Cultural Landscape Report

West Potomac Park
Lincoln Memorial Grounds
National Capital Parks Central

August 1999

U.S. Department of the Interior
National Park Service
National Capital Region
Cultural Landscape Program
Washington, D.C.

Part 1: Site History,
Analysis and Evaluation
and Design Guidelines

Cultural Landscape Report

West Potomac Park
Lincoln Memorial Grounds

National Capital Parks Central

August 1999

Part 1: Site History,
Analysis and Evaluation
and Design Guidelines

U.S. Department of Interior
National Park Service
National Capital Region
Cultural Landscape Program
Washington, D.C

Cover Illustration: Aerial View of the study area, Lincoln Memorial Grounds, as completed, 1934. MRC 1-67.

Publication Credits: Information in this publication may be copied and used, with the condition that full credit is given to the authors and the National Park Service. Appropriate citations and bibliographic credits should be made for each use.

United States Department of Interior Mission Statement: As the Nation's principal conservation agency, the Department of Interior has responsibility for most of our nationally-owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Prepared By:

Denver Service Center, Falls Church Office
National Capital Region, Lands, Resources and Planning

Team Members:

Project Manager	Tony Donald
Project Supervisor	Glenn Caldaro
Team Captain	Maureen De Lay Joseph
Project Historian	Perry Carpenter Wheelock
Project Landscape Architect	Alice McLarty
Project Editor	Sue Kisicki

Acknowledgements

This project has been part of the on-going preservation efforts for the Lincoln Memorial. The project was primarily supported by Robert Stanton, former Regional Director and Terry Carlstrom, current Regional Director for the National Capital Region (NCR); Arnold Goldstein, Superintendent, National Capital Parks Central (NACC); Vikki Keys, Assistant Superintendent, NACC; and John Parsons, Associate, Lands, Resources, and Planning (LRP). The project benefited from the knowledge and experience of the park's professional staff including Stephen Lorenzetti, Chief Resource Manager; William Newman, Chief of Maintenance; Keith Newlin, former Maintenance Division; Bill Eichenlaub, former Natural Resource Management Specialist; and Duane Donnelly-Morrison, former GIS Specialist. Also expertise came from the National Capital Region, including Gary Scott, Regional Historian; Rebecca Stevens, Regional Historical Architect; Darwina Neal, Chief Cultural Resource Preservation Services; Jim Sherald, Natural Resource Officer; Robert Defeo, Regional Horticulturist; Glenn DeMarr, Regional Land Use Liaison; and Sally Blumenthal, Deputy Associate, LRP. Without the support from the Falls Church, Denver Service Center office and the National Capital Region, Lands, Resources and Planning Division, this project would not be possible. Special thanks to Audrey Tepper, former DSC Historical Architect, for sharing her knowledge and for her help in reviewing and critiquing the narrative, and to Larry Sutphin, former DSC graphic specialist for his assistance with the maps. Since the team first started this report in 1996, there have been quite a few changes in personnel, position titles, and office titles. We hope that we have included everyone that has been a part of this project.

Maureen De Lay Joseph
August 1999

Table of Contents

I. Executive Summary 1
II. Introduction 5
- Objectives 6
- Study Boundaries 6
- General Description 8
- Methodology 9

III. Site History 11
- Introduction 12
- Early Development 1791-1914 13
  - Creation of a Park Site 13
  - The McMillan Commission Plan 15
  - Early Design Concepts 17
- Development, Planting, and Dedication 1914-1922 20
  - Refinement of an Overall Landscape Plan 20
  - Efforts to Complete the Design 24
  - Planting Plan for the Inner Circle - East Front 26
  - Concepts for the West Side 28
  - Efforts to Complete the Design 30
  - The Reflecting Pool 31
  - Dedication of the Memorial 33
- Completion of the Lincoln Memorial Grounds 1923-1933 35
  - Completion of Specific Projects - The Rainbow Pool 35
  - Additional Trees and Shrubs 37
  - Park Developments 40
  - Management of the Reflecting Pool 41
  - Design for the Watergate 43
  - New Plans for the Mall 43
  - Planting Plans - West Side and the Watergate 44
- Management by the National Park Service 1933-1945 49
  - New Stewardship Role for the National Park Service 49
  - Cultural Events and Social Significance 51
  - Effects of Park Planning 52
  - War and Changes in Land Use 54
- Tourism and Traffic 1945-1970 56
  - Revival and Completion of Pre-War Plans 56
  - Visitation, New Uses and Incremental Change 61
  - Plans for New Site Developments 63
- Response to Contemporary Issues Through New Design and Preservation 1970-1996 65
  - Bicentennial Changes 65
  - The Development of Preservation Plans 67
  - New Memorials, New Commemorative Landscapes 69

IV. Analysis and Evaluation 71
- Introduction 72

Overall Landscape Characteristics 72
Land Use 72
Adjacent Lands 79
Views and Vistas 81
Spatial Organization 87
Component Landscape 88
Reflecting Pool area 88
Vegetation 88
Pedestrian Circulation 93
Structures 99
Small-Scale Features 105
Benches 105
Trash Receptacles 105
Lighting 106
Paving Materials 106
Drinking Fountains 107
Signs 107
Pedestrian Barriers 108
Lincoln Memorial circle and radial roads 109
Vegetation 109
Radial roads and outer circle 109
Inner circle 114
Circulation 123
Vehicular Circulation 123
Parking Areas 125
Pedestrian Circulation 128
Structures 128
Small-Scale Features 136
Benches 136
Trash Receptacles 136
Lighting 138
Paving Materials 139
Drinking Fountains 140
Signs 141
Traffic and Pedestrian Barriers 142
Bike Racks 142
Telephones 143
Watergate area 144
Vegetation 144
Circulation 150
Vehicular Circulation 150
Pedestrian Circulation 154
Structures 158
Small-Scale Features 161
Benches 161
Trash Receptacles 161

	Lighting	162
	Paving Materials	163
	Drinking Fountains	163
	Signs	164
	Traffic and Pedestrian Barriers	164
	Recreational Equipment	165
V.	National Register Status	167
	Introduction	168
	Evaluation of Significance	168
	Evaluation of Integrity	172
VI.	Design Guidelines	173
	Introduction	174
	Overall Site	174
	Spatial Organization	175
	Views and Vistas	175
	Vegetation	176
	Circulation	177
	Structures	177
	Small-Scale Features	178
	Interpretation	179
	Component Landscapes	180
	Reflecting Pool area	180
	Introduction	180
	Vegetation	180
	Circulation	181
	Structures	182
	Response to Natural Features	182
	Lincoln Memorial circle and radial roads	183
	Introduction	183
	Views and Vistas	183
	Vegetation	183
	Circulation	185
	Small-Scale Features	187
	Watergate area	187
	Introduction	187
	Land Use	187
	Views and Vistas	187
	Vegetation	188
	Circulation	189
VII.	Endnotes	191
VIII.	Bibliography	203

List of Figures

Figure 1 – The City of Washington. Birds-Eye View from the Potomac – looking north. (Drawn by Charles Parsons) Published by Currier & Ives, 1892. Courtesy of Library of Congress, Prints and Photographs. 14

Figure 2 – Cross section of proposed Potomac Park speedway and trail system, c. 1907. NPS Map 801/801067. 17

Figure 3 - Construction of approachway, Dec. 12, 1918. U.S. Navy photo. MRC 1-58. 20

Figure 4 – Grading operations around the memorial, April 17, 1921. MRC 1-60. 24

Figure 5 - Finished grading of circular road and partial completion of radial roads, 1921. MRC 1-62. 25

Figure 6 – Mature boxwood and yew shrubs on southeast side of Lincoln Memorial, August 1922. MRC 2-16. 27

Figure 7 – View from Washington Monument showing ditch-like appearance of pools and temporary nursery on the south side of the pools, 1921. MRC 1-53. 32

Figure 8 – Dedication festivities for the official opening of the Lincoln Memorial, May 30, 1922. MRC 1-30. 34

Figure 9 – Partially planted east side of Lincoln Memorial during the dedication ceremony, May 30, 1922. MRC 1-31. 34

Figure 10 – Rainbow Pool fountain in all its glory as shown in National Geographic, April 1935. Used by permission from the National Geographic Society. 36

Figure 11 - D.C. street lamp standards as adopted in 1923. 37

Figure 12 – Narrow passageway under boxwoods to “Men’s” restroom south of the main steps, May 1, 1927. MRC 2-11. 37

Figure 13– View of newly planted elms along radial roads and Reflecting Pool area, 1927. MRC 1-54. 38

Figure 14 & Figure 15 – Series of images document the condition of “English” elms along the Reflecting Pool north and south walk, 1928-1929. MRC 2-37 & 2-38. 41

Figure 16 – Skating on the Reflecting Pool, February 3, 1935. MRC 3-22. 42

Figure 17 – Swimming in the main Reflecting Pool soon after its completion, 1926. MRC 3-23. 42

Figure 18 – Repair work to the Rainbow Pool, July 15, 1929. MRC 3-17. 43

Figure 19 - Aerial view of installation of trees and shrubs on west side of Lincoln Memorial and beds flanking the Watergate steps, 1932. MRC 1-66. 47

Figure 20 – Completion of Watergate plaza, sidewalks and bridle trail, June 9, 1933. MRC 1-75. 48

Figure 21 - Temporary wooden steps to memorial chamber, Lincoln Birthday celebration, February 12, 1946. MRC 1-125. 49

Figure 22 - Unloading replacement boxwoods off of flatbed truck, March 1936. MRC 2-50. 50

Figure 23 - Laying sod on flood levee to stabilize the earthen berm, August 4, 1936. MRC 2-127. 50

Figure 24 - Concert barge tethered at the base of the Watergate steps, in preparation for a concert, July 12, 1939. MRC 1-3. 51

Figure 25 - New configuration of road system, with the addition of Independence Avenue and the on and off ramps from Lincoln Circle, January 27, 1960. MRC 1-108. 54

Figure 26 - Temporary elevated pedestrian bridges over the Reflecting Pool, June 1944. MRC 3-29. 55

Figure 27 - Installation of "Sacrifice" statue on north side of entrance to Arlington Memorial Bridge, June 1951. MRC 1-76. 57

Figure 28 - The rough form of the new yews planted on the south side of the approachway, changed the character of the approachway hedge, May 3, 1944. MRC 2-96. 58

Figure 29 - Original character of approachway hedge illustrated by the rounded form of the boxwood, May 3, 1944. MRC 2-97. 59

Figure 30 - Thousands of participants at the Lincoln Memorial grounds for the March on Washington, August 28, 1963. MRC 1-46. 61

Figure 31 - Lighting effect on west colonnade of Lincoln Memorial, June 7, 1966. MRC 3-44 62

Figure 32 – Water lilies in Rainbow Pool, August 17, 1944. MRC 2-119. 65

Figure 33 - View of north side of Lincoln Memorial, 1992. NPS DSC photo. 66

Figure 34 – Visitors enjoying the Reflecting Pool, 1931. Used by permission from the National Geographic Society. 73

Figure 35 - Model sailboats in the Reflecting Pool, 1931. Used by permission from the National Geographic Society. 73

Figure 36 - Grassy area north of Lincoln Memorial is used for active recreation, November 1996. LINC 11-29. 74

Figure 37 - Visitors walking along the south Reflecting Pool path, November 1996. LINC 11-30. 74

Figure 38 - Aerial view of the Korean War Memorial and its impact on the open grassy area south of the Reflecting Pool, April 1996. LINC 3-32. 80

Figure 39 - Main mall axis view from the raised terrace of the Lincoln Memorial to the Washington Monument, October 27, 1922. MRC 3-2. 81

Figure 40 - View from the Washington Monument to the Lincoln Memorial, c. 1930. Trees along 17th Street left an opening for the main mall axis view. MRC 3-26. 81

Figure 41 - View from roof of Lincoln Memorial to the Virginia shoreline, March 11, 1996. LINC 6-22. 82

Figure 42 - Limited view of Lincoln Memorial from the Ericsson Memorial, June 1996. LINC 9-7. 82

Figure 43- Reflection of the Lincoln Memorial on the pool, June 1996. LINC 9-24. 87

Figure 44- Reflection of Washington Monument on the pool, December 5, 1996. LINC 13-23. 87

Figure 45 – Elm walk on south side of Reflecting Pool, November 10, 1996. LINC 11-35. 89

Figure 46 – Young elms line concrete walks by Reflecting Pool, May 1929. MRC 2-40. 93

Figure 47 - Concrete walks radiating from the Rainbow Pool, April 1933. MRC 2-126. 93

Figure 48 – Reflecting Pool steps and plaza on west end of pool, November 11, 1996. LINC 11-13. 94

Figure 49 – Worn path adjacent to granite coping, June 1996. LINC 9-23. 94

Figure 50 – Rainbow Pool fountain display, April 20, 1934. Photo by Kelly. MRC 2-108. 99

Figure 51 – Rainbow Pool fountain as it appeared on November 11, 1996. LINC 11-10. 100

Figure 52 - Temporary structures on grassy terrace by Reflecting Pool steps, November 11, 1996. LINC 11-22. 100

Figure 53 – Cast iron frame benches placed along elm walks, May 1929. MRC 2-48. 105

Figure 54 – Cast iron frame benches and tulip trash receptacles used today along elm walks, November 11, 1996. LINC 11-12. 105

Figure 55 - Reflecting Pool area devoid of lights. View from Washington Monument, April 1941. MRC 3-28. 106

Figure 56 - Oversized interpretive signs by the Reflecting Pool, November 11, 1996. LINC 11-16. 107

Figures 57 & 58 - Temporary snowfencing installed along pedestrian corridors to protect grass areas. Stake and rope installed on the flood berm to mark secure area for landing pad, November 11, 1996. LINC 11-11 & LINC 11-14. 108

Figure 59 - Aerial view of first phase of planting American elms along the radial and eastern side of Lincoln Circle, 1927. MRC 1-54. 109

Figure 60 - Ericsson Memorial and newly planted junipers around base, c. 1932. MRC 1-136. 110

Figure 61 - Remnant concentric row of elms around Lincoln Circle, between 23rd Street NW and Bacon Drive, March 1996. LINC 6-27. 110

Figure 62 - Inappropriate trees and shrubs, planted under canopy of American elms, November 11, 1996. LINC 11-27. 111

Figure 63 - Shrub planting at top of Reflecting Pool steps, December 1996. LINC 17-35. 111

Figure 64 – Replacement shrubs around Ericsson Memorial changes the character of the original planting, February 1997. LINC 18-8. 112

Figure 65 - East side of Lincoln Memorial showing mature boxwood and yew shrubs, 1935. Used by permission from the National Geographic Society. 114

Figure 66 - West side or rear of Lincoln Memorial showing newly planted foundation plantings, c. 1932. MRC 2-20. 115

Figure 67 - Section showing desired character of replacement hedge along approachway, 1944. NPS Map 801/80347. 116

Figure 68- Existing west side foundation plantings, July 23, 1996. LINC 10-17. 116

Figure 69 - Existing yew hedge along approachway and accessible ramp, January 3, 1997. LINC 16-21. 117

Figure 70 - Rush hour traffic around Lincoln Circle, c. 1944. MRC 2-4. 123

Figure 71 - Traffic congestion on French Drive and Lincoln Circle, March 1996. LINC 6-34. 123

Figure 72 - Unofficial parking area at top of Reflecting Pool steps and Lincoln Circle, 1929. Used by permission from the National Geographic Society. 125

Figure 73 - Bus and taxi drop off along French Drive, July 23, 1996. LINC 10-14. 125

Figure 74 - Initial sidewalk installation, February 13, 1922. U.S. Navy photo. MRC 1-61. 128

Figure 75 - Painted crosswalks from Lincoln Circle to the sidewalks along the radial roads and approaches, 1934. MRC 1-67. 129

Figure 76 - Eight-foot wide sidewalk along 23rd Street NW, January 3, 1997. LINC 16-13. 129

Figure 77 - Nonhistoric layout of sidewalk along west side of French Drive, December 5, 1996. LINC 13-13. 129

Figure 78 - Approachway and Lincoln Memorial, January 3, 1997. LINC 16-20. 132

Figure 79 - Reconfigured accessible ramp to Lincoln Memorial, July 23, 1996. LINC 10-7. 132

Figure 80 - Refreshment stand along French Drive, December 5, 1996. LINC 13-18. 133

Figure 81 - Gift shop kiosk along French Drive, January 3, 1997. LINC 16-25. 133

Figure 82 - Guard Stand at the intersection of Independence Avenue and 23rd Street SW, December 5, 1996. LINC 13-8. 134

Figure 83 - Cast iron frame benches were placed along the outer circle sidewalk, June 25, 1931. MRC 2-70. 136

Figure 84 - Two types of trash receptacles located in the front planter by a granite bench, July 23, 1996. LINC 10-5. 137

Figure 85 - Pre-cast concrete trash receptacles along approachway, December 15, 1996. LINC 13-24. 137

Figure 86 - Concrete drinking fountain located between 23rd Street NW and Bacon Drive, January 3, 1997. LINC 16-16. 140

Figure 87 - Memorial planting shield located along the Lincoln Circle, April 1996. LINC 7-2. 141

Figure 88 - Bronze sign placed along approachway, April 16, 1952. MRC 1-44. 141

Figure 89 - Planter barriers on Lincoln Circle, December 5, 1996. LINC 13-20. 142

Figure 90 - Stake and chain barrier along French Drive, December 5, 1996. LINC 13-15. 142

Figure 91 - Telephones located near refreshment stand along French Drive, July 23, 1996. LINC 10-11 143

Figure 92 - Aerial view of Watergate planting beds during installation of plants, July 29, 1932. U.S. Army Air Corps photo. MRC 1-134. 144

Figure 93 - View of native planting on slope near the north plaza wing wall, July 19, 1933. MRC 2-80. 144

Figure 94 - Riparian vegetation planted along portions of the Potomac River shoreline, December 5, 1996. LINC 13-11. 145

Figure 95 - Informal planting of memorial tree grove (naturalistic grove), January 3, 1997. LINC 16-10. 145

Figure 96 - Old Constitution Avenue terminus and remnant row of elms, January 3, 1997. LINC 16-5. 146

Figure 97 - White pines, American elms and mugo pines frame view to Arlington Memorial Bridge, January 3, 1997. LINC 16-31. 147

Figure 98 - Aerial view of completed road system for the Watergate area, July 1937. U.S. Navy photo. MRC 1-64. 150

Figure 99 – Aerial of Independence Avenue and cloverleaf pattern before construction of Theodore Roosevelt Bridge, January 27, 1960. MRC 1-108. 151

Figure 100 - Aerial view of Roosevelt Bridge and its connection to Constitution Avenue and Ohio Drive, April 1996. MRC 3-27. 152

Figure 101 - Ohio Drive (Riverside Drive) and underpass for Arlington Memorial Bridge, June 1996. LINC 9-11. 152

Figure 102 - Completed sidewalk and bridle trail by south plaza wing wall, June 9, 1933. MRC 1-75. 154

Figure 103 - Walkway on either side of Ohio Drive at base of Watergate steps, April 1996. LINC 6-15. 154

Figure 104 - Sidewalk along Parkway Drive, April 1996. LINC 6-18. 155

Figure 105 - South plaza wing wall with new concrete path in same alignment as original bridle path, December 5, 1996. LINC 13-1. 155

Figure 106 - Watergate concert barge located at the base of the Watergate steps, July 19, 1939. MRC 1-1. 158

Figure 107 - Valor and Sacrifice statues flank entrance to Arlington Memorial Bridge, February 1997. LINC 18-5. 158

Figure 108 - Ceremonial Watergate steps and Arlington Memorial Bridge, January 3, 1997. LINC 16-36. 159

Figure 109 - Granite bench built into river wall along Parkway Drive, January 3, 1997. LINC 16-3. 161

Figure 110 - Granite benches built into Watergate plaza wing walls, April 1996. LINC 6-8. 161

Figure 111 - Twin-twenty lamppost at old terminus for Constitution Avenue, March 1996. LINC 6-20. 162

Figure 112 - Washington Globe lamppost at the Watergate plaza, March 1996. LINC 6-14. 162

Figure 113 - Cobra style lamppost along Ohio Drive, January 3, 1997. LINC 16-7. 162

Figure 114 - Granite Watergate steps, June 1996. LINC 9-12. 163

Figure 115 - Granite block pavers at base of Watergate steps, c. 1939. MRC 1-5. 163

Figure 116 - Rustic timber guardrail along Ohio Drive, c. 1935. MRC 1-70. 164

List of Maps

Map 1 – Study Boundaries Lincoln Memorial Grounds Cultural Landscape Report. 7

Map 2 - Senate Park Commission, Plan of 1901-1902, General Plan of the Mall System, March 1915. Used by permission from the National Geographic Society. 15

Map 3 – 1916 C.E. Howard plan of "Potomac Park Improvements" from B Street N. to B Street S. and 17th Street to the Potomac River. NPS Map 801/80095. 23

Map 4 - Irving Payne as-installed planting plan for first phase of the Lincoln Memorial foundation planting, 1920-1928. Courtesy of the National Archives. 29

Map 5 - One of the many memorial tree plans for the Lincoln Memorial circle and radial roads area, 1924. NPS Map 801/80081. 39

Map 6 - Plan to relocate elms located along abandoned section of Riverside Drive, rev. 1929. NPS Map 801/80129. 45

Map 7 -Development plans for the later part of the 1930s no longer depicted the Reflecting Pool "cross arms," 1939. NPS Map microfilm 35-52F/1. 53

Map 8 - Construction plans showing new layout of shrub beds at top of Reflecting Pool steps, 1953. NPS Map 31-209. 60

Map 9 - Overall Landscape - Land Use 77

Map 10 – Overall Landscape – Views and Vistas 85

Map 11 – Reflecting Pool area – Vegetation 91

Map 12 – Reflecting Pool Area – Pedestrian Circulation 97

Map 13 – Reflecting Pool Area – Structures 103

Map 14 – Lincoln Memorial Circle and Radial Roads – Radial Roads - Vegetation 113

Map 15 – Lincoln Memorial Circle and Radial Roads – Front Lincoln Circle – Vegetation 119

Map 16 – Lincoln Memorial Circle and Radial Roads – Back Lincoln Circle – Vegetation 121

Map 17 - Lincoln Memorial Circle and Radial Roads – Vehicular Circulation 127

Map 18 - Lincoln Memorial Circle and Radial Roads – Pedestrian Circulation 131

Map 19 - Lincoln Memorial Circle and Radial Roads – Structures 135

Map 20- Lighting Plan for West Potomac Park, 1940. NPS Map 76-321. 138

Map 21 - Memorial tree plan for naturalistic grove, 1938 rev. 1955. NPS Map 801/80235. 146

Map 22 – Watergate Area – Vegetation 149

Map 23 – Watergate Area – Vehicular Circulation 153

Map 24 – Watergate Area – Pedestrian Circulation 157

Map 25 – Watergate Area – Structures 160

I. Executive Summary

As part of ongoing preservation efforts for the Lincoln Memorial, a cultural landscape report was initiated in March 1996 to gain a better understanding of the landscape surrounding the Lincoln Memorial grounds. A cultural landscape report provides information about the physical development of a site and evaluates the significance and integrity of the existing landscape based on the period of significance. The period of significance is the time in which the property achieved the qualities that make the landscape eligible for the National Register of Historic Places. For the Lincoln Memorial grounds, the period of historical significance is from 1914 to 1933, during which time landscape plans were implemented and completed. A set of general design guidelines, based on the historic landscape and present-day maintenance requirements for the grounds, is also presented. These landscape guidelines provide critical information for park managers to use in making future maintenance and preservation decisions.

Documentation and evaluation of the grounds of the Lincoln Memorial were planned by the National Park Service early on but were accelerated when modifications to historic site features were presented to the Advisory Council for Historic Preservation in 1994. These changes were proposed to bring the site up to current accessibility standards.

Originally, the intent of the cultural landscape report was to focus only on the grounds immediately surrounding the Lincoln Memorial, but after further investigations, it was determined that the study boundaries should be extended. Because the Lincoln Memorial foundation plantings are part of a larger designed landscape within West Potomac Park that includes the Reflecting Pool, Rainbow Pool, radial roads, and Watergate area, the boundaries were extended to include these areas. For this document, this entire area of study will be called the “Lincoln Memorial grounds.”

This distinct formal landscape for the Lincoln Memorial grounds was initially conceived by the McMillan Commission in 1901. Subsequent plans developed by noted landscape architects, architects, and engineers between 1914-1933, the period of historical significance, further defined the simple geometric spaces that would extend the mall axis and honor Abraham Lincoln. Frederick Law Olmsted, Jr., Charles McKim, Henry Bacon, James Greenleaf, and the U.S. Army Corps of Engineers all made significant contributions to the design and execution of the plans for the Lincoln Memorial grounds.

Implementation of the design and management of the finished landscape was originally under the jurisdiction of the U.S. Army Corps of Engineers, and then was transferred to the National Park Service in 1933. Soon after the transfer, the National Park Service initiated changes in management and character of the landscape. Since 1933 increases in visitation and changes in land use have adversely affected what remains of the historic landscape from 1914 to 1933. Some of these changes are minor and are reversible, but other changes will take more effort to correct or are simply irreversible due to current needs.

Even with some of the changes, much of the original design for the Lincoln Memorial grounds, as implemented between 1914 and 1933, is evident today. Because of the importance of the Lincoln Memorial and of the potential impacts to the site by proposed

development, it was critical to document the landscape at a level that would satisfy park managers. This cultural landscape report will not only assist park managers, but also guide the Commission of Fine Arts and other preservation groups in their efforts to manage and preserve the historic designed landscape of the Lincoln Memorial for the future.

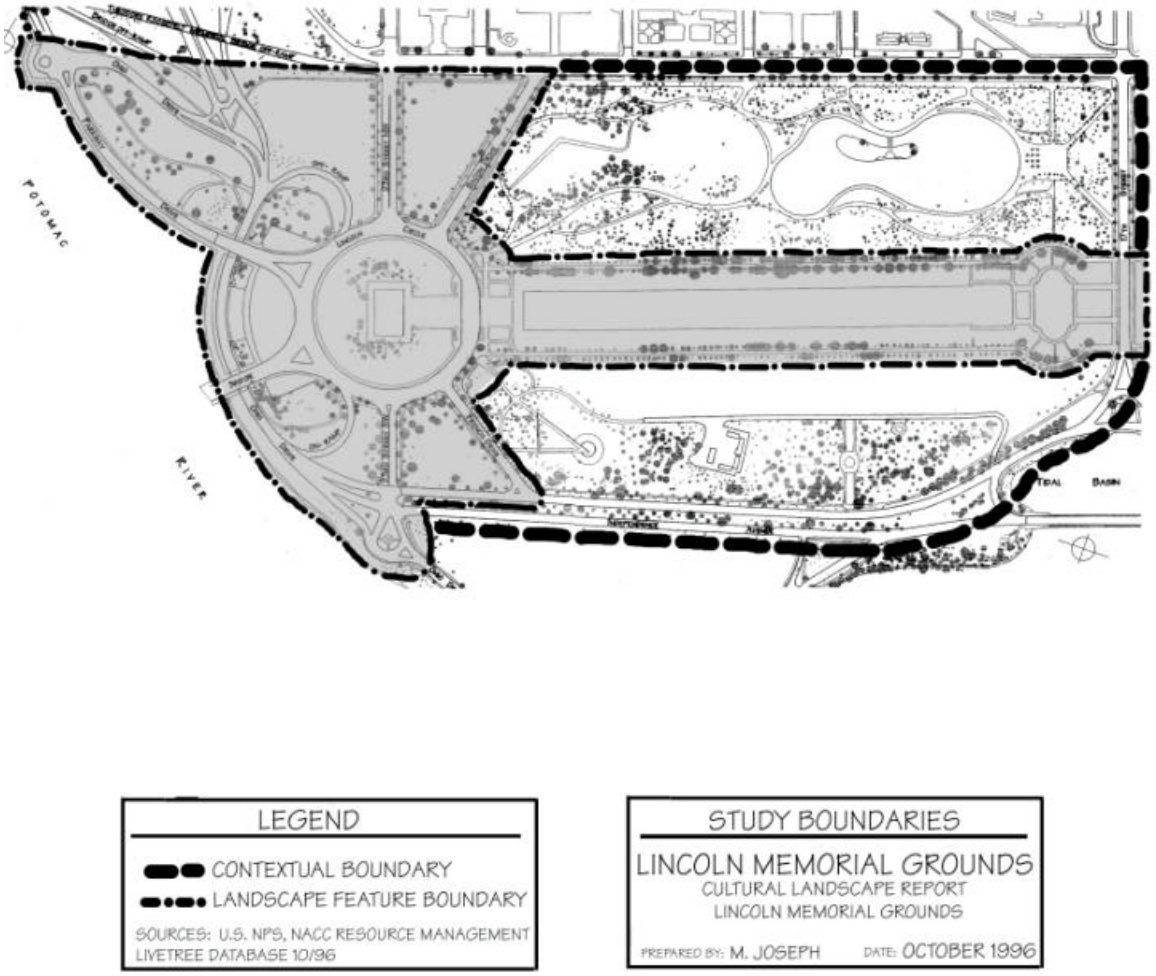
II. Introduction

Objectives

The goal of this report is to document historic landscape resources and existing conditions and to analyze and evaluate the landscape resources for the Lincoln Memorial grounds study area. The need to document the changes on this historic landscape was first raised by the Advisory Council for Historic Preservation after a proposal to change the existing nonhistoric handicap ramps adjacent to the main entry of the memorial was presented to the council in 1994. The ramps did not meet current accessibility standards. Several plans had been developed for new ramps, and a preferred plan was selected. Because the preferred plan changed the historic fabric by adding a horizontal element on the front granite kneewall, the proposed design solution was considered an adverse effect on the resource. The council agreed to the preferred plan with a caveat attached - that a historic landscape study be conducted to gain a better understanding of the landscape around the Lincoln Memorial.

Study Boundaries

The study area encompasses 94 acres of West Potomac Park and includes the Lincoln Memorial, Reflecting Pool, Rainbow Pool, Watergate area and bridge, and parkway approaches. There are two separate study boundaries: the *contextual boundary* is marked by Constitution Avenue on the north, 17th Street on the east, Independence Avenue on the south, and the Potomac River on the west. Investigating the historical development of this greater area will provide an overall context for the Lincoln Memorial. The investigation goes further by examining in greater detail those areas within the *landscape feature boundary* where physical features and relationships around the memorial will be documented. In this core area the circular drive and a portion of the radial roads leading from the memorial are included. Views and vistas extending beyond the physical boundaries of the study area are examined as are those views that fall within. All significant viewpoints, both internal and external, will be documented and analyzed (see Map 1 *Study Boundaries*).



Map 1 - Study Boundaries Lincoln Memorial Grounds Cultural Landscape Report.

General Description

The *Cultural Landscape Report for the Lincoln Memorial Grounds* provides information and guidance for park managers and other preservation professionals. In this document, *Part 1: Site History, Analysis and Evaluation, and Design Guidelines*, includes detailed information about the physical development of the landscape surrounding the Lincoln Memorial; an up-to-date field analysis of existing conditions; an evaluation of the landscape's significance and integrity; and lastly guidance for future management and development of the Lincoln Memorial grounds.

Cultural landscape reports (CLR) are the primary guide to treatment and use of a cultural landscape. A CLR documents and evaluates the landscape characteristics, materials, and qualities that make a landscape eligible for the national register. It analyses the landscape's development and evolution, modifications, materials, construction techniques, geographical context, and use in all periods, including those deemed not significant.

Cultural landscapes are diverse historic resources that provide important information about how people have shaped the natural environment for both subsistence and pleasure. Cultural landscapes can range from large agricultural tracts, to designed public spaces, like the Lincoln Memorial grounds.

Typically *Part 2* of a CLR contains treatment alternatives. However, the park requested additional guidance in making management decisions concerning significant landscape features. Therefore design guidelines are provided as part of Part 1. These guidelines are not intended to be *treatment alternatives*, but should be considered when determining what is appropriate or inappropriate for the historic designed landscape surrounding the Lincoln Memorial. The selection of new sites for monuments such as one for World War II Veterans and one to Martin Luther King, Jr., also influenced our efforts to provide a document useful to park management in their decisions.

To fulfill *Part 2* of the report, treatment alternatives are needed. But because of the complexity of the site and other extensive issues, other methods for developing alternatives are recommended. These could include design charettes, development concept plans or other interdisciplinary team efforts, which would develop solutions for issues concerning cultural and natural resources, visitor services, transportation systems, and site development.

This Cultural Landscape Report, *Part 1,* for the Lincoln Memorial grounds is the first step toward understanding the significance of this important commemorative landscape. If we do nothing, present and future development could lessen the integrity of the site and obscure the original design intent of this historic landscape.

Methodology

Historical research methods included the examination of both secondary and primary sources. Because secondary source material deals mostly with the McMillan Commission Plan, information regarding the role of the Lincoln Memorial Commission, the Commission of Fine Arts, Arlington Memorial Bridge Commission, and National Park Service management, relative to the Lincoln Memorial, was investigated. Resources located at the following repositories were consulted: National Archives Records Administration, Commission of Fine Arts, Library of Congress (Olmsted Associates Records), Historical Society of Washington D.C., Martin Luther King Memorial Library - Washingtoniana Collection, National Capital Region - Museum Resource Center (photographic collection), National Capital Parks - Central (park files and photographic collection), National Capital Region (Lands, Resources and Planning library, report files, and map files), and Denver Service Center - Falls Church office (resource library, map files, photographic collection, TIC files).

During most of 1996, the team conducted on-site investigations of the study area and met with park and system support staff. The team compiled an inventory of site features and documented the condition of the landscape. The majority of the features were photographed using black and white film and color slides.

The Department of Interior authorized the establishment of the servicewide cultural landscape program during the revision of National Park Service *Management Policies* in 1988. Policy now mandates the recognition and protection of significant cultural landscape resources. Cultural landscape preservation encourages a more holistic approach to resource preservation by generating a greater understanding of shared contexts and interrelationships among cultural and natural resources in the park.

III. Site History

Introduction

The overwhelming acclaim for the grand Beaux Arts-inspired design of the World's Columbian Exposition, held in Chicago in 1893, influenced professionals and the public alike in their appreciation for well-conceived and beautifully designed urban spaces. The success of the fair helped to inspire the "City Beautiful Movement." In 1900 Glenn Brown, Washington architect and national secretary of the American Institute of Architects, as well as others developed proposals and lobbied Congress for the creation of a grand design for the future development of Washington, D.C. At this time Landscape Architect Frederick Law Olmsted, Jr. suggested that the formal design of the historic L'Enfant Plan continued to be an appropriate way to demonstrate the greatness of the nation's capital and its setting.

> *...great public edifices must be strongly formal, whether they are perfectly symmetrical or not, and this formal quality ought to be recognized on the plan of their surroundings if the total effect is to be consistent. ...where the scale of the general scheme is large, there should be a corresponding simplicity.*[1]

Brown's efforts inspired the legislation establishing the Park Improvement Commission of the District of Columbia, or the Senate Park Commission, of 1901-1902. Architects Daniel Burnham and Charles McKim and Frederick Law Olmsted, Jr. were the three key professionals appointed to the commission. The acclaimed sculptor, Augustus St. Gaudens, joined later as the fourth member. Three of them, Burnham, McKim, and St. Gaudens, had held major roles in the creation of the 1893 fair. The commission soon came to be called the McMillan Commission, after its sponsor, Senator James McMillan. In the succeeding decades various aspects of the city plan developed by the commission were implemented. As the youngest and longest surviving member of the commission, Frederick Law Olmsted, Jr., became the unofficial guardian of the plan, contributing his expertise to various projects through his membership on the Commission of Fine Arts (1910-1918), the National Capital Park Commission (1924-1926), and the National Capital Parks and Planning Commission (1926-1932). The focus of this section of the report concerns the Lincoln Memorial, or the "western anchor" of the Mall and the centerpiece of the McMillan Commission Plan, its physical history, and the role of Olmsted and others in its development.[2]

The landscape of the Lincoln Memorial and the surrounding areas in West Potomac Park have a rich and varied history that is defined by six primary periods of growth and development. These include a period of early development between 1791 and 1914, when the tidal shoreline became the landform of the future park and the McMillan Commission planned for the design of the memorial, the reflecting pools, and the Watergate; a period of design development and construction, from 1914 through 1922, that culminated in the dedication of the Lincoln Memorial; a period characterized by the completion of the plans for the grounds surrounding the memorial between 1923 and 1933; and three subsequent periods, when the Lincoln Memorial and West Potomac Park came under the management of the National Park Service (NPS). Each of the NPS periods, which began

in 1933 and continue to the present, reflect the issues and concerns that have influenced changes in the landscape. The first NPS period occurred between 1933 and 1945, the second between 1945 and 1970, and the third between 1970 and 1996.

Early Development 1791-1914

Creation of a Park Site

Prior to the arrival of European settlers, the area that would one day become Washington, D.C., was bordered on the northwest by the Potomac River, where stands of sweet gum, oak, and hickory stood on the flat land. To the southeast where the Anacostia River flowed toward the Potomac, the shoreline was covered in marsh. Subsequently, much of the native forest cover was cleared for the cultivation. When Pierre L'Enfant laid out the new capital on the hills above the Potomac and Anacostia Rivers in 1792, some of these fields, exhausted from a tobacco-based agriculture, had been allowed by their owners to revert to woody growth.

The natural shoreline of the Potomac followed the eastern edge of what would become the Tidal Basin and the northern side of Maine Avenue. The mouth of Tiber Creek, "a slowly meandering stream," which flowed from the north down Capitol Hill, stretched across the "flats," near the intersection of present-day 17th Street and Constitution Avenue. At the time that L'Enfant submitted his proposal for the design of the capital city, David Burns had a farmstead and cultivated fields along the north shore of the Tiber, from the mouth to the base of Capitol Hill. Both sides of the Tiber were edged in marshland that was frequently covered by large flocks of waterfowl. Wild oats, reeds, and thickets of berry bushes and other shrubs grew in places along the marsh. On the southern shore of the creek, in the area that would eventually become West Potomac Park, Dr. William Thornton had planted an assortment of saplings and shrubs on about 18 acres to catch the river silt and to establish title to the land. L'Enfant's plan called for Tiber Creek to be widened and adapted into a canal system, designed to carry commerce through the new city.[3]

When the Washington City Canal was finally completed in 1815, the portion of its route following the old Tiber had the effect of creating a river "island" to the south. The canal, however, failed to develop into a viable waterway. By the 1870s, the neighborhoods along its banks were considered slums, with the canal serving as a fetid sewer opening into the Potomac, rather than a commercial thoroughfare. Among the civic improvement projects of the District's territorial government (1871-1874) were the installation of sewerlines. In 1872, one line was constructed along the canal between 7th and 17th Streets, where it emptied directly into the river. To complete the sewer project, the Board of Public Works filled in and covered over the Washington Canal, a project that was completed by 1873. The land between the canal and the Washington Monument, then under construction, was also made level. Once filled, the old canal route was paved and

named B Street. Only the former lockkeepers' stone house, located at the intersection of 17th and B Street, remained to mark the site of the defunct waterway.

Another feature of the civic improvements program that affected the Potomac River shoreline was the regrading of major streets and thoroughfares in the center of the city, which occurred mostly in 1871. Dirt from the cutting and filling of streets added to the debris and silt normally brought by rain and runoff to the river. By 1870 the Potomac had become so silted and shallow in places that the shipping channels were seriously threatened. At this time, the Congress authorized the Army Corps of Engineers to develop a permanent plan to keep the channels clear by dredging and disposing of dredged materials in such a way as to prevent renewed siltation. The scope of the project, begun in earnest in 1882, included constructing containment barriers (or bulkheads), terminating the Washington channels at the Long Bridge at 14th Street, providing sluicing basins on the west to keep the channel clean, depositing the dredged materials on a tidal "flat" that stretched southeast from Long Bridge to the confluence of the river channels, narrowing the Georgetown channel, and completely filling in the marsh land located between Easby's Point (near the present crossing of the Roosevelt Bridge) and 17th Street.

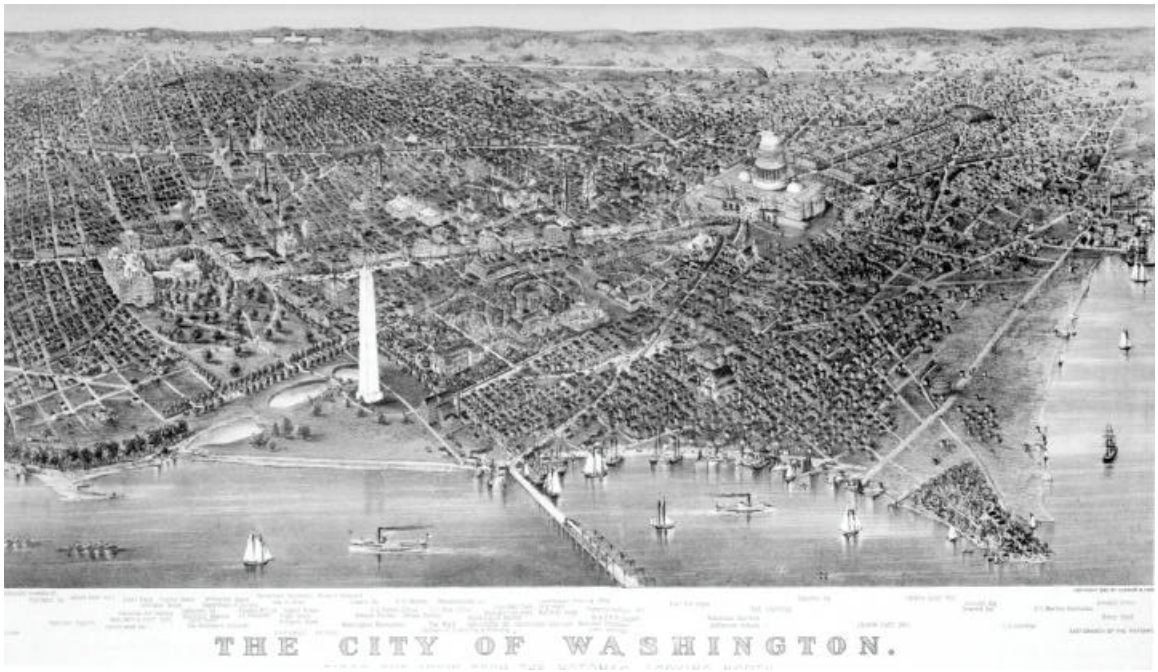


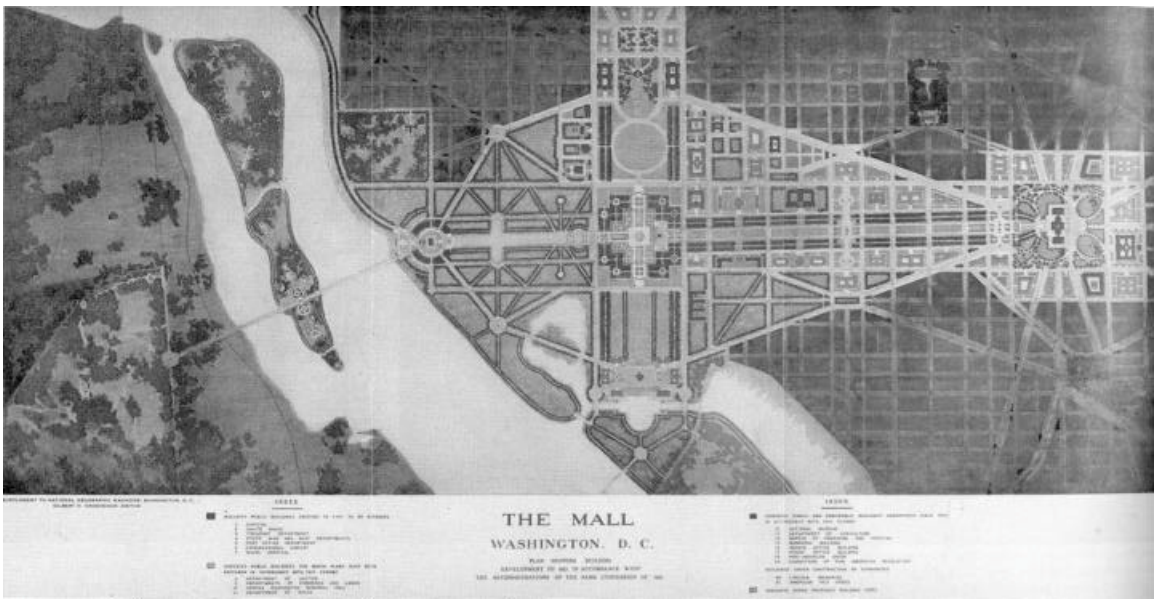
Figure 1 – The City of Washington. Birds-Eye View from the Potomac – looking north. (Drawn by Charles Parsons) Published by Currier & Ives, 1892. Courtesy of Library of Congress, Prints and Photographs.

In 1897 congressional legislation authorized the designation of the 621 acres of reclaimed marsh and "flats"and 118 acres of tidal reservoirs as a site for a public park. By 1901, 31 acres adjacent to the Washington Monument grounds had been filled and subsequently transferred to the Army Corps of Engineers' Office of Public Buildings and Grounds (OPBG) to be turned into the Potomac Park. Some of this filled area had been created from dredged materials, and some from private construction projects in the District.

Contractors who had obtained dumping permits were to deposit clean fill on the "flats." At the time of the land transfer, the site, with its uneven topography, scattered shallow water collection pools, and "wild growth of willows, grasses, bushes and trees," was far from parklike. As the reclamation project neared completion, the outline and shape of the proposed park closely reflected the natural and historic pattern of river siltation. By 1907 the area in Potomac Park that would become the site of both the Lincoln Memorial and the Reflecting Pool had been filled to a grade of 12 or 13 feet above sea level. Eventually a base height of 14 to 16 feet would be achieved.

The McMillan Commission Plan

The 1902 report of the McMillan Commission outlined with great thought and care a significant and highly symbolic use for Potomac Park. With the understanding that their recommendations would be based on the L'Enfant Plan, members studied old maps and surveys and examined first- hand the layout of historic sites in tidewater Virginia. In June 1901 the three key members and Charles Moore, commission secretary, traveled to Europe to investigate the cities and sites that would have influenced L'Enfant. Inspired by both the work of Andre LeNotre, particularly at Versailles, and by the example of Rome, where they noted the role of the fountain as the "proper ornament" for the heat of Washington, Burnham, McKim, and Olmsted returned shortly thereafter to formulate a plan for the monuments and parks of the nation's capital.



Map 2 - Senate Park Commission, Plan of 1901-1902, General Plan of the Mall System, March 1915. Used by permission from the National Geographic Society.

With models, artistic renderings, drawings, photographs, and a text composed by Olmsted and Moore, the McMillan Commission Plan was presented to Congress in 1902. The primary focus of the plan was the placement of public buildings and the development of a public park system. In the monumental core and on the newly reclaimed land along the Potomac, the plan called for the formal treatment, advocated earlier by Olmsted, that followed a continuation of the east/west and north/south alignments established by L'Enfant. In plan view, the design for this area appeared to be kite-shaped. The western end of the extension of the Mall axis was designed mostly by McKim. He placed a series of plazas and fountains on axis to surround the Washington Monument and located the site for a memorial to Lincoln that would be complemented by a pair of basins, one essentially oval and another that had a long, cruciform shape. The reflecting basins, which would also contain several fountains, were set in lawn that was flanked by large groves of deciduous trees. The memorial, a classical structure, with its form and style selected by the commission, was to be constructed on a circular mound, or "rond point," to be placed west of the long basin.

The commission incorporated the long-planned monumental bridge linking Potomac Park and the Mall with Arlington Cemetery into the design. The commission placed it southwest of the memorial to Lincoln. The memorial was also designed to mark the beginning of a regional park system to be planned mostly by Olmsted. A ceremonial watergate united the bridge, the park system entrance, and the memorial, with the whole design of the western end making a gateway to the river and beyond. In general, Potomac Park was to be developed according to "the landscape of natural river bottoms - great open meadows, fringed by trees along the water side."[4]

Although the McMillan Commission Plan used the axes established in the L'Enfant design, the proposed placement of the Lincoln Memorial and the plan for trees along the river would, if allowed to mature, block the open views and vistas to the Potomac outlined in L'Enfant's work. Regardless of the irregularities in the McMillan design, the plan was generally well-received. Although prolonged and often heated, public debate occurred about the commission's proposal for a memorial suitable to commemorate Abraham Lincoln. In 1910 President Taft created the Commission of Fine Arts (CFA) to oversee and guide the implementation of the McMillan Commission's proposals. Daniel Burnham and Frederick Law Olmsted, Jr. were among the first to serve on the Commission of Fine Arts.

During the course of the debate over various aspects of the report, the Office of Public Buildings and Grounds (OPBG) worked to improve the appearance of West Potomac Park, the area of reclaimed land stretching from Easby's Point to 14th Street, SW. Although thousands of cubic yards of earth continued to be deposited in the park, the OPBG worked throughout 1906 and 1907 to complete the construction of a riverside drive, bridle paths, and footpaths. These extended along the shoreline from 17th Street, to the Tidal Basin, then turned northwest to the foot of 26th Street. The office consulted with Frederick Law Olmsted, Jr., about tree planting along a portion of the route. To supplement the existing willow trees, Olmsted recommended planting in grove-like groups "black and yellow birches" (*Betula lenta, Betula alleghaniensis*), "white and

laurel-leaved willow" (*Salix alba, Salix pentandra*), "Sycamore and American Elm" (*Platanus occidentalis, Ulmus americana*), and even pecan trees (*Carya illinoiensis*). For straighter vistas, he advocated linden trees (*Tilia* sp.). However, the route appears to have been lined primarily with elm trees. In 1908 Congress also authorized the extension of B Street to the Potomac at 26th Street, which would eventually form the northern boundary of the park. Finally, during 1911 and 1912, the interior of West Potomac Park was drained and graded.[5]

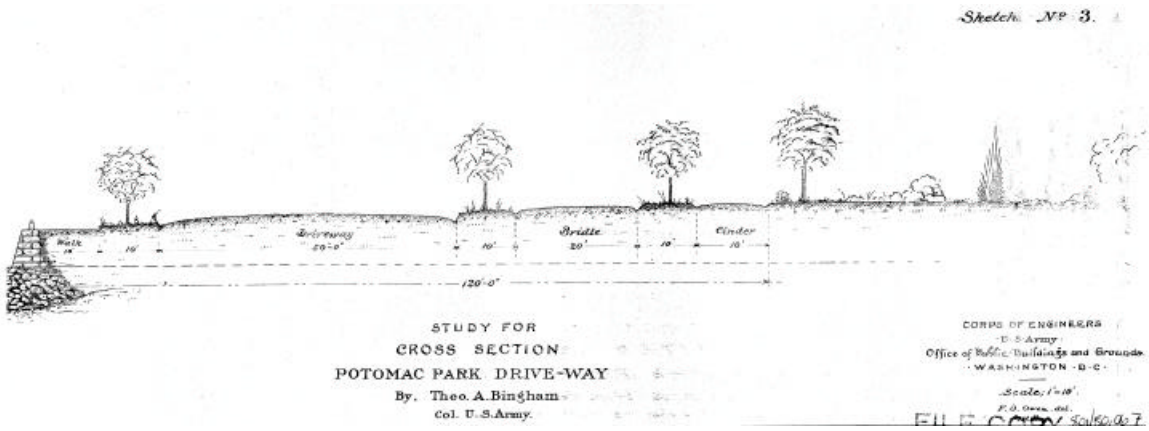


Figure 2 – Cross section of proposed Potomac Park speedway and trail system, c. 1907. NPS Map 801/801067.

By 1914 the McMillan Commission's site for the memorial to Lincoln and the corresponding long basin stretched for nearly a mile westward from the Washington Monument. It encompassed almost 700 acres and had been landscaped with scattered trees and shrubs. It had also been improved by the addition of several tennis courts on the north and organized with a simple grid pattern of drives. A narrow section of B Street that was lined with small trees formed most of the northern boundary, while mature tree-lined 17th Street formed the eastern boundary. In May 1914 the Commission of Fine Arts approved the planting done by the OPBG in the area between B Street and the memorial site and in the area set aside for the basins. Any additional fill required to develop the site further would have to be obtained from adjacent building and construction projects occurring in the vicinity.

Early Design Concepts

The Lincoln Memorial Commission was established by Congress in 1911, and a competition for the design of the memorial was announced the same year. At this time the Commission of Fine Arts strongly recommended the West Potomac Park site proposed by the McMillan Commission.

> *For a long distance in every direction the surroundings are absolutely free for such treatment as would best enhance the effect of the memorial. The fact that there are now no features of interest or importance, that everything is yet to be done, means that no embarrassing obstacles would*

> *interfere with the development of a setting in extent and perfect design, without compromise and without discord.*[6]

> *It is impossible to overestimate the importance of giving to a monument of the size and significance of the Lincoln Memorial complete and undisputed domination over a large area, together with a certain dignified isolation from competing structures, or even from minor features unrelated to it. Upon no other possible site in the city of Washington can this end be secured so completely as upon the Potomac Park site.*[7]

The design submitted by Henry Bacon, a protege of Charles McKim, was selected by the Lincoln Memorial Commission. Bacon's drawings closely followed the design proposals for the structure in the renderings submitted in the McMillan Commission's report. Shortly thereafter, Bacon was commissioned to be the project's architect. Bacon himself summarized best the appropriateness of the site in West Potomac Park in his statement on the overall design intent.

