese toon (*Toona sinensis*). At the bridge over Four Mile Run, large six to ten-inch diameter American elms (*Ulmus americana*) are planted to frame the bridge.



LEFT PAGE
1932 map with Simonson Plan indicating location of north Daingerfield Island crossing over Four Mile Run.
RIGHT PAGE
1932 Simonson Plan of north Daingerfield Island detail crossing over Four Mile Run.
1932 Simonson Plan *Sheet 14*
(NPS TIC 850/80156)

Character Overview

In contrast to Alexandria Circle, Daingerfield Island plantings were of a larger scale, consistent with the broader, more open landscape. On the west side, vegetation was denser and less ornamental to screen the rail yard, and on the east, more open and more ornamental to create and frame views of the river. Elms continued along the roadside with willows closer to the water. Near Four Mile Run Bridge plantings became loosely symmetrical again with specimen American elms framing the bridge itself.



Elm
Fringetree
Planetree
Oak
tree-shrub mix
shrubs-roses
shrubs mix

0
37.5
75
112.5
150
scale

north

DAINGERFIELD ISLAND

Plant Palette

Shade, Ornamental and Evergreen Trees

The dominant trees for this wet area of the Parkway are honeylocust (*Gleditsia triacanthos*), white mulberry (*Morus alba*), American elm (*Ulmus americana*) and willow oak (*Quercus phellos*). The bridge at Four Mile Run is flanked by American elm; large diameter trees were collected and moved to the bridge for quick effect and appearance. Shade trees are used to screen views of the rail yards, sometimes enhancing existing masses of vegetation. Willows are dominant trees and shrubs, used in places close to the river and the swamp. Medium and small willow species are used in small groups of three to five and large groups of 35 to 135.

Ornamental trees are used as foreground accents in small groups of ten to fifteen, predominantly flowering dogwood (*Cornus florida*), white fringetree (*Chionanthus virginicus*), Nanking cherry (*Prunus tomentosa*) and Chinese toon (*Toona sinensis*).

RIGHT PAGE
1932 Simonson Plan *Sheet 13-15.*
(NPS TIC 850/80156)

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932
Gleditsia triacanthos	**Honeylocust**	**44**
Morus alba	**White Mulberry**	**39**
Ulmus americana	**American Elm**	**37**
Quercus phellos	**Willow Oak**	**28**
Salix x pendulina (S. elegantissima '32, S. babylonica '63)	**Wisconsin Weeping Willow**	**21**
Acer rubrum	Red Maple	17
Quercus palustris	Pin Oak	17
Quercus nigra	Water Oak, Blackjack Oak	16
Fagus grandifolia (F. americana '32)	American Beech	15
Quercus bicolor	Swamp White Oak	15
Celtis occidentalis	Common Hackberry	7
Liquidambar styraciflua	Sweetgum	5
Populus tremuloides	Quaking Aspen	5
Ulmus glabra	Wych Elm	4
Quercus rubra	Red Oak	3
Ulmus procera (U. campestris '32)	English Elm	3
Ulmus thomasii (U. racemosa '32)	Rock Elm	1

MEDIUM SIZE TREES

BOTANICAL NAME	COMMON NAME	1932
Salix alba (S. vitellina '32)	**White Willow**	**138**
Carpinus caroliniana	American Hornbeam	59
Betula nigra	River Birch	46
Sassafras albidum (S. variifolium '32)	Sassafras	25
Phellodendron amurense	Amur Corktree	9
Nyssa sylvatica	Black Gum	8
Phellodendron chinense	Chinese Corktree	7
Salix alba 'Britzensis' *(S. vitellina* 'Britzensis'[32])	Coral Bark Willow	5
Phellodendron sachalinense	Sakhalin Corktree	4

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932
Cornus florida	**Flowering Dogwood**	**94**
Chionanthus virginicus	**White Fringetree**	**49**
Toona sinensis (Cedrela sinensis '32)	**Chinese Toon**	**30**
Crataegus crus-galli	**Cockspur Hawthorn**	**23**
Malus sargentii	Sargent's Crabapple	8

ORNAMENTAL TREES (cont.)

BOTANICAL NAME	COMMON NAME	1932
Crataegus punctata	Dotted Hawthorn	5
Diospyros virginiana	Common Persimmon	3

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932
none		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)

DAINGERFIELD ISLAND

Plant Palette

Shrubs, Vines, Perennials and Groundcover

Large quantities of shrubs are used on the west side to help screen the railroad yards, including: dogwood (*Cornus spp.*), common elderberry (*Sambucus canadensis*), smooth sumac (*Rhus glabra*), summersweet clethra (*Clethra alnifolia*) and arrowwood viburnum (*Viburnum dentatum*). Roses (*Rosa spp.*) are included in the roadside shrub masses on the west side but are overwhelmed by the quantity of elderberries and viburnums in the groups. Other shrubs with showy characteristics, such as redosier dogwood (*Cornus sericea*), are planted in the foreground. On the east side, shrubs are used for more ornamental purposes along the roadside, including multiflora rose (*Rosa multiflora var Chenault*), which was donated by a group from Arlington. As Simonson states in his final report, donations such as this group of roses were a way for communities to participate in the construction of the Parkway, and they were planted in prominent places. Shrubs also helped stabilize banks and may also have been used to keep people on the paths and away from the banks.

Vines are planted on each guardrail, one to every third post. The dominant species include Virginia creeper (*Parthenocissus quinquefolia*), Japanese honeysuckle (*Lonicera japonica halliana*) and porcelainberry (*Ampelopsis heterophylla*). Trumpet creeper (*Bignonia radicans*) is planted at the base of lamp standards. Many of these have proven to be very invasive, but at the time they probably helped to quickly stabilize the area from erosion.

RIGHT PAGE
1932 Simonson Plan *Sheet 13-15.*
(NPS TIC 850/80156)

SHRUBS

BOTANICAL NAME	COMMON NAME	1932
Rhus glabra	**Smooth Sumac**	**1140**
Cornus racemosa (C. paniculata '32)	**Gray Dogwood**	**815**
Sambucus canadensis	**Common Elderberry**	**730**
Rosa palustris	**Swamp Rose**	**725**
Cornus sericea (C. stolonifera '32)	**Redosier Dogwood**	**515**
Salix discolor	**Pussy Willow**	**435**
Clethra alnifolia	Summersweet Clethra	420
Rosa multiflora	Multiflora Rose	360
Viburnum dentatum	Arrowwood Viburnum	325
Rosa blanda	Smooth Rose	322
Rosa setigera	Climbing Rose	300
Symphoricarpos orbiculatus (S. vulgaris '32)	Coralberry	205
Prunus mahaleb	Mahaleb Cherry (Chokecherry)	200
Rosa multiflora var Chenault[1]	Chenault Multiflora Rose	* 200
Salix elaeagnos (S. incana '32)	Elaeagnus Willow	193
Prunus tomentosa	Nanking Cherry	175
Salix irrorata	Dewystem Willow	165
Prunus maritima	Beach Plum	155
Ligustrum ovalifolium	California Privet	150
Ceanothus americanus	New Jersey Tea	145
Rhus aromatica (R. canadensis '32)	Fragrant Sumac	130
Rhus typhina	Staghorn Sumac	115
Rosa carolina (R. humilis '32)	Carolina Rose, Pasture Rose	105
Viburnum rufidulum	Rusty (Southern) Blackhaw	105
Frangula caroliniana (Rhamnus caroliniana '32)	Carolina Buckthorn	102
Lonicera morrowii	Morrow's Honeysuckle	100
Rhus copallinum (R. copallina '32)	Winged (Shining) Sumac	100
Cornus sericea 'Flaviramea' *(C. stolonifera* 'Flaviramea'[32])	Flaviramea Redosier Dogwood	92
Cornus alternifolia	Alternateleaf Dogwood	90
Zanthoxylum americanum	Common Pricklyash	85
Hamamelis virginiana	Common Witchhazel	80
Lonicera tatarica	Tatarian honeysuckle	50
Photinia melanocarpa (Aronia melanocarpa '32)	Black Chokeberry	50
Cephalanthus occidentalis	Buttonbush	30
Photinia pyrifolia (Aronia arbutifolia '32)	Red Chokeberry	30
Rosa virginiana (R. lucida '32)	Virginia Rose	30
Aralia spinosa	Devil's Walking Stick	25

SHRUBS (cont.)

BOTANICAL NAME	COMMON NAME	1932
Rhamnus cathartica	Common Buckthorn	25
Baccharis halimifolia	Eastern Baccharis	14
Salix caprea	Goat Willow	7
Ilex verticillata	Common Winterberry	2

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932
Parthenocissus quinquefolia (Ampelopsis quinquefolia '32)	**Virginia Creeper**	**534**
***Lonicera japonica* 'Halliana'**	**Japanese Honeysuckle**	**390**
Ampelopsis brevipedunculata (A. heterophylla '32)	**Porcelainberry**	**195**
Clematis virginiana	Virginsbower	95
Celastrus scandens	American Bittersweet	61
Bignonia radicans	Trumpetcreeper	31
Celastrus orbiculatus	Oriental Bittersweet	21
Polygonum baldschuanicum (P. auberti '32)	Bukhara Fleeceflower	22
Vitis aestivalis	Summer Grape	24

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932
none		

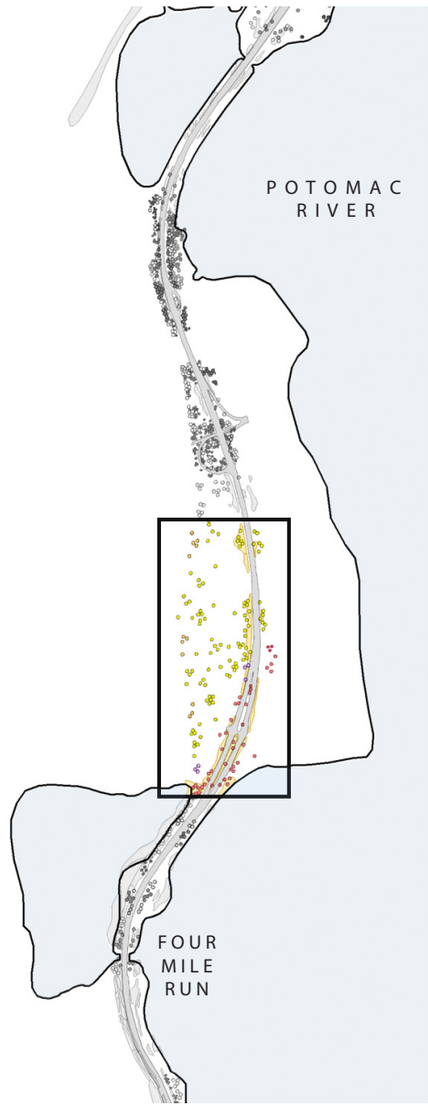
EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
1 *Rosa multiflora var Chenault* is annotated "from Arlington" on 1932 Simonson Plan, sheet 13 Fourmile Run Bridge; possibly *R. multiflora var. alba* introduced from Japan (1844). Chenault is more thorny and sturdy than typical *R. multiflora* (Hill 1983).

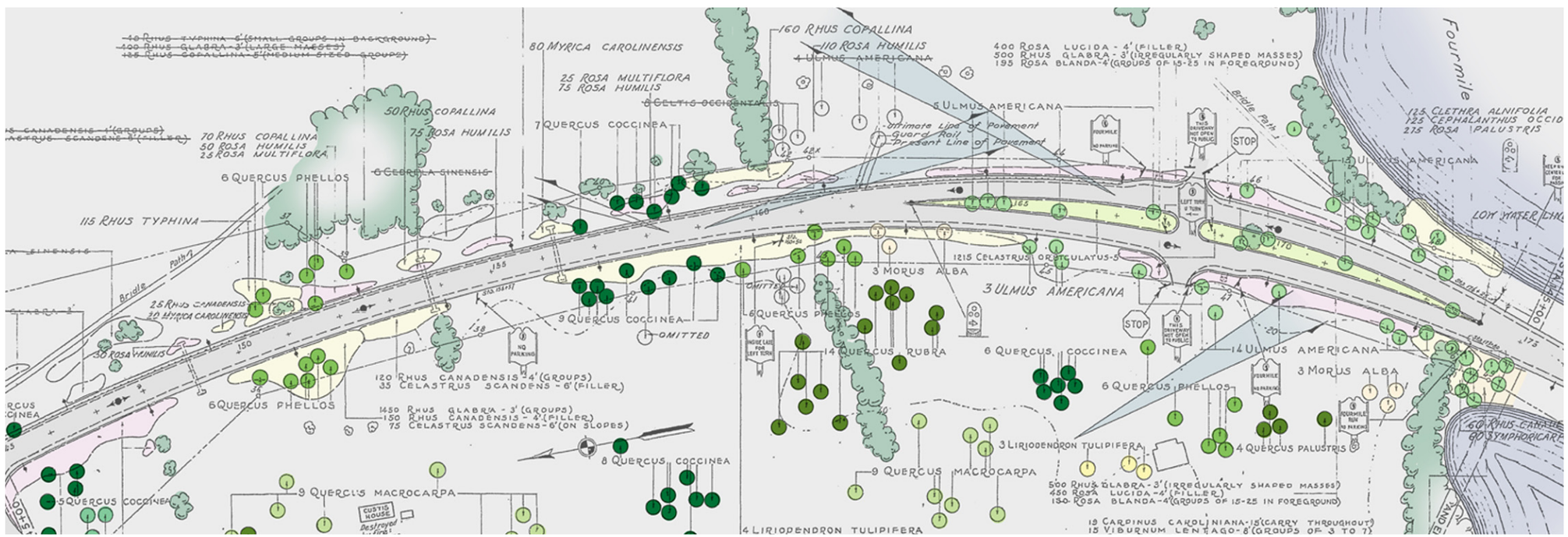
AIRPORT
Vegetation Character

Three detail plans from Simonson's plan characterize the Airport character area: Abingdon (the Custis house), the Airport entrance, and the Capital Overlook. Plants are used differently in each of these areas, giving each a different character.

Abingdon was destroyed by fire in 1930, it is honored in Simonson's plan with a memorial planting of four red oaks (*Quercus rubra*) to the north of the ruins by the Association for the Preservation of Virginia Antiquities. More oaks and tulip poplars (*Liriodendron tulipifera*) are proposed around the ruins of the house, planted in a large open grove, adding to the stateliness of the site. This is the high point along this stretch of the highway. The plan indicates that planting to the west of the property line was not to be included in the spring planting of 1932. This significantly reduced the number of oaks and other shade trees planted. Those planted were kept within 50 to 75 feet of the Parkway.



LEFT PAGE
1932 map with Simonson Plan indicating location near Abingdon (Custis House) site and north of Four Mile Run.
RIGHT PAGE
1932 Simonson Plan near the ruins of Abingdon (Custis House) site and north of Four Mile Run.
1932 Simonson Plan *Sheet 11.*
(NPS TIC 850/80156)

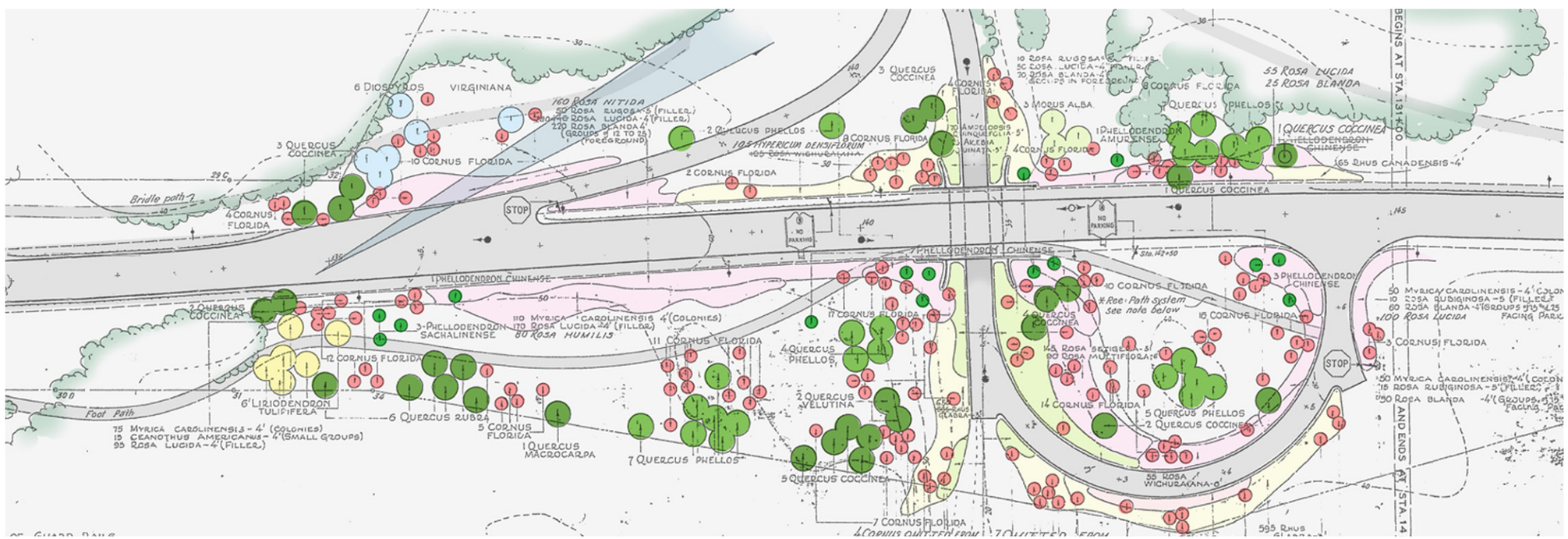

Elm
Mulberry
Oak
Tulip Tree
shrubs-roses
shrubs mixed
0
150
150
225
300
scale
north
160 RHUS COPALLINA
110 ROSA HUMILIS
4 ULMUS AMERICANA
80 MYRICA CAROLINENSIS
25 ROSA MULTIFLORA
75 ROSA HUMILIS
8 CELTIS OCCIDENTALIS
400 ROSA LUCIDA - 4' (FILLER)
500 RHUS GLABRA - 3' (IRREGULARLY SHAPED MASSES)
195 ROSA BLANDA - 4' (GROUPS OF 15-25 IN FOREGROUND)
5 ULMUS AMERICANA
7 QUERCUS COCCINEA
Intimate Line of Pavement
Guard Rail
Present Line of Pavement
50 RHUS COPALLINA
75 ROSA HUMILIS
70 RHUS COPALLINA
50 ROSA HUMILIS
25 ROSA MULTIFLORA
6 CERCIS CHINENSIS
6 QUERCUS PHELLOS
115 RHUS TYPHINA
Bridle Path
Fourmile
125 CLETHRA ALNIFOLIA
125 CEPHALANTHUS OCCID
275 ROSA PALUSTRIS
12 ULMUS AMERICANA
LOW WATER CHN
1215 CELASTRUS ORBICULATUS-5
3 MORUS ALBA
3 ULMUS AMERICANA
9 QUERCUS COCCINEA
OMITTED
6 QUERCUS PHELLOS
14 QUERCUS RUBRA
6 QUERCUS COCCINEA
14 ULMUS AMERICANA
3 MORUS ALBA
120 RHUS CANADENSIS - 4' (GROUPS)
35 CELASTRUS SCANDENS - 6' (FILLER)
6 QUERCUS PHELLOS
1450 RHUS GLABRA - 3' (GROUPS)
150 RHUS CANADENSIS - 4' (FILLER)
75 CELASTRUS SCANDENS - 6' (ON SLOPES)
6 QUERCUS PHELLOS
3 LIRIODENDRON TULIPIFERA
4 QUERCUS PALUSTRIS
8 QUERCUS COCCINEA
9 QUERCUS MACROCARPA
9 QUERCUS MACROCARPA
500 RHUS GLABRA - 3' (IRREGULARLY SHAPED MASSES)
450 ROSA LUCIDA - 4' (FILLER)
150 ROSA BLANDA - 4' (GROUPS OF 15-25 IN FOREGROUND)
4 LIRIODENDRON TULIPIFERA
19 CARPINUS CAROLINIANA - 15' (CARRY THROUGHOUT)
15 VIBURNUM LENTAGO - 8' (GROUPS OF 3 TO 7)
STOP
NO PARKING
FOURMILE
LEFT TURN & U TURN
THIS DRIVEWAY NOT OPEN TO PUBLIC
CUSTIS HOUSE
Destroyed

AIRPORT
Vegetation Character

At the entrance to the proposed Gravelly Point Airport, over 100 flowering dogwoods (*Cornus florida*) are planted in and around the single cloverleaf entrance. Several clusters of large oaks are planted amidst the dogwoods, and had they matured before the roadway was relocated due to construction of National Airport in 1940, they would have formed an open grove that linked this space to that of the Abingdon landscape. The dogwood understory distinguishes this area from the rest of the oak grove and celebrates the entrance to the airport. Shrubs masses, especially roses, reinforce the ornamental quality of the entrance.



LEFT PAGE
1932 map with Simonson Plan indicating location of proposed Gravelly Point Airport Entrance.
RIGHT PAGE
1932 Simonson Plan of the proposed Gravelly Point Airport Entrance detail.
1932 Simonson Plan *Sheet 10.*
(NPS TIC 850/80156)


Corktree
Dogwood
Oak
Mulberry
Persimmon
Tulip Popular
shrubs-roses
shrubs mixed
0
37.5
75
112.5
150
scale
north
6 DIOSPYROS VIRGINIANA
3 QUERCUS COCCINEA
10 CORNUS FLORIDA
4 CORNUS FLORIDA
Bridle path
160 ROSA NITIDA
50 ROSA RUGOSA-5 (FILLER)
200 ROSA LUCIDA-4 (FILLER)
220 ROSA BLANDA-4 (GROUPS OF 12 TO 25)
(FOREGROUND)
2 QUERCUS PHELLOS
105 HYPERICUM DENSIFLORUM
8 CORNUS FLORIDA
2 CORNUS FLORIDA
STOP
NO PARKING
1 PHELLODENDRON CHINENSE
110 MYRICA CAROLINENSIS 4'(COLONIES)
170 ROSA LUCIDA 24" (FILLER)
80 ROSA HUMILIS
3-PHELLODENDRON SACHALINENSE
12 CORNUS FLORIDA
6'LIRIODENDRON TULIPIFERA
6 QUERCUS RUBRA
5 CORNUS FLORIDA
1 QUERCUS MACROCARPA
7 QUERCUS PHELLOS
5 QUERCUS COCCINEA
Foot Path
75 MYRICA CAROLINENSIS-4' (COLONIES)
15 CEANOTHUS AMERICANUS-4'(SMALL GROUPS)
95 ROSA LUCIDA-4'(FILLER)
3 QUERCUS COCCINEA
4 CORNUS FLORIDA
3 MORUS ALBA
70 AMELOPSIS BRACHYPODA
ACER RUBRUM-5'
ACER QUINATUM-5'
1 PHELLODENDRON AMURENSE
4 CORNUS FLORIDA
1 QUERCUS COCCINEA
1 PHELLODENDRON CHINENSE
165 RHUS CANADENSIS-4'
55 ROSA LUCIDA
25 ROSA BLANDA
1 QUERCUS PHELLOS
1 QUERCUS COCCINEA
7 PHELLODENDRON CHINENSE
Sta. 142+50
11 CORNUS FLORIDA
4 QUERCUS PHELLOS
2 QUERCUS VELUTINA
10 CORNUS FLORIDA
4 QUERCUS COCCINEA
* Ree Path system see note below
15 CORNUS FLORIDA
3 PHELLODENDRON CHINENSE
14 CORNUS FLORIDA
5 QUERCUS PHELLOS
2 QUERCUS COCCINEA
55 ROSA WICHURAIANA-6
7 CORNUS FLORIDA
595 RHUS
BEGINS AT STA. 131+00
50 MYRICA CAROLINENSIS-4'(COLON
10 ROSA RUBIGINOSA-5 (FILLER)
60 ROSA BLANDA-4'(GROUPS 7 TO 25
100 ROSA LUCIDA
FACING PARK
3 CORNUS FLORIDA
50 MYRICA CAROLINENSIS-4'(COLON
15 ROSA RUBIGINOSA-5'(FILLER)
90 ROSA BLANDA -4'(GROUPS
FACING
AND ENDS AT STA. 14

AIRPORT
Vegetation Character

Capital Overlook marks the northern end of the airport segment and is the only designated overlook in the central section. As its name suggests, the overlook would have provided a sweeping panorama of the capital city and its monuments, seen across the Potomac River.

Flowering dogwood (*Cornus florida*) signals the arrival at the overlook, planted among a grove of American beech (*Fagus grandifolia,* formerly *F. americana*) and willow oak (*Quercus phellos*). The overlook is marked by a memorial tablet and two large specimen willow oaks, planted in 1932 by the Colonial Dames of America (District Chapter). More beeches frame the view, and a few red maples (*Acer rubrum*) and sweetgums (*Nyssa sylvatica*) fill out the frame.

Just to the north of the overlook, the tree palette changes in response to the proximity of the river and filled land. Water-tolerant trees are planted loosely, yet more densely than in other places. These include American elm (*Ulmus americana*), red maple (*Acer rubrum*), river birch (*Betula nigra*), and oriental planetree (*Platanus orientalis*). Dogwoods give way to American hornbeam (*Carpinus caroliniana*), a medium size tree with more subtle ornamentation. The denser and more ornamental plantings seem to set up a dramatic transition onto the causeway along Roaches Run and the open space of the river.

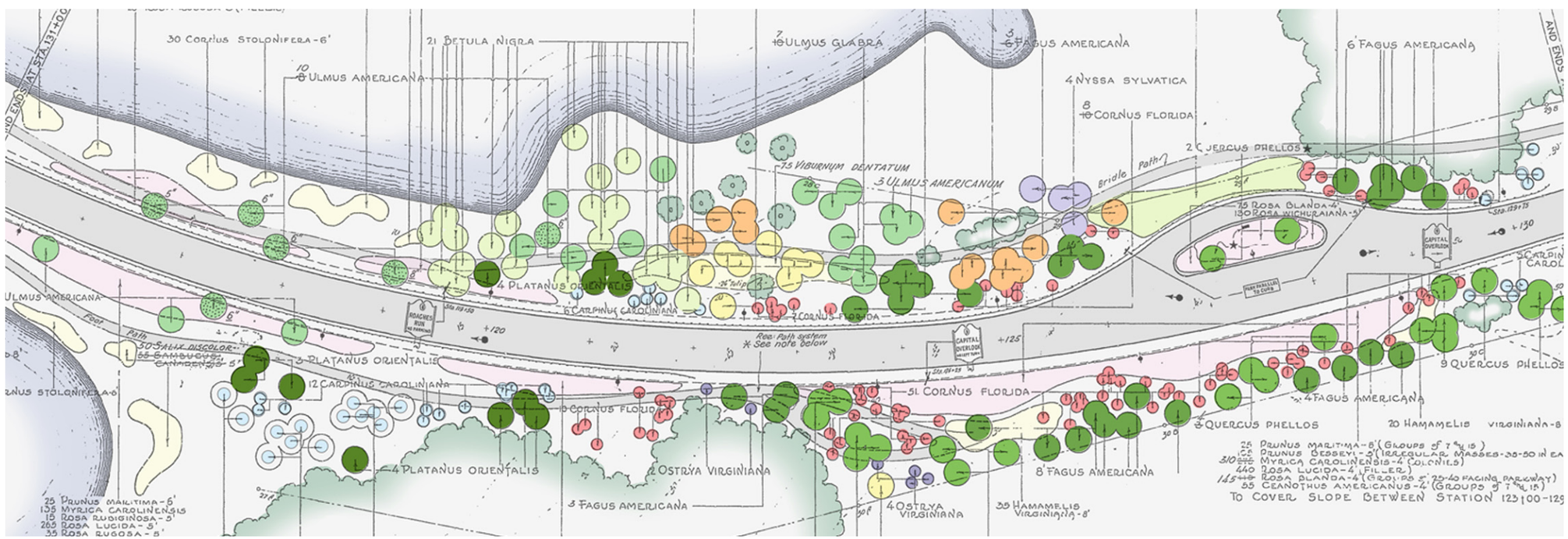


LEFT PAGE
1932 map with Simonson Plan indicating location of the Capital Overlook.
RIGHT PAGE
1932 Simonson Plan of the Capital Overlook detail.
1932 Simonson Plan *Sheet 9.*
(NPS TIC 850/80156)

Character Overview

The Airport section was characterized by a broad, open grove of oaks surrounding the site of Abingdon. This overall character changed at the entrance to the airport and at Capital Overlook. In both cases, flowering dogwoods and other large trees celebrated the arrival at these particular points along the Parkway. At the northern end of this stretch, denser plantings of more varied vegetation set up a dramatic transition from the firm land of the airport to the causeway and the open river immediately to the north.

Roses had more presence here, more often grouped among other roses than with other shrubs. Vines continued to be planted at guardrails. Because the guardrails were very close to the edge of the road and it takes less time for vines to mature, the roadway must have seemed like a short vegetative allee, or channel, before the other vegetation matured.



AIRPORT

Plant Palette

Shade, Ornamental and Evergreen Trees

The dominant shade trees for the National Airport character area include willow oak (*Quercus phellos*), scarlet oak (*Q. coccinea*), American elm (Ulmus americana), American beech (*Fagus grandifolia*) and oriental plane tree (*Platanus orientalis*).

American hornbeam (*Carpinus caroliniana*) is the dominant medium size tree, enriching the taller canopy of the large shade trees. Over two hundred flowering dogwoods (*Cornus florida*) highlight the cloverleaf entrance to the airport and surround Capital Overlook, marking these as very special places along the Parkway.

RIGHT PAGE
1932 Simonson Plan *Sheet 9-13.*
(NPS TIC 850/80156)

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932
Ulmus americana	**American Elm**	**69**
Quercus phellos [1]	**Willow Oak**	* **67**
Salix alba (S. vitellina ['32] ***)***	**White Willow**	**45**
Quercus coccinea	**Scarlet Oak**	**43**
Fagus grandifolia (F. americana ['32] ***)***	**American Beech**	**30**
Platanus orientalis	**Oriental Planetree**	**29**
Quercus nigra	Water Oak	16
Liriodendron tulipifera	Tulip Poplar	15
Acer rubrum	Red Maple	14
Ulmus glabra	Wych Elm	7
Quercus rubra (Q. borealis ['49-'65] *)* [2]	Red Oak	* 6
Morus alba	White Mulberry	6
Celtis occidentalis	Common Hackberry	6
Quercus velutina	Black Oak	5
Quercus macrocarpa	Bur Oak	1

MEDIUM SIZE TREES

BOTANICAL NAME	COMMON NAME	1932
Carpinus caroliniana	**American Hornbeam**	**93**
Betula nigra	**River Birch**	**40**
Ostrya virginiana	Hophornbeam	6
Nyssa sylvatica	Black Gum	4
Phellodendron chinense	Chinese Corktree	6
Phellodendron sachalinense	Sakhalin Corktree	3
Phellodendron amurense	Amur Corktree	1

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932
Cornus florida	**Flowering Dogwood**	**227**
Diospyros virginiana	Common Persimmon	6

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932
none		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
1 *Quercus phellos*: Memorial Planting 1932 by the National Society Colonial Dames of America (District Chapter at the turnout for Capital Overlook (Simonson, sheet 9). These no longer exist in today's Airport character area due to the expansion of Ronald Reagan National Airport.
2 *Quercus rubra*: Memorial Planting 1932 by the Association for the Preservation of Virginia Antiquities, Abingdon (Custis House) Site (Simonson, sheet 11).

AIRPORT
Plant Palette
Shrubs, Vines, Perennials and Groundcover

Smooth sumac (*Rhus glabra*) is the dominant shrub species along this stretch, with-nearly 4600 specimens planted. Species of roses (*Rosa spp*.) begin to appear as groupings along the Parkway at Four Mile Run, but they become more conspicuous further north. They are grouped with other roses instead of other shrubs along the cloverleaf at the Airport entrance, and then they line both sides of the road more prominently from the Capital Overlook northward. With 4000 plants of nine species in the National Airport character area, they would have a noticeable presence along the route. Despite the large numbers of roses, the most dominant individual species of shrub is southern bayberry (*Morella caroliniensis*, formerly *Myrica caroliniensis*), followed by buttonbush (*Cephalanthus occidentalis*).

Over 1200 plants of oriental bittersweet (*Celastrus orbiculatus*) are used; all but two are specified for the median at the portion of the divided highway just north of Four Mile Run. Many of the other vines are planted along the guardrails and light standards, as in previous character areas. No perennials are specified. Although many vines and shrubs cover the slopes or completely fill an area, such as a median, they seem to be used as a mass with some height, as opposed to a low ground covering, so the category of groundcover is left empty. Japanese honeysuckle (*Lonicera japonica halliana*) is planted in the foreground at Capital Overlook; its fragrance must have made the view of the capital an even more intense experience.

RIGHT PAGE
1932 Simonson Plan *Sheet 9-13.*
(NPS TIC 850/80156)

SHRUBS

BOTANICAL NAME	COMMON NAME	1932
Rhus glabra	**Smooth Sumac**	**4585**
Rosa virginiana (R. lucida '32)	**Virginia Rose**	**2895**
Morella caroliniensis (Myrica carolinensis '32)	**Southern Bayberry**	**1465**
Rosa palustris	**Swamp Rose**	**1410**
Cephalanthus occidentalis	**Buttonbush**	**1390**
Rosa blanda	**Smooth Rose**	**1320**
Rosa carolina (R. humilis '32)	Carolina Rose, Pasture Rose	690
Rhus aromatica (R. canadensis '32)	Fragrant Sumac	520
Viburnum dentatum	Arrowwood Viburnum	488
Lindera benzoin (Benzoin aestivale '32)	Spicebush	470
Robinia hispida	Bristly Locust, Roseacacia	465
Salix discolor	Pussy Willow	453
Sambucus canadensis	Common Elderberry	356
Rhus copallinum (R. copallina '32)	Winged (Shining) Sumac	280
Rosa multiflora	Multiflora Rose	265
Clethra alnifolia	Summersweet Clethra	255
Ligustrum ibota var regelianum	Privet	190
Hypericum densiflorum	Bushy St Johnswort	185
Cornus sericea (C. stolonifera '32)	Redosier Dogwood	160
Rosa nitida	Shining Rose	160
Rosa setigera	Climbing Rose	145
Rosa eglanteria (R. rubiginosa '32)	Sweetbriar Rose	130
Ceanothus americanus	New Jersey Tea	130
Rhus typhina	Staghorn Sumac	115
Prunus maritima	Beach Plum	115
Rosa rugosa	Rugosa Rose	115
Prunus pumila var. besseyi (P. besseyi '32)	Western Sandcherry	105
Symphoricarpos orbiculatus (S. vulgaris '32)	Coralberry	60
Hamamelis virginiana	Common Witchhazel	75
Baccharis halimifolia	Eastern Baccharis	50
Salix irrorata	Dewystem Willow	45
Alnus incana	Gray Alder	43
Viburnum lentago	Nannyberry	35
Salix elaeagnos (S. incana '32)	Elaeagnus Willow	25
Rosa Hiawatha	Hiawatha Rose	9

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932
Celastrus orbiculatus	**Oriental Bittersweet**	**1217**
Parthenocissus quinquefolia (Ampelopsis quinquefolia '32)	Virginia Creeper	355
Rosa wichuraiana	Memorial Rose	265
Lonicera japonica halliana	Japanese Honeysuckle	250
Celastrus scandens	American Bittersweet	194
Ampelopsis brevipedunculata (A. heterophylla '32)	Porcelainberry	141
Akebia quinata	Five-leaf Akebia	115
Clematis virginiana	Virginsbower	55
Bignonia radicans	Trumpetcreeper	52
Clematis terniflora (C. paniculata '32)	Sweet Autumn Clematis	34
Vitis aestivalis	Summer Grape	16
Parthenocissus tricuspidata 'Lowii' *(Ampelopsis tricuspidata Lowi '32)*	Boston Ivy	12
Polygonum baldschuanicum (P. auberti '32)	Bukhara Fleeceflower	4

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932
none		

GROUNDCOVERS

BOTANICAL NAME	COMMON NAME	1932
none		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)

ROACHES RUN
Vegetation Character

The plantings along Roaches Run are characterized by low vegetation stabilizing the bank and ornamenting the edge of the road. Keeping the vegetation low along the roadside would have given the motorist a close connection to the water on both sides. Planting plans for both Roaches Run and Gravelly Point are heavily influenced by the need to stabilize dredged landfill to support the new bridges and causeways. The selection of plants corresponds with that goal. Shrubs are planted along the causeway in a series of small clusters with open spaces in between that allowed glimpses down the slope to the water's edge.

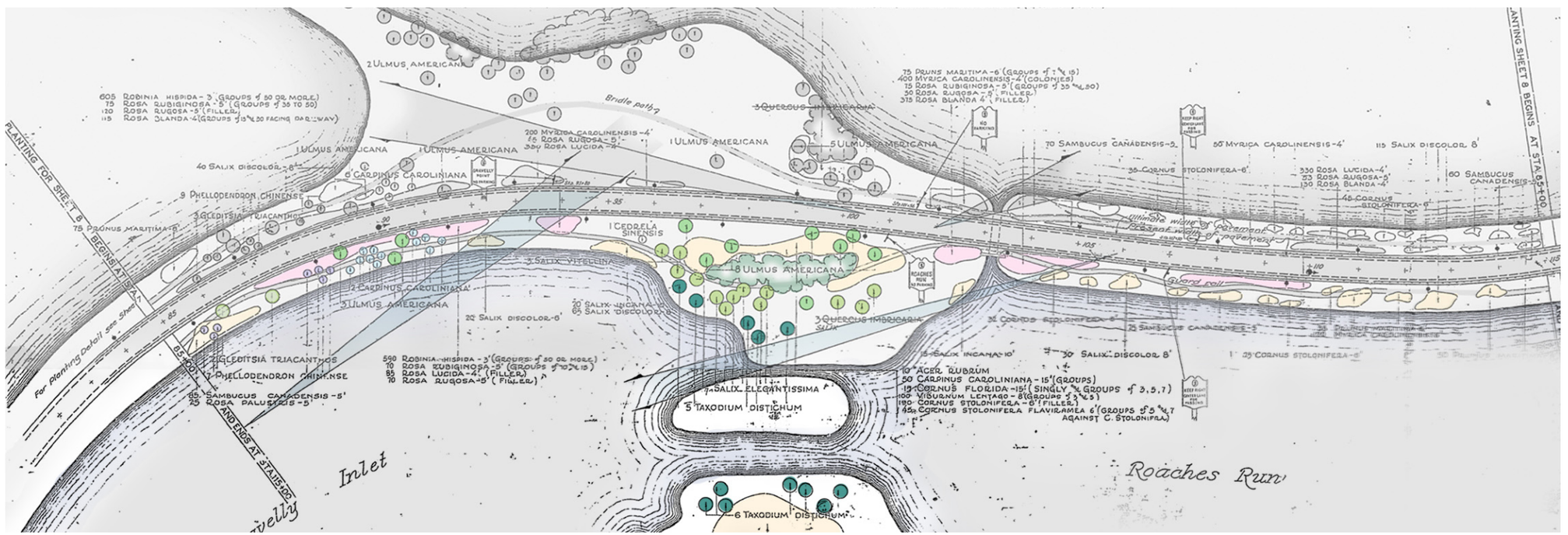
Large trees are used less frequently here than in other stretches and were mostly planted on the far shore of Roaches Run and toward the northern end. In particular, bald cypress (*Taxodium distichum*) is planted along the Run, giving it a forested, wetland edge when viewed from the Parkway. A grove of American elms (*Ulmus americana*) is planted to correspond with elms on the other side of the highway on the original Gravelly Point. Together these two groups of elms framed an important view to the U.S. Capitol.



LEFT PAGE
1932 map with Simonson Plan indicating location of Roaches Run.
RIGHT PAGE
1932 Simonson Plan of Roaches Run detail.
1932 Simonson Plan *Sheet 8*.
(NPS TIC 850/80156)

Character Overview

The plantings at Roaches Run would have made driving on the causeway a dramatic experience with water visible all around. The Washington Monument would have been visible above Roaches Run, immediately after travelers arrived on the causeway. Roses would have been the foreground of the view and were intended to flower from spring into early fall. Flowering shrubs, prolific with berries or rose hips later in the season, would have extended the color late into the fall and winter. Although shrubs were the major plant type used at Roaches Run, elms still appear on the highway in this section with other large trees filling out the forest across the pond. Roses are planted in the foreground, more ornamental than the bank-stabilizing shrubs close to the water.



Cypress
Elm
Honeylocust
Hornbeam
Willow
shrubs-roses
shrubs mixed

0
37.5
75
112.5
150
scale

north

ROACHES RUN

Plant Palette

Trees, Shrubs, Vines, Perennials and Groundcover

The dominant shade trees for Roaches Run include white willow (*Salix alba*), red maple (*Acer rubrum*), quaking aspen (*Populus tremuloides*), and bald cypress (*Taxodium distichum*). Nearly all are proposed on the opposite bank (some at the north end of Roaches Run) and thickened the existing vegetation there. Smaller quantities of honeylocust (*Gleditsia triacanthos*), American elm (*Ulmus americana*) and weeping willow (*Salix x pendulina*) are planted along the edge of the highway, where they would have had more presence to motorists.

Medium size trees along the roadway in the northern half of the character area include American hornbeam (*Carpinus caroliniana*) and river birch (*Betula nigra*).

Few ornamental trees are used at Roaches Run. Chinese toon (*Toona sinensis,* formerly *Cedrela sinensis*) is clustered at the north end under groves of honeylocust (*Gleditsia triacanthos*), but flowering dogwood (*Cornus florida*) is reserved for accents (singly or in groups of 3, 5 and 7) in front of the elms near the bridge.

Although no evergreen trees are specified in 1932, bald cypress (*Taxodium distichum*) is a deciduous conifer with a strong pyramidal shape. Clustered where the two opposing shores almost pinch together, they would have given a distinct forest-edge quality to Roaches Run.

The predominant shrub species bristly locust (*Robinia hispida*) is a large, suckering shrub native to the southeastern United States with rose-colored flowers in May and June. It is useful for stabilizing banks, and because it fixes nitrogen, it is good for land reclamation. It is used in groups of fifty or more with roses in one planting area along the Parkway in the northern portion of Roaches Run. As an early bloomer, it would have begun the blooming cycle along the edge of Parkway. Roses are a significant part of the planting palette at Roaches Run. Six species of roses, over 600 plants, are used in large groups, with species combined to extend the total period of bloom. Roses are generally planted in the foreground, and redosier dogwood (*Cornus sericea*), southern bayberry (*Morella caroliniensis,* formerly *Myrica caroliniensis*) and common elderberry (*Sambucus canadensis*) provide the background and stabilize the slopes down to the water's edge. Rosehips and berries on many of these shrubs would have made the Parkway colorful in the fall and winter as well.

The strategy of planting vines on guard rails and at the base of lamp standards continues in Roaches Run, with devil's darning needles (*Clematis virginiana*) used most often.

