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National Park Service

In Cooperation with
Federal Highway Administration and
National Capital Planning Commission

Environmental Assessment

November 2002

Lincoln Memorial Circle Rehabilitation and Security Project

Washington, DC

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U.S. DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

ENVIRONMENTAL ASSESSMENT
for the
LINCOLN MEMORIAL CIRCLE REHABILITATION AND SECURITY PROJECT

LINCOLN MEMORIAL
WASHINGTON, DC

Summary

The National Park Service proposes to construct a vehicular barrier system and rehabilitate Lincoln Circle at the Lincoln Memorial in Washington, DC. As part of this project, rehabilitation of Lincoln Circle to improve traffic conditions would occur. In addition, a vehicular barrier wall would be constructed from Daniel French Drive along the west side to Henry Bacon Drive and bollards would be constructed along the outer ring of the Memorial. A secure access gate would be constructed on the west side of the Memorial and two visitor services areas would be constructed on the north and south sides of the Memorial. Construction of a vehicular security barrier system around the Lincoln Memorial would provide security to the Memorial and its visitors. It would mitigate the adverse impacts of the existing security system on historic resources.

This Environmental Assessment analyzes the impacts of three alternatives (a No-Action Alternative, and two action alternatives) on the human environment in accordance with the National Environmental Policy Act of 1969. The Preferred Alternative would either have no or negligible impacts on soils, geology, and topography; land use; agricultural lands, prime and unique farmlands soils; wildlife; vegetation and land cover; rare, threatened, endangered, candidate species and species of concern; air quality; water resources; soundscape management; lightscape management; socioeconomic resources; archeology resources; Indian trust resources; ethnographic resources; environmental justice; community facilities and services; infrastructure; and floodplains. Negligible to minor, long-term, adverse impacts to aesthetics and visual resources; and major, long-term, adverse impacts to historic resources and cultural landscapes may result from the Preferred Alternative. Implementation of the Preferred Alternative would be expected to have moderate, long-term, beneficial impacts to transportation and traffic, safety and security, visitor use and experience, and park operations.

Note to Reviewers and Respondents

If you wish to comment on the Environmental Assessment, you may mail or e-mail comments to the name and address below by December 4, 2002. Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address from the record, which we will honor to the extent allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations or businesses and from individuals identifying themselves as representatives or officials or organizations or businesses available for public inspection in their entirety.

Please address all comments to:
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PURPOSE OF AND NEED FOR ACTION

The National Park Service proposes to rehabilitate Lincoln Circle, construct a vehicle barrier system at the Lincoln Memorial, and construct new visitor services areas. This Environmental Assessment analyzes the potential environmental impacts that would result from the implementation of these actions. This Environmental Assessment has been prepared in accordance with the National Environmental Policy Act of 1969 and regulations of the Council on Environmental Quality for implementing NEPA (40 Code of Federal Regulation 1500-1508), and the National Park Service Director's Order # 12 (Conservation Planning, Environmental Impact Analysis, and Decision-making).

PURPOSE OF THE ACTION

The National Park Service is proposing to construct roadway improvements, a vehicular barrier system, and new visitor services areas at the Lincoln Memorial in Washington, DC (see Figure 1). The purpose of the proposed action is to rehabilitate the Lincoln Circle to improve traffic flow, improve security to the Memorial, and improve the visitor experience.