> *...I believed that the site in Potomac Park was the best one for a monument to Abraham Lincoln, and since devoting my time for four months to a study of its possible development, I am certain of it. Terminating the axis which unites it with the Washington Monument and the Capitol, it has significance which that of no other site can equal, and any emulation or aspiration engendered by a Memorial there to Lincoln and his great qualities will be immeasurably stimulated by being associated with the like feelings already identified with the Capitol and the monument to George Washington. Containing the National legislative and judicial bodies we have at one end of the axis a beautiful building which is a monument to the United States Government. At the other end of the axis we have the possibility of a Memorial to the man who saved that Government and between the two is a monument to its founder. All three of these structures, stretching in one grand sweep from Capitol Hill to the Potomac River, will lend, one to the others, the associations and memories connected with each, and each will have its value increased by being on the one axis and having visual relation to the other.*[8]

Although mostly concerned with the architectural details, Bacon also paid attention to the layout and the arrangement of landscape features at the Lincoln site. Shortly after he was named project architect, he wrote to Frederick Law Olmsted, Jr. to request the specifications shown on the McMillan plan for the "avenue" between the trees west of the Washington Monument and along the proposed long basin, or canal. In 1912, Bacon also indicated his interest in the design of the landscape when he testified to the Lincoln Memorial Commission that he intended to use either elms or lindens in the planting plan. At that time, Commission members also suggested horse chestnut and pin oaks (*Aesculus hippocastanum, Quercus palustris*). This concern for the types of trees to be planted also anticipates the Commission of Fine Art's interest in the landscape setting for the memorial in deliberations between 1911 and 1932.

Throughout the design history of the Lincoln Memorial and West Potomac Park, various government organizations have had oversight in the areas of planning and design. In the early years of the development of the Lincoln Memorial, the Commission of Fine Arts had direct influence on all aspects of design in the memorial project. Layout, spatial relationships, planting, and site features were often conceived, shaped, and reviewed by the landscape architect member of the commission prior to approval by the full commission. Subsequently, other planning agencies and government agencies, such as the National Capital Parks and Planning Commission (NCPPC) and the National Park Service (NPS), also became responsible for the Lincoln Memorial and its grounds.[9]

As the first landscape architect on the CFA and the only surviving member of the McMillan Commission, Olmsted exercised a unique influence over the development of the Lincoln Memorial grounds, serving as arbiter of design decisions regarding all aspects of the treatment of the landscape.

> *...as the only present survivor of the designers (indeed as the one who next to McKim was most responsible for the treatment of the Mall plan) I should hate to occupy merely the position appropriate to a member of the Commission of Fine Arts as such, and to let some other fellow shape the plan to suit his own ideas, even though they might be just as good as mine. It is a case where I can perfectly well do my part in designing from the background without pay or official recognition, because I had my recognition as a member of the old Park Commission, and a continuance of what was originally unpaid work may very properly itself be unpaid. Indeed I would rather do it without personal compensation, because it would put the whole thing on a different plane if after McKim and the rest were dead I began to draw pay for work which we all undertook together as a matter of public spirit. But to sit on the side lines and let someone else overhaul the plan would be rather bitter.*[10]

In June 1913 Henry Bacon and his staff prepared for Olmsted's review drawings of the layout for the memorial grounds and an adjacent river road . In his proposal, Bacon "endeavored to follow out the old Park Commission's plan."[11] He offered two schemes for the road, trying to avoid the necessity for a high retaining wall along the river. By August 1913, one of these schemes showed "the river roadway running under the proposed bridge to Arlington." Even though Bacon had refined his original designs according to Olmsted's suggestions, he continued to send his revisions to Olmsted for review. Olmsted had stipulated that the design should avoid the use of heavy retaining walls around the river edge, because walls would probably not be funded with the construction of the memorial. He also noted that the "wide roadway around the Memorial" should have its outer edge lower than its inner to prevent the appearance of a depression in the land. Bacon followed another of Olmsted's suggestions in his placement of the walks along the radial roads. Olmsted proposed that Bacon not border "the radial roadways immediately by sidewalks," but carry "the tree planting out to the line of the roadway itself" and put "the parallel walks behind the first row of trees."[12]

Development, Planting, and Dedication 1914-1922

Refinement of an Overall Landscape Plan

The groundbreaking ceremony for the Lincoln Memorial was held on February 12, 1914, Lincoln's birthdate. Construction of the foundations, which followed soon after, consisted of a "mass of concrete and steel," rising high above the ground to a height of a fair-sized building, all of which would be beneath the earth when the building was finished.[13]

> *After the pilgrim has grown accustomed to the notion that the foundations aren't really the superstructure, his attention is attracted by the apparent chaos which exists. Scaffolding, heavy timber, ropes scrapes of iron and odds and ends are everywhere. Workmen move around apparently without a definite plan. It is thus when a project is nearing completion.*[14]

The laying of the cornerstone and construction of the superstructure began in February of the following year.

Throughout the various phases of the building's development, Bacon attempted to be involved with all aspects of the memorial's design, including landscape and setting. The concept for Bacon's plan for the reflecting pools came directly from the cruciform design

Figure 3 - Construction of approachway, Dec. 12, 1918. U.S. Navy photo. MRC 1-58.

shown on the McMillan Commission plan. The McMillan design was apparently Charles McKim's concept, which was inspired by the "long tree-lined stretches of water" found in the "formal landscapes at Versailles, Fontainebleu and Hampton Court." In the commission's design the pool's length was some 3,600 feet long and 320 feet wide. In 1911 Bacon described his concept for the pools:

> *To the east of the Memorial extending towards the Washington Monument is proposed a large lagoon which will introduce into the landscape an element of repose and beauty, and in its waters the reflection of the Memorial will add to its tranquility and retirement.*

During the spring and summer of 1915, guidelines for tree planting and establishing grades in the pool area were developed in preliminary sketches by the OPBG at the urging of Colonel Harts, who was both officer-in-charge of the OPBG and secretary to the CFA. All this work was done under the personal supervision of Olmsted. At this time, Olmsted and Bacon reviewed the original McMillan Commission design of the two basins and Bacon's interpretation of it. In staking a layout of Bacon's proposed plan on the ground, Olmsted perceived a problem with the relatively shorter length and the broader width of the long cruciform-shaped pool indicated in Bacon's design, and proposed to the CFA that this pool be made longer and narrower. Although Bacon felt that the cross arms should be eliminated, his opinion did not completely sway Olmsted. Olmsted's rationale for elongating Bacon's design was based on his understanding of the historic pools, lagoons, canals, and basins visited by the commission during their 1901 European tour. Olmsted thought the proportions of the canal relative to the vista at Fontainebleu were the most appropriate example for the Lincoln Memorial reflecting pool. He also felt that the relationship between the terraced rows of trees and the canal at Nymphenburg in Munich were also worthy of consideration.[15]

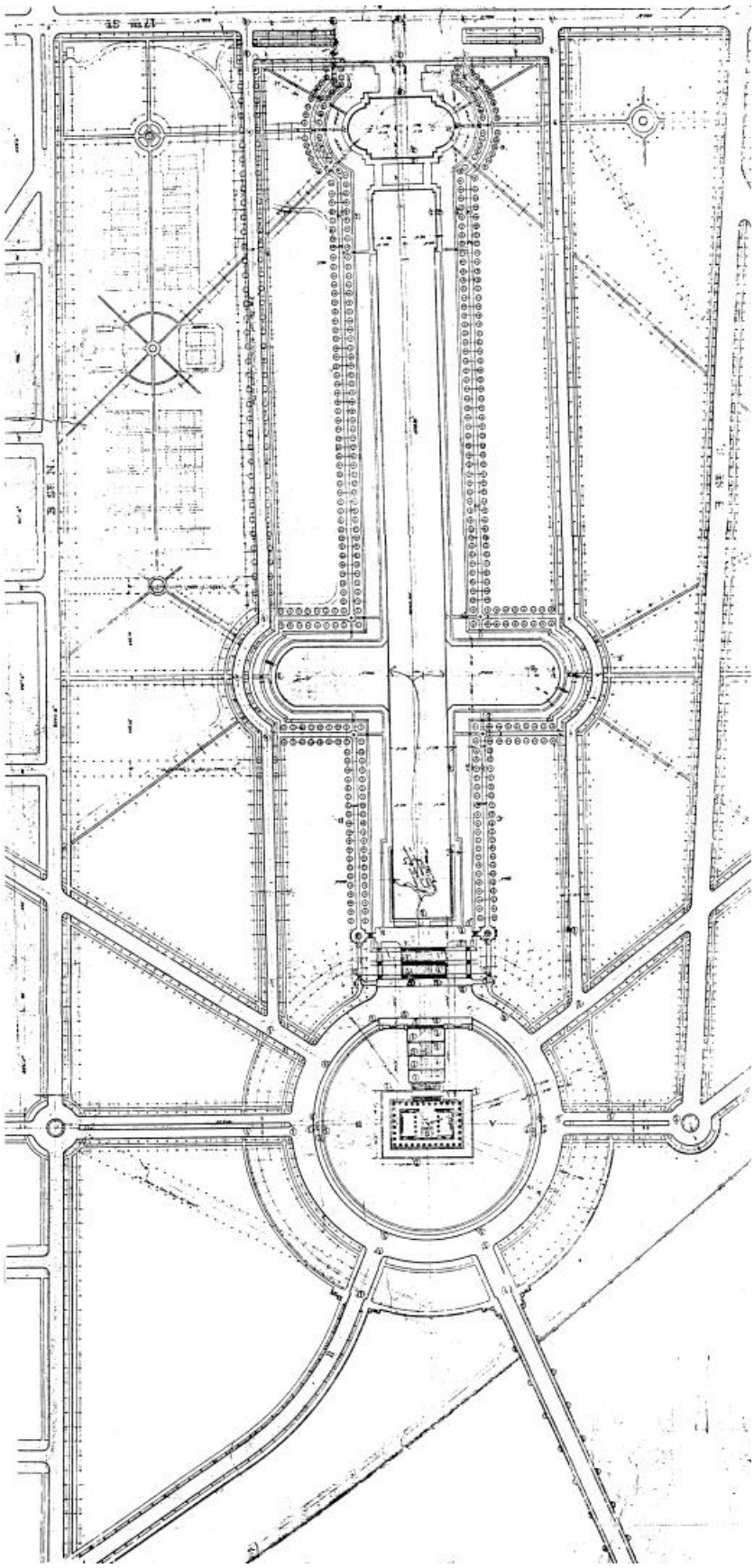
Olmsted had not only worked with Bacon on these issues, but also with Colonel Harts and J.G. Langdon, OPBG landscape architect and former employee of the Olmsted firm, to develop a plan with and without the cruciform for this area. Key to the plan for a broad corridor along the main axis was Olmsted's recommendation that the inner row of trees, which were located on each side of the basins, would be 320 feet apart, rather than the 300 feet shown in Bacon's plan. The 160-foot width of the basins would in turn occupy half of the distance between the trees. The spacing between the pairs of parallel rows of trees was set at 40 feet. Within these rows Olmsted specified the placement of individual trees in positions approximately 25 feet apart, with some adjustments given for the those planted along the curved portion of the smaller basin planned for the eastern end near 17th Street. Olmsted and the others recommended the previously established grade of 14 feet for the main axis and established a range of 14 to 16 feet for the grade on the cross arms. They selected a 280-foot width for this axis. The proposal did not provide for the excavation and installation of the cross arms portion of the pool, but it did provide for the trees outlining the cross arms to be planted to determine the spatial effect. Their plan also called for temporary drainage ditches to provide proper growing conditions for the young elm trees that would be planted there. Olmsted recommended "English elms," known then as *Ulmus campestris*.[16]

In accepting the recommendations of Olmsted, Harts, and Langdon, the CFA determined the need to hire a landscape architect to execute plans for the entire park area between the Lincoln Memorial and the Washington Monument. Olmsted suggested Landscape architect C.E. Howard of Syracuse, New York, and the commission authorized Colonel Harts to offer Howard this position. The announcement of Howard's contract described his job as assisting in the preparation of plans for the development of the circular area around the memorial, including the terraced levels, and a planting plan for both the circle and the reflecting pool axis.[17]

Olmsted continued to pursue finalization of the selection of "English elms" "for planting the formal vistas in connection with the Lincoln Memorial. . . ." He would not consider any other tree for use near the memorial. He strongly believed that the English elm would satisfy several design requirements with "its habits being exactly right for the purpose, and its foliage harmonizing with that of the American elm which is designed for use around the Washington Monument and to the eastward." With the assistance of the Olmsted firm, OPBG located the elms in England and ordered 500 of them from Dicksons nursery in Chester.[18]

During this period architect Henry Bacon worked on other aspects of the grounds surrounding the Lincoln Memorial. In July 1915 he prepared studies on the "cheek blocks, steps and flagging." In December Bacon demonstrated his continuing interest in the final design for the grounds by offering for the CFA's approval an alternative to Howard's plans for the eastern approach. After a discussion of the design issues that extended over the course of several meetings, the CFA instructed Howard to develop a "skilled general plan" incorporating elements of the designs submitted by both Howard and Bacon. Howard's drawings, slightly modified by Olmsted, were approved by the commission in the fall of 1916. Elements of the plan included widening north and south 23rd streets, limiting the roadways around the memorial to one rather than the two originally proposed, making the one circular roadway into a narrow route only 60 feet wide, and establishing a tree-filled perimeter consisting of five curving rows of deciduous tree with selected openings in the rows.[19]

In 1915 and 1916, as construction of the walls, colonnade, columns, and main cornice neared completion on the memorial itself, 398 of the English elms ordered from England were planted in four parallel rows flanking the vista between the Washington Monument and the Lincoln Memorial. The other 104 trees were planted south of the parallel rows. As part of the planting, drain tile for improving soil conditions was also laid in this area. In this same year Bacon completed the design for the raised terrace and the wall surrounding the memorial and for the approachway, or main walk, leading up to it. The fill used to create the terrace and form the visual base for the memorial was brought by temporary railway from the Interior Department construction site at 18th and F Streets, N.W., and placed around the foundations of the Lincoln Memorial. Once the area behind



Map 3 - 1916 C.E. Howard plan of "Potomac Park Improvements" from B Street N. to B Street S. and 17th Street to the Potomac River. NPS Map 801/80095.

the raised terrace wall had been filled, the top was sodded and a gravel walkway laid around all four sides of the terrace level. Bacon planned for these gravel and cobblestone walks to serve as drainage along top of the raised terrace.[20]

Efforts to Complete the Park

When the superstructure of the memorial was completed in 1917, efforts were underway to complete the overall landscape setting for the Lincoln Memorial. A new bulkhead, or seawall, which followed the shoreline for approximately 3,000 feet, was constructed along the river between the Lincoln Memorial and the Highway Bridge at 14th Street. The design called for filling in the shallow shoreline of the Potomac behind the seawall to extend the shoreline west of the Lincoln Memorial. The proposed extension would create more room for the full effect of the "rond point," or end point of the east/west axis, which consisted of the Lincoln Memorial, its base, the circular terrace and roadway. Grading of the radial roadway northeast of the Lincoln and of the circular road around the memorial was also initiated, as was the preparation of the soil for the lawn on the circular terrace. Much of this work was completed in 1919. However, the concrete gutters, sidewalks and curb were not completed until 1922.

Figure 4 – Grading operations around the memorial, April 17, 1921. MRC 1-60.

At the same time, the OPBG worked to improve other sections of West Potomac Park and to prepare the area for the completion of its development. In 1915 improved portions of the park benefitted from a flock of grazing sheep brought there to fertilize and to promote the establishment of the lawn. On the unimproved interior portions, sod was lifted to create beds for the planting of approximately 1,500 trees and 3,100 shrubs. Nurseries were also established. On both sides of 17th street, sidewalks were installed between existing rows of American elms (*Ulmus americana*), planted in 1907. When they started to excavate the pools, several of the 17th Street trees were removed along the east and west sides of the road to provide an opening for the visual extension of the east/west axis of the Mall into West Potomac Park. The relatively narrow opening limited the view zone to the width of the new Reflecting Pool. The old Washington Canal lock keeper's house, which extended into the southwest portion of the intersection of 17th Street and B Street, was relocated 49 feet to a new site west of the corner to improve traffic circulation.

Other changes in the park occurred between 1916 and 1918 as a result of World War I. To make a site for the construction of temporary government office buildings, the area between the proposed basins and B Street North was cleared of 23 tennis courts and all existing shrubs and trees, including some 5,000 young trees. By March 1918 two three-story structures had been constructed. These were occupied by the War Department and were intended for use for the duration of the war. Shortly thereafter, additional structures were put up in the same area. Collectively these were known as the Navy and Munitions Buildings. A parking lot for automobiles was laid out in the area between the buildings and the northern most row of elm trees. A post-and-wire fence enclosed the lot with a line of fast-growing poplars (probably *Populus nigra* 'Italica') providing some screening.[21]

Figure 5 - Finished grading of circular road and partial completion of radial roads, 1921. MRC 1-62.

Planting Plan for the Inner Circle - East Front

In 1919, with all structural work on the memorial nearing completion, the OPBG assigned responsibility for the development of a landscape plan for the circular terrace around the Lincoln structure to staff Landscape Architect Irving Payne. Bacon's original concept for the vegetation around the memorial was noteworthy for its lack of specifics. In 1911 Bacon had merely stated that

> *It will be conspicuous from many points of view and by means of openings in the encircling foliage, will be seen in its entirety from six different monumental approaches. Its whole eastern and western facades will be exposed to view, the former towards the Washington Monument, and the latter towards the Potomac River and the hills of Arlington*.[22]

Without specific direction, Payne attempted initially to design a treatment that complimented Bacon's concept. Payne eventually submitted nine planting plans for the circular terrace to the Commission of Fine Arts for consideration.

The OPBG first sought approval for Payne's design at a meeting of the Commission of Fine Arts, held at Cornish, New Hampshire on September 20, 1919. At this meeting, James Greenleaf, Olmsted's successor on the CFA, outlined his objections to Payne's plans. Greenleaf's statements were consistent with the character of his work on the landscape for large, country estates. A master of spatial composition, Greenleaf frequently employed "seemingly random spacing" to soften rectilinear plans in his estate designs. He introduced this approach to the Commission of Fine Arts and later to the Arlington Memorial Bridge project, where he would serve as consulting landscape architect. Greenleaf apparently felt that Bacon's original landscape design for the planting around the memorial, which was based on the McMillan Commission plan, and Payne's interpretation of Bacon's work, was inappropriate for the architectural character of the completed building.

According to Greenleaf, the circular terrace called for "... a strong rugged type of informal planting, with irregular rounded foliage masses, in general about the base of the retaining wall."[23]

> [A]*round the foundations and platform terrace there should be bold, strong outlines of evergreen, which do not spire up against the masonry, but form a big, broad outline... The planting should be begun right, in a small way, so that the real results, showing the grounds fully developed and the planting of trees, etc., well grown would show for not perhaps fifty years*.[24]

Greenleaf noted that yews (*Taxus* sp.) can reach a width of 25 feet and a height of nearly 15 feet.

Figure 6 – Mature boxwood and yew shrubs on southeast side of Lincoln Memorial, August 1922. MRC 2-16.

Greenleaf's specific recommendations included using the six or more large yews of differing varieties and the large "box bushes" (*Buxus sempervirens*) indicated on Payne's plan. However, his views differed from Bacon's view and Payne's interpretation in several key areas. Greenleaf called for "rugged," seven-foot wide hedges flanking the sides of the steps. Mass planting shown by Payne should be "eliminated so that the edge of the Memorial at each end should be straight, but there should be some good background." A bushy vine growth planted along the retaining wall should be used to "break up the diversion of lines."

The 1919-20 planting plans submitted after the Cornish meeting reflected these and subsequent discussions. These plans showed the locations of masses of shrubs and were based in part on the availability of large scale plant material known to be growing on other federal reservations located throughout the city. The use of boxwood and English yews was approved for the area immediately adjacent to the retaining wall on the east, and at the southeast and northeast corners. Bacon continued to insert his ideas on various landscape treatments. One of his ideas entailed the addition of a large spreading vine covering the pink granite surface of the raised terrace wall. To illustrate this concept, Bacon added to the record a photograph of an English manor house overwhelmed with vines. At one time, Bacon objected to the use of boxwood in the planting design. He apparently changed his mind after reviewing Payne's installation of the planting plan at the site in July 1920. Bacon then expressed his preference for large box shrubs rather than the yews already planted on opposite sides of the entrance steps. The Commission

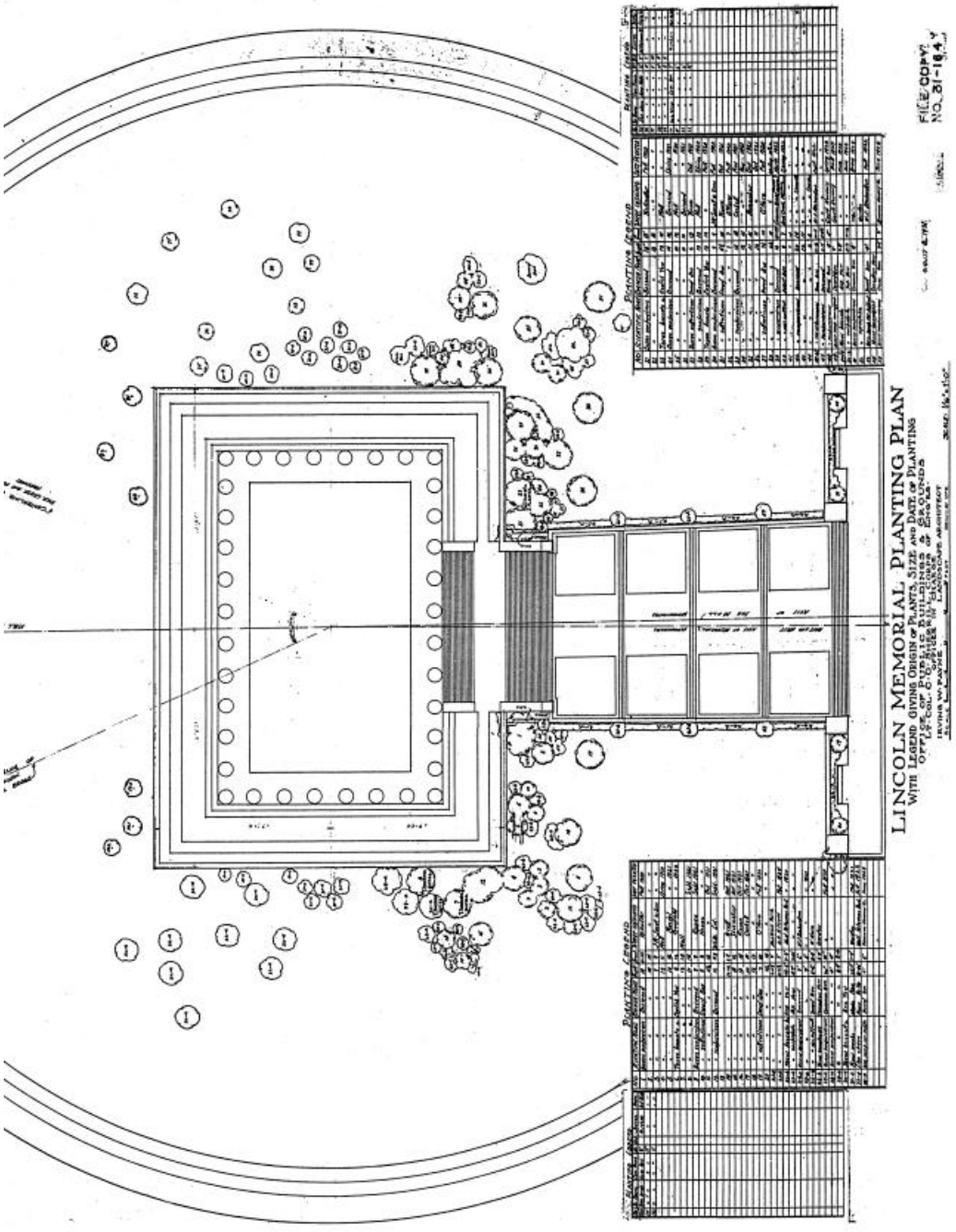
recommended that the two yews in question, being of thinner habit, be replaced by 12-15 foot high boxwood "to secure the desired effect of strength and solidarity (by a heavier leaved material)."[25]

Throughout the process, Greenleaf and the CFA continued to further refine and exercise control over the planting plan. The Office of Public Buildings and Grounds started to prepare beds inside the inner circle of the memorial grounds in December 1919, with the intention of planting some 44 large specimens of boxwood and 6 holly (*Ilex opaca*) trees shown on the plans. In the spring of 1920, the commission specified that only mature, large-scale specimen shrubs should be selected for the Lincoln Memorial. However, by the end of the year, only 15 specimen boxwood shrubs and one yew had been installed on the eastern side. Not until the fall of 1922, after the memorial's dedication, were "10 additional boxwood trees (known then as *Buxus sempervirens* 'Arborescens'), 164 linear feet of boxwood hedge (consisting of dwarf boxwood, or *Buxus sempervirens* 'Suffruticosa') and 200 trailing vines planted."[26] Also, at that time, ground on the south side of the memorial was filled in, brought up to grade, and then prepared for lawn. Subsequently, the CFA called for different treatments on the west side and at the southwest and northwest corners, recommending the use of pines, such as Swiss stone (*Pinus cembra*), Scotch (*Pinus sylvestris*), mountain and mugo pines (*Pinus mugo*), be used.

Concepts for the West Side

Although the OPBG landscape architect was also charged with developing planting plans for the west side of the memorial, the design concept that was finally approved was Greenleaf's. Greenleaf advocated both coniferous and glossy-leafed evergreens planted in distinct groupings for the west side. One combination he suggested, which differed from the east side, was magnolia and pine planted together with the idea that the pine would be removed when the magnolia matured. He envisioned *Magnolia grandiflora*, with its year-round beauty and upright, broad-leaved character, providing a strong background for the rear of the memorial. Magnolia, however, was not so strong as to interfere with a good view of the memorial from Arlington, and would serve as a foil to the already approved plantings for the east side and corners. He felt magnolia to be especially effective in relation to the large scale vista from the proposed parkway "sweeping from the northwest" designed to link Rock Creek with Potomac Park and the Lincoln Memorial. The CFA approved of his suggestion, that "magnolia trees should be planted in the vicinity of the inner edge of the great circle," which would eliminate the need for evergreen planting at the northwest and southwest corners of the retaining wall. The commission also adopted a 2 to 1 slope for the lower terrace level near the entry to the memorial at this time.

Irving Payne's interpretation of these recommendations did not completely satisfy Greenleaf. Payne did incorporate "numerous openings through a grove of trees, which when observed from various positions on the "Great Terrace," or from the road bounding the "Great Circle," opened up everchanging vistas." However, his schemes showed the



Map 4 - Irving Payne as-installed planting plan for first phase of the Lincoln Memorial foundation planting, 1920-1928. Courtesy of the National Archives.

trees and shrubs far away from the retaining wall in an arrangement that was too regular and geometric. Greenleaf continued to struggle to convey his ideas to Irving Payne. He envisioned plantings with numerous bays and indentations for informality with views of the Lincoln Memorial from the northwest and southwest preserved. At the same time, Greenleaf believed that certain vistas should be visible from the colonnade on both the north and south sides of the memorial.

Payne's drawings for the west side were finally approved by the commission in January 1920. In them, as Greenleaf had suggested, *Magnolia grandiflora* served as a backdrop to the structure. In addition, a large, wedge-shaped, open section separated plantings along the northwest and the southwest segments of the western retaining wall. Transition plants, uniting the vegetation on both the east and west sides, consisted of American and English hollies (*Ilex opaca* and *Ilex aquifolium*) and mugo pines. However, the design for the west side was put aside for several years until construction of the Arlington Memorial Bridge was near completion in 1931-1932. When the plan was finally implemented, James Greenleaf no longer served on the CFA, but was the consulting landscape architect for the Arlington Memorial Bridge Commission.[27]

Efforts to Complete the Design

Between 1920 and 1921, the project of filling behind the new seawall west of the Lincoln continued, as did the grading for park grounds located outside of the circular roadway. In January 1921 two plans for the completion of the circular roadway were submitted. One called for a 9-inch crown, using no catch basins or curbing, while the second proposed an 11-inch crown without a curb. The CFA approved the concepts of both designs with the understanding that the slope differential between the inner and outer edges of the roadways were to be designed to keep the road from appearing sunken. Shortly thereafter, Congress appropriated funds for the construction of roads and walks around the Lincoln Memorial. The final design for the circular roadway called for a 60-foot bituminous macadam road, with curb and gutter and edged by a fifteen-foot sidewalk of "scrubbed concrete." Catch basins were designed, but apparently not installed at this time. Twenty-third Street, NW was designed with a grassy median down the center. The sidewalks parallelling this radial road were set back from the curb and constructed of "smooth concrete."[28] While these plans were being formulated, examination of the recently constructed masonry approaches and the terrace around the memorial revealed that these were settling at a faster rate than anticipated by the project's engineers. As a result, the original slab foundations were removed, and new foundations, built to bedrock, were installed in March 1921. The concrete sidewalks and curbs around the inner circle and on the east side of the outer circle to north and south 23rd Street were completed in the fall of 1922. The radial roadway in the southeast quadrant was also prepared for construction. This road would thereafter be named French Drive for Lincoln sculptor Daniel Chester French.

Both Bacon and Daniel Chester French complained that dirt and dust from the various grading operations around the memorial in 1921 had soiled the sculpture of Lincoln.

Regardless, all grading, planting, and road improvements on the west side of the building were temporarily suspended pending funding by Congress for the development of the Arlington Memorial Bridge. Design of the bridge's eastern abutment and the layout for the riverside drive connecting Rock Creek Park and the route to the "Speedway" along the Potomac River was expected to include the landscape treatment for the west side of the Lincoln Memorial. In November 1921 Bacon acquiesced to limited illumination of the memorial by specifying that streetlights on the traffic circle should be the sole source of exterior lighting. He recommended the Potomac Park lamppost and globe. In July 1922 he provided sketches of a lamppost with a spherical globe and the designs for two small memorial fountains. He had designated on his plan for the west end of the pool that the fountains should be located near the concrete steps leading down from the circular roadway. His streetlight design was not selected for the circle and the fountains were never installed. However, the need for lighting the exterior of the Lincoln Memorial would not be revisited until 1926.

The Reflecting Pool

During 1919 and 1920 the CFA undertook the finalization of the design for the reflecting pools, including the grading and planting plans for the basins and the adjoining areas. The CFA advocated an initial shallow excavation, at a temporary level, mostly for ease of maintenance. Once the official depth was determined, a permanent treatment would be designed. These temporary measures may explain the ditch-like appearance of the pools seen in some of the early photographs of the area. Excavation for the pools began in November 1919, with the excavated earth removed for use on the creation of the circular terrace around the memorial. As with the filling of the raised terrace, a temporary and "small narrow gauge industrial railway" carried the fill dirt across the site from the pools to the inner circle. Elimination of the cross arms was discussed again, with the commission generally in favor of their removal from the design. Bacon continued to be against the cross arms, as well. Olmsted preferred to reserve judgement until after the long section of the larger pool had been installed.[29]

Members did note that the unsightly temporary war buildings on the north side of the reflecting pool prevented any construction of the cross arms on that side. In fact, the increasing permanence of the temporaries seemed to be in direct conflict with the open design originally envisioned for the monumental core.

> *In a vista over two miles long, these three large structures* [Capitol, Washington Monument and Lincoln Memorial] *so placed that they will be forever free from proximity to the turmoil of ordinary affairs, and the discordant irregularity of adjacent secular buildings, will testify to the reverence and honor which attended their erection, and the impression of their dignity and stateliness on the mind of the beholder will be augmented by their surroundings, for which we have a free field for symmetrical and proper arrangement*.[30]

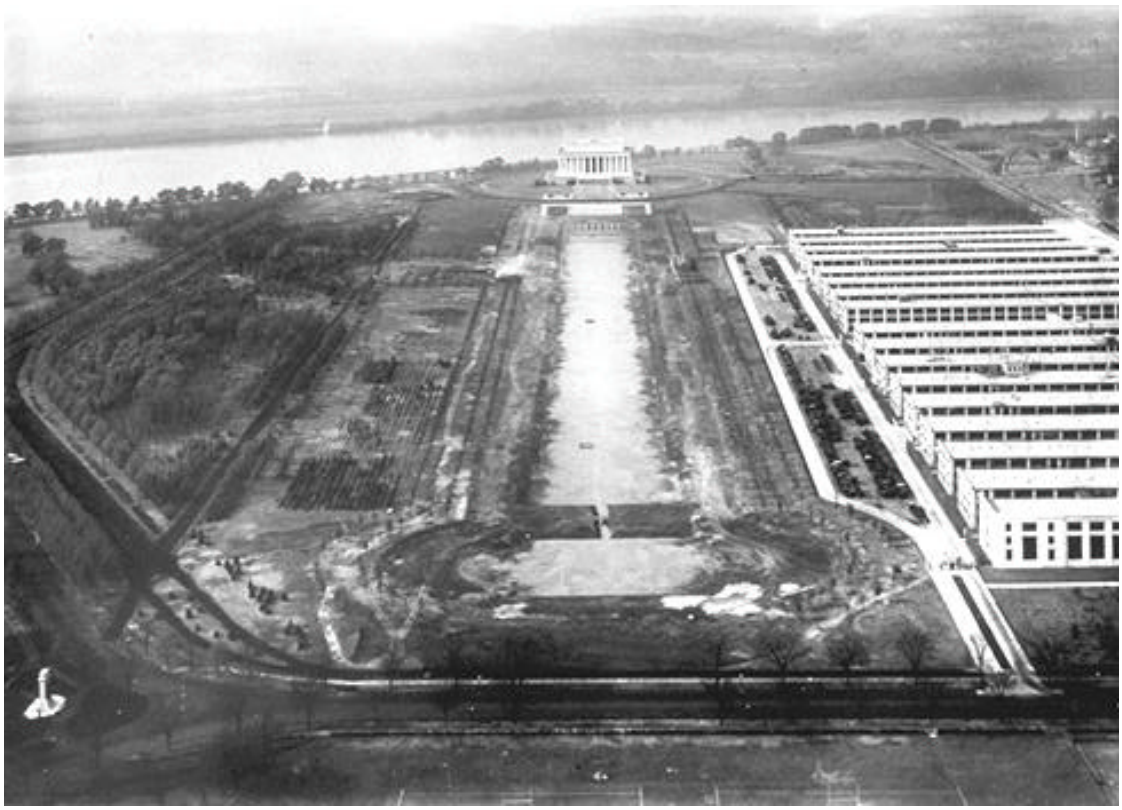


Figure 7 – View from Washington Monument showing ditch-like appearance of pools and temporary nursery on the south side of the pools, 1921. MRC 1-53

Olmsted's earlier opinions seem to have had the most enduring influence on the commission's decision to construct only the long section, to lengthen the basin, and to eliminate the squared-off, or jogged, portions of the pool's outline on the western end. The cross arms remained on the plan and were to be delineated, where possible, on the ground by the tree planting. In revisiting this issue, Greenleaf viewed the cross arms as a way to force the removal of the temporary buildings, although he acknowledged that the arms were out of scale with the design as it existed on the ground. In November 1920 the commission finally approved the extension of the western edge of the basin's coping. They extended the pool by an additional 20 ½ feet to a point located 55 feet east of the bottom steps leading up from the basin toward the memorial. The length of the long pool thus became 2,000 feet; the length of the transverse pool was 300 feet.

In June of 1921, the CFA determined the design of the coping and edge for the reflecting basin and the smaller basin sited immediately west of 17th street. The CFA approved a 3-foot wide coping that was 9 inches thick with a ¼ inch radius edge, as well as a pool depth of 2-3 feet. The coping was to be flush with any adjacent sidewalk and grass areas, so that contiguous materials would appear to be a continuation of each other. Later that year granite from Mt. Airy, North Carolina, was selected for the coping. Excavation, laying of conduit, and the foundation for the coping were all completed in 1921. Water supply and an extensive drainage system for the pool and the surrounding area were also incorporated into the completed design. Although D.C. public water supply served as the

main water source, additional quantities came from rainwater runoff directed to the pool from the memorial and its approaches. The coping foundations were supported by 20-foot piles standing on bedrock, with reinforced concrete beams supported by the piles. The stability from the piles and beams was used to mitigate the effects of any future settling on the coping. Through trial and error, contractors working with the OPBG developed a water-proof base consisting of an asphalt coated membrane, slate, and concrete tile. The dark color of the tile created the illusion of greater depth and a more profound reflection.

Although installation of fountains for the smaller pool was not undertaken at this time, the planned design for the fountains was to incorporate

> *...a huge water display with two center jets sending water high into the air and 150 side jets around the edges with water issuing toward the center. An electrical display is planned which will illuminate the fountains at night*.[31]

However, neither pool was completed in time for the memorial's dedication in May 1922. The larger basin was filled with water for the first time the following December. Concrete walks around the pools were only partially completed by June of 1923 and were only fully installed by 1924. To complete the effect of the long, uncluttered vista, over 550 trees and shrubs were removed from the area south of the reflecting pool. Grading and seeding on both the north and south sides also took place at this time. Once the pools were complete, maintenance personnel planned to flood the surfaces when ice formed on the pools to create two skating rinks for the public's use.[32]

Dedication of the Memorial

Although the grounds surrounding the Lincoln Memorial had not yet been fully developed by the time of the official dedication on May 30, 1922, many of the key elements were in place. The raised terrace, approachway, and reflecting pool steps had been constructed and subsequently secured to bedrock. Mature specimens of boxwood and yew had been planted in groupings along the east or front facade. These irregular masses of shrubs marked the inside corners at the raised terrace steps and wrapped the outside corners on the northeast and southeast. Four large box shrubs had been planted at the entrance to the approachway in the two walled beds surrounding the entry benches. Two additional boxwoods flanked the outside pedestals. However, the low box hedge proposed for the area behind each bench had yet to be planted. Small, no-yet mature elms lined the two paths that paralleled the reflecting pool and the transverse, or oval, pool on the eastern end. Openings on both the north and south side had been created in the rows of trees for the future cross arms section of the reflecting pool. Trees on the south marked that uncompleted segment, while on the north the presence of the parking lot for the temporary Navy and Munitions buildings prevented such a planting.[33] Neither pool held water. Fountains and walks along the pools had yet to be installed. The coping on the edge, however, did provide some hard surface for the some 50,000 people that had gathered to view the dedication from this area.

Figure 8 – Dedication festivities for the official opening of the Lincoln Memorial, May 30, 1922. MRC 1-30.

Figure 9 – Partially planted east side of Lincoln Memorial during the dedication ceremony, May 30, 1922. MRC 1-31.

At the dedication, invited guests were seated on the approachway levels, while other honored individuals were seated on chairs that had been set up on the top of the raised terrace. Here along the terrace wall, the organizers, the Lincoln Memorial Commission, had installed a temporary guardrail. From their vantage point, these guests could see that the arrangement of walks and drives around and emanating from the circular terrace was not yet complete. The circle drive had been paved and the sidewalk had been installed around the eastern segment of the inner edge as far as the 23rd Street radial. Twenty-third Street, N.W. and, the as-yet unnamed, Bacon Drive had also been paved and improved with sidewalks along each side. Much grading and seeding for lawn remained to be done as well. Completion of the radial roads and walks, the reflecting and transverse pools, the walks along the pools, and the installation of streetlights would occur shortly thereafter. Planting on the west side of the memorial and the development of the Watergate and the roads connecting the area to the proposed memorial bridge and the regional parkway system would not occur until the beginning of the next decade.[34]

Completion of the Lincoln Memorial Grounds 1923-1933

Completion of Specific Projects - The Rainbow Pool

In May 1923, The American Institute of Architects (AIA) organized a tribute to Henry Bacon that was held at the Lincoln Memorial. The AIA honored Bacon with a dinner under a tent set up near the smaller basin. A triumphant procession along the full length of the pool, with Bacon riding on a ceremonial barge, followed the dinner. At the Lincoln steps, Chief Justice William Howard Taft, who had served as chair of the Lincoln Memorial Commission, decorated Bacon.

At the time of the tribute to Bacon, the fountains planned for the small, transverse pool had not been installed. The fountain for this pool was designated the “Rainbow Fountain” in October 1924, when during a trial run just before its dedication a rainbow formed above the fountain’s spray. Operating with 124 nozzles arranged in an elliptical pattern near the outer edge of the pool, and with two clusters of nine north and south of the center, the fountain made a “hazy vista” through which to view the Washington Monument and the Lincoln Memorial. Evidently provision was made at this time for the necessary electrical connections to install a colored light display in the future. In 1925, an inspection of the fountain by members of the Commission of Fine Arts resulted in the following observation and objection: too many spouts and the “playing” fountain obstructed the view of the Lincoln Memorial from 17th Street.[35] According to various sources, the fountain indeed was occasionally illuminated at night.[36]

Figure 10 – Rainbow Pool fountain in all its glory as shown in National Geographic, April 1935, by Jacob Gayer. Used by permission from the National Geographic Society.

Throughout 1923 and 1924, landfill along the banks of the Potomac River continued to extend the area behind the new seawall to the west of the Lincoln Memorial.[37] By mid-1925, all significant changes in the landform at the Lincoln Memorial had been completed. Projects that had transformed the areas included the filling up and grading of the ground around the structure; the construction of the circular macadam drive and the radial roads coming off the circle; the excavation and finishing of the long reflecting pool with concrete walks along each edge; the installation of the transverse pool and fountain; and the grading of the areas adjacent to the long pool with the laying of parallel walks on either side.[38]

During the period following the memorial's dedication, Daniel Chester French, Henry Bacon, the CFA, and the OPBG addressed the issues of both exterior and interior lighting.[39] In January 1926, 18 street light units were placed uniformly around the outside perimeter of the circle, opposite all four sides of the structure. The acorn-style lamp globe selected had been designed by General Electric for use in the District's streetlight system, as had a special incandescent lamp also developed by G.E.[40] In January 1927 the CFA approved an interior lighting installation that brought about a "quiet, subdued light at night," and that had been designed with the assistance of both Daniel Chester French and W. D'Arcy Ryan of G.E. for the Office of Public Buildings and Public Parks (OPBPP was the successor to the Office of Public Buildings and Grounds established in 1925). The project was contracted out to the firm of Biggs and Kirchner, who installed 24 floods for the illumination of the statue and additional 125 lights for general lighting purposes. Lighting the interior of the structure at night became critical by 1927, when visiting hours were periodically extended into the early evening. However, completion of the lighting

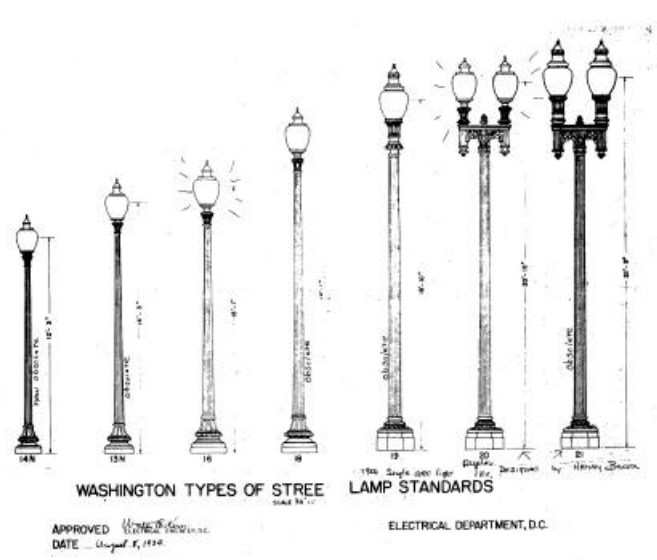


Figure 11 - D.C. street lamp standards as adopted in 1923.

installation did not occur until 1929. By April 1930 the Memorial was scheduled to stay open until 9:30 P.M. throughout the year.[41]

Another response to the increase in visitation was the 1927 construction of two "public comfort stations" under the raised terrace on the eastern front of the building. Two openings for entrances were cut through the raised terrace wall on both sides of the steps leading up to the memorial. Spaces for the restrooms were created behind the wall and a pair of bronze doors were hung at each entrance. Access to the "stations" from the approachway came from the two sets of sidewalks coming off the main walk and passing through the foundation planting. Construction activity associated with this project may have adversely compacted the soil surface along the approachway. In subsequent years, compaction from other projects and special events in this area would adversely affect adjacent shrubs.[42]

Figure 12 – Narrow passageway under boxwoods to "Men's" restroom south of the main steps, May 1, 1927. MRC 2-11.

Additional Trees and Shrubs

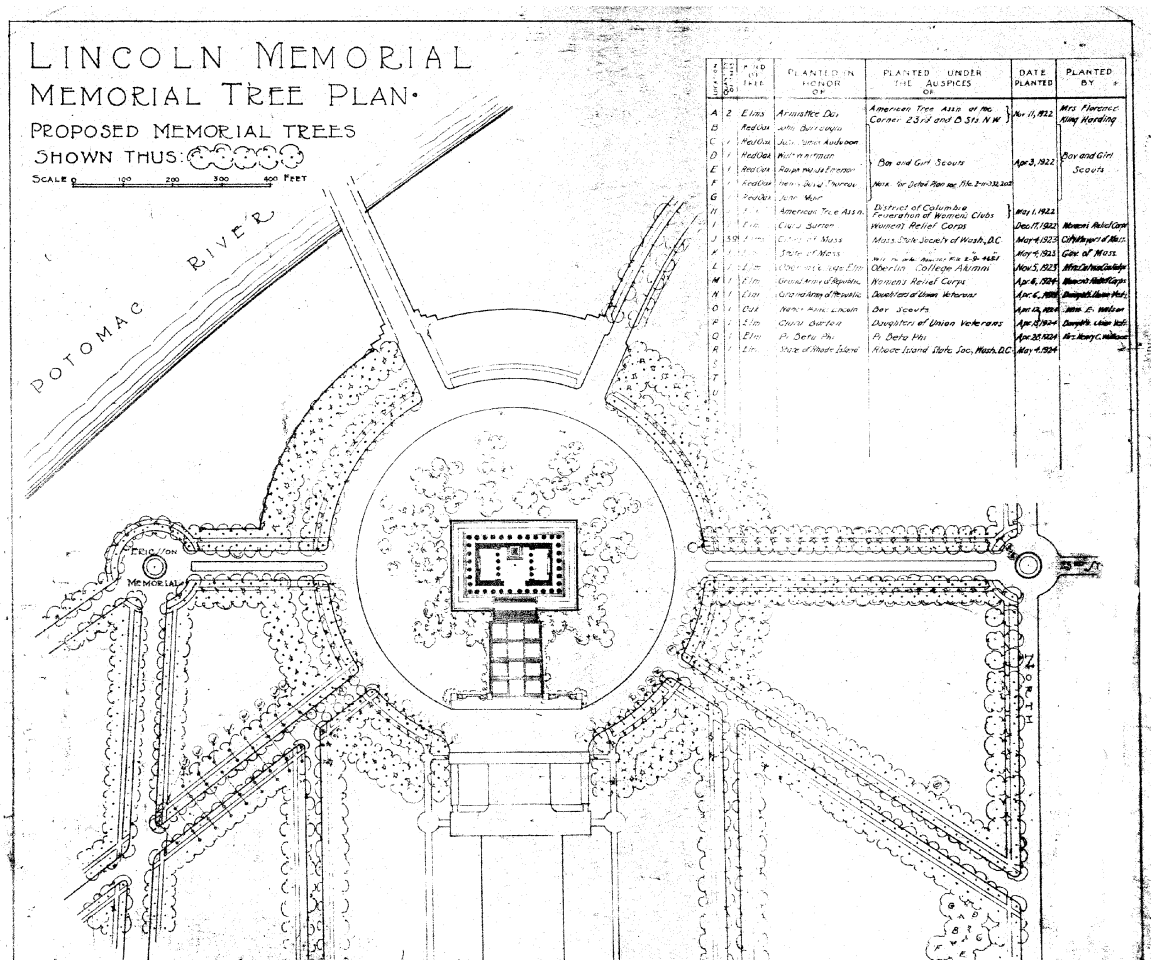
Throughout this period, the OPBG continued to strategically place trees and shrubs, especially on the circular terrace immediately surrounding the memorial. One of these shrubs, a large, specimen boxwood, had been moved from the grounds of the Corcoran estate and former residence of Daniel Webster, to the Lincoln Memorial site in 1922, and planted in Webster's memory.[43] In 1924, hardy vines were planted to grow on the raised terrace wall. These were soon visible on the wall at the base of the west facade, where few shrubs had been installed since the dedication ceremony. More boxwood shrubs and "hedge plants" (*Buxus sempervirens* 'Suffruticosa') were planted between 1924 and 1926 along the approachway and around the memorial in unspecified locations.[44]

In addition to OPBG's work on the grounds, they worked with various civic groups and organizations to plant memorial trees in West Potomac Park. On May 23, 1923, the lieutenant governor of Massachusetts and the mayors of 39 cities in the commonwealth planted 40 American elm trees along French Drive, creating the "Massachusetts Avenue of Memorial Trees."[45] Mrs. Coolidge and the president of Oberlin College planted the first individual memorial tree on the Lincoln grounds on November 5, 1923. Elsewhere in the park, Rhode Islanders planted the Liberty Tree to commemorate the 148th anniversary of that state's independence from Great Britain. The American Forestry Association gave two elms, one for the Army and one for the Navy, to begin an international avenue. The Boy Scouts of the District of Columbia planted a white oak nearby to honor Nancy Hanks, Lincoln's mother. Additional locations around the Lincoln Circle and along the radial roads were designated for memorial trees to be planted by the relatives of former servicemen. These trees would have no commemorative marker, save a small identification tag. One group of children planted a red oak near Bacon Drive and B Street, N.W. to honor John Burroughs and to complete a grouping of dedicated trees, serving as a "hall of fame" to John Muir, Henry Thoreau, Walt Whitman and John James Audubon. Not all requests for living memorials were granted. One, for example,

Figure 13– View of newly planted elms along radial roads and Reflecting Pool area, 1927. MRC 1-54.

concerned a proposal to plant a white birch in the area as a memorial tree. Because the planting plans for both the east and west facades of the Lincoln called for a variety of evergreen plants, the CFA refused to approve such a radical change in concept. The CFA reaffirmed that

> *The success of the planting already in place calls for the completion of the scheme, the essence of which is the honor to the memory of Abraham Lincoln and not a shrine for votive offerings*.[46]



Map 5 - One of the many memorial tree plans for the Lincoln Memorial circle and radial roads area, 1924. NPS Map 801/80081.

Between 1927 and 1928, the Horticulture Division of the OPBPP worked to complete the approved planting plan for the north, east, and south sides and focused on several other issues affecting the area around the memorial. Fifteen large magnolia trees were transplanted from the memorial grounds to another location in West Potomac Park. In turn, seven large, tree-type boxwood were planted at the memorial. During this period, the division noted in the annual reports that the elm leaf beetle and the caterpillar caused "usual damage" to the public reservations in the city. Although West Potomac Park was not specifically cited for pests, the large number of elm trees growing on the grounds

around the memorial and along the Reflecting Pool may have been treated for these problems. By 1928, the box-leaf miner was also cited as a pest for extermination. Whether the boxwood shrubs around the Lincoln Memorial were affected by box-leaf miner has yet to be determined.[47]

Park Developments

In 1924 the CFA approved the location for the development of a secondary focal point, south of the Lincoln Memorial. This point had been on the 23rd Street axis designated on the McMillan Commission Plan. The site, which overlooked the river directly south of the "Great Circle," was set aside for a memorial to John Ericsson, Swedish-born inventor of the screw propeller and designer of the U.S. Navy's famous ironclad warship, the *Monitor*. The monument was designed to be set in a small traffic circle, prominently located at the southern end of 23rd Street. While preliminary site preparation took place in 1924, realization of the project was delayed for several years. The dedication, using a plaster casting to mark the place for the future statue, was held on May 1926, but sculptor James Earle Fraser's work was not completed until July 1927. As with the west side of the Lincoln Memorial, final treatment of the grounds around the Ericsson Memorial was scheduled for completion at the same time as the construction of the Arlington Memorial Bridge approaches, which occurred in 1932.[48]

Other developments occurred in West Potomac Park that had less immediate impact on the grounds around the Lincoln Memorial but would eventually become significant issues for this part of the park. The impact of the shift from passive recreation to more active sports on adjacent park land was one of the concerns voiced when the second of two golf courses in West Potomac Park opened in 1924. The first nine-hole course had been laid out in an adjacent area just northwest of the Lincoln Memorial in 1923; the second was located in the far southeast area of West Potomac Park. Both were operated under a concession arrangement.[49] The improvement of adjacent streets to thoroughfares, which brought about increases in automobile traffic and the need for parking, was another concern. When B Street North was realigned, extended from Capitol Hill to the river, widened, improved, and renamed Constitution Avenue during September of 1931, such a through-route was inadvertently created. Requests to allow automobile parking at the Lincoln were brought before the Commission of Fine Arts in both 1931 and 1934. The CFA did not grant these requests, and although the public adhered to the existing parking restrictions, parking was prohibited on the west side of the circle in 1934. However, a taxi stand was permitted.[50]

Management of the Reflecting Pool

In the Reflecting Pool area, the double rows of elms had developed such full crowns that they appeared to require pruning and reshaping. Further investigation revealed that while the canopy was full, the root development of the individual trees was very poor. The roots were so underdeveloped that the trees were not secure in the ground. Several years passed before the elms' condition stabilized. Of the 250 elms planted in 1916, prior to the excavation of the reflecting basins, most exhibited such poor root development by 1929 that they were top-heavy and prone to falling over in high winds. Because the elms had been planted in moist, soggy conditions with inadequate drainage, replacement of these specimens would eventually be required. With the subsequent improvement of the groundwater level, the replacements evidently survived.[51]

View taken on the South side of eflecting Pool.
4. Tree #2. A 10" tree being pulled by a single man from its normal vertical position. All of the swaying is fro ground. File No. 19.4-40B

View taken on the South side of the Reflecting Pool.
5. Tree #2. Same as picture no. 4, only tree is being pushed from its vertical position. File No. 19.4-40B

Figure 14 & Figure 15 – Series of images document the condition of "English" elms along the Reflecting Pool north and south walk, 1928-1929. MRC 2-37 & 2-38.