RIGHT PAGE
1932 Simonson Plan *Sheet 7-8.*
(NPS TIC 850/80156)

SHADE TREES

BOTANICAL NAME	COMMON NAME	QTY
Salix alba (S. vitellina '32)	**White Willow**	**130**
Betula nigra	**River Birch**	**60**
Acer rubrum	Red Maple	35
Populus tremuloides	Quaking Aspen	30
Taxodium distichum	Bald Cypress	30
Gleditsia triacanthos	Honeylocust	23
Salix x pendulina (S. elegantissima '32)	Wisconsin Weeping Willow	18
Ulmus americana	American Elm	11
Salix alba 'Britzensis' *(S. vitellina* 'Britzensis'[32]*)*	Coral Bark Willow	10
Salix sp. [1]	Willow species	3

MEDIUM SIZE TREES

BOTANICAL NAME	COMMON NAME	QTY
Carpinus caroliniana	**American Hornbeam**	**62**
Phellodendron chinense	Chinese Corktree	17
Morus alba	White Mulberry	4

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	QTY
Toona sinensis (Cedrela sinensis '32)	**Chinese Toon**	**16**
Cornus florida	**Flowering Dogwood**	**15**
Koelreuteria paniculata	Golden Raintree	6
Sophora japonica	Japanese Pagoda Tree	5
Styrax japonica	Japanese Snowbell	1

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	QTY
none		

SHRUBS

BOTANICAL NAME	COMMON NAME	QTY
Robinia hispida	**Bristly Locust, Roseacacia**	**590**
Morella caroliniensis (Myrica caroliniensis '32)	**Southern Bayberry**	**540**
Rosa virginiana (R. lucida '32)	**Virginia Rose**	**535**
Rosa blanda	**Smooth Rose**	**367**
Cornus sericea (C. stolonifera '32)	Redosier Dogwood	262
Rosa rugosa	Rugosa Rose	244
Sambucus canadensis	Common Elderberry	155
Prunus maritima	Beach Plum	152
Salix discolor	Pussy Willow	148
Rhus glabra	Smooth Sumac	145
Rosa eglanteria (R. rubiginosa '32)	Sweetbriar Rose	132
Viburnum lentago	Nannyberry	100
Rosa setigera	Climbing Rose	65
Salix irrorata	Dewystem Willow	60
Cornus sericea 'Flaviramea' *(C. stolonifera var* 'Flaviramea'[32]*)*	Redosier Dogwood	45
Salix elaeagnos (S. incana '32)	Elaeagnus Willow	35
Sorbaria aitchisonii	Kashmir falsespirea	30
Rosa palustris	Swamp Rose	25
Zanthoxylum americanum	Common Pricklyash	25
Rhus typhina	Staghorn Sumac	15

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	QTY
Clematis virginiana	**Virginsbower**	**77**
Celastrus scandens	American Bittersweet	35
Ampelopsis brevipedunculata (A. heterophylla '32)	Porcelainberry	30
Polygonum baldschuanicum (P. auberti '32)	Bukhara Fleeceflower	28
Parthenocissus quinquefolia (Ampelopsis quinquefolia '32)	Virginia Creeper	11
Bignonia radicans	Trumpetcreeper	8

PERENNIALS

BOTANICAL NAME	COMMON NAME	QTY
none		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
1 Probably *Salix alba (S. vitellina)* among others of that species (NPS TIC 850-80156).

GRAVELLY POINT
Vegetation Character

Plantings at Gravelly Point are much like those of Roaches Run since the causeway was similar on both sides in 1932. Gravelly Point itself was a distinct point of land in 1932, and as such it received more conspicuous plantings than the rest of the causeway. Plantings of American elm (*Ulmus americana*) augment a stand of existing vegetation and frame a direct view of the U.S. Capitol. Willows (*Salix spp*.) and accents of sweetgum (*Nyssa sylvatica*) outline the curved edge along the river, and three elms at the point extend the angle of the view. As the road curves away from the view of the Capitol, honeylocust (*Gleditsia triacanthos*) is scattered along the edge of the roadway along with medium size trees, cork tree (*Phellodendron spp*.) and American hornbeam (*Carpinus caroliniana*).

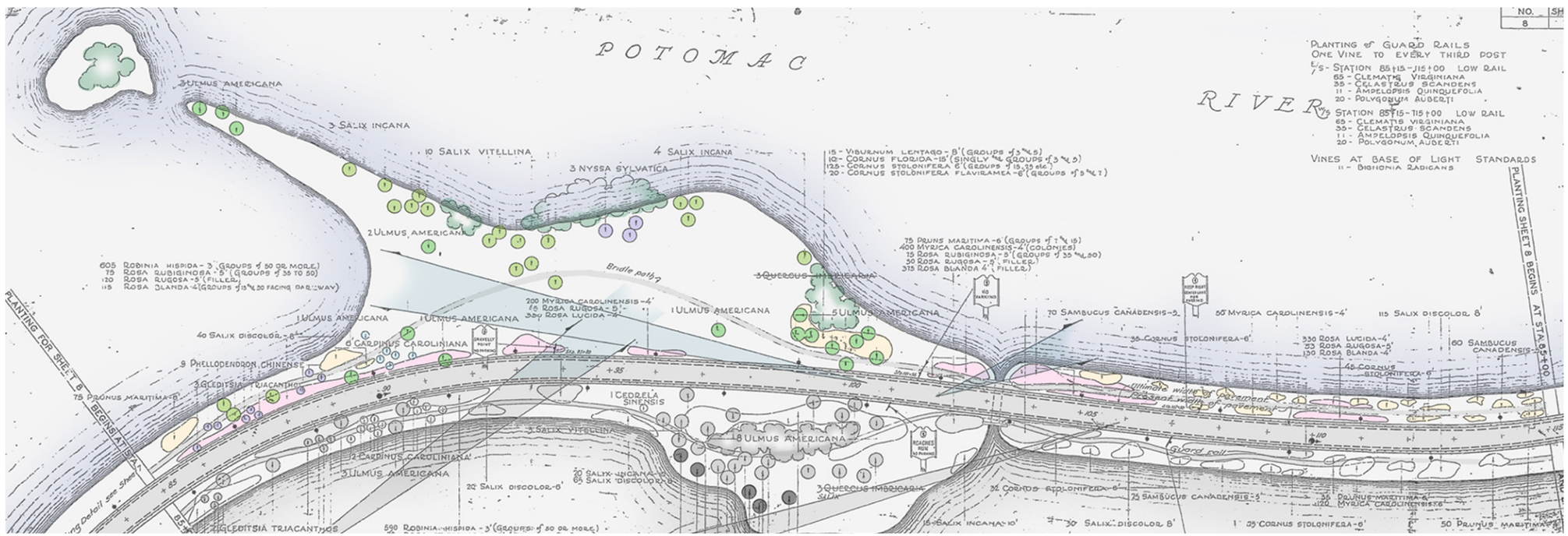
A planting strategy similar to the one used on the Roaches Run side protects the reclaimed land along the northern end of the causeway. Nearly 200 pussy willow (*Salix discolor*) in groups of eight to forty form vegetative masses aside groups of larger ornamental trees, Japanese pagoda tree (*Sophora japonica*) and golden raintree (*Koelreutaria paniculata*).



LEFT PAGE
1932 map with Simonson Plan indicating location of Gravelly Point.
RIGHT PAGE
1932 Simonson Plan of Gravelly Point detail.
1932 Simonson Plan *Sheet 8*.
(NPS TIC 850/80156)

Character Overview

The vegetation along Gravelly Point and Roaches Run was intentionally kept low along most of the route so that travelers would have felt they were within the space of the river, rather than alongside it. The open space would have been markedly different from the previous sections of the Parkway and would have provided some of the most important views to the monuments across the river. The actual point was a notable exception to this open space. A grove of elms marked the arrival at the point, closing down the view, and then framing a dramatic view to the U.S. Capitol. As the roadway swung to the left, shorter vegetation again allowed for a full view of the Washington Monument rising above the river.



Black Gum
Elm
Honeylocust
Hornbeam
Willow
shrubs-roses
shrubs mixed

0
150
150
225
300
scale

north

GRAVELLY POINT

Plant Palette

Trees, Shrubs, Vines, Perennials and Groundcover

As with Roaches Run, shrubs are far more dominant on Gravelly Point than trees. Of the latter, American elm (*Ulmus americana*), honeylocust (*Gleditsia triacanthos*) and white willow (*Salix alba*) dominate, but none is planted in large quantities.

Over 2000 roses of six species line the Parkway among other shrubs with showy characteristics. Virginia rose (*Rosa virginiana,* formerly *R. lucida*) and smooth rose (*R. blanda*) make up 1500 of the plants used. These are roses with single petals, tough but delicate natives. Planted with the taller and larger bristly locust (*Robinia hispida*), they would have hidden the transition to the causeway, making the experience of driving onto it even more spectacular and dramatic. The strategy of planting vines on guardrails continued at Gravelly Point and the causeway, with devil's darning needles (*Clematis virginiana*) used most often. Trumpetcreeper (*Bignonia radicans*) was planted at the base of lamp standards.

RIGHT PAGE
1932 Simonson Plan *Sheet 7-8.*
(NPS TIC 850/80156)

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932
Quercus palustris	**Pin Oak**	**13**
Ulmus americana	**American Elm**	**13**
Gleditsia triacanthos	**Honeylocust**	**12**
Salix alba (S. vitellina '32)	**White Willow**	**10**
Quercus phellos	Willow Oak	6
Quercus macrocarpa	Bur Oak	3

MEDIUM SIZE TREES

BOTANICAL NAME	COMMON NAME	1932
Phellodendron chinense	Chinese Corktree	22
Morus alba	White Mulberry	8
Carpinus caroliniana	American Hornbeam	6
Nyssa sylvatica	Black Gum	3

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932
Cornus florida	**Flowering Dogwood**	**10**
Sophora japonica	**Japanese Pagoda Tree**	**10**
Koelreuteria paniculata	Golden Raintree	4
Styrax japonica	Japanese Snowbell	4
Toona sinensis (Cedrela sinensis '32)	Chinese Toon	3

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932
none		

SHRUBS

BOTANICAL NAME	COMMON NAME	1932
Rosa virginiana (R. lucida '32)	**Virginia Rose**	**465**
Morella caroliniensis (Myrica caroliniana '32)	**Southern Bayberry**	**435**
Robinia hispida	**Bristly Locust, Roseacacia**	**785**
Rosa blanda	**Smooth Rose**	**448**
Rosa rugosa	Rugosa Rose	277
Sambucus canadensis	Common Elderberry	265
Cornus sericea (C. stolonifera '32)	Redosier Dogwood	245
Rosa eglanteria (R. rubiginosa '32)	Sweetbriar Rose	203
Salix discolor	Pussy Willow	198
Prunus maritima	Beach Plum	137
Rhus glabra	Smooth Sumac	125
Rosa setigera	Climbing Rose	60
Cornus sericea 'Flaviramea' *(C. stolonifera var 'Flaviramea'32)*	Redosier Dogwood	20
Viburnum lentago	Nannyberry	15
Rhus typhina	Staghorn Sumac	10
Rosa palustris	Swamp Rose	10
Salix elaeagnos (S. incana '32)	Elaeagnus Willow	7

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932
Rosa wichuraiana	**Memorial Rose**	**175**
Clematis virginiana	**Virginsbower**	**78**
Celastrus scandens	American Bittersweet	35
Ampelopsis brevipedunculata (A. heterophylla '32)	Porcelainberry	32
Polygonum baldschuanicum (P. auberti '32)	Bukhara Fleeceflower	28
Parthenocissus quinquefolia (Ampelopsis quinquefolia '32)	Virginia Creeper	11
Bignonia radicans	Trumpetcreeper	8
Parthenocissus tricuspidata 'Lowii' *(A. tricuspidata lowii'32)*	Boston Ivy	2

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932
none		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.

BRIDGES

Vegetation Character

In 1932, there were only two bridges crossing the Parkway immediately north of Gravelly Point. One was the railroad bridge for the Richmond, Fredericksburg & Potomac Railroad and the Southern Railroad, and the other was the 14th Street Bridge with its new cloverleaf interchange. Apparently the two were seen as being very different kinds of structures since Simonson plants shade trees to screen the railroad bridge, and he highlights the cloverleaf interchange with ornamental vegetation to make it very visible.

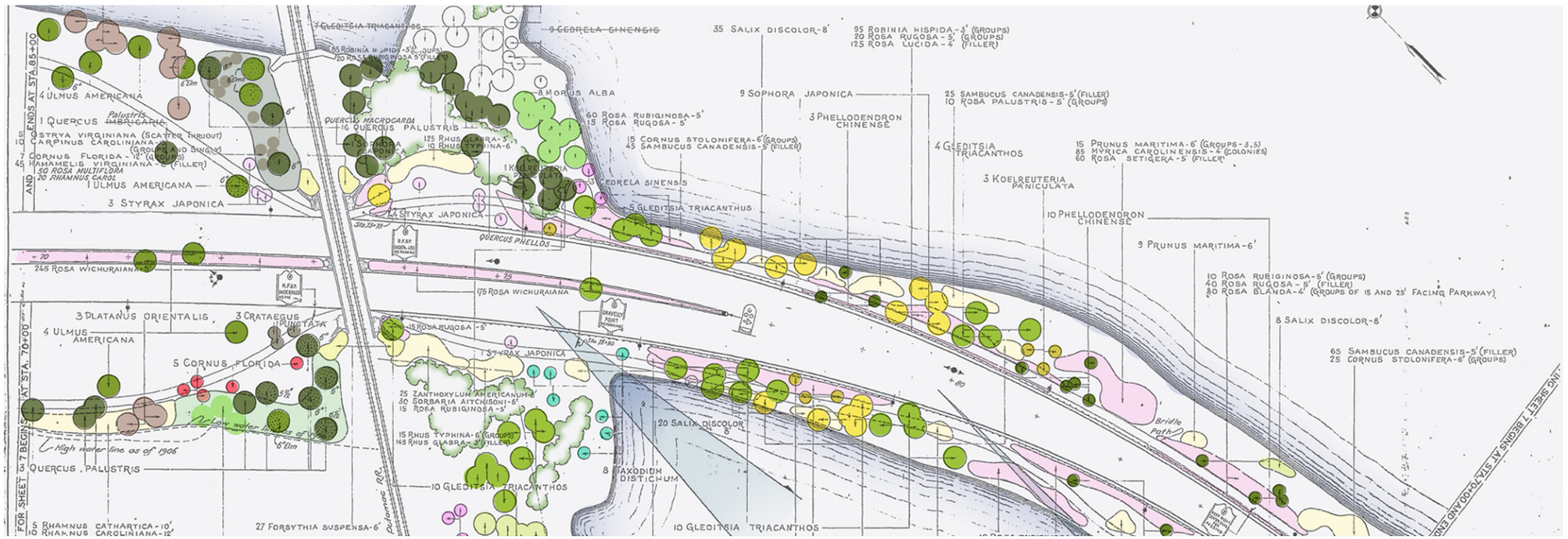
On the southern side of the railroad bridge, Simonson adds large, specimen oaks (six inch caliper) and locusts to the existing trees to thickly screen the railroad bridge. A center median begins before the railroad underpass and extends beyond the cloverleaf. Seven elms are planted in the median and give continuity to the Parkway; one locust strategically planted at the southern end marks the beginning of the median and partially diverts attention from the center of the railroad bridge. At ground level, roses fill the median to catch the traveler's eye.



LEFT PAGE
1932 map with Simonson Plan indicating location of the northern portion of Roaches Run, Gravelly Point and the Railroad Bridge.
RIGHT PAGE
1932 Simonson Plan of the northern portion of Roaches Run, Gravelly Point and the Railroad Bridge detail.
1932 Simonson Plan *Sheet 7*.
(NPS TIC 850/80156)

shrubs-roses
shrubs mixed

Corktree
Cedar
Cypress
Dogwood
Elm
Golden Raintree
Honeylocust
Japanese Pagoda Tree
Mulberry
Oak
Planetree
Snowbell



0
37.5
75
112.5
150
scale

north

BRIDGES
Vegetation Character

The 14th Street Bridge interchange was the first federally built cloverleaf interchange, and this status probably influenced the planting design for it. The plantings within the cloverleaf are more organized than other plantings but not formally symmetrical. A few Japanese pagoda tree (*Sophora japonica*) and American elm (*Ulmus americana*) are planted as individuals, underplanted with rockspray cotoneaster (*Cotoneaster horizontalis*) and memorial rose (*Rosa wichuriana*) the same rose used in the median. Minimizing the use of large trees in the cloverleaf may have helped travelers to concentrate on traffic and the direction of travel. The roses, only one foot high with conspicuous white flowers and, later, red fruit, would have kept motorists' eyes at ground level, even at night.

Two boundary markers (with locust posts and chain) mark the site of a Memorial Planting in 1932 by the Garden Club of America. Located just at the west entrance to the cloverleaf, four large specimen American elms (*Ulmus americana*) symmetrically frame the highway, and are underplanted with Japanese honeysuckle (*Lonicera japonica halliana*) and English ivy (*Hedera helix*). These trees are in a prominent location for travelers entering the cloverleaf from Arlington.

The Potomac River and Boundary Channel are close to the cloverleaf, within 500 feet of the Parkway, but the shorelines have a different planting strategy. Groups of elms and oaks, some collected by nurserymen with six inch caliper trunks or larger, are planted near the edge of the water and enclose the entire cloverleaf interchange in one large space. Plantings on the Boundary Channel side are more dense and varied than along the Potomac shore, creating a woodland screen. Large areas are thickly planted, alternating with medium size trees, ornamental trees and shrubs. The whole is anchored by closer plantings of shade trees, in groupings of five to eight of a single species, often loosely connected to the next species group. Groups of ornamental pears and crabapples accent the woodland edge usually in front of the mixed trees and shrubs.



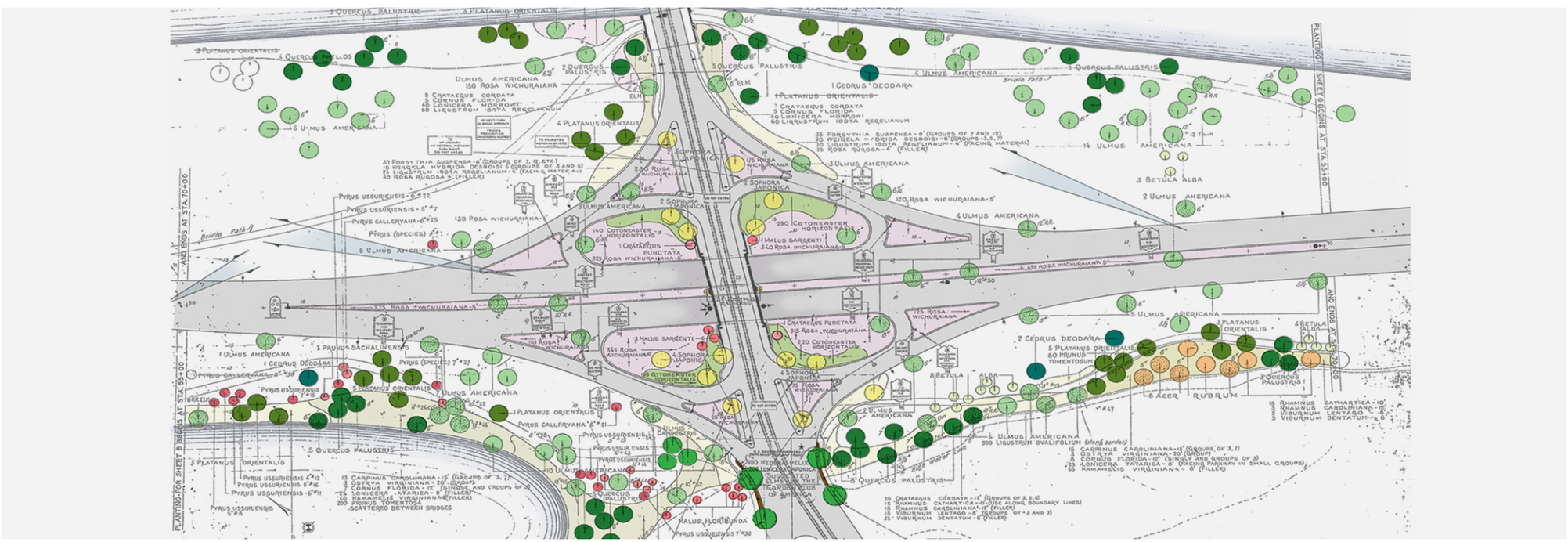
LEFT PAGE
1932 map with Simonson Plan indicating location of the cloverleaf interesection at the Highway Bridge.
RIGHT PAGE
1932 Simonson Plan of the cloverleaf intersection at the Highway Bridge detail.
1932 Simonson Plan *Sheet 6.*
(NPS TIC 850/80156)

Character Overview

The cloverleaf was the focal point in this section probably in part to celebrate the technological achievement and to give drivers enough time to view it and prepare for the unaccustomed changes in direction. Larger trees define the edges of the landscape at the shoreline, thereby creating a single open space for the cloverleaf. Primary ornamentation inside the cloverleaf came from the memorial rose and other shrubs, augmented by the few pagoda trees and elms.

shrubs-roses
shrubs mixed

Cedar
Cherry
Crabapple
Elm
Hawthorn
Japanese Pagoda Tree
Maples
Oak
Paper Birch
Pear
Planetree
Snowbell



0
37.5
75
112.5
150
scale

north

BRIDGES

Plant Palette

Trees, Shrubs, Vines, Perennials and Groundcover

Over 100 American elms (*Ulmus americana*) are used throughout the bridge area and nearly as many oaks, mostly pin oak (*Quercus palustris*). Elms planted in the median give the Parkway continuity through and between the two bridges.

The dominant ornamental tree, by quantity, is Nanking cherry (*Prunus tomentosa*), but it is used to create dense woodland at the edge of Boundary Channel, rather than for ornament. Washington hawthorn (*Crataegus phaenopyrum*) and flowering dogwood (*Cornus florida*) are also included in the dense plantings of trees and shrubs, but not primarily for their ornamental qualities in this function. In contrast, fourteen Japanese pagoda tree (*Sophora japonica*) have a prominent place within the cloverleaf. Several species of crabapples and pears are set apart from the more dense plantings and provide ornamentation singly and in small groups. Overall, trees are less floriferous in the cloverleaf than at Capital Overlook, for example.

The only evergreens Simonson specifies in the Central Section are in the Bridges character area. Four Deodar Cedar (*Cedrus deodara*) are planted as specimens and seem more closely associated with the foot and bridle paths than with the cloverleaf or the shoreline.

Over 5000 roses are planted in the bridges area, with memorial rose (*Rosa wichuriana*) featured in the open spaces of the cloverleaf and in the median. It is clearly the dominant genus as well as the dominant species. Numerous other shrubs are used in combinations with trees to thicken the Parkway's western edge and Boundary Channel. Other shrub masses are used ornamentally at the eastern side of the cloverleaf including, weeping forsythia (*Forsythia suspensa*), a weigela hybrid (*Weigela sp.*), rugosa rose (*Rosa rugosa*), and privet (*Ligustrum ibota var regelianum).*

Vines were specified for the railroad bridge area as was typical on the Parkway, but crossed out in the plan for the cloverleaf. English ivy (*Hedera helix*) was used as a groundcover with the elms and honeysuckle in the Memorial Planting.

RIGHT PAGE
1932 Simonson Plan *Sheet 5-7.*
(NPS TIC 850/80156)

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
1 Memorial Planting 1932 by Garden Club of America 2-DC Boundary markers (with post and chain), 4-large specimen American Elm trees, 100 English Ivy, 200 Honeysuckle located on the south portion of the cloverleaf (Simonson, sheet 6).
2 *Betula alba* may be one of several birches, native or introduced.

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932
Ulmus americana [1]	**American Elm**	* 115
Quercus palustris	**Pin Oak**	56
Platanus orientalis	**Oriental Planetree**	40
Acer rubrum	Red Maple	8
Quercus phellos	Willow Oak	4
Ulmus procera (U. campestris '32 *)*	English Elm	3

MEDIUM SIZE TREES

BOTANICAL NAME	COMMON NAME	1932
Carpinus caroliniana	**American Hornbeam**	64
Betula alba '32, 2	Birch species	15
Ostrya virginiana	Hophornbeam	14
Broussonetia papyrifera	Paper Mulberry	5
Morus alba	White Mulberry	3

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932
Crataegus phaenopyrum (C. cordata '32 ***)***	**Washington Hawthorn**	68
Cornus florida	**Flowering Dogwood**	54
Chionanthus virginicus	White Fringetree	18
Sophora japonica	Japanese Pagoda Tree	14
Pyrus ussuriensis	Chinese Pear	12
Malus floribunda	Japanese Flowering Crabapple	6
Crataegus punctata	Dotted Hawthorn	5
Prunus sargentii (P. sachalinensis '32 *)*	Sargent Cherry	5
Malus sargentii	Sargent's Crabapple	4
Koelreuteria paniculata	Golden Raintree	3
Pyrus calleryana	Callery Pear	3
Styrax japonicus	Japanese Snowbell	3
Pyrus (species)	Pear species	2
Malus bechtelli	Bechtel Crabapple	1

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932
Cedrus deodara	Deodar Cedar	4

SHRUBS

BOTANICAL NAME	COMMON NAME	1932
Rosa multiflora	**Multiflora Rose**	640
Ligustrum ibota var regelianum	**Privet**	475
Prunus tomentosa	**Nanking Cherry**	420
Rosa setigera	Climbing Rose	290
Viburnum dentatum	Arrowwood Viburnum	280
Rosa palustris	Swamp Rose	260
Ligustrum	Privet	250
Rosa rugosa	Rugosa Rose	225
Prunus mahaleb	Mahaleb Cherry (Chokecherry)	200
Frangula caroliniana (Rhamnus caroliniana '32 *)*	Carolina Buckthorn	195
Hamamelis virginiana	Common Witchhazel	190
Prunus pumila var besseyi (P. besseyi '32 *)*	Western Sandcherry	160
Rhus glabra	Smooth Sumac	125
Rhodotypos scandens (R. kerrioides '32 *)*	Jetbead	105
Weigela 'Desboisii' (W. hybrida var Desboisi' '32 *)*	Desboisii Weigela	95
Forsythia suspensa	Weeping Forsythia	92
Robinia hispida	Bristly Locust, Roseacacia	85
Lonicera morrowii	Morrow's Honeysuckle	80
Prunus maritima	Beach Plum	65
Hypericum frondosum (H. aureum '32 *)*	Cedarglade St Johnswort	55
Viburnum lentago	Nannyberry	55
Lonicera tatarica	Tatarian Honeysuckle	50
Rosa eglanteria (R. rubiginosa '32 *)*	Sweetbriar Rose	50
Rhamnus cathartica	Common Buckthorn	48
Rhus typhina	Staghorn Sumac	10

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932
Rosa wichuraiana	**Memorial Rose**	3535
Cotoneaster horizontalis	**Rockspray Cotoneaster**	845
Lonicera japonica [1]	**Japanese Honeysuckle**	* 200
Hedera helix [1]	English Ivy	* 100
Parthenocissus tricuspidata 'Lowi' *(Ampelopsis tricuspidata Lowi* '32*)*	Boston Ivy	2
Bignonia radicans	Trumpetcreeper	2

COLUMBIA ISLAND
Vegetation Character

The design for the connection between Memorial Bridge and the Parkway was not finalized in 1932, so Simonson's plan only calls for plantings on the southern part of Columbia Island. (The eventual configuration of Memorial Circle and the symmetrical looping roadways developed gradually through the 1930s.) A line marking the limit of planting further restricted the plantings to those nearest the roadway. Existing vegetation is marked on the plans along the western edge of the island at Boundary Channel, and there are also individual trees and clumps near the edge of the Potomac River. Perhaps because of this existing vegetation, Simonson only proposes ornamental trees, mostly cherries, pears, crabapples, and Japanese pagoda tree (*Sophora japonica*).

The new trees are scattered in loose clumps. Although they are all ornamental species, there is quite a difference in their heights, with some of the pears and the pagoda trees growing much larger than the crabapples and cherries. The effect would have been a landscape of flowering trees of varying heights and densities, allowing for select views across the Potomac River and also across Boundary Channel to Arlington House.

Roses and other shrubs are used to stabilize the banks as at other places along the Parkway.

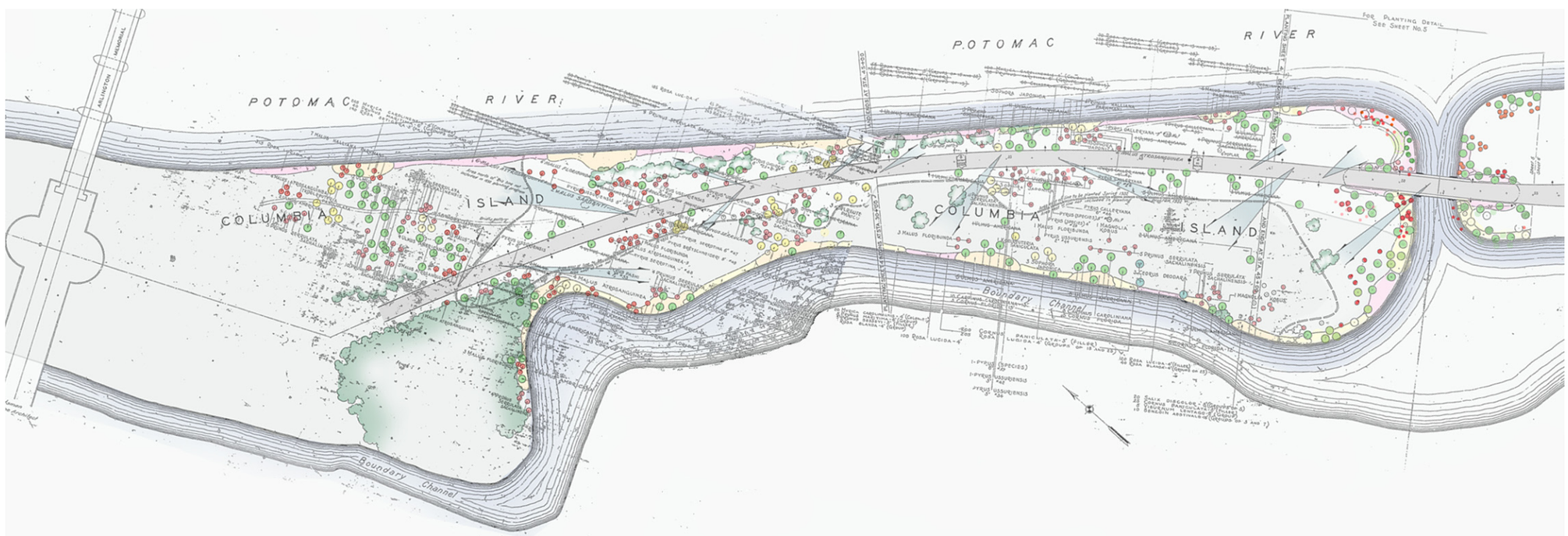


LEFT PAGE
1932 map with Simonson Plan indicating location of Columbia Island.
RIGHT PAGE
1932 Simonson Plan of Columbia Island detail.
1932 Simonson Plan *Sheet 3-5.*
(NPS TIC 850/80156)

Character Overview

The design for Columbia Island would have created another distinct place along the Parkway with only flowering trees in the foreground of the river and in front of existing volunteer vegetation. The cherries, pears and crabapples all flower in the spring, so the island would have been quite colorful for a few weeks. Japanese pagoda tree blooms in the summer, and it would have made another period of noticeable flowering. The mixture of large volunteer trees with medium and small ornamental trees would have made a diverse spatial experience.

Views would have been filtered and even blocked by the lower-growing ornamental vegetation, and Simonson indicates only limited views toward Memorial Bridge and the Lincoln Memorial. There are more views indicated across Boundary Channel in the direction of Arlington House, apparently more visible then than it is today.



Cedar
Elm
Golden Raintree
Japanese Pagoda Tree
Mixed Flowering Trees
shrubs-roses
shrubs mixed

0
187.5
375
562.5
750
scale

north

COLUMBIA ISLAND

Plant Palette

Trees, Shrubs, Vines, Perennials and Groundcover

There are fewer species and fewer numbers of plants installed at Columbia Island than in any of the other segments in the central section. The dominant ornamental trees are Japanese flowering cherry (*Prunus serrulata var. sachalinensis*) and carmine crabapple (*Malus x atrosanguinea*), both among the smaller sized ornamentals chosen for this location. The medium sized ornamentals include Japanese pagoda tree (*Sophora japonica*) and pear species (*Pyrus sp.*); they are used in smaller quantities, perhaps because they are larger trees than the others. Few dogwoods are used on the island compared to other areas in the central section of the Parkway.

Virginia rose (*Rosa virginiana,* formerly *Rosa lucida*) is the dominant shrub, used with shrubs of the genus *Prunus* to stabilize the banks of the island.

There are no shade trees, medium size trees, evergreens, vines or groundcovers planted in this section, although there are significant clusters of existing vegetation noted on the plan, and these are probably composed of river floodplain species of varying sizes.

RIGHT PAGE
1932 Simonson Plan *Sheet 3-5.*
(NPS TIC 850/80156)

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932
none		

MEDIUM TREES

BOTANICAL NAME	COMMON NAME	1932
Carpinus betulus	European Hornbeam	11
Carpinus caroliniana	American Hornbeam	2

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932
Prunus serrulata var sachalinensis ['32]	**Japanese Flowering Cherry**	**29**
Cornus florida	Flowering Dogwood	19
Malus x atrosanguinea	Carmine Crabapple	19
Malus floribunda	Japanese Flowering Crabapple	14
Koelreuteria paniculata	Golden Raintree	13
Pyrus ussuriensis	Chinese Pear	11
Sophora japonica	Japanese Pagoda Tree	8
Pyrus calleryana	Callery Pear	6
Prunus sp.	Cherry species	7
Crataegus phaenopyrum (C. cordata ['32] *)*	Washington Hawthorn	4
Prunus halliana parkmanii ['32]	Parkman Crabapple	4
Malus sargentii	Sargent's Crabapple	2
Malus spectabilis	Asiatic Apple	2
Prunus subhirtella	Higan Cherry	2
Pyrus bretschneideri	Chinese White Pear	2
Pyrus pyrifolia (P. serotina ['32] *)*	Chinese Pear	2
Pyrus sp.	Pear species	2
Pyrus ussuriensis var. ovoidea (P. ovoidea ['32] *)*	Chinese Pear	2
Pyrus pashia	Indian Wild Pear	1

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932
none		

SHRUBS

BOTANICAL NAME	COMMON NAME	1932
Rosa virginiana (R. lucida ['32] ***)***	**Virginia Rose**	**490**
Rosa multiflora	**Multiflora Rose**	**315**
Hypericum frondosum (H. aureum ['32] ***)***	**Cedarglade St Johnswort**	**300**
Viburnum dentatum	Arrowwood Viburnum	200
Ligustrum obtusifolium var. regelianum (L. ibota regelianum ['32] *)*	Regel Border Privet	180
Rosa rugosa	Rugosa Rose	155
Prunus maritima	Beach Plum	145
Prunus pumila var. besseyi (P. besseyi ['32] *)*	Western Sandcherry	145
Morella caroliniensis (Myrica caroliniensis ['32] *)*	Southern Bayberry	125
Rosa nitida	Shining Rose	125
Rhodotypos scandens (R. kerrioides ['32] *)*	Jetbead	100
Viburnum dentatum	Arrowwood Viburnum	200
Rosa blanda	Smooth Rose	90
Rosa palustris	Swamp Rose	75
Rosa setigera	Climbing Rose	70
Prunus tomentosa	Nanking Cherry	40
Hamamelis virginiana	Common Witchhazel	20

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932
Celastrus scandens	**American Bittersweet**	**300**
Rosa wichuraiana	**Memorial Rose**	**200**
Bignonia radicans	Trumpet Creeper	5

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932
none		

DAFFODILS

BOTANICAL NAME	COMMON NAME	1932
none		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)

three

PLANTING PALIMPSEST

In the decades since initial planting of the Parkway, its vegetation and character have evolved considerably with the implementation of additional plans. The development and expansion of Ronald Reagan National Airport have had the biggest impact on the Parkway, but cumulative small changes have created a landscape very different than the original.

This chapter constructs a palimpsest, a composite historical map, by layering the various planting plans for the Parkway on relevant aerial photographs. Layering these plans chronologically and cumulatively on the aerial photos shows the development of the vegetation with the corresponding land changes. Each layer of the palimpsest shows vegetation added from new planting plans, and also shows which vegetation remains from previous plans, based on the evidence in the aerial photographs. The aerial photographs are snapshots of the vegetation at particular time periods, and the palimpsest is adjusted when the photos indicate which trees were in place at the time of the photograph. In some cases, most notably the prominent willow oaks (Quercus phellos) at the entrance to Daingerfield Island, there is no record of planting, but aerial photos give evidence as to approximately when they were planted. The oaks are already medium sized trees in an aerial photograph in 1959, so they must have been planted long enough before then to be visible in the photo. Cumulatively, the palimpsest allows for identification of periods of significance for the vegetation and an analysis of changes to its character (discussed in Chapter Five).

This chapter begins by individually describing the major plans that have shaped the Parkway vegetation. Then the palimpsest is constructed chronologically, starting in 1932 and layering the subsequent plans to illustrate how the current conditions developed over time. Each year of plantings is assigned a different color in the palimpsest across a spectrum ranging from pink (1932) through yellow (1940s), green (1960s), blue (1970s) and purple (1980s). Collectively this spectrum allows an historical reading at a glance, the colors of the palimpsest giving an overview of the sequence of planting.

To show enough detail, the palimpsest is presented in four segments: Alexandria to Four Mile Run, Reagan National Airport, Roaches Run to Bridges, and Lady Bird Johnson Park. Some of the segments of the palimpsest contain more than one character area, and in these cases specific plantings also are discussed for each character area. As in the previous chapter, they are described qualitatively in terms of the overall character of the vegetation and then quantitatively in a series of tables that identify the species and quantities of plants that were planted. These tables show how the plant palette has changed in the years since Simonson's original planting plan. Dates for the plantings are based on the "approved" dates of the planting plans.

The Lyndon Baines Johnson Memorial Grove is treated independently and in more detail, because of its significance as a presidential memorial, its smaller scale, and because it is the product of a single landscape architect, Meade Palmer.

Major Planting Plans

1932 Simonson Plan 80

1936 Plans 82

1940s Plans 84

1963 Plan 86

1967 Stone Plan 88

1976 Palmer Plan 90

Alexandria to Four Mile Run 92

Alexandria Circle 102

Daingerfield Island 106

Airport 110

Roaches Run to Bridges 128

Roaches Run 140

Gravelly Point 142

Four Bridges 146

Lady Bird Johnson Park 150

Stone-Dogwoods 162

Stone-Daffodils 164

LBJ Memorial Grove 170

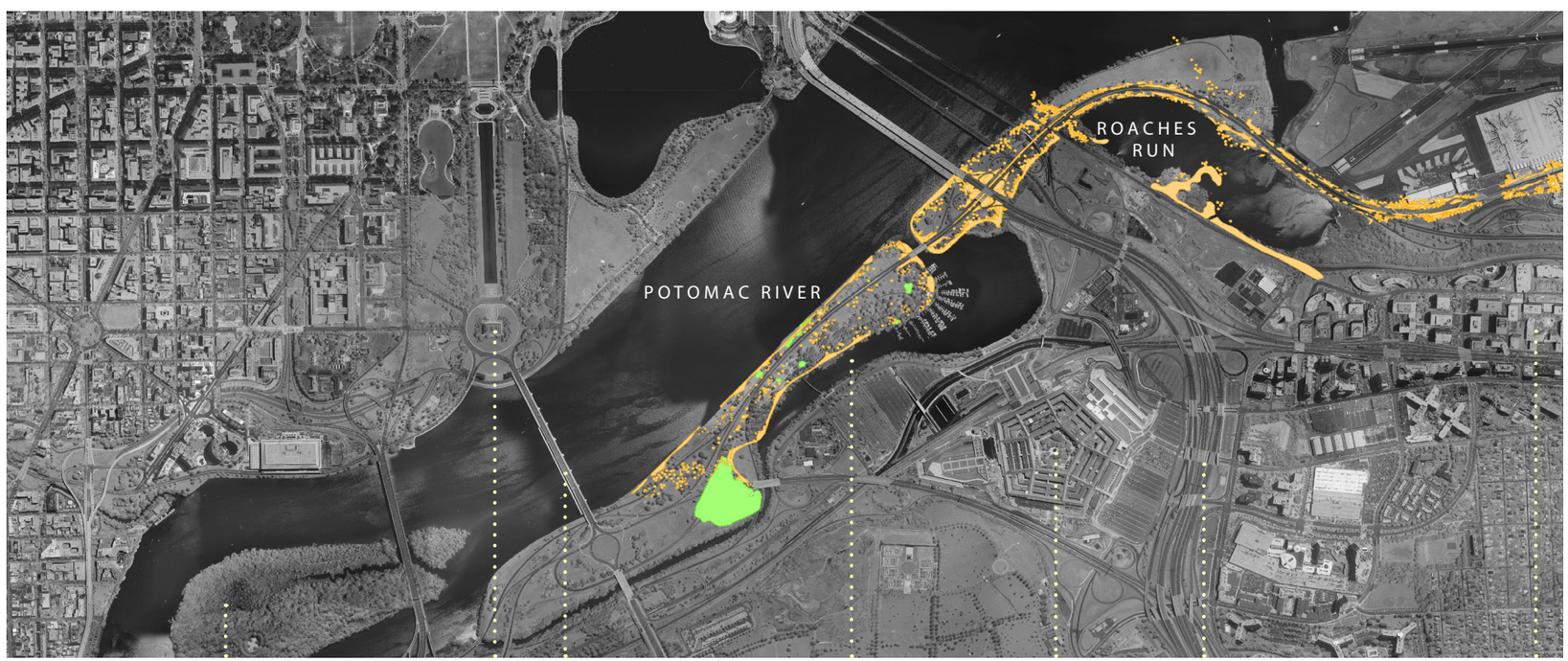
2009 Planting Composite 180

1932 SIMONSON PLAN

The first planting plan for the Mount Vernon Memorial Highway/George Washington Memorial Parkway was Wilbur Simonson's 1932 planting plan, the only plan that extended the entire length of the central section (and all the way to Mount Vernon). Shown here in an overall view, Simonson's plan creates a dynamic sequential experience for motorists, revealing views of the capital's monuments and the Potomac River and creating a contrasting but complementary experience of being along the water's edge and then being fully enclosed by vegetation. His plan highlights the innovative engineering features of the Parkway with ornamental plantings and also evokes a sense of the Virginia landscape with his plant palette.

The majority of the plantings are naturalistic in character, and their physical layout does not appear contrived or deliberate. The eastern side often consists of groupings of species and scattered individual trees to allow views to the Potomac River and the monuments of Washington DC. The western edge, by contrast, is more densely planted, presumably to screen adjacent railroad yards and to direct attention to the other side of the Parkway. There are moments of greater formality within the design, for example at the entrance to Alexandria, where the plantings become loosely symmetrical on both sides of the road and a formal planting of lindens lines the traffic circle. Ornamental plants usually are closer to the road and more visible to passing travelers, and often, a flourish of ornamental plant material cues people to places of technological innovation and places with important views.

Simonson's overall plan (for the entire Mount Vernon Memorial Highway) calls for a diverse plant palette including 28 varieties of shade trees, 18 medium size trees, 37 ornamental trees, 4 evergreen species, 101 shrubs, 17 vines, 8 perennials and 2 groundcovers. Most heavily used in his plan are several spe-



RIGHT AND LEFT PAGE
(2004 Aerial) with existing (green) and proposed (orange) vegetation for the 1932 Simonson Plan.
1932 Simonson Plan
(NPS TIC 850/80156, NPS TIC 850/85197A)

cies of oaks, maples, elms and other species characteristic of the Virginia landscape. In the entire central section, he only specifies four individual evergreens (of one species), deodar cedars (*Cedrus deodara*), near the cloverleaf interchange with the 14th Street Bridge. There are many more shrubs and vines than later plans propose. Shrubs are used to stabilize the banks of the shoreline, as ornament and as filler, and vines line the guardrails and lampposts. With so much more vegetation at eye-level, the Parkway in Simonson's design would have had a very different appearance than it does today.

Physical Changes

Significant changes to the existing land were needed to construct the original Mount Vernon Memorial Highway. An entirely new roadway was constructed and new causeways were created to carry it across the mouths of several tributaries. A cloverleaf interchange was constructed at the 14th Street Bridge as well as several bridges and intersections that required significant grading of the land.



1936 PLANS

In 1936, just four years after Simonson's plan was implemented, two additional plans were implemented along the western edge of the Parkway between Alexandria Circle and Four Mile Run. The first plan calls for large groupings of pines on the western side to screen the Parkway from the adjacent railroad activity at Potomac Yards. (The railroad yards are clearly visible in the 1943 aerial photograph in Chapter 2.) The plan adds more than one thousand pines of four different species, and these are the first major planting of evergreens in the central section.