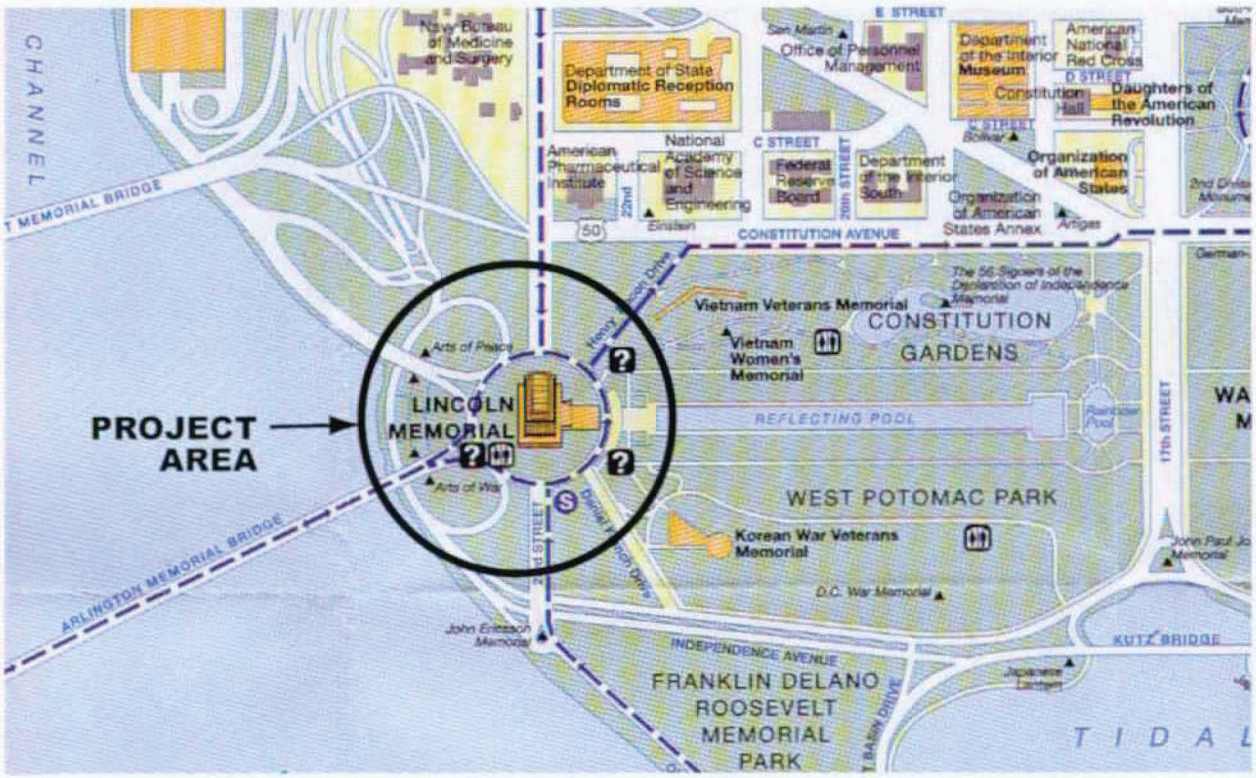

Figure 1: Project Area: Lincoln Memorial, West Potomac Park, Washington, DC.

NEED FOR THE ACTION

The road system around the Lincoln Memorial provides access to the Memorial and serves as part of the urban street network of Washington, DC. In addition, on-street parking is provided for tour buses. A Draft Transportation Study was prepared to assess transportation needs in the Memorial Core, including East and West Potomac Parks, as well as the areas around the Lincoln Memorial, Jefferson Memorial, and Washington Monument (NPS, 1997). According to this study, traffic around the Memorial Core has increased 20 to 30 percent since 1970. In addition to the normal traffic volume, a large number of tour buses operating in the traffic stream. During summer weekday traffic conditions, five of eight intersections in the Memorial Core operated at a Level of Service "F."[1] Also, a high volume of pedestrian and bicycle traffic was noted around the Lincoln Memorial. In addition to problems with traffic flow, parking for tour buses is inadequate. Currently, tour bus parking is limited to a bus pad along Daniel French Drive, and buses often impede traffic flow by double-parking in this area. Improvements to the roadway system will improve traffic flow and parking for tour buses.

Security improvements are needed to address potential terrorist threats to the United States and its symbols. For many years, makeshift security fences and concrete jersey barriers have been in place at a number of national landmarks in Washington, DC. After the Bicentennial Celebrations in 1976, the circular drive on the east side of the Lincoln Memorial was closed to all traffic except tourmobiles and taxis. Following the April 1995 bombing of the Alfred P. Murrah Federal Building in Oklahoma City, Oklahoma, temporary security barriers were erected around the Lincoln Memorial. After the September 11, 2001 attacks on the World Trade Center and the Pentagon, additional concrete jersey barriers and planters were erected around the Memorial ring, and the circular drive was completely closed on the east side to all traffic. However, the temporary measures would not prevent a terrorist from maneuvering a large vehicle with explosives close enough to the Memorial to do extensive harm. In addition, these temporary barriers affect the historic landscape of the Lincoln Memorial. A long-term solution is needed to provide adequate protection of the Memorial and its visitors, while preserving the cultural integrity of the Memorial.

A gift shop currently operates out of a kiosk located between 23rd Street (south) and Daniel French Drive. A food vendor operates out of a temporary trailer at the same location. An additional gift and food visitor service kiosk is needed to serve both the Lincoln Memorial and the Vietnam Veterans Memorial on the northeast side of the Lincoln Memorial.