Figure 16 – Skating on the Reflecting Pool, February 3, 1935. MRC 3-22.

Figure 17 – Swimming in the main Reflecting Pool soon after its completion, 1926. MRC 3-23.

Recreational use of the Reflecting Pool began around 1926. The pool was used for swimming, ice skating, model sailboat races, flycasting contests, and as the setting for such large-scale events as the George Washington Bicentennial Festival of Youth held on May 14, 1932.[52]

In 1929 both reflecting basins required repair. Because they had been constructed on "hydraulic fill" and had settled unequally, the smaller pool needed a new reinforced concrete bottom. The larger pool needed routine sealing maintenance. Rose Brothers completed these repairs in the fall of 1929. There may have also been problems with vegetation growing in the pools.[53]

Figure 18 – Repair work to the Rainbow Pool, July 15, 1929. MRC 3-17.

Design for the Watergate

In March 1928, longstanding concerns over the merits of the ceremonial Watergate entrance to West Potomac Park were raised at a specially scheduled meeting of the CFA. The McMillan Commission had originally conceived of the steps as part of the formal treatment for the shoreline west of the Lincoln Memorial. Vehicular traffic traveling through West Potomac Park along the riverside drive had increased to such a level that severe congestion would result if the circular roadway and the roads connecting the proposed memorial bridge and parkway were to intersect near the steps as planned. This traffic issue was of particular concern to the "Washington" [National Capital] Park and Planning Commission. The controversy centered around how to balance the ever-increasing numbers of automobiles passing through the park and the vision of the McMillan Commission. One solution proposed to construct an underpass drive below the bridge abutment to alleviate the anticipated traffic congestion. However, opponents feared that the adoption of such a proposal would both compromise the original concept for the Watergate steps and undermine the design for the memorial bridge. The debate further underscored the ways in which the McMillan Commission Plan had been altered over time. Final grade levels around the Lincoln Memorial and the bridge and the enclosed architectural form of the memorial differed from the original concept. These changes, in turn, drove further departures from the plan. The CFA's final recommendations on the traffic problems included adjusting the width of the Watergate steps; moving the steps back further from the water's edge; providing an underpass for a road under the bridge and the parkway approach; and considering the road as a driveway integral to "the architectural scheme rather than as a roadway in the true sense."[54]

New Plans for the Mall

At the time of the debate over the conceptual design for the Watergate, Frederick Law Olmsted, Jr. was a member of the National Capital Parks and Planning Commission

(NCPPC). The NCPPC had been authorized in 1928 to be responsible for all comprehensive planning and project planning for the city. Olmsted, with his vast experience on other municipal and regional projects, his work on the McMillan Commission, and his service on the CFA, formulated the objectives for the commission at the outset. In his role, Olmsted personally oversaw the planning for parkways, parks, and neighborhood playgrounds. One of the first efforts of the commission was the development of comprehensive plans for the city that included recommendations for the Mall, which were based on both the L'Enfant and McMillan plans. Although the 1928-29 NCPPC plans for the Mall mostly focused on the expanse between the Capitol and the Washington Monument, key elements of their concept for the area between the Washington Monument and the Lincoln Memorial underscore the essential elements of the landscape around the memorial.

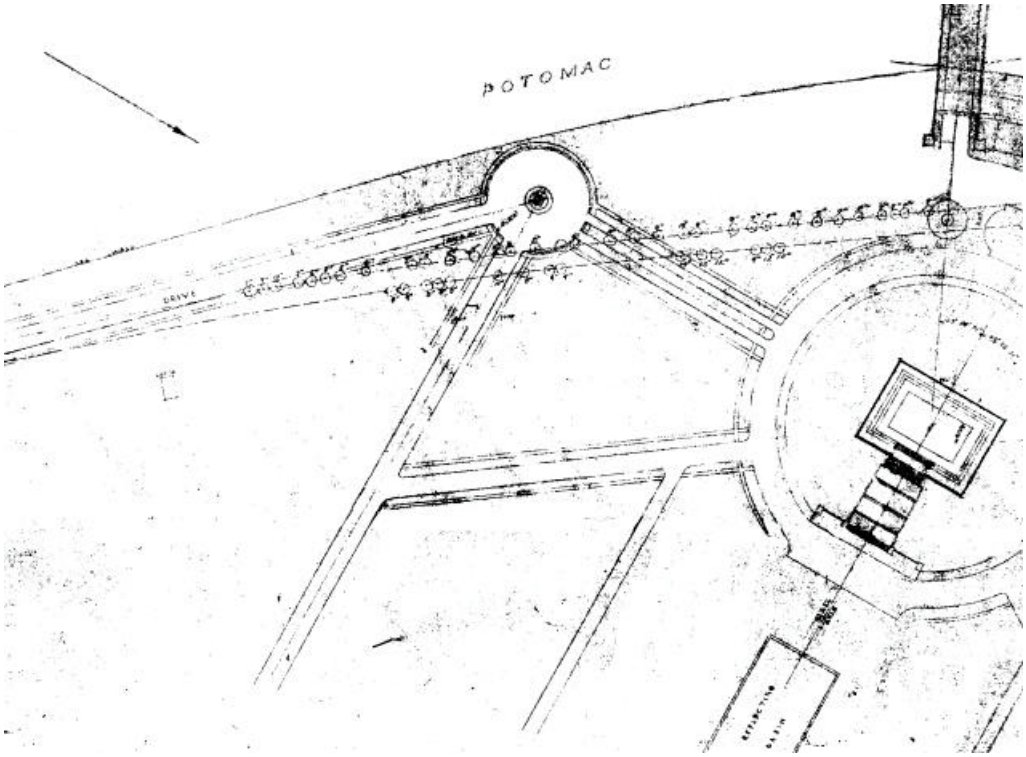
These plans reaffirm the simplicity of formal geometric patterns of circulation and vegetation along the Reflecting and Rainbow Pools, around the circular roadway, and along the radial roads. Delineation of the geometry established by the McMillan Commission was reinforced in the NCPPC design through the regular planting of trees and through the shape of the pools and the corridor of open spaces on both the north and south sides. Perhaps because of Olmsted's continuing influence on the landscape treatment, the cross arms of the original reflecting pool design remained as an outline of trees on the ground plain, more a horticultural feature than a water feature. In the more distant spaces, informal, wooded plantings of deciduous trees filled the triangles and rectangles created by the arrangement of the roads and drives. In reality, the complete "tapis vert" of the design could not be implemented fully until the Navy and Munitions Buildings and the adjacent parking lot north of the Reflecting Pool were removed.[55]

Planting Plans - West Side and the Watergate

In 1928 Irving Payne oversaw the installation of plantings for the west side of the Lincoln Memorial according to the plan approved by the CFA several years earlier. However, because of the construction of the Arlington Memorial Bridge abutment, Payne had made changes "in the character of the planting and treatment. . . ." Payne's installation included a special treatment for the central area on the west side of the memorial, "with a scattering of trees and shrubs on the north and south sides." CFA landscape architect member Ferrucio Vitale overrode Payne's work by recommending a simpler design for the north, south, and west corners, consisting mostly of boxwood, which was to extend no more than 30 feet from the base of the memorial. Vitale also envisioned the circle of lawn to be free of trees and shrubs. In addition, he called for removing the vines growing on the raised terrace wall that had been planted a few years earlier. To save the masonry from damage by climbing vines, Vitale suggested climbing euonymus (similar to *Euonymus fortunei* var. *radicans* 'Vegetus') as a replacement.

By the end of the decade, James Greenleaf, former CFA member and consulting landscape architect for Arlington Memorial Bridge Commission, and the OPBPP had developed preliminary planting plans and contour and grading studies for the area at the

eastern end of the Arlington Memorial Bridge. This site development encompassed the bridge plaza on the District side; the riverside drive connection with the still uncompleted Rock Creek and Potomac Parkway; the north approach roads from B Street [Constitution Avenue] to the bridge underpass; the Ericsson Memorial site; and the south underpass approach road to the bridge. Several collections of existing trees had to be relocated to implement these designs. Six Japanese flowering cherry trees were transplanted from the riverside parkway at the Arlington Memorial Bridge to Meridian Hill Park, near the center of the city. Six Scotch and American Elms growing near the route proposed for a road that linked the Ericsson Memorial with a West Potomac Park polo field were also removed in anticipation of the completion of that memorial, although pavement, curbs, and gutters were not installed around it until the summer of 1932. Another 16 cherry trees and 20 mature Scotch and American Elms were removed from the vicinity of the bridge and riverside drive. Ten of these same elms may have been transplanted to the southern end of Rock Creek and Potomac Parkway only a short time after the opening of the K Street to West Potomac Park section of the parkway in April 1932.[56]



Map 6 - Plan to relocate elms located along abandoned section of Riverside Drive, rev. 1929. NPS Map 801/80129.

Construction of the Arlington Memorial Bridge and its intersection with the Lincoln Memorial axis and the Watergate was almost completed in May 1932. At that time the OPBPP worked to install trees and shrubs around the Watergate and on the west side of the Lincoln Memorial. Gilmore Clarke, a landscape architect appointed to replace Vitale on the CFA, was initially alarmed by Payne's installation of Greenleaf's planting design for the west side of the Lincoln. Clarke had a strong background in large-scale landscape projects, especially from his award-winning work on the Westchester County Parkway.

Payne's "overdone" work drew additional criticism from other professionals concerned with the Arlington Memorial Bridge and the Lincoln Memorial. In the case of the Watergate and the bridge and parkway connections, the problems lay in the interpretation of the plan and not with the plan itself. However, the plant selection and choice of certain types of trees and shrubs at the Lincoln were the cause of significant disagreement between Clarke and Greenleaf. While both Clark and Greenleaf found Payne's work "on the ground" lacking in aesthetic sensitivity, the two could not agree on the philosophical basis for the overall planting design.

Clarke considered the implementation of the design for the west side of the memorial to be "coming up higher than it should . . . extending above the base of the columns." In addition, he found the selection of trees and shrubs for the west side "not in harmony" with those that had been planted on the east side. In particular, Clarke took exception to the choice of *Magnolia grandiflora,* the tree so strongly advocated by Greenleaf a decade earlier. Clarke found its "coarse foliage texture". . . "too large in contrast with the delicate texture of the boxwood foliage heretofore used as the principal plant material." On the other hand, Greenleaf felt that because of the range of vistas on the west side, the plantings at the rear of the Lincoln should be of a broader scale than those on the front. He also felt that the rear, unlike the front, should not appear as a tight bedding group, and that it would be inappropriate to carry a similar planting scheme around all four sides of the memorial. Greenleaf cited the hardiness of the magnolia and suggested American holly as a companion plant. He further praised the character of the tree by noting

> *The splendid rounded masses of rich green foliage that this Magnolia ultimately develops can be a fine foil to the white marble columns of the Memorial building. In fact, I would like to return fifty years later and see irregular massing exclusively of Magnolia grandiflora contrasting with the mellowed marble of this perfect architecture, the box and yew becoming relatively unimportant but nevertheless enriching the effect in places against the granite wall of the platform.*[57]

The issue was never clearly resolved in 1932, and Clarke and Greenleaf continued to hold to their respective opinions. Since the revised planting plan had been originally approved by the CFA in the fall of 1931, prior to Clarke's term on the CFA, the installation of trees and shrubs on the west side of the Lincoln Memorial proceeded according to Greenleaf's design scheme.

> *Field inspection and tagging of this choice ornamental evergreen material for planting the Lincoln Memorial terrace, including the Watergate and wing walls, was made before transplanting, necessitating trips aggregating over 5,000 miles through the States of Virginia, West Virginia, Maryland and Pennsylvania. Further, careful inspection was made of all plant materials at the planting site to determine the quality, size, character, orientation, and final location of each plant to secure the most pleasing planting composition possible*.[58]

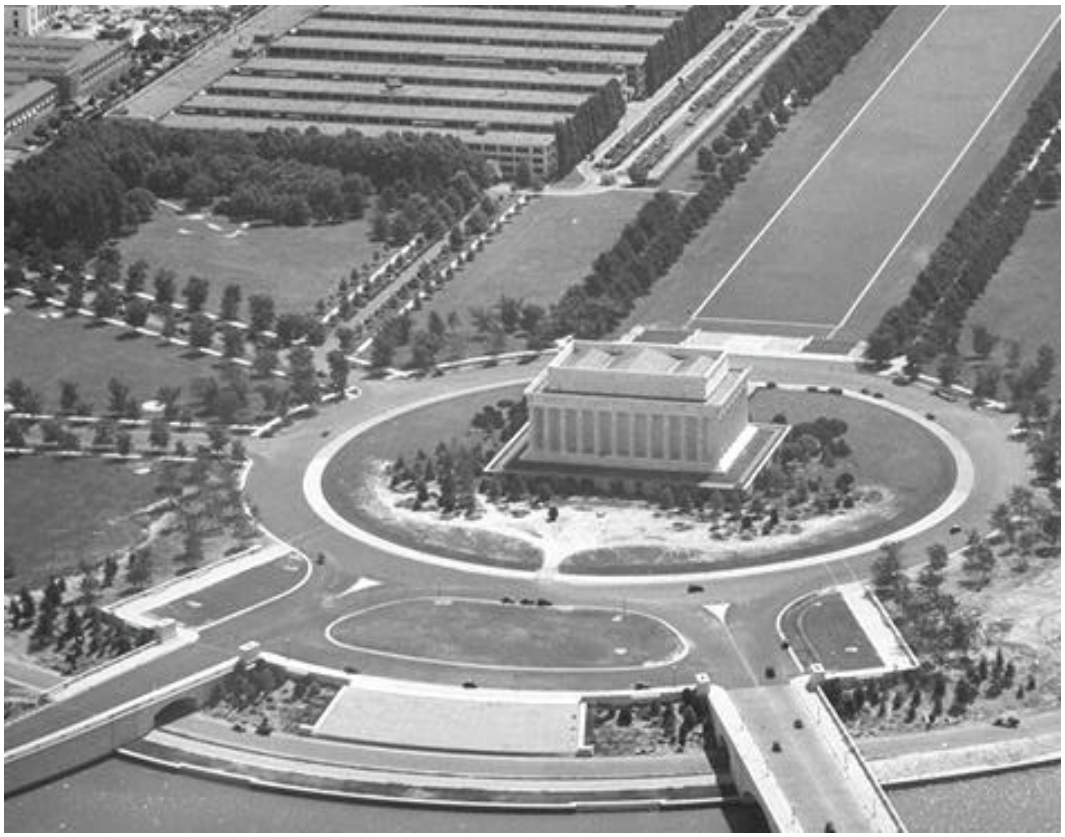


Figure 19 - Aerial view of installation of trees and shrubs on west side of Lincoln Memorial and beds flanking the Watergate steps, 1932. MRC 1-66.

In the end, the plant material used for the west side of the Lincoln Memorial, Watergate, and wing walls included several different types of glossy-leafed and coniferous evergreen trees and shrubs. Selected for the Lincoln Memorial were large specimens of southern magnolia, American holly, "treebox," dwarf boxwood, common boxwood, Japanese yew (*Taxus cuspidata*) and mugo pines. Similar plants were used at the Watergate and wing walls, with the exception of the southern magnolia, which were replaced by white pines (*Pinus strobus*).

In conjunction with the Arlington Memorial Bridge construction and planting plans, several contracts for the removal and the installation of trees on the west side of the Lincoln were given to different nurseries in 1932. One company removed elm trees on and around the bridge plaza and transplanted them. Another furnished and planted ornamental evergreens in the same area. The third company moved elms to the approaches at the plaza. James Greenleaf had prepared the plans to accommodate this activity. According to his specifications, 193 large American elms and 15 white pines were moved into the area bounded by Constitution Avenue, "B Street, south," 23rd Street, and the Potomac River. The elms were transplanted from their location between 23rd Street and Constitution Avenue, northeast of the Lincoln Circle and placed on each side of Constitution Avenue between the Potomac River and Henry Bacon Drive, south of Constitution Avenue between 16th and 17th Streets, along the circular road west of the

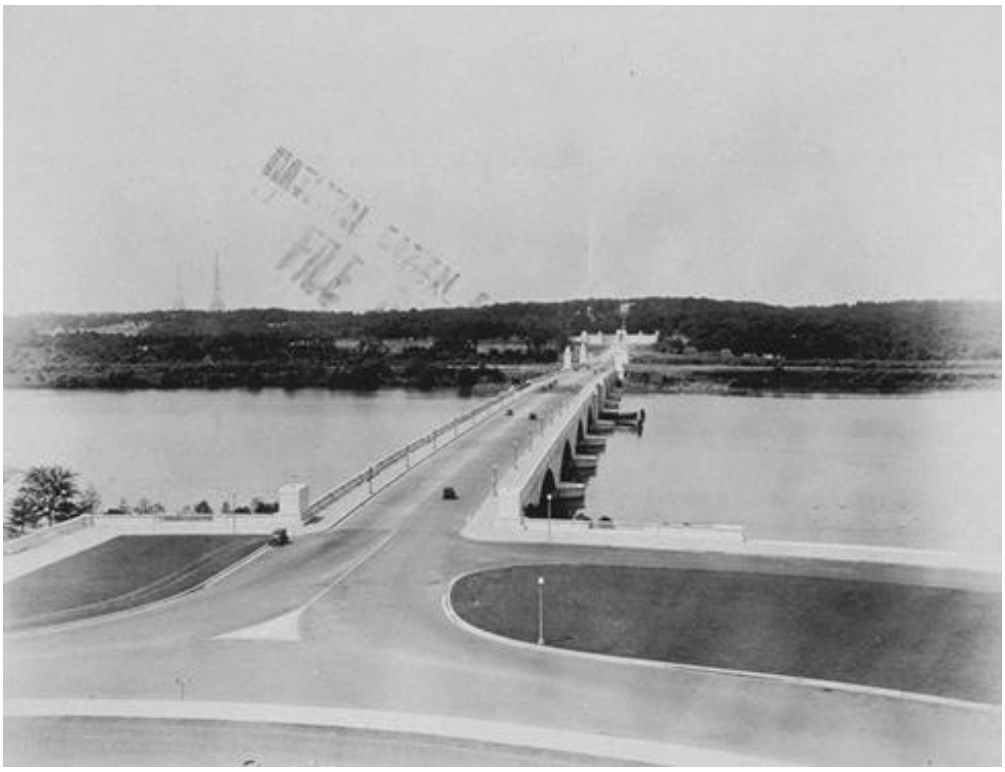


Figure 20 – Completion of Watergate plaza, sidewalks and bridle trail, June 9, 1933. MRC 1-75.

Lincoln Memorial and adjacent to the north and south wing walls of the Watergate plaza, and on each side of 23rd Street, S.W. The white pines were removed from their locations near the intersection of 26th Street and Constitution Avenue to new sites on the slopes adjacent to the north and south wing walls.

With the completion of the landscape treatment around the memorial in 1932, an irrigation system for the inner circle was installed. Other "improvements" included the addition of temporary, free-standing handrails on the raised terrace and stylobate steps, which were set-up as needed in alignment with the entrance to the memorial chamber. Although the Watergate area, including the bridge plaza, wing walls, and the descent of forty steps, was also completed by 1932, several features on the District side of the bridge were not finished until later. Schemes for the storage rooms under the Rock Creek approach were not approved by the CFA until October 1933, only to have the approvals rescinded the following month. Approvals for the design of the statues for the eastern end of the bridge and the parkway approach were not issued until 1935, and even then their granite bases remained unadorned by any sculpture for some 19 years.

Figure 21 - Temporary wooden steps to memorial chamber, Lincoln Birthday celebration, February 12, 1946. MRC 1-125.

Management by the National Park Service 1933-1945

New Stewardship Role for the National Park Service

In August 1933 the responsibility for the care and maintenance of monuments in the nation's capital was transferred from the War Department's Office of Public Buildings and Public Parks (OPBPP) to the National Park Service. This change meant that the OPBPP would no longer be directly involved in the stewardship of the Lincoln Memorial, the Reflecting Pool, and the Watergate area. Rather, a new division of the park service, known as National Capital Parks, was responsible for the management of all the reservations belonging to the federal government, including Rock Creek Park, East and West Potomac Park, and the George Washington Memorial Parkway. After the change, the Commission of Fine Arts commended the park service for its attention to the appearance of the capital's parks. They noted the service's efforts in growing "turf, elimination of scraggly shrubs, use of decorative low planting and the care of worth-while trees" particularly in the smaller parks of the "old city." At this time, the park service submitted designs for two styles of park benches, a concrete and an iron version, both of which the CFA approved.[59]

The park service also worked to revive significant plantings at the Lincoln Memorial. In March 1936, under the direction of the park, Public Works Administration workers replaced selected yew and boxwood shrubs, as well as portions of the dwarf boxwood hedges lining the approach at the Lincoln Memorial, with similar mature plants. They also supplemented existing boxwood specimens in the beds flanking the entrance to the approachway. Poor soil conditions and poor drainage combined with problems brought on by a combination of drought, winter cold, pests, and sun-scald had necessitated a rehabilitation of the boxwood. At this time drainage trenches were installed on both sides of the approachway to improve the conditions for both the newly planted hedges and

Figure 22 - Unloading replacement boxwoods off of flatbed truck, March 1936. MRC 2-50.

Figure 23 - Laying sod on flood levee to stabilize the earthen berm, August 4, 1936. MRC 2-127.

beds. Drainage trenches installed along each of the rows of the Reflecting Pool elms in 1935-36, also helped to improve the growing conditions for these trees.[60]

On March 19, 1936, the Potomac River flooded to record high levels in Washington. As the waters rose, work crews constructed a temporary levee along the south side of the *Navy and Munitions Buildings* to hold back the flood. A permanent dike or flood control berm that was only 2½ feet high at its western end near the Lincoln Memorial was constructed shortly after the temporary one was removed during the winter of 1938. It lay

parallel to the east/west axis, "at approximately one-half the distance between the Reflecting Pool and Constitution Avenue."[61]

Cultural Events and Social Significance

As the frequency of summertime band performances declined at the D.C. War Memorial, the National Capital Parks began to introduce music on the west side of the Lincoln Memorial. Here in the amphitheater created by the Watergate steps, temporary chairs, booths, and kiosks were set up for the public's enjoyment of outdoor musical performances at the river's edge. Over time a series of increasingly elaborate orchestra concert shells were constructed on barges anchored near the base of the Watergate steps. Although the first program of concerts was held during the summer of 1935,

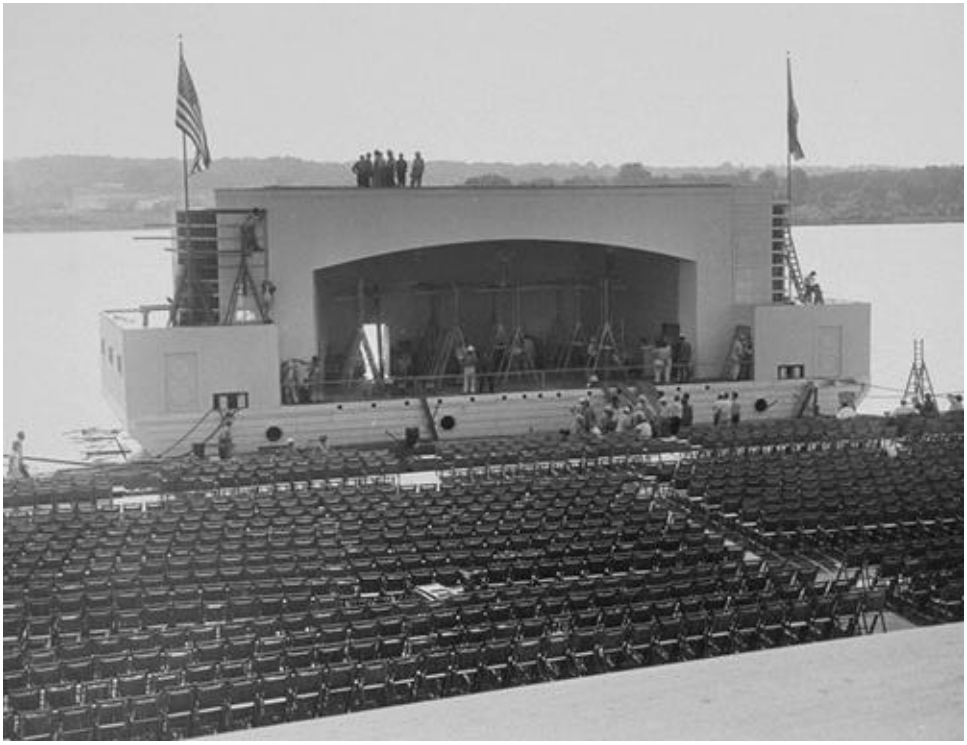


Figure 24 - Concert barge tethered at the base of the Watergate steps, in preparation for a concert, July 12, 1939. MRC 1-3.

documentation suggests that a formal orchestral barge was not in place before 1937. A more stylized architectural shell was created in 1939, and the third, an elaborate covered stage set off by flagpoles and planter boxes, was developed during 1947-1948. The steps provided most of the seating, with additional chairs arranged for the audience on the strip of lawn along the river, on platforms that spanned the road surface of the drive located between the steps and the lawn, and at the top of the steps. During concerts the underpass was closed to traffic, which was probably directed away from the river road to the Lincoln Circle. The summer series of concerts included performances by military bands, opera companies, and by the Watergate Symphony Orchestra "and the world's great

artists," organized under the auspices of the National Symphony. The theater and related services were managed and operated by a concessionaire, Government Services, Incorporated. A former storage facility located underneath the Rock Creek and Potomac Parkway approach (Parkway Drive) housed public restrooms for the area. Performances were discontinued in 1973. The barge was hauled away at that time, although the piers, which had provided anchorage for the floating stage, remained in the river until 1984.

The most significant cultural event that occurred at the Lincoln Memorial during the early years of NPS management was the Marian Anderson Easter Sunday concert on April 6, 1939. While this concert was ostensibly cultural, its significance is derived from the larger social and political impact on the nation as a whole. Because the Daughters of the American Revolution (DAR) had prohibited this noted African-American contralto from performing at the DAR's Constitution Hall, Secretary of the Interior Harold Ickes offered the steps of the Lincoln Memorial as an alternative concert location. Some 50,000 people positioned themselves on the approachway and at the Reflecting Pool steps to hear Anderson sing. Her performance was also broadcast live over national radio. The success of the concert marked the first nationally significant use of the memorial, the main steps, the approachway, the Reflecting Pool steps, and the circle as both a stage and a theater since the memorial's dedication in 1922 and the AIA's ceremonial dinner for Henry Bacon in 1923. While the selection of the site and the design of the Lincoln had been originally "conceived as a symbol of national consensus, linking North and South on holy, national ground," with the Anderson concert, the memorial became the "stronghold of racial justice."[62] From 1939 the memorial became the setting from which to stage other significant events associated with both civil rights and freedom of speech.

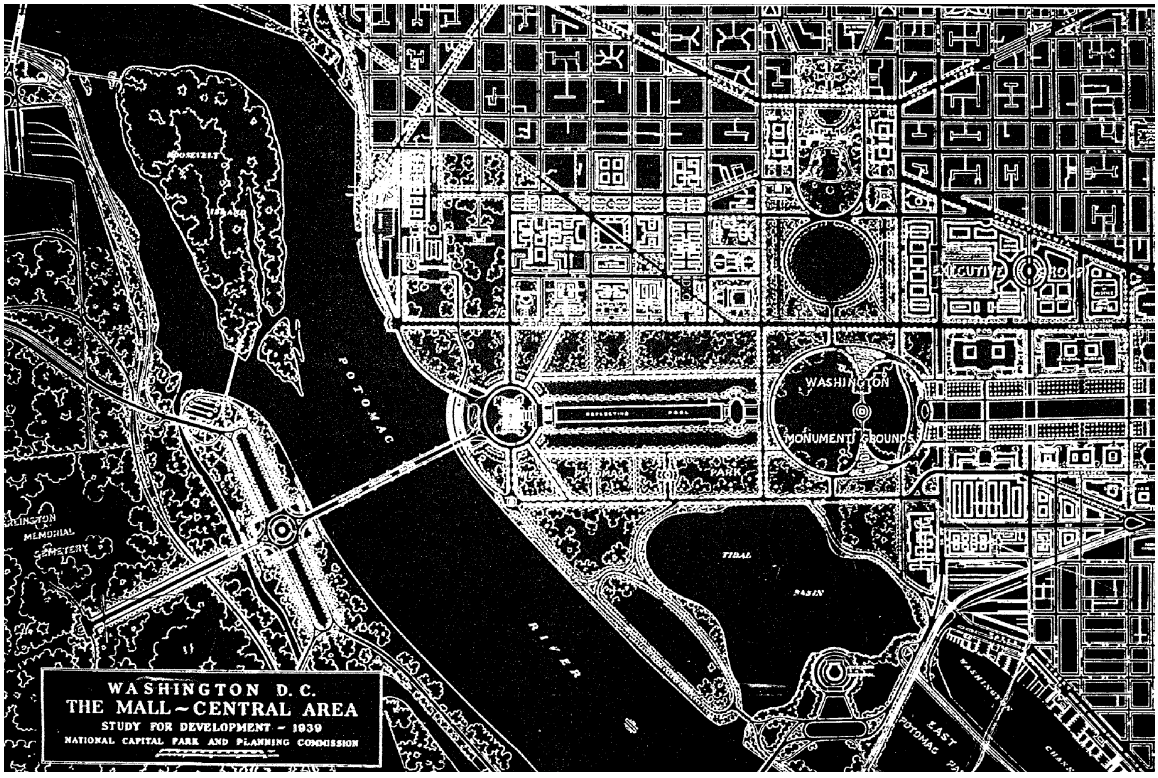
Effects of Park Planning

Construction of the last segment of Rock Creek and Potomac Parkway was completed in 1936. Over the years landscape architects such as Olmsted, Langdon, and Greenleaf had participated in the development of the final design. Although originally intended to link Rock Creek Park with West Potomac Park by means of a scenic, recreational drive, increasingly high volumes of commuter automobile traffic caused parkway administrators to institute one-way only routes during morning and evening rush hours in 1937. Because of the public perception that the parkway serves as an express route to downtown Washington, these one-way restrictions have remained in effect on the parkway to the present day. Since 1937 commuting traffic has had a profound effect on the circulation around the Lincoln Memorial. Park land near the memorial has been sacrificed to make road improvements to control traffic. The resulting changes to the overall landscape have detracted from the setting.

The National Capital Parks and Planning Commission updated their plans for the development of the Mall in 1937, 1939, and 1941. These plans reflect several changes that had taken place at the western end. The three proposals eliminated the cross arms from their treatment for the Reflecting Pool, showed the completion of the expansion of Constitution Avenue, and the addition of the Ericsson and the D.C. War Memorials. The

effect of the new flood control berm on the double rows of elms and the design for the planned open space next to the north side of the Reflecting Pool are not depicted, probably because a parking lot for the World War I temporary buildings still occupied this area, even though it was not marked on the NCPPC plans. While the berm served to help screen the parking from the pool area at this time, it eventually would become a topographical barrier, separating spaces that were designed to be together.

Elements of these plans that remain consistent with earlier NCPPC plans and the McMillan Plan for the Lincoln Memorial are the overall spatial organization, the vehicular and pedestrian circulation, and the longstanding arrangement of vegetation around the memorial structure along the outer edge of the circular roadway and along the pool. The three plans, however, outline new treatment for the Washington Monument grounds and the Tidal Basin that had a long-term impact on the Lincoln Memorial landscape. The 1939 and the 1941 plans, conceived by Gilmore Clarke, indicate the site of the Jefferson Memorial, which was then under construction. All three delineate proposals for the extension of Independence Avenue west from 14th Street along the route of B Street, S.W. Only the 1941 plan includes the design of an access ramp near the Watergate to connect the Independence Avenue extension with Arlington Memorial Bridge and Rock Creek and Potomac Parkway.[63]



Map 7 -Development plans for the later part of the 1930s no longer depicted the Reflecting Pool "cross arms," 1939. NPS Map microfilm 35-52F/1.

War and Changes in Land Use

The proposal for the extension of Independence Avenue from 14th Street to 23rd Street, S.W. was presented to the Commission of Fine Arts in November 1941. Concerns over the effect that a through route, designed primarily for connecting the new War Department Building (the Pentagon) in Virginia with the two major river crossings, at 14th Street and at Memorial Bridge, would have on the adjacent park land was a key issue in efforts to win approval for the change. The approved route, developed by mid-1942, created a system of one-way routes, rather than a single, two-way road that would make ". . . driving safer and pleasanter." This design also incorporated sections of existing park roads and portions of a circumferential road system designed by Frederick Law Olmsted Jr. in 1931 for the Washington Monument grounds. (The Olmsted design was never fully implemented.)[64] Automobiles using the old riverside drive still had to negotiate the small traffic circle at the Ericsson Memorial. However, sometime in 1943 the route was altered around this smaller monument to accommodate higher volumes of cars that developed when a separate eastbound lane was completed. This lane passed over the Tidal Basin on a newly constructed bridge, which was subsequently named Kutz Bridge in 1954 to honor D.C. Commissioner Engineer Charles Kutz. As part of the extension project, which was completed in August 1943, the entrances and exits to the Rock Creek and Potomac Parkway and Arlington Memorial Bridge were realigned to a partial cloverleaf pattern.

Figure 25 - New configuration of road system, with the addition of Independence Avenue and the on and off ramps from Lincoln Circle, January 27, 1960. MRC 1-108.

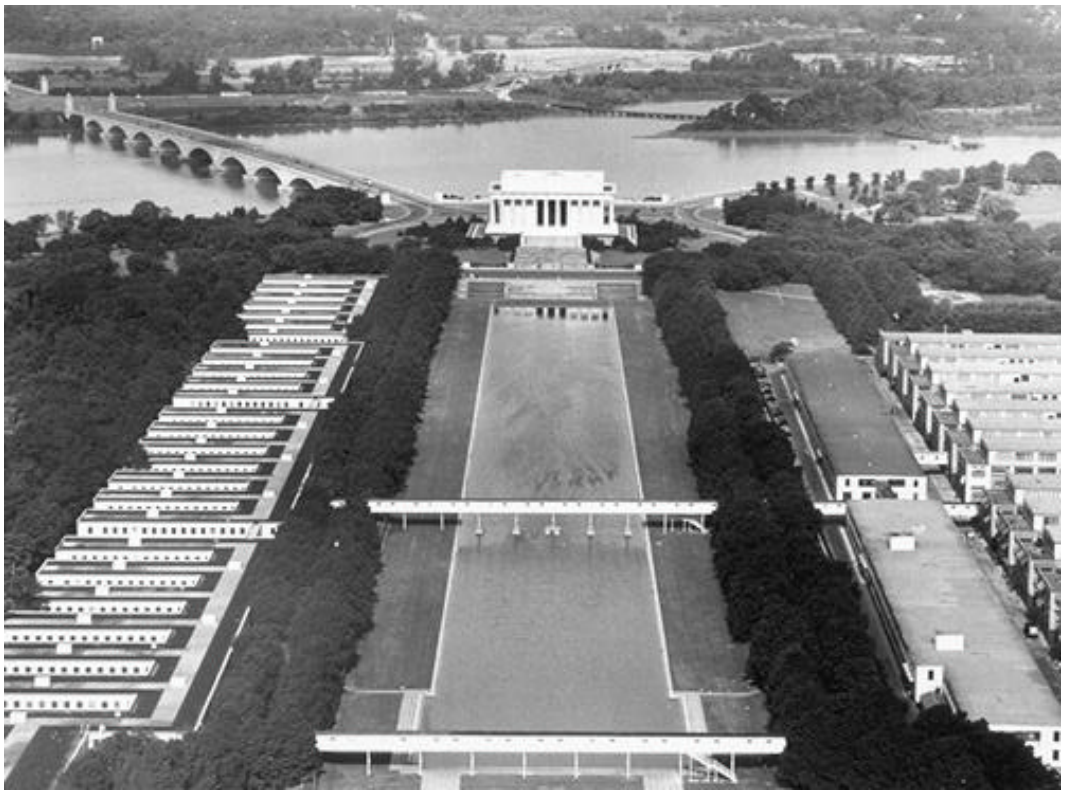


Figure 26 - Temporary elevated pedestrian bridges over the Reflecting Pool, June 1944. MRC 3-29.

The area around the Reflecting Pool was adapted in other ways to meet the expansion of the federal government during World War II. During 1942 temporary office and dormitory buildings were constructed for the use of government employees brought to the city to work on the war effort. Some of these quickly-built "tempos" were located on the western side of the Washington Monument grounds, on the main axis between 17th Street and the monument. Others were constructed in the area south of the reflecting pools. A chain-link fence, running along the most southern line of elm trees, separated these structures from the Reflecting Pool area. Two additional structures were constructed perpendicular to the older cluster of World I temporary buildings in the space formerly occupied by the parking lot on the north side of the flood control embankment. Finally two covered, elevated pedestrian bridges were erected in 1942 across the east/west axis to link the WWI structures with the newer WWII temporary buildings to the south. One spanned the Reflecting Pool close to the 19th street alignment, and the second crossed over the small plaza between the Reflecting Pool and the Rainbow Pool. A third bridge crossing 17th Street, just south of Constitution Avenue, linked the "tempos" on the Washington Monument grounds with the east side of the WWI structures. The cluster of "temporaries" located at the base of the Washington Monument grounds was expanded in 1943, when three wings were added to one of those buildings. With the influx of additional government workers to offices located in park areas, all-day parking was allowed in lots adjacent to the "temporaries" and along park roads in the monumental core. Over time, other changes to the Lincoln Memorial were proposed but were not approved. One was for the installation of light posts adjacent to the Reflecting Pool for

the purpose of practicing fly fishing techniques in the evening. Another was for the installation of permanent handrails on the raised terrace and stylobate steps leading to the memorial and for increased illumination of the steps.

Tourism and Traffic 1945-1970

Revival and Completion of Pre-War Plans

Near the end of World War II, the National Park Service, the Commission of Fine Arts and the National Capital Parks and Planning Commission prepared to return West Potomac Park to the conditions shown on the pre-war plans. The CFA urged

> *that the area along the south side of Constitution Avenue, now occupied by buildings, be planned as a naturalistic park area, within the rigid borders of the straight avenues, roads, and walks, with broad expanses of lawn with trees in mass, in groups, and singly, composed in a manner appropriate for passive recreation and in keeping with the immediate environment of two of the greatest memorials ever erected, the Washington Monument and the Lincoln Memorial. This is no place for active, noisy recreation: the area belongs to the people of the United States and it should not be dedicated for the use by Government employees and other residents of Washington as baseball and football fields*.[65]

Notwithstanding the commission's recommendations, the temporary buildings and the accompanying parking lots and fencing remained on both sides of the Reflecting Pool and at the base of the Washington Monument for many more years, prohibiting the development of these areas for "passive" recreation. However, the bridges crossing over the pools were removed during the immediate post-war period.

Four statuary groups of allegorical equestrian groupings were installed at the eastern end of the Arlington Memorial Bridge and at the approach to Rock Creek and Potomac Parkway in June 1951. Two of them, the *Arts of War* representing "Valor and Sacrifice," were designed by Leo Friedlander; the other two, the *Arts of Peace* shown as "Music and Harvest" and "Aspiration and Literature," were designed by James Earle Fraser. With the installation of these figures the plans for the bridge and the parkway approach were finally completed. However, several elements from the original bridge design were altered before and just after these last pieces were set in place. Not only had the road connections been realigned in the 1940s to meet the Independence Avenue extension, but by 1952, the original granite block pavers on the bridge was replaced with "asphaltic concrete."[66] Such changes improved the flow and speed of traffic but also undermined the formal, ceremonial character of the bridge and its symbolic relationship to the Lincoln Memorial.

Figure 27 - Installation of "Sacrifice" statue on north side of entrance to Arlington Memorial Bridge, June 1951. MRC 1-76.

Repairs and Incremental Changes

The National Capital Parks worked to improve the appearance of the landscape around the Lincoln Memorial wherever possible. Some of the boxwood shrubs located adjacent to the retaining wall and the main approachway were thin and scraggly in appearance. In the spring of 1944, Irving Payne, the former OPBG landscape architect who had worked on previous memorial projects, recommended that the park service modify the original plan by changing the arrangement of evergreens. In June, a partial installation of yew (*Taxus cuspidata* 'Nana') replaced the dwarf boxwood hedge located on the south side of the approachway. By the summer of 1945, 348 yews had been planted on both sides of the approachway. The beds of dwarf boxwood flanking the entrance to the approachway and facing the circular sidewalk were rehabilitated with additional and replacement boxwood shrubs. A select number of larger boxwood shrubs on the front side of the raised terrace wall were also treated under this "program to rehabilitate" the Lincoln grounds. Among the 12 boxwoods brought in for the project was a large American boxwood, approximately 200 years old, that had been found growing in a South Carolina cottonfield near the ruins of a former colonial residence. Park plans designated this specimen for the lawn area just south of the approachway. National Capital Parks completed the rehabilitation in 1947.

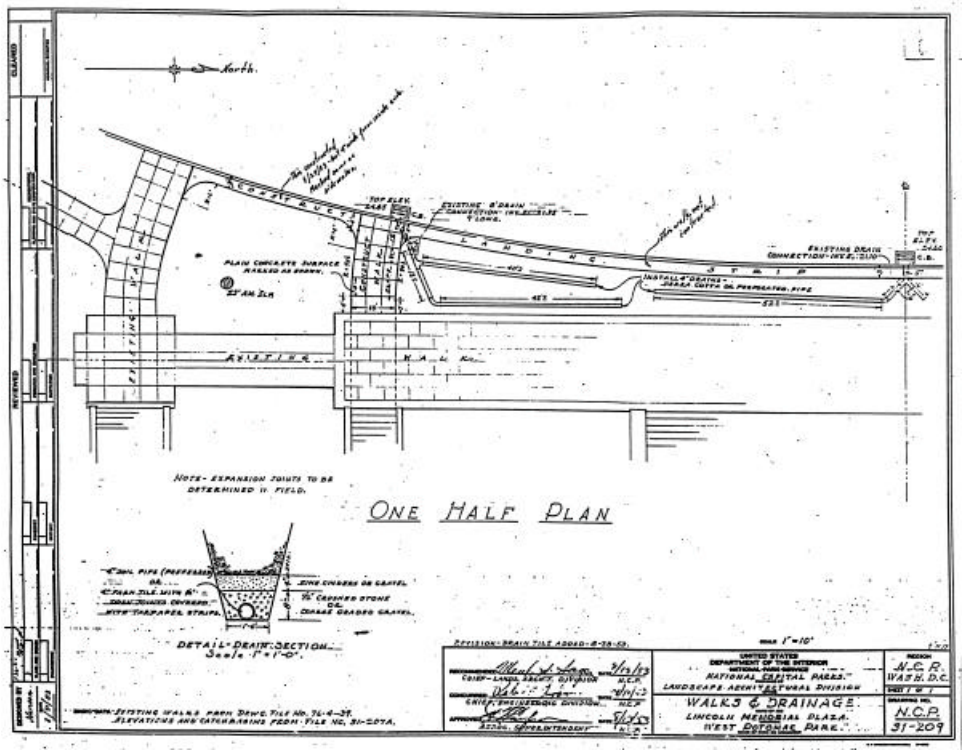
Figure 28 - The rough form of the new yews planted on the south side of the approachway, changed the character of the approachway hedge, May 3, 1944. MRC 2-96.

Figure 29 - Original character of approachway hedge illustrated by the rounded form of the boxwood, May 3, 1944. MRC 2-97.

Although control of horticultural pests had been a problem in West Potomac Park prior to the National Park Service stewardship, the first case of Dutch elm disease was not found until May 1947, in an area south of the Lincoln Memorial. Poor turf and pest "troubles" were among the longstanding concerns in the maintenance of the grounds around the city's "most popular structure." The yearly budget for caring for the approximately 300,000 dollars worth of trees and shrubs at the Lincoln Memorial grounds amounted to $5,000 annually. Yet the site was plagued with "every trouble . . . in the country." George Harding, chief of horticulture and planting for National Capital Parks confirmed that:

> *The turf is filled with all sorts of stuff, from river muck to sand. It's the worst trouble spot we've got in town.*[67]

As part of a 1953 repaving of the circular roadway, National Capital Parks eliminated the rectangular edge of the circle's outer curb at the Reflecting Pool steps in favor of creating a continuous curb edge. Since the 1922 dedication, the rectangular section had been gradually adapted into an area for parking. The presence of parked automobiles, in addition to taxicab stands and the three bus stops allocated to the city's private bus companies, marred the area between the memorial and the pool and hindered pedestrians crossing from one to the other. Two triangular planting beds, shaped by the outline of the new and old curbs and new sidewalk connections, flanked the landing at the top of the steps. The beds, which were planted in boxwood, replaced most of the parking area and completed the changes made at this time.[68]



Map 8 - Construction plans showing new layout of shrub beds at top of Reflecting Pool steps, 1953. NPS Map 31-209.

Visitation, New Uses and Incremental Change

Visitation at the Lincoln Memorial increased from over 1.5 visitors in 1948 to 2 million in 1959. At the same time increased levels of automobile traffic, from both visitors and commuters, continued to be a major concern of not only the National Park Service but also the District's Department of Highways and Traffic. In 1950, for example, bridle trails were closed within Potomac Park because of the incompatibility of horseback riding and large numbers of automobiles.

During the 1945-1970 period, the memorial steps and the approachway were increasingly used for public ceremonies and functions. By this time, the Lincoln Memorial and the surrounding grounds had developed into a significant setting for high-profile public events that ranged from prayer pilgrimages during the early years of the Civil Rights movement, to the destination for the 1963 March on Washington, which is best remembered for the famous "I Have A Dream" speech delivered from the memorial's steps by Martin Luther King Jr., the Resurrection City camp site for the Poor People's campaign in 1968, and a rallying point for the anti-Vietnam War movement. Events staged there ranged from the serious, such as the 1963 memorial service for President John F. Kennedy, to the celebratory, such as the Smithsonian Folklife Festivals held in 1975 and 1976. In addition, interior and exterior views of the Lincoln Memorial were frequently used by cinema production companies shooting films in Washington, D.C.[69]

Figure 30 - Thousands of participants at the Lincoln Memorial grounds for the March on Washington, August 28, 1963. MRC 1-46.

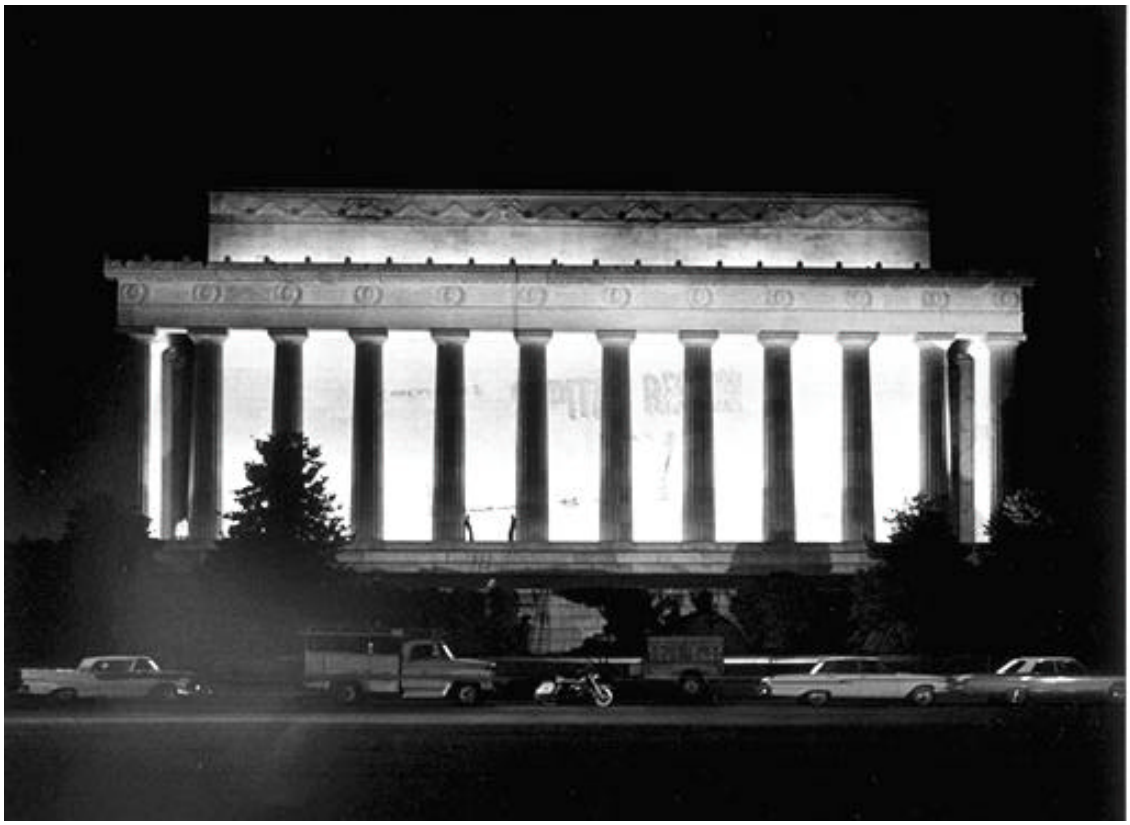


Figure 31 - Lighting effect on west colonnade of Lincoln Memorial, June 7, 1966. MRC 3-44.

Throughout the late 1960s and early 1970s, The Commission of Fine Arts reviewed the effectiveness of the original interior and exterior lighting at the memorial. New exterior lighting around the perimeter of the building was in place by the time of the Nixon Inaugural in January 1969. The incandescent spotlamps used to light the main steps were installed on both sides of the approachway in large rectangular box units. Their installation necessitated the removal of selected yew and box shrubs from the front facade planting. Two sets of lamps mounted on poles were also placed in the vegetation to cast light on the north and south sides of the building. Two other pole units were installed among the trees and shrubs on the west side. No evidence of alterations to the planting are documented for these pole installations**.** Floodlights located on the top of the marble column capital, around the base of the structure itself, directed light toward the colonnade of the memorial.[70]

National Park Service "Mission 66" improvements at the Lincoln centered on the addition of a "Tourist Information Kiosk." In 1965 the kiosk was constructed on the south side of the Reflecting Pool steps, several yards northeast of the intersection of French Drive and the Lincoln Circle. By 1968, soil compaction caused by pedestrian activity around the kiosk and adjacent refreshment trailer prompted the development of a new paving plan for this area. Although designed to prevent any further damage to the elms growing there, the character of the design in the proposal marks a significant departure from the original simple and balanced geometric layout of the landscape. Some years later a slightly different version of the plan was in fact implemented.

As other visitor issues arose, the National Capital Parks apparently evaluated them on an individual basis. In the early 1960s the Interior Department and the National Park Service responded to citizen requests for artificial ice-making capabilities at the Reflecting Pool by establishing a task force to investigate extending the use of the pool throughout the cold weather months for ice skating. Proposals were developed, but these plans were never realized. Eventually skating on the pools was prohibited all together. In 1964 the park installed permanent bronze handrails on the outside of both the raised terrace steps and the steps ascending the stylobate. The use of a temporary wood handrails appears to have ceased once the bronze versions were in place.[71]

Concern for pedestrian safety at the Reflecting Pool and at the entrance to the approachway were addressed in August 1972, when the eastern portion of the roadway around the Lincoln was closed to automobile traffic in the area between Bacon and French Drives. The road closing, which required the rerouting of traffic onto adjacent streets and onto Rock Creek and Potomac Parkway, was done on a seasonal basis for several years. The change became permanent in 1976 as part of the planning for the Bicentennial celebration. At that time, planners created a two-way traffic segment on the west side of the circle between Memorial Bridge and Bacon Drive.