The second plan further increases this buffer. It adds about four hundred more pines and groups of about two hundred and fifty deciduous trees including maples, elms, oaks and sycamores. Other than the pines, the species are similar to Simonson's plant palette. Most of the trees from the second plan are located directly behind the previously planted pines.

There were no more planting plans for this western side of the Daingerfield Island character area after 1936.

Physical Changes

There were no significant changes to the landform or roadways in this area.



RIGHT AND LEFT PAGE
(2004 Aerial) with existing (green) and proposed (orange) vegetation for the 1936 plans.
1936 MVMH Supplemental Planting Plan -Mar
(NPS TIC 850/85168)
1936 MVMH Tree Planting [North of Alexandria]-Nov
(NPS TIC 850/85073)



proposed
existing

0
500
1000
1500
2000
scale

north

1940s AIRPORT PLANS

Two planting plans were implemented in 1942 and 1949 in response to the construction of National Airport and the relocation of the Parkway in 1940. The 1942 plan focuses on the two entrances to the airport, and the 1949 plan addresses the new stretch of the Parkway between the entrances.

The 1942 plan calls for a loose arc of elms, other shade trees, flowering trees and shrubs to accentuate the northern entrance to the airport. (Some of the trees did not survive but were replaced in 1949 and still remain today.) The southern entrance is also marked with elms including a short, formal allee just before arriving at the airport proper.

The 1949 plan proposes vegetation along the new roadway between the two entrances. Almost three hundred large canopy trees are proposed on both sides of the Parkway including elms, several species of oaks and other deciduous species. A significant amount of ornamental trees are also used including dogwoods, hawthorns and cherries. The larger canopy trees are grouped together by species with the ornamental trees scattered among them. The undulating layout of the trees creates a series of rooms and a fluid sense of movement as one progresses along the Parkway.

Physical Changes

All of Simonson's plantings were eliminated in this section to accommodate the airport, including Capital Overlook. The Parkway was relocated to the west and the original alignment became the location of the main internal airport roadway. A significant amount of landfill was added into the river for the runways. With the more westerly alignment of the new roadway, the Parkway was separated from the river, changing the experience in this section from an elevated view of the river to a series of enclosed rooms.



RIGHT AND LEFT PAGE
(2004 Aerial) with existing (green) and proposed (orange) vegetation for the 1940s plans.
1942 National Airport
(NPS TIC 850/85167)
1949 Section through National Airport
(Planted Spring 1950) (NPS TIC 850/85291)



'40 Realigned Parkway New Airport Entrance Four Mile Run Daingerfield Island Alexandria Circle Washington Street I-95 Hunting Creek

proposed
existing

0
500
1000
1500
2000
scale

north

1963 PLAN

A comprehensive planting plan was installed in 1963 covering the area between the 14th Street Bridge and Alexandria. It is the only plan after Simonson's that addresses the entire central section of the Parkway. The plan responds to several changes in the roadway and to the adjacent land, including the removal of Alexandria Circle, the addition of a second lane of the Parkway at Daingerfield Island, and the filling of Gravelly Point. Whereas Simonson's plan had created a varying character along the Parkway, the 1963 plan creates a more consistent character, calling for new trees along many stretches that previously had been open. It is perhaps the most influential plan in creating the present day character of the Parkway.

In Alexandria, the plan addresses the new traffic pattern, and it changes the formal character of Alexandria Circle to an informal one. Just north of Alexandria the plan fills in gaps in the plantings along the roadway in a fairly symmetrical manner, gradually becoming less symmetrical closer to Daingerfield Island. All along Daingerfield Island trees are clustered in small groups on the eastern edge of the new roadway making it more like the western side than it had been in Simonson's plan. Many willow oaks (*Quercus phellos*) had been planted in the median at Daingerfield Island, probably in the 1940s, and new ones are added into the existing group. (Today these oaks are among the most prominent trees in the central section of the Parkway.) At the airport, trees are planted along the southern portion on both sides of the Parkway, but in the northern portion they are concentrated on the eastern side to screen a large structure (the T-7 building) visible in the 1943 and 1959 aerial photographs. At Gravelly Point, maples, oaks, willows, pines and dogwoods are planted in small clusters of three to five trees along the eastern side of the roadway. Together with the change in landform, these trees changed Gravelly Point's character from

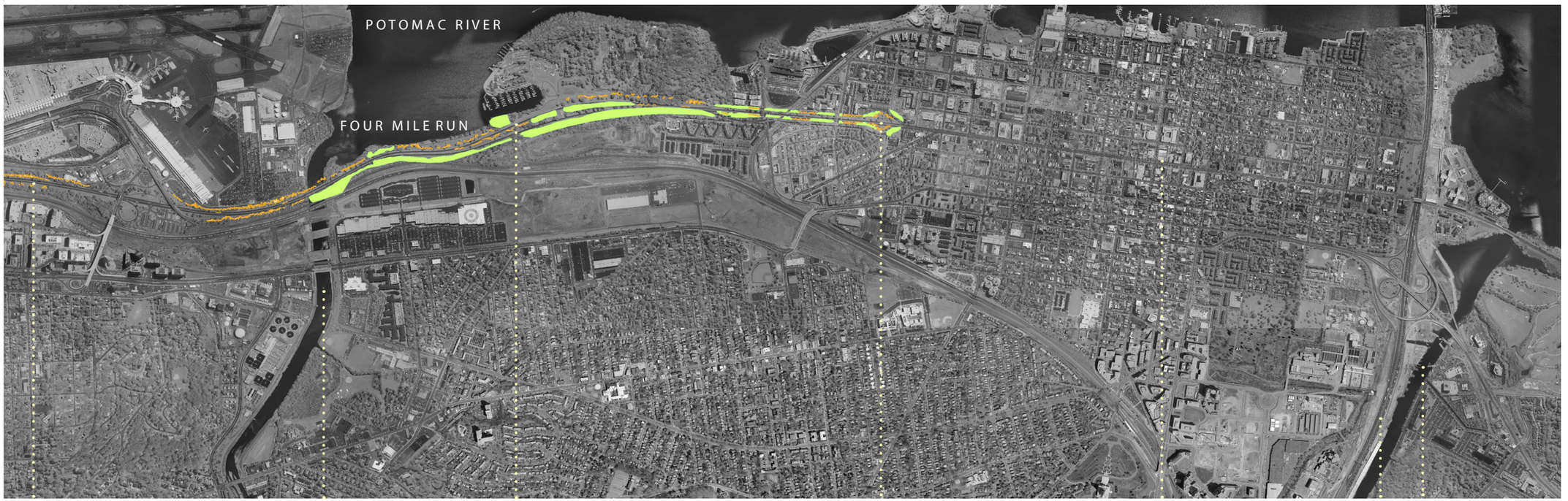


RIGHT AND LEFT PAGE
(2004 Aerial) with existing (green) and proposed (orange) vegetation for the 1963 plan.
1963 14th St. Bridge to Alexandria
(NPS TIC 850/85634A)

being an open causeway with a direct experience of the river to having a more protected feel with trees along the roadway and the river in the distance.

Physical Changes

By the 1960s, a significant amount of fill was added to Gravelly Point changing the original narrow causeway to a large open park along the edge of the river. At Daingerfield Island, the marina was added in 1958 and a second roadway was added in 1961 making a divided highway with a wide planted median to avoid the maturing trees planted in earlier periods. Also in 1961, Alexandria Circle was removed, and the Parkway was realigned through the center of the former circle.



proposed
existing

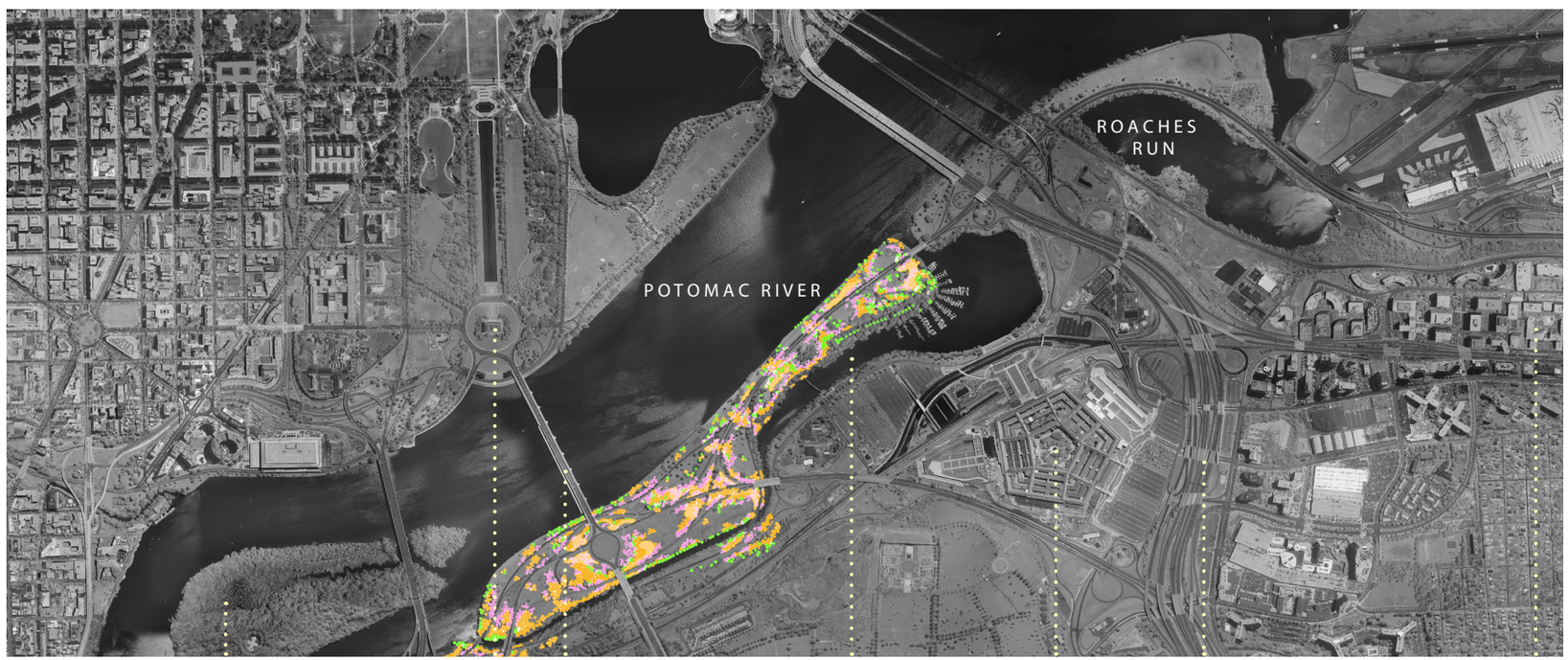
0
500
1000
1500
2000
scale

north

1968 STONE PLAN

In 1968, Edward D. Stone, Jr. designed a planting plan for Columbia Island, which was subsequently renamed Lady Bird Johnson Park in honor of the First Lady's efforts to beautify the capital. Because the connection between Memorial Bridge and the original Mount Vernon Memorial Highway had not been resolved in 1932 when Simonson designed the original planting plan, there had never been a comprehensive plan for the island. Like Simonson's plan, though on a smaller scale and with a different plant palette and character, Stone creates a varied spatial experience consisting of a series of internally-focused rooms for safer traffic flow and outward-looking rooms with views of the monuments across the river. He proposes repetitive bands of vegetation crossing the Parkway making a series of thresholds that further emphasize the different spaces. His plan has a grand vision calling for thousands of deciduous trees, evergreens and flowering trees and integrating with the existing vegetation including some of the remaining trees from Simonson's plantings. Daffodil beds add color across the island in the springtime.

The plan was implemented in phases over the course of five decades as funding was available. In the spring of 1968, the first phase of plantings was installed around Memorial Circle, mostly oaks, maples, dogwoods and pines near the bridge pylons. Few of the dogwoods survived, and they have been repeatedly replanted through the ensuing decades. Much of Stone's plan was implemented between the 1980s and 2000s.



RIGHT AND LEFT PAGE
(2004 Aerial) with existing (green), dogwoods (pink) and proposed (orange)vegetation for the 1968 Stone Plan.
1968 Stone Plan
(NPS TIC 835/41000)

Physical Changes

The original roadways on Columbia Island changed significantly after initial construction in 1932. The connection between Memorial Bridge and the Parkway was finalized in the late 1930s as a circle with a set of roughly elliptical, symmetrical arcs carrying much of the traffic. After construction of the Pentagon in the early 1940s, new roads were added to connect it to the existing roadways, which represents the current road network.

proposed
dogwood
existing



'40 Realigned Parkway | Four Mile Run | Daingerfield Island | Alexandria Circle | Washington Street | I-95 | Hunting Creek

0
500
1000
1500
2000
scale

north

1975 PALMER PLAN

In 1975, a living memorial to President Lyndon Baines Johnson was installed within Lady Bird Johnson Park. Meade Palmer was appointed landscape architect on the project, and sculptor Harold Vogel was chosen to design the focal point of the memorial, a megalith of pink Texas granite.

Palmer's plan consists of two complimentary areas: a pine grove encircling the granite megalith and an open grassed area bordered by a mixture of existing and proposed trees, shrubs and wildflowers. More than seven hundred white pines (*Pinus strobus*) enclose a central plaza and open up to frame a broad, panoramic view of the other presidential memorials and the U.S. Capitol. In contrast, the grassed area is surrounded with mixed deciduous, evergreen and ornamental trees and is meant for contemplation, picnicking, and other passive recreation. A curvilinear pathway encircles it, and wildflowers, daffodils and shrubs along its edge add greater diversity and richness to the plant palette. The main entrance to the grove is across a pedestrian bridge over Boundary Channel.

Physical Changes

To accommodate the memorial the marina parking lot was shortened at the northern end, and additional parking and boat storage were added along Boundary Channel.



RIGHT AND LEFT PAGE
(2004 Aerial) with existing (green) and proposed (orange) vegetation for the 1975 Palmer Plan.
1975 Palmer Plan, Lyndon B. Johnson Memorial Grove
(NPS TIC 835/80013Z1)



'40 Realigned Parkway | Four Mile Run | Daingerfield Island | Alexandria Circle | Washington Street | I-95 | Hunting Creek

proposed
existing

0
500
1000
1500
2000
scale

north

ALEXANDRIA TO FOUR MILE RUN
1932 Simonson Plan

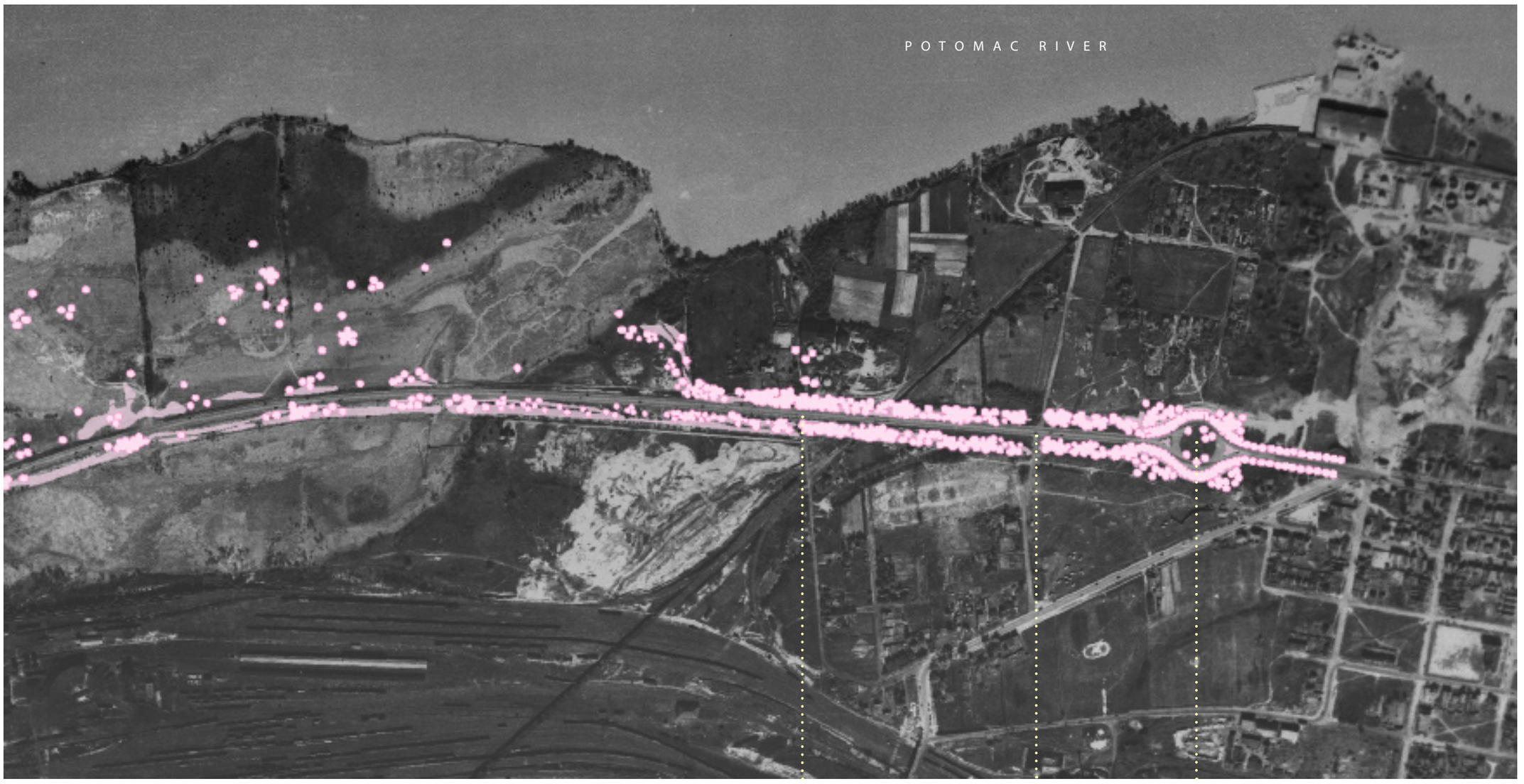
The Parkway segment from Alexandria to Four Mile Run contains two character areas: Alexandria Circle and Daingerfield Island. (See 2009 Composite for character area boundaries, pp. 100-101.)

The varied character of Simonson's planting design is clearly visible along Daingerfield Island and the approach to Alexandria. The formality of Alexandria Circle is quite distinct from the loose symmetry of the approach to it, and both these areas differ from the asymmetric condition along Daingerfield Island and the mouth of Four Mile Run. There the vegetation is planted in small clusters on the eastern side with large open spaces that allow travelers to view and experience the river closely, whereas the western side is a continuous wall of dense plantings to screen the adjoining swamp and railroad yards.

There are important differences between areas where individual trees are called out and swaths of mixed species. Along the western side many of the plantings consist of thickets of trees and shrubs planted as masses to grow into a naturalized wall of vegetation. Presumably they are intended to be seen as a continuous wooded swath not as individuals. This is quite different from the approach to Alexandria where the trees lining the roads are identified on the plan as individuals planted in roughly symmetrical groupings on either side of the roadway. They still create a continuous wall of vegetation, but one composed of specific, individual trees rather than the planted woods further north.



RIGHT AND LEFT PAGE
(1937 Aerial) with the existing vegetation in 1932.
1932 Simonson Plan (pink)
(NPS TIC 850/80156, NPS TIC 850/85197A)



1932

0
150
300
450
600
scale

north

ALEXANDRIA TO FOUR MILE RUN
1936 Plans

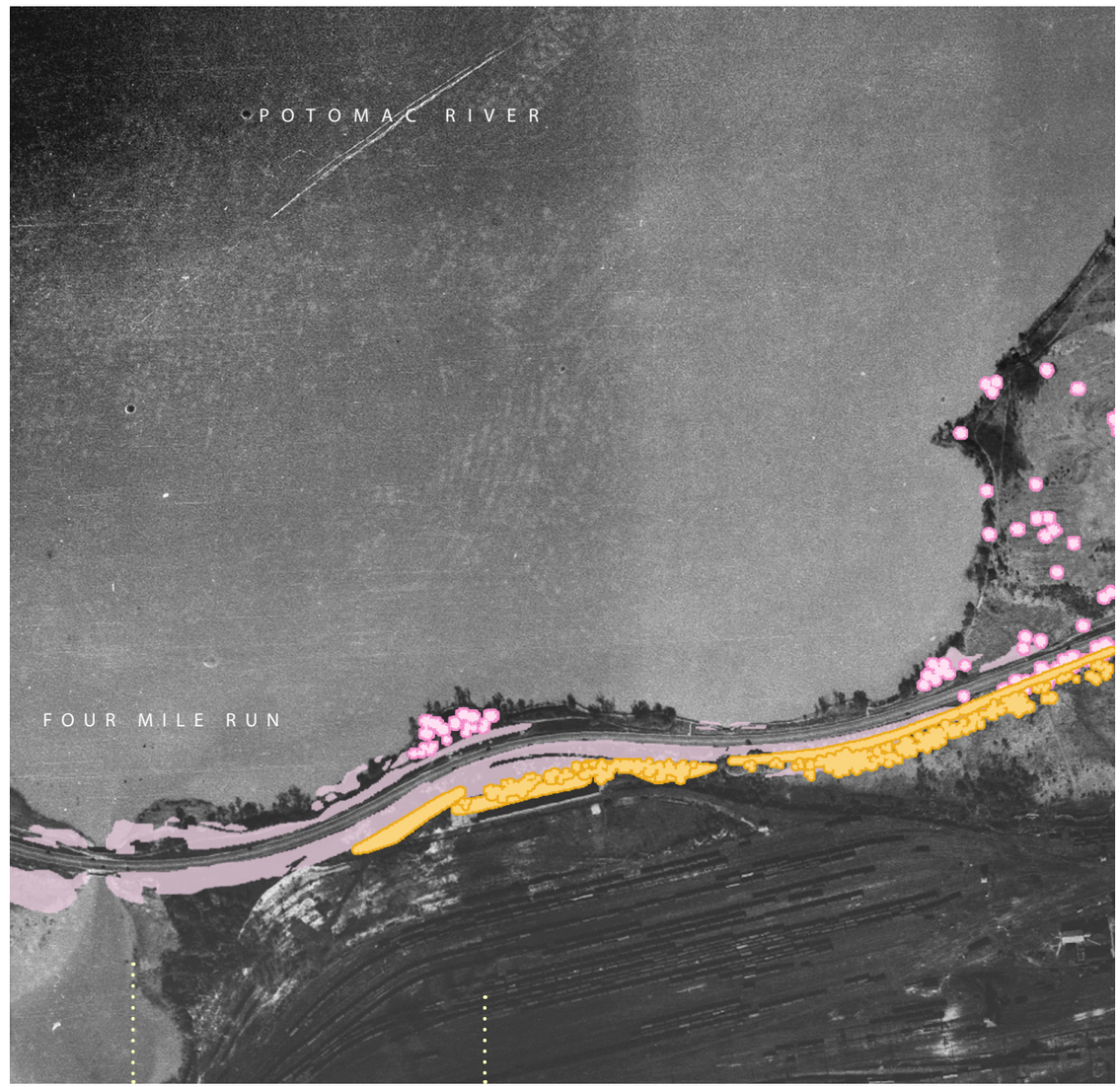
Two additional plantings of trees were added in 1936 soon after Simonson's plantings were installed. The first planting consists of over one thousand pines planted adjacent to the western side of the Parkway, further screening it from the railroad activity at Potomac Yards. The plan uses four species of pines, the first major planting of evergreens along the central section of the Parkway. Red pine (*Pinus resinosa*) dominates, along with Scots pine (*P. sylvestris*), white pine (*P. strobus*) and Virginia pine (*P. virginiana*). They are planted in large groupings along the entire western side of this stretch.

The second set of plantings adds about 250 deciduous trees and 400 more pines to the previous plantings to further increase the buffer. The species mixture is similar to Simonson's—maples, elms, oaks, and sycamores—but it also includes more white pine (*P. strobus*). Most of these trees are planted in groups of a single species.

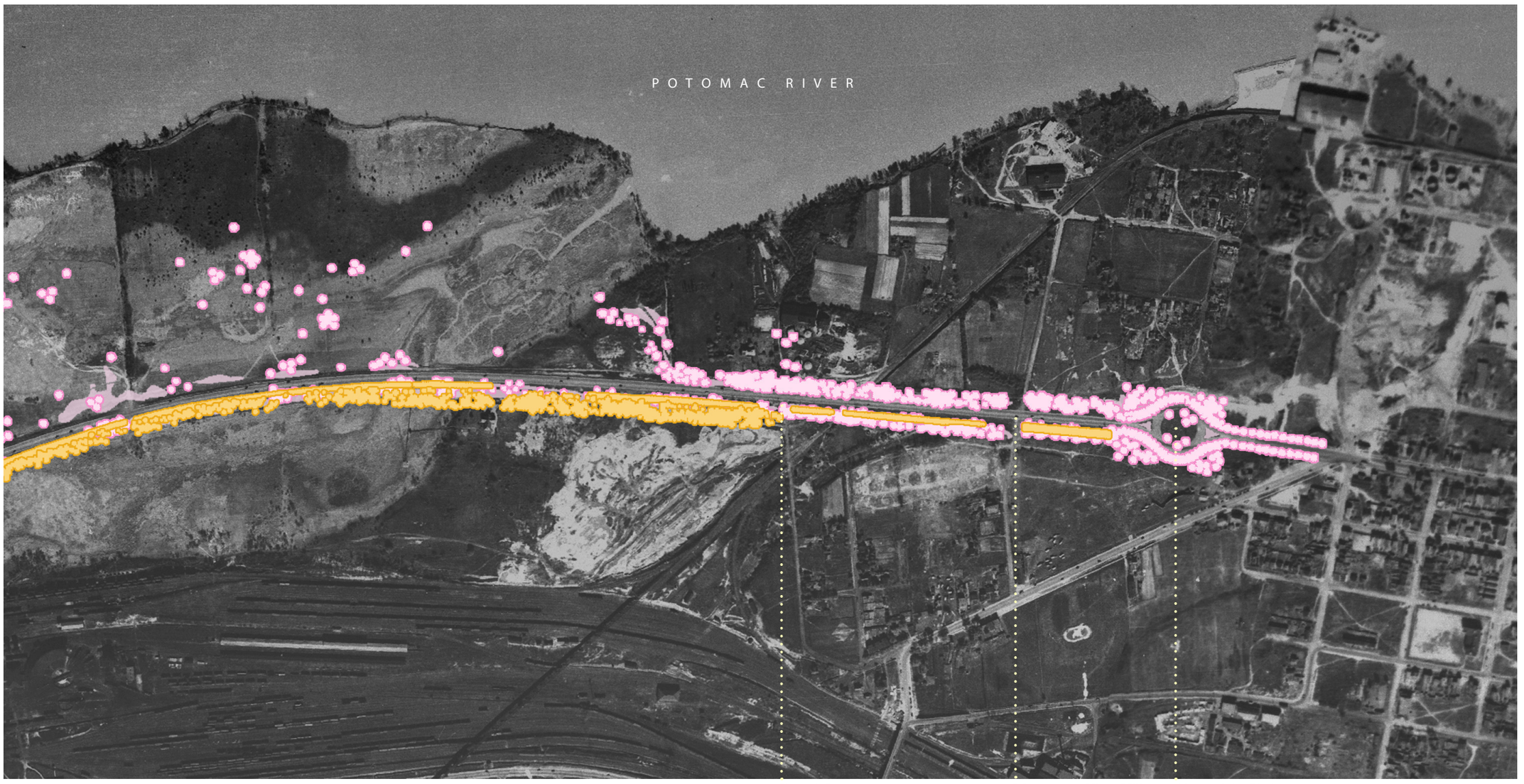
These are the last plantings along the western edge of Daingerfield Island.

Physical changes

There were no significant changes to the Parkway at this time.



RIGHT AND LEFT PAGE
(1937 Aerial) with the existing vegetation in 1936.
1932 Simonson Plan (pink)
(NPS TIC 850/80156, NPS TIC 850/85197A)
1936 MVMH Supplemental Planting Plan -Mar (orange)
(NPS TIC 850/85168)
1936 MVMH Tree Planting [North of Alexandria]-Nov (orange) *(NPS TIC 850/85073)*



1932
1936

0
150
300
450
600
scale

north

ALEXANDRIA TO FOUR MILE RUN
1940s

Numerous trees in the present-day median do not conform to any known plan. The large willow oaks (*Quercus phellos*) probably date to the 1940s or slightly earlier. Willow oaks were planted on the west side of the highway in 1932, but none were called for on the eastern side. The trees are not evident in the 1943 aerial photograph, but they show up as medium size trees by the time of the 1959 aerial photograph. In the summer of 2007, three of them were cut down, and ring counts revealed them to be about 75 years old, the same age as the Parkway. Assuming they were about five years old or older at the time of planting, they likely were planted in the early '40s.

At the time of planting, there was only one roadway, and the willow oaks were planted in a gentle arc set back from the roadway. Nearer to the roadway are other trees that also do not conform to any known plan and may also date to the same time period. Most conspicuous is a set of lindens lining the side of the southbound lanes of traffic. Other mature shade trees of mixed species grow amidst the lindens.

Physical changes

There were no significant changes to the Parkway at this time.



RIGHT AND LEFT PAGE
(1959 Aerial) with the existing vegetation in 1940s.
1932 Simonson Plan (pink)
(NPS TIC 850/80156, NPS TIC 850/85197A)
1936 MVMH Supplemental Planting Plan -Mar (orange)
(NPS TIC 850/85168)
1936 MVMH Tree Planting [North of Alexandria]-Nov (orange) *(NPS TIC 850/85073)*
1940s Willow Oaks and Lindens (yellow)
No Known Plan



1932
1936
1940s

0
150
300
450
600
scale

north

ALEXANDRIA TO FOUR MILE RUN
1960s PLANS

The last major plantings at Alexandria Circle and along Daingerfield Island were part of the overall 1963 planting plan and responded to changes to the alignment of the Parkway and to the shoreline. New trees are added where the circle used to be, in a much less formal manner than the previous plantings. Red maple (*Acer rubrum*), sugar maple (*A. saccharum*), white pine (*Pinus strobus*), and scarlet oak (*Quercus coccinea*) are planted in the two new semi-circular plating areas as tall shade trees, and eastern redbud (*Cercis canadensis*), flowering dogwood (*Cornus florida*) and American holly (*Ilex opaca*) are added as ornamental trees. New shrub masses replace the former flourish of ornamental trees and shrubs at the north end of the circle . Portions of the earlier linden allee remain on the north side of the new plantings, as do some of the elms and oaks around the periphery of the character area.

Along Daingerfield Island, new vegetation lines the eastern side, filtering the view of the marina but otherwise obscuring many other views. Vegetation is added to the center median plantings including new oaks, and maples. Numerous trees have volunteered along the edge of the river.

Physical Changes

With the construction of National Airport, the Parkway shifted slightly to the west at the mouth of Four Mile Run, which itself was channelized into a narrow stream. The marina was excavated and developed at Daingerfield Island in 1958, and in 1961 a second lane of traffic was added with a wide median to preserve the willow oaks. Additional fill was added along the river. Alexandria Circle was removed in 1961, and the new roadway bisects the former circle, creating two elongated semicircles.



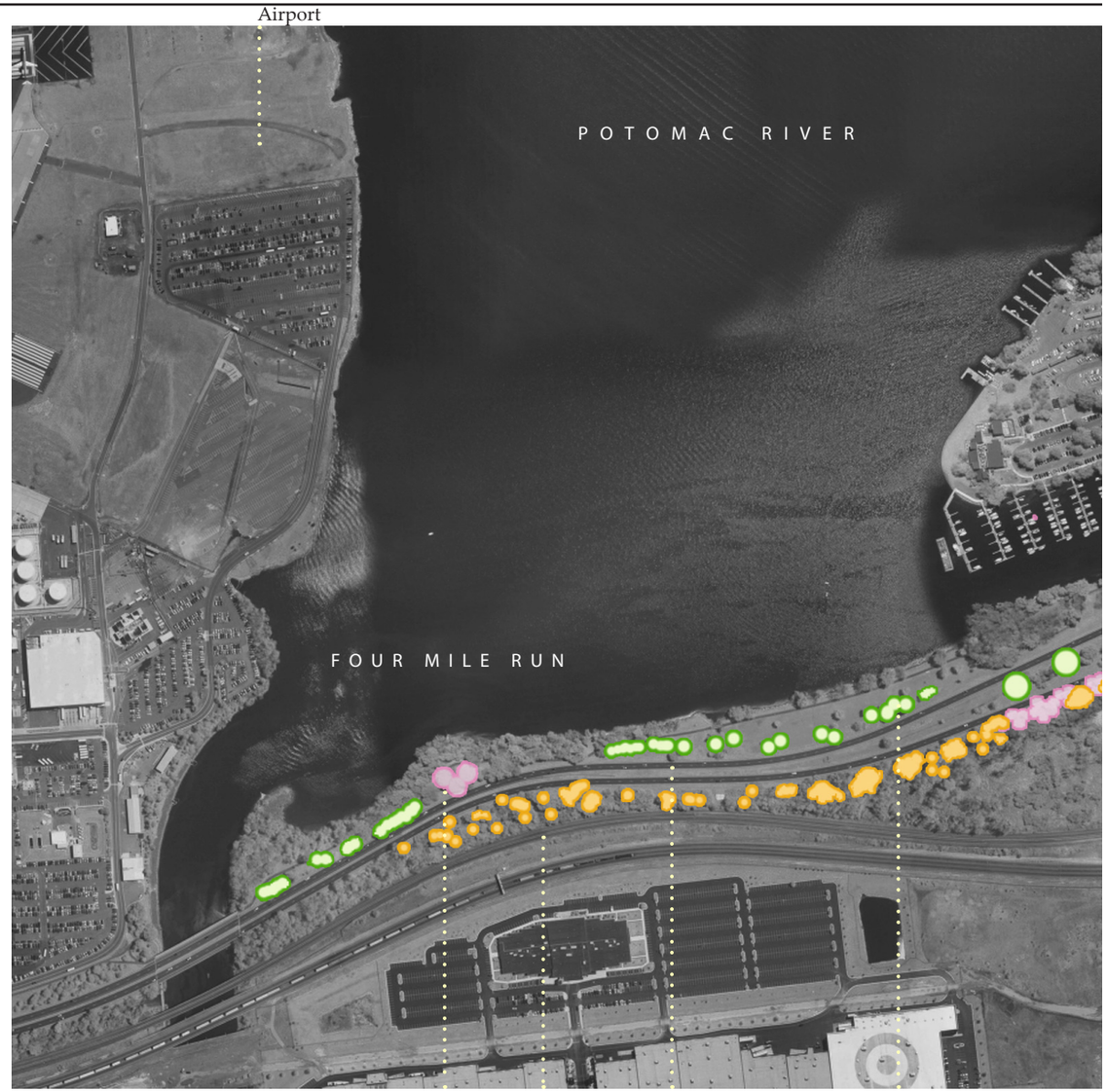
RIGHT AND LEFT PAGE
(1985 Aerial) with the existing vegetation in 1960s.
1932 Simonson Plan (pink)
(NPS TIC 850/80156, NPS TIC 850/85197A)
1936 MVMH Supplemental Planting Plan -Mar (orange)
(NPS TIC 850/85168)
1936 MVMH Tree Planting [North of Alexandria]-Nov (orange) *(NPS TIC 850/85073)*
1940s Willow Oaks and Lindens (yellow)
No Known Plan
1963 14th St. Bridge to Alexandria (green)
(NPS TIC 850/85634A)
1967 Portion of GW PKWY at North Approach to Alexandria, Rev 1969 (med green) *(NPS TIC 850/85869)*


POTOMAC RIVER
1932
1936
1940s
1963
1967
0
150
300
450
600
scale
north
'61 Northbound Parkway
Slater's Lane
Monument View Hill
Alexandria Circle

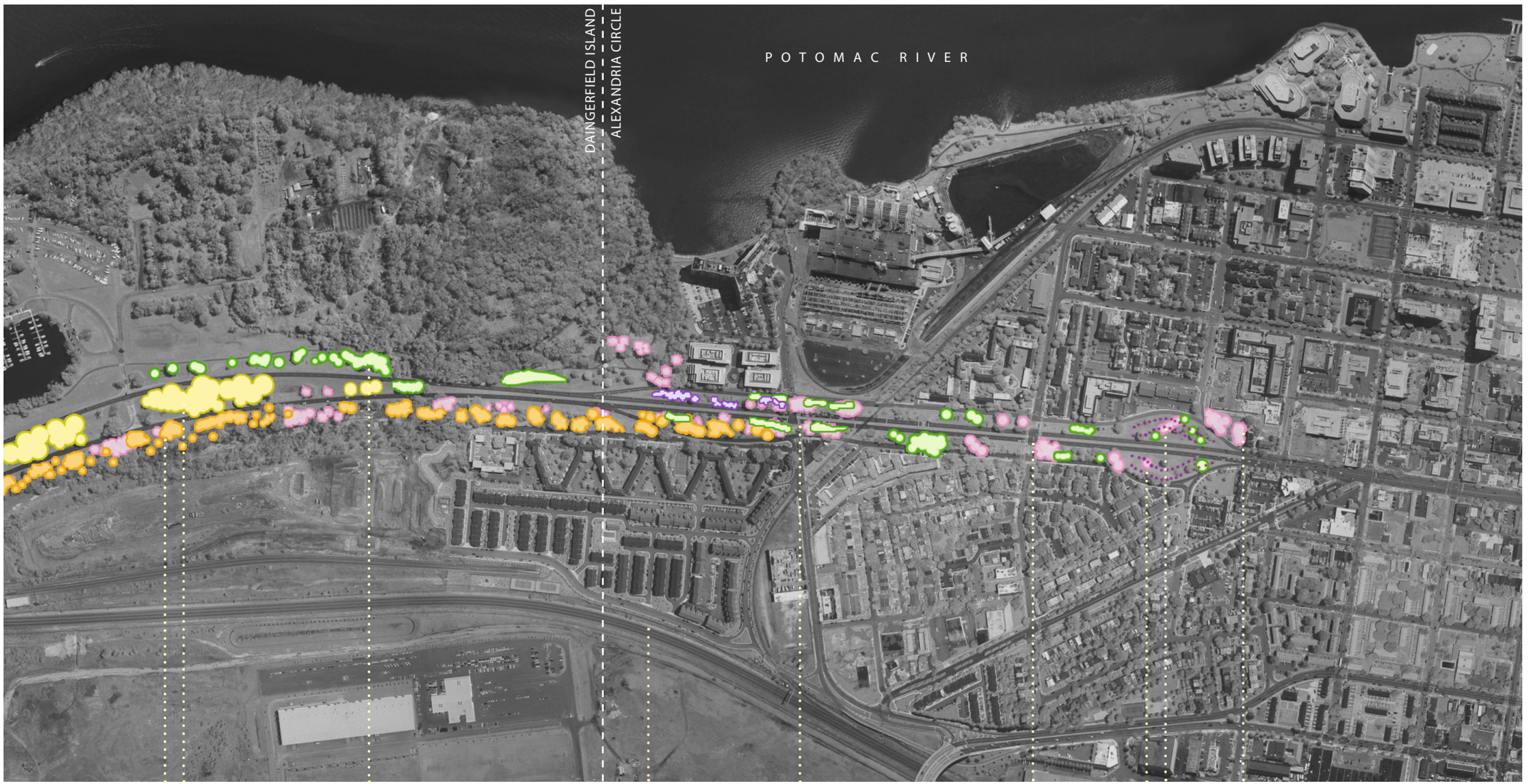
ALEXANDRIA TO FOUR MILE RUN
2009 Planting Composite

In 2009, a mixture of vegetation from the three major planting plans remains along the stretch of the Parkway from Alexandria to Four Mile Run, as shown in the composite palimpsest. There are significant numbers of Simonson's plantings along the approach to Alexandria Circle with trees from the 1963 plan added to them. Some elms and willow oaks from the 1932 plan remain outside the former Circle, but most of the mature trees within it date to 1963 or do not pertain to any known plan. Along Daingerfield Island, the naturalized western edge pertains to the 1932 and 1936 planting plans. In the median there are a few elms and one pin oak (*Quercus palustris*) remaining from 1932 along with some additional trees from the 1960s. Some of the most noticeable trees are the large willow oaks (*Q. phellos*), from the 1940s. Along the eastern edge, a small group of oaks remains from 1932 at the northern end near Four Mile Run, but most of the vegetation is from the 1963 plan or volunteer vegetation along the shoreline.

In 1967, fifty dogwoods, two crabapples, and one Japanese maple (*Acer palmatum*) were donated and installed in the vicinity of the circle. Few if any of these trees remain. A small planting plan in 1983 addressed a new housing development on the eastern side of the Parkway near Slater's Lane, and most of this vegetation is still present. The plan integrates oaks, dogwoods, pines and two species of shrubs into a group of large willow oaks (*Quercus phellos*) from Simonson's plan. A set of little leaf lindens (*Tilia cordata 'Corinthian'*) was planted at the former circle to rehabilitate the original plantings. They are not planted in the same numbers as the original, nor do they trace the same semi-circular pattern of the originals.



RIGHT AND LEFT PAGE
(2004 Aerial) with the existing vegetation in 2009.
1932 Simonson Plan (pink)
(NPS TIC 850/80156, NPS TIC 850/85197A)
1936 MVMH Supplemental Planting Plan -Mar (orange)
(NPS TIC 850/85168)
1936 MVMH Tree Planting [North of Alexandria]-Nov (orange) *(NPS TIC 850/85073)*
1940s Willow Oaks and Lindens (yellow)
No Known Plan
1963 14th St. Bridge to Alexandria (green)
(NPS TIC 850/85634A)
1967 Portion of GW PKWY at North Approach to Alexandria, Rev 1969 (med green) *(NPS TIC 850/85869)*
1983 Landscape Plan Vicinity Slater's Lane GWMP (purple) *(NPS TIC 850/80264)*
1998 Gateway Concept Master Plan (magenta)
(City of Alexandria)



0
150
300
450
600
scale

north

ALEXANDRIA CIRCLE

Plant Palette

Shade, Ornamental and Evergreen Trees

Several new species of trees are added to the plant palette in the later plantings, and many from Simonson's plan were no longer planted. Most significant, three species of pines were added to the plant palette in 1936: red pine (*Pinus resinosa*), Scots pine (*P. sylvestris*) and white pine (*P. strobus*). Other than the four deodar cedars (*Cedrus deodara*) near the 14th Street Bridge, these were the first evergreens planted in the central section of the Parkway. American holly (*Ilex opaca*) was added as a new species in 1963, but it is listed with the ornamental trees on the plan rather than as an evergreen. The 1963 plan also introduced new shade tree species to the character area: sugar maple (*Acer saccharum*) and tulip poplar (*Liriodendron tulipifera*). They were planted in the divided circle and along the approach to the circle in spaces between existing vegetation. Eastern redbud (*Cercis canadensis*) and black cherry (*Prunus serotina*) were also added in 1963 as ornamental trees. Of the ornamental trees donated in 1967 and 1968, Japanese maple (*Acer palmatum*) had not been used in any other character area, but flowering dogwood (*Cornus florida*) had been planted extensively, and Japanese flowering crabapple (*Malus floribunda*) had been planted at the Four Bridges and on Columbia Island. The Japanese maple and crabapples donated and planted in 1968 are merely annotated on the 1967 plan and dated 1969. The location of their planting is not indicated.