This Environmental Assessment analyzes the potential environmental impacts that result from the implementation of these proposed actions. The Environmental Assessment has been prepared in accordance with the National Environmental Policy Act of 1969 and regulations of the Council on Environmental Quality for implementing NEPA (40 Code of Federal Regulation (CFR) 1500-1508), and the National Park Service's Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-making).

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[1] Level of Service F: Levels of service range from A (best) to F (worst). Level of Service F describes operations with average delays in excess of 80.0 seconds per vehicle. This is considered unacceptable to most drivers. (Transporataion Research Board, 1997).

HISTORY AND BACKGROUND

Figure 2: Lincoln Memorial.

The Lincoln Memorial, the most profound symbol of American democracy and freedom in the world, was dedicated on May 30, 1922, and honors Abraham Lincoln, the 16th President of the United States. Located at the west end of the National Mall, the Lincoln Memorial was designed by Henry Bacon based on the style of ancient Greek temples (Figure 2). It stands 100 feet high, 190 feet long, and 119 feet wide.

The first commission for a monument honoring Lincoln was proposed in 1867 shortly after Lincoln's death, but it was not until 1901, when the McMillan Commission began looking at restoring the National Mall to reflect Pierre L'Enfant's vision of a "federal city," that a Memorial to Lincoln actually began.

Congress approved a bill to construct the Memorial in 1910 and construction began in 1914. Over the course of the last century, the Lincoln Memorial has become one of the most visited sites in Washington, DC. It is the site of many large public gatherings and speeches, including Dr. Martin Luther King Jr.'s 1963 "I Have a Dream" speech.

Since the bombing of the Alfred P. Murrah Federal Building in Oklahoma City in 1995, temporary security measures were taken at many of the United State's most treasured landmarks, including the Lincoln Memorial. After the September 11th attacks on the World Trade Center and the Pentagon, concrete jersey barriers were erected around the Memorial, sealing the Memorial off from vehicular traffic (Figure 3). These measures were taken as a first response to provide security to the Memorial and to protect its visitors from the threat of attacks.

Figure 3: Security measures at the Lincoln Memorial.

Prior to the September 11th attacks, the Federal Highway Administration, in coordination with the National Park Service, began considering ways to improve the traffic around the Lincoln Memorial. Proposed improvements included: creating a new lane for tourmobiles, installation of new signals, and better pedestrian crosswalks.

After September 11th, the National Park Service decided to explore long-term solutions for improving security surrounding the Lincoln Memorial along with the rehabilitation of Lincoln Circle. In 2001, the National Capital Planning Commission created a task force to identify urban design solutions that would act as a benchmark for security design throughout the Nation's Capital. The National Park Service has used the recommendations of the task force in their planning of a vehicular barrier system.

RELATIONSHIP TO OTHER PROJECTS AND PLANS

FUTURE ROAD IMPROVEMENTS

Future projects that may have the potential to cumulatively impact this project include various road improvements planned in the vicinity of the Lincoln Memorial. The planned improvements include: rehabilitation of the west side of Arlington Memorial Bridge and the Theodore Roosevelt Bridge; access improvements to the Kennedy Center; and the rehabilitation of Constitution Avenue from 15th Street to 23rd Street and Ohio Drive from 23rd Street to the Rock Creek and Potomac Parkways. Construction improvements to Arlington Memorial Bridge are anticipated to begin in late spring of 2004, approximately one year after the start of the proposed action. The Theodore Roosevelt Bridge improvements project is currently in the preliminary planning stage. Construction for this project would not begin until after the Lincoln Memorial project is complete. In addition, an Environmental Assessment is currently being completed for road improvements at the Kennedy Center. This project would be broken up into three sectors. The southern sector, which would have the potential to impact the Lincoln Memorial, would not begin until late 2004. The road improvements projects are currently in the planning stages and construction would not begin until after the Lincoln Memorial project is complete.

SECURITY IMPROVEMENTS PROJECTS

Security improvements projects are currently underway at the Washington Monument and the Thomas Jefferson Memorial. Security improvements at the Washington Monument were studied in an Environmental Assessment dated April 2002. The Environmental Assessment assessed two alternatives for security improvements. The first alternative consists of constructing an underground screening facility and passageway to the Monument and a landscaped vehicle barrier system of walled terraces and pathways. The second alternative consists of construction of an above-ground screening facility with secured pathways to the Monument. Under this second alternative, bollards would be placed around the Monument grounds to provide a vehicular barrier system.