Another change in circulation occurred in 1973, when the park management decided to remove the L-shaped sidewalks located along the top of the Watergate wing walls. A set of curving walkways replaced the originals. These were a continuation of the sidewalks on the bridge and the parkway approach (Parkway Drive) that followed the outer curb edge of the western portion of the Lincoln Circle and led down to Ohio Drive and the shoreline.[72]

Plans for New Site Developments

In 1960 the park service sponsored a plan developed by landscape architects and engineering consultants to alleviate traffic around the Lincoln Circle by connecting existing road systems to the planned Inner Loop of the Interstate Highway System. This plan incorporated the construction of a tunnel under the western edge of the circular roadway that would connect the proposed Theodore Roosevelt Bridge approach on the northwest with Independence Avenue on the southeast. The proposal also called for a complete redevelopment of the grounds around the memorial and the surrounding area, including the Reflecting Pool, the radial roads and the Watergate. This landscape design proposed by Umberto Innocenti and Richard Webel marks the first overall plan for the Lincoln Memorial grounds since 1916. Although their design was never implemented, the Innocenti/Webel plan demonstrates the level of change considered possible at the Lincoln in the 1960s. To alleviate the impact of parking and automobile circulation, Innocenti/Webel's plan eliminated the circular roadway, French Drive and a section of Bacon Drive, while redirecting vehicles to a new route around the west side of the memorial and along the full length of the Reflecting Pool. To accommodate these elements of the design, they also proposed several alterations in pedestrian circulation, spatial organization, and vegetation. More significantly, however, they chose not to alter

certain elements from the original design. These elements included the organization of the overall design along the east/west axis; the double rows of elms along the Reflecting Pool; the shape and form of both pools; the memorial approachway; and the masses of shrubs planted around the memorial structure.[73]

Shortly after the 1960 proposal, Skidmore Owings and Merrill (SOM) created a Mall master plan for the National Park Service that incorporated the underpass concept. Although the landscape treatment for the Lincoln Memorial area featured in the SOM plan differed from the Innocenti/Webel design, and showed changes in the design of the Rainbow Pool and in the trees growing north and south of the elm walks, the similarities between the two proposals underscore, again, significant aspects of the original design that were deemed inappropriate for change. Among these are the linear arrangement along the east/west axis, the double rows of elms flanking the Reflecting Pool and the masses of shrubs around the memorial structure.[74]

Acceptance of the underpass concept was influenced by the continuous public debate occurring throughout the 1960s and into the 1970s over the merits of freeways in the inner city. After prolonged deliberation the tunnel plan was eventually rejected, even though the Theodore Roosevelt Bridge and the west leg of the inner loop freeway, designed to connect with the tunnel, were under construction throughout the early 1960s. With the construction of the bridge approach and freeway segment near the western terminus of Constitution Avenue, changing the grade and adding several access roads were necessary in the area just north of the Watergate. The Theodore Roosevelt Bridge was dedicated in 1964; the west leg opened in 1966.

Throughout the 1966 to 1976 period, SOM worked with the park service and other agencies to refine their initial proposal. By the time of the 1976 Bicentennial, SOM's proposed treatment for the area around the Lincoln Memorial had developed into a design that featured much of the original layout and geometric arrangement along the Reflecting Pool, the circle and radial roads. Two areas that contrasted with the longstanding formality lay on the north and south sides of the Reflecting Pool, where SOM developed a more naturalistic landscape plan. The tunnel was no longer part of the overall design.

Conceptual planning for the improvement of the Mall may have influenced decisions that had a positive effect on the landscape surrounding the Lincoln Memorial. One improvement was the removal of the temporary WWII buildings from both the south side of the Reflecting Pool and the west side of the Washington Monument grounds during August of 1964. With this action, an unimpeded view between the Lincoln Memorial and the Washington Monument and the large open area south of the pool was restored. However, removal of WWI temporary buildings located on the north side of the flood control embankment did not occur until the summer of 1970.

Another visual improvement was initiated at about the same time as the demolition of the World War II structures. The National Capital Parks beautification program of 1964-1968 designated certain sites and federal reservations throughout the city for the planting of bulbs, annuals, and other flowers in beds, planters, and on slopes. While aquatic plants

had been floating on the Reflecting Pool for several years, the park added other seasonal color to planters on the Watergate plaza, a circular bed at the west end of Constitution Avenue, and on the hillside adjacent to the Rock Creek and Potomac Parkway approach. While the water lilies and other plants were removed from the pools in 1968, the planters, beds, and hillside were still maintained.[75]

Figure 32 – Water lilies in Rainbow Pool, August 17, 1944. MRC 2-119.

Response to Contemporary Issues Through New Design and Preservation 1970-1996

Bicentennial Changes

In preparation for the Bicentennial celebration, several areas within the larger landscape of the Lincoln Memorial were altered. Although considered improvements or enhancements at the time, the changes that occurred around the west end of the Reflecting Pool and on the southeast side of the circle, between the Reflecting Pool and French Drive, deviated considerably from the original symmetry and balanced design for the memorial grounds. Most of these changes occurred in the rearrangement of pedestrian circulation and the selection of site details and materials. On the southeast segment, granite block pavers, ground cover, post-and-chain fencing, concrete, and concrete curbing were used together to create individual tree beds and a plaza-like area around the

two hexagon-shaped kiosks and a refreshment trailer, which had been set up there by 1973. While this treatment around the elms and along French Drive was done to accommodate higher levels of visitation and to protect the trees in this area, the overall effect detracted from the longstanding simplicity of design on the site as a whole. A more sympathetic installation of paving was added to the area between the base of the Reflecting Pool steps and the pool at about the same time. Here, cobblestone, granite, and concrete panels replaced relatively narrow walks of flagstone pavers, which had been added shortly after the completion of the pools. Although the design for the panels was based on an interpretation of the original treatment for the main approachway, the selection of materials and pattern of the new installation was not in keeping with the original design intent for this end of the Reflecting Pool. The two elm walks paralleling the pools were also repaved as part of this project with a bituminous paving, rather than concrete, the historic surface.[76]

The most significant change to occur within the circle at the Lincoln Memorial since the installation of exterior lighting in 1969 was the construction of handicap accessible ramps and elevators. The ramps followed a modified L-shaped course along the outer edge of the wall behind the planting beds adjacent to the approachway and along the hedges lining the entry walks leading up to the memorial. Construction of the ramps, the low retaining walls behind the north/south sections of the ramps, and the elevators necessitated the removal of boxwoods and yews from both sides of the front facade planting. Construction may also have affected the condition of shrubs growing in adjacent areas. Soil compaction and other forms of disturbance appear to have caused damage to specimens other than those growing in the direct path of the ramps. One other aspect of the project was the construction of more than 100 curb cuts to accommodate

Figure 33 - View of north side of Lincoln Memorial, 1992. NPS DSC photo.

wheelchairs at the intersection of roadways and walks around the Mall and other park areas in the monumental core. These additions were completed in 1976. As part of the ramp construction, the park replanted several yews and boxwood on the east side. At this time two sets of six yews were planted in a semicircle to screen the exterior light boxes. The park also removed the two hedges of yews (*Taxus* x *media* 'Densiformis') flanking the approachway and subsequently planted new yews according to the same arrangement.[77]

In 1977 park management replaced plantings near the approachway and on the opposite side of the Lincoln Circle with inkberry, or *Ilex glabra*. Shrubs in the pair of rectangular beds flanking the beginning of the approach to the memorial and in the two triangular beds marking the descent to the Reflecting Pool and had been damaged by exposure to intense sun and increased pedestrian traffic at these points. The *Buxus sempervirens* 'Suffruticosa' originally designated for these areas were unable to rejuvenate at a fast enough rate once they were damaged. Before the 1977 planting, park staff had replaced, at least one other time, the boxwood shrubs growing in the beds on both sides of the entrance to the approachway with Japanese holly, or *Ilex crenata*. As part of this planting effort, "boxwood, holly and yew, replacement and filler planting," were placed mostly on the north, south, and west sides of the memorial, "as directed by the [park] landscape architect." The American hollies and yews included in this planting were mature specimens. The two large hollies now growing on the east front were probably from this planting. Another plant type added to the landscape design was *Liriope variegata*, which was placed in the triangular beds at the top of the Reflecting Pool steps.[78]

Other changes brought about by the Bicentennial occurred in areas adjacent to the Lincoln Memorial. These ranged from the installation of a floating dock near the Ericsson Memorial for the operation of commercial boat cruises on the Potomac, to the Folklife Festival, held in 1975 and 1976, on the open ground just south of the Reflecting Pool, to full-scale redesign of the former site of the World War I temporary buildings on the north side of the pool. Named Constitution Gardens, this naturalistic garden, reminiscent of 19th century public parks, was dedicated May 27, 1976.

The Development of Preservation Plans

In 1976 it was determined that the large population of midges and spiders congregating at the Lincoln Memorial at night was responsible for the soiling of the white marble exterior surfaces of the building. Attracted from their natural habitat along the Potomac shoreline to the Lincoln by the bright night lights, the midges attracted spiders. Large numbers of birds, in turn, were attracted to the spiders. As a result, the birds established nesting areas in the upper recesses of the structure. Cleaning debris and residue left by these pests with high pressure water proved to be damaging to the memorial itself. Park management tried various treatments to reverse this deterioration, but to no avail.[79]

The plaza between the traffic circle and the Reflecting Pool required several repairs in 1977. The park service noted that the joints in the stone sidewalk needed repointing.

Moreover, exposed aggregate in the south walk was deteriorating, showing evidence of cracking, spalling, and missing stones. The north walk and center panel had vegetation growing between the joints. Similar problems affected the memorial approachway, where the cobblestone panels were cracked and missing stones. Some of these conditions persisted for several years. In 1983 NPS employees noted that exterior drains around the building were inadequate, and unable to prevent seepage into lower chambers. In addition, the aggregate walks were crumbling.

Although swimming or wading in the pools had been prohibited for many years, during warm weather, large-scale gatherings on weekends, holidays, and other occasions prompted spontaneous wading. By 1978 periodic cleaning was required once or twice per year. It would take approximately three weeks per cleaning, as on average, 10 to 15 large truckloads of debris would need to be removed from the pools. In addition to the build-up of debris, the bottom was no longer watertight and the intake and drainage of surplus water required improvements. The reflecting pool underwent "reconstruction" in 1981. Upon completion of the project, the park service introduced a “self-sustaining ecological system,” consisting of selected aquatic plants combined with natural bacterial action designed to consume algae and maintain the appearance of the pools.[80]

In 1984, the National Capital Region proposed to rectify site problems in the area between the Lincoln Memorial and the Arlington Memorial Bridge. The large wooden piles formerly used to secure the Watergate concert barge were to be removed, as was the access road at the top of the steps, which had been used to service the concerts. However, the granite curb, marking the river side of the access road was to be left in place. The same proposal called for a “handicap access ramp,” similar to the existing aggregate walk, at “the juncture of the walks connecting the Lincoln Approach, Bridge and Watergate steps.”[81]

Since the Bicentennial, ongoing preservation of the vegetation at the Lincoln has centered on the American elms lining the radial roads and the circular road and on the Dutch elms growing along both sides of the Reflecting Pool. Although the arrangement of the original planting had not always been maintained, efforts at sustaining a healthy collection of trees have been substantial. These efforts include following a prescribed balance in the selection of elm varieties and the cultivation of replacement elms at the National Park Service’s nursery on Daingerfield Island near National Airport.[82]

Other vegetation preservation has been directed toward the lawn areas around the memorial structure and along the Reflecting Pool. The 1993 Presidential Inaugural festivities necessitated the reseeding of grassy areas in late January. Because only rye seed, rather than the preferred fescue, could germinate at that time of year, sections were cordoned off with temporary fencing for a more rapid reestablishment of the lawn The longstanding use of temporary or snow-type fencing to restrict pedestrian access to the lawn during the off-season is now prevalent throughout the year as different grassy areas are allowed to rejuvenate.

Beginning in 1988 the Denver Service Center of the National Park Service, in collaboration with National Capital Parks-Central and the National Capital Regional Office, conducted studies about the need for the preservation of the Lincoln Memorial. As a result of their initial examinations, the raised terrace and the approachway were identified as two significant landscape features that required preservation. The restoration of the raised terrace, including the coping along the top of the retaining wall, began in the fall of 1993, and that of the approachway began in the fall of 1995.

In 1993, the National Park Service, in cooperation with the District of Columbia, the Federal Highway Administration, and the Architect of the Capitol, agreed on unified design guidelines for the vicinity of the National Mall streetscape. This area encompassed President's Park on the north, the Potomac River and the Southwest Freeway on the west and south, and Second Street on the east, including the Capitol grounds. The *Streetscape Manual* outlined consistent treatments for roadways, walkways, vegetation and site furniture. For the Lincoln Memorial grounds, Constitution and Independence avenues were defined as "major park roads," French and Bacon drive were defined as "park roads and drives", and the Reflecting Pool area and eastern portion of the Lincoln Circle were termed "special pedestrian ways." Based on this classification system, the manual provided standard details for each area. In 1991 17th Street, between Constitution and Independence Avenue, was the first NPS road project to implement the Streetscape Manual standards. Since the guidelines were developed, the NPS has used them for all their road projects in West Potomac Park and the Mall.

New Memorials, New Commemorative Landscapes

After the Bicentennial several new memorials were proposed for sites adjacent to the Lincoln Memorial. Unlike the Ericsson Memorial, the locations of some of these did not follow the geometric patterns established by the McMillan Commission plan, and later reiterated by the NCPPC plans, for the development of secondary sites in West Potomac Park. Two had little impact on the memorial grounds. The first, a separate memorial to the Signers of the Declaration of Independence, was located on a 1-acre island in the middle of the Constitution Gardens lake. It was completed in 1982. The second consisted of adding the names of Alaska and Hawaii to the other states already commemorated on the Lincoln Memorial. Although a bill introduced in the U.S. Senate in 1973 sought to include the names of Alaska and Hawaii on the attic frieze, where the other states were recognized, after lengthy debate a different proposal was eventually adapted. In 1985 the names of the two new states were engraved on a rectangular-shaped plaque that was installed on the center of the approachway, aligned with axis of the Washington Monument.[83]

Two larger memorials developed during this decade have had significant impact on the Lincoln Memorial grounds. The first of these was a memorial to Vietnam War veterans, designed by Maya Lin, which was located in the western portion of Constitution Gardens adjacent to the northeast segment of the circular road. The Vietnam Veterans Memorial was dedicated in 1982. Two years later, a flag pole and statuary group, designed by

sculptor Frederick Hart, was added to Lin's understated, yet dramatic, geometric work. An overhead tree canopy and understory trees planted next to the sidewalk along the outer edge of the circular roadway screen this memorial from the Lincoln Memorial. However, they also affect the formal character of the planting of the American elms around the circle. Near the northeast section of the circle, a curved arrangement of paths leading from Constitution Gardens and the Vietnam Veterans Memorial intersects with the more linear walks on the north side of the Reflecting Pool steps. This arrangement has changed the formal character of the pedestrian circulation.

With the successful completion of the Vietnam Veterans Memorial, the area at the west end of the Constitution Gardens became strongly associated with veterans. Soon thereafter, veterans organizations requested permission to set up concession tents near Constitution Avenue, where they sold merchandise expressing veterans' points of view on pertinent issues. In 1983 the tents were moved to the top of the steps on the north side of the Reflecting Pool, where they have remained.
The second major memorial, dedicated to Korean War veterans, was authorized in 1988 and constructed on the south of the pool in 1995. The design of this memorial incorporated many of the same geometric elements as the Vietnam Veterans Memorial but adapted them to achieve a different overall effect. Like the Vietnam Veterans Memorial, the Korean War Veterans Memorial is adjacent to a section of the circular roadway around the Lincoln Memorial. Informal paths also intersect with the straight walks found on the south side of the Reflecting Pool. An overhead tree canopy and understory trees, planted to create a screen, are immediately adjacent to the sidewalk along the outer edge of the circle, as well. Both the walks and the trees at the western end of the Korean War Veterans Memorial fundamentally transform the formality originally planned for this area of the circle.

The kiosks and refreshment trailer that had been on the south side of the Reflecting Pool steps since the late 1960s and early 1970s were removed and relocated or replaced in 1995 as part of the Korean War Veterans Memorial's development. A "Tourmobile" kiosk, a souvenir kiosk, and a new, enlarged refreshment trailer now occupy sites on the west side of French Drive. A new information kiosk has been installed at the edge of the recently planted understory trees between the Reflecting Pool and French Drive. The old nonhistoric treatment of clustered structures, extended pavement, individual beds around the elms, and post-and-chain fencing has been continued in this designated area for visitor services.

IV. Analysis and Evaluation

Introduction

The analysis and evaluation of the cultural landscape for the Lincoln Memorial grounds are based on an examination of the historical records and the documentation of existing landscape resources in the study area. A summary discussion of the cultural landscape components documents landscape patterns, relationships, and individual features within a site, which define the character of the designed landscape. With this information, the overall significance and integrity of the landscape is addressed according to national register criteria for landscapes.

To help present this complex information, there are two parts:

Overall Landscape	*Lincoln Memorial grounds*
Component Landscape	*Reflecting Pool area* *Lincoln Memorial circle and radial roads* *Watergate area*

The ***overall landscape*** is defined as the aggregate of sites (component landscapes) or features that define a cultural landscape which is eligible for the National Register of Historic Places. Whereas the ***component landscape*** is a definable physical component of a landscape that contributes to the significance of a National Register Property or in some cases, is individually eligible for the National Register. A ***component landscape*** can be further subdivided into smaller features and warrants individual documentation to adequately record the physical character of the property. These landscape features based on their significance and integrity are either *contributing* or *noncontributing* to the period of significance. For the majority of landscape characteristics, a contributing and noncontributing list is present which defines that particular characteristic. The list of contributing features can then be used to quantify the significant historic landscape for a national register nomination for the Lincoln Memorial grounds. Chapter five, “National Register Status,” provides a more in depth discussion of the criteria that is followed for this procedure.

Overall Landscape Characteristics

Land Use

West Potomac Park is the part of the monumental core of the nation’s capital and includes the Lincoln Memorial, Washington Monument and Jefferson Memorial. Once a part of the tidal “flats” of the Potomac River, the park was created from fill, dredged from the Potomac River. In 1902 the McMillan Commission defined a vision for the area that included not only parks but also memorials to great men and important events in American history. The Lincoln Memorial was the first such memorial to be constructed. It was sited on the continuation of the east/west axis planned by Pierre L’Enfant to extend from the capitol to the monument to George

Washington. Upon its completion, the Lincoln Memorial's classical form graced the river's edge as a symbol of reconciliation between the north and south. The parklike grounds of the commemorative landscape surrounding the memorial and other monuments were mostly designed to be used for passive recreation such as picnicking and walking. During the period of development, the Office of Public Buildings and Grounds set aside areas in West Potomac Park for active recreational activities. Areas north and northwest of the Lincoln Memorial were designated for activities such as golf. Bridle trails were also established along the Potomac River on the north, west and south sides of the memorial.

Figure 34 – Visitors enjoying the Reflecting Pool, 1931. Used by permission from the National Geographic Society.

Figure 35 - Model sailboats in the Reflecting Pool, 1931. Used by permission from the National Geographic Society.

A recent addition to the monumental areas of West Potomac Park are concession facilities and information kiosks, designed to serve the large numbers of visitors to the park. The services are

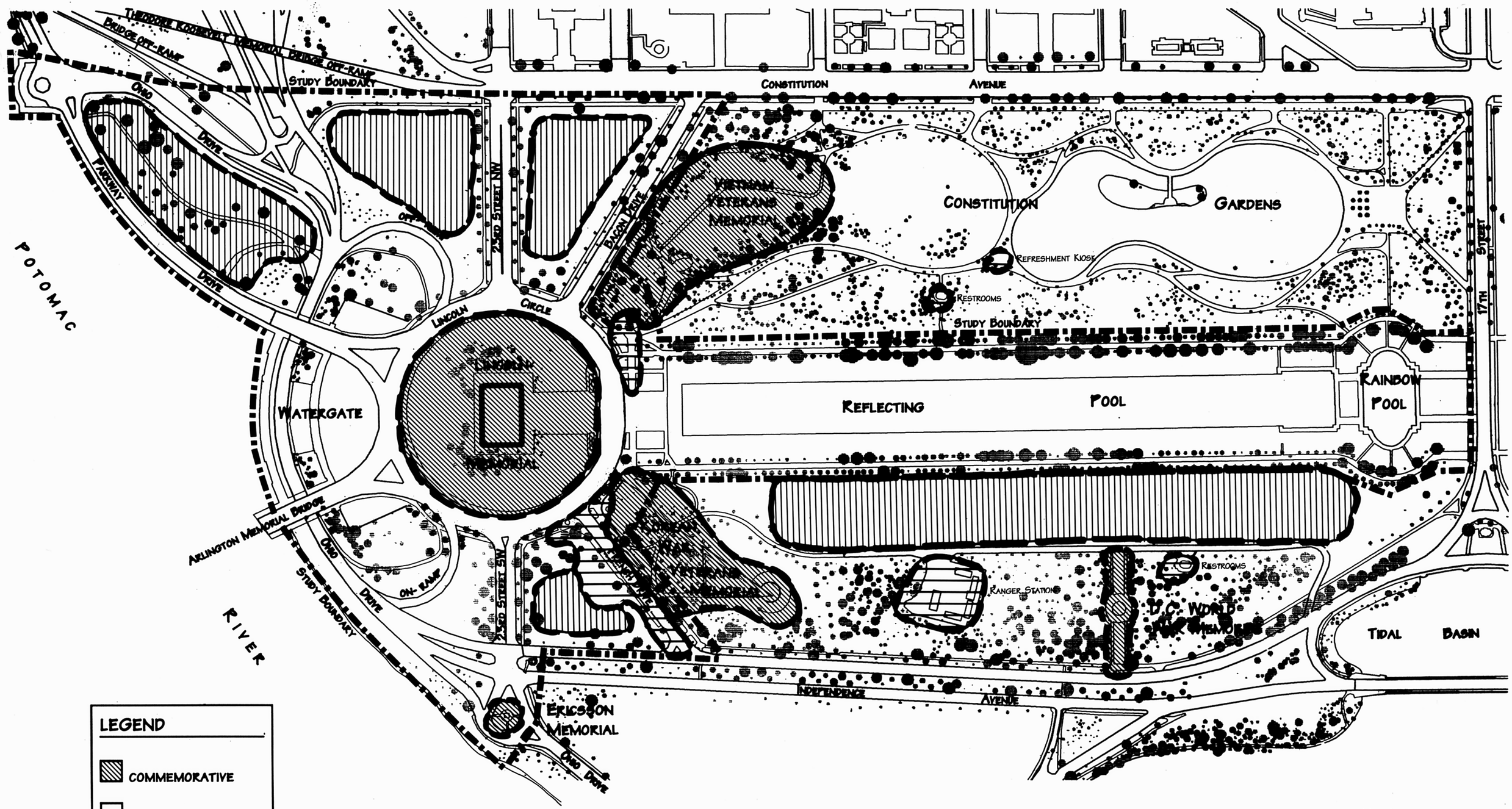
generally located near major pedestrian and vehicular circulation routes. At the Lincoln Memorial, visitor services are located southwest and northwest of the Reflecting Pool. Food concessionaires, tour bus fee collectors, a gift shop, first amendment rights vendors, and the National Park Service (NPS) ranger information facilities are the types of services available in these two areas. With the addition of non-contributing services, the park-like atmosphere near the main approachway to the Lincoln Memorial has been dramatically compromised. The National Park Service has attempted to control the impact of visitor services by clustering all these needs between the Reflecting Pool and the eastern side of the circular roadway. Even with this effort, the symbolic design of the approach to the memorial is congested.

Figure 36 - Grassy area north of Lincoln Memorial is used for active recreation, November 1996. LINC 11-29.

Passive recreation is still the primary use of this commemorative landscape. Active recreational uses have continued into the present, but are maintained in open spaces away from areas of major tourist visitation. To separate diverse uses, park officials have designated fields for a wide range of recreational opportunities. Use of the Lincoln Memorial grounds as a public forum developed over time, and considering the historical significance of the events staged there, precedence for such use has become well established. Large demonstrations and public assemblies will inevitably continue to be staged there for some time. See Map 9 *Overall Landscape - Land Use* for delineation of use areas.

Figure 37 - Visitors walking along the south Reflecting Pool path, November 1996. LINC 11-30.

Contributing Features	**Noncontributing Features**
1. Lincoln Memorial commemorative landscape 2. Reflecting Pool passive recreation 3. Watergate area active recreation 4. Active recreation within grass panels, Lincoln Memorial radial roads	1. Service oriented area, French Drive, outside curb of Lincoln Circle



LEGEND

- COMMEMORATIVE
- PASSIVE RECREATION
- ACTIVE RECREATION
- SERVICE

SCALE ONE INCH EQUALS THREE-HUNDRED FEET

0 150 240 300 600

SOURCES:

- U.S. NATIONAL PARK SERVICE, NACC RESOURCE MANAGEMENT, LIVETREE DATABASE, 10/96.
- FIELD INVESTIGATIONS, 1996.
- HISTORIC PHOTO DOCUMENTATION, NATIONAL PARK SERVICE, MARS
- NATIONAL PARK SERVICE MAP FILES, *SEE BIBLIOGRAPHY FOR MAP LISTING*

Map 9

LAND USE

OVERALL LANDSCAPE

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996

Blank back 11 x 17

Adjacent Lands

North and south of the Lincoln Memorial grounds are several other designed landscapes. Two contemporary memorials dedicated to the veterans of the Vietnam and Korean Wars are located northeast and southeast of the circular drive. A naturalistic park landscape called Constitution Gardens lies north of the Reflecting Pool, beyond the flood control embankment. These landscapes have changed the formal geometric character that the McMillan Commission and the National Capital Parks and Planning Commission intended for this portion of West Potomac Park. While both the Vietnam and Korean War memorials were designed to have a direct and symbolic relationship with the Lincoln Memorial building, they have little association with the park's historic landscape. The concept for Constitution Gardens contrasts even more with the original formal arrangement. On the other hand, the design of the District of Columbia War Memorial, which was constructed in 1931 on a site southeast of the Reflecting Pool, was developed according to many of the principles that relate to the design of the Lincoln Memorial grounds.

From 1913 to 1918 a row of tennis courts lay east of 17th Street and north of the area proposed for the Reflecting Pool. The courts were removed in 1918 when temporary buildings were constructed on this location for the government's war effort. To protect these structures and the other buildings along Constitution Avenue from periodic flooding, the National Park Service installed an earthen berm in 1938. The berm was located just north of the outer row of elms lining the walkway on the north side of the Reflecting Pool. Approximately 8 feet high, the berm effectively blocked views and access from the Reflecting Pool area to the north. This negative impact also changed the open character of the park. In 1970 the war buildings were removed. The "Downingesque-inspired" landscape for Constitution Gardens (1976) replaced the war buildings. The curvilinear design of the gardens deviated from the character and feel of the design originally conceived for this space by the McMillan Commission and the planning commissions of the 1920s and 1930s. When the Vietnam Veterans Memorial was installed just west of Constitution Gardens in 1982, it further compromised the original plans. The asymmetrical design of this memorial contrasted with the surrounding grounds but had a visual relationship with both the Washington Monument and the Lincoln Memorial.

The area south of the Reflecting Pool developed in a different manner. The upper part of the space remained open, while the lower portion, flanked by an old road, was maintained as a tree grove. Even though there was no specified use for this area, its relationship to the design of Reflecting Pool area was important. Both the McMillan Commission and the National Capital Parks and Planning Commission emphasized the juxtaposition of open areas (grass fields) and enclosed areas (tree groves) in their plans. Within the trees, a classical pavilion was constructed to honor D.C. citizens killed in World War I. The area remained in this state until 1942 when the government built temporary buildings on the open land. In 1964 these "tempos" were removed and the area was once again an open grassy field. After 1964 the open field was used for special events and active recreation. Subsequent changes did not occur until 1995 with the installation of the Korean War Veterans Memorial on the western portion of the open field. As with the Vietnam Veterans Memorial, the Korean War Veterans Memorial had a symbolic relationship

with the Lincoln Memorial and Jefferson Memorial, but the layout of features conflicted with the historic design of the Lincoln Memorial grounds.

Figure 38 - Aerial view of the Korean War Memorial and its impact on the open grassy area south of the Reflecting Pool, April 1996. LINC 3-32.

Although the Vietnam and Korean memorials and Constitution Gardens are known for their distinct designs and cultural value, these were developed independently of the historic Lincoln Memorial grounds. In addition, the change in land use from passive to active recreation on the south side of the Reflecting Pool detracts from the original design planned for this area. See Map 9 *Overall Landscape - Land Use* for delineation of adjacent use areas.

Views and Vistas

Figure 39 - Main mall axis view from the raised terrace of the Lincoln Memorial to the Washington Monument, October 27, 1922. MRC 3-2.

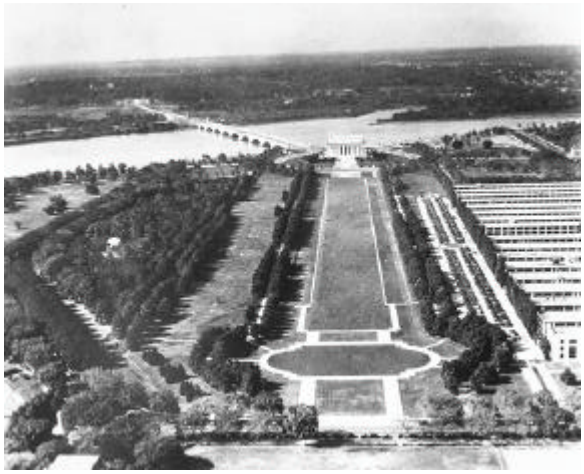


Figure 40 - View from the Washington Monument to the Lincoln Memorial, c. 1930. Trees along 17th Street left an opening for the main mall axis view. MRC 3-26.

As defined in the 1791 L'Enfant plan and subsequent McMillan Commission Plan of 1901, the most important designed vista is the main mall axis, from the steps of the Lincoln Memorial east to the Washington Monument and then from the Capitol to the Washington Monument to the Lincoln. To help frame the view and provide an unobstructed vista, double rows of elms were planted on either side of the Reflecting Pool**.** The vista narrowed at 17th Street where the street trees (American elm) framed the view to a controlled 160-foot opening (the same width of the Reflecting Pool). A continuation of this axis went from the west side of the Lincoln Memorial to the Watergate steps and across to the Virginia shoreline. Two other sight lines radiated from the rear side, or west side, of the Lincoln Memorial to maintain the symmetry of the design. One was to the southwest across the Potomac River to Arlington Cemetery and Arlington House, and the other was to the northwest to Parkway Drive. The fan-shaped view zone to the west is framed by white pines and elms, planted on the outside edge of the bridge and parkway approaches to Lincoln Circle. Views from the Ericsson Memorial, south of the Lincoln and along 23rd Street NW to the north provide secondary views to the Lincoln Memorial. All of these significant view zones are evident today in various degrees. However, the foundation plantings around the Lincoln Memorial are encroaching upon the openings at the base of the raised terrace wall on the north and south facades. This is more evident on the center of the north side of the memorial where the branches of hollies are arching over lower, horizontal-growing yews. After the completion of the Lincoln Memorial grounds in the 1930s, additional views from subsequent memorials to the Lincoln Memorial were emphasized based the their relationship to the Lincoln. This is evident from the Jefferson, Vietnam Veterans, and Korean War Veterans Memorials. Since these offsite views do not relate to the original design intent of the Lincoln Memorial grounds, they are noncontributing features to the overall

landscape. See Map 10 *Overall Landscape - Views and Vistas* for graphic representation of contributing views.

Figure 41 - View from roof of Lincoln Memorial to the Virginia shoreline, March 11, 1996. LINC 6-22.

Figure 42 - Limited view of Lincoln Memorial from the Ericsson Memorial, June 1996. LINC 9-7.

Contributing Features	**Noncontributing Features**
1. Mall axis vista from and to the Lincoln Memorial to Washington Monument to U.S. Capitol. 2. Vista from the Lincoln Memorial to Arlington House across Arlington Memorial Bridge (also opposing view back from Arlington House to the Lincoln Memorial) 3. Vista from and to Parkway Drive 4. Vista from radial roads to Lincoln Memorial and along radial roads from the Lincoln Memorial 5. Vista from the Lincoln Memorial raised terrace south to the Ericsson Memorial and north to Constitution Avenue, along 23rd Street, NW axis (also opposing view from the Ericsson Memorial and Constitution Avenue to the Lincoln Memorial) 6. Fan-shape vista from Lincoln Memorial west to the Virginia shoreline (also opposite view from the shoreline to the Lincoln Memorial)	1. View from and to the Vietnam Veterans Memorial to the Lincoln Memorial 2. View from and to the Korean War Veterans Memorial

THEODORE ROOSEVELT MEMORIAL BRIDGE OFF-RAMP

OHIO DRIVE PARKWAY

OHIO DRIVE

OFF-RAMP

LINCOLN CIRCLE

23RD STREET NW

BACON DRIVE

CONSTITUTION AVENUE

VIETNAM VETERANS MEMORIAL

CONSTITUTION GARDENS

9TH STREET

17TH

POTOMAC

LINCOLN MEMORIAL

WATERGATE

MAIN MALL AXIS

REFLECTING POOL

RAINBOW POOL

ARLINGTON MEMORIAL BRIDGE

TO ARLINGTON HOUSE

OHIO DRIVE

ON-RAMP

23RD STREET SW

FRENCH DRIVE

KOREAN WAR VETERANS MEMORIALS

D.C. WORLD WAR MEMORIAL

TIDAL BASIN

RIVER

INDEPENDENCE AVENUE

ERICSSON MEMORIAL

OHIO DRIVE

LEGEND

MAJOR VISTA

MINOR VISTA

SCALE ONE INCH EQUALS THREE-HUNDRED FEET

0 100 200 300 600

SOURCES:
- U.S. NATIONAL PARK SERVICE, NACC RESOURCE MANAGEMENT, LIVETREE DATABASE, 10/96.
- FIELD INVESTIGATIONS, 1996.
- HISTORIC PHOTO DOCUMENTATION, NATIONAL PARK SERVICE, MARS
- NATIONAL PARK SERVICE MAP FILES, *SEE BIBLIOGRAPHY FOR MAP LISTING.*

Map 10

VIEWS & VISTAS

OVERALL LANDSCAPE

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996

back of map 10

Spatial Organization

The Lincoln Memorial is above the banks of the Potomac River in West Potomac Park at the western end of the main east/west axis of the Mall. The line of this axis and the lines of other secondary axes are based on the design developed by Pierre L'Enfant in 1791 for the nation's capital and the McMillan Commission's (1901-1902) subsequent adaptation of L'Enfant's concept. A raised terrace elevates the memorial to a point of prominence 14 feet above grade, where views of the Washington Monument and the Capitol and the vista across the Potomac River reinforce the axial relationships.

The linear arrangement is reinforced by the long reflecting pool that captures images of both the Lincoln Memorial and the Washington Monument on the surface of the water. Two avenues of elms, planted on terraced levels in parallel rows, delineate this pool and outline a smaller transverse pool. A formal plaza and a slightly curving set of granite steps, descending to the river, connect the axis with the Potomac vistas. Spatially, the area immediately surrounding the memorial structure had been laid out in a symmetrical and geometric arrangement of drives, walks, and panels of lawn. These forms are enhanced by historic patterns of vegetation, such as the regular planting of American elms found along the roads radiating out from the circular drive.

Figure 43 - Reflection of the Lincoln Memorial on the pool, June 1996. LINC 9-24.

Figure 44- Reflection of Washington Monument on the pool, December 5, 1996. LINC 13-23.

Most of the spatial qualities of the Lincoln Memorial grounds have been retained, but development on the north and south of the Reflecting Pool

have weakened the character of these qualities. Both the construction of temporary government buildings in 1918 and the installation of a flood control levee in 1938 created an undesirable sense of enclosure on the north side. The south side suffered from the same effect when temporary government buildings were built there in 1942. The introduction of these large-scale projects compromised the broad expanse of open space originally designed for both sides of the pools. When the temporary structures were removed in 1964 and 1970, the area south of the pools was left open. On the north, however, the levee remained to limit the views, enclose the avenue of elms, and separate the pool area from the rest of the park. Subsequent memorial projects, developed northeast and southeast of the circular drive, have segmented the area further. Because of their unique designs, the memorials to the veterans of the Korean and Vietnam wars have become singular spaces, enclosed by understory trees, with little visual relationship to the historic designed landscape of the Lincoln Memorial.

Component Landscape

Reflecting Pool area

Vegetation

The landscape plan of 1916 for the lagoon, or Reflecting Pool area, called for a two rows of English elms (known then as *Ulmus campestris*) to be planted in parallel lines along the north and south sides. These rows were designed to further define the east/west axis between the Lincoln Memorial and the Washington Monument. The total space allotted for the pools and the double rows was set at 320 feet, with the width of the pool designed for 160 feet and the allee between the trees for 40 feet. A 15-foot concrete walk delineated the passage through the elms. In each row, individual trees were planted approximately 25 feet on center. The designers sited the rows of elms and a pair of concrete walks on the top of two terraced slopes, which paralleled the pools and rose 4 feet above them. The terraces extended the full length of the axis. At the smaller pool, the trees were placed in curved lines to complement the circular sections of its geometric outline. The four lines of elms ended just before their intersection with 17th Street, as shown on the 1916 Howard plan. At this north/south thoroughfare, an appropriate break in the street trees (*Ulmus americana*) on the west and east side of 17th Street kept the main visual axis between the monuments free of large-scale distractions and served to both emphasize and frame the view.[84]

The planting plan from this 1916 landscape design remains essentially intact. However, a few losses and changes have occurred. Along 17th Street, the northeast line of trees framing the main axis view is no longer standing and have not been replaced. Over the years, the elms originally planted along the Reflecting Pool have died**.** Unlike 17th Street and the rest of the mall, which are planted with American elms, a different type of elm was selected for the Reflecting Pool area. Frederick Law Olmsted, Jr. recommended English elms for the double rows of trees along the Reflecting Pool, but documentation suggests that Dutch elm (*Ulmus* x *hollandica)*, may have

been planted originally.[85] Presently, most of the Reflecting Pool elms are Dutch elms with a few smoothleaf, American, English and Scotch elms (*Ulmus carpinifolia, Ulmus americana, Ulmus procera, Ulmus glabra*) planted in between. Olmsted's elm selection suggests a conscience decision to define a different tree form for this area. English elms that did not survive have been replaced in the same locations, but with other more sturdy and Dutch elm disease-resistant species. Such replanting has created a corridor of trees of varying heights, crowns and circumferences. The smaller number of mature elms on the south side of the Reflecting Pool may be due to compacted soil in this area. High levels of pedestrian traffic passing between the trees to the adjacent athletic fields, as well as the trees proximity to flood prone areas of the park, may have brought about this condition. On the north side there are more mature elms. These elms are subject to less drainage problems and less compaction from recreational and pedestrian activity. The presence of a flood control berm also discourages walking between the trees to Constitution Gardens. Only a few designated paths cross over the berm, which limits impact to the elms in this area.

Figure 45 – Elm walk on south side of Reflecting Pool, November 10, 1996. LINC 11-35.

The Reflecting Pool area is divided into three vegetation zones. These zones define the spatial composition of the tree canopy of the north and south paths, 17th Street corridor, and the lawn area. By breaking the vegetation into smaller areas, there is a better sense of the integrity from the original plans. See Map 11 *Reflecting Pool area - Vegetation* map for graphic representation.

Contributing Features	**Noncontributing Features**
1. Double row of "English" elms trees along Reflecting Pool main walks 2. Remnant row of American elms along 17th Street 3. Open grassy areas around Reflecting Pool and Rainbow Pool	

CONSTITUTION AVENUE

SOURCES:
- U.S. NATIONAL PARK SERVICE, NACC RESOURCE MANAGEMENT, LIVETREE DATABASE, 10/96.
- FIELD INVESTIGATIONS, 1996.
- HISTORIC PHOTO DOCUMENTATION, NATIONAL PARK SERVICE, MARS
- NATIONAL PARK SERVICE MAP FILES, *SEE BIBLIOGRAPHY FOR MAP LISTING.*

NORTH SIDE DOUBLE ROW OF "ENGLISH" ELMS

COMPONENT LANDSCAPE BOUNDARY

SINGLE ROW OF AMERICAN ELMS

17TH STREET

LINCOLN MEMORIAL

LINCOLN CIRCLE

REFLECTING POOL

RAINBOW POOL

SOUTH SIDE DOUBLE ROW OF "ENGLISH" ELMS

COMPONENT LANDSCAPE BOUNDARY

SINGLE ROW OF AMERICAN ELMS

INDEPENDENCE AVENUE

LEGEND

- INTACT HISTORIC CANOPY
- LOST HISTORIC CANOPY
- INTACT HISTORIC GRASSY AREA

"Intact TREE CANOPY and OPEN AREAS determined from implemented plans 1914-1933

SCALE ONE INCH EQUALS TWO-HUNDRED FEET

0 50 100 200 400

N

Map 11

VEGETATION

REFLECTING POOL AREA

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996

back of map 11

Pedestrian Circulation

Pedestrian circulation in the Reflecting Pool area has had a few minor changes since the paths were first laid out. The original plan called for two 15-foot-wide concrete paths situated under the double row of elms, running east to west to serve as the primary pedestrian route along the pools. On the west end of the walkway, two sets of steps brought pedestrians from the lower pool area up to the memorial circle. Sometime before 1964, an additional path, which ran parallel to the existing concrete walk on the south side, lay on the top of the terraced slope, outside the inner row of trees. The need for this 2-foot wide concrete path may have been based on the proximity of the temporary government buildings constructed on that side in 1942. Documentation indicates that the path along the terrace was removed in the early 1970s.

Figure 46 – Young elms line concrete walks by Reflecting Pool, May 1929. MRC 2-40.

Two sets of three 6-foot-wide paths, extending in radial lines from the Rainbow Pool, provided connections to selected points along the main walks on both the north and south sides and promoted circulation around the pool. A concrete plaza area surrounded the Rainbow Pool, which gave visitors a closer vantage point from which to enjoy the fountain display.

Although narrow and not designed or designated for pedestrians, visitors also used the granite coping of the Reflecting Pool as an alternative walkway between the Lincoln Memorial and the Washington Monument.

Access to the Reflecting Pool from the memorial consists of a series of granite steps descending from the circle and adjacent sidewalk down to the pool's western

Figure 47 - Concrete walks radiating from the Rainbow Pool, April 1933. MRC 2-126.

edge. The line of these steps continues the line established on the opposite side of the circle by the main approachway leading up to the memorial structure. One broad stairway and two narrow stairs comprise the series. In 1924 a flagstone paver walk, leading from the set of narrow granite stairs and across the grassy strip bordering the pool, connected the descent to the granite coping. These pavers were removed in the 1970s, and in their place a new plaza was installed. As discussed earlier, two other sets of stairs, constructed of concrete, flanked the larger granite series. These steps connected the concrete paths between the double rows of elm trees with the walk around the memorial circle.

A comparison of circulation patterns from the 1920s to those in the 1990s shows relatively few changes. The most significant difference between the two time periods has been the replacement of the concrete surface on the elm walks with asphalt. This change was done in 1971. Other modifications concern the volunteer or social paths that once led from the main walkways to the temporary Navy and Munitions buildings on the north side of the pool and to the temporary government buildings on the south. These paths probably developed during the 1920s and 1940s,

Figure 48 – Reflecting Pool steps and plaza on west end of pool, November 11, 1996. LINC 11-13.

Figure 49 – Worn path adjacent to granite coping, June 1996. LINC 9-23.

respectively. When the temporaries were demolished in the 1964 and 1970, some of these pathways remained or were modified to meet the new circulation patterns for Constitution Gardens and the Vietnam Veterans Memorial. Another form of volunteer path has also developed in this area. Joggers and runners have worn dirt tracks on both sides of the paved walks. Joggers' paths have widened the pedestrian corridors along the Reflecting and Rainbow pools beyond the original design intent. Pedestrians have also created a worn path along the granite coping on the north and south sides of the pool. Near the Rainbow Pool, the initial layout of paths have been modified with the removal of one sidewalk. A portion of a paved walk located southwest of the plaza between the Reflecting and Rainbow Pools has been removed. Other additions to the circulation system responded to the need for an accessible route from Lincoln Circle down to the north and south Reflecting Pool walkways. Accessible ramps were installed on the north and south sides, outside of the concrete stairs leading down from the circular drive. See Map 12 *Reflecting Pool area - Pedestrian Circulation* for graphic representation of contributing and non-contributing features.

Contributing Features	**Noncontributing Features**
1. Main paths that parallel the Reflecting Pool 2. Secondary paths to Rainbow Pool 3. Reflecting Pool steps from Lincoln Circle 4. Reflecting Pool granite coping	1. Nonhistoric paths to Korean and Vietnam war memorials 2. Nonhistoric paths over flood berm 3. Worn paths along main paths that parallel the Reflecting Pool 4. Western Reflecting Pool plaza

CONSTITUTION AVENUE

17TH STREET

SOURCES:
- U.S. NATIONAL PARK SERVICE, NACC RESOURCE MANAGEMENT, LIVETREE DATABASE, 10/96.
- FIELD INVESTIGATIONS, 1996.
- HISTORIC PHOTO DOCUMENTATION, NATIONAL PARK SERVICE, MARS
- NATIONAL PARK SERVICE MAP FILES, *SEE BIBLIOGRAPHY FOR MAP LISTING.*

NON-HISTORIC PATH TO VVM

COMPONENT LANDSCAPE BOUNDARY

FLOOD BERM

GRANITE COPING

REFLECTING POOL

RAINBOW POOL

LINCOLN MEMORIAL

LINCOLN CIRCLE

NON-HISTORIC PATH TO KWVM

COMPONENT LANDSCAPE BOUNDARY

INDEPENDENCE AVENUE

LEGEND**

- HISTORIC PRIMARY PATH
- HISTORIC SECONDARY PATH
- ABANDONED HISTORIC SECONDARY PATH
- HISTORIC UNDESIGNATED PATH
- NON-HISTORIC PATH

*** Historic Circulation Patterns determined from implemented plans 1914-1933*

SCALE ONE INCH EQUALS TWO-HUNDRED FEET

0 50 100 200 400

N

Map 12

PEDESTRIAN CIRCULATION
REFLECTING POOL AREA

CULTURAL LANDSCAPE REPORT
LINCOLN MEMORIAL GROUNDS
PREPARED BY: M. JOSEPH DATE: OCTOBER 1996

back of map 12

Structures

For the purposes of this report, the Reflecting Pool, Rainbow Pool and stairs down to the pools, are all considered structural features.

The McMillan Commission's plans for the Reflecting Pool show a cruciform shape, with the cross arms of the pool outlined by double rows of deciduous trees. In addition, a larger, squared-off form was designed for both the eastern and the western end of the Reflecting Pool. During the planning phase, the cross arms were temporarily eliminated and only the "jog" at the east end was incorporated into the final drawings. Frederick Law Olmsted, Jr. had urged the Commission of Fine Arts to modify the older plan in favor of a less ornate and a more simplified basin. Furthermore, the presence of the Navy and Munitions buildings on the north side of the Reflecting Pool prohibited the implementation of the cruciform plan on this side. The outline of the smaller pool had a more ornate design that was defined by a rectangle with two half circles on the north and south ends. The forms of both the Reflecting and the Rainbow Pools have remained intact since their construction was completed in 1924. However, continuous improvements in the waterproofing, as well as regular cleaning and maintenance have been necessary over the years. The waterproofing material was first replaced in 1929. Since 1981 the park service has attempted to reduce levels of maintenance by using an ecological program to manage the pools.

Figure 50 – Rainbow Pool fountain display, April 20, 1934. Photo by Kelly. MRC 2-108.

Fountains were installed in the smaller pool, in 1924. An oval pattern of 124 nozzles sprayed approximately 25 feet in the air towards the middle of the pool creating a rainbow affect on sunny days. In addition to these jets, two other clusters of nine jets on the north and south side of the pool towered above forming a fountain 40 feet high. A year later, the Commission of Fine Arts inspected the fountain and indicated that the fountain's height and intensity of spray obscured the views to the Lincoln Memorial and Washington Monument. A series of tests were conducted in 1934 to determine the most appropriate and effective display and to meet the CFA's requirements. In 1990 some of the nozzles were replaced with a straight head type. It is unknown if this has altered the jet display that was originally approved by the Commission of Fine Arts in the 1930s. Currently only the two clusters of jets on the north and south side of the pool are operating and the oval pattern on the outer edge of the pool is not used. Because of this the fountain no longer sprays at the height required to exhibit a rainbow effect but instead appears as a weak imitation of the past display.

Figure 51 – Rainbow Pool fountain as it appeared on November 11, 1996. LINC 11-10.

Figure 52 - Temporary structures on grassy terrace by Reflecting Pool steps, November 11, 1996. LINC 11-22.

Another structural feature is the Reflecting Pool stairs. These wide stairs of granite and cobblestone panels were completed in 1922 at the same time as the stepped approachway leading to the Lincoln Memorial. Although the circular roadway separates the two series of stairs, they are visually connected by their alignment on the east/west axis and by their comparable use of materials and design. The park service enlarged the plaza area at the base of the steps in 1970 by removing the flagstone walks, installed in 1924, and by installing new concrete walks and cobblestone panels with granite block edging that extended from the steps to the edge of the pool coping. This construction is the only substantial addition to the original structural fabric. Once the current rehabilitation of the approachway to the memorial building is completed, the concrete and cobblestone patterns at the Reflecting Pool steps will compare unfavorably in their present broken and patched condition.

In addition to the main structural features of the Reflecting Pool area, there are temporary structures located both north of the Rainbow Pool and in the northwest corner of the plaza at the top of the granite stairs. These are owned by vendors who have obtained a special use permit to sell t-shirts and other products under a First Amendment ruling. To reduce the impact on cultural and natural resources the NPS has tried to limit where the vendors operate. The unsightly tents obscure the view along east/west axis from the memorial, the approachway, and the Reflecting Pool. See Map 13 *Reflecting Pool area - Structures* for location of structural features.

Contributing Features	**Noncontributing Features**
1. Reflecting Pool 2. Rainbow Pool 3. Reflecting Pool steps	1. Temporary structures for use by vendors

CONSTITUTION AVENUE

SOURCES:
- U.S. NATIONAL PARK SERVICE, NACC RESOURCE MANAGEMENT, LIVETREE DATABASE, 10/96.
- FIELD INVESTIGATIONS, 1996.
- HISTORIC PHOTO DOCUMENTATION, NATIONAL PARK SERVICE, MARS
- NATIONAL PARK SERVICE MAP FILES, *SEE BIBLIOGRAPHY FOR MAP LISTING.*

17TH STREET

FLOOD CONTROL BERM

FLOOD CONTROL BERM

COMPONENT LANDSCAPE BOUNDARY

NORTH REFLECTING POOL PATH

TEMPORARY STRUCTURE LOCATION

TEMPORARY STRUCTURE LOCATION

LINCOLN MEMORIAL

LINCOLN CIRCLE

PLAZA

REFLECTING POOL

PLAZA

RAINBOW POOL

HELICOPTER LANDING PAD

SOUTH REFLECTING POOL PATH

COMPONENT LANDSCAPE BOUNDARY

INDEPENDENCE AVENUE

SCALE ONE INCH EQUALS TWO-HUNDRED FEET

0 50 100 200 400

N

Map 13

STRUCTURES

REFLECTING POOL AREA

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996

back of map 13

Small-Scale Features

Benches. In the Reflecting Pool area, the earliest photographs show benches spaced evenly, approximately 50 feet apart, along the walkways and underneath the outer row of trees in the double rows of elms. A few benches were also placed under the inner rows of trees. All of the benches were situated facing the Reflecting Pool. Groups of benches were also placed around the Rainbow Pool for viewing the fountain in the summer months and for the use of ice skaters in the winter. The benches appear to have been moveable and not permanently mounted. The type of bench utilized during the 1920s and 1930s is similar to the present bench, a cast iron frame with a wooden slat seat and back. However, the smaller number of benches found along the walks today and their permanent, fixed positions reflect the change in contemporary uses. These changes include the removal of benches from around the Rainbow Pool and the reorientation of all seating underneath the inner rows of trees away from the Reflecting Pool, toward the walkways, facing the opposite benches under the outer rows of trees.

Figure 53 – Cast iron frame benches placed along elm walks, May 1929. MRC 2-48.

Figure 54 – Cast iron frame benches and tulip trash receptacles used today along elm walks, November 11, 1996. LINC 11-12.

Contributing Feature	**Noncontributing Feature**
1. Cast-iron frame wooden slat bench	1. Arrangement and overall number of benches

***Trash Receptacles*.** A limited number of trash receptacles were originally placed around the Reflecting Pool area. Photo documentation shows that a wire mesh trash can, placed directly on the ground, may have been the first type used. By 1964, the Park had introduced the wood and steel “tulip” style trash can. Although the *Streetscape Manual* recommends that a tulip style trash can for general refuse and one for recyclables be placed on each side of every bench, this arrangement has not been followed. There is an inconsistency in the spacing, and number of trash receptacles per bench, and it appears to be haphazard placement. Even though there is not the recommended number of trash cans along the walks, there still are twice as many receptacles as benches lining the main walks along the Reflecting Pool.