RIGHT PAGE
1932 Simonson Plan *Sheet 16-17. (NPS TIC 850/80156, NPS TIC 850/85197A)*
1936 MVMH Supplemental Planting Plan -Mar *(NPS TIC 850/85168)*
1936 MVMH Tree Planting [North of Alexandria]-Nov *(NPS TIC 850/85073)*
1963 14th St. Bridge to Alexandria *(NPS TIC 850/85634A)*
1967 Portion of GW PKWY at North Approach to Alexandria, Rev 1969 *(NPS TIC 850/85869)*
1983 Landscape Plan Vicinity Slater's Lane GWMP *(NPS TIC 850/80264)*

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963	1967	1968	1983	1998
Tilia cordata	**Littleleaf Linden**	**89**							
Gleditsia triacanthos	**Honeylocust**	**76**							
Ulmus americana	**American Elm**	**56**							
Quercus palustris	**Pin Oak**	**52**		23					
Acer rubrum	**Red Maple**	**37**			4				
Quercus phellos	Willow Oak	28						5	
Tilia × europaea (T. vulgaris [32] *)*	Common Linden	25							
Quercus macrocarpa	Bur Oak	16							
Platanus orientalis	Oriental Planetree	14							
Ulmus procera (U. campestris [32] *)*	English Elm	7							
Quercus coccinea	Scarlet Oak	3		23	7				
Quercus rubra (Q. borealis [63] *)*	Red Oak	1			10				
Acer saccharum	Sugar Maple				11				
Liriodendron tulipifera	Tuliptree				5				
Platanus hybrida 'Bloodgood' *(P. acerifolia* 'Bloodgood' [98] *)*	Bloodgood London Planetree								?[5]
Tilia cordata 'Corinthian'	Corinthian Linden								49?[5]
Ulmus americana 'Princeton'	Princeton American								?[5]

MEDIUM SIZED TREES

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963	1967	1968	1983	1998
Carpinus betulus	**European Hornbeam**	**188**							
Carpinus caroliniana	**American Hornbeam**	**93**							
Maclura pomifera	Osage Orange	15							
Phellodendron amurense	Amur Corktree	3							

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963	1967	1968	1983	1998
Crataegus phaenopyrum (C. cordata [32] ***)***	**Washington Hawthorn**	**86**							
Crataegus crus-galli	Cockspur Hawthorn	43							
Cornus florida [1]	Flowering Dogwood	40			13	* 50			
Koelreuteria paniculata	Golden Raintree	30							
Prunus serrulata var sachalinensis [32]	Japanese Flowering Cherry	30							
Malus × atrosanguinea	Carmine Crabapple	24							
Crataegus mollis	Downy Hawthorn	23							

ORNAMENTAL TREES (cont.)

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963	1967	1968	1983	1998
Styrax japonicus	Japanese Snowbell	19						6	
Cornus kousa	Chinese Dogwood	15						8	
Acer ginnala	Amur Maple	14							
Malus zumi (M. sieboldii [32] *)*	Toringa Crabapple	13							
Crataegus punctata	Dotted Hawthorn	12							
Malus halliana var parkmanii	Parkman Crabapple	11							
Prunus serrulata	Japanese Flowering	10							
Crataegus × anomala (C. arnoldiana [32] *)*	Arnold Hawthorn	8							
Cornus mas	Cornelian Cherry	5							
Cornus florida 'Rubra'	Pink Flowering	4							
Diospyros virginiana	Common Persimmon	3							
Malus floribunda [2]	Japanese Flowering	3					* 2		
Acer palmatum [2]	Japanese Maple						* 1		
Cercis canadensis	Eastern Redbud				4				
Prunus serotina	Black Cherry				3				

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963	1967	1968	1983	1998
Ilex opaca [3]	American Holly				3				
Pinus resinosa	Red Pine		70						
Pinus strobus [4]	White Pine		96	62	25				
Pinus sylvestris	Scots Pine		195						

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
? Quantity unknown.
1 Annotation "50 dogwood donation planting 4/67 in former circle and southern quadrants on 1969 plan (850/85869).
2 Annotation "Kinney donation 1-Jap. Maple, 2-Fl. Crab 6/68" (NPS TIC 850/85634A). Location not indicated.
3 *Ilex opaca* listed as flowering tree on the 1963 plan.
4 *Pinus strobus* listed as shade tree on the 1963 plan.
5 Unknown or not specified.

ALEXANDRIA CIRCLE

Plant Palette

Shrubs, Vines, Perennials and Groundcover

New species of shrubs were added to the approach and extend into the circle including mapleleaf viburnum (*Viburnum acerifolium*), blackhaw (*V. prunifolium*), red chokeberry (*Photinia pyrifolia*, formerly *Aronia arbutifolia*), and common witchhazel (*Hamamelis virginiana*). Notes do not indicate how the shrubs are grouped; perhaps additional planting direction was given at the time of planting or in separate correspondence. Except for spicebush (*Lindera benzoin*) used in 1963, Simonson's shrubs were not planted after 1932 and neither were the vines. At some point, mown grass replaced Japanese honeysuckle (*Lonicera japonica* 'halliana') as the ubiquitous groundcover in the former circle.

RIGHT PAGE
1932 Simonson Plan *Sheet 16-17. (NPS TIC 850/80156, NPS TIC 850/85197A)*
1936 MVMH Supplemental Planting Plan -Mar *(NPS TIC 850/85168)*
1936 MVMH Tree Planting [North of Alexandria]-Nov *(NPS TIC 850/85073)*
1963 14th St. Bridge to Alexandria *(NPS TIC 850/85634A)*
1967 Portion of GW PKWY at North Approach to Alexandria, Rev 1969 *(NPS TIC 850/85869)*
1983 Landscape Plan Vicinity Slater's Lane GWMP *(NPS TIC 850/80264)*

SHRUBS

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963	1967	1968	1983	1998
Ligustrum ovalifolium	**California Privet**	**2135**							
Rosa multiflora	**Multiflora Rose**	**715**							
Rosa nitida	**Shining Rose**	**470**							
Lonicera fragrantissima	**Sweet Breath of**	**365**							
Frangula caroliniana (Rhamnus caroliniana [32])	**Carolina Buckthorn**	**302**							
Viburnum dentatum	Arrowwood Viburnum	226							
Lonicera tatarica	Tatarian Honeysuckle	185							
Rhus aromatica (R. canadensis [32])	Fragrant Sumac	170							
Lonicera morrowii	Morrow's Honeysuckle	155							
Ligustrum ibota var regelianum	Privet	150							
Hypericum frondosum (H. aureum [32])	Cedarglade St Johnswort	130							
Rosa rugosa	Rugosa Rose	120							
Prunus tomentosa	Nanking Cherry	100							
Rosa 'Dorothy Perkins'	Dorothy Perkins Rose	100							
Rosa blanda	Smooth Rose	85							
Rhamnus cathartica	Common Buckthorn	82							
Prunus maritima	Beach Plum	77							
Rosa eglanteria (R. rubiginosa [32])	Sweetbriar Rose	77							
Rosa setigera	Climbing Rose	55							
Rosa palustris	Swamp Rose	70							
Berberis thunbergii	Japanese Barberry	75							
Lonicera ruprechtiana	Manchurian	54							
Viburnum nudum var cassinoides (V.	Withe-rod	50							
Lindera benzoin (Benzoin aestivale [32])	Spicebush	40			139				
Rhodotypos scandens (R. kerrioides [32])	Jetbead	40							
Zanthoxylum americanum	Common Pricklyash	35							
V. plicatum var tomentosum (V. tomentosum [32])	Doublefile Viburnum	30							
Rosa virginiana (R. lucida [32])	Virginia Rose	30							
Viburnum lentago	Nannyberry	27							
Corylus avellana	Common Filbert	20							
Frangula alnus (Rhamnus frangula [32])	Glossy Buckthorn							44	

SHRUBS (cont.)

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963	1967	1968	1983	1998
Hamamelis virginiana	American Witchhazel				90				
Photinia pyrifolia (Aronia arbutifolia [32])	Red Chokeberry				160				
Viburnum acerifolium	Mapleleaf Viburnum				312				
Viburnum prunifolium	Blackhaw				284				
V. plicatum var tomentosum 'Mariesii'	Mariesii Doublefile Viburnum							76	

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963	1967	1968	1983	1998
***Lonicera japonica* 'Halliana'**	**Japanese Honeysuckle**	**1150**							
Ampelopsis brevipedunculata (A. heterophulla [32])	Porcelainberry	18							
Bignonia radicans	Trumpetcreeper	11							
Rosa wichuraiana	Memorial Rose	10							
Clematis terniflora (C. paniculata [32])	Sweet Autumn Clematis	8							
Parthenocissus quinquefolia (Ampelopsis quinquefolia [32])	Virginia Creeper	5							

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963	1967	1968	1983	1998
none									

EXPLANATORY NOTES

([32]) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)

DAINGERFIELD ISLAND

Plant Palette

Shade, Ornamental and Evergreen Trees

The dominant shade trees in 1932 were honeylocust (*Gleditsia triacanthos*), white mulberry (*Morus alba*), American elm (*Ulmus americana*) and willow oak (*Quercus phellos*). Twenty-two more elms were added in 1936, but many more oaks were planted: pin oak (*Quercus palustris*), swamp white oak (*Q. bicolor*) and scarlet oak (*Q. coccinea*), which was new to the palette in this character area. No medium size trees were added to the hundreds planted in 1932, but over 1000 pines were planted on the western side to screen Potomac Yard, the first evergreens planted in this character area. A handful of American hollies (*Ilex opaca*) were also introduced into the palette in 1963.

The large willow oaks (*Quercus phellos*) in the median at the entrance to Daingerfield Island are the most prominent and distinct trees in this section. There is no plan that identifies their planting, but they show up clearly on a 1959 aerial photograph as medium size trees, so it is likely that they were planted in the 1940s.

Among ornamental trees on the original list of species, only flowering dogwood (*Cornus florida*) has been planted since then. Far fewer ornamental trees have been planted since 1932 and are more likely used as accent plantings rather than to thicken and add interest to the western edge as Simonson apparently intended.

RIGHT PAGE
1932 Simonson Plan *Sheet 13-15.*
(NPS TIC 850/80156, NPS TIC 850/85197A)
1936 MVMH Supplemental Planting Plan -Mar
(NPS TIC 850/85168)
1936 MVMH Tree Planting [North of Alexandria]-Nov
(NPS TIC 850/85073)
1940s Willow Oaks and Lindens
No Known Plan
1963 14th St. Bridge to Alexandria
(NPS TIC 850/85634A)

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963
Gleditsia triacanthos	**Honeylocust**	**44**			
Morus alba	**White Mulberry**	**39**			
Ulmus americana	**American Elm**	**37**		40	
Quercus phellos	**Willow Oak**	**28**			24
Salix x pendulina (S. elegantissima '32, S. babulonica '63)	**Wisconsin Weeping Willow**	**21**			13
Acer rubrum	Red Maple	17		37	12
Quercus palustris	Pin Oak	17		52	
Quercus nigra	Water Oak, Blackjack Oak	16			
Fagus grandifolia (F. americana '32)	American Beech	15			
Quercus bicolor	Swamp White Oak	15		29	
Celtis occidentalis	Common Hackberry	7			
Liquidambar styraciflua	Sweetgum	5			
Populus tremuloides	Quaking Aspen	5			
Ulmus glabra	Wych Elm	4			
Quercus rubra (Q. borealis '63)	Red Oak	3			21
Ulmus procera (U. campestris '32)	English Elm	3			
Ulmus thomasii (U. racemosa '32)	Rock Elm	1			
Acer saccharum	Sugar Maple				23
Liriodendron tulipifera	Tuliptree				15
Platanus occidentalis	American Sycamore			60	
Quercus alba	White Oak				5
Quercus coccinea	Scarlet Oak			57	4

MEDIUM SIZE TREES

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963
Salix alba (S. vitellina '32)	**White Willow**	**138**			
Carpinus caroliniana	American Hornbeam	59			
Betula nigra	River Birch	46			
Sassafras albidum (S. variifolium '32)	Sassafras	25			
Phellodendron amurense	Amur Corktree	9			
Nyssa sylvatica	Black Gum	8			
Phellodendron chinense	Chinese Corktree	7			
Salix alba 'Britzensis' *(S. vitellina* 'Britzensis'[32])	Coral Bark Willow	5			
Phellodendron sachalinense	Sakhalin Corktree	4			

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963
Cornus florida	**Flowering Dogwood**	**94**			**28**
Chionanthus virginicus	**White Fringetree**	**49**			
Toona sinensis (Cedrela sinensis '32)	**Chinese Toon**	**30**			
Crataegus crus-galli	**Cockspur Hawthorn**	**23**			
Malus sargentii	Sargent's Crabapple	8			
Crataegus punctata	**Dotted Hawthorn**	**5**			
Diospyros virginiana	Common Persimmon	3			
Cercis canadensis	Eastern Redbud				15
Crataegus phaenopyrum (C. cordata '32)	Washington Hawthorn				3
Prunus serotina	Black Cherry				2

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963
Ilex opaca	American Holly				8
Pinus resinosa	Red Pine		415		
Pinus strobus	White Pine		185	303	20
Pinus sylvestris	Scots Pine		250		
Pinus virginiana	Virginia Pine		115		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)

DAINGERFIELD ISLAND

Plant Palette

Shrubs, Vines, Perennials and Groundcover

As in other character areas, Simonson planted many more shrubs than were planted in later years, using them as background masses and to ornament the foreground. In 1963, they were used as part of the mixed vegetative line along the edge of the Parkway, though there is little notation to suggest how they were arranged. Shrubs were also added to the median as extensions to the clusters of larger trees. Two new species were added to this character area, spicebush (*Lindera benzoin*) and northern bayberry (*Morella pensylvanica*, formerly *Myrica pensylvanica*), but Simonson had used each of them elsewhere on the Parkway.

No additional vines have been planted, but because some of the original species proved to be invasive, many are still thriving in the adjacent landscape at Daingerfield Island today. Other plants have invaded that were not part of any of the plans, including giant knotweed (*Polygonum cuspidatum*) and common reed (*Phragmites australis*).

RIGHT PAGE
1932 Simonson Plan *Sheet 13-15.*
(NPS TIC 850/80156, NPS TIC 850/85197A)
1936 MVMH Supplemental Planting Plan -Mar
(NPS TIC 850/85168)
1936 MVMH Tree Planting [North of Alexandria]-Nov
(NPS TIC 850/85073)
1940s Willow Oaks and Lindens
No Known Plan
1963 14th St. Bridge to Alexandria
(NPS TIC 850/85634A)

SHRUBS

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963
Rhus glabra	**Smooth Sumac**	**1140**			
Cornus racemosa (C. paniculata '32)	**Gray Dogwood**	**815**			189
Sambucus canadensis	**Common Elderberry**	**730**			
Rosa palustris	**Swamp Rose**	**725**			
Cornus sericea (C. stolonifera '32)	**Redosier Dogwood**	**515**			48
Salix discolor	**Pussy Willow**	**435**			
Clethra alnifolia	Summersweet Clethra	420			
Rosa multiflora	Multiflora Rose	360			
Viburnum dentatum	Arrowwood Viburnum	325			
Rosa blanda	Smooth Rose	322			
Rosa setigera	Climbing Rose	300			
Symphoricarpos orbiculatus (S. vulgaris '32)	Coralberry	205			
Prunus mahaleb	Mahaleb Cherry (Chokecherry)	200			
Rosa multiflora var Chenault[1]	Chenault Multiflora Rose	* 200			
Salix elaeagnos (S. incana '32)	Elaeagnus Willow	193			
Prunus tomentosa	Nanking Cherry	175			
Salix irrorata	Dewystem Willow	165			
Prunus maritima	Beach Plum	155			
Ligustrum ovalifolium	California Privet	150			
Ceanothus americanus	New Jersey Tea	145			
Rhus aromatica (R. canadensis '32)	Fragrant Sumac	130			
Rhus typhina	Staghorn Sumac	115			
Rosa carolina (R. humilis '32)	Carolina Rose, Pasture Rose	105			
Viburnum rufidulum	Rusty (Southern) Blackhaw	105			
Frangula caroliniana (Rhamnus caroliniana '32)	Carolina Buckthorn	102			
Lonicera morrowii	Morrow's Honeysuckle	100			
Rhus copallinum (R. copallina '32)	Winged (Shining) Sumac	100			
Cornus sericea 'Flaviramea' *(C. stolonifera*	Redosier Dogwood	92			
Cornus alternifolia	Alternateleaf Dogwood	90			
Zanthoxylum americanum	Common Pricklyash	85			
Hamamelis virginiana	Common Witchhazel	80			86
Lonicera tatarica	Tatarian Honeysuckle	50			
Photinia melanocarpa (Aronia melanocarpa '32)	Black Chokeberry	50			
Cephalanthus occidentalis	Buttonbush	30			
Photinia pyrifolia (Aronia arbutifolia '32)	Red Chokeberry	30			
Rosa virginiana (R. lucida '32)	Virginia Rose	30			
Aralia spinosa	Devil's Walking Stick	25			

SHRUBS (cont.)

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963
Rhamnus cathartica	Common Buckthorn	25			
Baccharis halimifolia	Eastern Baccharis	14			
Salix caprea	Goat Willow	7			
Ilex verticillata	Common Winterberry	2			206
Lindera benzoin (Benzoin aestivale '32)	Spicebush				49
Ligustrum obtusifolium 'Regelianum'	Regel's Border Privet				44
Morella pensylvanica (Myrica pensylvanica '32)	Northern Bayberry				210
Viburnum prunifolium	Blackhaw				54

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963
Parthenocissus quinquefolia (Ampelopsis quinquefolia '32)	**Virginia Creeper**	**534**			
***Lonicera japonica* 'Halliana'**	**Japanese Honeysuckle**	**390**			
Ampelopsis brevipedunculata (A. heterophylla '32)	**Porcelainberry**	**195**			
Clematis virginiana	Virginsbower	95			
Celastrus scandens	American Bittersweet	61			
Bignonia radicans	Trumpetcreeper	31			
Celastrus orbiculatus	Oriental Bittersweet	21			
Polygonum baldschuanicum (P. auberti '32)	Bukhara Fleeceflower	22			
Vitis aestivalis	Summer Grape	24			

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932	1936	1936	1963
none					

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
1 *Rosa multiflora* var Chenault is annotated "from Arlington" on 1932 Simonson Plan, sheet 13 Fourmile Run Bridge; possibly *R. multiflora* var. *alba* introduced from Japan (1844). Chenault is more thorny and sturdy than typical *R. multiflora* (Hill 1983).

AIRPORT
1932 Simonson Plan

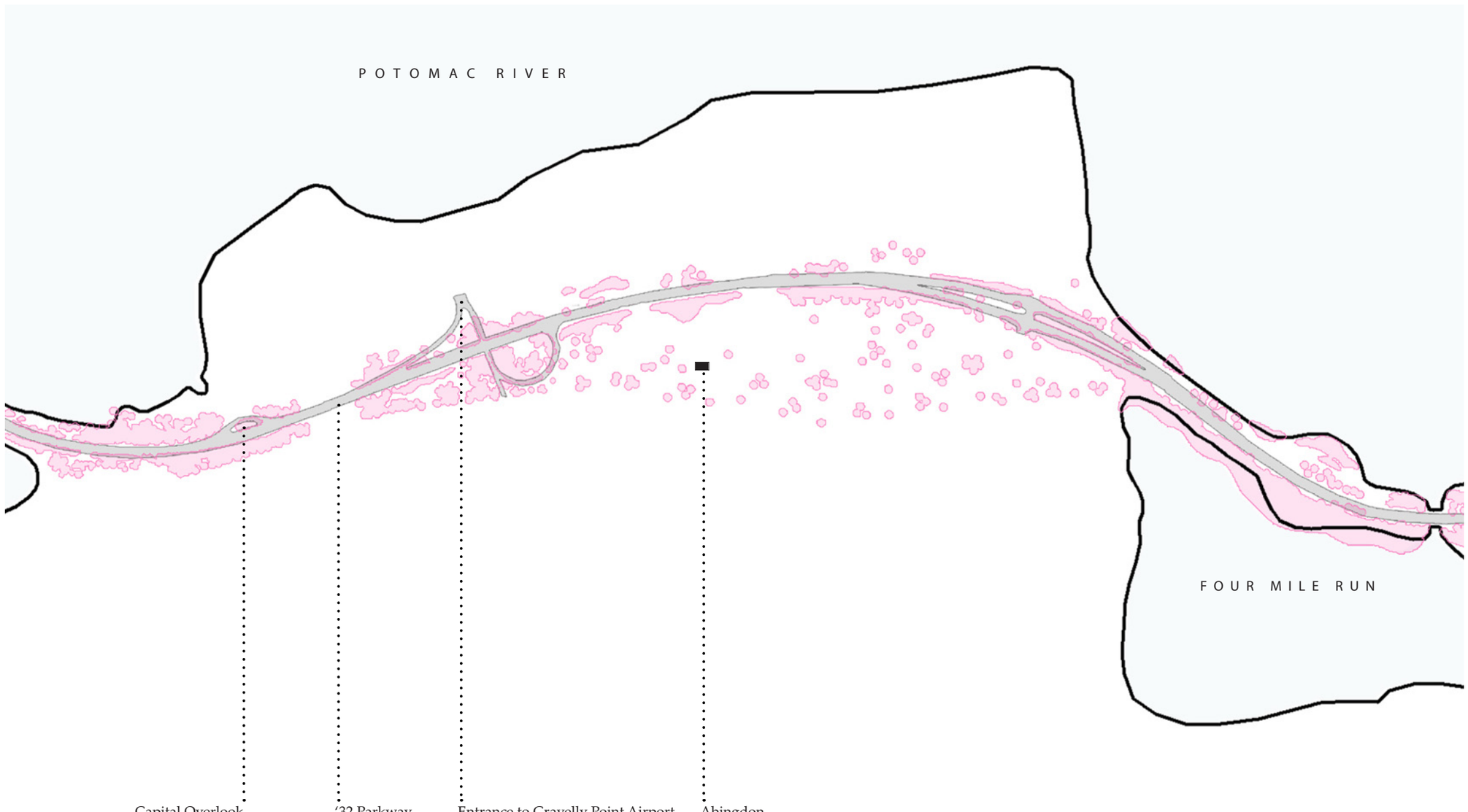
The Parkway segment along Ronald Reagan National Airport contains one character area: Airport.

The original Simonson plan for the airport area consisted of a broad grove of oaks and two special places called out with ornamental vegetation, but it lasted less than one decade before it was eliminated due to the construction of National Airport. The Parkway had been elevated in this section, affording views of the river from the crest of the hill before descending almost to the level of the river.

The 1932 plan proposes a broad grove of widely spaced oaks and other large shade trees along most of the western side of the Parkway. The oak grove would have created a stately landscape surrounding the ruins of Abingdon, the home of George Washington's stepson and step-granddaughter, which had burned just prior to construction of the Parkway. As with other stretches, the eastern side is more open, so that the river would have been very visible from the crest of the hill.

Two special places along this stretch are called out with different plantings. At the proposed cloverleaf entrance to the airport, numerous dogwoods are planted amidst the oaks to accentuate arrival at the airport and the technological achievement of the cloverleaf. Just to the north is Capital Overlook, the only roadside pull-off in the central section, with a sweeping view of the river and the monuments of the capital on the other bank. Simonson plants more dogwoods here, too, along them with beeches and other shade and ornamental trees. From the overlook to the start of the causeway at Roaches Run and Gravelly Point, the vegetation is rich in species diversity with several types of shade and medium size trees making a crescendo of vegetation just prior to reaching the open space of the causeway and the Potomac River.

RIGHT PAGE
1932 Simonson Plan with the existing vegetation in 1932.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)



0
150
300
450
600
scale

north

AIRPORT
1942 Plan

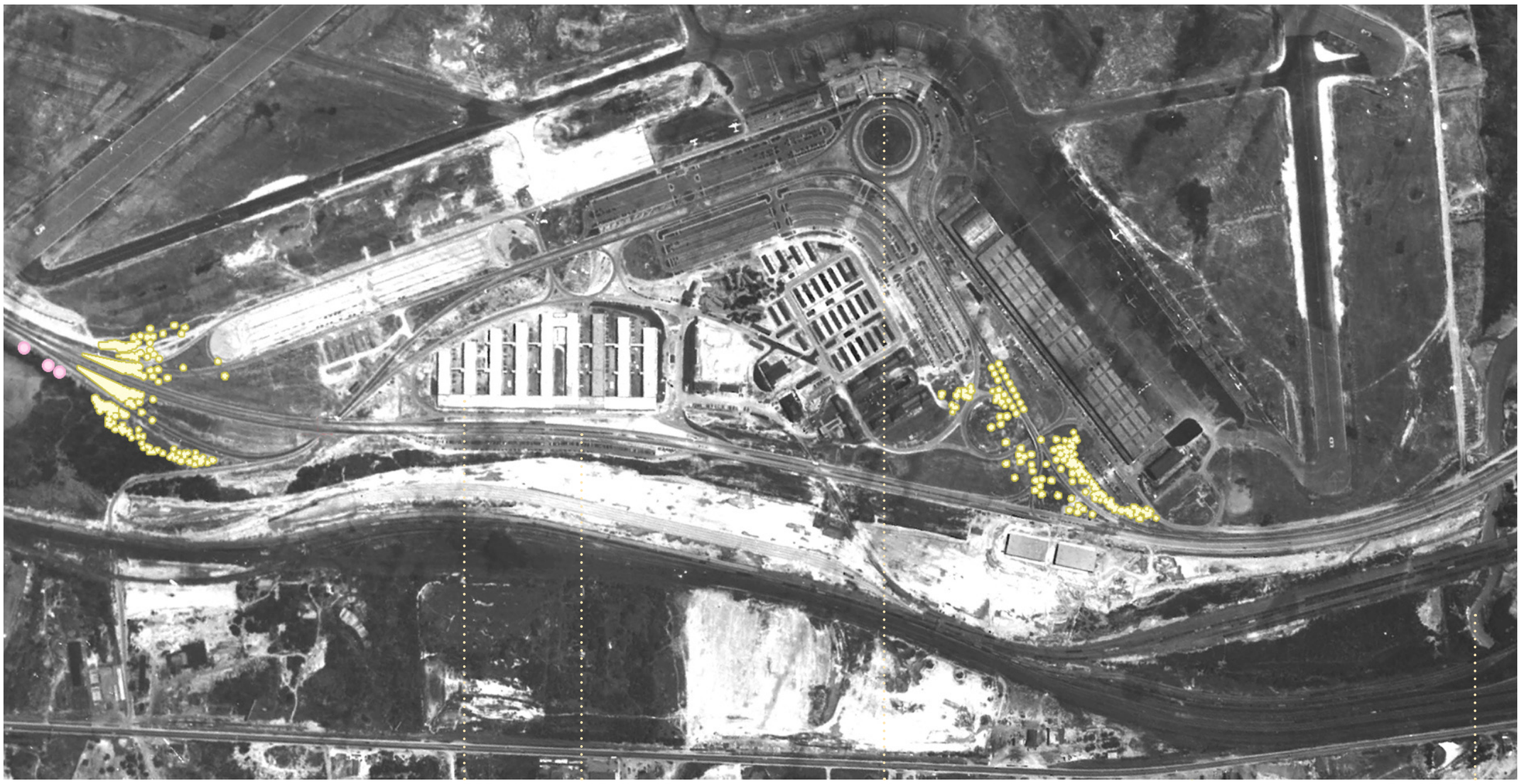
An entirely new planting plan was needed due to construction of the airport in 1940 and the realignment of the Parkway. The 1942 planting plan enhances the arrival at the new airport with plantings of elms, other shade trees, ornamental trees and shrubs. At the northern entrance, a crescent of vegetation crosses all four lanes of traffic fanning out from a center point and emphasizing the entrance to the airport and the new stretch of the Parkway. Plants are tiered, starting with roses and bayberry in the foreground, then rising to dogwoods, elms, and finally oaks. Additional maples, oaks and dogwoods are planted along the western edge in a more naturalistic manner, bordering the new drive into the airport. At the southern entrance to the airport, the plan calls for more elms lining the road in a formal allee with vegetative borders around the parking lots. Naturalistic plantings of oaks and maples are in the open spaces between the new roads and the new lanes of the Parkway.

The aerial photograph shows a lot of exposed soil along the western edge from excavation, and consequently there is little naturalized vegetation along this edge.

Physical Changes

The construction of the airport resulted in several important changes to the Parkway landscape. All of Simonson's plantings were eliminated, and the Parkway was realigned to the west so that it is completely separated from the river. Capital Overlook was eliminated, and new filled land for the runways reduced the presence of the river.

RIGHT PAGE
(1943 Aerial) with the existing vegetation in 1942.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1942 National Airport (light yellow)
(NPS TIC 850/85167)



1932
1942

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scale

north

AIRPORT
1949 Plan

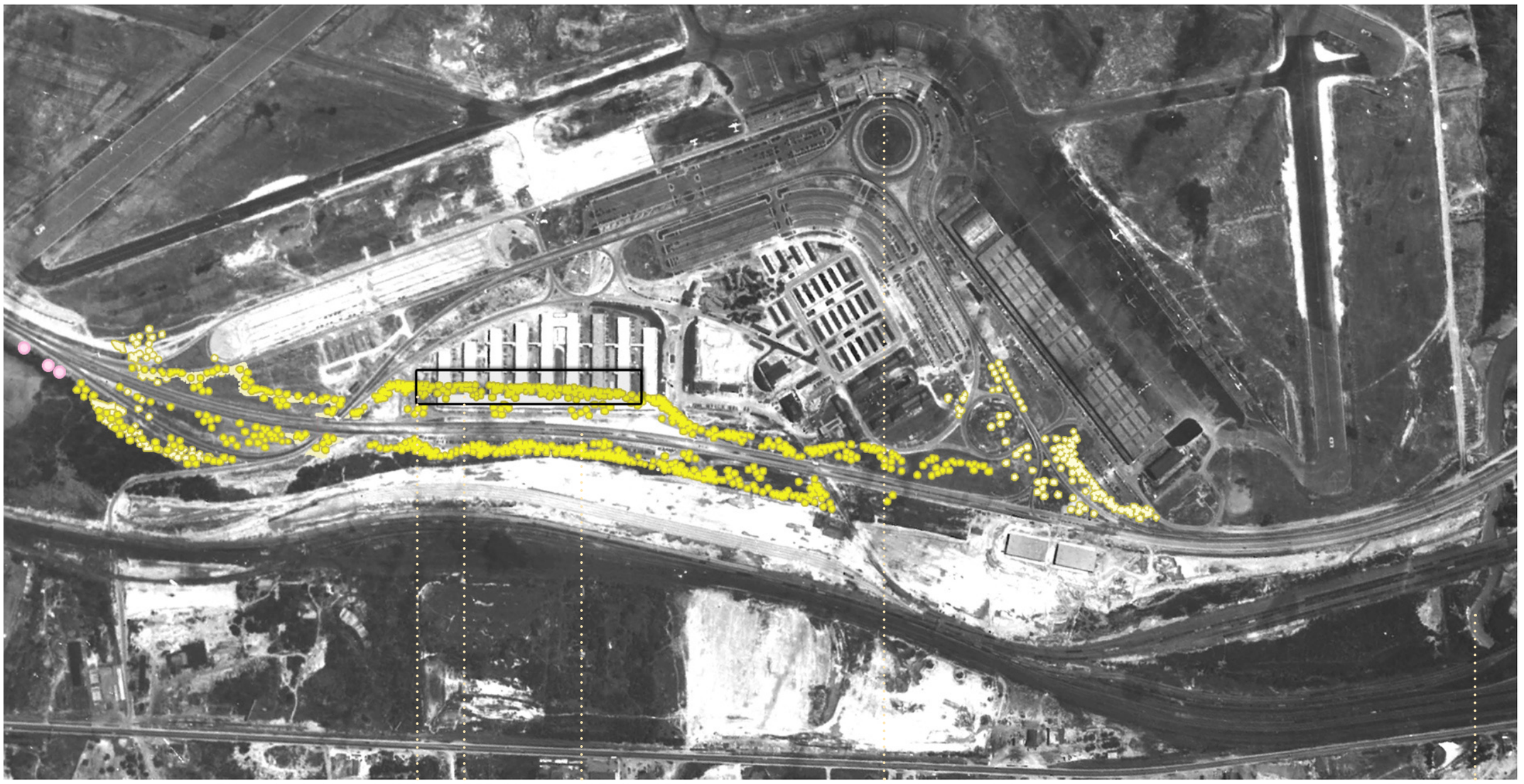
The 1949 planting plan addresses the new roadway between the two entrances to the airport. Despite the relatively narrow confines of the new landform, dense plantings line both sides of the Parkway undulating to create a gentle series of spaces and a fluid sense of movement as one progresses through them. Nearly three hundred large canopy trees are planted with oaks, planetrees and poplars being most prominent. A significant amount of ornamental trees are also used including hawthorns, dogwoods, redbuds and cherries. The larger canopy trees are planted in single species groups with the ornamental trees scattered between them.

There is a discrepancy between the plans and the aerial photographs along the eastern side of the Parkway. There is a large building (the T-7 building) in the same location where several clusters of trees are proposed. Since the building is still present in the 1959 aerial image, it is assumed that these trees were not planted.

Physical Changes

There were no significant physical changes since 1942.

RIGHT PAGE
(1943 Aerial) with the existing vegetation in 1949.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1942 National Airport (light yellow)
(NPS TIC 850/85167)
1949 Section through National Airport (yellow)
(Planted Spring 1950) (NPS TIC 850/85291)



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scale

north

AIRPORT
1963 Plan

The 1963 plan proposes many new plantings to the area but does not transform the character here as much as in other places. Much of the emphasis is on screening structures and parking at the airport. In the center of the airport stretch, along the eastern side, vegetation is planted to screen the T-7 building that conflicted with the 1949 plantings. On both sides of the highway, additional vegetation is installed in front of the 1949 plantings, presumably to thicken the edge, but it also diminished the undulations of the 1949 plantings.

The 1963 plan is the first time that the southern stretch is planted after the road realignment. Vegetation is planted densely on both sides of the Parkway, close to the road, apparently providing a buffer for a new parking lot.

Similar species are used throughout the airport section including approximately three hundred large shade trees with oaks and maples most prominent. Hawthorns, dogwoods and redbud are the most prominent ornamental trees. Evergreens include around one hundred pines and seven hollies.

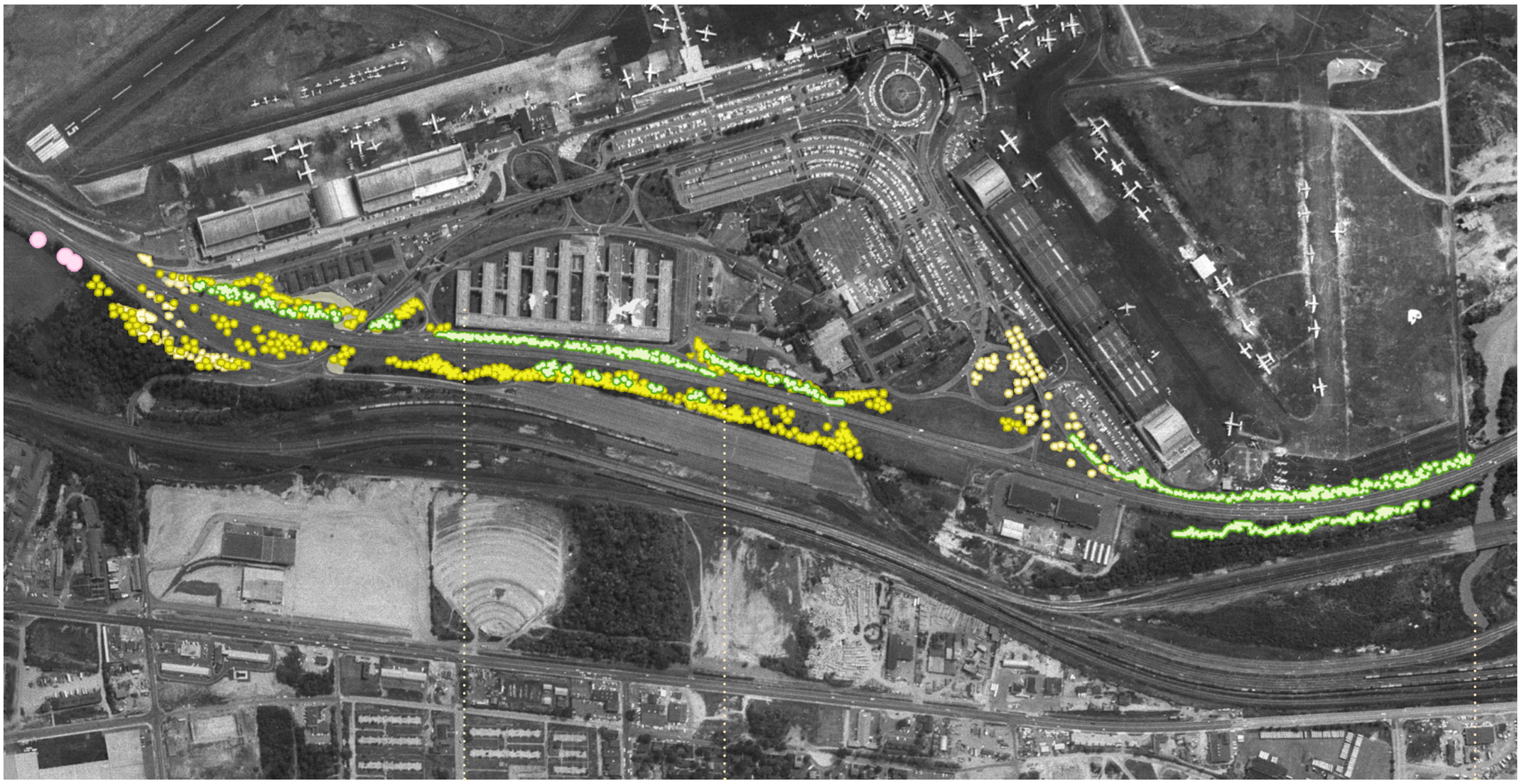
Although the bridge to U.S. Route 1 is drawn on the 1963 plan, the plantings for it were installed in 1965 as a separate revision to the 1963 plan.

(Note: Neither the 1959 nor the 1985 aerial are accurate for both the 1963 and 1965 plantings. The 1959 aerial is used here to show the 1963 plantings since the Crystal City bridge is not yet built, and the 1965 plantings are shown with the 1970s plantings on the 1985 aerial, which shows the bridge in place.)

Physical Changes

The bridge to U.S. Route 1 (to Crystal City) appears on the 1963 planting plan, but apparently construction was not finished until c.1964.

RIGHT PAGE
(1959 Aerial) with the existing vegetation in 1963.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1942 National Airport (light yellow)
(NPS TIC 850/85167)
1949 Section through National Airport (yellow)
(Planted Spring 1950) (NPS TIC 850/85291)
1963 14th St. Bridge to Alexandria (light green)
(NPS TIC 850/85634A)



1932
1942
1949
1963

0
150
300
450
600
scale

north

AIRPORT
1970s Plans

There are plans for the airport area from 1975, 1976 and 1978. A new entrance road replaced the T-7 building in the early 1970s, and the 1975 and 1976 plans add new vegetation between this road and the Parkway.

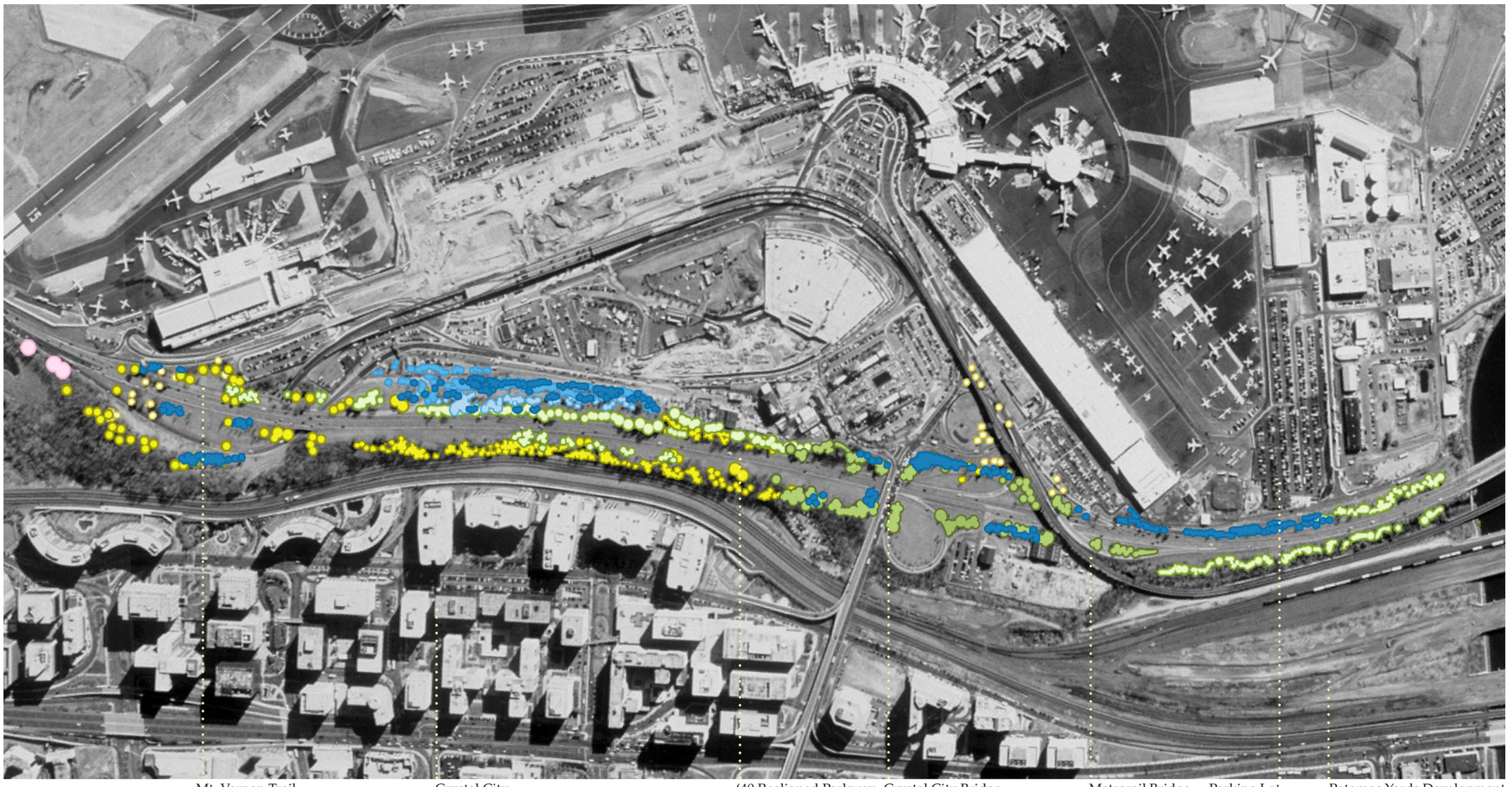
The 1978 plan has the most impact of the three plans, accounting for the most plant material and stretching along most of this stretch of the roadway. Like the 1963 plan, emphasis is on screening and filling in gaps due to the decline of previous vegetation and responding to changes at the airport. The plan adds to the vegetation at the northern end, enhancing the entrance where plant material from the 1940s had died. It replaces plantings at the southern end from the 1963 plan, which had been removed due to reconfiguration and expansion of the parking lots. It also frames the newly constructed Metrorail Bridge.

Throughout these plans, sweetgums, maples, oaks, hollies and pines predominate.

Physical Changes

The airport continued to expand, and entrances and parking were reconfigured, eliminating structures and some previous plantings. The main entry road from the north was realigned to parallel the Parkway before circling back on itself to access the terminals. Berms divided the new entry drive from the Parkway, and these were planted according to the 1970s plans. The Metrorail Bridge was added in this period.