Contributing Feature	Noncontributing Features 1. Tulip style trash can 2. Tulip style recyclable can

Lighting. Original plans did not designate lighting for the walkways and the Reflecting Pool. In 1935, temporary flood lights were set up at the eastern end and along the south side of the pool for night ice skating. "Twin-Twenty" lamps and posts, the double globe streetlight located along all major streets between the Capitol and the Potomac, were placed along the 17th Street corridor between Constitution Avenue and the Tidal Basin in the 1930s. The only lighting provided for the pool area is that coming from the "twin-twenty" globes on 17th Street and from lights adjacent to the study area.

Lack of direct lighting around the pools accentuates their reflective quality. Because of the subdued effect, the reflection of the Lincoln Memorial and the Washington Monument at night is both a breathtaking and memorable experience. Light emanating from the memorial, which was first lit from the inside in 1929, and from the grounds of the Washington Monument reinforce the structures as focal points and provide the soft light for the pools. The contrast in light also underscores the visual relationship between the memorial and the monument. Exterior lighting for the Washington Monument was installed by 1931, while exterior lighting at the Lincoln was developed in 1969.[86]

Figure 55 - Reflecting Pool area devoid of lights. View from Washington Monument, April 1941. MRC 3-28.

Contributing Features 1. Twin-Twenty lamppost along 17th Street	Noncontributing Features

Paving Materials. The walkways on the north and south sides of the pools were initially constructed of concrete. Photo documentation shows evidence of a square control joint pattern in the walks, which may have been planned to add design interest to the surface. Sometime in the

late 1960s the northern walk was repaved with bituminous asphalt instead of the concrete. To make the paving consistent, the southern walkway was also repaved in 1974 with asphalt. Pavement around the Rainbow Pool and on the walks leading to this area required repair at this time as well, but the concrete material paving was retained. The sidewalk along 17th Street, east of the Rainbow Pool, was changed early in 1991, when the National Park Service replaced the concrete walk and curb with an exposed aggregate concrete paving and granite curb as specified in the *Streetscape Manual*. At the west end of the Reflecting Pool, the 1971 paving had used the same construction techniques used for the cobblestone panels on the main approachway steps, but had substituted concrete for granite in the area around the panels. Square pattern control joints were also designed for the area between the pool and the base of the Reflecting Pool steps. Individual granite block pavers were added along the inner side of the concrete steps leading to the main walkways to control erosion from dirt trails worn along the sides.

Contributing Features	**Noncontributing Features**
1. Concrete paving around Rainbow Pool	1. Asphalt paving for main allee path 2. Western Reflecting Pool plaza with cobblestone panels.

Drinking Fountains. Original plans did not call for drinking fountains in this area, however, three accessible drinking fountains are near the Reflecting Pool. Two are along the northern walk north of the Rainbow Pool and one is southwest of the Reflecting Pool along the southern walk. Other fountains are nearby at the adjacent playing fields on the south and near the Vietnam Veterans Memorial and Korean War Veterans Memorial.

Contributing Features	**Noncontributing Features**
	1. Haws drinking fountain

Signs. In the Reflecting Pool area, the park has placed four large interpretive signs (two on each side) that describe the Reflecting Pool. The large metal signs (white lettering on brown background) block the view of the feature they are describing and are out of scale with the surrounding landscape. New interpretive signs are proposed for this area and will be a low-profile, tamper-resistant type, wayside.

Figure 56 - Oversized interpretive signs by the Reflecting Pool, November 11, 1996. LINC 11-16.

Contributing Features	**Noncontributing Features** 1. Reflecting Pool interpretive sign

***Pedestrian Barriers*.** In pedestrian areas, three different types of barriers are used within the Reflecting Pool area: stake-and-rope; snow fence; and chain-link fence. Park maintenance has installed these fences for a variety of reasons but mostly for the control of visitor circulation. The stake and rope and/or snow fence provide temporary protection of newly seeded areas and control circulation during special events. Also the stake-and-rope appears to be a permanent feature around the Rainbow Pool, which marks a secure area around a helicopter landing pad on a grassy panel between 17th Street and the Rainbow Pool. Other temporary barriers are used seasonally, such as the chain-link fence, to prevent visitors from walking on newly seeded areas along the Reflecting Pool or to prevent visitors from entering the fireworks staging area in the Rainbow Pool area.

Figures 57 & 58 - Temporary snowfencing installed along pedestrian corridors to protect grass areas. Stake and rope installed on the flood berm to mark secure area for landing pad, November 11, 1996. LINC 11-11 & LINC 11-14.

Contributing Features	**Noncontributing Features** 1. All types of traffic and pedestrian barriers

Lincoln Memorial circle and radial roads

Vegetation

Radial roads and outer circle. In consultation with the Commission of Fine Arts and Frederick Law Olmsted, Jr (who was then serving on the Commission of Fine Arts) C.E. Howard, the landscape architect working for the Office of Public Building and Grounds, developed a tree planting plan for the area around the outside of the memorial circle and for the radial roads. The radial roads were eventually named 23rd Street NW, 23rd Street SW, Bacon Drive, and French Drive, with the two drives commemorating both the memorial's architect and the sculptor of the Lincoln statue. The 1916 plan featured a double row of trees, planted in opposite positions, on both sides of the radial roads. For the outer circle, the plan showed a single circular band of trees next to the circle in the grassy strip between the roadway and the sidewalk. Outside the sidewalk, four bands of trees were to be planted as though in concentric circles. However, in the second circular band, an incomplete curve of trees was indicated, which left a gap between the first and third band of trees.

Figure 59 - Aerial view of first phase of planting American elms along the radial and eastern side of Lincoln Circle, 1927. MRC 1-54.

When the first phase of the plan was implemented in the 1920s in the area east of 23rd Street, American elms (*Ulmus americana*) had been selected for the planting. Many trees were planted as "memorial trees" dedicated to outstanding individuals or groups as a living memorial. At that time, the proposed double row of oppositely planted trees on the radial roads was scaled back to planting in alternate positions, which reduced the number of trees and the density of the vegetation. The circular band of trees was followed for the eastern half of the circle. During the second phase in the 1930s, designers made minor changes to the 1916 scheme for the western portion of the outer circle. A single circular band edged the curb, but instead of a quadruple band of elms, they called for a less dramatic double band to complete the circular design.

One other area beyond the memorial circle, the Ericsson Memorial site, received its own landscape treatment. When the Ericsson site was completed at the terminus of 23rd Street SW in 1932, the granite platform for the statue and the four sets of steps radiating out from the base, were enhanced with conifers. Three types of junipers (*Juniperus horizontalis, Juniperus sabina* var. *tamariscifolia, Juniperus squamata* 'Meyeri'), each displaying different growth habits, were planted.

Figure 60 - Ericsson Memorial and newly planted junipers around base, c. 1932. MRC 1-136.

Since the National Park Service's stewardship began in 1933, it has attempted to maintain the original planting plan for the radial roads. Because Dutch elm disease (DED) has killed many American elms around the Lincoln Memorial, disease-resistant varieties have been planted to replace quite a few original trees. Although the number of mature trees growing along the radial roads varies, the spreading canopy of these trees remains an effective design element in the landscape.

Figure 61 - Remnant concentric row of elms around Lincoln Circle, between 23rd Street NW and Bacon Drive, March 1996. LINC 6-27.

Unlike the radial roads, the original planting pattern around the outer circle is almost entirely lost. Only a few remnant elms remain to suggest the old design. While the quadruple band on the eastern part of the circle is evident between 23rd Street NW and Bacon Drive and 23rd Street SW and French Drive, the areas between the two drives and the Reflecting Pool no longer show any evidence of the old tree pattern. In these two areas, the distinctive landscape plans for Constitution Gardens and Korean War Veterans Memorial have encroached upon the old concentric design for the elms. Here newer plantings of native understory trees are clustered beneath a mixed

canopy of oaks, zelkovas, and maples (*Quercus* sp., *Zelkova serrata*, *Acer* sp.). The development of these other sites with such different plant selections has significantly altered the character of the overall design for the Lincoln Memorial grounds and has compromised the integrity of the original plan. West of 23rd Street, only a remnant of the old double band of elms is in place. The single circular band of elms between the 23rd Street NW west to the Watergate area is entirely lost because of the realignment of the outer circle curb for the 1940s on-ramp road. However, the single circular band of trees between the roadway and the sidewalk is mostly intact for the southwestern portion of the outer circle.

Figure 62 - Inappropriate trees and shrubs, planted under canopy of American elms, November 11, 1996. LINC 11-27.

Figure 63 - Shrub planting at top of Reflecting Pool steps, December 1996. LINC 17-35.

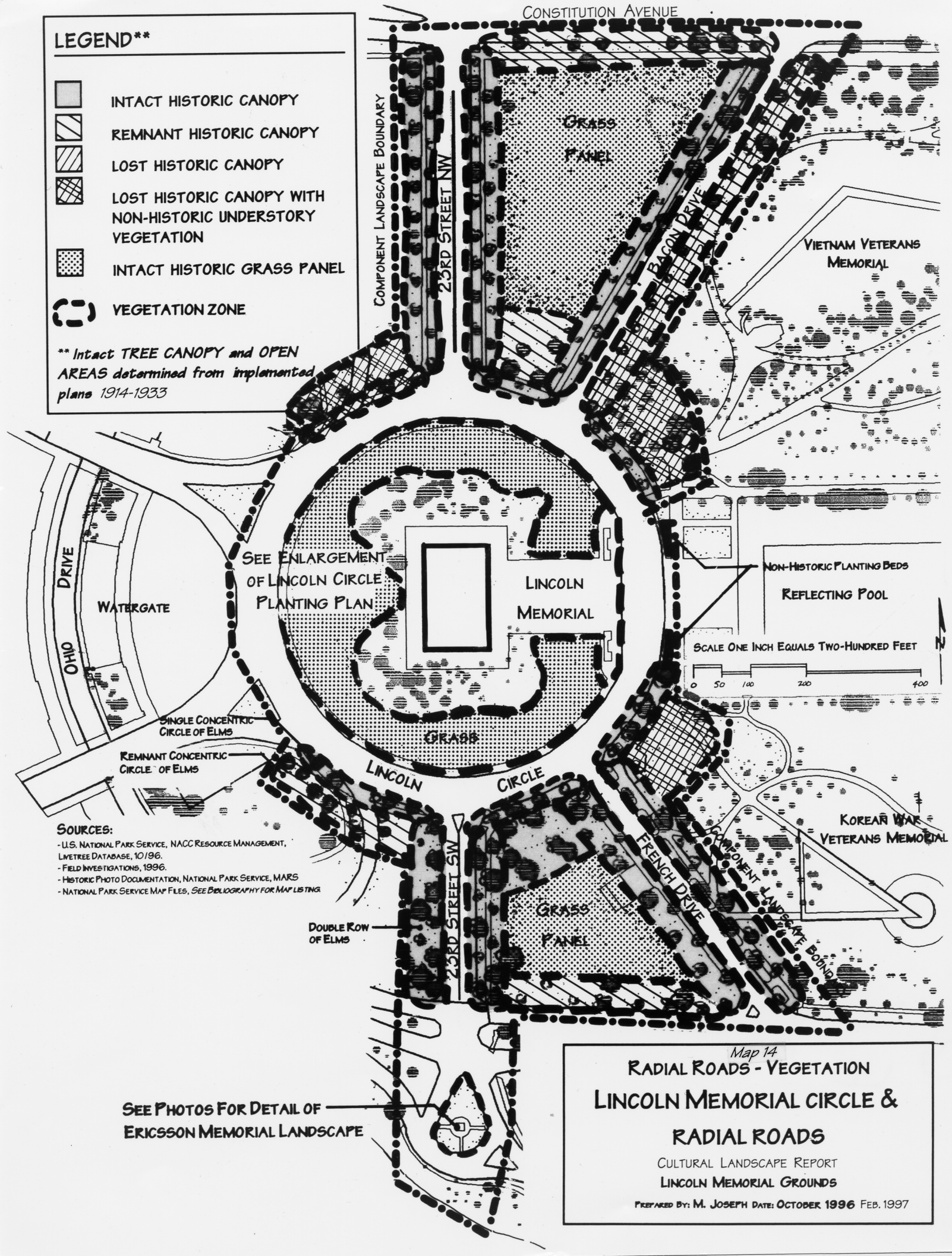
The only significant alteration to the original landscape plan occurred in 1953 when the outer edge of the circular roadway near the sidewalk above the Reflecting Pool was changed. Here a rectangular curb cut was eliminated, the circle was made continuous, and a pair of planting beds were installed on the north and south side of the sidewalk in the areas formerly shaped by the old squared-off curb. The park appears to have planted dwarf boxwood in the beds, which were replaced in 1977 with a little leaf holly, also known as inkberry (*Ilex glabra*.) At subsequent intervals, the park replaced the inkberry with Japanese hollies (*Ilex crenata*,) which occupy the planting bed today.

Around the Ericsson Memorial, the planting plan was changed substantially. Japanese holly replaced the original junipers, which once encircled the granite platform. Four walks, which radiated from the granite platform, also were lined with junipers, but these shrubs were also removed and now the walks are surrounded by grass. These changes have further downplayed the connection of the Ericsson Memorial to the Lincoln Memorial landscape.

Figure 64 – Replacement shrubs around Ericsson Memorial changes the character of the original planting, February 1997. LINC 18-8.

The radial roads and outer circle vegetation is segmented into zones which define the spatial composition of the tree canopy and location of the open grassy areas. By breaking the landscape features into smaller units, there is a better sense of the integrity from the original plan. See Map 14 *Radial Roads - Vegetation* for graphic representation.

Contributing Features	**Noncontributing Features**
1. Rows of American elms along radial roads 2. Remnant circular band of American elms around Lincoln Circle 3. Grass panels surrounded by rows of elms 4. Grass island surrounding Ericsson Memorial	1. Shrub planting bed at top of Reflecting Pool steps 2. Understory vegetation between Bacon Drive and the Reflecting Pool and French Drive and the Reflecting Pool 3. Japanese holly (*Ilex crenata*) planted around Ericsson Memorial



Map 14

RADIAL ROADS - VEGETATION

LINCOLN MEMORIAL CIRCLE & RADIAL ROADS

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996 FEB. 1997

Inner Circle. In contrast to the radial roads, plans developed for the area immediately inside the circle used a variety of broadleaf evergreen shrubs and trees as foundation plantings for the memorial building. Since the structure had been constructed on a raised terrace and elevated some 14 feet above grade, vegetation was needed to both soften the edge of the granite walls of the raised terrace and to provide large masses of green at the base of the wall. These schemes were developed to bring the building more in scale with its surrounding landscape.

Figure 65 - East side of Lincoln Memorial showing mature boxwood and yew shrubs, 1935, by Orren R. Louden. Used by permission from the National Geographic Society.

The first approved plan from 1920 showed plantings for the inner circle concentrated on the front, or east, side of the building, with a few shrubs along the north, south, and west sides. On the east side of the inner circle, two rectangular planting beds, each containing a granite bench and surrounded on three sides by walls of granite block, framed the entry to the memorial approachway. Two mature dwarf boxwood (*Buxus sempervirens* 'Suffruticosa') shrubs were planted within each of the walled beds beside the benches. Behind the benches a short dwarf box hedge served as a backdrop. An additional mature dwarf boxwood was placed adjacent to the far, outside wall of each planting bed. Behind the entry planting beds, hedges of dwarf boxwood lined the outer edges of the pavement along the entire length of the approachway. To accentuate the grade changes that occurred in the approachway, the design called for a larger dwarf boxwood to be placed adjacent to the successive sets of steps that marked each change in level. At the base of the raised terrace wall, groups of common boxwood (*Buxus sempervirens*) and English, Canadian, and Japanese yew (*Taxus* sp.) were planted. In addition to these massings, dwarf boxwood were planted in front of some the groups. The corners of the raised terrace wall were emphasized on the northeast and southeast with plantings extending out from the wall into

the grass lawn of the circular terrace. On the north and south sides, more openly planted specimens of American holly (*Ilex opaca*), common boxwood and English yew, were added to provide some greenery until a second planting phase could be completed. A mass planting of mugo pine (*Pinus mugo*) were added at the midpoints along the north and south sides where the transition between the first and second phase plantings would eventually occur. Another temporary measure included planting vines at the base and at the top of the raised terrace wall to quickly "green-up" a background for the less densely planted areas around the structure, especially on the west side.

Figure 66 - West side or rear of Lincoln Memorial showing newly planted foundation plantings, c. 1932. MRC 2-20.

The design in the second approved plan from 1931 was primarily for the rear of the memorial. Several broadleaf evergreen trees were selected for this side to supplement the overall planting and to create a different effect than that on the front. In addition to common box and dwarf box, American holly, and southern magnolia (*Magnolia grandiflora*) were used to complete the palette. To anchor the rear, magnolias were strategically sited, American hollies were intermixed near the magnolias and common and dwarf boxwood were massed in front of them. This arrangement also projected into the rear lawn area, at the corners of the raised terrace wall, as it did in the front. According to the plan, an area located at the mid-point along the rear side of the raised terrace wall was to be free of planting, leaving an opening in the vegetation and an unobstructed view from the top of the raised terrace out to the river and toward the Virginia shoreline.

Replanting around the memorial occurred in 1936 to replace failing shrubs, mostly boxwood, and to add additional dwarf boxwood groupings on the front. At this time the south side of the approachway was replanted with a new dwarf boxwood hedge, while on the north selected dwarf box replacements were made. A second effort to replace diseased and dead plants occurred in 1944. This plan proposed the removal of the boxwood hedge on both sides of the approachway. A combination of a low yew hedge and eight larger yews to accent, like the boxwood before, the grade changes at the different sets of steps were to be planted instead. Based on photo documentation, the eight larger yews were never planted, and only the low yew hedge was planted to replace the previous boxwood hedge. Another significant change was the removal of the mugo pines, which had been growing on the north and south sides of the raised terrace wall. The pines were replaced by *Taxus cuspidata* 'Nana,' a more horizontal growing yew species.

In 1976, the existing yew hedge was removed and replanted once again with a more compact variety, *Taxus* x *media* 'Densiformis.' In addition to this replanting, several dwarf boxwood were removed from the front and transplanted to other undocumented locations around the building. Twelve yews were added to screen ground-level floodlights, located on either side of the approachway. During the late 1970s, 35 additional dwarf boxwoods, seven American hollies, and 22 yews were planted in unspecified areas around the building as replacements or filler plantings.

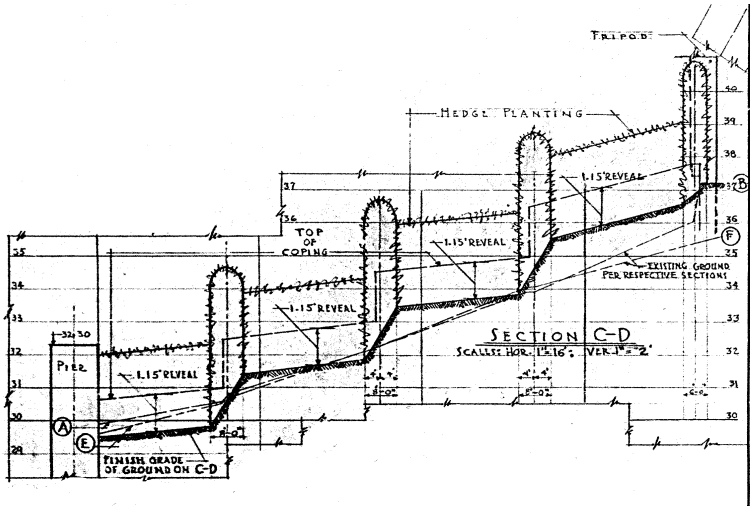


Figure 67 - Section showing desired character of replacement hedge along approachway, 1944. NPS Map 801/80347.

From the early 1930s to the 1980s, the front planting beds have been replanted several times. In the early years the dwarf boxwoods were replaced in-kind when they died. Sometime in the 1960s the low boxwood hedge was removed and replaced with a Japanese holly hedge. In 1976 the low holly hedge was replaced with original species, the dwarf boxwood. In a subsequent plan from 1977, the boxwood were proposed to be removed from the front planters and replaced with inkberry (*Ilex glabra*). It is not known if this change ever occurred. By 1994 the entire bed consisted of Japanese holly (*Ilex crenata*) edged with lilyturf (*Liriope spicata*). All the shrubs were removed during the 1995-1996 rehabilitation of the approachway and replaced in-kind in 1996.

The trees and shrubs surrounding the memorial currently exhibit different degrees of health and reflect a range of growing conditions. Along the front or east side, the plantings have suffered greatly from the effects of repeated construction activity and preparation for large-scale public events that have occurred in this area over time. The 1995-96 construction on the approachway has caused further damage to the foundation plantings. The lack of routine maintenance and regular pruning has also caused some of the plantings to appear ragged or

Figure 68- Existing west side foundation plantings, July 23, 1996. LINC 10-17.

overgrown. When the park revised the original plans by replacing the boxwood hedges with yews in 1945, they altered the character of the entry planting, yet retained some of the historic integrity by keeping a band of green hedge growing on both sides of the approachway. However, the addition of an American holly and the Japanese hollies to the front side and massings of yews to screen floodlights have further compromised the character of the planting design. Because replacement plantings have deviated from the original design, the landscape on the front side retains a lower degree of integrity. On the sides and rear of the memorial, the integrity of the plantings is mostly intact, although some boxwood planted near the magnolias and close to the raised terrace have been shaded out and are unhealthy, or have died. At the midpoint of the north and south sides, two thick masses of Taxus cuspidata 'Nana' provide the horticultural transition between the character of the two different planting areas. Even though these yews were planted to replace the original mugo pines, the design intent of keeping a lower growing conifer mass in this area is still evident. In other areas overgrown plant material, like some American hollies that were planted on either side of the horizontal-growing yew mass on the north face of the memorial, are encroaching upon the designed opening above the raised terrace. See Map 15 and Map 16 *Lincoln Circle - Vegetation* for the graphic representation of the front and back plantings.

Figure 69 - Existing yew hedge along approachway and accessible ramp, January 3, 1997. LINC 16-21.

Contributing Features	**Non-Contributing Features**
1. Intact historic planting around Lincoln Memorial 2. Grass on raised terrace 3. Grass on inner circle	1. Nonhistoric form and genus of planting around Lincoln Memorial 2. Nonhistoric location of planting around Lincoln Memorial

MATCH LINE

FRONT

LINCOLN MEMORIAL

GRASS

RAISED TERRACE

GRAVEL PATH

GRASS

RAMP

APPROACHWAY

RAMP

GRASS

LINCOLN CIRCLE

N

SCALE: ONE INCH EQUALS THIRTY FEET

0 5 15 30 60

TYPE OF PLANT

1	COMMON BOXWOOD	*BUXUS SEMPERVIRENS*
2	DWARF BOXWOOD	*BUXUS SEMPERVIRENS SUFFRUTICOSA*
3	YEW	*TAXUS SP.*
4	AMERICAN HOLLY	*ILEX OPACA*
5	SOUTHERN MAGNOLIA	*MAGNOLIA GRANDIFLORA*
6	ENGLISH HOLLY	*ILEX AQUIFOLIUM*
7	JAPANESE HOLLY	*ILEX CRENATA*
8	LILYTURF	*LIRIOPE SPICATA*
9	MUGO PINE	*PINUS MUGO*
10	PRIVET	*LIGUSTRUM SP.*

LEGEND--

INTEGRITY OF PLANTING

- INTACT HISTORIC PLANTING
- HISTORIC LOCATION / NON-HISTORIC GENUS
- HISTORIC LOCATION / NON-HISTORIC FORM AND GENUS
- HISTORIC LOCATION / MISSING SPECIMEN
- NON-HISTORIC LOCATION

3/2 EXISTING PLANT TYPE / HISTORIC PLANT TYPE

** *Intact* HISTORIC PLANTING *determined from implemented plans 1914-1933*

SOURCES

- DEWBERRY & DAVIS. EXISTING CONDITIONS SURVEY. 12/90.
- "EXISTING PLANTING PLAN LINCOLN MEMORIAL." NATIONAL CAPITAL REGION. 6/69. TIC 806/80231
- FIELD INVESTIGATIONS, 1996.
- "LINCOLN MEMORIAL SITE AND GRADING PLAN." SHEET 28 OF 54. 6/94. TIC 806/25001.
- NATIONAL PARK SERVICE MAP FILES, *SEE BIBLIOGRAPHY FOR MAP LISTING.*

Map 15

FRONT

LINCOLN CIRCLE - VEGETATION

LINCOLN MEMORIAL CIRCLE & RADIAL ROADS

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996 FEB. 1997

back of map 15

LEGEND--

INTEGRITY OF PLANTING

- INTACT HISTORIC PLANTING
- HISTORIC LOCATION / NON-HISTORIC GENUS
- HISTORIC LOCATION / NON-HISTORIC FORM AND GENUS
- HISTORIC LOCATION / MISSING SPECIMEN
- NON-HISTORIC LOCATION

3/2 EXISTING PLANT TYPE / HISTORIC PLANT TYPE

** *Intact* HISTORIC PLANTING *determined from implemented plans 1914-1933*

GRASS

10/2

10/2

GRASS

GRAVEL PATH

RAISED TERRACE

BACK

LINCOLN MEMORIAL

3/9

3/9

MATCH LINE

TYPE OF PLANT

1	COMMON BOXWOOD	*BUXUS SEMPERVIRENS*
2	DWARF BOXWOOD	*BUXUS SEMPERVIRENS SUFFRUTICOSA*
3	YEW	*TAXUS SP.*
4	AMERICAN HOLLY	*ILEX OPACA*
5	SOUTHERN MAGNOLIA	*MAGNOLIA GRANDIFLORA*
6	ENGLISH HOLLY	*ILEX AQUIFOLIUM*
7	JAPANESE HOLLY	*ILEX CRENATA*
8	LILYTURF	*LIRIOPE SPICATA*
9	MUGO PINE	*PINUS MUGO*
10	PRIVET	*LIGUSTRUM SP.*

SOURCES

- DEWBERRY & DAVIS. EXISTING CONDITIONS SURVEY. 12/90.
- "EXISTING PLANTING PLAN LINCOLN MEMORIAL." NATIONAL CAPITAL REGION. 6/69. TIC 806/80231
- FIELD INVESTIGATIONS, 1996.
- "LINCOLN MEMORIAL SITE AND GRADING PLAN." SHEET 28 OF 54. 6/94. TIC 806/25001.
- NATIONAL PARK SERVICE MAP FILES, *SEE BIBLIOGRAPHY FOR MAP LISTING.*

N

SCALE : ONE INCH EQUALS THIRTY FEET

0 5 15 30 60

Map 16

BACK

LINCOLN CIRCLE - VEGETATION

LINCOLN MEMORIAL CIRCLE & RADIAL ROADS

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996 FEB. 1997

back of map 16

Circulation

Vehicular Circulation. Traffic around the circle has been a concern since the circular roadway was opened to automobiles in the 1920s. Initially automobile traffic had access to Lincoln Circle, 23rd Street NW, Bacon Drive, French Drive, and 23rd Street SW. From B Street (Constitution Avenue) on the north and a service road on the south (the west bound lanes of Independence Avenue uses a portion of this older road), the two-way radial roads, connected to the one-way, counter-clockwise traffic around Lincoln Circle. When Arlington Memorial Bridge and its approaches were completed in 1932, and Rock Creek and Potomac Parkway was completed in 1936, the number of commuter routes for workers driving into the city increased and the volume of traffic rose dramatically. In the 1940s the construction of Independence Avenue through West Potomac Park created another vehicular connection. Increases in traffic and speeds of automobiles around Lincoln Circle lead to the decision to temporarily close the roadway to through-traffic between Bacon and French Drives during the height of the tourist season in 1972. This measure was taken to provide a safer crossing for visitors walking from the Reflecting Pool area to the approachway to the Lincoln Memorial. By closing a portion of the circle, the one-way counter-clockwise circulation was changed to two-way traffic between the Memorial Bridge approach and Bacon Drive.

Figure 70 - Rush hour traffic around Lincoln Circle, c. 1944. MRC 2-4.

Figure 71 - Traffic congestion on French Drive and Lincoln Circle, March 1996. LINC 6-34.

The portion between Memorial Bridge and French Drive remained one-way. In 1976 all vehicular traffic between 23rd Street SW and French Drive, with the exception of tour buses and taxis were permanently restricted from the circle. Jersey barriers and planters were placed to prevent vehicles from using the previous the route (See *Lincoln Memorial circle and radial roads – Small-Scale features – Traffic and Pedestrian Barriers* section for more information on these features).

Changing the circulation patterns around the circle had both a positive and negative impact on the site. By restricting vehicular access to the circle between Bacon and French Drives, park officials provided visitors a safer crossing point from the Reflecting Pool area and the memorial. But by closing part of the circle, all the traffic was concentrated on the western side, which created additional difficulties and hazards for pedestrians crossing the road from the inner circle to the Watergate plaza area. See Map 17 *Lincoln Memorial circle and radial road - Vehicular Circulation* for graphic representation of contributing and noncontributing features.

Contributing Features	**Noncontributing Features**
1. Lincoln Circle 2. 23rd Street NW 3. 23rd Street SW 4. Henry Bacon Drive 5. Daniel Chester French Drive 6. Constitution Avenue	1. Independence Avenue 2. Clockwise direction of traffic on Lincoln Circle 3. Limited access on French Drive and Lincoln Circle

Parking Areas. West Potomac Park has always had a limited number of parking spaces in the areas surrounding the memorials and the Washington Monument. Onstreet parking is not only limited in the Lincoln Memorial study area, but also is restricted around the circle and the radial roads. Although a few spaces once existed on the circle where the outer curb line was squared by the design of the Reflecting Pool steps (these had never been designated for automobiles during the initial or subsequent planning). However photo documentation indicates longstanding use of this area in front of the memorial for diagonal and, later, parallel parking. In 1953 the squared curb edge was removed to create a continuous circular curb around the outside of the roadway. The curb change displaced that small parking area.

Figure 72 - Unofficial parking area at top of Reflecting Pool steps and Lincoln Circle, 1929. Used by permission from the National Geographic Society.

To accommodate public transportation services, areas were designated for a taxi stand and for local bus stops around the Lincoln Memorial area in the 1930s. The exact location of these dropoffs have yet to be determined. However, the taxis stand was probably at the southeast side of the circle's inner curb.

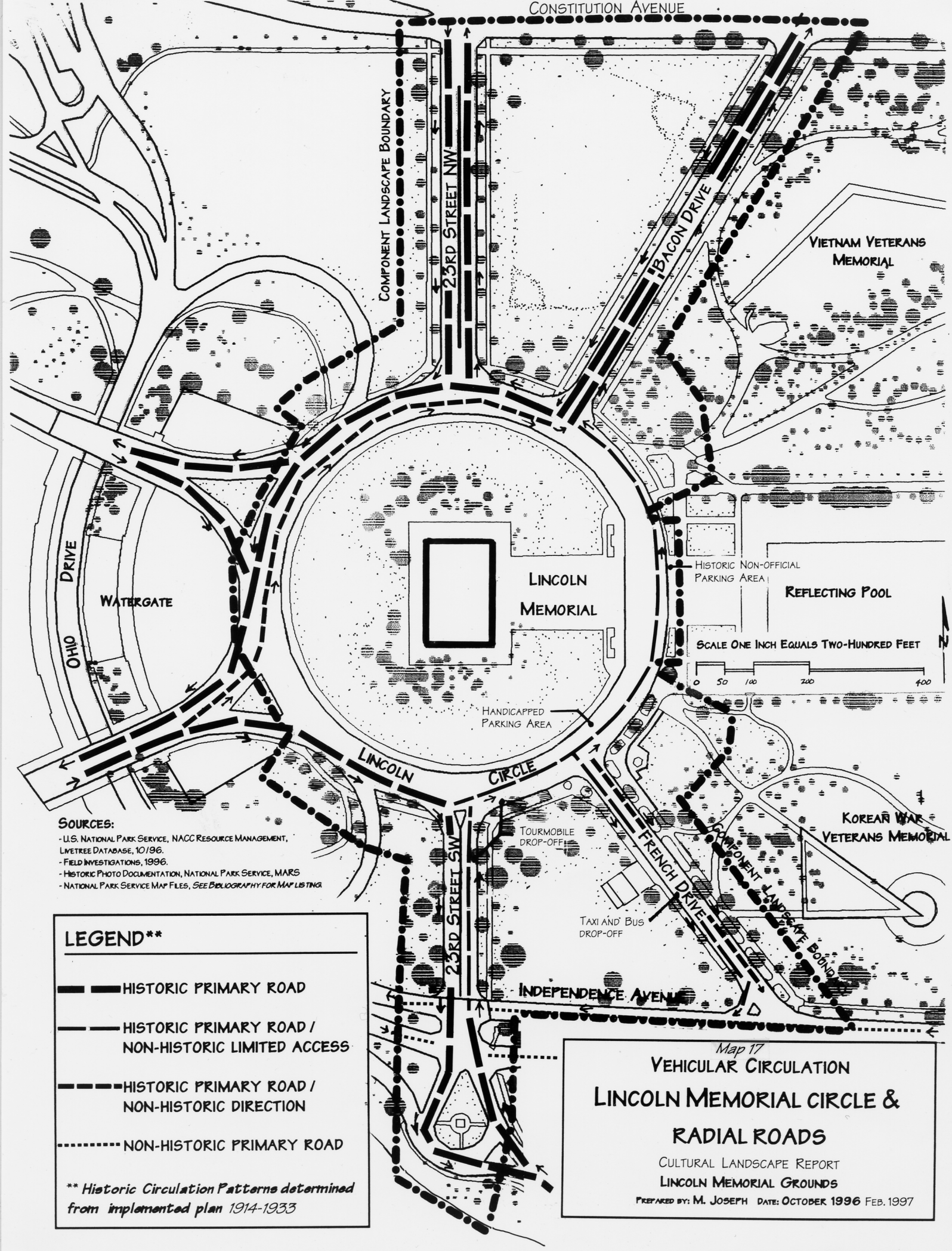
During the 1932 development of Arlington Memorial Bridge, the bridge commission proposed a parking area between 23rd Street SW and French Drive near the Ericsson Memorial. The lot was never installed. The construction of Independence Avenue through the proposed location in the 1940s prevented any further implementation of such a plan.

Figure 73 - Bus and taxi drop off along French Drive, July 23, 1996. LINC 10-14.

Parking remains a critical problem, as it was during the early development of the area. Along the southeastern portion of the circle's inner curb, eight handicap parking spaces have been designated. "Tourmobile" stops are on the outer curb of the circle, between 23rd Street SW

and French Drive and along the eastern side of 23rd Street SW. Other tour buses and taxis are directed to French Drive for all dropoffs and pickups, making this area very congested. See Map 17 *Lincoln Memorial circle and radial roads - Vehicular Circulation* for location of parking areas.

Contributing Features	**Noncontributing Features** 1. Parking around inner circle and radial roads



SOURCES:

- U.S. National Park Service, NACC Resource Management, Livetree Database, 10/96.
- Field Investigations, 1996.
- Historic Photo Documentation, National Park Service, MARS
- National Park Service Map Files, *See Bibliography for Map listing*

LEGEND**

- HISTORIC PRIMARY ROAD
- HISTORIC PRIMARY ROAD / NON-HISTORIC LIMITED ACCESS
- HISTORIC PRIMARY ROAD / NON-HISTORIC DIRECTION
- NON-HISTORIC PRIMARY ROAD

** *Historic Circulation Patterns determined from implemented plan 1914-1933*

Map 17

VEHICULAR CIRCULATION

LINCOLN MEMORIAL CIRCLE & RADIAL ROADS

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996 FEB. 1997

Pedestrian Circulation. The 1916 plans developed for the memorial and the surrounding areas showed a range of treatment for the various types of proposed pedestrian and vehicular routes. The plans established a hierarchy of circulation for both use and materials, with the more formal in the immediate vicinity of the memorial. The main entry to the memorial, the approachway, was paved with granite and cobblestone, creating a stately surface (further detail is presented in the "Structures" discussion for the Lincoln Memorial circle and radial roads). Around the Lincoln Circle the material changed, a 15-foot-wide concrete sidewalk was placed along the inside circumference, while a concrete sidewalk, only 8 feet wide, was placed between the first and second circular band of elms, along the outside circumference. Lawn surrounded both walkways. Along the radial roads, the proposed concrete walks paralleled both sides of the four different streets. Each sidewalk was lined by a row of elms planted in an alternate design. Lawn also surrounded these walks. For the first phase of construction in the 1920, sidewalks were installed on both sides of 23rd Street NW and Bacon Drive, around the entire inner circle and on the eastern portion of the outer circle, between 23rd Street NW and SW. The final construction phase for the circle sidewalks did not occur until 1973, when an 8-foot-wide concrete walk was installed on the western circumference of the outer circle between 23rd Street NW and SW, replacing a temporary granite paver surface installed about 1950. Since 1973, portions of this walk have been replaced and repaved with bituminous asphalt. Circulation along French Drive has the least amount of design integrity of all the radial roads. Here, the proposed sidewalk alignment was never fully implemented. On one side of the road the walkway was placed between the alternating rows of elms, but on the opposite side (southwestern curb) the walk was installed in the 1960s along the curb edge.

Figure 74 - Initial sidewalk installation, February 13, 1922. U.S. Navy photo. MRC 1-61.

Accessible routes to the memorial were installed in 1976 paralleling the approachway on the north and south sides. These routes were improved in 1995 and 1996, which provided a safer pathway to the base of the raised terrace. (A more detailed discussion about the accessible routes to the memorial can be found in the "Structures" section for the Lincoln Memorial circle and radial roads.)

Figure 75 - Painted crosswalks from Lincoln Circle to the sidewalks along the radial roads and approaches, 1934. MRC 1-67.

At Lincoln Circle, pedestrian crosswalks were painted at all intersections with the radial roads and the approachway (1932 photo documentation). However, from that time forward, pedestrians crossing from any point on the circle encountered hazardous traffic conditions, especially on the east side of the memorial. To provide a safe, unimpeded place for crossing, the National Park Service began limiting vehicular traffic to the eastern segment, between French and Bacon Drives, during the 1972 tourist season.

Although changes in width and materials have occurred, the pedestrian circulation still follows the same patterns from the 1930s. Some of these material changes are reflected in the reinstallation of 1970s work at the entrance to the Korean War Veterans Memorial, in the earlier 1980s development of the Vietnam Veterans Memorial, and in Bicentennial projects. These

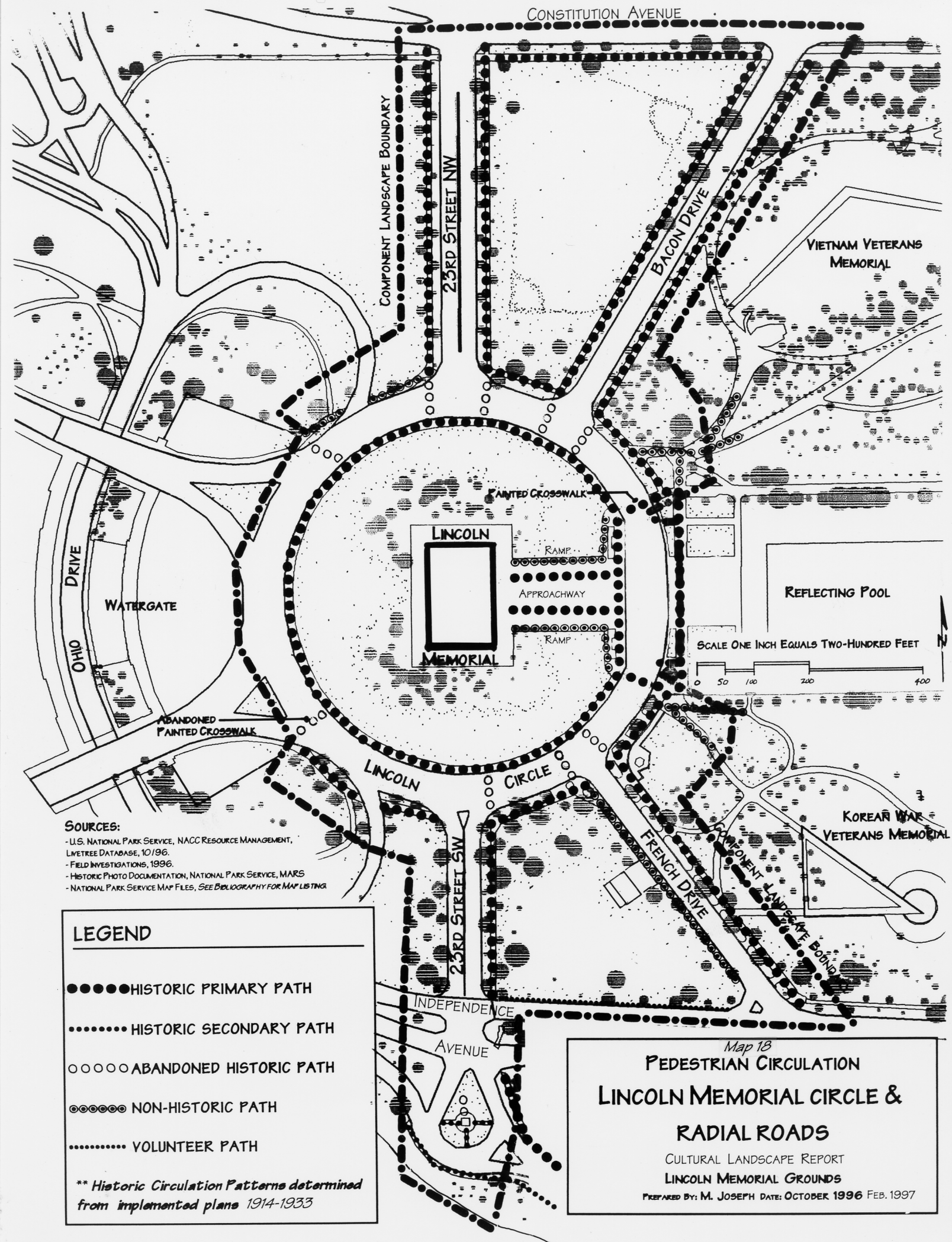
Figure 76 - Eight-foot wide sidewalk along 23rd Street NW, January 3, 1997. LINC 16-13.

Figure 77 - Nonhistoric layout of sidewalk along west side of French Drive, December 5, 1996. LINC 13-13.

changes included extending sidewalks to the curb edge, the creation of individual tree planting beds with raised curb edges, and the addition of post and chain barriers to protect both the trees and the adjacent lawn. Many of the changes to the outer circular sidewalk and French Drive have been compounded with further additions brought on by the Korean War Veterans Memorial and by the perpetuation of nonhistoric site features. On the opposite side of the Reflecting Pool steps, at the Vietnam Veterans Memorial, the sidewalk width has been maintained, but it too is edged

with post and chain. See Map 18 *Lincoln Memorial circle and radial roads - Pedestrian Circulation* for graphic representation of contributing and noncontributing features.

Contributing Features	**Noncontributing Features**
1. Sidewalks along both sides of 23rd St. NW and Bacon Drive 2. Sidewalks on northeast side of French Drive and east side 23rd St. SW 3. Inner circle sidewalk 4. Outer circle sidewalk 5. Approachway 6. Sidewalk along south side of Constitution Avenue	1. Nonhistoric paths to Korean and Vietnam Memorials 2. Accessible routes north and south of approachway 3. Sidewalk on southwest side of French Drive 4. Volunteer path along Independence Avenue



SOURCES:

- U.S. National Park Service, NACC Resource Management, Livetree Database, 10/96.
- Field Investigations, 1996.
- Historic Photo Documentation, National Park Service, MARS
- National Park Service Map Files, *See Bibliography for Map Listing.*

LEGEND

- ●●●●● HISTORIC PRIMARY PATH
- ••••••• HISTORIC SECONDARY PATH
- ○○○○○ ABANDONED HISTORIC PATH
- ⊙⊙⊙⊙⊙⊙ NON-HISTORIC PATH
- •••••••••• VOLUNTEER PATH

*** Historic Circulation Patterns determined from implemented plans 1914-1933*

Map 18

PEDESTRIAN CIRCULATION

LINCOLN MEMORIAL CIRCLE & RADIAL ROADS

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996 FEB. 1997

Structures

Figure 78 - Approachway and Lincoln Memorial, January 3, 1997. LINC 16-20.

Figure 79 - Reconfigured accessible ramp to Lincoln Memorial, July 23, 1996. LINC 10-7.

Since the opening ceremonies in 1922, the Lincoln Memorial, dedicated to honor Abraham Lincoln, has been a symbol of the national capital and also a symbol of the reconciliation between North and South. It is the most important structural feature in the study area. Only a few structural changes have occurred since 1922, and these have been concentrated on the eastern face of the memorial. A series of steps and platforms, which make up the approachway, serve as the main entrance to the memorial. The approachway descends toward Lincoln Circle in a series of four platforms, each separated from the next by three granite steps. Each platform is a tripartite composition of a central area paved with granite, flanked by panels of smooth cobblestone, set in mortar bed, surrounded by granite block pavers. The bottom section consists of eight granite steps flanked on both sides by granite pedestals. The entire approachway system is supported by a concrete structure, pinned to bedrock.

Improvements were made to the approachway entrance in the 1970s, based on the Commission of Fine Arts approval. On the north and south sides, ramps, paved in exposed aggregate concrete, were installed to make the memorial more accessible for people unable to use the approachway steps. The ramps began at the outer granite pedestals at the inner circle sidewalk and continued behind the planting beds and turned 90 degrees to run parallel to the approachway along the outside edge of the yew hedges. They ended at the base of the raised terrace. The southeast entrance in the raised terrace wall led to an elevator and an exhibit space, as well as the restrooms. The northeast entrance was closed to the public.

Through the years the cobblestone panels have deteriorated, mostly due to freeze-thaw cycle. Park maintenance has responded by patching the deteriorated areas with a variety treatments. The unsightly appearance of this repair work for the cobblestone and safety concerns for visitors walking on the irregular surface, in addition to the structural problems, poor drainage, and lack of expansion joints, prompted the National Park Service to restore the entire approachway structure in 1995-1996. A few additions and alterations were made to the approachway area during this project. The cobblestone panels were removed and constructed in the same fashion as the original, with the exception that the stones were set to a greater depth in mortar to deter the

stones from dislodging. Also the ramps were redesigned to meet current accessibility standards according to the Americans with Disabilities Act (ADA) and provide a wider path for visitors. The new ramps have a more gentle slope (5%) and are 9 feet wide, 3 feet wider than the old ramps. As a result of the reduced slope of the ramps, the coping on the planting bed retaining walls needed to be raised 11 inches. Another course of granite and new granite coping (due to the deteriorated state of the original coping) were placed on top of the existing walls. The last change to the structure was the realignment of the ramps where they met the inner circle sidewalk. The previous ramps had a blind curve where the ramp and sidewalk came together. This situation was corrected to give visitors a clearer view when descending the ramp. Although the ramps are not historic, the National Park Service treated this area with the same respect for the historic fabric as they did for the main entrance steps by integrating the redesign of the ramp into the original approachway design. By using granite paving instead of exposed aggregate for the ramp surface, and by defining the edge of the ramps with granite coping, the ramps appear to be a part of the approachway.

The only other significant structure outside the Lincoln Circle is the Ericsson Memorial. This memorial is a granite statue designed to commemorate John Ericsson, the designer of the iron-clad warship *U.S.S. Monitor*, famous for its use during the Civil War. In 1926, a site was chosen for the Ericsson Memorial south of the Lincoln Memorial at the terminus of 23rd Street SW. The statue and granite platform were installed in 1927. The landscape around the base was completed in 1932 as part of the Arlington Memorial Bridge construction installation. Vehicular traffic circled around the statue where 23rd Street SW and the Ohio Drive met. The stones for the granite platform and steps leading up to the memorial have become dislodged overtime and are hazardous to visitors today.

Other structures outside of Lincoln Circle deal with visitor services. A concession stand was placed between the Reflecting Pool and French Drive in 1965. By 1992 two kiosks and a food concession trailer were located in this area. In 1993 the trailer was torn down and a new trailer

Figure 80 - Refreshment stand along French Drive, December 5, 1996. LINC 13-18.

Figure 81 - Gift shop kiosk along French Drive, January 3, 1997. LINC 16-25.

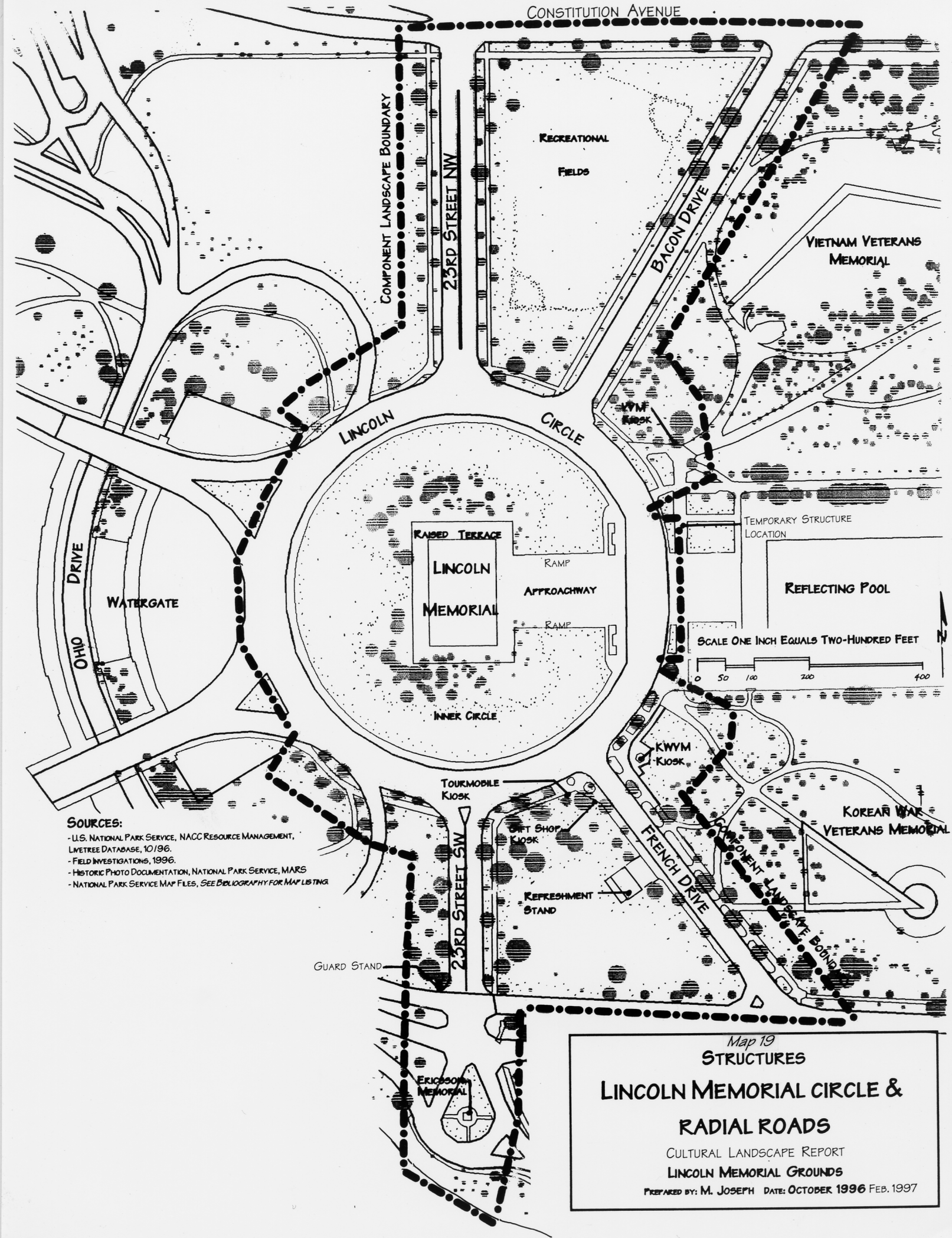
was placed on the west side of French Drive, because of the construction of Korean War Veterans Memorial in this section. A permanent location for the food and souvenir concession services has yet to be decided. In 1983 between the Reflecting Pool and Bacon Drive, the National Park Service placed an information kiosk to respond more effectively to questions about the newly constructed Vietnam Veterans Memorial. A similar type of information kiosk was constructed in 1996 for the Korean War Veterans Memorial at the southeast corner of French Drive and Lincoln Circle.

Several temporary structures associated with First Amendment rights are located along the northeast segment of the outer sidewalk of Lincoln Circle near the Reflecting Pool steps. The tents belong to groups selling t-shirts and other memorabilia in support of Vietnam War Veterans.

Figure 82 - Guard Stand at the intersection of Independence Avenue and 23rd Street SW, December 5, 1996. LINC 13-8.

Another minor structure is a guard stand at the intersection of Independence Avenue, Ohio Drive, and 23rd Street SW. After the completion of Independence Avenue in the 1940s, the National Park Service placed this 5-foot by 5-foot structure to provide shelter for a traffic officer. The officers controlled the traffic light and setup barricades at this intersection to direct one-way traffic on the Rock Creek and Potomac Parkway during rush-hour. It is rarely used today. See Map 19 *Lincoln Memorial circle and radial roads - Structures* map for location of structural features.

Contributing Features	**Noncontributing Features**
1. Lincoln Memorial	1. Approachway ramp
2. Approachway	2. Service and concession structures
3. Ericsson Memorial	3. Temporary structures for use by vendors
	4. Guard stand



SOURCES:

- U.S. NATIONAL PARK SERVICE, NACC RESOURCE MANAGEMENT, LIVETREE DATABASE, 10/96.
- FIELD INVESTIGATIONS, 1996.
- HISTORIC PHOTO DOCUMENTATION, NATIONAL PARK SERVICE, MARS
- NATIONAL PARK SERVICE MAP FILES, *SEE BIBLIOGRAPHY FOR MAP LISTING*

Map 19

STRUCTURES

LINCOLN MEMORIAL CIRCLE & RADIAL ROADS

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996 FEB. 1997

Small-Scale Features

***Benches*.** The earliest photographs show benches around the outer sidewalk of the eastern segment of the circle, facing the memorial. From subsequent photographs, it does not appear that benches were initially placed along the sidewalks lining the radial roads. In the 1960s benches were placed in the areas around concession stands and bus dropoffs to provide seating for visitors. Benches were also concentrated along the outer circle sidewalk between Bacon Drive and the Reflecting Pool and between the Reflecting Pool and French Drive. When the Vietnam Veterans Memorial was completed in 1982, additional benches were placed along the newly created path linking this new memorial to the Lincoln. When the concession trailer was removed from its site between the Reflecting Pool and French Drive to the southwest side of French Drive, all the concession area benches were also removed and relocated with the structure. The type of bench used during the 1920s and 1930s is similar to the present bench, a cast-iron frame with a wooden slat seat and back. In response to the changes in visitor needs, benches are no longer evenly distributed over the wider Lincoln Memorial area as was done originally, but are concentrated near concession activities.

Figure 83 - Cast iron frame benches were placed along the outer circle sidewalk, June 25, 1931. MRC 2-70.

A granite bench is on both sides of the approachway, set back into the front planter beds. The bench is more a part of the formal structure of the Lincoln Memorial than as a separate site feature.

Contributing Features	**Noncontributing Features**
1. Cast iron frame, wooden slat bench 2. Granite bench	1. Location of cast iron frame benches

Trash Receptacles. In the earliest photographs of the Lincoln Circle area, trash receptacles are not evident. However, photos do suggest that a wire-style receptacle was in use by the 1930s. In the 1960s a “tulip” style receptacle made of wooden slats, secured by a steel band with a metal can insert, were placed around the inner circle sidewalk at regular intervals and placed around the eastern segment of the outer circle sidewalk, also at regular intervals. As with the benches, trash receptacles were concentrated near the concession trailer. When the trailer was relocated,

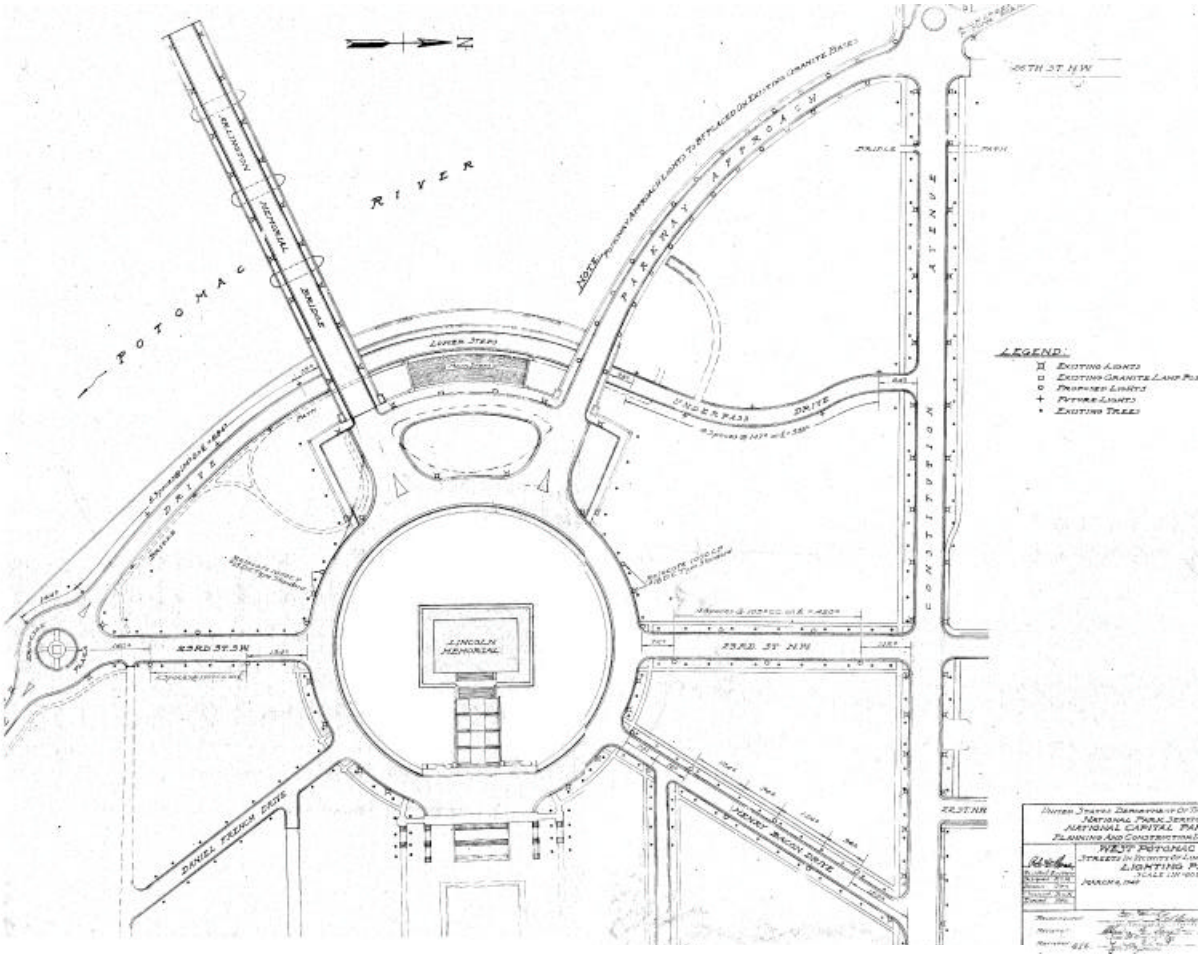
the receptacles were also moved to French Drive. Generally trash receptacles and receptacles for recyclables are placed next to every bench that is along French Drive. Wire-type trash receptacles have been placed near ballfield backstops located in the grassy areas on the north between the radial roads. A variety of trash receptacles were found on the approachway during a study conducted in the early 1990s. The selection found there at that time included the "tulip," a pre-cast concrete trash receptacle and an upright metal type. These same three types are still used along the approachway. A tall white metal cylinder-type stands at the base of the approachway steps. A “tulip” has been positioned in both of the approachway planting beds on either side of the granite benches. And several pre-cast concrete trash receptacles are positioned at every elevation change for the approachway. None of the receptacles are compatible with the formal setting of the Lincoln Memorial.

Figure 84 - Two types of trash receptacles located in the front planter by a granite bench, July 23, 1996. LINC 10-5.

Figure 85 - Pre-cast concrete trash receptacles along approachway, December 15, 1996. LINC 13-24.

Contributing Features	**Noncontributing Features**
1. Wire type trash receptacle	1. Tulip style trash receptacle 2. Tulip style recyclable receptacle 3. Pre-cast concrete trash receptacle 4. Tall metal trash receptacle

Lighting. In Henry Bacon's original vision for the Lincoln Memorial, the structure and the surrounding grounds were to be lit exclusively by moonlight. Shortly thereafter, Bacon conceded to the installation of street lamps around the outer circumference of the Lincoln Circle and along the radial roads. The "Washington Globe" lights were selected. These were made up of an acorn, lamp style, and a cast-iron post. The post was painted a light gray color. Spaced approximately 75 feet apart on the traffic circle, the primary function of the streetlights was to provide illumination for the roads and walkways around the Lincoln Memorial, and not to light the interior of the memorial. Eighteen-foot high lampposts were placed around the circle to provide greater amount of illumination, since they were to be placed only along the outer circle. Subsequent improvements to the lighting occurred in 1927 when the CFA approved a plan to provide lighting in the statuary chamber. Another street lighting plan developed in 1940 refined the first plan. A few existing posts were relocated along the outer edge of the circle and a shorter version of the "Washington Globe" streetlight was installed along all the radial roads except French Drive. Shorter 16-foot posts were spaced alternately at even intervals, varying between 96 feet to 110 feet on-center, depending on the length of the radial road. The last major change



Map 20- Lighting Plan for West Potomac Park, 1940. NPS Map 76-321

was in 1969, when flood and spot lights were installed near the raised terrace wall to illuminate the exterior of the memorial structure. In 1972 the National Park Service proposed a lighting plan for French Drive, but it was never implemented. At some point after 1933, the lamppost were painted black, which differs drastically from the original light gray color.

Since 1969 no further additions have been made to the lighting for this area, but 16-foot Washington Globe lights were installed to illuminate the adjacent sites for the Vietnam and Korean Memorials. The soft light from these adjoining sites does change the nighttime character from what it was historically. The National Park Service is currently reassessing the existing installation for both the interior and exterior lighting of the Lincoln Memorial. Recent illumination studies have suggested improvements for lighting the statuary chamber, the interior murals, the colonnade, superstructure, and entrance approachway. Because most of the existing streetlights around the circle and radial roads still meet contemporary needs, the studies have not recommended changing the "Washington Globe" arrangement. With the exception of French Drive and where lampposts have not been maintained, the integrity of the lighting plan is still present, except for the darker color of the lamppost.

Contributing Features	**Noncontributing Feature**
1. 18-foot Washington Globe lamppost, outer circle 2. 16-foot Washington Globe lamppost, radial roads	1. Floodlights around Lincoln Memorial raised terrace wall (pole and base units) 2. Washington Globe lamppost, Korean War Veterans Memorial 3. Nonhistoric color of the "Washington Globe" lamppost

Paving Materials. Originally all the sidewalks and curbs were concrete except for the approachway entrance, which were granite with cobblestone panels. However, the sidewalk around the inner circle had a scrubbed finish on the surface, while the outer sidewalk and the radial roads walks had a smooth finish. Unfortunately, due to subsequent repaving in the 1950s, 1970s and 1980s, no original sidewalk remains in the area. Recommendations for sidewalks and curbs in the *Streetscape Manual* specify a granite curb and exposed aggregate concrete as the preferred material for all sidewalks within the Lincoln Circle area. A hodge-podge of paving materials currently covers most of the pedestrian routes. These range from asphalt, granite block pavers, and exposed aggregate concrete to smooth concrete, all of which give the area an informal and undignified appearance. One other major change to the historic fabric was the installation of granite block pavers at the top of the Reflecting Pool steps in 1953, when the curb for the circular road was realigned.

Unlike the sidewalks surrounding the Lincoln Memorial, the approachway has retained its original fabric. An ongoing approachway rehabilitation project has addressed the deteriorated condition of the cobblestone panels. All of the cobblestones have been relaid and any loose granite stones have been reset. A subsequent addition to the historic approachway fabric are the granite accessible routes which flank the main walk on the north and south sides. Further detail

about the approachway rehabilitation project is found in the "Structures" section for the Lincoln Memorial circle and radial roads.

Contributing Features	**Noncontributing Features**
1. Concrete sidewalks, grid scored 2. Granite, cobblestone approachway	1. Exposed aggregate concrete sidewalks, for the outer, inner, and radial road sidewalks 2. Granite block pavers at top of Reflecting Pool steps, along outer circle curb 3. Asphalt sidewalk, portion of outer sidewalk

Drinking Fountains. The 1916 design did not specify the use of drinking fountains, but according to photo-documentation, the Office of Public Buildings and Public Parks did installed drinking fountains along the outer circle by 1927. In 1996 two of the original concrete drinking fountains were documented to be adjacent to the outer sidewalk on the segment located between Bacon Drive and 23rd Street, NW and near the southwest corner of the intersection of Constitution Avenue and 23rd Street, NW. An accessible drinking fountain was installed at the lower end of each of the two ramps constructed along the memorial approachway in 1976. However, these were removed when the ramps and approachway were rehabilitated in 1995-1996. When reviewing the proposed modifications to the approachway, the CFA commented on the inappropriate design of the fountains at this particular location. Presently, the two old concrete fountains, a single accessible drinking fountain located southwest of the southern Reflecting Pool walk (1995), as well as accessible fountains near the adjacent playing fields on the south, and at the entrances to the Vietnam and Korean War Memorials all provide water to visitors. The newer fountains conform to current design standards for West Potomac Park and the Mall.

Figure 86 - Concrete drinking fountain located between 23rd Street NW and Bacon Drive, January 3, 1997. LINC 16-16.

Contributing Features	**Noncontributing Features**
1. Concrete drinking fountains	1. Haws drinking fountain

Signs. In the 1930s, the National Park Service continued the efforts of the Office of Public Buildings and Grounds (OPBG) and Office of Public Buildings and Public Parks (OPBPP) by providing a marker for the majority of memorial trees within the Lincoln Memorial area. A bronze shield, inscribed with the names of the dedicated individual or group, were embedded into a concrete base. There were three different installations proposed for the markers; flush to the ground; raised up above the ground on a slant; and a post above ground, straight. Over the years the markers have been damaged and removed or buried by grade increases near the base of the trees. Repair and replacement of the damaged markers stopped in the 1960s. Because of the lack of support for the maintenance of the memorial tree program in the Lincoln Memorial area, only two markers are left. Both of the markers are located between French Drive and 23rd Street SW. Since the creation of the first planting plan in the 1916 up until the implementation of the landscape design for the west side of the memorial in 1932, memorial trees and the markers have been a important site feature of the commemorative landscape.

Figure 87 - Memorial planting shield located along the Lincoln Circle, April 1996. LINC 7-2.

Figure 88 - Bronze sign placed along approachway, April 16, 1952. MRC 1-44.

In the 1950s and 1960s, a bronze sign placed in a central location on the approachway, indicated the visiting hours for the Lincoln Memorial. It appears that the low-profile sign was never permanently mounted to the paving.

Today contemporary styled signs help guide visitors to their destinations. At the top of the Reflecting Pool steps, a sign depicts an overall map of the mall. Other signs direct visitors to rest rooms at the memorial and "Tourmobile" bus stops. All other signs (regulatory) are directed toward vehicular traffic.

Contributing Features	**Noncontributing Features**
1. Two memorial tree markers located between French Drive and 23rd Street SW	1. Overall map of the mall 2. Regulatory signs

***Traffic and Pedestrian Barriers*.** A variety of traffic barriers are used to control vehicular traffic around the circle. These include concrete planters, jersey barriers and flexible delineators. All the barriers add visual clutter and detract from the formal and geometric setting around the circle.

For pedestrian areas, four different types of barriers are used: post and chain; stake and chain; stake and rope; and snow fence. Park maintenance has installed these fences for a variety of reasons, but overwhelmingly for the control of visitor circulation. The most formal and most predominant is the post and chain. Most of the posts are installed in a metal sleeve set in the ground for easy removal. Although the second type, the stake and chain, is less widely used, it also prevents pedestrians from walking on grass and in planting beds. The other types, the stake and rope and/or snow fence, provide temporary protection of newly seeded areas and control circulation during special events.

Figure 89 - Planter barriers on Lincoln Circle, December 5, 1996. LINC 13-20.

Figure 90 - Stake and chain barrier along French Drive, December 5, 1996. LINC 13-15.

Contributing Features	**Noncontributing Features**
	1. All types of traffic and pedestrian barriers

***Bike Racks*.** The increasing popularity of bicycles has prompted the National Park Service to place a few bike racks in the Lincoln Circle area. Two racks are located near the Vietnam Veterans Memorial information kiosk. Here, a separate concrete pad was provided as a base for

the racks. Two additional “ribbon style” bike racks were installed in 1996 at the entrance to the Korean War Veterans Memorial.

Contributing Features	**Noncontributing Features** 1. Bike racks

Telephones. Telephones have always been associated with visitor services. Previously, public telephones were on the southeastern side of the outer circumference of the Lincoln Circle. Telephones are now found along French Drive near the concessions trailer**.**

Figure 91 - Telephones located near refreshment stand along French Drive, July 23, 1996. LINC 10-11.

Contributing Features	**Noncontributing Features** 1. Telephone bank on French Drive

Watergate area

Vegetation

Figure 92 - Aerial view of Watergate planting beds during installation of plants, July 29, 1932. U.S. Army Air Corps photo. MRC 1-134.

As part of the early development of park land along the Potomac River, Frederick Law Olmsted, Jr. recommended a selection of trees to line the newly completed shoreline drive. In keeping with the riparian character of the vegetation found along the shore, Olmsted suggested trees such as "black and yellow birches," "white and laurel-leaved willow," "Sycamore and American Elm," and even pecan trees, planted in groupings, to supplement the existing willow trees. Whether these trees were ever planted along the road, has yet to be determined. However, documentation indicates that American elms once lined the drive. Most of the elms were subsequently moved to new locations near the Lincoln Circle and the Watergate area during their development in the 1920s and 1930s. In the 1930s James Greenleaf served as the consulting landscape architect for the Arlington Memorial Bridge Commission. Greenleaf, in turn, directed Irving Payne, landscape architect from the Office of Public Buildings and Public Parks, in formulating a final planting plans for the Watergate steps area. Payne's plan included some of the same species planted within the Lincoln Circle, such as American holly, yew, and boxwood. These were planted in an informal arrangement in the beds formed by the north and south plaza walls located on either side of the Watergate steps and the bridge and parkway abutments. To further frame the view toward the Potomac River and to supplement the broadleaf evergreens and coniferous shrubs, white pines (*Pinus strobus*),

Figure 93 - View of native planting on slope near the north plaza wing wall, July 19, 1933. MRC 2-80.

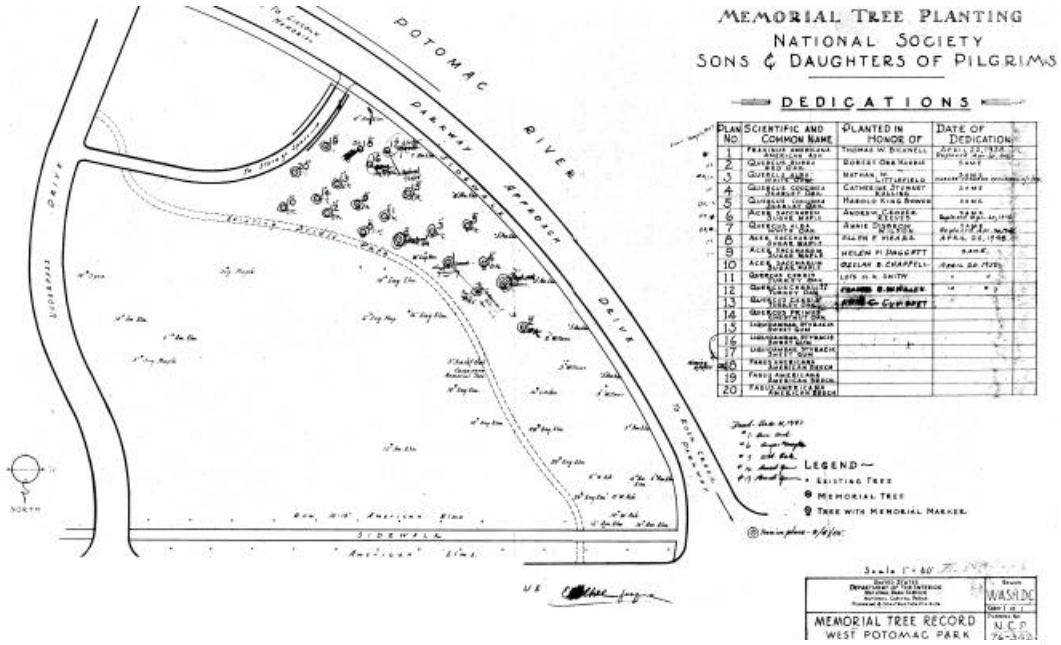
bald cypress (*Taxodium distichum*), deodar cedar (*Cedrus deodara*), swiss stone pine (*Pinus cembra*), and mugo pine trees were added for height and mass to the far slopes adjacent to the north and south wing walls. Pink and white dogwoods (*Cornus florida*) were also added to provide interest during all seasons. Other native understory plantings, such as redbud (*Cercis canadensis*), birch (*Betula* sp.), and sassafras (*Sassafras albidum*), were proposed for both sides of the wing walls, but were probably never planted.

Figure 94 - Riparian vegetation planted along portions of the Potomac River shoreline, December 5, 1996. LINC 13-11.

Figure 95 - Informal planting of memorial tree grove (naturalistic grove), January 3, 1997. LINC 16-10.

Other proposals specified a continuation of informal plantings of weeping willows (*Salix* x *elegantissima*) and understory vegetation along the river's edge. Because only a few of these trees were ever planted, the density of vegetation intended for this area never fully developed. As a result, open views to the river have persisted and are now preserved for the enjoyment of pedestrians, bicyclists, and drivers using routes along the shoreline.

The greater the distance from the symmetrical design of the circle and the radial roads, the more informal the proposals for treatment became. The planting plans for the recreational areas west and northwest of the memorial were therefore informal in character. A grove of native, deciduous trees were planted here in the 1930s and 1940s as part of the memorial tree program. The exception to this was the row of American elms that lined the northeast side of Parkway Drive from the north Watergate wing wall to the terminus of Constitution Avenue. Again, as in the other informal areas, understory plantings were proposed but never planted during the initial stages of development. Subsequent additions planted in the 1970s, 80s, and 90s have changed the naturalistic quality of the area. These include a yew hedge established to act as a screen and barrier near the volleyball courts, Kousa dogwoods (*Cornus kousa*) planted under a formal row of elms along Parkway Drive; and a large grove of Yoshino cherry trees (*Prunus x yedoensis*) installed to mark both sides of Ohio Drive, north of the Watergate steps, near the northwestern corner of West Potomac Park.



Map 21 - Memorial tree plan for naturalistic grove, 1938 rev. 1955. NPS Map 801/80235.

Along Constitution Avenue, a double row of American elms lined the road. At the western terminus, the formality continued. Two elms were planted in a small grassy area, and a circular planting bed surrounded by pavement marked the end of the avenue. Even after the realignment of Constitution Avenue in the 1960s, for the construction of the off ramps for the Roosevelt Bridge, a line of elms still follow the old alignment to the Potomac shoreline, where the terminus has remained unchanged since its construction in the 1930s. The only possible change to the terminus are seasonal flowers that have been added to create interest to the formal circular bed. There is no documentation on how this circular area was proposed to be used after its installation.

Figure 96 - Old Constitution Avenue terminus and remnant row of elms, January 3, 1997. LINC 16-5.

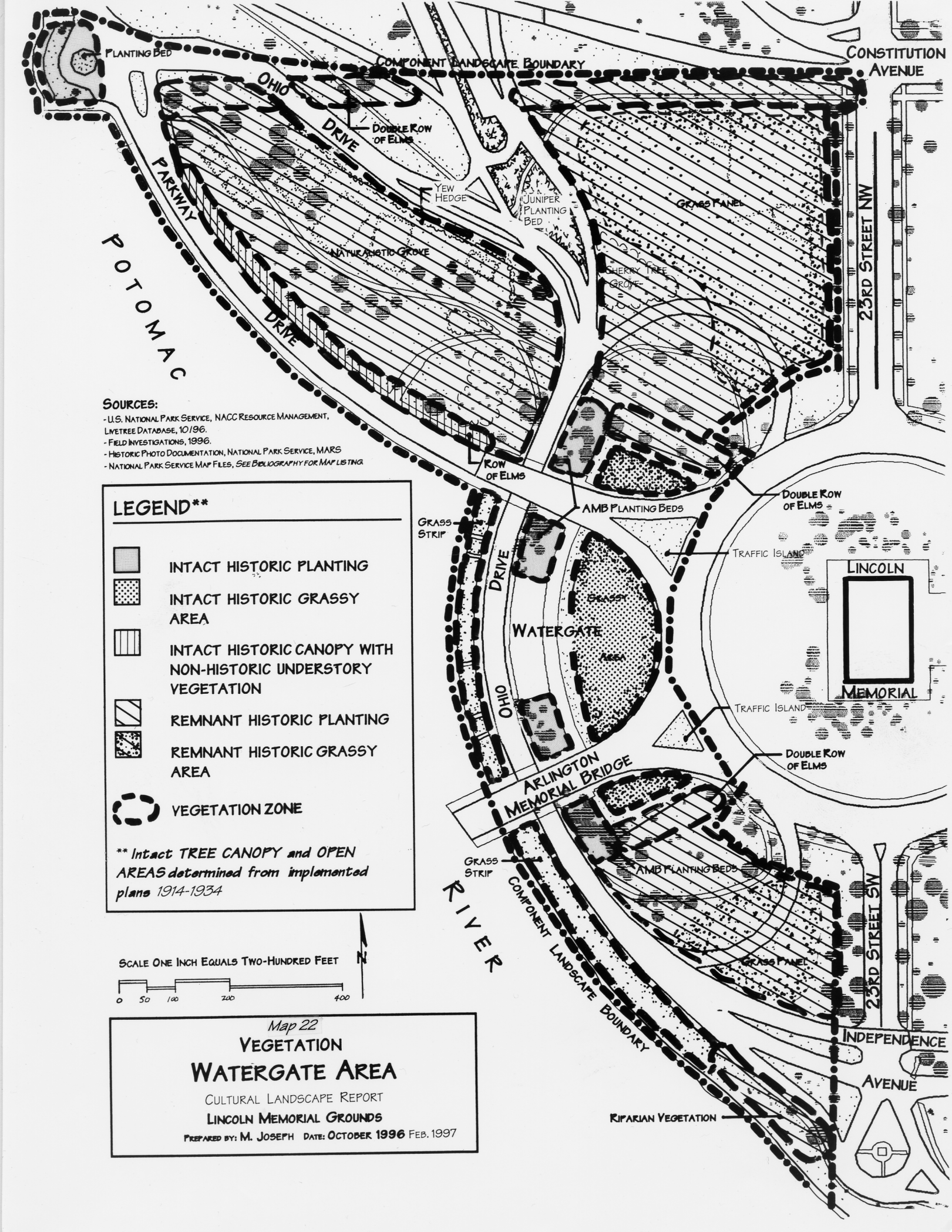
Even with the changes in the landscape, much integrity from the original Arlington Memorial Bridge Commission planting plan remains. The transition from the more formally planted drives to the informal groupings of shrubs and trees on the grassy slopes is still intact. The tall picturesque white pines, bald cypress, and deodar cedars continue to frame the view from the top of the Watergate steps across the Potomac to the Virginia shoreline. Some flowering dogwoods still survive underneath these large trees, though these natives have been replaced in recent years with Kousa dogwood, which have a different, less open growth habit.

Figure 97 - White pines, American elms and mugo pines frame view to Arlington Memorial Bridge, January 3, 1997. LINC 16-31.

In one of the few areas where a formal geometric landscape treatment is not aligned to the road or street, the integrity of the plantings have been compromised by a lack of maintenance. This oversight has occurred just beyond the north wing wall, where only portions of the old double row of American elms remains. In other formal planting arrangements, the design integrity is still intact. Along Parkway Drive a single row of American elms still line the sidewalk. And although Constitution Avenue was realigned in the 1960s to accommodate access roads to the Theodore Roosevelt Bridge, a double row of elms marks the old road alignment near the original western terminus.

The vegetation in the Watergate area is segmented into zones which define the spatial composition of the tree canopy and location of the open grassy areas. By breaking the landscape features into smaller units, there is a better sense as to the extent of the integrity of plantings for this component landscape, based on the original layout. See Map 22 *Watergate area - Vegetation* for graphic representation.

Contributing Features	**Noncontributing Features**
1. Watergate area planting on both sides of each approach road (Arlington Memorial Bridge and Parkway Drive) 2. Double row of American elms on south side of old alignment of Constitution Avenue 3. Row of American elms on northeast side of Parkway Drive 4. Remnant naturalistic grove, memorial trees, northeast of Parkway Drive 5. Grassy areas Watergate plaza 6. Remnant grassy panels west of 23rd Street 7. Intact planting bed, Constitution Avenue terminus 8. Riparian planting along Potomac River shoreline 9. Grass strip along Potomac River shoreline 10. Remnant double row of American elms, north and south of the Watergate wing walls	1. Understory planting along row of American elms Parkway Drive 2. Cherry tree grouping 3. Yew hedge beside volleyball courts 4. Junipers planted in median by the Theodore Roosevelt Bridge on/off ramps



SOURCES:

- U.S. NATIONAL PARK SERVICE, NACC RESOURCE MANAGEMENT, LIVETREE DATABASE, 10/96.
- FIELD INVESTIGATIONS, 1996.
- HISTORIC PHOTO DOCUMENTATION, NATIONAL PARK SERVICE, MARS
- NATIONAL PARK SERVICE MAP FILES, *SEE BIBLIOGRAPHY FOR MAP LISTING.*

LEGEND**

- INTACT HISTORIC PLANTING
- INTACT HISTORIC GRASSY AREA
- INTACT HISTORIC CANOPY WITH NON-HISTORIC UNDERSTORY VEGETATION
- REMNANT HISTORIC PLANTING
- REMNANT HISTORIC GRASSY AREA
- VEGETATION ZONE

*** Intact TREE CANOPY and OPEN AREAS determined from implemented plans 1914-1934*

SCALE ONE INCH EQUALS TWO-HUNDRED FEET

0 50 100 200 400

N

Map 22

VEGETATION
WATERGATE AREA

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996 FEB. 1997

Circulation

Vehicular Circulation. The development of a shoreline drive, with bridle and foot paths, along the Potomac River shoreline in 1907, marks the beginning of road construction for this component landscape. When the development of more formal roads around the Lincoln Memorial occurred in the 1920s, the shoreline road was modified to accommodate these changes. Remnants of the old roadway are still visible along sections of present-day Ohio Drive, southeast of the Ericsson Memorial.

Figure 98 - Aerial view of completed road system for the Watergate area, July 1937. U.S. Navy photo. MRC 1-64.

In the fall of 1931, B Street North was widened, improved and renamed Constitution Avenue. The new route for Constitution Avenue lay slightly north of the old B Street and the historic 1791 shoreline. At the far western end of Constitution Avenue, at the river's edge and its intersection with Rock Creek and Potomac Parkway and 26th Street, NW, a terminus point was designed with a round planting bed and turnaround area for automobiles.

By 1932, the area directly west of the Lincoln Memorial had been transformed by an expansion of the shoreline behind a new seawall and by the construction of the abutment for Arlington Memorial Bridge, the Watergate steps and plaza and Parkway Drive or the approach road for Rock Creek and Potomac Parkway. The formal design of the approaches to the Lincoln Memorial from Arlington Memorial Bridge and Rock Creek and Potomac Parkway both emphasized and framed the open axis across the river to Arlington Cemetery and the Arlington House. Two small traffic islands were located where the approaches met the circular drive. At the Watergate plaza area, a road connected the two approaches. This road primarily functioned as a parking area for concession vehicles during the Watergate concerts, and otherwise limited parking

occurred here. The only other available parking locations in the Watergate area were along the northeast side of Parkway Drive. To manage the originally unanticipated automobile traffic at Lincoln Circle from the bridge entrance and the parkway approach, the riverside drive, known as Ohio Drive, was routed directly in front of the Watergate steps and through underpasses constructed under the Arlington Memorial Bridge and the parkway. The northern end of the drive (then referred to as Underpass Drive) was then rerouted through the golf course area in the northwestern part of West Potomac Park, where it intersected with Constitution Avenue just east of the terminus point. During the same time period, a service road for park vehicles, which was designed to provide access to a storage area located under Parkway Drive, was constructed between Constitution Avenue and the underpass road.

Figure 99 – Aerial of Independence Avenue and cloverleaf pattern before construction of Theodore Roosevelt Bridge, January 27, 1960. MRC 1-108.

Significant road improvements occurred in the 1940s when the D.C. Department of Highways and the Public Works Administration constructed the western extension of Independence Avenue through West Potomac Park. The new extension met the drive (Ohio Drive) north of the Ericsson Memorial and followed an easterly route on an alignment of an older east/west park road. At this time, a cloverleaf configuration was also constructed north and south of the Watergate steps plaza to accommodate the increase in traffic and to provide safe on/off ramps from Ohio Drive to Lincoln Circle and the approaches. The traffic islands at the circle were enlarged at this time to control traffic from the approaches to Lincoln Circle. The previously granite block pavers filling in the islands were removed in favor of grass.

The last major change in vehicular circulation occurred in 1964 with the completed construction of a segment of a proposed inner loop freeway and the Theodore Roosevelt Bridge across the Potomac River. The impact of a new network of roads on Constitution Avenue, west of 23rd Street, was significant. The on/off ramps required for the bridge and freeway made the previous configuration of Constitution Avenue impossible to maintain. The Constitution Avenue approach to the formal terminus was thus eliminated in favor of curving ramps and new access roads. In 1984 the road at the top of the Watergate steps was removed and sodded over, but the granite curb remained along the sidewalks edge.

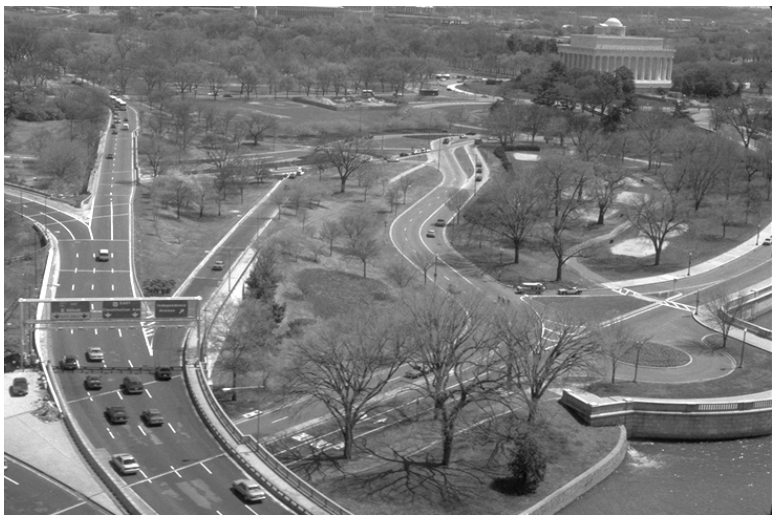


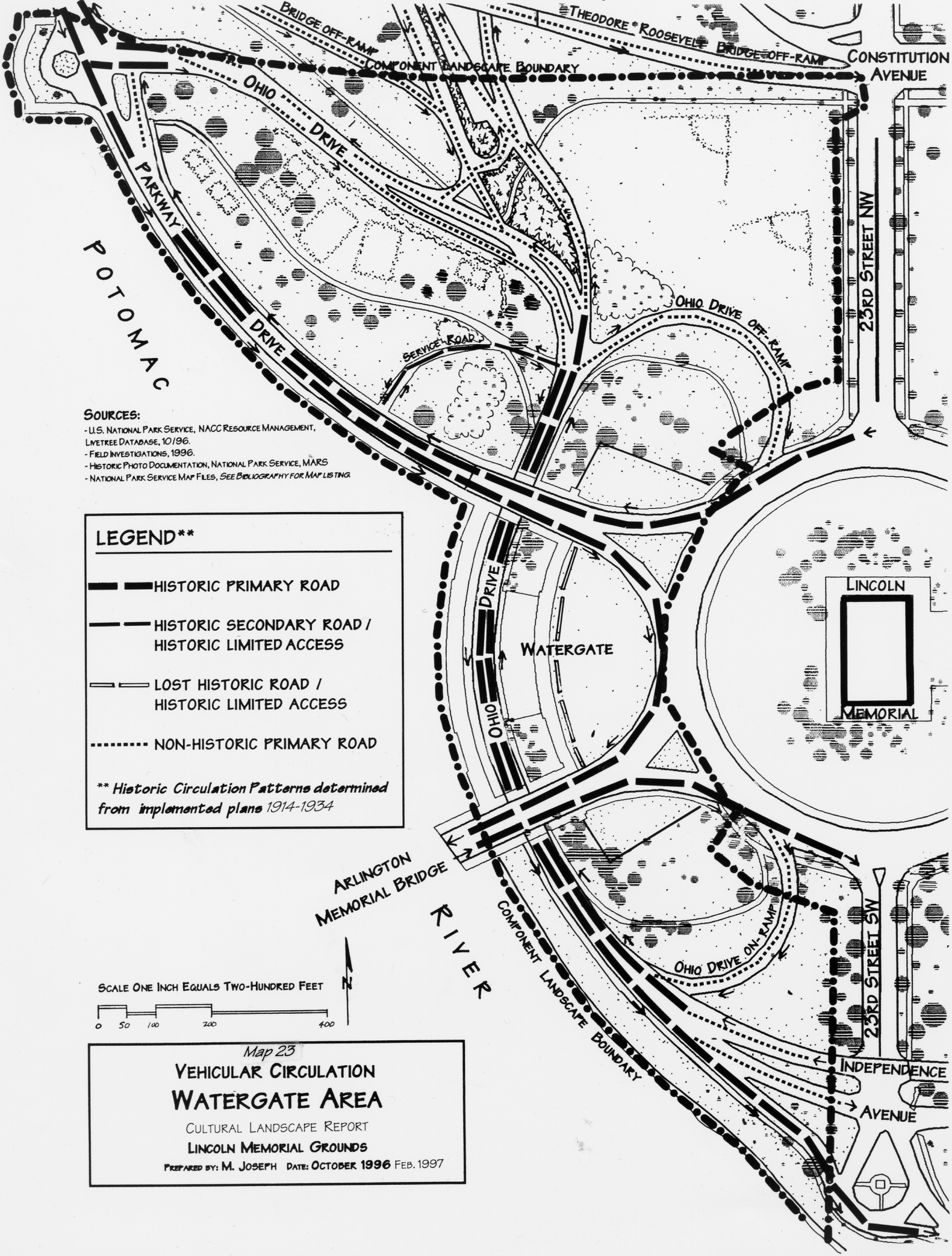
Figure 100 - Aerial view of Roosevelt Bridge and its connection to Constitution Avenue and Ohio Drive, April 1996. MRC 3-27.

Figure 101 - Ohio Drive (Riverside Drive) and underpass for Arlington Memorial Bridge, June 1996. LINC 9-11.

Again the traffic islands were modified and enlarged a second time, and remained an open grassy area.

Although much of the symmetrical and formal road plan outlined first in the McMillan Commission Plan of 1902 and incorporated later into the design for the Arlington Memorial Bridge, Rock Creek and Potomac Parkway, and the Watergate remains intact, the changes brought by the extension of Independence Avenue and the construction of the Roosevelt Bridge and freeway segment, did alter the historic landscape. Most of these changes have occurred north of the Watergate area, where in the 1940s a cloverleaf ramp was added and in the 1960s Constitution Avenue and Ohio Drive were reconfigured. Changes in vehicular circulation south of the Watergate plaza have had a less dramatic impact on the landscape around Lincoln Circle. Here, only a cloverleaf ramp was constructed. See Map 23 *Watergate area - Vehicular Circulation* for graphic representation of contributing and non-contributing features.

Contributing Features	**Noncontributing Features**
1. Arlington Memorial Bridge 2. Parkway Drive 3. Ohio Drive 4. Service road to storage area 5. Remnant Constitution Avenue terminus	1. Independence Avenue extension 2. On and off ramps at Ohio Drive (cloverleaf pattern) 3. Theodore Roosevelt Bridge on and off ramps 4. Size of traffic islands on Lincoln Circle



Map 23

VEHICULAR CIRCULATION
WATERGATE AREA

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996 FEB. 1997

Pedestrian Circulation. As a part of the development of a shoreline drive after the turn of the century, bridle trails and pedestrian paths, designed to parallel the road, were incorporated into the overall plan for the roadway. The existing system of paths was modified in the 1930s when the layout of the roads was changed as part of the construction of Arlington Memorial Bridge and Rock Creek and Potomac Parkway. Plans called for a bridle trail to wind through the golf course area in the northwestern corner of West Potomac Park near the parkway, to cross the underpass drive on the north side of the bridge plaza, to pass directly in front of the Watergate steps, to continue southeast along the underpass drive along the slope, or to curve up around the slope of the south wing wall of the bridge plaza toward a second route, which followed the inbound lane on Arlington Memorial Bridge. Along its route, the trail surface was mostly a soil base. However, in the underpasses and in front of the Watergate steps, the trail was paved in square granite blocks.

Figure 102 - Completed sidewalk and bridle trail by south plaza wing wall, June 9, 1933. MRC 1-75.

In contrast to the curving bridle trail on the south side of the bridge approach, two pairs of concrete sidewalks connected to the straight walks on both sides of the bridge and the parkway approach but did so by following the right angles of the north and south wing and plaza walls. The continuation of the bridge and parkway balustrades, with built-in benches, on top of the wing and plaza walls added a high degree of formality to this pedestrian area and gave visual definition to the outer edge of the plaza. The far walks, with their 90-degree turn at the corner of the wing walls,

Figure 103 - Walkway on either side of Ohio Drive at base of Watergate steps, April 1996. LINC 6-15.

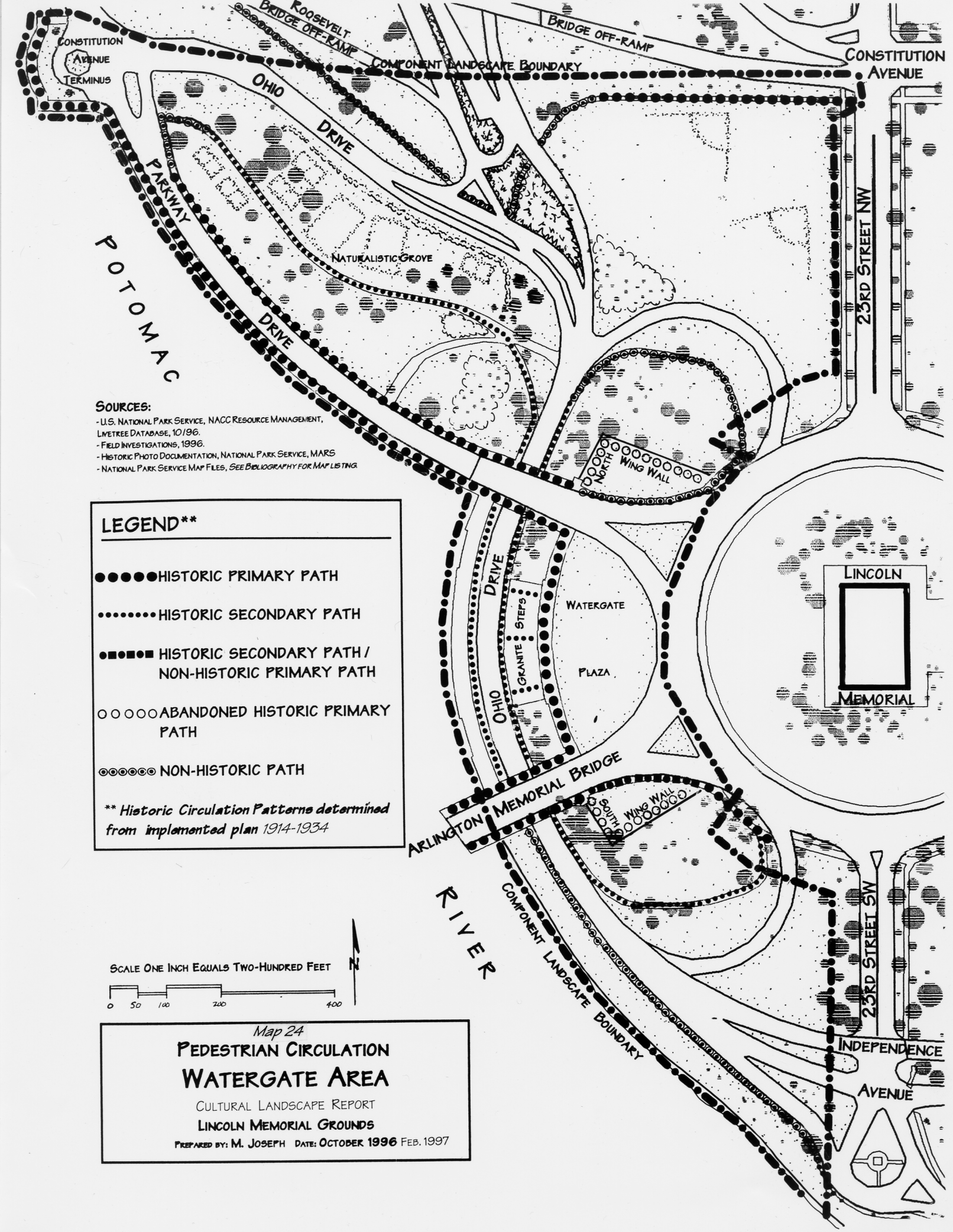
Figure 104 - Sidewalk along Parkway Drive, April 1996. LINC 6-18.

ended abruptly at Lincoln Circle. Pedestrians were prompted to cross the circle at a painted crosswalk to the inner circle sidewalk. Around 1960, granite block pavers defined the outer circle sidewalk. This sidewalk was finally paved with concrete in 1973. The inside walks, in turn, followed the gentle arc of the plaza to come together at of the top of the Watergate steps. The walks on the parkway approach connected to less formal pedestrian paths along the parkway itself. Proposals for the continuation of informal paths along the river's edge, south of the bridge, never fully developed. Some years later, an asphalt walkway following the Potomac shoreline did extend southeast beyond the Watergate area. It connected with the concrete sidewalk constructed along the river's edge under the bridge abutment by the lower set of Watergate steps. This path also extended northwest, on the north side of the lower steps, under the parkway approach, where it joined with the previously mentioned bridle trail connection along Rock Creek and Potomac Parkway.

Figure 105 - South plaza wing wall with new concrete path in same alignment as original bridle path, December 5, 1996. LINC 13-1.

To accommodate the changes in recreational use, the bridle paths were modified to serve as both a pedestrian path and as a bicycle trail. An asphalt pathway was installed along the slope in the area north of the parkway approach and connected to the system of walks around the outer circle. In response to patterns of use, the concrete sidewalks located along both the north and south wing walls were removed, and new concrete walks were constructed along the curving curb edge of the bridge and parkway approaches, where a worn dirt path had been created. Even though the use of some paths have changed, the majority of them still follow the same circulation patterns established in the 1930s. The pair of concrete sidewalks, removed from the top of the wing walls, are the major design elements no longer extant. See Map 24 *Watergate area - Pedestrian Circulation* for graphic representation of contributing and noncontributing features.

Contributing Features	**Noncontributing Features**
1. Sidewalks on both sides of Arlington Memorial Bridge, and Parkway Drive 2. Sidewalk at top of Watergate steps 3. Path on both sides of Ohio Drive at base of Watergate steps 4. Path through naturalistic planting (old bridle path) 5. Portion of sidewalk along south side of Constitution Avenue 6. Path along southwest curb from Arlington Memorial Bridge to Lincoln Circle (old bridle path) 7. Path from southern plaza wing wall down to Ohio Drive (old bridle path)	1. Path from northern plaza wing wall down to Ohio Drive 2. Watergate plaza sidewalk along northwest curb from Parkway Drive to Lincoln Circle 3. Path along shoreline from Arlington Memorial Bridge underpass, south 4. Path to Theodore Roosevelt Bridge



Map 24

PEDESTRIAN CIRCULATION
WATERGATE AREA

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996 FEB. 1997

Structures

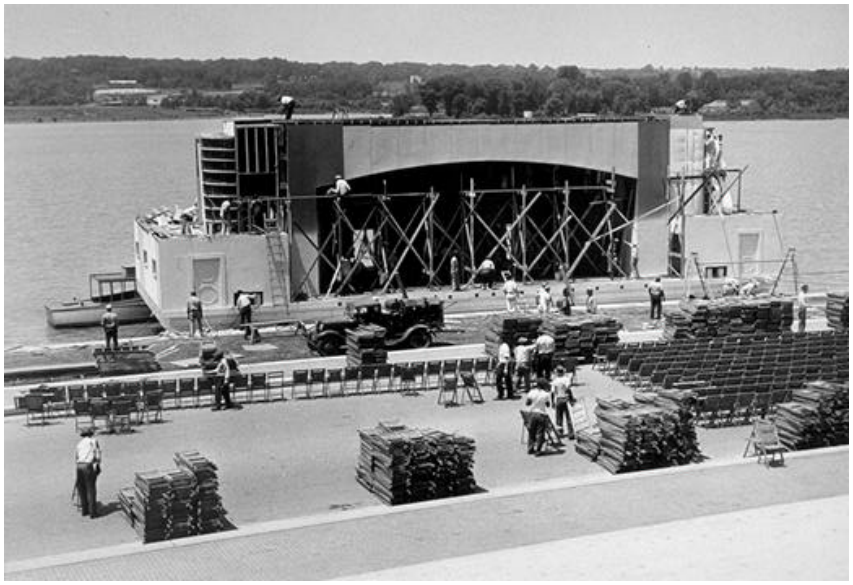


Figure 106 - Watergate concert barge located at the base of the Watergate steps, July 19, 1939. MRC 1-1.

One of the most significant pieces of the McMillan Commission plan, the ceremonial Watergate, was realized with the completion of the Arlington Memorial Bridge in 1932. Although the implemented plan remained faithful to the concept, the reason for it and the changes made to the original design to accommodate vehicular traffic around it, underscore the increasingly large effect automobiles had on the landscape design of West Potomac Park. For the purposes of this report, the Watergate structure includes the steps, the bridge abutment (Arlington Memorial Bridge) and parkway connections (Rock Creek and Potomac Parkway), the plaza walls and the wing walls. The steps, both the main and the lower leading to the river, and the walls are built of granite, as are the curbs edging the plaza sidewalk and lawn. The plaza sidewalk, however, is constructed of concrete, while the lower sidewalk facing Ohio Drive is of granite blocks. A second lower sidewalk at the river's edge, was originally constructed of granite blocks but was subsequently changed to concrete. Along the top of the wing and plaza walls, a balustrade of granite lines the perimeter of the plaza area. As mentioned previously two pairs of benches were set into the design of the balustrade on the north and south wing walls. At the entry from the plaza to the bridge and to the parkway approach, two pairs of granite pedestals were incorporated into the structure. These were intended to be the bases for four monumental sculptures. The pedestals stood empty, the sculptures awaiting funding, until 1951, when the installation and dedication finally took place. The large figural works of art were allegorical representations of Valor, Sacrifice, Music and Harvest, and Aspiration and Literature.

Figure 107 - Valor and Sacrifice statues flank entrance to Arlington Memorial Bridge, February 1997. LINC 18-5.

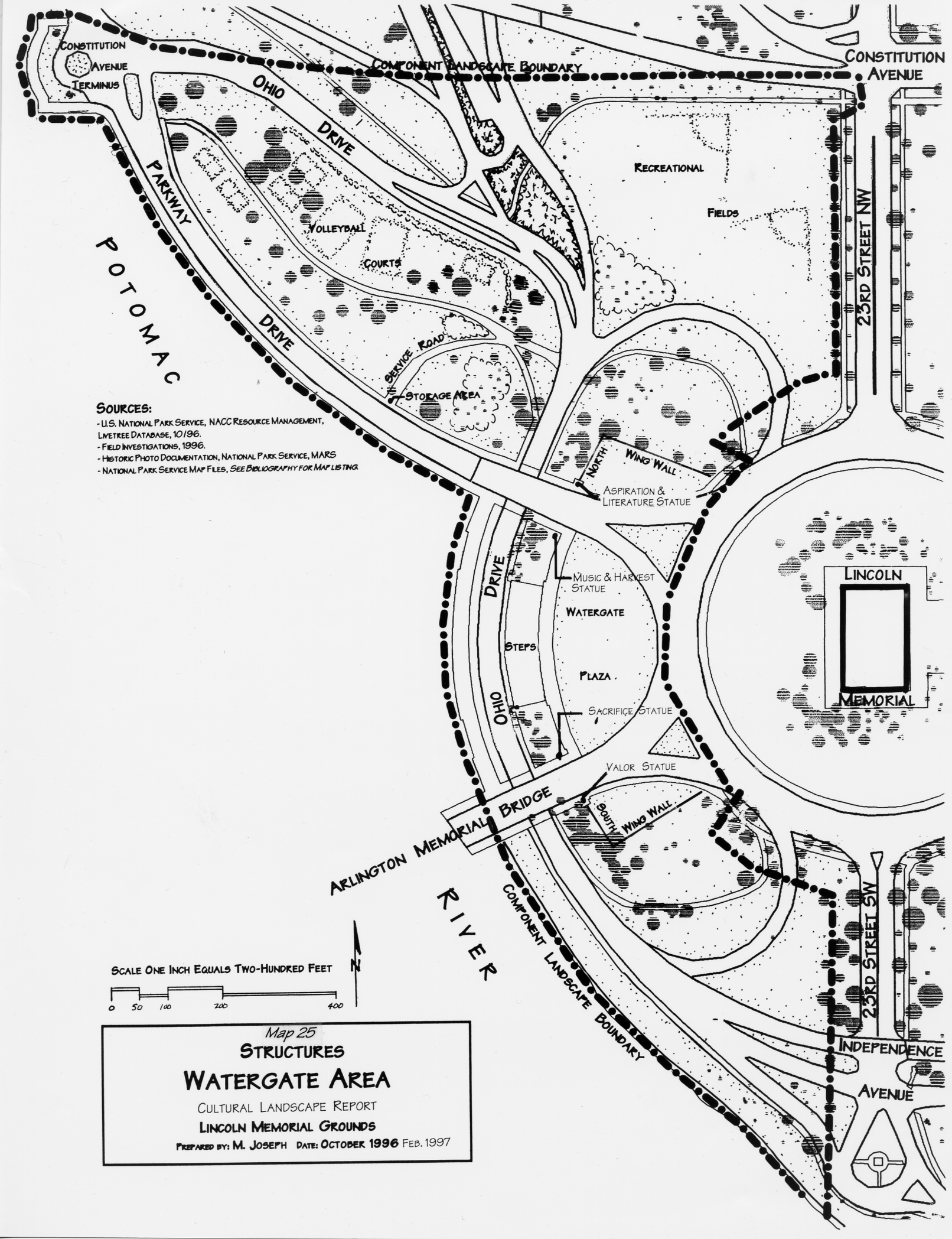
Since the Watergate's original purpose as a ceremonial entry to the nation's capital never developed, other uses were sought for the area. An open-air summer series of concerts were proposed for the steps. An orchestra shell was constructed on a barge, secured to pilings, at the water's edge in 1937 and again in 1938. A third orchestra shell was constructed in 1947-48. Musical performances were held during the summer months until the 1970s, when traffic concerns and air traffic noise from National Airport became detrimental to the public's enjoyment of the events. Since this time the Watergate steps have been used very little, mostly standing as an architectural remnant from the McMillan plan.