RIGHT PAGE
(1985 Aerial) with the existing vegetation in the 1970s.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1942 National Airport (light yellow)
(NPS TIC 850/85167)
1949 Section through National Airport (yellow)
(Planted Spring 1950) (NPS TIC 850/85291)
1963 14th St. Bridge to Alexandria (light green)
(NPS TIC 850/85634A)
1965 Vicinity of National Airport GWMP Arlington Co. (green) *(NPS TIC 850/85729)*
1975 Site Restoration Demolition Tempo-7 National Airport (light blue) *(NPS TIC 850/80046) (Supercedes 1974 Plans NPS TIC 850/85910, NPS TIC 850/80045)*
1976 National Airport T-7 Site, Rev (medium blue)
(NPS TIC 850/80049)
1978 Landscape Screening North Airport Boundary to Four Mile Run, rev 1979 "As Built Conditions"(dark blue)
(NPS TIC 850/80088)



0
150
300
450
600
scale

north

AIRPORT
1984 Plan

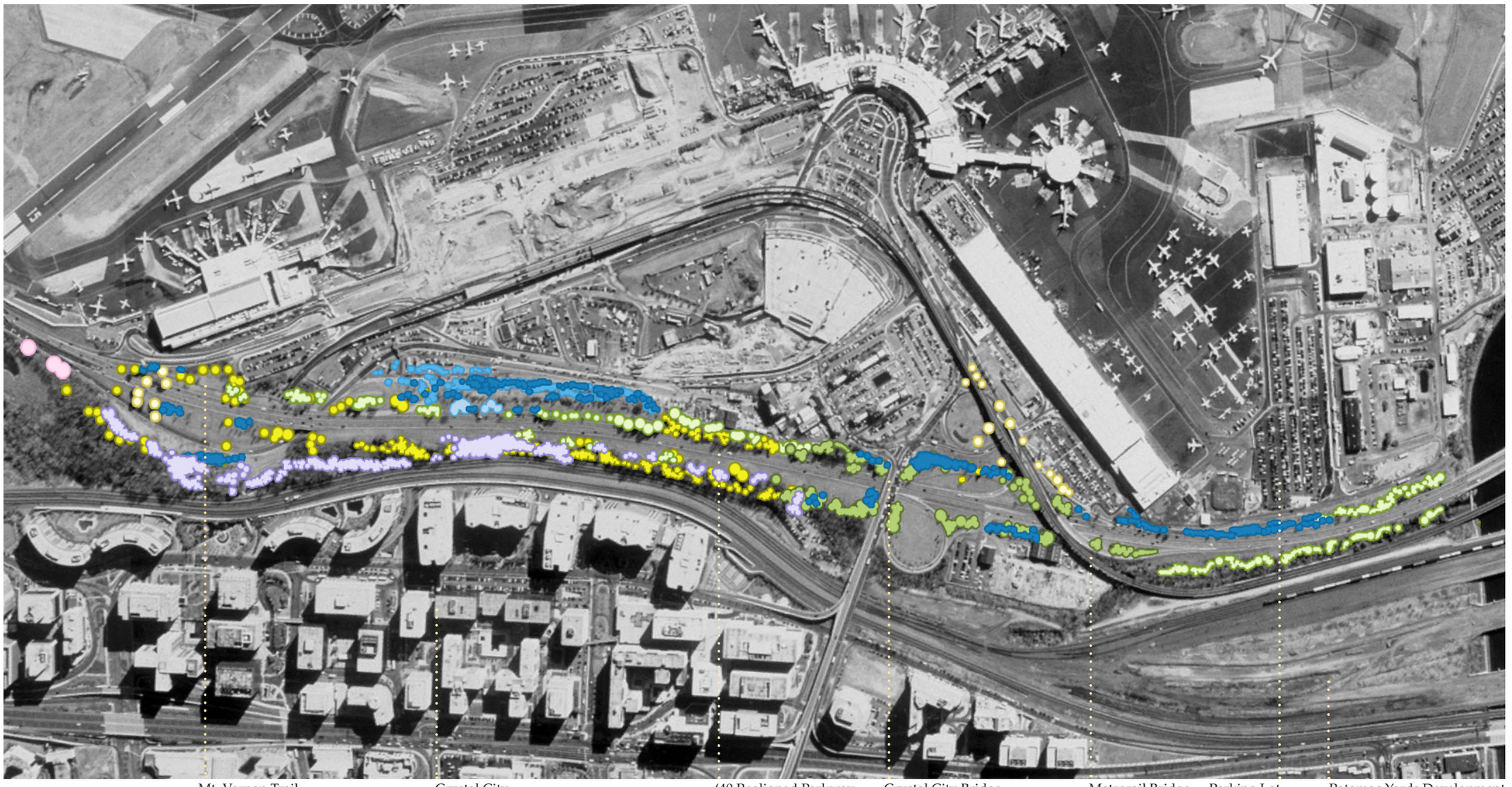
The 1984 planting plan was the last formalized plan for the airport section provided for this study; it was apparently implemented in response to the development of Crystal City. Crystal City was constructed between the time of the 1959 and 1985 aerial photographs, and the impact of the new buildings is clearly evident in the 1985 photo.

The 1984 plantings are all on the western side of the Parkway and are integrated into the previous vegetation from the 1949 plan and the 1978 plan. The 1984 plan calls for planting three species of pines and a mixture of shade trees and ornamental trees. They are planted both behind and in front of the existing vegetation to provide additional screening of the commercial and residential towers of Crystal City. This vegetation has been left to naturalize on its own, like much of the plantings on the western side, allowing for a dense vegetative screen with a loose and natural feel to it.

Physical Changes

Since 1978 no significant physical changes have taken place. Construction on the airport continues.

RIGHT PAGE
(1985 Aerial) with the existing vegetation in 1984.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1942 National Airport (light yellow)
(NPS TIC 850/85167)
1949 Section through National Airport (yellow)
(Planted Spring 1950) (NPS TIC 850/85291)
1963 14th St. Bridge to Alexandria (light green)
(NPS TIC 850/85634A)
1965 Vicinity of National Airport GWMP Arlington Co. (green) *(NPS TIC 850/85729)*
1975 Site Restoration Demolition Tempo-7 National Airport (light blue) *(NPS TIC 850/80046) (Supercedes 1974 Plans NPS TIC 850/85910, NPS TIC 850/80045)*
1976 National Airport T-7 Site, Rev (medium blue)
(NPS TIC 850/80049)
1978 Landscape Screening North Airport Boundary to Four Mile Run, rev 1979 "As Built Conditions"(dark blue)
(NPS TIC 850/80088)
1984 Crystal City-R.R. Screening Vicinity National Airport (light purple) *(NPS TIC 850/80270)*


1932
1942
1949
1963
1965
1975
1976
1978
1984
121
Airport
0
150
300
450
600
scale
north
Mt. Vernon Trail
Crystal City
'40 Realigned Parkway
Crystal City Bridge
Metrorail Bridge
Parking Lot
Potomac Yards Development

AIRPORT
2009 Planting Composite

As of 2009, vegetation along Ronald Reagan National Airport is a mixture of plants mainly from the 1949, 1963, 1978 and 1984 planting plans as shown in this composite palimpsest. There are a few elms from the 1942 plan at the northern entrance and a few elms and zelkova replacements at the former southern entrance as well. Also at the northern end there is a mixture of vegetation from the 1949, 1960s, 1970s and 1984. Two notable beeches between the roadway and the Mount Vernon Trail date from the 1949 plan. Toward the southern end most of the vegetation dates to the 1963 and 1978 plans or has volunteered.

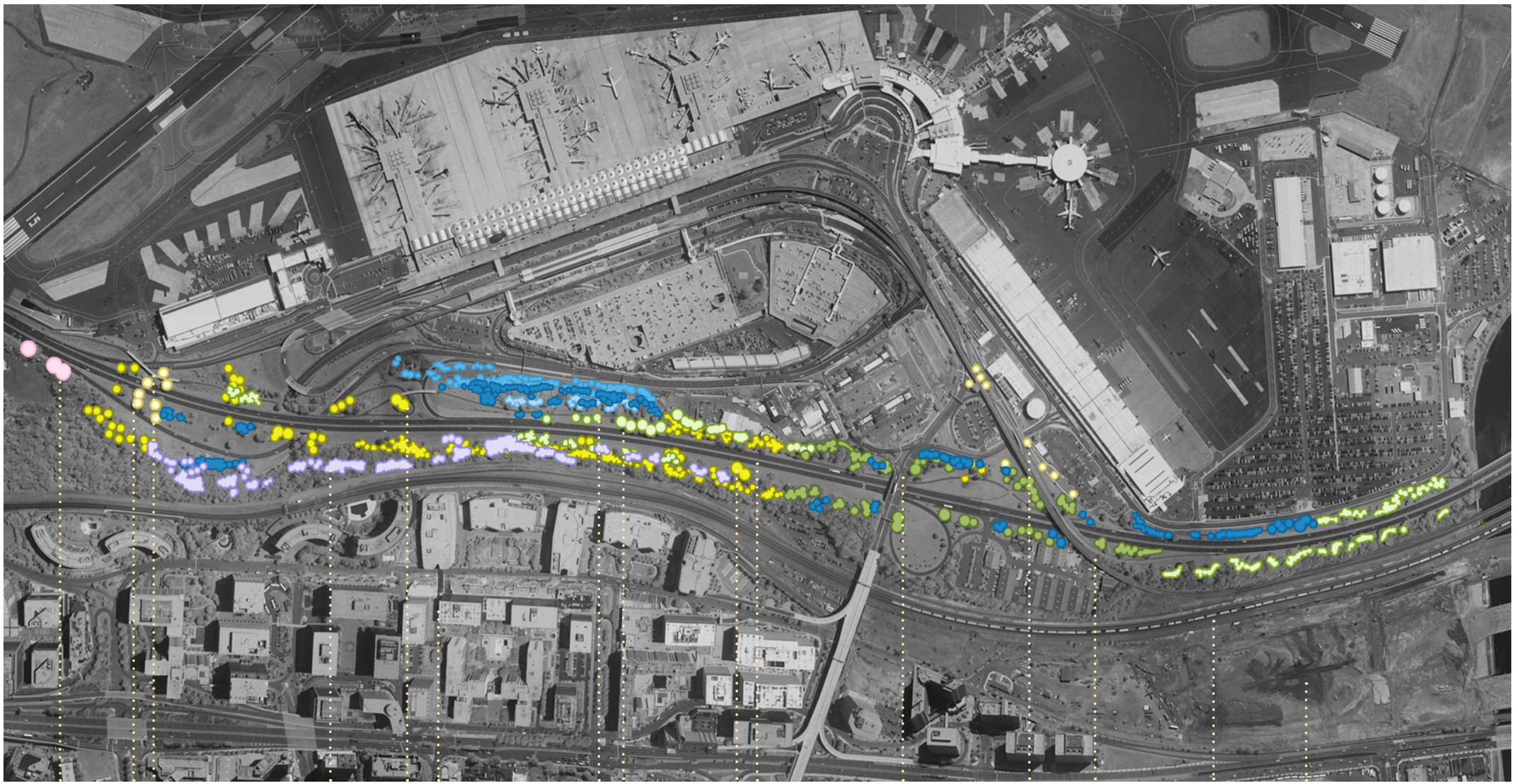
In the central section of the character area, there are many trees remaining from the 1949 and 1984 plans on the western edge with a few from other periods mixed with them. Along the eastern side there is a mix from almost every planting period.

Since 1984, a significant number of trees have been planted that do not adhere to any plan provided for this study. The majority of these are in the median in the northern entrance and near the cloverleaf area for the Crystal City Bridge. In the cloverleaf there are groupings of dogwoods and hollies among the older species.

Physical Changes

The entrance to the airport was changed again prior to the 2004 aerial photograph. The southern entrance was closed so that drivers arriving from the south drive past the airport, enter at the northern end, loop back south, and merge with the other traffic entering from the north. New terminals and large parking decks were constructed and are visible in the 2004 aerial. A large parking lot has also been built just south of the airport.

RIGHT PAGE
(2004 Aerial) with the existing vegetation in 2009.
1932 Simonson Plan (pink) *(NPS TIC 850/80156)*
1942 National Airport (light yellow) *(NPS TIC 850/85167)*
1949 Section through National Airport (yellow) *(Planted Spring 1950) (NPS TIC 850/85291)*
1963 14th St. Bridge to Alexandria (light green) *(NPS TIC 850/85634A)*
1965 Vicinity of National Airport GWMP Arlington Co. (green) *(NPS TIC 850/85729)*
1975 Site Restoration Demolition Tempo-7 National Airport (light blue) *(NPS TIC 850/80046) (Supercedes 1974 Plans NPS TIC 850/85910, NPS TIC 850/80045)*
1976 National Airport T-7 Site, Rev (medium blue) *(NPS TIC 850/80049)*
1978 Landscape Screening North Airport Boundary to Four Mile Run, rev 1979 "As Built Conditions"(dark blue) *(NPS TIC 850/80088)*
1984 Crystal City-R.R. Screening Vicinity National Airport (light purple) *(NPS TIC 850/80270)*


1932
1942
1949
1963
1965
1975
1976
1978
1984
123
Airport
0
150
300
450
600
scale
north
'32 Elms
'42 Elms
Mt. Vernon Trail
'84 screening
'49 Beeches
Crystal City
'63 Maples
'63 Oaks
'49 Oaks
'40 Realigned Parkway
Crystal City Bridge
'42 Elms
Metrorail Bridge
CSX Railroad
Potomac Yards Development

AIRPORT

Plant Palette

Shade, Ornamental and Evergreen Trees

The shade trees used most often in 1932 were American elm (*Ulmus americana*), willow oak (*Quercus phellos*), white willow (*Salix alba*), scarlet oak (*Q. coccinea*), American beech (*Fagus grandifolia*) and oriental planetree (*Platanus orientalis*). The oaks had been used throughout while the elms tended to be used closer to the Parkway to frame the northern and southern ends of the airport stretch. Beginning with the new planting design in 1942, eleven species of shade tree have been added to the palette through 1984. The top five species used during that time are scarlet oak (*Quercus coccinea*), red oak (*Q. rubra*), white oak (*Q. alba*), sweetgum (*Liquidambar styraciflua*) and red maple (*Acer rubrum*). Sweetgum is new since 1932 but has been used consistently in five of the planting plans. Only about forty medium size trees have been planted and only in 1949: the genus Carpinus was already in the palette, but hedge maple (*Acer campestre)* was new. Only two species of ornamental trees were used in 1932: over 200 flowering dogwood (*Cornus florida*) in this area and a handful of common persimmon (*Diospyros virginiana*). Although ten more species of ornamental trees have been added, dogwood remains the favorite with over 300 planted after 1932. Over 130 hawthorns (*Crataegus sp.*), which are new to the palette, have been planted in five of the years. They seem to be surviving in the landscape as well or better than some of the dogwoods, however their ornamental value is perhaps more subtle than the dogwoods which tended to be planted as accents in more visible places. Eastern redbud (*Cercis canadensis*) was planted frequently in the 1940s and 1960s, but few have been planted since then.

Evergreens were significant additions to the tree palette, since Simonson used none of them in this character area. They included four species of pines as well as American holly (*Ilex opaca*). In 1949, 63 pines were planted. In the 1963 plan, American holly was listed with the flowering trees on plans, and pines were listed among the shade trees, shedding insight into how differently designers viewed these evergreens. Both were integrated into small planting beds, frequently as a backdrop for showy ornamental trees such as flowering dogwood and redbud. Their main purpose was to minimize visibility into parking areas and soften the nearness of airport buildings on the east side. On the west side of the Parkway in 1963, they were clumped in threes, as other deciduous trees sometimes were, forming a series of picturesque groups along the drive. In later years, pines continued to be integrated with other shade trees and grouped as screens to channel lines of sight at entrance and exit ramps and bridges.

The goal of the 1984 plan seems to have been to screen Crystal City. A mix of pines (*Pinus nigra, P. strobus, and P. taeda*) was planted against existing vegetation, with a few deciduous trees integrated in the middle ground and a group of small flowering trees sprinkled naturalistically in the foreground. This allowed the faster growing pines to provide the screen until the slower growing shade trees could mature. This simple planting strategy has matured into the dense screen present along the Parkway today.

Another strategy on the west side involved planting deciduous shade trees, often in threes, at 100 to 200 foot intervals perhaps where the slope would support them, or where the existing vegetation was growing a little thin. The purpose of this strategy is not evident and has the effect of straightening the undulating planting edge. The shape of the screen sometimes loses definition and variation, and in time may grow into a homogenous wall rather than the gently scalloped spaces that have characterized this stretch.

RIGHT PAGE

1932 Simonson Plan *Sheets 9-13 (NPS TIC 850/80156)*

1942 National Airport *(NPS TIC 850/85167)*

1949 Section through National Airport *(Planted Spring 1950) (NPS TIC 850/85291)*

1963 14th St. Bridge to Alexandria *(NPS TIC 850/85634A)*

1965 Vicinity of National Airport GWMP Arlington Co. *(NPS TIC 850/85729)*

1975 Site Restoration Demolition Tempo-7 National Airport *(NPS TIC 850/80046) (Supercedes 1974 Plans NPS TIC 850/85910, NPS TIC 850/80045)*

1976 National Airport T-7 Site, Rev *(NPS TIC 850/80049)*

1978 Landscape Screening North Airport Boundary to Four Mile Run, rev 1979 "As Built Conditions" *(NPS TIC 850/80088)*

1984 Crystal City-R.R. Screening Vicinity National Airport *(NPS TIC 850/80270)*

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)

bold Dominant species from 1932.

* Significance as donation or memorial. (Appendix A)

1 *Quercus phellos*: Memorial Planting 1932 by the National Society Colonial Dames of America (District Chapter at the turnout for Capital Overlook (Simonson, sheet 9). These no longer exist in today's Airport character area due to the expansion of Ronald Reagan Washington National Airport.

2 *Quercus rubra*: Memorial Planting 1932 by the Association for the Preservation of Virginia Antiquities, Abingdon (Custis House) Site (Simonson, sheet 11).

3 *Ilex opaca* listed as flowering tree on the 1963 plan (NPS TIC 850/85634A).

4 *Pinus strobus* listed as shade tree on the 1963 plan (NPS TIC 850/85634A).

5 Unknown or not specified.

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932	1942	1949	1963	1965	1975	1976	1978	1984
Ulmus americana	**American Elm**	**69**	37	14						
Quercus phellos [1]	**Willow Oak**	* **67**		36	12	3	3			
Salix alba (S. vitellina [32] ***)***	**White Willow**	**45**								
Quercus coccinea	**Scarlet Oak**	**43**	20	23	38	14		3	15	
Betula nigra	**River Birch**	**40**								
Fagus grandifolia (F. americana [32] ***)***	**American Beech**	**30**		8			2	2		
Platanus orientalis	**Oriental Planetree**	**29**								
Quercus nigra	Water Oak	16								
Liriodendron tulipifera	Tulip Poplar	15		22	9	7			12	
Acer rubrum	Red Maple	14		18	29	12		3	22	
Ulmus glabra	Wych Elm	7								
Quercus rubra (Q. borealis [49-65] *)* [2]	Red Oak	* 6		69	31	15	5	3		
Celtis occidentalis	Common Hackberry	6								
Quercus velutina	Black Oak	5								
Quercus macrocarpa	Bur Oak	1								
Acer saccharum	Sugar Maple		17		36	22				
Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple								10	
Ginkgo biloba	Ginkgo						9			
Gleditsia triacanthos	Honeylocust			16						
Liquidambar styraciflua	Sweetgum		12	15			21	3	34	
Platanus x hybrida (P. acerifolia [49] *)*	London Planetree			40						
Quercus alba	White Oak				31	14				
Quercus palustris	Pin Oak		15							
Quercus prinus	Chestnut Oak						2			
Quercus, Acer, Liriodendron	Deciduous trees									89
Zelkova serrata	Japanaese Zelkova							2		

MEDIUM SIZE TREES

BOTANICAL NAME	COMMON NAME	1932	1942	1949	1963	1965	1975	1976	1978	1984
Carpinus caroliniana	**American Hornbeam**	**93**								
Morus alba	White Mulberry	6								
Ostrya virginiana	Hophornbeam	6								
Nyssa sylvatica	Black Gum	4								
Phellodendron chinense	Chinese Corktree	6								

MEDIUM SIZE TREES (cont.)

BOTANICAL NAME	COMMON NAME	1932	1942	1949	1963	1965	1975	1976	1978	1984
Phellodendron sachalinense	Sakhalin Corktree	3								
Phellodendron amurense	Amur Corktree	1								
Acer campestre	Hedge Maple			12						
Carpinus sp.	Hornbeam			30						

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932	1942	1949	1963	1965	1975	1976	1978	1984
Cornus florida	**Flowering Dogwood**	**227**	129	40	49	32		15	14	
Diospyros virginiana	Common Persimmon	6								
Cercis canadensis	Eastern Redbud		30	39	11	5			6	
Cercis, Cornus, Chionanthus	Flowering Trees									50
Chionanthus sp.	Fringetree			26						
Cornus florida 'Rubra'	Pink Flowering Dogwood			6						
Cornus mas	Cornelian Cherry			24						
Crataegus phaenopyrum (C. cordata [32] *)*	Washington Hawthorn				37	18			42	
Crataegus sp.	Hawthorn			69						
Prunus serotina	Black Cherry				5					
Prunus sp.	Cherry							18		

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932	1942	1949	1963	1965	1975	1976	1978	1984
Ilex opaca [3]	American Holly				7		21	3	82	
Pinus nigra (P. austriaca [49] *)*	Austrian Pine			63					8	
Pinus nigra, P. strobus, P. taeda	Pines (Austrian, White, Loblolly)									150
Pinus sp.	Pine						2			
Pinus strobus [4]	White Pine				97	66		18		

AIRPORT
Plant Palette
Shrubs, Vines, Perennials and Groundcover

RIGHT AND LEFT PAGE
1932 Simonson Plan *Sheets 9-13 (NPS TIC 850/80156)*
1942 National Airport *(NPS TIC 850/85167)*
1949 Section through National Airport *(Planted Spring 1950) (NPS TIC 850/85291)*
1963 14th St. Bridge to Alexandria *(NPS TIC 850/85634A)*
1965 Vicinity of National Airport GWMP Arlington Co. *(NPS TIC 850/85729)*
1975 Site Restoration Demolition Tempo-7 National Airport *(NPS TIC 850/80046) (Supercedes 1974 Plans NPS TIC 850/85910, NPS TIC 850/80045)*
1976 National Airport T-7 Site, Rev *(NPS TIC 850/80049)*
1978 Landscape Screening North Airport Boundary to Four Mile Run, rev 1979 "As Built Conditions" *(NPS TIC 850/80088)*
1984 Crystal City-R.R. Screening Vicinity National Airport *(NPS TIC 850/80270)*

Six of the 32 species of shrubs from Simonson's palette were used in later years, but his list was largely ignored in favor of eighteen other new species. In general, shrubs are used much less frequently today than in 1932, perhaps because more emphasis has been placed on screening taller buildings. There are trends in the species used. Those from Simonson's palette used in later years include: arrowwood viburnum (*Viburnum dentatum*), spicebush (*Lindera benzoin*), redosier dogwood (*Cornus sericea*) and common witchhazel (*Hamamelis virginiana*). New species include Regel's border privet (*Ligustrum obtusifolium*), blackhaw (*Viburnum prunifolium*) and mapleleaf viburnum (*Viburnum acerifolium*). Other selections in shrubs over recent years show a trend toward evergreens and those with showy flowers, fruit and foliage color: evergreen privet species (*Ligustrum sp.*), blackhaw for blue berries, burning bush (*Euonymus alatus*) for fall color, weeping forsythia (*Forsythia suspensa*) for spring flowers, and a hybrid of rugosa rose (*Rosa 'Max Graf'*) for flower color.

Roses were an important part of the plant palette on the Parkway in 1932, and nearly 1400 memorial roses (*Rosa wichuraiana*) were planted at the northern entrance to the Airport section in 1942, a direct connection with Simonson's use of the same species. Memorial rose was also used in 1963.

SHRUBS

BOTANICAL NAME	COMMON NAME	1932	1942	1949	1963	1965	1975	1976	1978	1984
Rhus glabra	**Smooth Sumac**	**4585**								
Rosa virginiana (R. lucida [32])	**Virginia Rose**	**2895**								
Morella caroliniensis (Myrica carolinensis [32])	**Southern Bayberry**	**1465**	974							
Rosa palustris	**Swamp Rose**	**1410**								
Cephalanthus occidentalis	**Buttonbush**	**1390**								
Rosa blanda	**Smooth Rose**	**1320**								
Rosa carolina (R. humilis [32])	Carolina Rose, Pasture	690								
Rhus aromatica (R. canadensis [32])	Fragrant Sumac	520								
Viburnum dentatum	Arrowwood Viburnum	488			140	90		?[5]	131	
Lindera benzoin (Benzoin aestivale [32])	Spicebush	470		51	39	45				
Robinia hispida	Bristly Locust, Roseacacia	465								
Salix discolor	Pussy Willow	453								
Sambucus canadensis	Common Elderberry	356								
Rhus copallinum (R. copallina [32])	Winged (Shining) Sumac	280								
Rosa multiflora	Multiflora Rose	265								
Clethra alnifolia	Summersweet Clethra	255								
Ligustrum ibota var regelianum	Privet	190		150						
Hypericum densiflorum	Bushy St Johnswort	185								
Cornus sericea (C. stolonifera [32])	Redosier Dogwood	160	294		55	42		?[5]		
Rosa nitida	Shining Rose	160								
Rosa setigera	Climbing Rose	145								
Rosa eglanteria (R. rubiginosa [32])	Sweetbriar Rose	130								
Ceanothus americanus	New Jersey Tea	130								
Rhus typhina	Staghorn Sumac	115								
Prunus maritima	Beach Plum	115								
Rosa rugosa	Rugosa Rose	115								
Prunus pumila var. besseyi (P. besseyi [32])	Western Sandcherry	105								
Symphoricarpos orbiculatus (S. vulgaris [32])	Coralberry	60								
Hamamelis virginiana	Common Witchhazel	75		21	22	20				
Baccharis halimifolia	Eastern Baccharis	50								
Salix irrorata	Dewystem Willow	45								
Alnus incana	Gray Alder	43								
Viburnum lentago	Nannyberry	35								

SHRUBS (cont.)

BOTANICAL NAME	COMMON NAME	1932	1942	1949	1963	1965	1975	1976	1978	1984
Salix elaeagnos (S. incana '32)	Elaeagnus Willow	25								
Rosa Hiawatha	Hiawatha Rose	9								
Cornus racemosa (C. paniculata '32)	Gray Dogwood				119	15				
Euonymus alatus 'Compacta'	Winged Euonymus							?5		
Forsythia suspensa	Weeping Forsythia							?5		
Forsythia × intermedia	Showy Forsythia			50						
Ilex verticillata	Common Winterberry				183	46				
Ligustrum obtusifolium regelianum (L. obtusifolium '76)	Regel's Border Privet			42	143	10				
Ligustrum ovalifolium	California Privet			50						
Morella pensylvanica (Myrica pennsylvanica '32)	Northern Bayberry			60						
Myrica cerifera	Southern Waxmyrtle		123							
Photinia pyrifolia (A. arbutifolia '49,'65)	Red Chokeberry			180	167	36				
Prunus laurocerasus 'Schipkaensis'	Common Cherrylaurel								125	
Prunus tomentosa	Nanking Cherry			8						
Rhamnus sp.	Buckthorn			7						
Symphoricarpos × chenaultii	Chenault Coralberry			300						
Viburnum acerifolium	Mapleleaf Dogwood				86	20			233	
Viburnum plicatum var tomentosum (V. tomentosum '49)	Japanese Snowball			30						
Viburnum prunifolium	Blackhaw			12	379	73			199	
Viburnum rufidulum	Rusty (Southern) Blackhaw						1			

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932	1942	1949	1963	1965	1975	1976	1978	1984
Celastrus orbiculatus	**Oriental Bittersweet**	**1217**								
Parthenocissus quinquefolia (A. auinauefolia '32)	Virginia Creeper	355								
Rosa wichuraiana	Memorial Rose	265	1393		260					
Lonicera japonica halliana	Japanese Honeysuckle	250								
Celastrus scandens	American Bittersweet	194								
Ampelopsis brevipedunculata (A. heterophylla '32)	Porcelainberry	141								

VINES & GROUNDCOVER (cont.)

BOTANICAL NAME	COMMON NAME	1932	1942	1949	1963	1965	1975	1976	1978	1984
Akebia quinata	Five-leaf Akebia	115								
Clematis virginiana	Virginsbower	55								
Bignonia radicans	Trumpetcreeper	52								
Clematis terniflora (C. paniculata '32)	Sweet Autumn Clematis	34								
Vitis aestivalis	Summer Grape	16								
Parthenocissus tricuspidata 'Lowii' *(Ampelopsis tricuspidata Lowi '32)*	Boston Ivy	12								
Polygonum baldschuanicum (P. auberti '32)	Bukhara Fleeceflower	4								
Juniperus chinensis 'San Jose'	San Jose Juniper							?5		

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932	1942	1949	1963	1965	1975	1976	1978	1984
none										

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
? Quantity unknown.
5 Unknown or not specified.

ROACHES RUN TO BRIDGES
1932 Simonson Plan

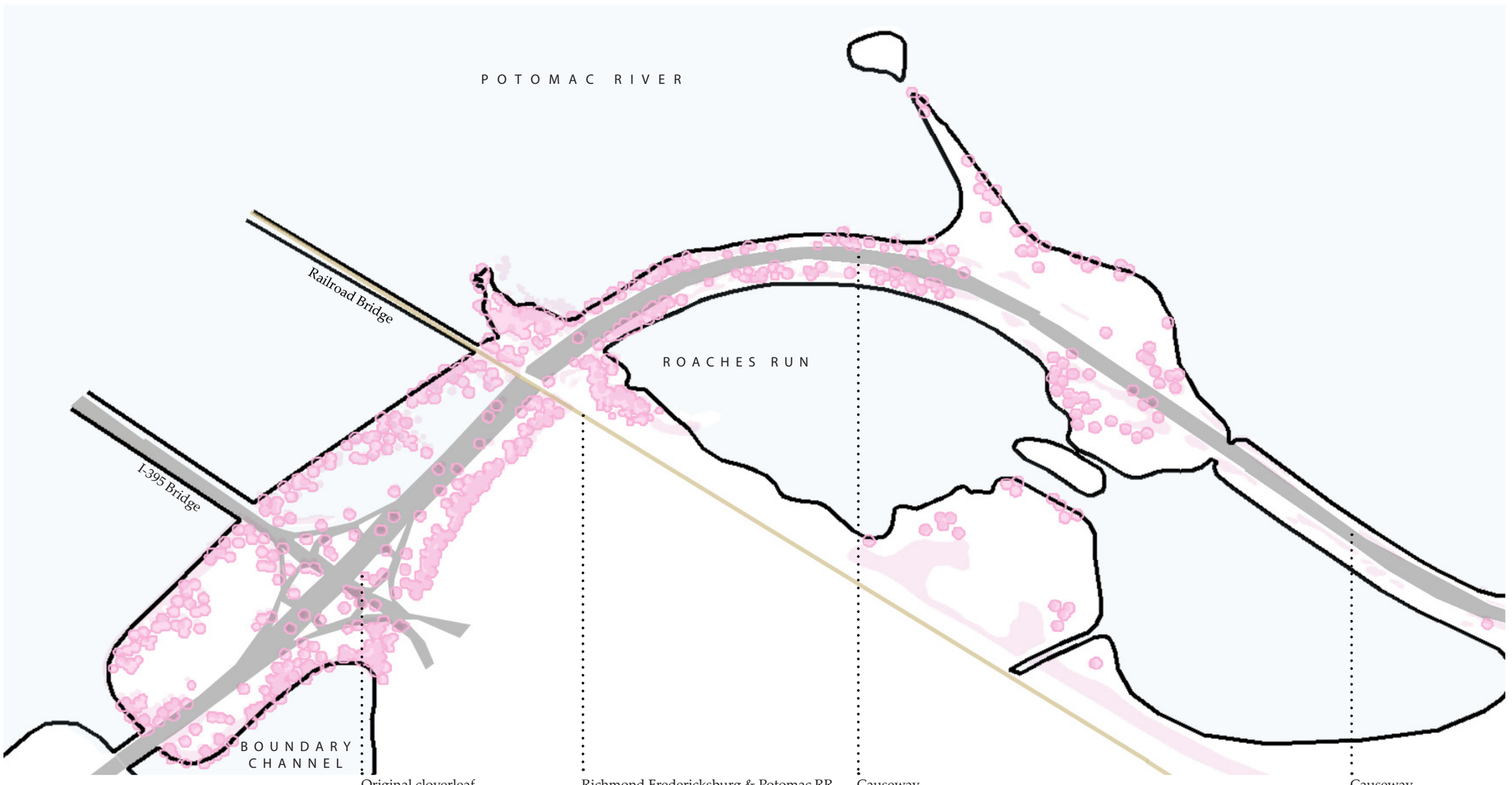
The segment of the Parkway from Roaches Run to Humpback Bridge includes three character areas: Roaches Run, Gravelly Point and Bridges. (See 2009 Composite for character area boundaries, pp. 138-139.)

This stretch of the Parkway along Roaches Run and Gravelly Point was one of the more dramatic and distinctive sections of Simonson's design. In his plan shrubs greatly outnumber trees both in numbers of species and numbers of individuals planted. The causeway is planted with shrubs to stabilize the banks, and roses and other ornamental shrubs line the roadway and keep the landscape low and open as it crosses between the adjacent bodies of water. Along the far shore of Roaches Run, Simonson calls for bald cypress (*Taxodium distichum*) to bring woodland to the water's edge.

At Gravelly Point, Simonson uses elms on the actual point to set up a dramatic view of the U.S. Capitol. From the open causeway the elms would mask the view of the Capitol, but once motorists pass between them, the dome of the capitol would appear directly in front of them. Then as the roadway curves to the left, they would encounter the Washington Monument rising above a rich mixture of medium size and ornamental trees. These trees presumably diminish the view of the railroad bridge before motorists pass through the underpass and encounter the 14th Street Bridge interchange.

The cloverleaf interchange was cutting-edge road design in 1932, and Simonson highlights it with roses within the loops of the cloverleaf and a few Japanese pagoda trees (*Sophora japonica*) for sculptural interest. These plantings simultaneously ornament this important element and yet keep it open so that drivers could see the new loops and know where they were going. Simonson uses larger species—elms, oaks, maples and plane trees—to define the edges of the space around the cloverleaf, making the cloverleaf itself a singular feature within a larger room defined by shade trees around the perimeter. On the western edge, as in other character areas, Simonson plants denser groups of trees to create a more natural character, whereas on the eastern edge trees are treated more as individual specimens.

RIGHT PAGE
1932 Simonson Plan with the existing vegetation in 1932.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)



0
150
300
450
600
scale

north

ROACHES RUN TO BRIDGES
1959 Benchmark

Physical Changes

There were no planting plans between 1932 and 1962, but the 1959 aerial photograph shows significant changes to the landform and consequent changes to the vegetation.

The small island in the middle of Roaches Run has disappeared making it a larger, more unified body of water on the west side of the Parkway. The vegetation along the Run is evidently maturing.

The original Gravelly Point is gone, and new fill is being added in the Potomac River, which will take its current form by the time of the 1963 plan. Probably due to this new fill, the trees and shrubs from Simonson's plan are eliminated from this stretch, however, those closer to the railroad bridge are maturing.

A new 14th Street Bridge was constructed in 1950 between the original bridge and the railroad bridge, and the original cloverleaf was removed. Presumably the 1932 plantings around the cloverleaf were also removed at this time, and the original interior space has been divided into smaller rooms. A group of buildings (the Marriott Twin Bridges Motel) appear in the 1959 aerial photo just northwest of Roaches Run but they are removed by the time of the 1985 aerial.

RIGHT PAGE
(1959 Aerial) with the existing vegetation in 1959.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)


POTOMAC RIVER
Railroad Bridge
14th St. Bridge
I-395 Bridge
ROACHES RUN
BOUNDARY CHANNEL
Location of original cloverleaf
Marriott Twin Bridges Motel
Filling in shoreline
Airport

ROACHES RUN TO BRIDGES

1960s Plans

In the 1960s five planting plans were installed. The 1960 plan proposes lines of new shrubs with a few ornamental trees in the median and along the edges of the roadway along Roaches Run and Gravelly Point. The 1963 plan calls for repeated clusters of three to five trees along the Gravelly Point side of the Parkway, creating a more uniform character than Simonson had proposed along the same stretch. A 1965 plan expands the 1963 plantings, mostly with flowering dogwood (*Cornus florida*). Otherwise the bulk of Gravelly Point is left open in these plans.

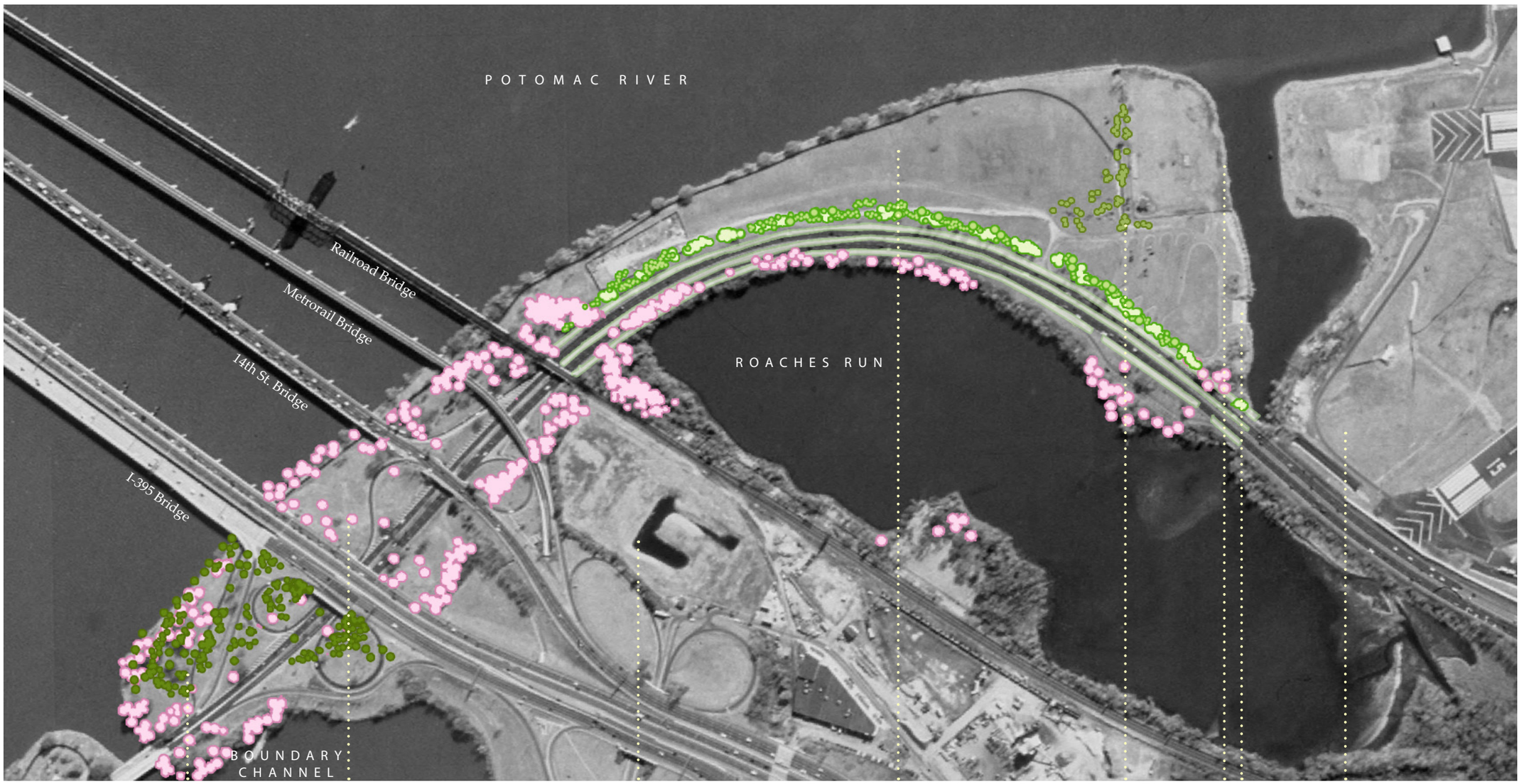
Governors Grove is planted in 1967 in the southeastern portion of Gravelly Point. The planting plan calls for a special grove of flowering dogwoods at Gravelly Point with one tree planted for each U. S. state and territory.

North of the Bridges, new plantings are installed in 1969 in response to new bridge interchanges. The plan calls for willows evenly spaced along the shoreline and numerous dogwoods, zelkovas and pines planted in the interior spaces of the cloverleaf. Though the plan indicates that only the dogwoods were to be planted, aerial photographs suggest that more of the plan was implemented.

Physical Changes

The entire area of Gravelly Point had changed by 1963. The causeway and narrow spit of land had been transformed into the broad field that characterizes Gravelly Point today. The north/south runway at the airport was extended, also on new fill, and narrowed the outlet of Roaches Run. New tree height restrictions impact the size and locations of trees planted within the glide slope of the runways. A new bridge carrying I-395 had been added that necessitated removal of the original cloverleaf interchange and construction of a more complicated set of entrance and exit ramps.

RIGHT PAGE
(1985 Aerial) with the existing vegetation in the 1960s.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1960 RF&P Railroad Bridge to National Airport (pale green)
(NPS TIC 850/85505A)
1963 14th St. Bridge to Alexandria (light green)
(NPS TIC 850/85634A)
1965 14th St Bridge to Roaches Run (medium green)
(*Supplement for 1963*) *[East of GWMP] (NPS TIC 850/85744)*
1967 Program Map for Dogwood Planting at [Governors Grove] Gravelly Point, (green)
Mar 18, 1967 (NPS TIC 850/85870)
1969 Dogwood Plantings Gravelly Pt. to N. George Mason Bridge (dark green) *(NPS TIC 850/85813A)*



1932
1960
1963
1965
1967
1969

133

Roaches Run to Bridges

0
150
300
450
600
scale

north

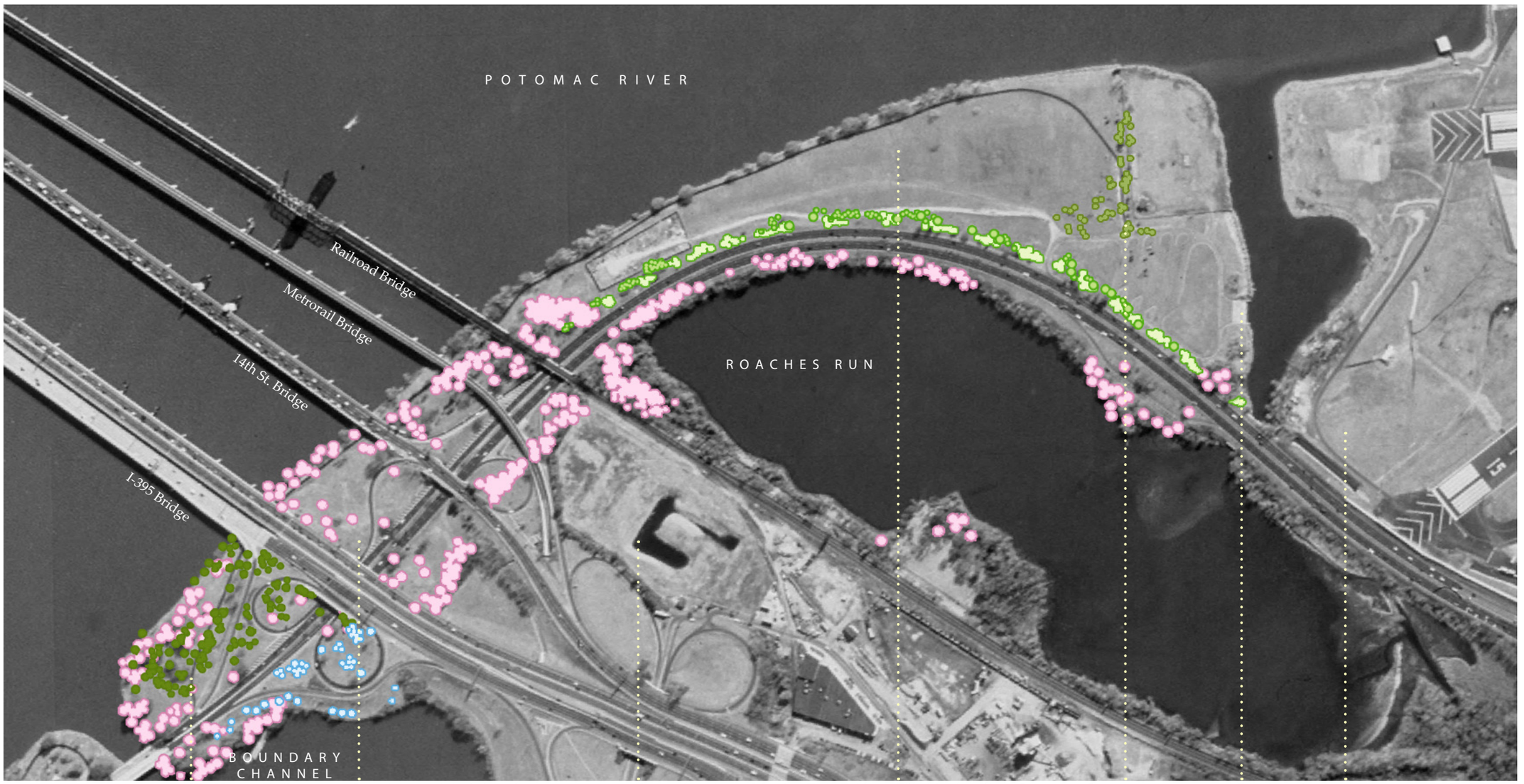
ROACHES RUN TO BRIDGES

1971 Plan

There was only one planting plan in the 1970s pertaining to a new cloverleaf exit ramp for the I-395 Bridge. The 1971 plan adds oaks, dogwoods and zelkovas to the interior of the new cloverleaf, replacing many of the trees from the 1962 plan and adding to the flowering trees framing the bridge. A few willows and dogwoods are planted along the adjacent shoreline adding to those still remaining from 1932.

Physical Changes
The cloverleaf was added on the northwest quadrant of the I-395 bridge, adjacent to Boundary Channel, which was filled slightly to make room for the loop. The Metrorail Bridge was constructed in 1974.

RIGHT PAGE
(1985 Aerial) with the existing vegetation in the 1970s.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1963 14th St. Bridge to Alexandria (light green)
(NPS TIC 850/85634A)
1965 14th St Bridge to Roaches Run (medium green)
(*Supplement for 1963*) *[East of GWMP] (NPS TIC 850/85744)*
1967 Program Map for Dogwood Planting at [Governors Grove] Gravelly Point, (green)
Mar 18, 1967 (NPS TIC 850/85870)
1969 Dogwood Plantings Gravelly Pt. to N. George Mason Bridge (dark green) *(NPS TIC 850/85813A)*
1971 Mixing Bowl Interchange Complex (light blue)
(NPS TIC 850/85854B)



1932
1963
1965
1967
1969
1971

135

Roaches Run to Bridges

0
150
300
450
600
scale

north

ROACHES RUN TO BRIDGES

1980s Plans

There were three additional planting plans in the 1980s: two in 1980 and one in 1988.

A 1980 plan calls for the restoration of Governors Grove because the original planting of dogwoods did not survive. This second planting (actually installed in 1982) includes Japanese black pine (*Pinus thunbergii*) mixed with the dogwoods, yet once again the dogwoods did not survive, leaving only the pines.

Another plan in 1980 addresses changes to the entrance and exit ramps between the Parkway and the I-395 bridges. Shrubs and trees line the roadways, and additional masses of vegetation frame the bridges.

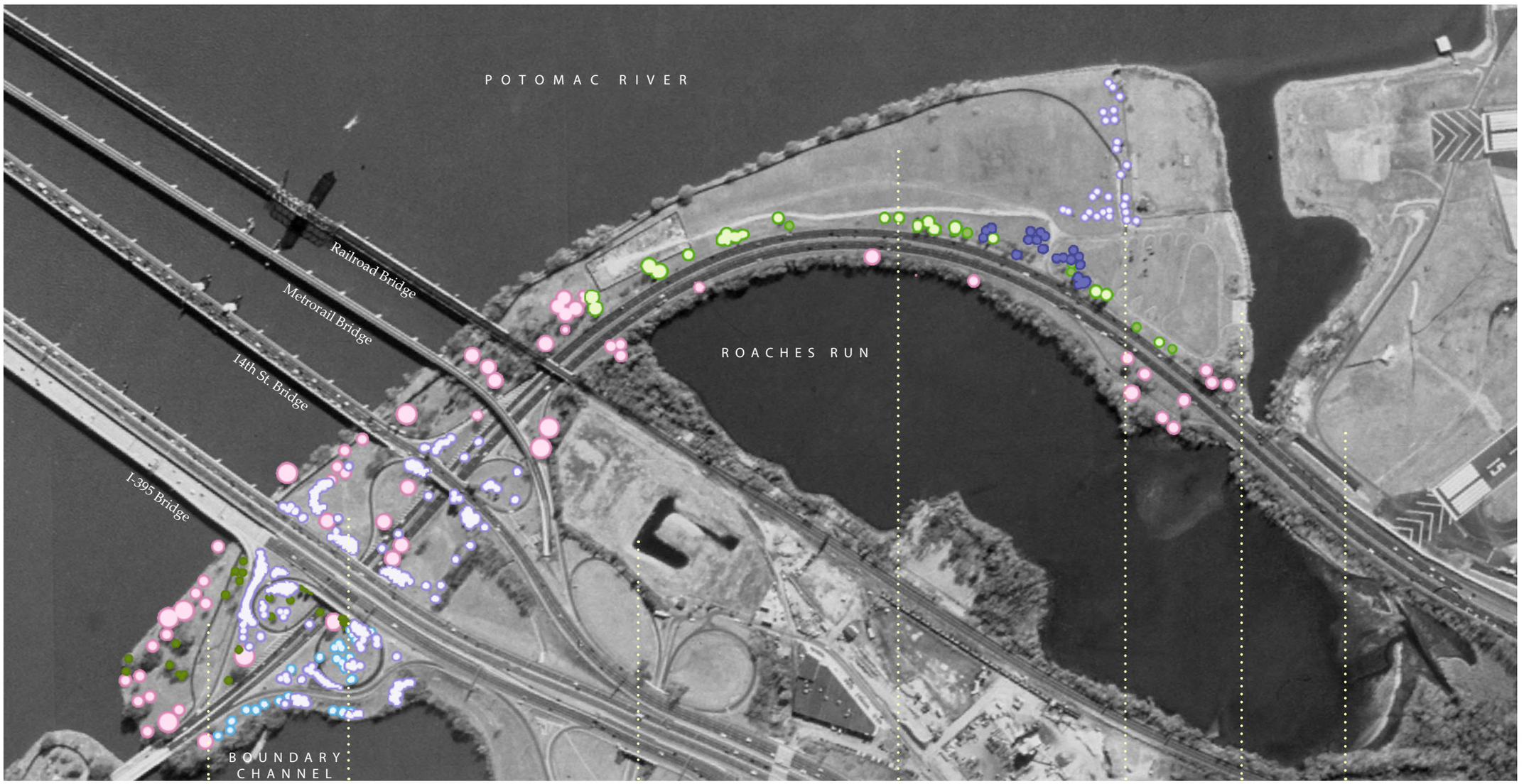
In 1988, the entrance to Gravelly Point is designed and planted. Ornamental trees, shrubs and perennials are integrated with existing trees from 1963, 1965 and some that do not conform to any known plan.

A line of trees shows up in the 1985 aerial photograph along the new shoreline of Gravelly Point, and apparently these are volunteers as they do not show up on any plan.

Physical changes

There were no significant changes to the landform or roads in this time period.

RIGHT PAGE
(1985 Aerial) with the existing vegetation in the 1980s.
1932 Simonson Plan (pink) *(NPS TIC 850/80156)*
1963 14th St. Bridge to Alexandria (light green) *(NPS TIC 850/85634A)*
1965 14th St Bridge to Roaches Run (medium green) (*Supplement for 1963*) *[East of GWMP] (NPS TIC 850/85744)*
1969 Dogwood Plantings Gravelly Pt. to N. George Mason Bridge (dark green) *(NPS TIC 850/85813A)*
1971 Mixing Bowl Interchange Complex (light blue) *(NPS TIC 850/85854B)*
1980 Rennovation & Restoration Planting 14th St. Bridge Approach (light purple) *(NPS TIC 850/80116)*
1980 Governors Grove Replanting Gravelly Point (light purple) *(NPS TIC 850/80131)*
1988 Gravelly Point [Entrance] Planting (dark purple) *(NPS TIC 850/86010)*



1932
1963
1965
1969
1971
1980
1988

137

Roaches Run to Bridges

0
150
300
450
600
scale

north

ROACHES RUN TO BRIDGES
2009 Planting Composite

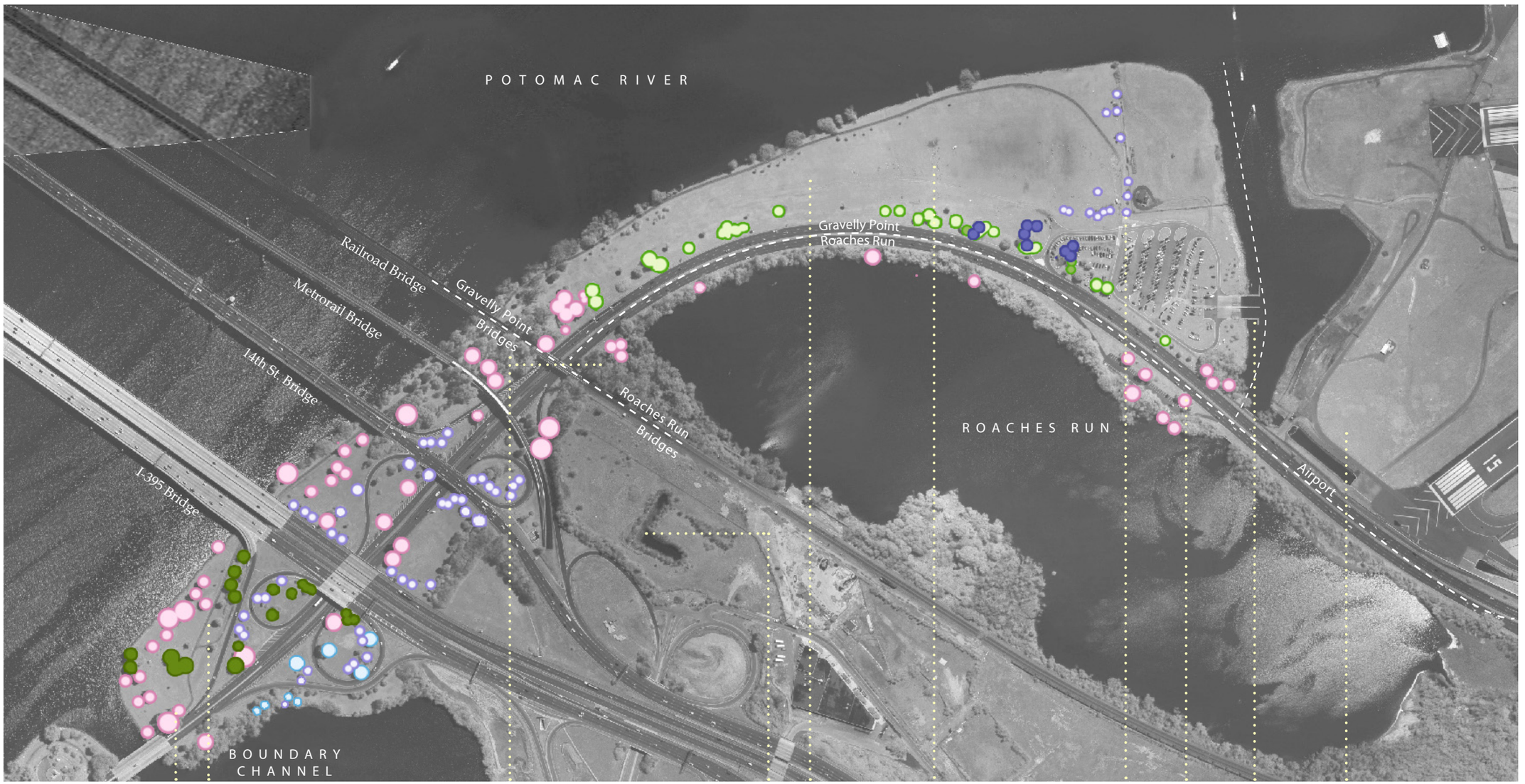
RIGHT PAGE
(2004 Aerial) with the existing vegetation in 2009.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1960 RF&P Railroad Bridge to National Airport (pale green)
(NPS TIC 850/85505A)
1963 14th St. Bridge to Alexandria(light green)
(NPS TIC 850/85634A)
1965 14th St Bridge to Roaches Run (medium green)
(*Supplement for 1963*) *[East of GWMP] (NPS TIC 850/85744)*
1967 Program Map for Dogwood Planting at [Governors Grove] Gravelly Point, (green)
Mar 18, 1967 (NPS TIC 850/85870)
1969 Dogwood Plantings Gravelly Pt. to N. George Mason Bridge (dark green) *(NPS TIC 850/85813A)*
1971 Mixing Bowl Interchange Complex (light blue)
(NPS TIC 850/85854B)
1980 Rennovation & Restoration Planting 14th St. Bridge Approach (light purple) *(NPS TIC 850/80116)*
1980 Governors Grove Replanting Gravelly Point (light purple) *(NPS TIC 850/80131)*
1988 Gravelly Point [Entrance] Planting (dark purple)
(NPS TIC 850/86010)

The three character areas that make up this section of the Parkway have quite different planting histories as evidenced by the 2009 composite palimpsest.

Roaches Run was only planted in 1932, and although the vegetation today does not resemble the Simonson plan, the changes are due mostly to the effects of the invasion of bush honeysuckle (*Lonicera maackii*). The honeysuckle was removed in 2008, but the impacts are still evident in the spacing, form and composition of the species.

Gravelly Point is very different than it was in 1932, due to changes in planting strategies and to the creation of so much land between the Parkway and the river. This character area has been planted several times with quite distinct intentions, but little of any of the plantings remain other than at the entrance to the parking area. The 1932 plantings are largely gone, except near the railroad bridge, as are most of the 1963 and 1965 plantings along the roadway. None of the dogwoods remain at Governors Grove, and only the pines remain from the second planting. At the parking entrance, a mixture of trees from the 1963, 1965, 1988 and at least one unknown planting fill in gaps and generally make for a more rich and diverse planting to mark the entrance. Other vegetation, especially along the river's edge has either volunteered or has been planted without an archived planting plan.

Between and around the Bridges, there have also been many plantings, some replacing others that have been removed due to reconfiguration of the bridges and ramps. A fair number of the 1932 plantings still exist, scattered throughout the character area, but the composite effect of all the plantings is very different than the 1932 plan. Vegetation from various later plantings still exists, but it does not have the unified character that Simonson envisioned. Volunteer vegetation has established along the river's edge, especially between the Metrorail and railroad bridges.


POTOMAC RIVER
Railroad Bridge
Metrorail Bridge
14th St. Bridge
I-395 Bridge
Gravelly Point Bridges
Roaches Run Bridges
Gravelly Point
Roaches Run
ROACHES RUN
Airport
BOUNDARY CHANNEL
1932
1963
1965
1969
1971
1980
1988
0
150
300
450
600
scale
north
'32 Elms/Zelkovas
Mt. Vernon Trail
Naturalized woodland
Former location of Marriott Twin Bridges
Filled in shoreline
Rugby fields
'80 Japanese pines
'32 Elms
Boat launch
Airport

ROACHES RUN
Plant Palette
Trees, Shrubs,Vines, Perennials and Groundcover

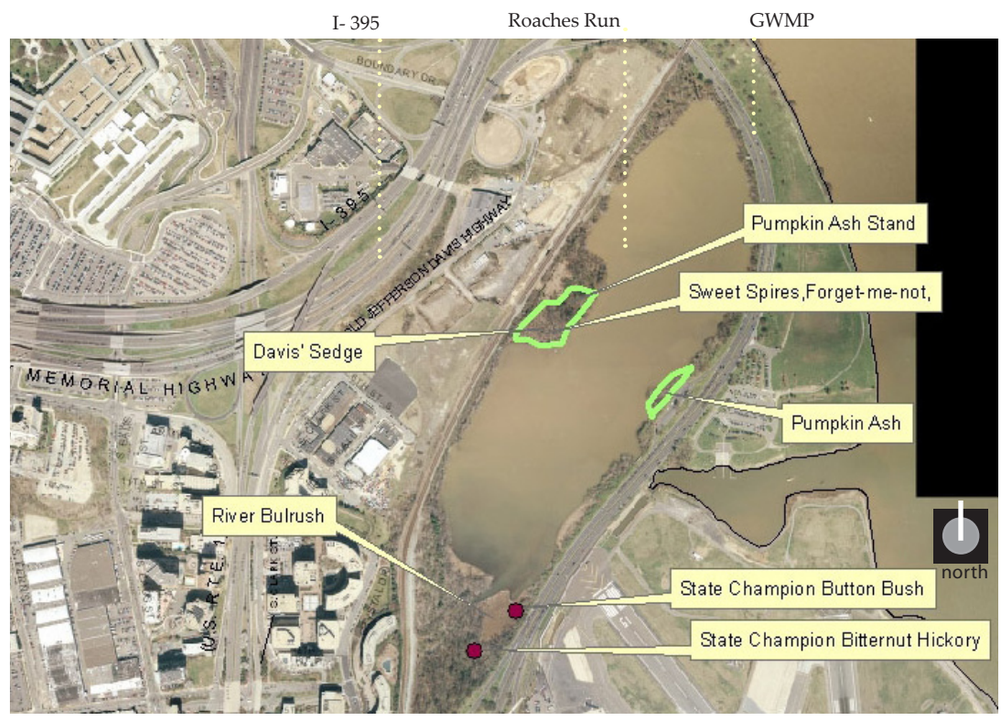
The dominant shade trees from 1932 were red maple (*Acer rubrum*), quaking aspen (*Populus tremuloides*) and bald cypress (*Taxodium distichum*), which extend and fill the forest edge on the opposite shore. Along with the prevalent willow species (*Salix sp.*), hundreds of other shrubs were planted to stabilize fill areas along the Parkway, typically with roses in the foreground.

Other species have seeded in, probably brought in by wind and wildlife. Bush honeysuckle (*Lonicera maackii*) invaded the banks of Roaches Run extensively and outcompeted many other species. It was cut down in Fall 2008.

Perhaps most significant are rare species and champion trees and shrubs discovered at Roaches Run, some apparently date to before the original 1932 Parkway. There are two Virginia champion plants located at its southeast edge: the third largest bitternut hickory (*Carya cordiformis*), and the largest buttonbush (*Cephalanthus occidentalis*) with a circumference of 24 inches at breast height, a crown spread of 64 feet, and height of 16 feet. Among the twelve rare species also found here are: two stands of pumpkin ash (*Fraxinus profunda*), Virginia sweetspire (*Itea virginica*), Davis' sedge (*Carex davisii*), and river bulrush (*Schoenoplectus fluviatilis syn. Scirpus fluviatilis*). [1]

Rare and Champion Species

- Davis' Sedge (*Carex davisii)*
- Virginia Sweetspire (*Itea virginica*),
  Forget-Me-Not (Myosotis laxa)
- Pumpkin Ash Stand (*Fraxinus profunda*)
- Pumpkin Ash (*F. profunda*)
- River Bulrush
  (*Schoenoplectus fluviatilis syn. Scirpus fluviatilis)*
- State Champion Button Bush
  (*Cephalanthus occidentalis*)
- State Champion Bitternut Hickory
  (*Carya cordiformis*)



LEFT PAGE
Image of rare and champion species at Roaches Run.
RIGHT PAGE
1932 Simonson Plan *Sheets 7-8.*
(NPS TIC 850/80156)

Footnotes

[1] Zell, Greg. 2007. "Natural Resource Inventory of Roaches Run Waterfowl Sanctuary." Arlington County, Virginia, Natural Resource Management Division, Department of Parks, Recreation and Cultural Resources.

SHADE TREES

BOTANICAL NAME	COMMON NAME	QTY
Salix alba (S. vitellina '32)	**White Willow**	**130**
Betula nigra	**River Birch**	**60**
Acer rubrum	Red Maple	35
Populus tremuloides	Quaking Aspen	30
Taxodium distichum	Bald Cypress	30
Gleditsia triacanthos	Honeylocust	23
Salix x pendulina (S. elegantissima '32)	Wisconsin Weeping Willow	18
Ulmus americana	American Elm	11
Salix alba 'Britzensis' *(S. vitellina* 'Britzensis'[32]*)*	Coral Bark Willow	10
Salix sp. [1]	Willow species	3

MEDIUM SIZE TREES

BOTANICAL NAME	COMMON NAME	QTY
Carpinus caroliniana	**American Hornbeam**	**62**
Phellodendron chinense	Chinese Corktree	17
Morus alba	White Mulberry	4

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	QTY
Toona sinensis (Cedrela sinensis '32)	**Chinese Toon**	**16**
Cornus florida	**Flowering Dogwood**	**15**
Koelreuteria paniculata	Golden Raintree	6
Sophora japonica	Japanese Pagoda Tree	5
Styrax japonica	Japanese Snowbell	1

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	QTY
none		

SHRUBS

BOTANICAL NAME	COMMON NAME	QTY
Robinia hispida	**Bristly Locust, Roseacacia**	**590**
Morella caroliniensis (Myrica caroliniensis '32)	**Southern Bayberry**	**540**
Rosa virginiana (R. lucida '32)	**Virginia Rose**	**535**
Rosa blanda	**Smooth Rose**	**367**
Cornus sericea (C. stolonifera '32)	Redosier Dogwood	262
Rosa rugosa	Rugosa Rose	244
Sambucus canadensis	Common Elderberry	155
Prunus maritima	Beach Plum	152
Salix discolor	Pussy Willow	148
Rhus glabra	Smooth Sumac	145
Rosa eglanteria (R. rubiginosa '32)	Sweetbriar Rose	132
Viburnum lentago	Nannyberry	100
Rosa setigera	Climbing Rose	65
Salix irrorata	Dewystem Willow	60
Cornus sericea 'Flaviramea' *(C. stolonifera var* 'Flaviramea'[32]*)*	Redosier Dogwood	45
Salix elaeagnos (S. incana '32)	Elaeagnus Willow	35
Sorbaria aitchisonii	Kashmir falsespirea	30
Rosa palustris	Swamp Rose	25
Zanthoxylum americanum	Common Pricklyash	25
Rhus typhina	Staghorn Sumac	15

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	QTY
Clematis virginiana	**Virginsbower**	**77**
Celastrus scandens	American Bittersweet	35
Ampelopsis brevipedunculata (A. heterophylla '32)	Porcelainberry	30
Polygonum baldschuanicum (P. auberti '32)	Bukhara Fleeceflower	28
Parthenocissus quinquefolia (Ampelopsis quinquefolia '32)	Virginia Creeper	11
Bignonia radicans	Trumpetcreeper	8

PERENNIALS

BOTANICAL NAME	COMMON NAME	QTY
none		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
1 Probably *Salix alba (S. vitellina).*

GRAVELLY POINT

Plant Palette

Shade, Ornamental and Evergreen Trees

Gravelly Point was sparsely planted with shade trees in 1932; the dominant species were pin oak (*Quecus palustris*), American elm (*Ulmus americana*) and honeylocust (*Gleditsia triacanthos*). Weeping willow (*Salix x pendulina*), sugar maple (*Acer saccharum*), and red maple (*A. rubrum*) have since replaced elms and honeylocusts as the favored tree species and were planted almost continuously along the roadside. Flowering dogwood (*Cornus florida*) has been the favorite ornamental tree and the centerpiece of the Governors Grove plantings in 1967 and in 1980, although none of them have survived. Several other ornamental trees have been tried at Gravelly Point: eastern redbud (*Cercis canadensis*), white fringetree (*Chionanthus virginicus*), shadblow serviceberry (*Amelanchier canadensis*) and Washington hawthorn (*Crataegus phaenopyrum*) among them. Evergreen trees were also added with Japanese black pine (*Pinus thunbergii)* as part of the 1980 Governor's Grove, and American holly (*Ilex opaca*) used at the entrance as an ornamental tree (as indicated on the plan.)

RIGHT PAGE

1932 Simonson Plan *Sheets 7-8. (NPS TIC 850/80156)*

1960 RF&P Railroad Bridge to National Airport *(NPS TIC 850/85505A)*

1963 14th St. Bridge to Alexandria *(NPS TIC 850/85634A)*

1965 14th St Bridge to Roaches Run (*Supplement for 1963*) *[East of GWMP] (NPS TIC 850/85744)*

1967 Program Map for Dogwood Planting at [Governors Grove] Gravelly Point, *Mar 18, 1967 (NPS TIC 850/85870)*

1980 Governors Grove Replanting Gravelly Point *(NPS TIC 850/80131)*

1988 Gravelly Point [Entrance] Planting *(NPS TIC 850/86010)*

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932	1960	1963	1965	1967	1980	1988
Quercus palustris	**Pin Oak**	13						
Ulmus americana	**American Elm**	13						
Gleditsia triacanthos	**Honeylocust**	12						
Salix alba (S. vitellina '32)	**White Willow**	10						
Quercus phellos	Willow Oak	6		6	1			
Quercus macrocarpa	Bur Oak	3						
Acer rubrum	Red Maple			4	11			
Acer saccharum	Sugar Maple			12	1			
Quercus rubra (Q. borealis '65)	Red Oak				2			
Salix x pendulina (S. elegantissima '32 , S. babulonica '63)	Wisconsin Weeping Willow			13				

MEDIUM SIZE TREES

BOTANICAL NAME	COMMON NAME	1932	1960	1963	1965	1967	1980	1988
Phellodendron chinense	Chinese Corktree	22						
Morus alba	White Mulberry	8						
Carpinus caroliniana	American Hornbeam	6	6					
Nyssa sylvatica	Black Gum	3						

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932	1960	1963	1965	1967	1980	1988
Cornus florida [1]	**Flowering Dogwood**	10	17	10	175	* 54	* 44	
Sophora japonica	**Japanese Pagoda Tree**	10						12
Koelreuteria paniculata	Golden Raintree	4						8
Styrax japonica	Japanese Snowbell	4						
Toona sinensis (Cedrela sinensis '32)	Chinese Toon	3						
Amelanchier canadensis	Shadblow Serviceberry		19					8
Cercis canadensis	Eastern Redbud		28	9				
Chionanthus virginicus	White Fringetree		20					
Cornus florida 'Rubra'	Pink Flowering Dogwood						* 10	
Cornus kousa	Chinese Dogwood							8
Crataegus phaenopyrum (C. cordata '32)	Washington Hawthorn		9					
Malus floribunda	Japanese Flowering		20					
Malus scheideckeri	Scheidecker's Crabapple		9					

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932	1960	1963	1965	1967	1980	1988
Ilex opaca [2]	American Holly							20
Pinus strobus [3]	White Pine			15	2			
Pinus thunbergii [1]	Japanese Black Pine						* 40	

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
1 The 1967 Governors Grove of flowering dogwoods (*Cornus florida*) was replanted in March 1982 with Japanese black pines (*Pinus thunbergi*) and a note that ten or twelve of the 54 dogwoods shall be pink. A few of the pines remain today.
2 American holly (*Ilex opaca*) listed as Flowering Tree in 1963 (NPS TIC 850/85634A).
3 White pine (*Pinus strobus*) listed as Shade Tree in 1963 (NPS TIC 850/85634A).

GRAVELLY POINT

Plant Palette

Shrubs, Vines, Perennials and Groundcover

Simonson's palette of shrubs at Gravelly Point was similar to that on the opposite side of the causeway along Roaches Run with Virginia rose (*Rosa virginiana*), southern bayberry (*Morella carolinensis*) and bristly locust (*Robinia hispida*) dominating. Median and roadside plantings in 1960 and 1963 incorporated mostly new species of shrubs compared to the 1932 palette: 2300 plants of Regel's border privet (*Ligustrum obtusifolium*) were the most used. The plantings at the entrance to the Gravelly Point parking area also introduced new species: burning bush (*Euonymus alatus*), summersweet clethra (*Clethra alnifolia*), doublefile viburnum (*Viburnum plicatum var tomentosum*) and rugosa rose (*Rosa rugosa*), which had also been used in 1932. Memorial rose (*Rosa wichuraiana*) was part of the 1960 median plantings, but surprisingly Simonson had not used them at Gravelly Point.

Perennials appear at the entrance to Gravelly Point in 1988. Twelve thousand daffodils were planted along with more than 3000 orange coneflower (*Rudbeckia fuldiga var. speciosa* 'Goldstrum') and purple coneflower (*Echinacea purpurea*).

RIGHT PAGE

1932 Simonson Plan *Sheets 7-8. (NPS TIC 850/80156)*

1960 RF&P Railroad Bridge to National Airport *(NPS TIC 850/85505A)*

1963 14th St. Bridge to Alexandria *(NPS TIC 850/85634A)*

1965 14th St Bridge to Roaches Run (*Supplement for 1963*) *[East of GWMP] (NPS TIC 850/85744)*

1967 Program Map for Dogwood Planting at [Governors Grove] Gravelly Point, *Mar 18, 1967 (NPS TIC 850/85870)*

1980 Governors Grove Replanting Gravelly Point *(NPS TIC 850/80131)*

1988 Gravelly Point [Entrance] Planting *(NPS TIC 850/86010)*

SHRUBS

BOTANICAL NAME	COMMON NAME	1932	1960	1963	1965	1967	1980	1988
Rosa virginiana (R. lucida '32)	**Virginia Rose**	**465**						
Morella caroliniensis (Myrica caroliniana '32)	**Southern Bayberry**	**435**						
Robinia hispida	**Bristly Locust, Roseacacia**	**785**						
Rosa blanda	**Smooth Rose**	**448**						
Rosa rugosa	Rugosa Rose	277						365
Sambucus canadensis	Common Elderberry	265						
Cornus sericea (C. stolonifera '32)	Redosier Dogwood	245	71	5				
Rosa eglanteria (R. rubiginosa '32)	Sweetbriar Rose	203						
Salix discolor	Pussy Willow	198						
Prunus maritima	Beach Plum	137	24					
Rhus glabra	Smooth Sumac	125						
Rosa setigera	Climbing Rose	60						
Cornus sericea 'Flaviramea' *(C. stolonifera var* 'Flaviramea'*'32)*	Redosier Dogwood	20						
Viburnum lentago	Nannyberry	15	42					
Rhus typhina	Staghorn Sumac	10	5					
Rosa palustris	Swamp Rose	10						
Salix elaeagnos (S. incana '32)	Elaeagnus Willow	7						
Clethra alnifolia	Summersweet Clethra							275
Cornus racemosa (C. paniculata '32)	Gray Dogwood		39	35				
Cornus sanguinea	Bloodtwig Dogwood		105					
Corylus americana	American Hazelnut		44					
Euonymus alatus 'Compacta'	Dwarf Winged Euonymus							475
Frangula alnus (Rhamnus frangula '32)	Glossy Buckthorn		34					
Frangula caroliniana (Rhamnus caroliniana '32)	Carolina Buckthorn		52					
Hamamelis virginiana	Common Witchhazel		23	17				
Ilex verticillata	Common Winterberry			88				
Ligustrum obtusifolium (L. obtusifolium regelianum '60)	Regel's Border Privet		2300					
Lindera benzoin (Benzoin	Spicebush		10	25				
Morella pensylvanica (Myrica pennsylvanica '32)	Northern Bayberry			28				
Myrica cerifera	Southern Waxmyrtle		97					

SHRUBS (cont.)

BOTANICAL NAME	COMMON NAME	1932	1960	1963	1965	1967	1980	1988
Photinia pyrifolia (Aronia arbutifolia '32)	Red Chokeberry		120	29				
Rhus copallinum (R. copallina '32)	Winged (Shining) Sumac		5					
Viburnum acerifolium	Mapleleaf Dogwood			7				
Viburnum dentatum	Arrowwood Viburnum		29	24				
Viburnum prunifolium	Blackhaw		32	71				
Viburnum trilobum	American Cranberrybush		43					
Viburnum plicatum var. tomentosum 'Mariesii'	Mariesii Doublefile Viburnum							160

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932	1960	1963	1965	1967	1980	1988
Rosa wichuraiana	**Memorial Rose**	**175**	**520**					
Clematis virginiana	**Virginsbower**	**78**						
Celastrus scandens	American Bittersweet	35						
Ampelopsis brevipedunculata (A. heterophulla '32)	Porcelainberry	32						
Polygonum baldschuanicum (P. auberti '32)	Bukhara Fleeceflower	28						
Parthenocissus quinquefolia	Virginia Creeper	11						
Bignonia radicans	Trumpetcreeper	8						
Parthenocissus tricuspidata 'Lowii' *(A. tricuspidata lowii'32)*	Boston Ivy	2						

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932	1960	1963	1965	1967	1980	1988
Echinacea purpurea (Rudbeckia purpurea '88)	Eastern Purple Coneflower							1300
Rudbeckia fulgida var. speciosa (R. 'Goldsturm'*'88)*	Orange Coneflower							2300

BULBS

BOTANICAL NAME	COMMON NAME	1932	1960	1963	1965	1967	1980	1988
unknown species	Daffodils							12,000

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)

BRIDGES

Plant Palette

Shade, Ornamental and Evergreen Trees

American elm (*Ulmus americana*), dominated the shade tree plantings at the Bridges. They were planted within the loops of the cloverleaf interchange and in the central median of the highway. Elms were also used with pin oak (*Quercus palustris*) and oriental planetree (*Platanus orientalis*) in loose clusters along the shoreline. Pin oaks and medium size American hornbeam (*Carpinus caroliniana*) screened the railroad bridge. In recent years, weeping willows (*Salix x pendulina*) dominate along with oaks and maples: sugar maple (*Acer saccharum*), red maple (*A. rubrum*), red oak (*Quercus rubra*), scarlet oak (*Q. coccinea*) and willow oak (*Q. phellos*).

Washington hawthorn (*Crataegus phaenopyrum, formerly C. cordata*) and flowering dogwood (*Cornus florida*) are the dominant ornamental trees in 1932 and in the 60s and 70s, but in 1980 Japanese flowering crabapple (*Malus floribunda*) was more heavily planted.

Four deodar cedars (*Cedrus deodara*) were planted to the west of the cloverleaf in 1932, the only evergreens in the Central Section at the time, but they did not survive the repeated bridge additions and modifications.

RIGHT PAGE
1932 Simonson Plan *Sheets 5-7. (NPS TIC 850/80156)*
1969 Dogwood Plantings Gravelly Pt. to N. George Mason Bridge (dark green) *(NPS TIC 850/85813A)*
1971 Mixing Bowl Interchange Complex (light blue) *(NPS TIC 850/85854B)*
1980 Rennovation & Restoration Planting 14th St. Bridge Approach (light purple) *(NPS TIC 850/80116)*

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932	1969	1971	1980
Ulmus americana [1]	**American Elm**	*** 115**			
Quercus palustris	**Pin Oak**	**56**			
Platanus orientalis	**Oriental Planetree**	**40**			
Acer rubrum	Red Maple	8	3	2	
Quercus phellos	Willow Oak	4		3	2
Ulmus procera (U. campestris '32 *)*	English Elm	3			
Acer rubrum 'October Glory'	Red Maple				7
Betula nigra	River Birch			1	
Fraxinus pennsylvanica (F. lanceolata 'Marshall'[69]*)*	Seedless (Green) Ash				6
Liriodendron tulipifera	Tuliptree		5		
Quercus rubra (Q. borealis '69 *)*	Red Oak		4		
Quercus palustris 'Crown Wright'	Pin Oak				4
Salix x pendulina (S. elegantissima '32 *, S. babulonica* '69 *)*	Wisconsin Weeping Willow		12	5	
Zelkova serrata	Japanaese Zelkova		4	2	
Zelkova serrata 'Village Green'	Village Green Japanese Zelkova				6

MEDIUM SIZE TREES

BOTANICAL NAME	COMMON NAME	1932	1969	1971	1980
Carpinus caroliniana	**American Hornbeam**	**64**			
Betula alba '32,	Birch species	15			
Ostrya virginiana	Hophornbeam	14			
Broussonetia papyrifera	Paper Mulberry	5			
Morus alba	White Mulberry	3			
Tilia cordata 'Greenspire'[2]	Littleleaf Linden				1

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932	1969	1971	1980
Crataegus phaenopyrum (C. cordata '32 ***)***	**Washington Hawthorn**	**68**	6		
Cornus florida	**Flowering Dogwood**	**54**	79	31	
Chionanthus virginicus	White Fringetree	18			
Sophora japonica	Japanese Pagoda Tree	14			
Pyrus ussuriensis	Chinese Pear	12			
Malus floribunda	Japanese Flowering Crabapple	6			56
Crataegus punctata	Dotted Hawthorn	5			
Prunus sargentii (P. sachalinensis '32 *)*	Sargent Cherry	5			

ORNAMENTAL TREES (cont.)

BOTANICAL NAME	COMMON NAME	1932	1969	1971	1980
Malus sargentii	Sargent's Crabapple	4			
Koelreuteria paniculata	Golden Raintree	3			
Pyrus calleryana	Callery Pear	3			
Styrax japonicus	Japanese Snowbell	3			
Pyrus (species)	Pear species	2			
Malus bechtelli	Bechtel Crabapple	1			
Amelanchier canadensis	Shadblow Serviceberry			2	
Amelanchier canadensis 'Robin Hill Pink'	Robin Hill Pink Serviceberry				11
Cercis canadensis	Eastern Redbud		14		10
Cornus florida 'Rubra'	Pink Flowering Dogwood		29		
Cornus kousa	Chinese Dogwood				13
Magnolia virginiana	Sweetbay Magnolia			1	
Malus floribunda	Japanese Flowering Crabapple				56
Sophora japonica 'Regent'	Japanese Pagoda Tree				5

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932	1969	1971	1980
Cedrus deodara	Deodar Cedar	4			
Pinus nigra	Austrian Pine		3		
Pinus thunbergii	Japanese Black Pine				11

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
? Quantity unknown.
1 Memorial Planting 1932 by Garden Club of America 2-DC Boundary markers (with post and chain), 4-large specimen American Elm trees, 100 English Ivy, 200 Honeysuckle" (NPS TIC 850/80156). Located on the south portion of the cloverleaf.
2 One linden (*Tilia cordata* 'Greenspire') in the 1980 plan is to replace a damaged tree at Iwo Jima and is not in the Bridges area of the GWMP (NPS TIC 850/80116).

BRIDGES

Plant Palette

Shrubs, Vines, Perennials and Groundcover

Well over three thousand memorial roses *(Rosa wichuraiana*) filled the 1932 cloverleaf and the median under the elms, and 845 Rockspray cotoneaster (*Cotoneaster horizontalis*) accented the ramps. In addition to these groundcovers, twenty-five species of shrubs were used in 1932 but only two—arrowwood viburnum (*Viburnum dentatum*) and common witchhazel (*Hamamelis virginiana*)—were planted again (in 1965). Four new species appear in the bridges area in 1971 and 1981, most notably winter jasmine (*Jasminum nudiflorum)* and creeping juniper (*Juniperus horizontalis*) which assume the role of the cotoneaster along the grade changes. One-hundred-ten burning bush (*Euonymus alatus 'Compacta'*) were used in 1980.

RIGHT PAGE
1932 Simonson Plan *Sheets 5-7. (NPS TIC 850/80156)*
1969 Dogwood Plantings Gravelly Pt. to N. George Mason Bridge (dark green) *(NPS TIC 850/85813A)*
1971 Mixing Bowl Interchange Complex (light blue) *(NPS TIC 850/85854B)*
1980 Rennovation & Restoration Planting 14th St. Bridge Approach (light purple) *(NPS TIC 850/80116)*

SHRUBS

BOTANICAL NAME	COMMON NAME	1932	1969	1971	1980
Rosa multiflora	**Multiflora Rose**	**640**			
Ligustrum ibota var regelianum	**Privet**	**475**			
Prunus tomentosa	**Nanking Cherry**	**420**			
Rosa setigera	Climbing Rose	290			
Viburnum dentatum	Arrowwood Viburnum	280			
Rosa palustris	Swamp Rose	260			
Ligustrum	Privet	250			
Rosa rugosa	Rugosa Rose	225			
Prunus mahaleb	Mahaleb Cherry (Chokecherry)	200			
Frangula caroliniana (Rhamnus caroliniana '32 *)*	Carolina Buckthorn	195			
Hamamelis virginiana	Common Witchhazel	190			
Prunus pumila var besseyi (P. besseyi '32 *)*	Western Sandcherry	160			
Rhus glabra	Smooth Sumac	125			
Rhodotypos scandens (R. kerrioides '32 *)*	Jetbead	105			
Weigela 'Desboisii' (W. hybrida var Desboisi' '32 *)*	Desboisii Weigela	95			
Forsythia suspensa	Weeping Forsythia	92			
Robinia hispida	Bristly Locust, Roseacacia	85			
Lonicera morrowii	Morrow's Honeysuckle	80			
Prunus maritima	Beach Plum	65			
Hypericum frondosum (H. aureum '32 *)*	Cedarglade St Johnswort	55			
Viburnum lentago	Nannyberry	55			
Lonicera tatarica	Tatarian Honeysuckle	50			
Rosa eglanteria (R. rubiginosa '32 *)*	Sweetbriar Rose	50			
Rhamnus cathartica	Common Buckthorn	48			
Rhus typhina	Staghorn Sumac	10			
Euonymus alatus 'Compacta'	Dwarf Winged Euonymus				110
Leucothoe axillaris	Coast Leucothoe				40
Morella cerifera (Myrica cerifera '71 *)*	Small Waxmyrtle			65	
Virburnum plicatum var. tomentosum (V. tomentosum '71 *)*	Doublefile Viburnum			100	

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932	1969	1971	1980
Rosa wichuraiana	**Memorial Rose**	**3535**			
Cotoneaster horizontalis	**Rockspray Cotoneaster**	**845**			

VINES & GROUNDCOVER (cont.)

BOTANICAL NAME	COMMON NAME	1932	1969	1971	1980
Lonicera japonica [1]	**Japanese Honeysuckle**	*** 200**			
Hedera helix [1]	English Ivy	* 100			
Parthenocissus tricuspidata 'Lowi' *(Ampelopsis tricuspidata Lowi* '32*)*	Boston Ivy	2			
Bignonia radicans	Trumpetcreeper	2			
Juniperus horizontalis 'Emerald Spreader'	Creeping Juniper				400
Jasminum nudiflorum	Winter Jasmine		?[4]	400	

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932	1969	1971	1980
none					

DAFFODILS

BOTANICAL NAME	COMMON NAME	1932	1969	1971	1980
See Lady Bird Johnson Park Daffodils					

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
? Quantity unknown.
1 Memorial Planting 1932 by Garden Club of America 2-DC Boundary markers (with post and chain), 4-large specimen American Elm trees, 100 English Ivy, 200 Honeysuckle" (NPS TIC 850/80156). Located on the south portion of the cloverleaf.
2 One linden (*Tilia cordata* 'Greenspire') in the 1980 plan is to replace a damaged tree at Iwo Jima and is not in the Bridges area of the GWMP (NPS TIC 850/80116).