Figure 108 - Ceremonial Watergate steps and Arlington Memorial Bridge, January 3, 1997. LINC 16-36.

Other structural uses were sought from the Watergate area. The Parkway Drive abutment served as a storage area and as the location for a public rest room. Limited access to the storage area was provided in the 1930s for the park and is still used presently. The doorways to the restrooms were under the north side of the parkway approach abutment. They opened onto Ohio Drive. These rest rooms were only open during performances and since the concerts ended, they are no longer in service.

Both historic design intent and original structural integrity remain in the Watergate area. The only significant changes have been the elimination of the plaza access road, near the top of the main steps and the use of a different, non-historic color and texture on the concrete surface of the bridge sidewalks and the plaza sidewalks. See Map 25 *Watergate area - Structures* for location of structural features.

Contributing Features	**Noncontributing Features**
1. Arlington Memorial Bridge abutment 2. Watergate steps 3. Parkway Drive abutment 4. Statuary on approachway pedestals (Valor, Sacrifice, Music and Harvest, and Aspiration and Literature) 5. Watergate plaza wing walls	



Map 25

STRUCTURES

WATERGATE AREA

CULTURAL LANDSCAPE REPORT

LINCOLN MEMORIAL GROUNDS

PREPARED BY: M. JOSEPH DATE: OCTOBER 1996 FEB. 1997

Small-Scale Features

Benches. Historically no provisions were made for free-standing park benches in the Watergate area. Even today, there are no free-standing benches provided for visitors, instead visitors can sit on the Watergate steps or use a more permanent seats where granite benches were built into the plaza wing walls and along the bridge approach walls for Parkway Drive and Arlington Memorial Bridge. Because the location of the granite benches along busy roads is unappealing to visitors, the benches are rarely used.

Figure 109 - Granite bench built into river wall along Parkway Drive, January 3, 1997. LINC 16-3.

Figure 110 - Granite benches built into Watergate plaza wing walls, April 1996. LINC 6-8.

Contributing Features	**Noncontributing Features**
1. Watergate granite benches, plaza wing walls and bridge approaches 2. Watergate steps	

***Trash Receptacles*.** There are only a few trash receptacles placed throughout the Watergate area. The majority are located near the volleyball courts, where a high degree of recreational activity occurs during the summer months. Consistent with *Streetscape Manual* recommendations, the standard "tulip" receptacles are used in this area. In years past, numbers of receptacles were placed around the Watergate steps during the concert season and for special events.

Contributing Features	**Noncontributing Features**
	1. "Tulip" style trash receptacle

Figure 111 - Twin-twenty lamppost at old terminus for Constitution Avenue, March 1996. LINC 6-20.

Lighting. As with the Lincoln Circle and the radial roads, streetlights were limited to specific locations along routes for vehicles. Designs for Arlington Memorial Bridge and Parkway Drive incorporated the "Washington Globe" lamp and 18-foot post. On the bridge the lights were spaced evenly in opposite positions, while in all other locations they were set in an alternate arrangement. Along Parkway Drive the lampposts were originally planned to be on granite bases. Later the bases were removed and the posts were set on grade according to the established pattern of installation elsewhere in the Lincoln Memorial area. The "Washington Globe" lamp and post also illuminated the Watergate plaza area, at the top of the steps. Along Constitution Avenue at the northern boundary of the park, "Twin-twenty" lamps and posts were installed. This type of streetlight had been designated for all major city streets and avenues along the Mall and around the memorials. At the time of Constitution Avenue's realignment for the freeway and bridge in the 1960s, highway planners retained only five "twin-twenties" near the western terminus point. "Cobra-style" highway lights, a standard light used for major roadway development at the time, were installed along the ramps and access roads associated with the design of the Theodore Roosevelt Bridge and the inner loop freeway.

The majority of the street lights installed in the 1930s and 1940s have remained in their original positions. A few lights were relocated within the Watergate plaza area, when it was reconfigured to accommodate the access ramps from Ohio Drive added during the construction of Independence Avenue in the 1940s. At this time triangular traffic islands were enlarged, the large grassy island in the center of the plaza was reduced, and the radius of the curbs along the plaza was altered to improve the flow of automobile traffic entering and exiting Lincoln Circle from the bridge and the parkway approaches. Other revisions occurred in the 1970s when two "Washington Globe" lights were added at the top of the Watergate steps and two more were installed around the grassy island.

Figure 112 - Washington Globe lamppost at the Watergate plaza, March 1996. LINC 6-14.

Figure 113 - Cobra style lamppost along Ohio Drive, January 3, 1997. LINC 16-7.

Contributing Features	**Noncontributing Features**
1. 18-foot Washington Globe lamppost, Arlington Memorial Bridge, Parkway Drive, Ohio Drive 2. Twin-twenty lamppost, Constitution Avenue	1. Cobra lamppost, Theodore Roosevelt Bridge on/off ramps 2. Nonhistoric location of 18-foot Washington Globe lamppost, Watergate plaza

Paving Materials. Originally, all the sidewalks were concrete and the bridle paths were soil base, with exception of the granite block pavers at the base of the Watergate steps. After 1950 when horse riding was deemed too dangerous in West Potomac Park, some of the bridle paths were paved with asphalt to create a stable base for pedestrian and bicycle traffic. No original concrete sidewalks remain in the area. Recommendations for

Figure 114 - Granite Watergate steps, June 1996. LINC 9-12.

Figure 115 - Granite block pavers at base of Watergate steps, c. 1939. MRC 1-5.

sidewalks in the *Streetscape Manual* specify a granite curb and exposed aggregate concrete as the preferred material for all sidewalks within the Watergate area. These recommendations have been carried out. The color and texture of the new paving contrasts unfavorably with the granite material used for the wing walls, steps and bridge abutments. Only a few historic paving surfaces remain in use in the Watergate area, these include the granite block pavers at the base of the steps, as well as the granite steps themselves.

Contributing Features	**Noncontributing Features**
1. Granite block pavers, base of steps 2. Granite Watergate steps	1. Exposed aggregate concrete sidewalks 2. Informal asphalt paths

Drinking Fountains. During the development of the Watergate area in the 1930s, the installation of fountains was not included in the landscape proposal. Today, only one

drinking fountain, a Haws accessible style, is located within the Watergate area. The fountain is adjacent to the volleyball courts and the paved trail that bisects the grassy area surrounding the courts.

Contributing Features	**Noncontributing Features** 1. Haws Drinking Fountain

Signs. There are a limited number of signs within the Watergate area. Today, and as the case historically, the majority of the signs are directed toward vehicular usage (regulatory signs). The remaining signs direct pedestrians and bicyclist to adjacent sites within West Potomac Park. A few pedestrian/bicyclist oriented signs advise visitors against crossing Lincoln Circle at dangerous points. The park service has also installed a small bulletin board next the volleyball courts to post information, rules and regulations.

Some of the memorial trees east of the Parkway Drive were tagged with memorial tree markers. Based on the 1996 field investigation, none of these markers were extant. For further information regarding the memorial tree markers, see *Lincoln Memorial circle and radial roads - Small-Scale Features – Signs* section.

Contributing Features	**Noncontributing Features** 1. Regulatory signs 2. Bulletin board

Traffic and Pedestrian Barriers. The park installed a post and chain barrier along the outer curb of the west side of Lincoln Circle to deter pedestrians and bicyclist from crossing the road at unsafe points from the bridge plaza area. Historically, there were painted crosswalks on both sides of the Watergate plaza for pedestrians to cross this section of the circular road, but because of the increase speed and volume of vehicles, pedestrians are now directed along the outer circle sidewalk.

Barriers are utilized on some of the vehicular routes as well. Wooden traffic barriers and cones are used during rush hour to control one-way traffic on Rock Creek and Potomac Parkway. This practice has been in effect since 1937. In addition to the daily “temporary” barriers, there were rustic guardrails placed along Ohio Drive after its completion in 1933.

Figure 116 - Rustic timber guardrail along Ohio Drive, c. 1935. MRC 1-70.

The only other barrier used in the Watergate area is near the volleyball courts. A low chain-link fence placed next to a yew hedge stops errant balls from rolling into the road from the adjacent volleyball courts.

Contributing Features	**Noncontributing Features** 1. All traffic and pedestrian barriers

Recreational Equipment. The National Park Service has installed equipment required for baseball (or softball) games and volleyball matches in the areas designated for recreational use. Backstops and the posts for volleyball nets are the most prominent landscape features in these areas. Organized leagues mostly use these playing fields.

Contributing Features	**Noncontributing Features** 1. Baseball backstops 2. Volleyball nets

V. National Register Status

Introduction

In 1972 a single national register nomination was prepared for East and West Potomac Parks. The focus of the approved 1972 nomination was on the continued use of the parks for recreation and for special event activities at the memorials and monuments, without reference to the significance of the two parks as designed landscapes. The nomination emphasized that the design intent of Potomac Park "to be . . . used as a park for the recreation and pleasure of the people" had been fulfilled. This may be true for East Potomac Park, but the original design intent for West Potomac Park was not exclusively based on recreation. Although the setting for the memorials and monuments is addressed minimally, little discussion on the influence of the L'Enfant Plan, McMillan Commission Plan, and other subsequent plans for West Potomac Park occurs. While the 1972 nomination lists structural features, such as monuments, memorials, and statues, landscape features that contribute to the character of the Lincoln Memorial grounds (Lincoln Memorial, Reflecting Pool, and Watergate areas) are not covered. A more comprehensive approach that addresses landscape issues relating design intent, circulation, vegetation, views, site furniture, and land use is needed. Because the approved 1972 national register nomination does not adequately address currently accepted criteria for the historic landscape, National Capital Parks Central and the National Capital Region offices are currently updating the nomination for East and West Potomac Parks. Information from this document and other cultural resource documents completed since 1972 will be used to include more specific information on the contributing landscape features.

Evaluation of Significance

According to *National Register Bulletin 18* (for nominating "designed historic landscapes"), a designed historic landscape is defined as a "landscape that has significance as a design or work of art; was consciously designed and laid out by a master gardener, landscape architect, architect, or horticulturist to a design principle. . . ." Based on research for the Lincoln Memorial grounds, the study area is a significant historic landscape.

There are two periods of significance for the landscape of the Lincoln Memorial. One period (1791-1914) includes the early development of Washington, D.C., the creation of parkland from the tidal flats of the Potomac River, and the work of the 1901-1902 McMillan Commission. The second period (1914-1933) is based on the design development, construction and completion of the Lincoln Memorial, and the surrounding grounds and features. Three additional periods (1933-1945, 1945-1970, and 1970-1996) have been documented as well. Each of these is characterized by NPS management of the site and by the incremental physical changes over time. Many of these changes have been the result of increases in tourism and automobile use and reflect the National Park Service's efforts to deal with these issues. Of the two significant periods, the second is of primary significance as it had the most impact on the overall physical development and organization of the landscape.

The McMillan Commission was established to develop a comprehensive plan for the nation's capital. Basing their plan on an adaptation of Pierre L'Enfant's 1791 design for the federal city, the commission proposed extending the existing east-west mall axis to the west, beyond the Washington Monument to a new memorial to Abraham Lincoln. To achieve this effect, a long narrow pool delineated the land between the Washington Monument and the new memorial location. West of the memorial, a series of steps descended to the Potomac shoreline, creating a ceremonial watergate entrance to the city from the river. Near Watergate, a bridge to Arlington Memorial Cemetery spanned the Potomac and served to symbolically reunite the north and south. Although the conceptual designs of the McMillan Commission were never fully implemented, subsequent plans developed between 1914 and 1933 for the Lincoln Memorial and Arlington Memorial Bridge and for the pool between the memorial and the Washington Monument, incorporated many of the McMillan Commission's underlying ideas.

There are three distinct landscapes that comprise the Lincoln Memorial grounds: the Reflecting Pool area, the Lincoln Memorial circle and radial roads, and the Watergate area. In addition to the significance of the historic designed landscape, there are structures with significance in their own right. Furthermore, the relationship of the buildings and structural features with the designed landscape cannot be separated since they complement each other. Because of this, the Lincoln Memorial, Arlington Memorial Bridge, Watergate plaza and steps, Parkway Drive, and the Reflecting/Rainbow Pool are all considered contributing features to the historic landscape and are also significant as individual buildings and structures.

The study area for the Lincoln Memorial grounds are comprised of three different landscape types as defined by the national register for designed landscapes: *Monuments and Memorial Grounds* (Lincoln Memorial circle and radial roads and Reflecting Pool area), *Public Spaces* (Watergate steps and adjacent areas of West Potomac Park), *and Parkways* (Rock Creek and Potomac Parkway approach and Arlington Memorial Bridge as the connection to the George Washington Memorial Parkway).

As outlined in the national register program, a process of identification and evaluation is used to determine the significance of districts, sites, buildings, structures, and objects. The other way to assess a feature's attributes is by evaluating its integrity. Integrity is determined by the examination of the location, design, materials, workmanship, feeling, and association of a feature. Before determining the integrity, the site must meet at least one of the following national register criteria for significance:

- associated with events that have made a significant contribution to the broad patterns of history;

- associated with the lives of persons significant in our past;

- embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that

represent a significant and distinguishable entity whose components may lack individual distinction;

- yielded or may be likely to yield information in prehistory or history.

The following is a more detailed discussion of the Lincoln Memorial grounds with respect to these four criteria.

Criterion A: Association with Events, Activities, or Trends

The Lincoln Memorial grounds have national significance because they are an essential part of the larger plan conceived by the McMillan Commission of 1901-1902. The commission's work marks the first comprehensive effort to showcase Washington D.C., the nations capital, in the construction of the civic buildings, improvement of the Mall, and the development of a park system. These aspects of the plan also represent one of the most successful implementations of the "City Beautiful Movement," the national movement for the planning of civic spaces inspired by the 1893 World's Columbian Exposition in Chicago. In addition to their significant design, the Lincoln Memorial grounds have gained national significance in the role they have played as a forum for racial justice starting in 1939 with the Marian Anderson concert, into the 1960s providing a backdrop for the civil rights movement, and continuing into the 1990s. The site also has local significance as part of a citywide park system for the Washington D.C. and in its connection to a regional parkway system, which includes Rock Creek and Potomac Parkway and George Washington Memorial Parkway.

Criterion B: Association with an Important Individual

The Lincoln Memorial grounds are strongly associated with two important Americans. The first one is Abraham Lincoln, to whom the building and grounds serve as a memorial. The second individual is Martin Luther King Jr., who delivered his historic "I Have A Dream" speech from the steps of the memorial at the conclusion of the 1963 March on Washington.

Criterion C: Embodies the distinctive characteristics of a Type, Period, or Method of Construction, or Represent the Work of a Master

The formal symmetrical arrangement of the Lincoln Memorial grounds embodies the classicism of the Beaux Arts style found in the design of the memorial building. In addition to the great public park that was created around the Lincoln Memorial, peripheral areas were set aside for parkways and eventually developed for recreation. The Lincoln Memorial grounds were designed and subsequently developed under the direction of such noted landscape architects, architects, and engineers as Frederick Law Olmsted, Jr., Charles McKim, Henry Bacon, James Greenleaf, and the U.S. Army Corps

of Engineers. As the landscape architect, Olmsted contributed the most and had the greatest influence on both the conception of the design and implementation of the Lincoln Memorial landscape through his service on the McMillan Commission , Commission of Fine Arts (1910-1918), National Capital Park Commission (1924-1926), and the National Capital Parks and Planning Commission (1926-1932). Charles McKim, architect, played a major role in the selection of the memorial site and in the earliest designs for the memorial bridge, when he served on the McMillan Commission. As the architect for the Lincoln Memorial, Henry Bacon continued to assert his ideas on the design of the building and its relationship to the setting during the course of his service on the Lincoln Memorial Commission (1912-1921), and on the Commission of Fine Arts (1921-1928). James Greenleaf, landscape architect, directed the design and implementation of the foundation plantings on the north, east and south sides of the Lincoln Memorial when he replaced Olmsted on the Commission in 1918. Greenleaf served in this position until 1927. As consulting landscape architect for the Arlington Memorial Bridge Commission, Greenleaf designed the planting plan for the west side of the Lincoln Memorial and for the Watergate area. The Army Corps of Engineers also exercised considerable influence over the site as a whole. Since dredging the Potomac and filling the “flats,” from which West Potomac Park was created, the Corps managed, supervised construction and prepared designs for Lincoln Memorial grounds. The Corps was also responsible for the implementation of plans and the care of buildings and public spaces in West Potomac Park until 1933.

Criterion D: Potential to yield information important to history or prehistory

All the land for the Lincoln Memorial grounds is reclaimed land from the Potomac River. Because of this, there is no archeological significance to the site.

Evaluation of Integrity

There are seven qualities that help to determine the integrity of the overall landscape. These are historic location, design, setting, materials, workmanship, feeling, and association. By using each of these to determine the degree of integrity, we are able to assess whether this landscape had retained enough of its important features to convey its historical significance. Even though some modifications to paving materials and use have taken place around the memorial, the character (or setting), which is the most important element, has remained intact. As part of the character, the major features are: vegetation (arrangement and species selection), circulation patterns (both vehicular and pedestrian), structural features (the Lincoln Memorial, Reflecting Pool/Rainbow Pool, Watergate, and bridge and parkway approaches), the views (mall axis), and continued use of the landscape for commemoration and for passive recreation. Some changes in the past have adversely affected the integrity but not to the degree that the overall design intent has been seriously compromised. Where the major changes have occurred, it has generally been caused by the development of new road systems adjacent to the study boundaries (Independence Avenue and Theodore Roosevelt Bridge). In other areas, changes in use have had a greater impact on the resource, and if continued, could degrade the integrity of the landscape (French Drive concessionaire structures). In addition, the inconsistency of new materials and the inconsistency of types of site furniture used in the study area, where the design was intended to be simple and clean, undermine the integrity of the landscape. In most cases, these effects can be reversed so that the historic character of the Lincoln Memorial grounds is retained.

VI. Design Guidelines

Introduction

As stated previously, this report represents *Part 1* of a Cultural Landscape Report for the Lincoln Memorial, as presented in *A Guide to Cultural Landscape Reports* and the *Cultural Resource Management Guidelines* (NPS-28). The team has developed a broad set of design guidelines, rather than specific treatment alternatives. Design guidelines are essential for the future development of preservation treatments that support general management objectives. When appropriate, key landscape features that are integral to the original design of the **Lincoln Memorial grounds** and belong to the period of historical significance, **1914-1933**, may be preserved, restored or reconstructed. For the purposes of this report, original designs have been defined as the construction drawings used to implement the concepts of the McMillan Commission Plan. In addition, any on-site alterations to the designs found in these drawings occurring within the period of significance are also considered original.

These guidelines provide the framework for the future development of treatment plans for the Lincoln Memorial grounds. General recommendations are outlined for the site overall, while specific recommendations are listed separately for the Reflecting Pool area, the Lincoln Memorial circle and the radial roads, and for the Watergate area. In the event that the guidelines stated below conflict with any pre-existing report or study, park management should base their decisions on sound resource management practices and visitor service needs.

Many recommendations and guidelines that follow will require investigations by interdisciplinary teams before implementation. In areas requiring specific site development plans, *Cultural Resource Management Guidelines* (NPS-28) and the *Secretary of the Interior's Standards for the Treatment of Historic Properties with* ***Guidelines for the Treatment of Cultural Landscapes*** should be reviewed to insure the proper treatment documents are prepared.

Overall Site

Development for the Lincoln Memorial site in West Potomac Park was based on the conceptual designs of the McMillan Commission Plan of 1902, which was never fully implemented. Using the form, arrangement and styles suggested in the plan, individual designs for the memorial building, the reflecting basins, the memorial bridge and all the surrounding grounds were conceived and realized over a nineteen-year period. These landscaped areas demonstrate the formal geometry, straightforward symmetry and balance used to visually link sites in West Potomac Park with the sites selected in the L'Enfant Plan for the Capitol, the White House, the Washington Monument and the Mall.

Spatial Organization

1. Landscape treatment will confirm and reestablish the overall organization and spatial arrangements delineated in the original plans for the site. Designs, materials, and landscape treatments should be compatible with historic practices and used consistently through the whole memorial area to provide visual continuity, and enhance the overall historic character of the site. Materials and designs should be compatible with the historic period but should allow for contemporary maintenance practices, accessibility, visitor services, and visitor safety concerns.

2. Because the formal and geometric character of the landscape is reinforced by many of the historic features, future design development should enhance and reinforce those qualities through the use of geometry, symmetry and consistent use of materials. The development of non-integrated features, where the continuity of the overall design is broken, should be avoided.

3. Prior changes made in circulation, vegetation, and placement of structures should not be perpetuated in their non-historic locations. The specific areas where these changes have occurred are addressed in detail for each component landscape (See *Reflecting Pool area, Lincoln Memorial circle and radial roads* and *Watergate area*)

4.

Views and Vistas

1. The east/west axis, the visible relationship between the Capitol, the Washington Monument and the Lincoln Memorial, should remain broad, open and unimpeded. In turn, the axial view between the Monument and the Memorial should be reinforced by the continued maintenance of the original design features: the double rows of elms, the straight paths, the terraced slopes, the two basins (Reflecting Pool and Rainbow Pool), the simple reflections of these buildings in the long pool and the play of fountains at the rainbow pool.

2. The visual and historically symbolic link between the Lincoln Memorial and Arlington Cemetery and the Arlington House and Rock Creek and Potomac Parkway approach (Parkway Drive) should be kept as an open vista that both embraces the view of the Virginia shoreline and brings the close proximity of the Potomac River and the regional park system into the overall landscape.

3. All lost secondary visual relationships identified in the report should be reestablished. All other secondary visual relationships identified in the report shall continue to be maintained. Specific views are addressed in detail for each component landscape.

Vegetation

1. All trees, shrubs and lawn areas planted as part of the historic design (1914-1933) should be retained and/or reestablished. These should be managed according to accepted horticultural practices.

2. Management of mature vegetation should take into account the need to reestablish and maintain critical historic views, where applicable. Selective thinning of vegetation to reestablish historic views and vistas called for in original designs should be undertaken under the supervision of a trained horticulturist, arborist and a supervisory landscape architect.

3. In the event plant material has died or requires replacement; the same species, variety or similar type of tree or shrub shall be planted in its place, based on historic documentation, unless otherwise specified. Before a plant is replaced, an evaluation should be made to determine why it died, and if it is suited for that particular area. In general all plant materials should be selected from a list of appropriate materials to assure compatibility with the historic character.

4. An overall vegetation management plan for the Lincoln Memorial circle, the Reflecting Pool, the radial roads, Watergate steps and riverside drive slopes should be developed to address the care and maintenance of historic trees and shrubs, lawn, and the process for replacing existing materials as needed. A preservation maintenance plan, such as those prepared by the *Olmsted Center for Landscape Preservation* for historic landscapes, would be consistent with this recommendation. (The *Olmsted Center for Landscape Preservation* is a partnership between the National Park Service and the Arnold Arboretum of Harvard University. The office is based at the Frederick Law Olmsted National Historic Site.)

5. Contemporary plantings that are in conflict with reestablishing the historic planting plan, such as understory trees and herbaceous perennial and annual plants, should be removed.

6. Guidelines for managing memorial trees and memorial tree markers within the Lincoln Memorial grounds and West Potomac Park should be developed. Additional research may be needed to identify memorial trees planted during the historic period and determine whether those no longer extant should be replaced.

7. All plant material should be temporarily protected during special events and demonstrations as specified in *The Lincoln Memorial: Guidelines for Special Events and Demonstrations*, December 1996.

8. All shrubs, including those located in the inner circle, along the Watergate steps and at the Ericsson Memorial should be added to the NACC Resource Management Vegetation Database.

Circulation

1. Existing historic sidewalks and pedestrian paths should be retained and maintained so as to reinforce and enhance the physical and interpretative connection to adjacent historically designed areas. Several of these routes serve to link the Lincoln Memorial with other sites featured in either the L'Enfant Plan or the McMillan Commission Plan and should be strengthened whenever possible. (See *Analysis and Evaluation - Circulation,* for each component landscape.)

2. Walking should remain the primary mode of access to the site for visitors to the Lincoln Memorial. Tourmobile buses will continue to have access on the east side of the Lincoln Circle between French and Bacon drives, until a new transportation solution is devised to eliminate all motor vehicles from this area.

3. The alignment, material and geometric character of the pedestrian paths and roads throughout the area should be kept and maintained according to the historic patterns of circulation.

4. The hierarchy of pedestrian paths, primary and secondary (formal and informal) should be maintained by the selection of proper materials and the preservation of the historic widths of the paths. For further description of the type of materials specified, see *Design Guidelines - Circulation*, section for each component landscape.

5. New pedestrian paths should be added for only the most compelling reasons, and should be based on the historic design with special attention to the form, alignment, and material used. Accessibility to the memorial area for the disabled should be developed in a manner that is compatible with the character of the original design. The visual and physical impact on the landscape from the addition of new ramps, railings, signs, and curb cuts should be minimized.

6. Pedestrian paths associated with the Vietnam Veterans and Korean War Veterans memorials at the west end of the Reflecting Pool should be redesigned to reduce the impact on the original design caused by random paths and intense visitor use. Close attention to the symmetry of the connections to the main walks is vital.

7. Crosswalks and/or other pedestrian safety features should be added at strategic locations on the western segment of the Lincoln Circle to provide designated safe crossing points for pedestrians.

Structures

1. All historic structural features should be maintained and included in a routine maintenance schedule that addresses long-term preservation requirements for individual structures.

2. Future commemorative features should be located in the Lincoln Memorial study area only if they will have a minimal impact on the historic setting. Site design of such features should sensitively incorporate historic components such as circulation patterns, vegetation, views and vistas and site furnishings to preserve the integrity of the historic landscape and historic structures.

3. If the park requires new and/or additional structures for general park operations, including maintenance and visitor services, all efforts should be made to place these functions outside of the memorial area. In the event that existing or new structures are to remain or be sited within the area, site design of such features should sensitively incorporate historic components such as circulation patterns, vegetation, views and vistas and site furnishings to preserve the integrity of the historic landscape and historic structures.

4. Treatments associated with the adaptive use of individual structural features should take into account the historic landscape context (i.e. accessible ramp to the Lincoln Memorial.). These treatments incorporate accessibility, smooth transition to adjacent grades, sensitive placement of utilities, the use of appropriate plant materials and site furniture.

Small-Scale Features

1. A site furnishing plan for the Lincoln Memorial grounds should be developed to address the type, location, and character of street furniture, signs and small-scale features that are part of the landscape. Where possible and practical the historic locations for small-scale features, including benches, signs and trash receptacles, should be used.

2. A standard fence type, such as the post and chain, should be adopted for use throughout the area; to replace the assortment of fencing currently used to direct pedestrian circulation across the site. If temporary fencing is required, then a standard temporary type, based on a hierarchy of uses, should be selected as well. More aesthetically pleasing barriers for traffic control should also be developed.

3. Standard designs should be developed for all regulatory signs within the study area. These should be installed as replacements or new signs in selected locations where they will least intrude on the qualities of the historic landscape.

Interpretation

1. Consideration should be given to expanding interpretive programs to include the cultural landscape and the establishment of waysides and exhibits that address the landscape design, the L'Enfant and McMillan Commission Plans, and other significant cultural landscape resources from all historic periods. Examples of potential wayside locations might include: the Watergate steps, Arlington Memorial Bridge plaza, the Reflecting Pool steps, the Rainbow Pool, the double rows of elms, the outer circle, the historic western terminus point of Constitution Avenue, and the former locations of the World War I and World War II temporary war buildings. Location of such waysides should be carefully selected and designed to minimize their visual intrusion on the qualities of the historic landscape.

Component Landscapes

The study area is divided into three designed spaces: the Reflecting Pool area, Lincoln Memorial circle and radial roads, and Watergate area. The component landscapes generally represent three distinct construction periods and have their own representative character, but they are also part of the larger designed landscape.

Reflecting Pool area

Introduction

The Reflecting Pool and the Rainbow Pool serve as a visual connection between the Lincoln Memorial and the Washington Monument. The simplicity of their design compliments the design character of the Mall.

Vegetation

1. The arrangement, form and shape of the "English" elms (*Ulmus* x *hollandica* cultivars) planted along the axial walks shall be retained and maintained according to accepted horticultural practices for elm trees in the Nation's Capital. Because of its unique upright, arching quality, this species was originally selected to line the pools and the walks. To maintain the historic design intent, these trees shall be replaced in-kind and in location whenever possible (propagate from genetic stock if possible).

2. Aquatic plants should not be established in the Reflecting or Rainbow Pools.

3. American elms should be reestablished as a street tree along the west side of 17th Street SW, north and south of the Rainbow Pool. The designed opening at the east end of the Rainbow Pool/Reflecting Pool axis historically framed the view between the Lincoln Memorial and the Washington Monument.

4. Pedestrians have created "temporary" footpaths in the Reflecting Pool area that have destroyed the turf and compacted the soil. Accepted maintenance practices have been unsuccessful in correcting this problem. The situation should continue to be monitored with consideration given to using newly developed maintenance techniques and/or materials.

5. The open grass areas around the Reflecting Pool and Rainbow Pool should be preserved.

Circulation

1. The walks between the elms along the Reflecting Pool area should be repaved in concrete with a square-grid pattern to enhance the historic character of this pedestrian corridor. To protect the roots of the adjacent elm trees, the walks should remain at their originally designated width of fifteen feet, not be widened, and should have a straight edge, unlike the present asphalt path, which has a more variable edge. These walks should remain aligned with the concrete steps located on the far north and far south sides of the granite steps descending from the Lincoln Memorial circle to the west end of the pool.

2. Walks around the Rainbow Pool should be maintained in concrete and in their original square-grid scoring pattern.

3. Formal accessible ramps need to be redefined to provide access to both the north and south sides of the west end of the Reflecting Pool. Pedestrian ramps currently connecting the walks between the elms and to the Vietnam War and the Korean War Veterans memorials with the west end of the Reflecting Pool do not follow the geometry of the original design and are not constructed of materials that integrate well with the historic surfaces. More importantly, the ramp on the north side leading to the Vietnam Veterans Memorial over the flood berm, does not meet the Americans with Disabilities Act (ADA) standards. To integrate the ramps into the symmetrical layout of the Reflecting Pool area and to bring one of them up to code, the connections to the Vietnam and Korean memorials from the elm walks should be redesigned.

4. The areas of granite block paving that were installed as a temporary measure to stabilize the adjacent side slope along the concrete steps from the elm walks leading up to the circular roadway, should be removed. If they remain, they may eventually become an accepted and permanent feature of the design. All other temporary features that no longer serve a need should be eliminated for the same reason.

6. A uniform paving material should be used between the western end of the Reflecting Pool and the base of the granite steps. The concrete and cobblestone surface installed in the 1970s should be removed and replaced with a surface that is more appropriate to the original design intent, as defined by the 1916 plan (See Map 3 "Lincoln Memorial Potomac Park Improvements: B-Street N. to B-Street S. and 17th Street to the Potomac River," C.E. Howard, #801/80095) and subsequent plan of 1924 (See Map 6 "Lincoln Memorial Memorial Tree Plan," #801/80081), which shows the area as a plain paved plaza. Since that 1916 plan shows a plain paved plaza, scored concrete should be used to replace the cobblestone paving.

Structures

1. When it is necessary to erect temporary visitor service structures, every effort should be made to retain and protect the historic granite, cobblestone, concrete and mortar fabric of the Reflecting Pool, the Reflecting Pool steps and the Rainbow Pool, as well as the turf and other hard surfaces, during their installation and removal.

2. The historic granite coping edging the Reflecting Pool should be repaired, realigned and restored.

3. The Rainbow Pool fountain should be repaired and restored to provide a true fountain effect, as was originally intended. However, the extent of the play (height and breadth of the spray) of the fountain shall be adjusted to enhance not interfere with the east-west axial view. (See *Design Guidelines - Overall Landscape -Views and Vistas.*)

Small-Scale Features

1. Additional benches should be placed along the walks between the elms along the Reflecting Pool area and around the Rainbow Pool. For consistency, the benches should all be the same type, a cast iron frame wooden slat bench (the current standard bench located in the study area), similar to the benches used during the period of historical significance. All benches, new and existing, should be located in their historic alignment (i.e., all facing the Reflecting Pool and Rainbow Pool).

2. Establish a pattern of consistent spacing for installation of trash receptacles in relation to the bench locations.

3. The Reflecting Pool and Rainbow Pool areas were not designed to be illuminated at night. Streetlights or any other form of exterior lighting, which would impact on the reflective quality of the pools, should not be installed in this area.

Response to Natural Features

Any future development of the flood control embankment on the north side of the Reflecting Pool or the installation of any additional flood control measures shall not detract from or impinge on the historic character of the site.

Lincoln Memorial circle and radial roads

Introduction

The formal character derived from the simple geometric design of Lincoln Memorial circle and the radial roads bears the strongest and most direct relation in form to the McMillan Commission plan. As implemented, the landscape immediately surrounding the Lincoln Memorial has had the fewest alterations from the design concept shown on the plan.

All materials and methods used for future preservation work in this area should reinforce the unity of the circle and the formal, classical setting. The original design integrity of the Lincoln circle and the elements that reinforce the unity, such as the curb, the ring of elm trees, the circular sidewalks and road, and the radial sidewalks and roads, should be maintained, whether they are used by vehicles or pedestrians.

Views and Vistas

1. Designed sight lines along the radial roads and sidewalks and around the circular roadway and sidewalks should be kept free from visual clutter. An effort should be made toward removing elements that effect historic sight lines. (Types of visual clutter include: placement of inappropriate vegetation under the canopy of the elms; ill-conceived arrangement of acceptable small-scale features – benches, trash receptacles, lampposts, and stake and chain barriers; hodge-podge collection of unattractive traffic control measures; regulatory and informational signs poorly located; and historically open areas now being occupied by poorly placed temporary structures.)

2. As previously discussed, the important east/west axis should be kept open in its extension from the Washington Monument to the Lincoln Memorial and across the Potomac River to Arlington Cemetery and the Arlington House.

3. Views toward the Lincoln Memorial from the Reflecting Pool and Washington Monument should be maintained on the front, or east side of the building. Views to the building should also be maintained at the center points on the north and the south where foundation plantings hide the raised. At the center point of the west elevation, the view of the building should be open from the base of the raised terrace wall to the top of the attic story. Also, the fan-shaped view from the raised terrace to the west from this same center-point should remain open and be free of any foundation plantings.

Vegetation

1. The existing triangular planting beds, created in 1953 by the elimination of the rectangular curb in the circular roadway, should be eliminated, as a way to restore the historic

geometric relationship between the entrance to the memorial approachway and the descent to the Reflecting Pool. After the planting beds and paving is removed, the historic curb alignment should be restored.

2. The multiple rows of American elms planted around the Lincoln circle should be reestablished on three sides (north, east and south), according to the original implemented planting plans. Selection of tree type shall be done according to accepted horticultural practices for elms in the Memorial Core, but every effort should be made to use the same type of elm in order to achieve a uniform effect of height, spread and canopy shape. The double rows of American elms originally lining both sides of the four radial roads shall also be reestablished. Any other non-historic genus, understory trees, shrubs and herbaceous plants not part of the original plan should be removed, when the planting arrangement conflicts with the character of the symmetrical elm planting.

2. Whenever trees or shrubs located in the inner circle decline or die, the selection and location of replacement plants should be based on planting plans from the period of historical significance (1914-1933). Before a plant is replaced, an evaluation should be made to determine why it died, and whether it is suited to current environmental conditions. Every effort should be made to replace historic plants in-kind and location, but substitutions of more adaptable plants may be made if they are similar in size, character, color, texture, etc.

4. The grassed areas and many of the individual evergreen shrubs and trees planted around the base of the raised terrace wall at the Lincoln Memorial are original. Most of these are located on the northwest, west and southwest sides of the structure. The siting of plants on the northeast, east and southeast sides has been altered from the original and does not follow the historic plan. The following is recommended to restore the character and arrangement of the historic plans: the selection of trees and shrubs to remain should be based on the historic planting plan which consisted of boxwood and yew on the east and boxwood, holly, magnolia and yew on the west (see item #2). All vegetation should be allowed to grow to its natural maturity, unless otherwise specified (see item #5). In addition, all vegetation should be maintained – i.e. located or selectively pruned – so that the raised terrace and memorial structure are not damaged by the vegetation (moisture retention, staining of walls).

5. The inner circle foundation plantings should receive routine pruning of dead wood and selective thinning to maintain the health and the longevity of the plant material. To restore the openings in the vegetation designed for the north and south sides, additional thinning for sight lines should be initiated in these two areas. The broader area on the west side, designed to be completely free of vegetation, should be kept open.

6. The yew hedge lining the approachway and the Japanese hollies flanking the entry planters are replacements for the original boxwood. While it is preferable to restore the boxwood, the environmental conditions along the approachway and entry planters are not conducive to its survival. Boxwood is slow to recover from damage by storms and visitor use, and is affected by chemicals applied to clear adjacent walkways of ice and snow. The existing yew hedge should be maintained in a form that reflects the historic design intent for the area (a looser, irregular, rounded and less-sheared shape with high and low accents in the overall form). If this is not possible, then other horticultural solutions consistent with the intent of the historic planting should be pursued.

7. A *Landscape Preservation Maintenance Plan* for the foundation shrubs should be developed and implemented. (See *Design Guidelines - Overall Landscape - Vegetation*.)

8. The two American hollies located on the east side of the Lincoln are not part of the historic plant selection for this area. They should removed before their height and mass further dominate the shrub and tree profile on the east. (See *Analysis and Evaluation* – Map 15 *Lincoln Memorial circle and radial roads - Vegetation* for location of hollies on the east side of the Lincoln Memorial

9. The landscape around the Ericsson Memorial should be restored based on the original implemented plan from the 1930s (See historic photo documentation *Figure 60* and "Ericsson Memorial, Suggestion Planting Plan, West Potomac Park," 1932, #801/80165.) Replanting in this area should be based on an understanding of the historic design intent and original selection of type, size, shape and texture of plants.

10. The open grass panels between 23rd Street NW and Bacon Drive, and 23rd Street SW and French Drive, should be preserved and kept free of such intrusions as plantings and structures or other non-compatible uses. Every effort should be made to remove existing temporary structures and related landscaping as soon as alternative permanent solutions can be implemented. Site design of any new feature should sensitively incorporate historic components such as circulation patterns, vegetation, views and vistas, and site furnishings to preserve the integrity of the historic landscape.

Circulation

1. Over the years additional sidewalks have been added to the outer circle and radial road area to handle increased visitor requirements. These walks were not laid out in consideration of with the historic character of the area. An interdisciplinary team should evaluate pedestrian circulation to determine the most effective way to restore the integrity of the historic design.

2. Every effort should be made to maintain the original width of the circular road and the alignment of the inner and outer curb. However, even if vehicular traffic control measures necessitate the installation of islands or barriers for the circle, the road width and alignment of the original curb should remain. It is highly preferable for all traffic control devices or structures to be freestanding and not attached to the peripheral curbs of the circle or the radial roads. However, if efforts to control traffic require the structures to be attached, all original materials should be restored, including both the circular and radial curbs and sidewalks. Traffic control structures located in the roadways should relate in both color and texture to historic circulation features. Treatments should be of a uniform design and material. The planter barriers saw horses and delineators presently in place should be eliminated because they add nonhistoric fabric to the historic landscape.

3. Consistent with the no-parking concept for the roadway, handicap-parking spaces should be removed from the circle and relocated along the radial roads.

4. The following concrete sidewalks should be reestablished in their designed alignment: the northwest and southwest segments of the outer circle sidewalk, and along both sides of French Drive. The existing historic sidewalks should continue to be maintained in their current alignment.

5. The concrete sidewalks and curb around the inner circle should be considered part of the zone around the Lincoln Memorial building. Originally the color of the walks and curb harmonized with the color of the marble building. The historic material as well as the historic character of the color and the texture of the surface should be reestablished when the walks and curb are restored. Historic plans indicate that the inner circle sidewalk was finished with a "scrubbed" surface, while the radial walks were finished with a "smooth" surface, but it is not known if the walks were actually installed with this treatment. Given this information, the "scrubbed" surface sidewalk may or may not have included exposed aggregate, but the color did harmonize with the memorial structure. Standards for the installation of any new walks should follow the historic pattern, texture and color of the original walks.

6. The rectangular jog in the curb originally constructed near the top of the Reflecting Pool steps should be reestablished. The planting beds and non-historic paving would need to be removed to reestablish the historic curb alignment. This squared-off section formed part of the original visual connection between the Reflecting Pool and the memorial approachway.

Small-Scale Features

1. The original streetlights, the "Washington Globe" lamp and post, should remain in their present locations and not be modified. The variation in heights of the lampposts, eighteen feet around the outer circle and sixteen feet along the radial roads, should be maintained. Streetlights have never been located around the inner edge of the circle and should not be installed there in the future.

2. Exterior fixtures for the architectural lighting of the Lincoln Memorial and its approachway shall be unobtrusively located within the existing landscape setting where they will least intrude on the character of the historic landscape.

Watergate area

Introduction

The Watergate area includes the Arlington Memorial Bridge abutment, the Watergate steps, the plaza and wing walls beside the steps, the Parkway Drive, portions of Ohio Drive and the landscaped slopes along each of these routes. All of these features were incorporated into the overall design for the area, which the McMillan Commission originally intended to serve as a ceremonial riverfront entry to the capital city. Although this use was never realized, the classical architectural descent to the river did serve to symbolically link the Lincoln Memorial with the bridge, the parkway, Arlington Cemetery and the parkland to the northwest. Distinct, separate sections within the Watergate area, which developed after the fact, include the memorial tree plantings, the old staging area for the Watergate concerts, the Parkway and Ohio Drive slopes and active recreation areas.

Land Use

Although not specified on the original McMillan Commission plan, the area north of the Watergate plaza and west of 23rd Street NW presently utilized for volleyball and baseball was traditionally set aside for active recreational uses (a golf course was located in this area during the 1920s and 1930s). Active recreational activity should be allowed to continue in this area.

Views and Vistas

All views and vistas to the water's edge and across the river should be respected. The bridge plaza should continue to be an open expanse of lawn, without structures or any

additional small-scale features. The area at the base of the Watergate steps should also remain open with lawn along the shoreline.

Vegetation

1. Historic plantings based on plans developed by Arlington Memorial Bridge Commission in the 1930s should be maintained whenever possible. Most of the trees and shrubs located in the large beds flanking the Watergate steps and on the slopes north and south of the plaza area, are original. When these decline, they should be replaced in-kind and location according to the historic plan.

2. The types of trees used on the Parkway and Ohio drive slopes should be as indicated in the historic plans. Not all of the trees shown on these plans were installed. Those that were, and that remain, reflect the design intent for the development of the shoreline. When these decline, they should be replaced in-kind and location according to the historic plan. Sight lines under the trees should be maintained for improved views to the river and of the bridge and bridge plaza.

3. The memorial tree grove (naturalistic grove) planting from the 1930s and 1940 should be maintained in its present location to the east of Parkway Drive, and southwest of Ohio Drive (near the present day volleyball courts). These trees should be identified in the NACC Resource Management Vegetation Database. (See "Key List of Memorial Trees, West Potomac Park," May 5, 1932, #801/80166 and *Analysis and Evaluation* – Map 21 *Watergate area - Vegetation* - "Memorial Tree Record, West Potomac Park," 1950, #801/80235.) and replaced in-kind and location when they decline or die. Any missing trees should be restored based on these plans in their historic locations.

4. American elms originally planted along non-extant sections of Constitution Avenue (the roadway was removed during the Theodore Roosevelt Bridge construction in the 1960s, but the trees were retained) should be maintained and replaced in-kind and location. These street trees help to define the former section of Constitution Avenue that once ended at a formal overlook circle at the balustrade seawall along the Potomac River.

5. Distinct sections within the Watergate area require separate treatments. Some of these areas, such as the Watergate steps, should continue to reflect the original formal design. Other areas, such as the memorial grove and the old Watergate concert staging area, represent transitions between the Lincoln Memorial and the informality of the rest of West Potomac Park.

7. The open grassy panels located in the Watergate plaza and lying west of 23rd Street NW and SW should be maintained. (See *Analysis and Evaluation* – Map 22 *Watergate area - Vegetation*).

Circulation

1. The speed and large volume of automobile traffic in the Watergate area inhibits pedestrian appreciation of the overall design and the historic and aesthetic elements that contribute to the character. Efforts should be made to enhance the pedestrian experience in this area by addressing safety issues and by improving informational signs.

2. The pair of concrete walkways that once followed the rectangular edge of the north and south wing walls, located on both sides of the bridge abutment and the parkway approach, should be reestablished according to the original circulation patterns. The existing walkway along the southern curb line from the Arlington Memorial Bridge approach somewhat follows the historic alignment of an old bridle trail, and should be retained. The complementary concrete sidewalk on the north side does not follow any historic circulation path and should be reassessed as to its compatibility to the historic landscape. Outside the wing walls on the south and north ends, asphalt paths connect with pedestrian and bicycle routes along riverside drive. The southern path follows an historic alignment but the northern path does not. Both paths need to be reassessed as part of a parkwide system of trails. (See *Analysis and Evaluation* – Map 24 *Watergate area* **- *Circulation*** map for location of walkways). When reestablishing the concrete walks, the historic alignment, width, grid-scoring pattern, texture and color should be reestablished.

3. The alignment of and the materials used in the Watergate plaza sidewalks should conform to and continue the formal design of the Lincoln Memorial area. The present color and coarse type of aggregate found in the sidewalks and plaza should be replaced with an aggregate more consistent in color and texture with the structural features of the bridge, the balustrade, and the Lincoln Memorial. Standards for the installation of any new walks should follow the historic alignment, width, grid-scoring pattern, texture and color of the original walks.

4. The bicycle path to the south of the Watergate plaza, and the path located through the naturalistic grove should be maintained in their current location. They follow the original alignment of an historic bridle path. All other asphalt bicycle paths should be reassessed for their compatibility to historic landscape.

5. All non-contributing features such as the short asphalt paths at the river's edge, in front of the Watergate steps, which provided access to the old Watergate concert barge, should be removed.

6. The granite set walk at the base of the Watergate steps is original and should be retained.

VII. Endnotes

III. Site History

1. Frederick Law Olmsted, Jr. cited in David C. Streatfield, "The Olmsteds and the Landscape of the Mall, " in *The Mall in Washington," 1791-1991*, ed. Richard Longstreth (Washington, D.C.: National Gallery of Art, 1991) 122.

2. The removal of the B&O Railroad tracks and depot from the Mall to a new Union Station northwest of the Capitol and the establishment of the Grant Memorial at the base of Capitol Hill were the first two proposals from the plan to be instituted. Christopher A. Thomas, "The Lincoln Memorial and Its Architect, Henry Bacon (1866-1924)" (Ph.D. diss., Yale University 1990) 375-377.

3. This description has been adapted from Don Alexander Hawkins, "The Landscape of the Federal City," *Washington History* 3 (Spring/Summer 1991) 10-33; and from T.L. Loftin, "1800 Washington City," on *Washington D.C., The Evolution of the Center, Two Centuries of Change,* Joseph Passoneau and Partners (Washington, D.C., n.d.).

4. Moore, ed., *Improvement of the Park System,* 118.

5. U.S. Army Corps of Engineers, *Report upon the Improvement and Care of Public Buildings and Grounds...* (Washington: Government Printing Office, 1915) 1670.

6. Sue A. Kohler, *The Commission of Fine Arts: A Brief History, 1910-1984* (Washington, D.C.: GPO, 1985) 10.

7. *ibid.*

8. Henry Bacon,"Report of the Architect on the Preliminary Design for a Memorial on the Potomac Park Site, " 6 December 1911, Appendix B in Lincoln Memorial Commission, *Lincoln Memorial Commission Report*, 62nd Cong., 3d Sess., Doc. No. 956 (Washington, D.C., 1913) 25.

9. A description of these groups and their roles in the development of the monumental core is covered in Gutheim, *Worthy*, chapters 4-9.

10. Frederick Law Olmsted, Jr. to Daniel C. French [Chair, CFA], 21 January 1915, Section E-4, Part I, #2843, Series B, Olmsted Associates. See also letters exchanged between Olmsted and Thomas Hastings on this same subject, 16 and 26 June 1915, and 7 July 1915 in the same records.

11. Henry Bacon to Frederick Law Olmsted, Jr., 20 May 1913, Section E-4, Part I, #2843, Series B, Olmsted Associates.

12. Frederick Law Olmsted Jr. to Henry Bacon, 25 May, 1913, Section E-4, Part I, #2843, Series B, Olmsted Associates; Bacon to F.F. Gillen, 8 August 1913, Box 7, Entry 366, Record Group 42, Lincoln Memorial Commission 1911-1924, National Archives, Washington, D.C.; Cass Gilbert, architect serving on the CFA, had also suggested a low

retaining wall around the circular terrace; and Henry Bacon to Col. Spencer Cosby, 10 June 1913, File 177, Box 21, Entry 97, RG 42, LMC, NA, (Procite).

13. "Memorial to Abraham Lincoln As It Stands Today," *Washington Star* (Washington, D.C.), 7 February 1915, *Washington Star* File, Washingtoniana Collection, Martin Luther King Memorial Library, Washington, D.C.

14. *ibid*.

15. See studies prepared by the OPBG and Langdon including untitled drawing, 29 July 1915, Technical Information Center #801/80083; "Angle of Reflection," 12 October 1915, TIC #801/80787; and Frederick Law Olmsted, Jr. to CFA members, 26 May 1915, Section E-4, Part I, #2843, Series B, Olmsted Associates.

16. Frederick Law Olmsted, Jr. to CFA members, 26 May 1915, Section E-4, Part I, Series B, Olmsted Associates; and Commission of Fine Arts Minutes, 20 May 1915 and 19 July 1915.

17. "Building Great Mound At Lincoln Memorial," ca.1915, Memorials: Lincoln Memorial 1922 File, Washingtoniana Division, Martin Luther King Memorial Library, Washington, D.C.

18. Frederick Law Olmsted, Jr. to Hans J. Koehler, 27 July 1915; and Col. William H. Hart, to Olmsted Brothers, 11 September 1915, both in Section C-6, Part I, #2843, Series B, Olmsted Associates. See also Hans J. Koehler to H.S. Wagner, 26 October 1939, Section C-6, Part I, #2843, Series B, Olmsted Associates, stating that Dicksons nursery probably sent a form of, or root stock, Scotch elm, or *Ulmus montana latifolia*.

19. CFA Minutes 3 December 1915, 26 January 1916, 31 March 1916, 5 May 1916, 15 September 1916, and 16 October 1916. See Henry Bacon/C.E. Howard, "Lincoln Memorial, Potomac Park Improvements," 9/5/1916, TIC #801/80095.

20. Bacon to Col. C.S. Ridley, 23 March 1919, copied from National Archives, probably RG 42, LMC, copy on file Denver Service Center, Falls Church, Virginia.

21. "Plea Made for Early Removal of Army and Navy Buildings from Potomac Park Grounds," Parks - Potomac 1890-1939 File, Washingtoniana Division, Martin Luther King Memorial Library.

22. Bacon, "Report of the Architect," in *Report*, 26-27.

23. I.W. Payne, "Mr. Greenleaf's Criticism of the Lincoln Memorial Planting," ca. 1919, Box 97, RG 66, CFA, NA, copy on file Denver Service Center, Falls Church, Virginia.