LADY BIRD JOHNSON PARK/ LYNDON B. JOHNSON MEMORIAL
1932 Simonson Plan

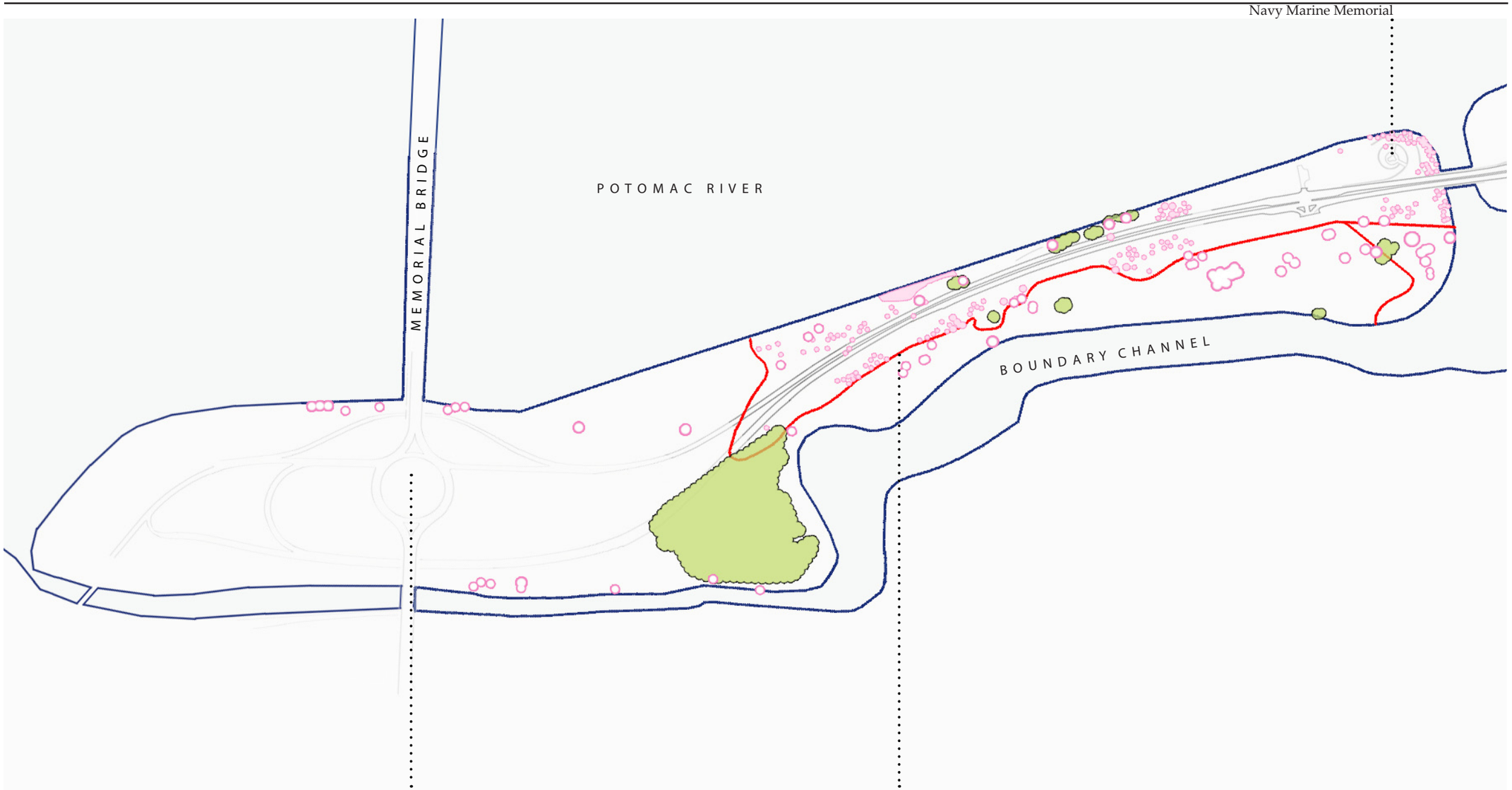
The Parkway segment in Lady Bird Johnson Park contains two character areas: Lady Bird Johnson Park and the Lyndon Baines Johnson Memorial Grove. (See 2009 Composite for character area boundaries, pp. 160-161.)

Simonson's plan is confined to the southern portion of Columbia Island because the connection between Memorial Bridge and Mount Vernon Memorial Highway had not been finalized in 1932. (Memorial Circle and the supporting roads were developed incrementally in the late 1930s and 1940s.) A limit of planting line further reduces the plantings to include only the trees nearest the roadway. His plantings consist of only ornamental trees: various species of cherry, pear, crabapple, Japanese pagoda tree (*Sophora japonica*) and golden rain tree (*Koelreuteria paniculata*). Flowering shrubs along the shorelines stabilize the banks.

Simonson shows a significant mass of existing vegetation in the central portion of Columbia Island near the bend in Boundary Channel and some smaller groupings on the southern portion within the limit of planting area. Most likely among them, and in other locations across the southern and eastern parts of the island, are numerous cottonwoods that today are the most striking trees in Lady Bird Johnson Park and the Lyndon Baines Johnson Memorial Grove.

Other existing vegetation is shown on the edges of the island, most likely willows, cottonwoods and other river floodplain species.

RIGHT PAGE
The existing vegetation in 1932.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)



1932
cotton woods
existing

151
Lady Bird Johnson Park

0
150
300
450
600
scale

north

LADY BIRD JOHNSON PARK/ LYNDON B. JOHNSON MEMORIAL
1940s Plans

The Navy Marine Memorial was installed in 1934 at the southern tip of the island, shortly after the installation of the 1932 planting plan. Plantings were installed around it in 1940, framed it with yews and other shrubs and giving it a backdrop of elms.

The connection between the Parkway and Memorial Bridge was constructed by 1940, but it was already changed by 1943 to accommodate traffic to and from the newly constructed Pentagon. According to the Cultural Landscape Inventory for Lady Bird Johnson Park, a stand of twenty oaks, mostly scarlet oaks, (*Quercus coccinea*), was planted in 1943 in the center of the island along the roadway and near the bridge to the Pentagon.[1] These are the first shade trees planted in the center of island, and they still contribute significantly to the spatial definition of the central part of the island. All other shade trees apparently are volunteers as shown on Simonson's plan.

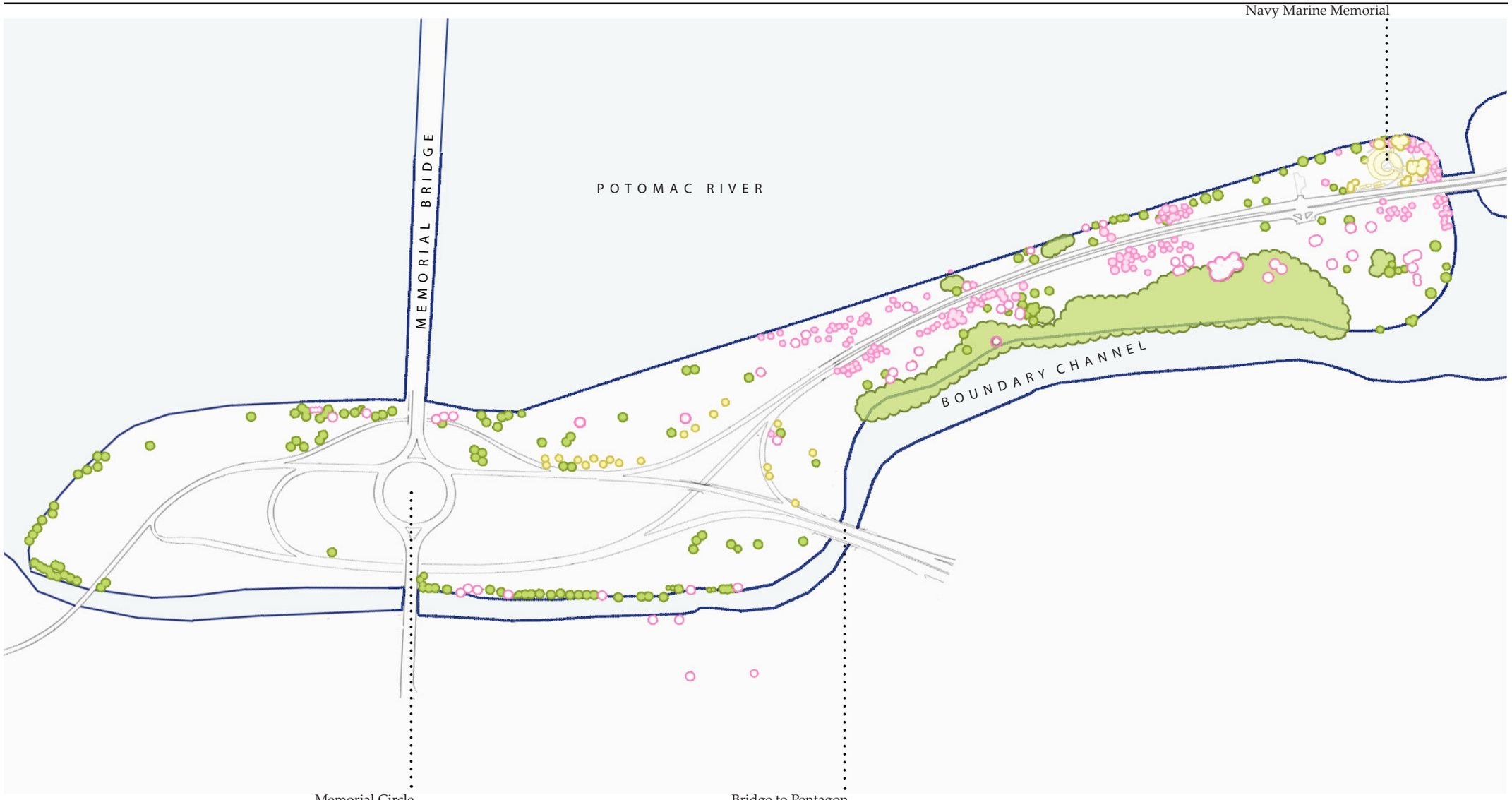
Physical Changes

Memorial Circle was constructed to connect the Parkway and Memorial Bridge along with symmetrical loops to balance the formality of the bridge with the naturalism of the Parkway. With the construction of the Pentagon, new lanes of traffic were added from the southwest.

RIGHT PAGE
The existing vegetation in 1943.
1932 Simonson Plan (pink)
(NPS, 850/80156)
1940 Navy and Marine Memorial (light yellow)
(NPS, 835/89940)
1943 Oak Plantings (yellow)
(Cultural Landscape Inventory, Aerial Photos and Field Observation)

Footnotes

[1] National Park Service, Cultural Landscapes Inventory, Lady Bird Johnson Park (1999, revised 2004), 25.



1932
1940
1943
cotton woods
existing

153

Lady Bird Johnson Park

0
150
300
450
600
scale

north

LADY BIRD JOHNSON PARK/ LYNDON B. JOHNSON MEMORIAL

1956 Plans

Two plans were implemented in 1956 at the southern end of the island. A set of willow oaks (*Quercus phellos*) is planted in the parking lot medians at the newly constructed marina. Additional oaks and maples are planted around the marina, mostly to the south of the entrance drive and adding to the existing vegetation.

The first aerial photograph of the island, from 1959, shows that many of the trees from the 1932 plan are still present and massed along the roadside as Simonson had intended. Many of the cottonwoods and other volunteer vegetation have also increased in size, especially along the edge of Boundary Channel.

Physical Changes

The most significant change was the construction of the Columbia Island Marina and related parking lots and entrance drive between 1955 and 1959.

RIGHT PAGE
(1959 Aerial) with the existing vegetation in 1956.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1940 Navy and Marine Memorial (light yellow)
(NP TIC 835/89940)
1943 Oak Plantings (yellow)
(Cultural Landscape Inventory, Aerial Photos and Field Observation)
1956 Motor Boat Marina(yellow-green)
(NPS TIC 835/80105A)
1956 Motor Boat Marina Concession Building, (yellow-green) *(NPS TIC 835/80115)*
1963 Marina Parking Area (light green)



1932
1940
1943
1956
cotton woods

155

Lady Bird Johnson Park

0
150
300
450
600
scale

north

LADY BIRD JOHNSON PARK/ LYNDON B. JOHNSON MEMORIAL
1968 Stone Plan

RIGHT PAGE
(1959 Aerial) with the existing vegetation in 1968.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1940 Navy and Marine Memorial (light yellow)
(NP TIC 835/89940)
1943 Oak Plantings (yellow)
(Cultural Landscape Inventory, Aerial Photos and Field Observation)
1956 Motor Boat Marina(yellow-green)
(NPS TIC 835/80105A)
1956 Motor Boat Marina Concession Building, (yellow-green) *(NPS TIC 835/80115)*
1963 Marina Parking Area (light green)
(NPS TIC 835/80148)
1968 Stone Plan(green)
(NPS TIC 835/41000)

A third bay is added to the parking area at the marina, and in 1963 additional plantings are installed adjacent to it. Willow oaks (*Quercus phellos*) are again planted in the median, and maples, sycamores and willows are added around the parking.

In 1968, landscape architect Edward D. Stone, Jr, designed the only overall planting plan for Columbia Island as part of Lady Bird Johnson's Beautification Program for Washington, DC; the island was subsequently renamed Lady Bird Johnson Park to honor the First Lady's work. The plan calls for extensive planting across the island focusing on Memorial Circle, which was to be ringed with pines, oaks, maples and dogwoods. These same species and a few other shade trees create a set of rooms along the Parkway, some inward-focused so that drivers can pay attention to junctions in the roadway and some outward-focused with views across the river to the monuments of Washington, DC. Swaths of dogwoods and other trees are proposed crossing the Parkway and making a series of thresholds through which motorists pass as they travel from room to room.

A small portion of the plan was implemented in 1967 (prior to the official acceptance of the plan) and in the spring of 1968, but most of it was planted in the 1970s, '80s and '90s. The first phase of plantings included just enough trees around Memorial Circle to frame the bridge pylons and to give a sense of enclosure to the Circle itself. All of the dogwoods were planted in the first few years, although few if any survived. One million daffodils were also planted as part of the plan. (The dogwoods and the daffodils are each treated as a separate layer to this palimpsest, after the 2009 composite.)

Physical Changes

Parking at the marina was expanded, but otherwise no additional changes to the physical shape of the island or the roadways.



1932
1940
1943
1956
1963
1968
cotton woods

157

Lady Bird Johnson Park

0
150
300
450
600
scale

north

LADY BIRD JOHNSON PARK/ LYNDON B. JOHNSON MEMORIAL
1975 Palmer Plan

Meade Palmer designed the Lyndon Baines Johnson Memorial Grove within Lady Bird Johnson Park, in 1975, just two years after the death of the former president. Palmer expanded and revised the plan over the next few years, first adding a parking area on the opposite side of Boundary Channel with a pedestrian bridge to the Memorial Grove and then adding wildflowers and daffodils. The Memorial consists of two parts. One half is a pine grove encircling a megalith of pink Texas granite, and the other half is an open lawn surrounded by mixed trees, shrubs and flowers intended for strolling, picnicking and other passive recreation. The aerial photographs suggest that some of Simonson's 1932 flowering trees were removed to accommodate the pine grove, but in and around the lawn Palmer incorporates numerous large volunteer cottonwoods and other trees from Simonson's plantings. Existing vegetation is cleared on the eastern side of the Parkway across from the Memorial to create a panoramic view from the megalith. Additional pines are planted to the north and south of the new clearing to frame the view.

Shrubs, wildflowers and perennials add visual variety and richness around the lawn. The plan calls for sun-loving perennials and wildflowers along the sunnier eastern edge, and woodland shrubs, ferns and wildflowers along the shadier western edge.

Physical Changes

The main entrance to the LBJ Memorial is via a pedestrian bridge from an entrance plaza and parking area on the Pentagon side of Boundary Channel. The northernmost parking lot at the marina was reduced in size to make room for the Memorial.

RIGHT PAGE
(1985 Aerial) with the existing vegetation in 1975.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1940 Navy and Marine Memorial (light yellow)
(NP TIC 835/89940)
1943 Oak Plantings (yellow)
(Cultural Landscape Inventory, Aerial Photos and Field Observation)
1956 Motor Boat Marina(yellow-green)
(NPS TIC 835/80105A)
1956 Motor Boat Marina Concession Building, (yellow-green) *(NPS TIC 835/80115)*
1963 Marina Parking Area (light green)
(NPS TIC 835/80148)
1968 Stone Plan (green)
(NPS TIC 835/41000)
1975 Palmer Plan, Lyndon B. Johnson Memorial Grove, (blue) *(NPS TIC 835/80013Z1), Footbridge Plan (NPS TIC 835/80014A).*


'64 Northbound Parkway
Mt. Vernon Trail
Navy Marine Memorial
POTOMAC RIVER
MEMORIAL BRIDGE
BOUNDARY CHANNEL
Memorial Circle
'65 Southbound Parkway
Bridge to Pentagon
Pedestrian Bridge
LBJ Memorial Grove
Columbia Island Marina
1932
1940
1943
1956
1963
1968
1975
cotton woods
159
Lady Bird Johnson Park
0
150
300
450
600
scale
north

LADY BIRD JOHNSON PARK/ LYNDON B. JOHNSON MEMORIAL
2009 Planting Composite

RIGHT PAGE
(2004 Aerial) with the existing vegetation in 2009.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1940 Navy and Marine Memorial (light yellow)
(NP TIC 835/89940)
1943 Oak Plantings (yellow)
(Cultural Landscape Inventory, Aerial Photos and Field Observation)
1956 Motor Boat Marina (yellow-green)
(NPS TIC 835/80105A)
1956 Motor Boat Marina Concession Building, (yellow-green) *(NPS TIC 835/80115)*
1963 Marina Parking Area (light green)
(NPS TIC 835/80148)
1968 Stone Plan (green)
(NPS TIC 835/41000)
1975 Palmer Plan, Lyndon B. Johnson Memorial Grove, (blue) *(NPS TIC 835/80013Z1), Footbridge Plan (NPS TIC 835/80014A)*
1997 Bus Shelter Removal (magenta)
(NPS TIC 835/80229)

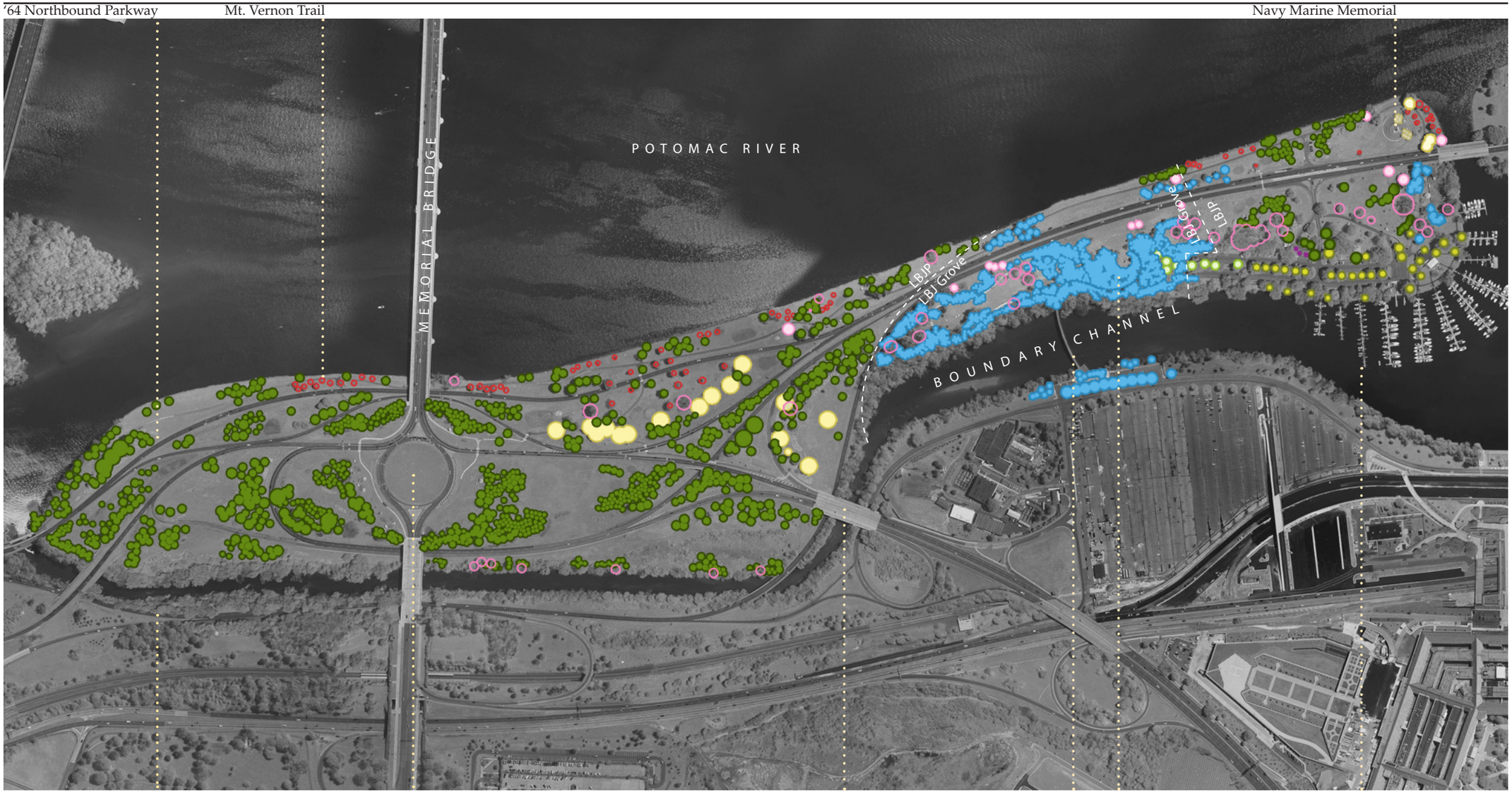
Although there have been plantings in Lady Bird Johnson Park every decade since the Parkway was constructed, the bulk of the island's vegetation conforms to the 1968 master plan for Lady Bird Johnson Park by Edward D. Stone, Jr. By 2009, most of Stone's plan is implemented, although somewhat adapted to the changes that took place after his design was conceived. Some of the species are different than what the plan calls for, but the intention and location are fairly accurate.

The northern portion of Columbia Island is quite consistent with the Stone plan; the plantings are similar in species, and the intended focal points and interior rooms are apparent. Willow oaks (*Quercus phellos*) and sugar maples (*Acer saccharum*) are planted in great quantity along the roadway in the northern half of the park. As originally intended, white pines (*Pinus strobus*), scarlet oaks (*Quercus coccinea*) and sugar maples (*Acer saccharum*) are heavily planted around Memorial Circle, adding to the previous phases of plantings. The edge along the northern portion of Boundary Channel is planted, although not as heavily as Stone proposed, most likely due to the fact that this edge naturalized and was already serving as a significant backdrop for the other plantings. In the southern part of the island, Stone called for maples, ashes and dogwoods to be planted in swaths crossing the roadway and serving as intermediate thresholds. Instead, the same species are planted along the water's edge and are more spread out than Stone proposed. American holly (*Ilex opaca*) has been planted near the marina to screen support structures, but it is changing the character of the vegetation.

The plantings that preceded the Stone plan influence the character of the park in smaller but important ways. The oldest trees are often those that volunteered before any of the plans were implemented. There are many large cottonwoods throughout the island, especially in the LBJ Grove and near the marina, and they probably established as soon as the island was constructed. Willows (*Salix sp.*), silver maple (*Acer saccharinum*) and sycamore (*Platanus occidentalus*)—all floodplain species—are also likely volunteers from the early years of the island.

Only a few trees remain from the 1932 Simonson plan, mostly near the roadway. A few cherries and pears remain near Humpback Bridge, but most of the remaining trees are Japanese pagoda tree (*Sophora japonica*), which are now large trees, quite showy when they blossom in mid-summer. The 1943 oaks are now very large, and they significantly influence the character of the landscape in the center of the island, amidst the merging and diverging lanes of traffic. The marina area has the greatest species diversity and has almost become a small arboretum due to the various plantings and volunteer vegetation. Two significant trees here are overcup oak (*Quercus lyrata*) and shingle oak (*Q. imbricaria*), probably planted in the 1950s with the installation of the marina.

Along the edge of the Potomac, there are numerous planted trees that do not conform to any plan. Most occur along the Mount Vernon Trail, and it is likely that they are planted to enrich the experience along the trail. Unfortunately they also fill in some of the critical open spaces that Stone proposed, so that the sense of moving through a series of rooms with views across the river is diminished.


'64 Northbound Parkway
Mt. Vernon Trail
Navy Marine Memorial
POTOMAC RIVER
MEMORIAL BRIDGE
LBJ Grove
LBJP
LBJ Grove
LBJP
BOUNDARY CHANNEL
'65 Southbound Parkway
Memorial Circle
Bridge to Pentagon
Pedestrian Bridge
LBJ Memorial Grove
Columbia Island Marina
1932
1940
1943
1956
1963
1968
1975
1997
cotton woods
unknown
161
Lady Bird Johnson Park
0
150
300
450
600
scale
north

LADY BIRD JOHNSON PARK/ LYNDON B. JOHNSON MEMORIAL
1968 Stone Plan-Dogwoods

Stone's plan included nearly 2500 dogwoods as the culmination of Lady Bird Johnson's beautification project. According to the Cultural Landscape Inventory for Lady Bird Johnson Park, about 200 were planted along with the first planting of shade trees and pines around Memorial Circle in 1967 and 1968.[1] The remaining trees were planted in phases between 1969 and 1971. The plan calls for them to be planted in large drifts, close to the roadways, so that they would be very present to motorists. Approximately eighty percent of them are proposed to be white with the other twenty percent to be pink.

Because few of the shade trees in the Stone plan had been planted by 1971, many of the dogwoods died due to exposure. They were replanted for several years until the donor of funds for them, Mary Lasker, was persuaded not to replant until there was more shade on the island to protect them. They have been replanted in recent years, but not in the same numbers, nor in the same location, nor with the same spacing as in the Stone plan. They are currently planted in mulched beds rather than more loosely within the lawn, apparently to achieve a greater survival rate.

RIGHT PAGE
(2004 Aerial) with the existing dogwoods (solid pink) in 2009 and the proposed 1968 Stone dogwood plantings (pink outline).
1968 Stone Plan-Dogwoods (pink outline)
(*NPS TIC 835/41000)*

Footnotes

[1] National Park Service, Cultural Landscapes Inventory, Lady Bird Johnson Park (1999, revised 2004), 50.



Stone
1968
existing

0
150
300
450
600
scale

north

LADY BIRD JOHNSON PARK/ LYNDON B. JOHNSON MEMORIAL
1968 Stone Plan-Daffodils

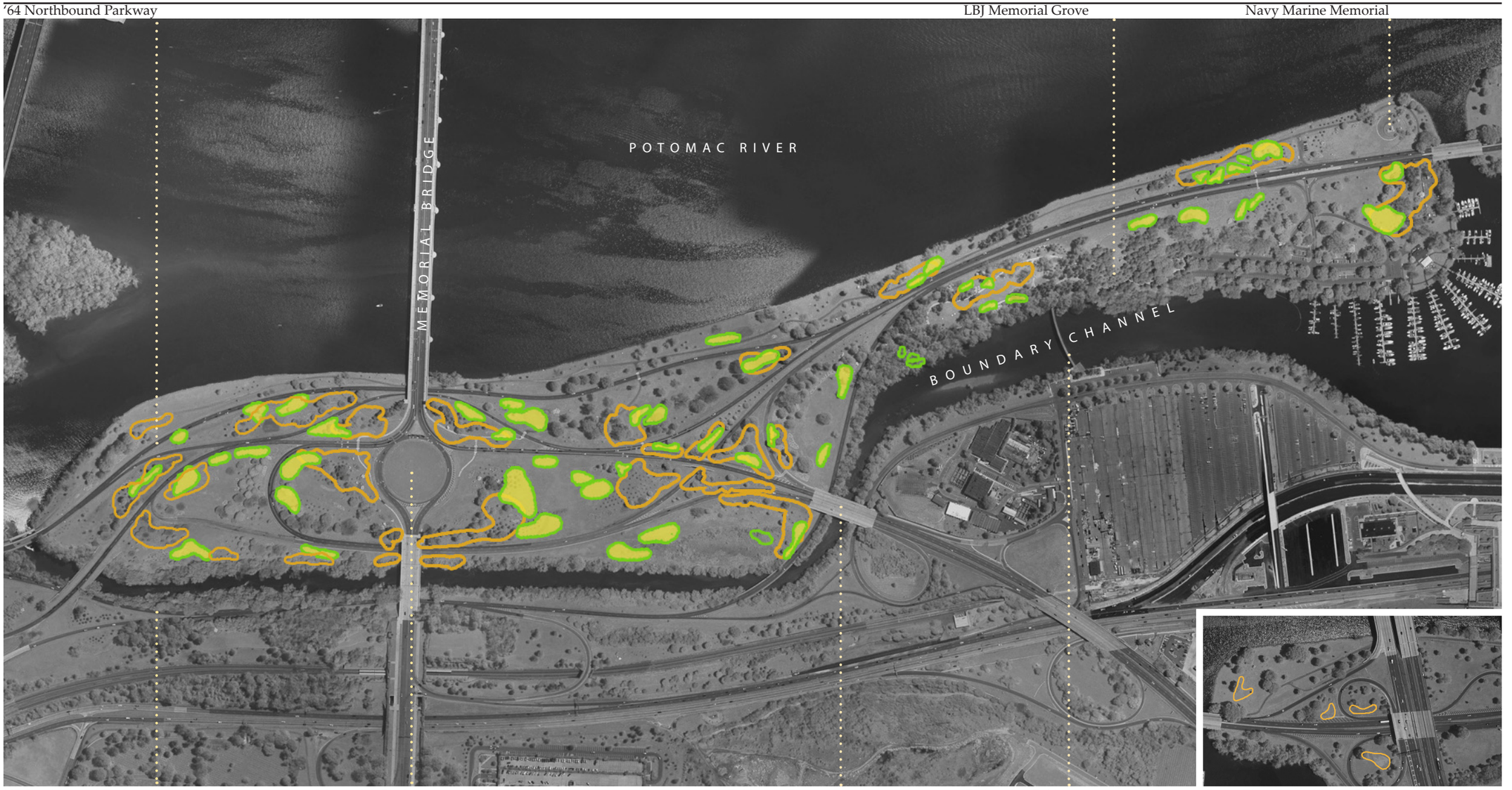
According to the Cultural Landscape Inventory for Lady Bird Johnson Park, approximately one million daffodils were planted as part of the beautification program for Lady Bird Johnson Park in 1967 and 1968.[1] They were planted in beds close to the roadways and especially at the entrances to the island so that they would have maximum visibility to drivers. A few beds are located south of Humpback Bridge, presumably as an extension of the entrance to Lady Bird Johnson Park. The plans call for mostly yellow daffodils with some varieties of white, but a study in 1971 recommended only large, yellow varieties be planted so they would show up better. (Daffodils were also incorporated into the Palmer plan for the Lyndon Baines Johnson Memorial Grove, but these are shown as part of the Grove.)

A renovation plan for daffodils was approved in 1995, reducing the number of beds from 94 to 50, and relocating many of them so that they no longer conform to Stone's plan. These were installed over a five-year period from 1995 to 1999. This was done to avoid competition from maturing trees and to avoid heavily used areas along the riverbank. The new plan calls for greater on-center spacing and utilized varieties that naturalized more readily, so they wouldn't have to be replanted as frequently.

RIGHT PAGE
(2004 Aerial) with the existing daffodils (solid yellow) in 2009 and the proposed 1968 Stone Plan daffodils (orange outline) and the 1995 daffodil plan (green outline). Right bottom corner image is of the Bridges which Stone included.
1968 Stone Plan-Daffodils (orange outline)
(*NPS TIC 835/41000)*

Footnotes

[1] National Park Service, Cultural Landscapes Inventory, Lady Bird Johnson Park (1999, revised 2004), 50.



Stone 1968
1995
existing

165

0
150
300
450
600
scale

north

LADY BIRD JOHNSON PARK

Plant Palette

Shade, Ornamental and Evergreen Trees

Of the various ornamental trees that defined Simonson's plantings in 1932, Japanese flowering cherry (*P. serrulata var sachalinensis*) dominated. Flowering dogwoods (*Cornus florida*) and Nanking cherries were planted together at Humpback Bridge, the cherry en masse with shrubs at the water's edge and accented with the dogwoods. They mirrored similar plantings on the south side of the bridge. Japanese pagoda tree (*Sophora japonica*) was planted less frequently in 1932 (and again in 1976), but it has survived better than the cherries.

The dominant shade trees on the island are sugar maple (*Acer saccharum*) and scarlet oak (*Quercus coccinea*) planted according to the 1968 Stone plan. Stone also called for large quantities of flowering dogwood (*Cornus florida*) as the sole ornamental tree. Nearly two thousand white-flowering trees and five hundred pink-flowering trees were planted.

White pines (*Pinus strobus*) were first planted around Memorial Circle according to the Stone plan. In later years more were planted according to the plan around the Circle and in other places around the island. In recent years, American holly (*Ilex opaca*) has been planted near the entrance to the marina parking and the restrooms. Although a few hollies were planted as part of Palmer's plan for the boat repair yard, these others are not in accordance with any known plan.

RIGHT PAGE
(2004 Aerial) with the existing vegetation in 2009.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1940 Navy and Marine Memorial (light yellow)
(NP TIC 835/89940)
1943 Oak Plantings (yellow)
(Cultural Landscape Inventory, Aerial Photos and Field Observation)
1956 Motor Boat Marina (yellow-green)
(NPS TIC 835/80105A)
1956 Motor Boat Marina Concession Building, (yellow-green) *(NPS TIC 835/80115)*
1963 Marina Parking Area (light green)
(NPS TIC 835/80148)
1968 Stone Plan (green)
(NPS TIC 835/41000)
1975 Palmer Plan, Lyndon B. Johnson Memorial Grove, (blue) *(NPS TIC 835/80013Z1), Footbridge Plan (NPS TIC 835/80014A)*
1997 Bus Shelter Removal (magenta)
(NPS TIC 835/80229)

SHADE TREES

BOTANICAL NAME	COMMON NAME	1932	1940	1943	1956	1963	1968	1975	1997
Acer nigrum	Black Maple					2			
Acer rubrum	Red Maple				19	6	16		1
Acer saccharum	Sugar Maple				4		286		
Fagus sylvatica	European Beech						44		
Liriodendron tulipifera	Tulip Poplar				5				
Platanus occidentalis	American Sycamore				3	5			
Platanus x hybrida 'Bloodgood'	Bloodgood London Planetree								2
Quercus alba	White Oak						74		
Quercus coccinea	Scarlet Oak						204		
Quercus phellos	Willow Oak				20	13	55	3	
Quercus sp.	Oak Species			20					
Salix x pendulina (S. babylonica '63 *)*	Wisconsin Weeping Willow					6	85		
Tilia tomentosa '56	Silver Linden				6				
Ulmus americana [1]	American Elm		* 6						

MEDIUM TREES

BOTANICAL NAME	COMMON NAME	1932	1940	1943	1956	1963	1968	1975	1997
Carpinus betulus	European Hornbeam	11							
Carpinus caroliniana	American Hornbeam	2							
Nyssa sylvatica	Black Gum				4		16		

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1932	1940	1943	1956	1963	1968	1975	1997
Prunus serrulata var sachalinensis '32	**Japanese Flowering Cherry**	29							
Cornus florida	Flowering Dogwood	19					1945		
Malus x atrosanguinea	Carmine Crabapple	19							
Malus floribunda	Japanese Flowering	14							
Koelreuteria paniculata	Golden Raintree	13							
Pyrus ussuriensis	Chinese Pear	11							
Sophora japonica	Japanese Pagoda Tree	8							
Pyrus calleryana	Callery Pear	6							
Prunus sp.	Cherry species	7							
Crataegus phaenopyrum (C. cordata '32 *)*	Washington Hawthorn	4			3				
Prunus halliana parkmanii '32	Parkman Crabapple	4							

ORNAMENTAL TREES (cont.)

BOTANICAL NAME	COMMON NAME	1932	1940	1943	1956	1963	1968	1975	1997
Malus sargentii	Sargent's Crabapple	2							
Malus spectabilis	Asiatic Apple	2							
Prunus subhirtella	Higan Cherry	2							
Pyrus bretschneideri	Chinese White Pear	2							
Pyrus pyrifolia (P. serotina '32 *)*	Chinese Pear	2							
Pyrus sp.	Pear species	2							
Pyrus ussuriensis var. ovoidea (P. ovoidea '32 *)*	Chinese Pear	2							
Pyrus pashia	Indian Wild Pear	1							
Cornus florida 'Rubra'	Pink Flowering						489		
Crataegus crus-galli [1]	Cockspur Hawthorn		* 15						

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1932	1940	1943	1956	1963	1968	1975	1997
Ilex opaca	American Holly				13			10	
Pinus strobus	White Pine					4	975	25	
Pinus sylvestris	Scots Pine						385		
Tsuga canadensis	Canadian Hemlock						12		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
1 1940 plantings for the Navy and Marine Memorial (NPS TIC 835/89940).
2 The 1956 column reflects a sum of two marina planting plans.
3 The 1968 column reflects quantities proposed in the Stone Plan, implemented in phases from 1967 to 1979.

LADY BIRD JOHNSON PARK

Plant Palette

Shrubs, Vines, Perennials and Groundcover

The dominant shrubs in 1932 were Virginia rose, (*Rosa virginiana*) and multiflora rose (*Rosa multiflora*) used on the Potomac shoreline as understory to the ornamental trees and to stabilize the edge of the island along Boundary Channel. Southern bayberry (*Morella caroliniensis*), inkberry (*Ilex glabra*) and other shrubs were used in 1940 to frame the Navy Marine Memorial, and varied shrubs were used around the marina as part of the planting plans for the parking lot.

RIGHT PAGE
(2004 Aerial) with the existing vegetation in 2009.
1932 Simonson Plan (pink)
(NPS TIC 850/80156)
1940 Navy and Marine Memorial (light yellow)
(NP TIC 835/89940)
1943 Oak Plantings (yellow)
(Cultural Landscape Inventory, Aerial Photos and Field Observation)
1956 Motor Boat Marina (yellow-green)
(NPS TIC 835/80105A)
1956 Motor Boat Marina Concession Building, (yellow-green) *(NPS TIC 835/80115)*
1963 Marina Parking Area (light green)
(NPS TIC 835/80148)
1968 Stone Plan (green)
(NPS TIC 835/41000)
1975 Palmer Plan, Lyndon B. Johnson Memorial Grove, (blue) *(NPS TIC 835/80013Z1), Footbridge Plan (NPS TIC 835/80014A)*
1997 Bus Shelter Removal (magenta)
(NPS TIC 835/80229)

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
1 1940 plantings for the Navy and Marine Memorial (NPS TIC 835/89940).
2 The 1956 column reflects a sum of two marina planting plans.
3 The 1968 column reflects quantities proposed in the Stone Plan, implemented in phases from 1967 to 1979.

SHRUBS

BOTANICAL NAME	COMMON NAME	1932	1940	1943	1956	1963	1968	1975	1997
Rosa virginiana (R.	**Virginia Rose**	490							
Rosa multiflora	**Multiflora Rose**	315							
Hypericum frondosum (H. aureum [32] **)**	**Johnswort**	300							
Viburnum dentatum	Arrowwood Viburnum	200							
Ligustrum obtusifolium var. regelianum (L. ibota regelianum [32-'63] *)* [1]	Regel Border Privet	180	* 49			68			
Rosa rugosa	Rugosa Rose	155							
Prunus maritima	Beach Plum	145							
Prunus pumila var. besseyi (P. besseyi [32] *)*	Western Sandcherry	145							
Morella caroliniensis (Myrica caroliniensis [32] *)* [1]	Southern Bayberry	125	* 218						
Rosa nitida	Shining Rose	125							
Rhodotypos scandens (R. kerrioides [32] *)*	Jetbead	100							
Viburnum dentatum	Arrowwood Viburnum	200			4				
Rosa blanda [1]	Smooth Rose	90	* 134						
Rosa palustris	Swamp Rose	75							
Rosa setigera	Climbing Rose	70							
Prunus tomentosa	Nanking Cherry	40							
Hamamelis virginiana	Common Witchhazel	20							
Abelia x grandiflora [1]	Glossy Abelia		* 145		11				
Photinia pyrifolia (Aronia arbutifolia [75] *)*	Brilliantissima Red Chokeberry								25
Cornus racemosa (C. paniculata [32] *)*	Gray Dogwood				75				
Cornus sericea (C. alba sibirica [32, '56] *)*	Redosier Dogwood				104				
Euonymus alatus	Winged Euonymus								72
Euonymus alatus ' Compacta'	Dwarf Winged Euonymus								23
Elaeagnus angustifolia [1]	Russian olive		* 9						
Ilex crenata 'Rotundifolia' *(I. rotundifolia* [56] *)*	Rotundifolia Japanese Holly				11				
Ilex glabra [1]	Inkberry		* 170						

SHRUBS (cont.)

BOTANICAL NAME	COMMON NAME	1932	1940	1943	1956	1963	1968	1975	1997
Ligustrum lucidum	Glossy (Waxleaf) Privet				499				
Osmanthus heterophyllus (O. aquifolium illicifolius ['56] *)*	Holly Olive				5				
Photinia villosa	Oriental photinia				25				
Prunus laurocerasus 'Otto	Otto Luyken								8
Rhododendron sp.	Azalea SP or SR ['56]				16				
Taxus baccata 'Repandens' [1]	English Yew		* 80						
Taxus cuspidata [1]	Spreading Japanese		* 12						
Viburnum cassinoides	Withe-rod				24				
Viburnum dilatatum	Linden Viburnum				56				
Viburnum lentago	Nannyberry				12				
Viburnum prunifolium	Blackhaw				10				
Viburnum sargentii	Sargent Viburnum					23			
Viburnum plicatum var tomentosum (V. tomentosum ['56] *)*	Doublefile Viburnum				26				

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1932	1940	1943	1956	1963	1968	1975	1997
Celastrus scandens	**American Bittersweet**	300							
Rosa wichuraiana	**Memorial Rose**	200							
Bignonia radicans	Trumpet Creeper	5							
Cotoneaster horizontalis [1]	Rockspray Cotoneaster		* 167						
Euonymus fortunei ' Coloratus'	Coloratus Wintercreeper							1400	
Vinca minor [1]	Common Periwinkle		*19,600						

PERENNIALS

BOTANICAL NAME	COMMON NAME	1932	1940	1943	1956	1963	1968	1975	1997
none									

DAFFODILS

BOTANICAL NAME	COMMON NAME	1932	1940	1943	1956	1963	1968	1975	1997

See Lady Bird Johnson Park Daffodils

LBJ MEMORIAL GROVE
1975 Palmer Plan

RIGHT PAGE
(2004 Aerial) with proposed Palmer Plan in 1975.
1975 Palmer Plan, Lyndon B. Johnson Memorial Grove, *(NPS TIC 835/80013Z1)*
1976 Palmer Plan, Lyndon B. Johnson Memorial Grove Phase II Footbridge and Parking, revised 1978 "As constructed," *Sheets P1-P2 of 17 (NPS TIC 835/80014A)*
1977 Palmer Plan, Lyndon B. Johnson Memorial Grove Wildflower & Daffodil Plantings, revised 1977, *Sheets P1-P9 of 9 (NPS TIC 835/80016z1).*
1979 Palmer Plan, Lyndon B. Johnson Memorial Grove Wildflower & Daffodil Plantings, Revised 1979 (Jan) "As-Built to reflect 1978-79 contracts", *Sheets P1-P5, 7 of 7 (NPS TIC 835/80016A)*
1984 Lyndon B. Johnson Memorial Grove, revised 1980, 1983, 1984 Replacement Plantings, *Sheet P1-P5 of 5 (NPS TIC 835/80020A)*
1991 Lyndon B. Johnson Memorial Grove, revised to fill in, *Sheets P1-P4, P6-P7 (NPS TIC 835/80026)*

Three years after the death of Lyndon Baines Johnson, a group of his friends and colleagues, including the philanthropist Laurence Rockefeller, and National Park Service officials decided to develop a part of Lady Bird Johnson Park as a living memorial to the former President. The Lyndon Baines Johnson Memorial Grove on the Potomac was established by Congressional Act (December 28, 1973, P.L. 93-211, 87 Stat. 909). Meade Palmer was appointed landscape architect on the project, and sculptor Harold Vogel was chosen to design the focal point of the memorial, a megalith of pink Texas granite.