24. James L. Greenleaf, "Planting plans of the Lincoln Memorial considered at the committee meeting of the Commission of Fine Arts at Cornish, New Hampshire,

September 20, 1919," Box 97, RG 66, CFA, NA, copy on file Denver Service Center, Falls Church, Virginia.

25. CFA Minutes, 27 July 1920. Prior to the dedication, Bacon expressed his desire for shrubs or other planting to be installed on the retaining wall level, near the marble entry steps to the Memorial proper; this concept was rejected by Greenleaf. See [*sic*] to Bacon, 21 April 1922, copied from National Archives, probably RG 66, CFA, copy on file Denver Service Center, Falls Church, Virginia.

26. Corps, *Improvement and Care* (1923), 2030.

27. CFA Minutes, 17 October 1919, 21 November 1919, and 23 January 1920.

28. CFA Minutes, 17 January 1921; "West Potomac Park, Construction of Roads, Walks, and Curb about Lincoln Memorial," February 1921, TIC #801/80065; and Corps, *Improvement and Care* (1921), 2058. The CFA was apparently was not involved with the design development of the circular roadway beyond the initial phases.

29. CFA Minutes, 26 July 1918, 10 March 1919, and 3 April 1919. Olmsted's term on the CFA ended in 1918. James Greenleaf, the landscape architect from New York, succeeded him. For a short time thereafter, Olmsted attended CFA meetings, in place of member Charles Platt, who was absent for approximately a year while traveling in Europe. Bacon replaced Platt in February 1921. See CFA Minutes, 4 September 1918, 4 October 1918, and 21 February 1921.

30. Bacon, "Report to the Lincoln Memorial Commission," 2.

31. Peters, "Reflecting Pool," 211.

32. *ibid*.; the Corps report implies that there was no water in the pool at the time of the May 1922 dedication of the memorial. See also Peters, "Reflecting Pool," 210-213.

33. Olmsted felt that if the overall size of the temporary buildings' parking lot was of reasonable proportions, then the crossarms could be outlined with trees on the north side of the pool, blocking the view of the unsightly buildings. See Olmsted to Ridley, 14 February 1920, Section C-4, Part I, #2843, Series B, Olmsted Associates.

34. For a description of the dedication ceremony, see Concklin, *The Lincoln Memorial*, 73-91; and photographs #38-#40, Disc 3, National Capital Region Public Affairs Photograph File, Museum Resource Center.

35. CFA Minutes, 3 September 1925.

36. See Writer's Program, Works Progress Administration, *Washington, D.C., A Guide to the Nation's Capital* (Washington, D.C.: Government Printing Office, 1942) 224; Conklin, *The Lincoln Memorial*, 52; Peters, "The Reflecting Pool," 211; and the

Washington Star, 6 April 1928, which states that the Rainbow Fountain was to be turned on Sunday and Monday nights.

37. Corps, *Improvement and Care* (1923), 2025.

38. Corps, *Improvement and Care* (1925), 1940.

39. As early as 1921, Daniel Chester French expressed his dismay over the effects of the reflection from the marble steps and the approachway on the Lincoln statue. The daytime reflection cast funereal shadows across Lincoln's face (see French to Col. C.O. Sherrill, 24 May 1921, copied from National Archives, probably RG 66, CFA, copy on file Denver Service Center, Falls Church, Virginia). In 1925, W. D'Arcy Ryan of General Electric stated that the memorial interior required electric lighting to counteract the effects of the daytime reflections; and nighttime lighting for viewing by the public in the evening (see W. D'Arcy Ryan, "Lighting Recommendation," copied from the National Archives, probably RG 66, CFA, copy on file Denver Service Center, Falls Church, Virginia). Interior lighting issues were finally resolved in February 1929 ("New Lighting for Lincoln Memorial to Rectify Expression on Statue's Face," *Washington Star,* 8 February 1929); the exterior in the summer of 1929 ("Lincoln Memorial Night Opening Proves Success," *Washington Star*, 22 July 1929).

40. Ryan is generally credited with the creation of the incandescent lamp. See "18-Light System Makes Memorial Rare Night Scene," *Washington Post*, 10 January 1926. The CFA responded to the OPBPP's request for a lighting plan on the Lincoln Memorial grounds by approving guidelines, which had also been suggested earlier by Henry Bacon. Electric lights were to be placed approximately 75 feet apart, between the trees that lined the outer side of the walks on each side of the long basin. Standard Millet lampposts, ten feet, six inches high, should be located under the branches of the elms in the basin area and along the roadways leading to the memorial were to be used. The design of the lamps should be engineered so as to cast light downwards onto the roads, instead of up into the trees. Analysis indicates that streetlights were never installed along the basin. However, some of the CFA's recommendations on light levels were followed when lamps were installed around the Lincoln Circle.

41. CFA Minutes, 17 February 1927; U.S. Office of Public Buildings and Public Parks of the National Capital, *Annual Report of the Director of Public Buildings and Public Parks of the National Capital, 1927* (Washington: Government Printing Office, 1927) 16; and OPBPP, *Annual Report, 1930*, 74.

42. OPBPP, *Annual Report, 1927*, 17.

43. Reference to Herbert E. French photograph, 20 March 1922, Procite #3713; see reference to Corcoran shrub on "Lincoln Memorial Planting Plan," Irving W. Payne, OPBG, 1920-1931, copied from National Archives, probably RG 42, LMC, copy on file Denver Service Center, Falls Church. The shrub has not survived to the present.

44. See "Lincoln Memorial Planting Plan;" Corps, *Improvement and Care* (1924) 2035; *Improvement and Care* (1925) 1956; and OPBPP, *Annual Report 1926*, 15.

45. See *Washington Star*, 26 May 1923; and Corps, *Improvement and Care* (1923) 2030.

46. CFA Minutes, 17 February 1927.

47. OPBPP, *Annual Report, 1927*, 32; OPBPP, *Annual Report, 1928*, 24; OPBPP, *Annual Report, 1929*, 29; and OPBPP, *Annual Report, 1930*, 38.

48. In 1925 site preparation was initiated for the Titanic Memorial, designated for a location in the far northwest corner of West Potomac Park. It was not dedicated until 1931, after the extension of the seawall in this area was completed. The marble Cuban Friendship Urn was placed in the West Potomac Park rose garden in 1928 to commemorate victims of the explosion of the battleship *Maine*, which had occurred in 1898. Corps, *Improvement and Care*, (1925), 1961; OPBPP, *Annual Report, 1926*, 15; OPBPP, *Annual Report, 1927*, 17; and OPBPP, *Annual Report, 1928*, 44. See also Historic American Building Survey, "West Potomac Park," No. DC-693, by Elizabeth Barthold (Washington, D.C., 1993) 9; National Park Service, *Sculpture in the Parks*, National Capital Region and the Denver Service Center (Washington, D.C., 1985) 11; and "Parkway Seawall Building Ordered," *Washington Star*, 16 July 1928. A site near an existing wooden bandstand, southeast of the Reflecting Pool, was designated for the District of Columbia War Memorial. The site selected departed from the McMillan plan by following the alignment of 19th Street rather than that of 18th Street. This site was not one of the axial locations designated on Howard's 1916 plan. Although not dedicated until Veterans Day, 1931, the domed, open, stone structure honored residents of the District who had lost their lives in World War I and served as both a commemorative site and as a band stand. Pedestrian paths, rather than roadways, circled the War Memorial. See Marilyn Feldman, "The D.C. War Memorial," in *Stars and Stripes-The National Tribune*, 6 April 1991, 15-16; *Report of the District of Columbia World War Memorial Commission*, House of Representatives, Report No. 897, 68th Congress, 05/29/1924; and CFA Minutes, January 1928-August 1928. Other commemorative development near the Lincoln occurred in 1934, when a statue of William Jennings Bryan was erected in the northwest section of West Potomac Park, near Easby's Point. See HABS, "West Potomac Park," 9.

49. Corps, *Report Upon the Improvement* (1920) 4122, states that East Potomac Park was "primarily a recreation park" developed with "facilities for all kinds of outdoor sports and games." In the following year, the officer in charge described a different type of recreational use in Corps, *Improvement and Care* (1921) 2059, where he noted that the effects of grading, seeding, planting and construction of walks and bridle paths in West Potomac Park "have resulted in the beautification of a large area of waste land, making it available as a recreation ground for the people of Washington." The National Capital Park and Planning Commission, in their *Annual Report* (Washington, D.C.: Government Printing Office, 1927) 10, was critical of the concentration of OPBPP facilities in the major parks as being "accessible and convenient to only a small portion of the

population." During the 1914-1933 period, the golf course northwest of the memorial and a group of tennis courts, which had been located south of B street North and then removed in 1918 for the Navy and Munitions Buildings, were the only recreational facilities constructed in the immediate vicinity of the Lincoln Memorial. In 1948, the CFA's official report reiterated that the open space surrounding the Lincoln Memorial should be for passive recreation.

50. Corps, *Improvement and Care* (1924), 2028; and OPBPP, *Annual Report, 1927*, 9. The Office of Public Buildings and Grounds (OPBG) became part of the newly created Office of Public Buildings and Public Parks (OPBPP) of the National Capital in 1925.

51. See CFA Minutes 20, December 1935; and fountain test series, in National Capital Region Public Affairs photographs, photographs #132 to #137, Disc 2, Museum Resource Center.

52. WPA, *Guide*, 224; *Washington Star*, 17 January 1928; and plans for "Festival of Youth," May 14, 1932, TICS# 801/80150.

53. OPBPP, *Annual Report, 1930*, 36. The Reflecting Pool was closed to "eradicate seaweed;" see *Washington Star*, 21 August 1928.

54. "Minutes of the Meeting of Commission of Fine Arts Held in New York City, March 15, 1928," copy ; Charles Moore to Arlington Memorial Bridge Commission, 03/15/1928; and H.P. Cammerer to Frederick Law Olmsted, 04/25/1928, all in Section E-4, #2843, Series B, Olmsted Associates.

55. The CFA, in *Report of the Commission of Fine Arts, 12th Report, July 1, 1929 to December 31, 1934,* 11, reiterated the need for the removal of the war buildings in order to complete the development of the expansive green space planned for the east/west axis by the McMillan Commission.

56. "Landscape Architecture," in OPBPP, *Annual Report, 1930*, 40-42; and Historic American Buildings Survey, *Rock Creek and Potomac Parkway: History and Description*, No. DC-663, National Park Service, U.S. Department of the Interior, 99-104.

57. Greenleaf to Grant, 17 June 1932, RG 66, NA, copy on file Denver Service Center, Falls Church, Virginia.

58. OPBPP, *Annual Report, 1932*, 52-53.

59. Commission of Fine Arts, *Thirteenth Report*, 121, 123.

60. Commission of Fine Arts, *Thirteenth Report*, 125, 127; and National Capital Region Public Affairs photographs, photograph #13, 4 August 1936, Disc 3, Museum Resource Center. Another "improvement" near the Lincoln Memorial was the temporary installation of lights along the reflecting pool for nighttime skating; see National Capital

Region Public Affairs photographs, photographs #20, #24, December 1935, Disc 3, Museum Resource Center.

61. Commission of Fine Arts, *Thirteenth Report*, 128. Photo documentation indicates that a flood also occurred in 1937; see "Dyke Construction" photographs, #5.3-3, in NCR/NPS photofile, Washingtoniana Collection, Martin Luther King Memorial Library, Washington D.C.

62. Scott A. Sandage, "A Marble House Divided: The Lincoln Memorial, the Civil Rights Movement, and the Politics of Memory, 1939-1963," *The Journal of American History* (June 1993), 144, 147. Marian Anderson gave a second concert at the Lincoln Memorial during a memorial service for former Secretary of the Interior Harold Ickes in 1952.

63. See National Capital Park and Planning Commission, "The Mall-Central Area: Study for Development," 1939, National Capital Region Map File, 35-52 F/1; and see 1937 version and Gilmore Clarke, consultant, National Capital Park and Planning Commission, "Development of the Central Area West and East of the Capitol," Washington, D.C., 1941, both shown as plates 225 in Longstreth, ed., *The Mall in Washington*.

64. Shultz, "Development of the Historic Landscape," 19, 26. Schultz cites NPS acting director Arthur DeMaray's approval of the road plan on the condition that it use as "many existing park roads as possible," and that it preserve the trees. This stipulation may explain why the west-bound lanes of Independence Avenue near the Lincoln Memorial do not follow the historic designed route for B Street South, but appear to follow the path of an unplanned and informal existing park road. See also Gilmore D. Clarke to Frederic A. Delano, 12 September 1940 and "Roads Program of $4,536,100 Asked in Budget," *Washington Star*, 8 January 1941, both of which discuss the generally perceived merits of how best to improve a potentially difficult traffic situation. In addition to the War Department Building, the opening of National Airport and the Jefferson Memorial were expected to increase traffic levels in the area.

65. Commission of Fine Arts, *Report of the Commission of Fine Arts, July 1, 1944 to June 30, 1948* (Washington, D.C.: Government Printing Office, 1948) 90.

66. KressCox Associates, *Historic Structures Report, Arlington Memorial Bridge* (Washington, D.C., ca. 1994) 220; and photo documentation found in "Arlington Memorial Bridge Completed" File, National Capital Region Public Affairs photographs, photograph #72, 16 December 1949, #73, 20 July 1951, and #76, June 1951, all on Disc 1, Museum Resource Center.

67. "Gardening at Lincoln Memorial is Full of Troubles, Experts Say," *Washington Star*, 20 April 1952.

68. See photographs of road conditions, National Capital Region Public Affairs photographs, photographs #5-8, 20 March 1953, Disc 2, Museum Resource Center. See also "Detail of East Plaza Reconstruction, Lincoln Memorial," National Capital Parks, Engineering Division, NAP 31-20?, March 1953; "Walks and Drainage, Lincoln

Memorial," National Capital Parks, Landscape Architectural Division, NAP 31-209, August 1953; and "Paving Work to Alter Traffic at Memorial," *Washington Star*, 27 June 1953.

69. The significance of the Lincoln Memorial as a setting for important events can be seen in the mural of the Marion Anderson concert located in the Department of the Interior. The significance is discussed in Sandage, "A Marble House Divided;" and Thomas Gentile, *March on Washington: August 28, 1963* (Washington, D.C.: New Day Publications, 1963). Photographs of various events are in the National Capital Region Public Affairs photographs: Pilgrimage photographs, #42, 2 May 1953, and #43, 30 April 1955, both on Disc 1, and #104, 22 September 1954, Disc 2; Kennedy candlelight service photographs, #85-#90, 22 December 1963, Disc 1; Resurrection City photographs, #51-#67, Summer 1968, Disc 3; and filming of *Solid Gold Cadillac*, #141, 24 October 1955, Disc 1, Museum Resource Center. See also "Lincoln Pilgrimage Expected to Bring 100,000 to District," *Washington Star*, 11 September 1954; "Kennedy Candle Rites Set At Lincoln," *Washington Star*, 8 December 1963; "Protest on Biafra at Memorial Ends," *Washington Star*, 20 October 1968; "Jews in All-Night Vigil to Protest Soviet Acts," *Washington Star*, 18 April 1971; and *Mr. Smith Goes to Washington*, Frank Capra, dir., (Columbia Pictures, 1939).

70. See CFA Minutes for 18 May 1944, 18 September 1962, 16-17 April 1963, 17 March 1964, 19 March 1969, 23 April 1969, 19 January 1972; 1 December 1972; 17 January 1973. See also "Dressing Up For The Inaugural," *Washington Star*, 01/16/1969; and "Specifications for Lincoln Memorial Lighting and Other Improvements, West Potomac Park, Washington, D.C." Contract No. 14-10-7:991-210, May 31, 1968, copy on file Denver Service Center, Falls Church, Virginia; and Einhorn Yaffee Prescott, *Lincoln Memorial Luminaire and Midge Testing* (Washington, D.C., 1995). One proposal incorporated lighting into the new hand rails; the 1969 installation was criticized for its brightness; and it was corrected and approved by the CFA in 1972.

71. See "New Stair Railings," Lincoln and Jefferson Memorials, National Park Service, Design and Construction, National Capital Office, January 1964, TIC #806/80219.

72. "Lincoln Memorial: West Plaza Rehabilitation," Ben Howland, NCP, June 1973, TIC #867/80075.

73. Ole Singstad, David G. Baille, Umberto Innocenti, and Richard K. Webel, *Report on Redevelopment of Lincoln Memorial Area*, U.S. Department of the Interior, National Park Service, National Capital Parks, 1960; and "Memorial Tunnel Plan Set," *Washington Star*, 20 May 1962.

74. Skidmore, Owings and Merrill, *The Washington Mall Master Plan*, National Park Service, U.S. Department of the Interior, 1966, 13-14, illus.

75. Aquatic plants had been added to the pools as early as 1944. See National Capital Region Public Affairs photographs, photograph #119 and #120, 17 August 1944, Disc 2;

photograph #36, 14 August 1963, Disc 3, Museum Resource Center; also cover photograph, *Washington Star* supplement, 07/26/1964; "National Capital Parks Beautification Plantings, Floral Displays and Permanent materials," 1964-1968, copy on file Denver service Center, Falls Church, Virginia; and "Fall Daffodil Planting," 1967, TIC #844/80414A.

76. See Paul Lederer, "Lincoln Memorial Reflecting Pool Walks," Working Drawings, National Park Service, Denver Service Center, October 1971, TIC #801/40004A; and compare with "West Potomac Park and the Lincoln Memorial Grounds," January 1922, TIC #801/80096; and Howard, "Lincoln Memorial Potomac Park Improvements," September 1916, TIC #801/80095.

77. See "Lincoln Memorial, Alterations to Accommodate the Physically Handicapped," November 1974, TIC #806/41001A; and "Abe Lincoln Wins a New Audience," *Washington Star*, 12 May 1976.

78. Tom DeHaven, "Planting Revision and Additions, Lincoln Memoria," National Capital Region, TIC #801/80008, September 1977.

79. Information from the late 1970s and early 1980s is based on office files, NACC, materials dated ca. 1977-1993. See also, "Anti-Fizz Treatment," *Washington Star*, 3 September 1971.

80. The VVKR Partnership, *Preliminary Report, Mechanical and Electrical Design Services, Rehabilitation of the Reflecting Pool*, Prepared for the National Park Service, 1978; Lowell V. Sturgill, Director, National Capital Region, to Honorable James H. Quillen, 28 May 1982; and William F. Ruback, Superintendent, National Capital Parks-Central to Kathleen Gallagher, 6 August 1982, both in NACC files; and "300 Protesters Wade into Pool During Program," *Washington Star*, 19 June 1968. Review of the *Star* clippings file documents the annual cleaning of the pools. The VVKR report notes that park personnel had been known to add a black dye to enhance the reflective quality of the pool water.

81. Stanton to Garvey, 3 July 1984, NACC files.

82. See Save-the-Elms-Task Force, "Management Program for the Perpetuation of the American Elm Tree in the National Capital," 1993; and Shultz, *Development of Washington Monument Grounds*, 31.

83. See files of Paul Goeldner, National Capital Region.

IV. Analysis and Evaluation

84. The American elms along 17th Street were planted in 1907 and lined both sides of the road. A number of elms were removed during the Lincoln Memorial grounds construction to frame an opening for the vista from the Washington Monument to the Lincoln Memorial. It is unclear why the opening was narrower in this area, 160 feet, compared to the wider 360 feet vista designed for the Lincoln Memorial grounds. See historic photo documentation.

85. "The *Ulmus* x *hollandica* group consists of a number of hybrids between *U. glabra* and *U. carpinifolia*. The true Dutch elm is *U.* x *hollandica* 'Major.' *U. procera*, the English elm may in fact be just another selection of *U.* x *hollandica*. The taxonomy of the elms and the European elms in particular is very confusing. My predecessor Horace Wester described the original Reflecting Pool elms as *U.* x *hollandica* 'Dauvessei.' I have no idea if this is correct. As we know, the collection has been mixed with other Hollandica selections, so it is probably best at this point to simply refer to them as *U.* x *hollandica* cultivars." Comments from Jim Sherald, National Park Service, National Capital Region Chief of Natural Resources, 11 November 1998.

86. Based on photo documentation, a series of night time photographs of the "City of Washington" in 1931 by noted *National Geographic* photographer Volkmar Wentzel, shows one image of the Washington Monument from the inner chamber of the Lincoln Memorial, bathed in lights.

VIII. Bibliography

Selected Bibliograpy

Manuscript Materials

Catalog of Landscape Records in the United States, Bronx, New York
Henry Bacon data file
James Greenleaf data file

Commission of Fine Arts, Washington, D.C.
Official Minutes of the Commission of Fine Arts
Arlington Memorial Bridge 1921-1954
District of Columbia World War Memorial 1924-1928
Lincoln Memorial 1911-1979

Henry Bacon Collection - Weslyan University Archives, Middletown, Connecticut
Lincoln Memorial Correspondence

Historical Society of Washington, D.C..
Ephemera collection
Pamphlet collection
Photograph collection

Library of Congress - Manuscript Division
Olmsted Associates -Series B, Job Files 1870-1950
#2839 Potomac Park
#2843 Commission of Fine Arts
- Part I, Sections C-1 (Parks and Parkways), C-6 (Tree Planting), D-4 (Naval Academy), E-4 (Lincoln Memorial), and E-10 (Memorial Bridge over the Potomac)
- Part II, "CON," "MN," "MG"
#2848 Washington Monument Grounds

Martin Luther King Memorial Library - Washingtoniana Collection
National Capital Region, National Park Service photograph file
Washington Star clippings file
Vertical Files, Potomac Parks and Lincoln Memorial

National Capital Region, Museum Resource Center (MRC), Glenn Dale, Maryland
National Capital Region Public Affairs Photograph Collection

National Capital Region (NCR), Washington, D.C.
- Cultural Resources Division
  - Library Collection
  - Paul Goeldner File
- Land Use Division
  - General File -"Tempos"
  - M.B. Stratton File

National Capital Parks-Central (NACC)
- Cultural Resource Management
  - Vertical Files
  - Historic Photograph Collection
- DataBase (Pro-Cite)
  - Lincoln Memorial
    - National Archives and Records Administration
      - Records of the Commission of Fine Arts - RG 66
      - Records of the Office of Public Buildings and Grounds
        - Lincoln Memorial Commission - RG 42
      - Records of the National Park Service - RG 79
        - Cartographic Section
- General (compiled by Denver Service Center, Falls Church, Virginia)
  - Miscellaneous Files
- Natural Resources Management
  - Memorial Tree File
  - Geographic Information Systems (GIS) Data

National Park Service - Technical Information Center (TIC)
- Denver Service Center, Falls Church, Virginia
  - Microfiche File - Maps and Plans

Before the Memorial

Jan. 1900	"Part of Potomac Park." #801/80087.
Jun. 1908	"Map of North Potomac Park showing Water-side-drives, Washington." Colonel S. Bromwill, Office of Public Buildings and Grounds [OPBG]. #801/80066
c. 1900	"Study for Cross Section Potomac Park Drive-way." Theo. A. Bingham, OPBG. #801/80067.
No Date	"Plan of Planting Potomac Park," #801/80085.

Watergate steps area

Oct. 1930 rev. Nov. 1931	"Bridge Plaza and Watergate Presentation Planting Plan." Irving W. Payne. AMBC. #801/80148.
Nov. 1931/ Aug. 1932	"Bridge Plaza & Watergate Detail Planting Plan & Key." Irving A. Payne. AMBC. #801\80148.
rev. Dec. 1931	Watergate and Bridge Plaza Roadways: Low Level Driveway Plan, Profile & Sections." John Nagle. Arlington Memorial Bridge Commission [AMBC]. #801/80134.
Aug. 1932	"General Planting Plan: South Wingwall - Extension." Irving W. Payne, AMBC. #801/80167.
Aug. 1932 rev. Mar. 1934	"General Planting Plan: North Wingwall – Extension." Irving W. Payne. AMBC. #801/80167.
Aug. 1932	"General Development of Parking Area South Wingwall Extension." Irving W. Payne. AMBC. #801/80168.
Jan. 1942	"The Underpass at the Watergate: Showing Openings in Side Walls For New Construction." National Capital Parks [NCP]. #801/80236.
Dec. 1964	East Plaza limit lines for wall work. NCP. #806/80220.
Apr. 1965 rev. 1966	"Watergate Arlington Memorial Bridge Plaza: Planting Plan - 1965." Simons. National Capital Office. #869/80067.
Feb. 1968	"Lincoln Memorial: Plaza Repairs." NACC. #867/80068.
May 1969	"Watergate-Memorial Bridge Plaza: Placement of Planters." National Capital Parks - Central [NACC]. #801/80063.

June 1973 "Lincoln Memorial: West Plaza Rehabilitation." Ben Howland. NCP. #867/80075.

Lincoln Memorial Circle

1931, rev. 1967 "Lincoln Memorial Planting Plan." Irving W. Payne. OPBG. #806/80164 1A.

Oct. 1931 "Lincoln Memorial Terrace Presentation Planting Plan." Irving W. Payne. AMBC. #801/80152.

Aug. 1932 "Lincoln Memorial Terrace Detail Planting Plan & Key - West Half of Terrace." Hallaner. AMBC. #801/80144.

Aug. 1932 "Lincoln Memorial Terrace Detail Planting Plan." Irving W. Payne. AMBC #801/80169.

Oct. 1935 "Lincoln Memorial Boxwood Replacement." NCP. #801/80149.

Mar. 1944 "Lincoln Memorial Planting Rehabilitation." NCP. #801/80347.

rev. May 1945 "Lincoln Memorial Terrace Detail Planting Plan." Irving W. Payne. AMBC. 801/80169A.

Jun. 1969 "Existing Planting Plan." Willard. National Capital Region [NCR]. #806/80231.

Nov. 1974 "Lincoln Memorial: Alterations to Accommodate the Physically Handicapped." National Capital Parks - West. #806/41001A, #806/41001B, #806/41001D.

Sep. 1977 "Lincoln Memorial: Planting Revision & Additions." DeHaven. National Capital Region [NCR]. #801/80008.

March 1993 "Restoration of Raised Terrace." Hartman-Cox Architects. NACC. #806/41008.

Overall Proposals

1939	"The Mall - Central Area: Study for Development." National Capital Park and Planning Commission. [NCA-SSO microfilm 35-52 F/1]
Nov. 1959	"Study of Grades Lincoln Memorial Underpass Plan & Profile." NCP. #801/80827.
1961	Proposal for Tunnels to west of Lincoln Memorial. NCP. #801/80813.
July 1960	"Cross Section Showing View Lines, Lincoln Memorial." Umberto Innocenti & Richard K. Webel. #801/80848.

Reflecting Pool Overall Plans

Aug. 1915	"West Mall - Sketch for Locating Trees between 17th St. and Lincoln Memorial." #801/80083.
Oct. 1915	"Angle of Reflection in Lincoln Pool from Washington Monument Showing Mr. McKim's and Mr. Bacon's Head of Pool." J.G.L. #801/80787.
Sept. 1916	"Lincoln Memorial Potomac Park Improvements: B-Street N. to B-Street S. and 17th Street tot he Potomac River." C.E. Howard. OPBG. #801/80095.
Aug. 1919	"Reflecting Pool: Plan, Profile, and Details of Conduit." OPBG. #801/80792.
Aug. 1920	"Reflecting Pool - West Potomac Park: Apron & Foundation for Coping Pile Plan - Expansion Joint - Sections." OPBG. #801/80798.
Aug. 1921	"Reflecting Pool - West Potomac Park: Waterproofing - General Plan and All Details." OPBG. #801/80793.

Sept. 1920 rev. Nov. 1921	"The Lincoln Memorial: Revised Plan for Tree Spacing Around Circle." Irving W. Payne. OPBG. #801/80088.
Jan. 1922	"West Potomac Park and the Lincoln Memorial Grounds: Grading Plan of Areas Included Between No. & So. B Streets, West of 17th Street Based on General Plan of C.E. Howard, Architect, Sept. 15 1916." OPBG. #801/80096.
Jan. 1922	"Reflecting Pool - West Potomac Park: Setting Granite Coping - General Plan and Details." OPBG. #801/80794.
Feb. 1923	"Reflecting Pool - West Potomac Park: Detailed Plan - Section "B" - Steps-Sections & Plans." Irving W. Payne. OPBG. #801/80796.
Feb. 1923	"Reflecting Pool - West Potomac Park: General Plan - Walks & Steps." Irving W. Payne. OPBG. #801/80795.
May 1923	"Reflecting Pool - West Potomac Park: Detailed Plan - Section "A" - Steps - Sections and Plans." Irving W. Payne. OPBG. #801/80796.
May 1923	"West Potomac Park - Lincoln Memorial: Plaza Details and Steps - Existing and Proposed Elevations." Irving W. Payne. OPBG. #801/80800.
Oct. 1969	"Reflecting Pool Sidewalk: Vicinity of Reflecting Pool West Potomac Park Res. 332. - Paving Plan." Robinson. NCR. #801/40004.
June 1970	"Lincoln Memorial Reflecting Pool Walks." Paul E. Lederer. NCP. #801/40004A.
Nov. 1971	"Utility Survey Old Navy - Munitions Site, West Potomac Park." Sterling R. Maddox & Associates. #801/80022.

Site Details

Paving

Feb. 1921	"West Potomac Park: Construction of Roads, Walks & Curb about Lincoln Memorial." OPBG. #801/80065.
Dec. 1931	"Water Gate and Bridge Plaza - Roadways, Sidewalks, Water Supply, Drainage, Etc." AMBC. #801/80359.
Feb. 1968, rev. March 1968 & Sept. 1969	"Proposed Sidewalks, Lincoln Memorial." Willard. NCR. #801/80642.
Nov. 1970, rev. April 1973	"Proposed Sidewalks, Lincoln Memorial." DeHaven. National Capital Office. #801/80642.

Lighting

July 1922	"Suggestion of Lamp-post for circular roadway around Lincoln Memorial - Washington." Henry Bacon. #801/80068.
Dec. 1931	"Water Gate and Bridge Plaza - Roadways, Sidewalks, Water Supply, Drainage, Etc." AMBC. #801/80359.[shows approved lighting layout for plaza]
Nov. 1932	"Install Cable on Riverside Drive, Bet. Constitution Ave. Plaza & Ericsson Memorial." #801/80162.
March 1940	"Lighting Plan - West Potomac Park Streets In Vicinity of Lincoln Memorial." NCP. #801/80219.
Aug. 1943	"Walkway Lighting, Residence Halls." Federal Works Agency. #80180338.
July 1947	"Lighting Plan - 17th Street [btw] Constitution and Independence Avenues." NCP. #801/80387.

Feb. 1972 "Lighting Plan - French Drive Lincoln Memorial." Gill. NACC. #801/80701.

Signage

unknown date Tree marker. #801/80082.

c. 1950 "Signs for Concert Barge, Watergate." NCP. #801/80059.

Aug. 1946 "Typical Direction Signs, Lincoln Memorial Vicinity." NCP. #801/80376.

Temporary Structures

Feb. 1949 "Beverage Stand Water Gate Lower Level." Government Services Incorporated. #801/80060.

Aug. 1962 "Guard Stand, Lincoln Memorial." Madigan. National Capital Office. #806/80217.

Watergate Area

May 1924 "General Plan for Rock Creek and Potomac Parkway, Section No. 1." (This Plan Based on General Plan for Memorial Bridge Approaches By McKim Mead And White and Topographical Map By Geo. E. Clark, C.E.) Irving W. Payne. OPBG. #801/80824.

Dec. 1928
rev. March 1929 "Planting Plan for Transplanting Existing Japanese Cherry Trees and Elms Located Near East Approach to Bridge." Irving W. Payne. OPBPP. #801/80129.

Nov. 1931 "Arlington Memorial Bridge Approaches, General Plan." Irving W. Payne. AMBC. #801/80141.

Dec. 1933	"West Potomac Park, Relocation of Golf Course." Carl G. Marsh. OPBG. #801/80130A.
c. 1933	"West Potomac Park, Relocation of Golf Course." #801/80130.
July 1947	"Estimated for Service to Guard Rooms & Public Toilets Beneath Parkway Approach NW of Lincoln Mem." #801/80058.
May 1969 rev. 1973	"Placement of Planters, Watergate - Memorial Bridge Plaza." Neal. NCR. #801/80063 & #801/80063A.

Adjacent Lands

March 1970	"Grading Plan - Navy & Munitions Building Site." Caldaro. NCR. #801/40007.
Aug. 1976	"Restoration of Festival of American Folklife Site, West Potomac Park." R.N. Cook. NCP. #801/80015.

Ericsson Memorial

April 1924	"Ericsson Monument Location Plan." Irving W. Payne. OPBG. #801/80196.
Aug. 1932	"Ericsson Monument Circle - Presentation Plan." Irving W. Payne. AMBC. #801/80165.
Feb. 1933	"West Potomac Park Ericsson Memorial - Suggested Planting Plan." A.H. Hanson. OPBPP. 801/80165.
Aug. 1934	"West Potomac Park, Area Adjacent to Ericsson Memorial - Planting & Grading Plans." Irving W. Payne. NCP. #801/80153.

General Plans

1927	Existing conditions for Reflecting Pool and Lincoln Memorial circle. #801/80120.
March 1939	Existing conditions for Lincoln Memorial Grounds, including Reflecting Pool and Watergate area. #801/80375.
April 1939	"General Planting Plan Dogwood Planting - West Potomac Park." NPS. #801/80227.
1941-42	Traffic Patterns West Potomac Park. #801/80236.

Flood Control

Feb. 1936	"West Potomac Park & Monument Grounds, Flood Control." OPBPP. #801/80132.
Dec. 1944	"Drainage and Utility Plan West Potomac Park, Flood Protection Works." NCP. #801/80355.

Memorial Tree Plans

May 1923 rev. April 1958	"West Potomac Park Memorial Tree Plan for the Cities of Massachusetts." Irving W. Payne. OPBG. #801/80080
May 1924	"Lincoln Memorial Memorial Tree Plan." #801/80081.
June 1925	"Lincoln Memorial Memorial Trees." Irving W. Payne. OPBPP. #801/80081A and #801/80081B.
May 1932 rev. 1933	"West Potomac Park, Key List of Memorial Trees." Lennon. AMBC. #801/80166 and #801/80166 rev A.
Aug. 1955	"Memorial Tree Record West Potomac Park." NCP. #801/80235.

Rainbow Pool

May 1923	"Reflecting Pool - West Potomac Park: Detailed Plan - Section "A" Grading - Jointing - Walks." Irving W. Payne. OPBG. #801/80796.
Aug. 1922	"Reflecting Pool - West Potomac Park: Fountain Inlets Plan - Sections- Profile." Earl G. Marsh. OPBG. #801/80797.
Feb.-Sept. 1923	"Reflecting Pool - West Potomac Park: Fountain Water Supply Lines - Details - Connections." OPBG. #801/80797
Oct. 1945	"Plans for Proposed Regrading, Resurfacing, Drainage and Other Work on 17th Street Northwest from Constitution Ave. to Independence Ave." NCP. #801/80373.
Oct. 1963	"Sketch for Rainbow Pool Ice Rink Estimate, Rainbow Pool." Urbanek. National Capital Office. #801/80810.
Jan. 1965	"Planting of Rainbow Pool - 1965." Simons. NCR. #801/80577.

Watergate Barge

July 1936	"Orchestra Shell for Water Gate Concerts." #801/80032.
July 1937	"Watergate - Orchestra Shell, General Plan and Elevation." NPS. #801/80033.
June 1938	"Watergate Concert Barge." #801/80035.
1938	"Watergate Concert Barge, General Location." NPS. #801/80034.
April 1940	"Sounding & Moorings for Barge." NCP. #801/80038.

July 1944 "Preliminary Study Floating Stage, Watergate." NCP. #801/80041.

Oct. 1944 "Preliminary Study Floating Stage, Watergate." NCP. #801/80042.

Jan. 1945 "Area to be Dredged by U.S. Engineers - Jan. 1945, Watergate." NCP. #801/80043.

c. 1947 "Concert Barge (revised), The Watergate." NCP. #801/80047.

c. 1947 "Concert Barge, Watergate." NCP. #801/80049.

Nov. 1947 "Concert Barge, Watergate." NCP. #801/80051.

March 1948 "Concert Barge, Watergate." NCP. #801/80052.

June 1951 "Cross Sec. Thru Steps at Watergate Showing Possible Platforms in Roadway." NCP. #801/80061.

Approachway & Raised Terrace

1974 "Lincoln Memorial: Alterations to Accommodate the Physically Handicapped." NACC. #806/41001A, #806/41001B, and #806/41001D.

March 1993 "Raised Terrace Restoration." Hartman-Cox Architects. NACC. #806/41008.

National Park Service Publications and Reports

EDAW, Inc. *Cultural Landscape Report of Mount Vernon Memorial Highway*. Prepared for National Capital Region, National Park Service, U.S. Department of the Interior, 1992.

Einhorn Yaffee Prescott. *Lincoln Memorial Lighting and Midge Study*. Prepared for the National Capital Parks-Central, National Park Service, U.S. Department of the Interior, 1993.

_____. *Lincoln Memorial Luminaire and Midge Testing*. Prepared for the National Capital Parks-Central, National Park Service, U.S. Department of the Interior, 1995.

Hartman-Cox Architects. *Preliminary Design of Repairs of the Approachway Structure, Paving, Drainage and Planting for the Lincoln Memorial*. Prepared for the National Capital Parks-Central, National Park Service, Washington, D.C., 1995.
_____. *Feature Inventory for the Lincoln Memorial*. Prepared for the National Capital Parks-Central, National Park Service, Washington, D.C.,1995.

Historic American Building Survey, National Park Service, U.S. Department of the Interior. *Rock Creek and Potomac Parkway*: *History and Description*, No. DC-663, by Timothy Davis. Washington, D.C., 1992.

_____. *West Potomac Park* , No. DC-693, by Elizabeth Barthold. Washington, D.C., 1993.

Interagency Initiative for National Mall Road Improvement. "Streetscape Manual," by the Architectural/Engineering Standards Subgroup. Washington, D.C., 1992.

KressCox Associates. *Historic Structures Report, Arlington Memorial Bridge*. Prepared for National Park Service, U.S. Department of the Interior, ca. 1994. On file at George Washington Memorial Parkway.

National Capital Parks, National Park Service, U.S. Department of the Interior. "Beautification Plantings, Floral Displays and Permanent Materials." Washington, D.C., 1964-1968. On file Denver Service Center, Falls Church, Virginia.

National Capital Parks-Central, National Park Service, U.S. Department of the Interior "Annuals for Summer Planting, Grounds Maintenance." Washington, D.C., 1982. On file Denver Service Center, Falls Church, Virginia.

National Park Service, United States Department of the Interior. *Archeological Survey Report, Eroision Control and Bank Stabilization Sites, Rock Creek Park and Rock Creek and Potomac Parkway*, by Paul Y. Inashima. Washington, D.C., 1985.

_____. *The Development of the Historic Landscape of the Washington Monument Grounds and West Potomac Park*, by Scott G. Shultz. Washington, D.C., 1995. On file Denver Service Center, Falls Church, Virginia.

_____. *Environmental Impact Statement, Proposed Rehabilitation of the National Mall.* Washington, D.C., ca. 1978.

_____. *Environmental Impact Statement, West Potomac Park and the Proposed Franklin Delano Roosevelt Memorial*, by the FDR Memorial Commission and National Capital Region. Washington, D.C., 1983.

_____. *Historic Resource Study, East and West Potomac Parks: A History,* by Gordon Chappell. Denver, Colorado, June 1973.

_____. *Historic Resource Study, Rock Creek and Potomac Parkway, George Washington Memorial Parkway, Suitland Parkway, Baltimore-Washington Parkway*, by Jere L. Krakow, Washington, D.C., 1990.

_____. *A History of National Capital Parks,* by Cornelius W. Heine. Washington, D.C., 1953.

_____. *History of the Mall*, by George J. Olszewski. Washington, D.C., 1970.

_____. "Ice Skating Report." Washington, D.C., 1964. On file Denver Service Center, Falls Church, Virginia.

_____. "L'Enfant Plan of the City of Washington, District of Columbia," *National Register and National Historic Landmark Nomination,* draft, by Sara Amy Leach. Washington, D.C., 1994.

_____. *Landscape Overview, Thomas Jefferson Memorial,* by Audrey Tepper and Sally Prothero. Washington, D.C., 1996. On file Denver Service Center, Falls Chuch, Virginia.

_____. *Lincoln Memorial.* Washington, D.C., 1986.

_____. *The National Parks: Shaping the System,* by Barry Mackintosh. Washington, D.C., 1991.

_____. *Pioneers of American Landscape Design,* edited by Charles A. Birnbaum and Lisa E. Crowder. Washington, D.C., 1993.

_____. *Pioneers of American Landscape Design II*, edited by Charles A.Birnbaum and Julie K. Fix.Washington, D.C. 1996.

_____. *Resources Management Plan, National Capital Parks-Central.* Washington, D.C., 1981.

_____. "Specifications for Lincoln Memorial Lighting and Other Improvements, West Potomac Park, Washington, D.C." Washington, D.C., 1968. On file Denver Service Center, Falls Church, Virginia.

_____. *Sculpture in the Parks.* Washington, D.C., 1985.

O'Donnell, Patricia M., Charles Birnbaum and Cynthia Zaitzevsky, Ph.D. *Cultural Landscape Report for Vanderbilt Mansion National Historic Site*, vol. 1. Prepared for the Division of Cultural Resources Management, North Atlantic Region, National Park Service, U.S. Department of the Interior, Boston, Massachusetts, 1992.

Olmsted Center for Landscape Preservation, National Park Service, U.S. Department of the Interior. *Guide to Developing a Preservation Maintenance Plan for a Historic Landscape*, by Margaret Coffin. Brookline, Massachusetts, 1995.

Save-The-Elms-Task-Force. "Management Program for the Perpetuation of the American Elm Tree in the National Capital." Washington, D.C., 1993.

Singstad, Ole, David G. Baille, Umberto Innocenti and Richard Webel. *Report on the Redevelopment of the Lincoln Memorial Area.* Prepared for the National Capital Parks, National Park Service, U.S. Department of the Interior, 1960.

Skidmore, Owings and Merrill. *The Washington Mall Master Plan 1971*. Prepared for the National Park Service, U.S. Department of the Interior, 1971.

Skidmore, Owings and Merrill. *The Washington Mall Master Plan*. Prepared for the National Park Service, U.S. Department of the Interior, 1966.

Warren-Findley, Jannelle, Ph.D. "Historic Documentation: Lincoln Memorial." Prepared for National Capital Parks-Central, National Park Service, Washington, D.C., 1985.

Williams, James B. and Ian Forbes. *Fees and Charges for Public Recreation*. Prepared for the National Park Service, U.S. Department of the Interior. Washington, D.C.: Government Printing Office, 1939.

Other Government Reports

Arlington Memorial Bridge Commission. *The Arlington Memorial Bridge*. Washington, D.C.: Government Printing Office, 1924.

Commission of Fine Arts. *Report of the Commission of Fine Arts, June 30, 1916.* Washington, D.C.: Government Printing Office, 1917.

_____. *Annual Report of the Commission of Fine Arts, June 30, 1916-January 1, 1918*. Washington, D.C.: Government Printing Office, 1918.

_____. *Eighth Report of the Commission of Fine Arts, January 1, 1918-July 1, 1919.* Washington, D.C.: Government Printing Office, 1920.

_____. *Report of the Commission of Fine Arts, Ninth Report, July 1, 1919-June 30, 1921*. Washington, D.C.: Government Printing Office, 1921.

_____. *Report of the Commission of Fine Arts, Tenth Report, July 1, 1921- December 31, 1925*. Washington, D.C.: Government Printing Office, 1926.

_____. *Report of the Commission of Fine Arts, Twelfth Report, July 1, 1929 to December 31, 1934.* Washington, D.C.: Government Printing Office, 1935.

_____. *Report of the Commission of Fine Arts, January1, 1935 to December 31, 1939*. Washington, D.C.: Government Printing Office, 1940.

_____. *Report of the Commission of Fine Arts, July 1, 1944 to June 30, 1948*. Washington, D.C.: Government Printing Office, 1949.

_____. *Report of the Commission of Fine Arts, July 1, 1948 to July 30, 1954.* Washington, D.C.: Government Printing Office, 1960.

EDAW, Inc. *Independence Avenue, Constitution Avenue*. Prepared for the National Capital Planning Commission, Washington, D.C., 1980.

Lincoln Memorial Commission. *Lincoln Memorial Commission Report,* 62nd Congress, 3d Session, Document No. 965. Washington, D.C., 1913.

U.S. Department of Agriculture. *Culture, Diseases, and Pests of the Box Tree.* Farmer's Bulletin No. 1855. Washington, D.C., 1940.

U.S. Army Corps of Engineers. *Report upon the Improvement and Care of Public Buildings and Grounds...*, extract from *Annual Report of the Chief of Engineers for1915-*. Washington D.C.: Government Printing Office, 1915-.
Reports for the years 1916, 1917, 1918, 1919, 1920 were also used.

_____. *Improvement and Care of Public Buildings and Grounds...*, extract from *Annual Report of the Chief of Engineers,1921-*. Washington, D.C.: Government Printing Office, 1921-.
Reports for the years 1922, 1923, 1924, 1925 were also used.

U.S. Congress. House of Representatives. Committee on the Library. *District of Columbia World War Memorial Commission.* 69th Cong., 1st Sess., 1924. House Report No. 897.

_____. Senate. Committee on the District of Columbia. *The Improvement of the Park System of the District of Columbia*. Report edited by Charles Moore. 57th Cong., 1st Sess., 1902. Senate Report No. 166.

U.S. Office of Public Buildings and Public Parks of the National Capital. *Annual Report of the Director of Public Buildings and Public Parks of the National Capital, 1926-*. Washington, D.C.: Government Printing Office, 1926-.
Reports for 1927, 1928, 1929, 1930, 1931, and 1932 were also used.

Other Works

"In a Marquee," *Journal of the American Institute of Architects,* June 1923.

"Unique Gifts of Washington to the Nation." *National Geographic,* April 1929, 473-481.

A Pictorial Report on Highway Bridges and Structures in the District of Columbia. Office of Planning, Design and Engineering, Department of Highways, Washington, D.C., 1956.

Alexander, Carrie Fischer. "Memorials Pose Preservation Challenges." *Architecture* (November 1994): 151.

Bailey, L.H. *Standard Cyclopedia of Horticulture*. New York: Macmillan and Company, 1914.

Batdorf, Lynn R. *Boxwood Handbook*. Boyce, Virginia: The American Boxwood Society, 1994.

Bolotin, Norman and Christine Laing. *The World's Columbian Exposition*. Washington, D.C.: The Preservation Press, 1992.

Brown, Glenn. *The Development of Washington*. Washington, D.C: Chamber of Commerce of Washington, D.C., ca. 1910.

Choulkas-Bradley, Marie and Polly Alexander. *City of Trees*. Washington, D.C.: Acropolis Books, 1981.

Concklin, Edward F., ed. *The Lincoln Memorial, Washington*. Public Buildings and Public Parks of the National Capital, Washington D.C., 1927.

Craig, Lois. *The Federal Presence: Architecture, Politics, and Symbols in United States Government Building.* Cambridge, Massachusetts: The MIT Press, ca. 1978.

Dirr, Michael A. *A Manual of Woody Landscape Plants.* Champaign, Illinois: Stipes Publishing Company, 1975.

Feldman, Marilyn. "The D.C. War Memorial." *The Stars and Stripes -The National Tribune*, 6 April 1991, p.15.

Gentile, Thomas. *March on Washington: August 28, 1963.* Washington, D.C.: New Day Publications, Inc., 1983.

Goode, James M. *The Outdoor Sculpture of Washington*. Washington, D.C.: Government Printing Office, 1974.

Green, Constance McLaughlin. *Washington, A History of the Capital, 1800-1950.* Princeton: Princeton University Press, 1962.

Griswald, Mac and Eleanor Weller. *The Golden Age of American Gardens*. New York: Harry N. Abrams, Inc., 1991.

Grosvenor, Gilbert. "Washington Through the Years." *National Geographic*, November 1931, 517-619.

Gutheim, Frederick. *Worthy of the Nation*. Washington, D.C. Smithsonian Institution Press, 1977.

Hains, Peter C. "Reclamation of the Potomac Flats at Washington, D.C." *Transactions of the American Society of Civil Engineers* 31 (January 1894): 55-80.

Hawkins, Don Alexander. "The Landscape of the Federal City." *Washington History* 3 (Spring/Summer 1991): 10-33.

Hazelhurst, F. Hamilton. *Gardens of Illusion, The Genius of Andre LeNostre*. Nashville, Tennessee: Vanderbilt University Press, 1980.

Jefferson, Roland M. "Boxwood Around the Lincoln Memorial." *American Horticulturalist* 54 (Late Summer 1975): 6-10.

Roberts, Edna Jane. *Famous and Historic Trees of the City of Washington*. Washington, D.C: Printcraft Service, Inc., 1927.

Junior League of Washington. *City of Washington, An Illustrated History*. New York: Alfred A. Knopf, 1977.

Kelly, Charles Suddarth. *Washington, D.C., Then and Now*. New York: Dover Publications, Inc., 1984.

Klaus, Susan L. "'Intelligent and Comprehensive Planning of a Common Sense Kind,' Frederick Law Olmsted, Jr. and the Emergence of Comprehensive Planning in America, 1900-1920." M.A. thesis, George Washington University, 1988.

Kohler, Sue, A. *The Commission of Fine Arts, 1910-1976, With Additions, 1977-1984*. Washington, D.C.: Government Printing Office, 1985.

Longstreth, Richard, ed. *The Mall in Washington, 1791-1991*. Washington, D.C.: National Gallery of Art, 1991.

Lowry, Bates. *Building A National Image: Architectural Drawings for the American Democracy, 1789-1912*. Washington, D.C.: National Building Museum, 1985.

Lynch, Kenneth. *Garden Ornament*. Canterbury, Connecticut: Canterbury Publishing, Co., 1979.

Maury, William M. *Alexander "Boss" Shepherd and the Board of Public Works*. Washington, D.C.: George Washington University, 1975.

Myer, Donald Beekman. *Bridges and the City of Washington.* Washington, D.C.: Commission of Fine Arts, 1974; reprint 1992.

Newton, Norman T. *Design on the Land*. Belknap Press: Cambridge, Massachusetts, 1971.

Noreen, Sarah Pressey. *Public Street Illumination in Washington, D.C.* Washington, D.C.: George Washington University, 1975.

Passoneau, Joseph and Partners. *Washington, D.C. The Evolution of the Center, Two Centuries of Change*. Washington, D.C., n.d.

Peters, Charles A. "The Lincoln Memorial Reflecting Pool." *The Military Engineer* 15 (May-June 1923):209-213.

Reps, John W. *Monumental Washington: The Planning and Development of the Capital Center* Princeton: Princeton University Press, 1967.

_____. *Washington On View.* Chapel Hill: University of North Carolina Press, 1991.

Sandage, Scott A. "A Marble House Divided: The Lincoln Memorial, The Civil Rights Movement, and the Politics of History." *Journal of American History* 80 (June 1993): 135-167.

Sherwood, Suzanne Berry. *Foggy Bottom 1800-1975*. Washington, D.C.: George Washington University, 1978.

Scott, Pamela and Antoinette Lee. *Buildings of the District of Columbia.* New York: Oxford University Press, 1993.

Taft, William Howard. "Washington: Its Beginning, Its Growth, and Its Future." *National Geographic*, March 1915, 221-292.

The VVKR Partnership. *Preliminary Report, Mechanical and Electrical Design Services, Rehabilitation of the Reflecting Pool.* National Park Service, U.S. Department of the Interior, 1978.

The Presidential Memorials. Produced by John Drimmer, 50 min. Jaffe Productions, 1995.

Thomas, Christopher A. "The Marble of the Lincoln Memorial." *Washington History* 5 (Fall/Winter 1993-94): 42-63.

_____. "The Lincoln Memorial and Its Architect, Henry Bacon (1866-1924)." Ph.D. diss., Yale University, 1990.

Tishler, William, ed. *American Landscape Architecture: Designers and Places*. Washington, D.C.: The Preservation Press, 1989.

Vosburgh, Frederick G. "Wonders of the New Washington." *National Geographic*, April 1935, 457-488.

Weiss, Freeman and R.A. St. George. *Culture, Diseases, and Pests of the Box Tree*, 2d ed. Farmers' Bulletin No.1855, U.S. Department of Agriculture, 1959.

Wilstach, Paul. "Approaching Washington by Tidewater Potomac." *National Geographic*, March 1930, 372-392.

Writer's Program,Works Progress Administration. *Washington D.C., A Guide to the Nation's Capital*, 2d ed. Washington, D.C.: Government Printing Office, 1942.

Wyman, Donald. *Trees For American Gardens*. New York: Macmillan Publishing Co., 1965.

Wyman, Donald. *Shrubs and Vines For American Gardens.* New York: Macmillan Publishing Co., 1969.

Zangrando, Joanna Schneider. "Monumental Bridge Design in Washington, D.C., as a Reflection of American Culture, 1886 to 1932." Ph.D. diss., George Washington University, 1974.