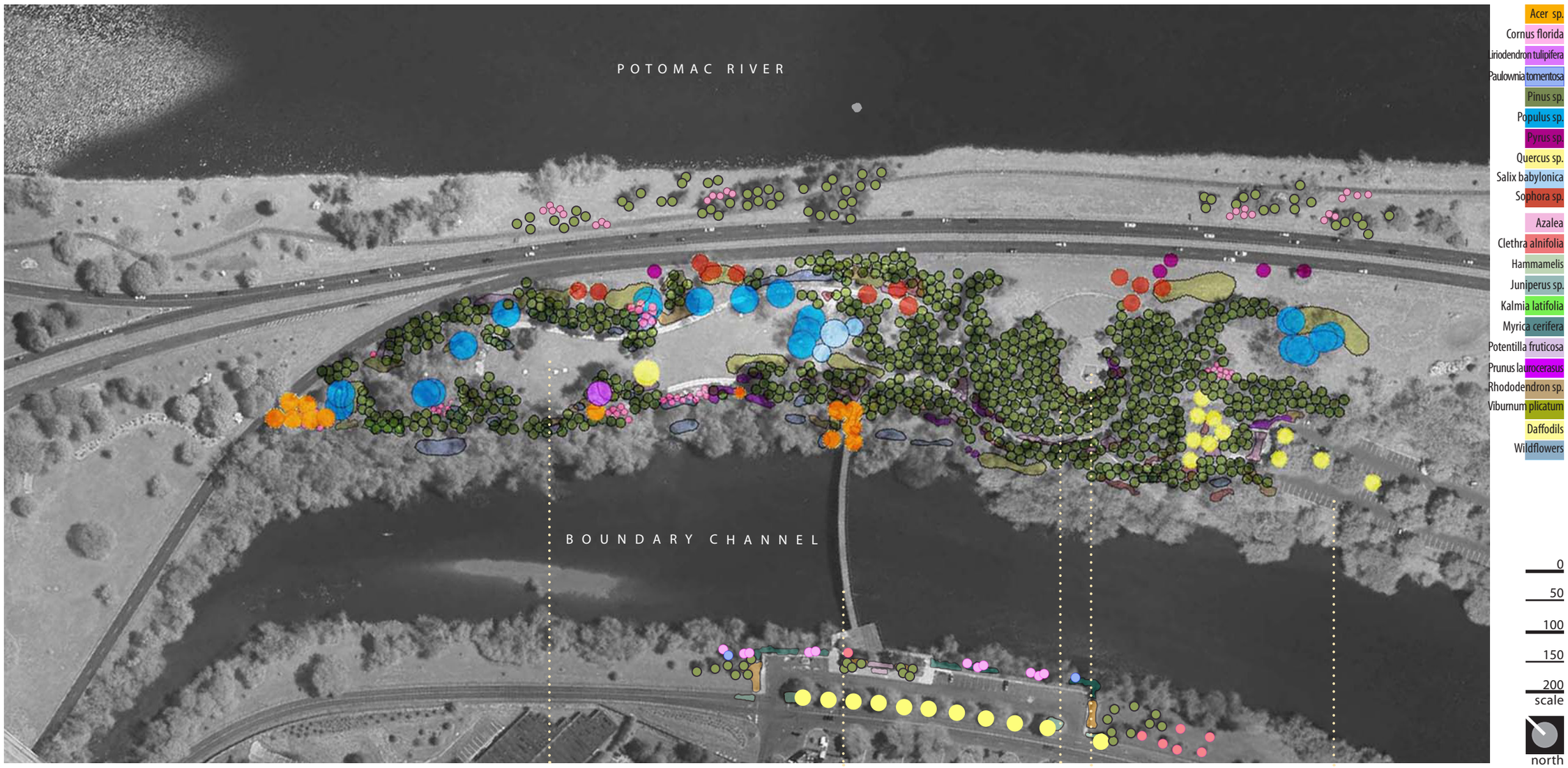
Palmer's plan consists of two complimentary areas: a pine grove spiraling around a memorial plaza with the granite megalith, and a lawn surrounded by a mixture of existing and proposed trees. More than 700 white pines (*Pinus strobus*) were installed in the grove around the megalith. From the memorial's focal point at the megalith, the pines frame a panoramic view of the Washington Monument, Lincoln Memorial, Jefferson Memorial and the U.S. Capitol, where LBJ had also served as Speaker of the House. The evergreen character of the pines is reinforced with underplantings of English ivy (*Hedera helix*) and common cherrylaurel (*Prunus laurocerasus*), so the pine grove conveys a sense of timelessness and permanence in its design. The only exception to this is a ring of white flowering azaleas surrounding the memorial plaza, which are still quite subdued in character.

The lawn area has a very different intention and character. It is intended for contemplation, picnicking and other passive recreation and includes a much greater variety of vegetation, flowering at different times, changing color in the fall, and in general creating a sense of diversity of life and nature. It consists of two open areas encircled by a curvilinear pathway and varied plantings of both evergreen and deciduous trees. Wildflowers, daffodils and shrubs are proposed along its edge, including orange coneflower (*Rudbeckia fuldiga var. speciosa* 'Goldstrum'), purple coneflower (*Echinacea purpurea*), and Virginia bluebells (*Mertensia virginica*). Palmer integrated existing vegetation into the design of the grassy area, including Japanese pagoda tree (*Sophora japonica*) and Golden rain tree (*Koelreuteria paniculata*), both remnants from Simonson's 1932 plantings, and several large eastern cottonwood (*Populus deltoides*) that had volunteered on the island shortly after it was formed.

The plan was developed and implemented in phases. The pine grove and picnic area were implemented first, followed by the parking area and pedestrian bridge, followed by the wildflowers and daffodils. Due to numerous revisions and construction schedules, dates on the various plans do not correspond with implementation dates. To be consistent with the rest of this report, the approved dates of the plans are used in the palimsest. The sequence of implementation remained the same (overall grove, footbridge, wildflowers and daffodils), but the dates of implementation extended from 1976-1979. A composite "as-built" plan from 1984 serves as the basis for this analysis.

Physical Changes

The northernmost marina parking lot was reduced in size to allow more room for the memorial landscape and to eliminate the boat storage area, which was relocated to the south end of the island, behind the marina restaurant building. An entrance area to the memorial and a new parking lot were constructed on the Pentagon side of Boundary Channel with the main access to it.


POTOMAC RIVER
BOUNDARY CHANNEL
Acer sp.
Cornus florida
Liriodendron tulipifera
Paulownia tomentosa
Pinus sp.
Populus sp.
Pyrus sp.
Quercus sp.
Salix babylonica
Sophora sp.
Azalea
Clethra alnifolia
Hammamelis
Juniperus sp.
Kalmia latifolia
Myrica cerifera
Potentilla fruticosa
Prunus laurocerasus
Rhododendron sp.
Viburnum plicatum
Daffodils
Wildflowers
0
50
100
150
200
scale
north
Open lawn
Pedestrian bridge
White pine grove
Granite Megalith
Marina parking lot

LBJ MEMORIAL GROVE
Overstory

RIGHT PAGE
(2004 Aerial) with overstory existing conditions of Palmer Plan in 2009.
1975 Palmer Plan, Lyndon B. Johnson Memorial Grove, *(NPS TIC 835/80013Z1)*
1976 Palmer Plan, Lyndon B. Johnson Memorial Grove Phase II Footbridge and Parking, revised 1978 "As constructed," *Sheets P1-P2 of 17 (NPS TIC 835/80014A)*
1977 Palmer Plan, Lyndon B. Johnson Memorial Grove Wildflower & Daffodil Plantings, revised 1977, *Sheets P1-P9 of 9 (NPS TIC 835/80016z1).*
1979 Palmer Plan, Lyndon B. Johnson Memorial Grove Wildflower & Daffodil Plantings, Revised 1979 (Jan) "As-Built to reflect 1978-79 contracts", *Sheets P1-P5, 7 of 7 (NPS TIC 835/80016A)*
1984 Lyndon B. Johnson Memorial Grove, revised 1980, 1983, 1984 Replacement Plantings, *Sheet P1-P5 of 5 (NPS TIC 835/80020A)*
1991 Lyndon B. Johnson Memorial Grove, revised to fill in, *Sheets P1-P4, P6-P7 (NPS TIC 835/80026)*

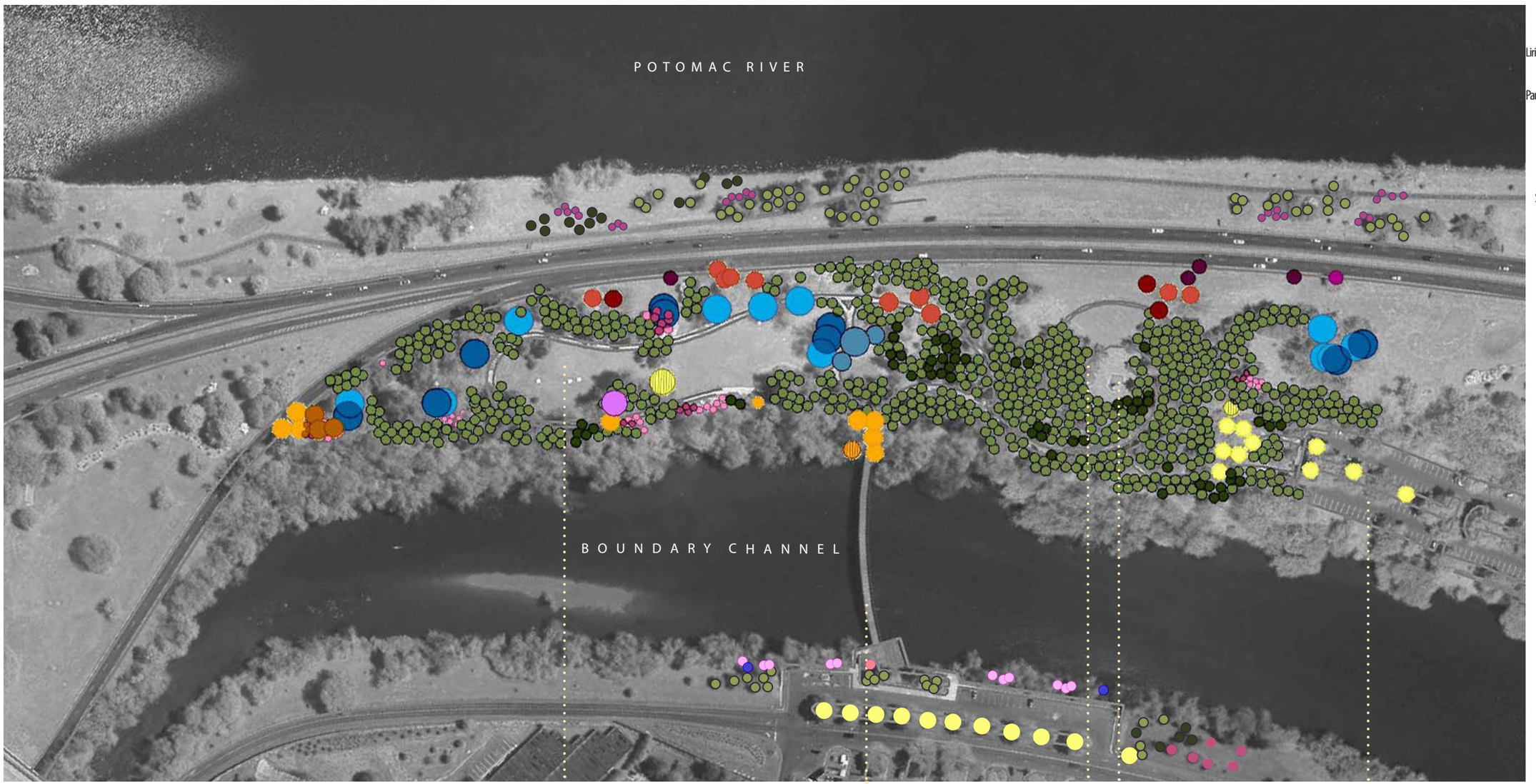
The differences between the pine grove and the open lawn are quite distinct when the tree layer of Palmer's plan is superimposed on the 2004 aerial photograph. The densely planted white pines (*Pinus strobus*) make a quiet, subdued forest room with a natural ceiling, and they nearly completely encircle the megalith and the memorial plaza. The eastern side of the pine stand opens up to an expansive view of the National Mall. In contrast, the open space of the meadow stands out as an internal focus in the northern half of the memorial. Pines are mixed among the existing large cottonwoods, pears and pagoda trees, especially along the eastern edge of the meadow. The resultant mix of species and the open, sunny meadow have a distinct character from the homogeneous pine stand.

Palmer does not propose any additional trees along the shoreline of Boundary Channel, except for a few red maple (*Acer rubrum*) planted behind two existing box elder (*A. negundo*) where the new bridge meets the land. Both the Simonson plan and the Stone plan had allowed the edge to naturalize with volunteer vegetation, and that seems to be Palmer's intent for the overstory as well.

Overstory Today

Three decades after installation of the LBJ Grove, the overstory trees are fairly intact. The majority of the pines remain, but there are a few critical gaps where clusters of them have died—shown as darker green circles in the plan. Rather than an even-aged stand of pines forming a dimly lit, interior forest room, there are noticeable places with bright sunshine and no trees. The most critical gap is located right at the edge of the central plaza, where the megalith is plainly visible instead of being partially masked by the tree trunks. People regularly walk through this gap to access the plaza rather than staying on the spiraling path as intended. Some of the gaps have been planted with young pines in places where there is enough sunlight for them to establish and grow between the older, larger pines. But this too creates a very different character than the even-aged stand proposed in Palmer's plan.

The cottonwoods in and around the meadow stand out as the most prominent individual trees in the memorial today. A few of them have died, shown as darker blue circles in the plan, but the remaining ones are magnificent specimens rising much taller than the other trees of the grove. Some of the pagoda trees and pears from Simonson's plan have died as well, diminishing the impact of these within the overall design.


POTOMAC RIVER
BOUNDARY CHANNEL
Acer sp.
Cornus florida
Liriodendron tulipifera
Malus sp.
Paulownia tomentosa
Pinus sp.
Populus sp.
Pyrus sp.
Quercus sp.
Salix babylonica
Sophora sp.
173
LBJ Memorial Grove
0
50
100
150
200
scale
north
Open lawn
Pedestrian bridge
White pine grove
Granite Megalith
Marina parking lot

LBJ MEMORIAL GROVE
Understory

RIGHT PAGE
(2004 Aerial) with understory existing conditions of Palmer Plan in 2009.
1975 Palmer Plan, Lyndon B. Johnson Memorial Grove, *(NPS TIC 835/80013Z1)*
1976 Palmer Plan, Lyndon B. Johnson Memorial Grove Phase II Footbridge and Parking, revised 1978 "As constructed," *Sheets P1-P2 of 17 (NPS TIC 835/80014A)*
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1984 Lyndon B. Johnson Memorial Grove, revised 1980, 1983, 1984 Replacement Plantings, *Sheet P1-P5 of 5 (NPS TIC 835/80020A)*
1991 Lyndon B. Johnson Memorial Grove, revised to fill in, *Sheets P1-P4, P6-P7 (NPS TIC 835/80026)*

Many shrubs, daffodils, wildflowers and groundcovers are proposed for the Memorial, mostly around the edges of the lawn and in the naturalized woods along Boundary Channel. In general the western, more densely vegetated edge has a woodland character, planted with azaleas, rhododendrons, laurels, ferns and shade-tolerant wildflowers. The sunnier, eastern edge of the meadow is planted with viburnums, witchhazel, sun-loving perennials and wildflowers. Throughout the Memorial only a few of the wildflower beds are located in the open area inside the pathway; most are planted just outside of the paths. English ivy (*Hedera helix*) and common cherrylaurel (*Prunus laurocerasus*) are planted within the pine grove reinforcing the evergreen character of the stand.

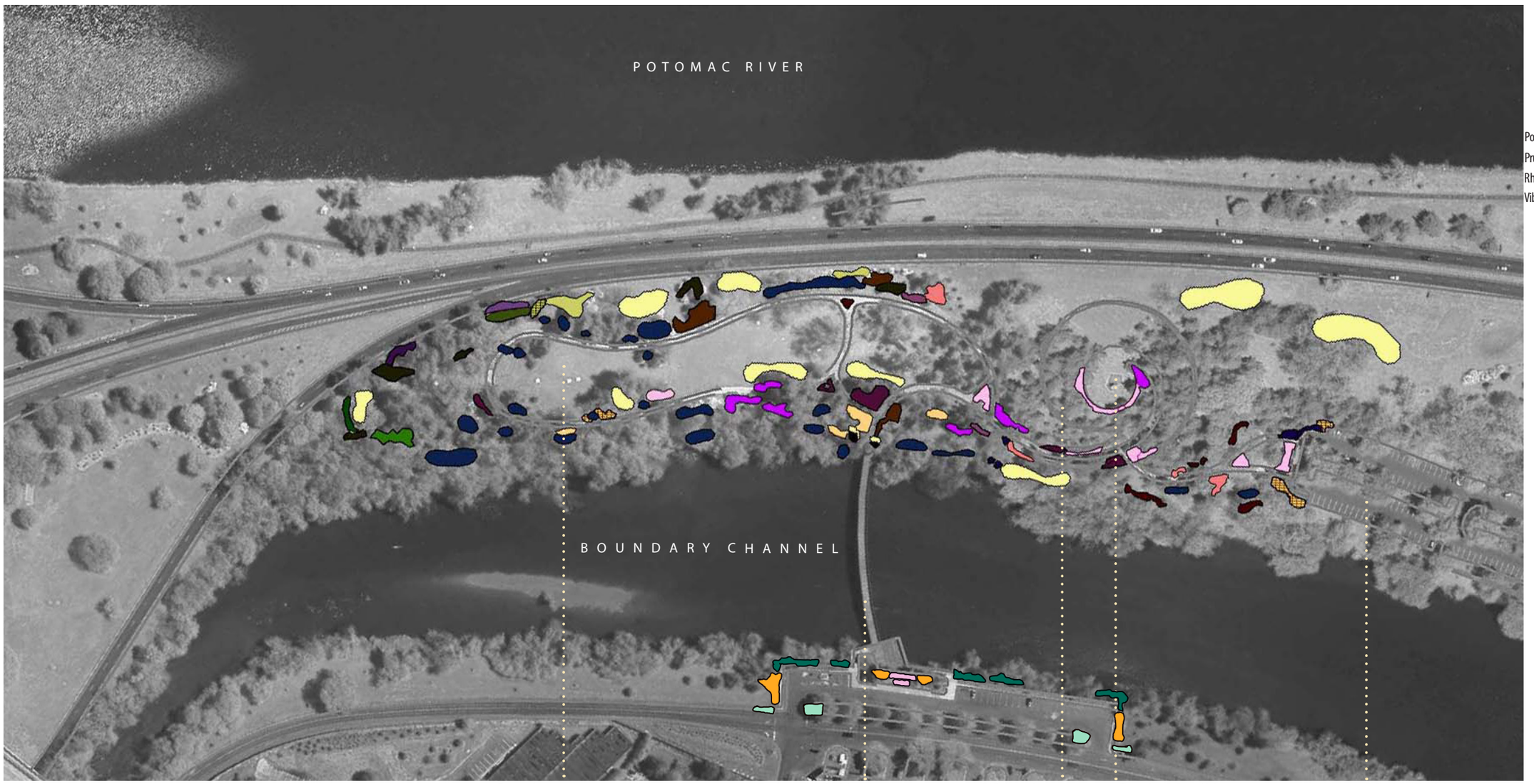
Palmer proposes four species of daffodils in eleven beds. Although they do not appear very large in plan, they are quite impressive when in bloom. The majority of the daffodils are located on the outside of the pathway, and the largest beds are adjacent to the Parkway, where they integrate the Memorial with the rest of Lady Bird Johnson Park and the profusion of daffodil beds from Stone's plan.

Understory today

Very little of the understory remains in and around the pine stand, and much of what remains is not healthy. (Missing vegetation is shown in darker versions of the identifying color.) The notable exception is the cherrylaurel, which is very healthy. Some of the azaleas and summersweet clethra (*Clethra alnifolia*) are healthy, but many are struggling. The shrubs around the meadow are faring better on the sunny eastern side, but almost all of them are missing on the western side except for some clusters of azaleas.

The daffodil beds are doing very well, and new beds have been planted. One has been placed within the center of the meadow and is therefore inconsistent with Palmer's plan. Only the large bed running along the edge of Boundary Channel does not appear to be intact.

None of the wildflowers remain from the original installation, however in 2008, a few beds were restored as part of the First Bloom program. First Bloom is a project initiated by the National Park Foundation in 2007 to honor the conservation legacy of Lady Bird Johnson by giving urban youth a chance to create and tend gardens and acquire a love of nature. The 2008 LBJ Grove planting was one of five pilot projects funded by ARAMARK (a professional services organization and leading concessionaire of parks, resorts and hospitality services.)


POTOMAC RIVER
BOUNDARY CHANNEL
Azalea
Clethra alnifolia
Hammamelis
Juniperus sp.
Kalmia latifolia
Myrica cerifera
Potentilla fruticosa
Prunus laurocerasus
Rhododendron sp.
Viburnum plicatum
Daffodils
Wildflowers
175
LBJ Memorial Grove
0
50
100
150
200
scale
north
Open lawn
Pedestrian bridge
White pine grove
Granite Megalith
Marina Parking Lot

LBJ MEMORIAL GROVE

Plant Palette

Shade, Ornamental and Evergreen Trees

Hundreds of white pines (*Pinus strobus*) create the evergreen grove around the focal plaza and megalith in the memorial grove as Palmer intended. They also outline the curving path around the meadow and shade the woodland edge along Boundary Channel. Loblolly pine (*P. taeda*) is also specified in the plan, but Lady Bird Johnson preferred the white pine for the entire memorial, which was therefore substituted for the loblolly pines. Palmer also included the existing eastern cottonwoods (*Populus deltoides*) in the memorial. There are fewer of them today than in 1976, but they dominate the meadow due to their great size. Large willow oaks (*Quercus phellos*), remaining from the original end of the parking lot, and those in the parking islands link the spaces visually and historically. At the main entrance to the memorial, Palmer left two existing boxelders (*Acer negundo*) to frame the pedestrian bridge and added red maple (*A. rubrum*) as a small allee.

Few ornamental trees appear in Palmer's design, only around the lawn. The dominant ornamental tree from 1975, flowering dogwood (*Cornus florida*), appears in small clusters among the other pines that surround the meadow. Japanese pagoda tree (*Sophora japonica*) and pears (*Pyrus spp.*) from 1932 have more presence closer to the Parkway. Today, the mature pines continue to define the quiet, protected character of the memorial, a place apart from the city as President and Mrs. Johnson enjoyed.

RIGHT PAGE

1975 Palmer Plan, Lyndon B. Johnson Memorial Grove, *(NPS TIC 835/80013Z1)*

1976 Palmer Plan, Lyndon B. Johnson Memorial Grove Phase II Footbridge and Parking, revised 1978 "As constructed," *Sheets P1-P2 of 17 (NPS TIC 835/80014A)*

1977 Palmer Plan, Lyndon B. Johnson Memorial Grove Wildflower & Daffodil Plantings, revised 1977, *Sheets P1-P9 of 9 (NPS TIC 835/80016z1).*

1979 Palmer Plan, Lyndon B. Johnson Memorial Grove Wildflower & Daffodil Plantings, Revised 1979 (Jan) "As-Built to reflect 1978-79 contracts", *Sheets P1-P5, 7 of 7 (NPS TIC 835/80016A)*

1984 Lyndon B. Johnson Memorial Grove, revised 1980, 1983, 1984 Replacement Plantings, *Sheet P1-P5 of 5 (NPS TIC 835/80020A)*

1991 Lyndon B. Johnson Memorial Grove, revised to fill in, *Sheets P1-P4, P6-P7 (NPS TIC 835/80026)*

SHADE TREES

BOTANICAL NAME	COMMON NAME	1975	1976	1977	1979	1984	1991
Acer rubrum	Red Maple					1	4
Acer saccharum	Sugar Maple					6	
Liriodendron tulipifera	Tuliptree					1	
Quercus phellos	Willow Oak	2	11				
Salix x pendulina (S. babylonica '79)	Wisconsin Weeping Willow				2		

MEDIUM TREES

BOTANICAL NAME	COMMON NAME	1975	1976	1977	1979	1984	1991
none							

ORNAMENTAL TREES

BOTANICAL NAME	COMMON NAME	1975	1976	1977	1979	1984	1991
Cornus florida	Flowering Dogwood	61	1		3	45?	
Cercis canadensis	Eastern Redbud		11	4			2
Koelreuteria paniculata	Golden Raintree					2	2
Malus floribunda	Japanese Flowering		6	3		1	
Paulownia tomentosa	Princesstree		3				
Sophora japonica	Japanese Pagoda Tree				3		

EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	1975	1976	1977	1979	1984	1991
Pinus strobus [1]	White Pine	* 772	24		47		

EXPLANATORY NOTES

('32) Botanical name written on the 1932 Simonson Plan.(typ)
bold Dominant species from 1932.
* Significance as donation or memorial. (Appendix A)
? Quantity unknown
1 Palmer specified 44 pines to be loblolly pines (*Pinus taeda*) but Mrs. Johnson changed them all to white pine (*P. strobus*). Eight pines planted at the groundbreaking ceremony were planted in the northeast corner of the secondary (parking lot) entrance to the grove and one remains as late as the 1991 plan. Many of the pines at the secondary entrance and along paths were donated, indicated by a "D" on the 1975 plan.
2 Azaleas are listed botanically as Rhododendrons though they were typically written as azaleas on the plans. "Azalea latifolia" indicated on the 1975 plan is unknown. Located at the parking entrance, it is more consistent with the Palmer plan to be an azalea (*Rhodonderon* sp.) rather than mountain laurel (*Kalmia latifolia*).

LBJ MEMORIAL GROVE

Plant Palette

Shrubs, Vines, Perennials and Groundcover

Palmer approved additions and substitutions to add wildflowers and replace plants that did not do well. The species and numbers identified here are based on a 1984 "as built" plan. The dominant shrubs for the memorial grove are azaleas. Thirteen species of them are planted along the spiral and at the intersection of the paths. Substitutions in cultivars from 1979 to the early 1980s are consistent with the design intention, however many are stressed and show signs of disease. Summersweet clethra (*Clethra alnifolia*) and cherrylaurel (*Prunus laurocerasus*) are aging well and define the character of the understory better than the azaleas. Viburnum and witchhazel create the protected border between the meadow and the Parkway, but others such as mountain laurel (*Kalmia latifolia*) and bush cinquefoil (*Potentilla fruticosa*) are no longer present.

In Palmer's plan, cotoneaster appears around the megalith, in front of the spiral, and at secondary entrance to the grove. Today, it only grows at the megalith and is showing signs of stress. English ivy (*Hedera helix*) is the most healthy groundcover, however, it has invaded the wooded area along the western side along with other invasive species.

Wildflowers once grew around the lawn and in woodland areas of the memorial, but they are no longer present, perhaps due to competition by invasive species. Daffodils continue to flower around the lawn, but other perennials, orange coneflower (*Rudbeckia fuldiga var. speciosa* 'Goldstrum'), purple coneflower (*Echinacea purpurea*) and Virginia bluebells (*Mertensia virginica*), which once were the dominant flowers for the meadow and woodland areas, have been lost. A few beds were restored in 2008 as part of the First Bloom program.

RIGHT AND LEFT PAGE

1975 Palmer Plan, Lyndon B. Johnson Memorial Grove, *(NPS TIC 835/80013Z1)*

1976 Palmer Plan, Lyndon B. Johnson Memorial Grove Phase II Footbridge and Parking, revised 1978 "As constructed," *Sheets P1-P2 of 17 (NPS TIC 835/80014A)*

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1984 Lyndon B. Johnson Memorial Grove, revised 1980, 1983, 1984 Replacement Plantings, *Sheet P1-P5 of 5 (NPS TIC 835/80020A)*

1991 Lyndon B. Johnson Memorial Grove, revised to fill in, *Sheets P1-P4, P6-P7 (NPS TIC 835/80026)*

SHRUBS

BOTANICAL NAME	COMMON NAME	1975	1976	1977	1979	1984	1991
Abelia x grandiflora 'Prostrata'	Prostrate Glossy Abelia	48					
Azalea latifolia [2]	Unknown					50	
Clethra alnifolia	Summersweet Clethra	179		22		22	
Clethra alnifolia 'Rosea'	Summersweet Clethra					15	
Enkianthus campanulatus	Redvein Enkianthus			31		15	
Hammamelis 'Arnold Promise'	Arnold Promise					35	
Kalmia latifolia	Mountain Laurel					26	
Myrica cerifera	Southern Waxmyrtle		50				
Potentilla fruticosa	Bush Cinquefoil					150	
Prunus laurocerasus 'Schipkaensis'	Schipkaensis Cherrylaurel	115				725	45
Rhododendron 'John Wister'	John Wister Rhododendron	162	15				
Rhododendron 'Aphrodite'[2]	Aphrodite Azalea					53	
Rhododendron carolinianum 'Album'	White Carolina	58					
Rhododendron catawbiense	Catawba Rhododendron	9				29	8
Rhododendron 'Delaware Valley White'[2]	Delaware Valley White					50?	12
Rhododendron 'English Roseum'	English Roseum					123	
Rhododendron 'Gibraltar'[2]	Gibraltar Azalea					25	
Rhododendron 'Glacier'[2]	Glacier Azalea	269	15				
Rhododendron 'Greeting'[2]	Greeting Azalea					37	
Rhododendron 'Gumpo Pink'[2]	Gumpo Pink Azalea		24				
Rhododendron 'Louise Gable'[2]	Louise Gable	87					
Rhododendron ' Martha Hitchcock'[2]	Martha Hitchcock Hybrid					21	
Rhododendron 'Mary Ann'[2]	Mary Ann Azalea	53					
Rhododendron 'May Blaine'[2]	May Blaine Azalea	21					
Rhododendron 'Merley Cream'[2]	Merley Cream Rhododendron	29	35				
Rhododendron 'Mildred Mae'[2]	Mildred Mae Azalea	21					
Rhododendron mollis	Rhododendron Species					40	
Rhododendron periclymenoides (Azalea nudiflora [84])	Pinxterbloom Azalea					12?	
Rhododendron 'Royalty'[2]	Royalty Azalea					21	
Rhododendron 'Gumpo'[2]	Gumpo Azalea	78					
Rhododendron schlippenbachii [2]	Royal Azalea	46					12
Rhododendron 'Susan'[2]	Susan Azalea	31					
Rhododendron 'Tradition'[2]	Tradition Azalea					34	
Vaccinium angustifolium	Lowbush Blueberry						100
Viburnum plicatum var tomentosum 'Maresii' *(V. plicatum* 'Mariesii'[75]*)*	Mariesii Doublefile Viburnum	133				33	30

VINES & GROUNDCOVER

BOTANICAL NAME	COMMON NAME	1975	1976	1977	1979	1984	1991
Cotoneaster dammeri 'Skognolmen'	Skognolmen Cotoneaster					75	
Cotoneaster salicifolius 'Herbstfeuer'	Autumn Fire Cotoneaster					78	
Cotoneaster salicifolia 'Repandens'	Repandens Cotoneaster						?
Cotoneaster salicifolia 'Repens'	Repens Cotoneaster					?	
Cotoneaster salicifolia 'Scarlet Leader'	Scarlet Leader Cotoneaster						?
Hedera helix 'Baltica'	English Ivy	34,550	2,420	1,200			
Hypericum calycinum	Aaronsbeard St. Johnswort		200				
Juniperus horizontalis 'Douglasii'	Douglas Creeping Juniper		59				

PERENNIALS

BOTANICAL NAME	COMMON NAME	1975	1976	1977	1979	1984	1991
Actaea racemosa (Cimicifuga racemosa '84 *)*	Black Bugbane					150	
Adiantum pedatum	Northern Maindenhair			150			
Aquilegia canadensis	Eastern Red Columbine			50			
Arisaema triphylllum	Jack-in-the-Pulpit			250			
Asarum canadense	Canadian Wildginger			150			
Caulophyllum thalictroides	Blue Cohosh			400			
Claytonia virginica	Virginia Springbeauty			300			
Echinacea purpurea (Rudbeckia purpurea '77-'84 *)*	Eastern Purple Coneflower					1200	
Geranium maculatum	Spotted Geranium			450			
Hemerocallis 'Fairy Tale Pink'	Fairy Tale Pink Daylily						100
Hemercallis 'Mary Todd'	Mary Todd Daylily					70	
Hemerocallis fulva (H. 'Hyperion'*)*	Orange Daylily			450		100	
Hemerocallis fulva (H. 'Wild Orange'*)*	Wild Orange Daylily			550		200	
Hepatica nobilis (H. americana '77 *)*	Round-lobed Hepatica			200			
Lobelia cardinalis	Cardinalflower			275			
Lythrum virgatum 'Morden's Pink'	Morden's Pink Loosestrife					400	
Lythrum virgatum 'The Beacon'	The Beacon Loosestrife					400	
Mertensia virginica	Virginia Bluebells			2475			
Osmunda cinnamomea	Cinnamon Fern			225			
Osmunda claytonia	Interrupted Fern			500			
Podophyllum peltatum	Mayapple			1500			
Polystichum acrostichoides	Christmas Fern			400			
Rudbeckia fulgida var. speciosa (R. 'Goldsturm'*)*	Orange Coneflower			200		680	840
Tiarella cordifolia	Heartleaf Foamflower			200			

DAFFODILS

BOTANICAL NAME	COMMON NAME	1975	1976	1977	1979	1984	1991
California	California Daffodil			6,650			
Carlton	Carlton Daffodil			2,600			
King Alfred	King Alfred Daffodil					110	
Unknown variety [3]	Unknown Daffodil Species			?		4300?	
Unsurpassable	Unsurpassable Daffodil			6,400			25,400

EXPLANATORY NOTES

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2009 PLANTING COMPOSITE

Central Section

RIGHT PAGE AND PAGES 182-183.
(2004 Aerial) with the existing vegetation in 2009.
1932 Simonson Plan (pink)
(NPS TIC 850/80156, NPS TIC 850/85197A)
1936 MVMH Supplemental Planting Plan -Mar (orange)
(NPS TIC 850/85168)
1936 MVMH Tree Planting [North of Alexandria]-Nov (orange)
(NPS TIC 850/85073)
1940 Navy and Marine Memorial (light yellow)
(NP TIC 835/89940)
1942 National Airport (light yellow)
(NPS TIC 850/85167)
1949 Section through National Airport (yellow)
(Planted Spring 1950) (NPS TIC 850/85291)
1956 Motor Boat Marina (yellow-green)
(NPS TIC 835/80105A)
1956 Motor Boat Marina Concession Building, (yellow-green) *(NPS TIC 835/80115)*
1960 RF&P Railroad Bridge to National Airport (pale green) *(NPS TIC 850/85505A)*
1963 14th St. Bridge to Alexandria (green)
(NPS TIC 850/85634A)
1963 Marina Parking Area (light green)
(NPS TIC 835/80148)
1965 Vicinity of National Airport GWMP Arlington Co. (green)
(NPS TIC 850/85729)
1967 Portion of GW PKWY at North Approach to Alexandria, Rev 1969 (med green) *(NPS TIC 850/85869)*
1967 Program Map for Dogwood Planting at [Governors Grove] Gravelly Point, (green)
Mar 18, 1967 (NPS TIC 850/85870)
1968 Stone Plan (green)
(NPS TIC 835/41000)
1969 Dogwood Plantings Gravelly Pt. to N. George Mason Bridge (dark green) *(NPS TIC 850/85813A)*
1971 Mixing Bowl Interchange Complex (light blue)
(NPS TIC 850/85854B)
1975 Palmer Plan, Lyndon B. Johnson Memorial Grove, (blue)
(NPS TIC 835/80013Z1), Footbridge Plan (NPS TIC 835/80014A)
1975 Site Restoration Demolition Tempo-7 National Airport (light blue) *(NPS TIC 850/80046) (Supercedes 1974 Plans NPS TIC 850/85910, NPS TIC 850/80045)*
1976 National Airport T-7 Site, Rev (medium blue)
(NPS TIC 850/80049)
1978 Landscape Screening North Airport Boundary to Four Mile Run, rev 1979 "As Built Conditions"(dark blue)
(NPS TIC 850/80088)
1980 Rennovation & Restoration Planting 14th St. Bridge Approach (light purple) *(NPS TIC 850/80116)*
1980 Governors' Grove Replanting Gravelly Point (light purple) *(NPS TIC 850/80131)*
1983 Landscape Plan Vicinity Slater's Lane GWMP (purple) *(NPS TIC 850/80264)*
1984 Crystal City-R.R. Screening Vicinity National Airport (light purple) *(NPS TIC 850/80270)*
1988 Gravelly Point [Entrance] Planting (dark purple)
(NPS TIC 850/86010)
1997 Bus Shelter Removal (magenta)
(NPS TIC 835/80229)
1998 Gateway Concept Master Plan (magenta)
(City of Alexandria)

The entire 2009 composite palimpsest (pp. 181-183) shows the complexity of the planting history for the central section of the Parkway and the amount of vegetation that remains from each of the plantings. The spectrum of colors for the various plans gives an overview of the planting history at a glance. After initial planting in 1932, change occurred in the central section in a roughly northerly fashion. The first additional plantings were installed along the western side of Daingerfield Island in 1936. Then moving northward, new plans were implemented in the 1940s along the newly realigned roadway at the airport, and in 1963 new plantings were installed along most of the central section from Alexandria to the Bridges. Finally, emphasis shifted to Lady Bird Johnson Park and the Lyndon Baines Johnson Memorial Grove from the late 60s to the end of the century.

The composite palimpsest makes evident how different the Parkway vegetation is today from Simonson's plan in 1932. There are remnants of his vegetation (shown in pink) along the approach to Alexandria, along the western side of Daingerfield Island, and a few near the bridge over Four Mile Run. There are very sparsely scattered remnants from 1932 along Roaches Run and Gravelly Point and a fair amount of them around the Bridges, but the increased number of bridges changes the character drastically from 1932. A few of the original ornamental trees exist in Lady Bird Johnson Park and the LBJ Memorial Grove, because both Edward D. Stone, Jr, and Meade Palmer retained them in their later planting plans.

Later plantings impact the various character areas to different degrees. The 1936 plantings were restricted to the west side of Daingerfield Island and were the last plantings along that side. In the 1940s, major plantings were installed at the airport, and there were also two small but prominent plantings of oaks at Columbia Island (Lady Bird Johnson Park) and at Daingerfield Island.

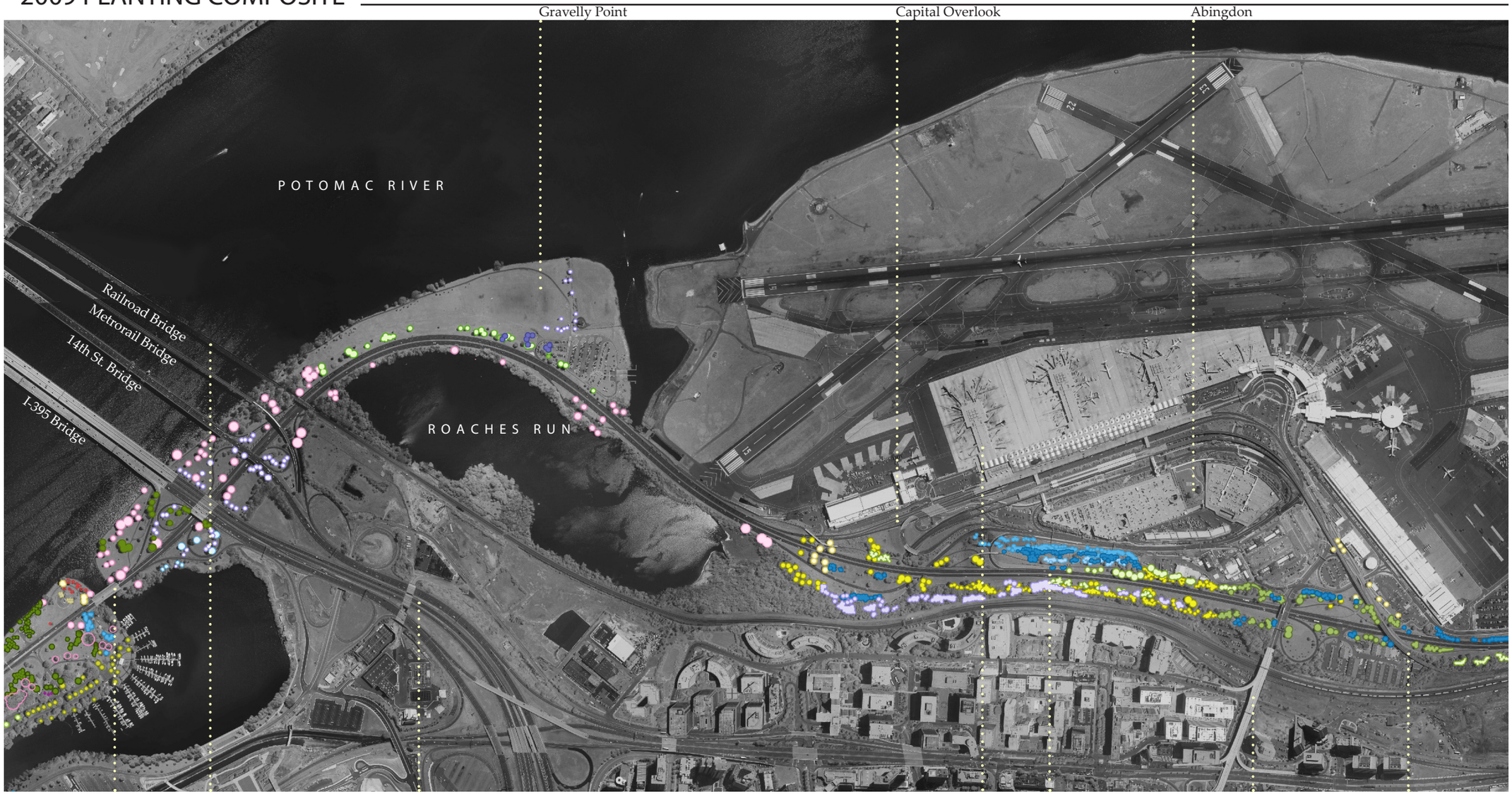
More of the Parkway was changed in the 1960s than at any time since initial construction. The 1963 plan planted a nearly continuous line of trees along most of the eastern side of the Parkway from Alexandria to the Bridges, and consequently impacted most of the character areas in the central section. Shortly thereafter, in 1967, Governor's Grove was planted (unsuccessfully) at Gravelly Point, and in 1968 Columbia Island was redesigned by Edward D. Stone, Jr. and rechristened Lady Bird Johnson Park. New plantings were installed as the first phase of his master plan for the park, which would come to encompass almost the whole of the island.

In the 70s, the Lyndon Baines Johnson Memorial was designed by Meade Palmer, becoming the prominent feature in the southern part of Lady Bird Johnson Park and perhaps the single most prominent planting since 1932.

Other plantings were installed in the 70s and 80s along the airport to screen new airport construction and the development of Crystal City. Others were planted around the Bridges in response to new bridge construction.


Lincoln Memorial
Memorial Bridge
Humpback Bridge
Columbia Island Marina
POTOMAC RIVER
Theodore Roosevelt Island
I-66 Bridge
'64 Current Northbound Parkway
Memorial Circle
'65 Current Southbound Parkway
Boundary Channel
Pentagon
1932
1936
1940
1940s
1942
1943
1949
1956
1960
1963
1965
1967
1968
1969
1971
1975
1976
1978
1980
1983
1984
1988
1997
1998
cotton woods
unknown
0
250
500
750
1000
scale
north

2009 PLANTING COMPOSITE




POTOMAC RIVER
FOUR MILE RUN
Monument View Hill
Four Mile Run
Washington Marina
'61 Northbound Parkway
Slater's Lane
Alexandria Circle
1932
1936
1940
1940s
1942
1943
1949
1956
1960
1963
1965
1967
1968
1969
1971
1975
1976
1978
1980
1983
1984
1988
1997
1998
cotton woods
unknown
0
250
500
750
1000
scale
north

National Park Service
U.S. Department of the Interior



George Washington Memorial Parkway
Turkey Run Park
McLean, VA 22101