A Draft Environmental Assessment for security improvements at the Jefferson Memorial is currently being prepared. The Preferred Alternative for improvements at the Jefferson Memorial consists of a vehicular barrier system along East Basin Drive. The vehicle barrier system would consist of three sections of a vehicle barrier wall and bollards that would be approximately 2,000-feet long. This existing parking area would be raised to sidewalk level to create a pedestrian plaza. Visitor parking would be relocated to existing parking lots situated along Ohio Drive and would be within walking distance to the Memorial. Handicap accessible parking for visitors with disabilities would be relocated to the south side of East Basin Drive, directly across the street from the current tour bus access.

ISSUES AND IMPACT TOPICS

ISSUES

Issues and concerns affecting the proposed action were identified by specialists in the National Park Service, including the resource management staff of the National Capital Parks - Central.

The primary issue associated with the proposed action is how to design transportation improvements and a vehicular security system in a manner that meets the project need while not detracting from the historic nature of the Memorial and the cultural landscape. National Park Service staff worked with consultants, the National Capital Planning Commission, and the Commission of Fine Arts to develop alternatives that were sensitive to the context of the Memorial without appearing as though they are part of the original Memorial design. In addition, the safety and security of the visitors was also a major issue in meeting the need for proposed action.

Transportation improvements and the vehicular security system also need to be designed and implemented to allow for the efficient flow of traffic, while not impeding access to the Memorial by pedestrians or persons with disabilities.

IMPACT TOPICS ANALYZED IN THIS DOCUMENT

Impact topics are resources of concern that could be affected, either beneficially or adversely, by the range of alternatives. Impact topics were identified on the basis of Federal laws, regulations, Executive Orders, National Park Service *Management Policies* (2001), the Environmental Screening Form from Director's Order #12, and from National Park Service knowledge of limited or easily impacted resources. The Environmental Screening Form was completed by the National Park Service staff and identifies potential issues and impact topics that required additional investigation to address the requirements of the National Environmental Policy Act of 1969 and Director's Order #12. Specific impact topics were developed to ensure the alternatives were compared on the basis of the most relevant topics. As a means of evaluation, impact topics included in this document were analyzed in more detail to compare the environmental consequences of the No-Action Alternative and the other two action alternatives.

The impact topics identified on the Environmental Screening form are explained below.

- Floodplains – the Lincoln Memorial lies adjacent to, but outside of, the 100-year floodplain. Alternatives to the proposed action were assessed to determine if they would affect the functions and integrity of the floodplain.
- Transportation (Traffic) – The purpose of park roads is to enhance visitor experience while providing safe and efficient accommodation of park visitors. However, urban parkways and city streets have a dual function, and not only serve park purposes, but also serve as extensions of the local transportation network and carry large volumes of non-park related traffic (NPS, 1984). The flow of vehicular and pedestrian traffic around the Lincoln Memorial is important to maintaining access and security for the Memorial. Therefore, the alternatives were analyzed to determine their effect on traffic.
- Aesthetics and Visual Resources – The aesthetics and visual resources of the Lincoln Memorial and the vistas to and from the Memorial help to define the historic nature of the Memorial and the visitor experience. Therefore, the alternatives to the proposed action were analyzed to determine their effect on this topic.
- Historic Resources and Cultural Landscapes – The Lincoln Memorial is a contributing element to the designation of West Potomac Park to the National Register of Historic Places. There are several other resources in the vicinity of the Memorial that are listed on the

National Register, including the Jefferson Memorial, the Washington Monument, the National Mall, the Ellipse, the L'Enfant Plan, and the McMillan Plan. The proposed alternatives were assessed to determine what, if any, impact it would have on the integrity of these resources.

- Safety (Security) – Safety and security are part of the need for the proposed action. The alternatives to the proposed action were assessed to determine their effect on safety and security of both the Memorial and its visitors.
- Visitor Use and Experience – Maintaining and improving the quality of the visitor experience at the Lincoln Memorial is very important to the National Park Service. Therefore, the alternatives were assessed to determine their effect on this topic.
- Park Operations –Uninterrupted and efficient park operations at the Lincoln Memorial are vital to meeting the National Park Service mission. Therefore, the alternatives to the proposed action were assessed to determine their affect on this topic.

IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS

The non-controversial topics listed below would either not be affected or would be affected negligibly by the alternatives evaluated in this document. Therefore, these topics have been briefly discussed in this section of the Environmental Assessment and then dismissed from further consideration or evaluation. Negligible effects are effects that are localized and immeasurable at the lowest level of detection.

SOILS, GEOLOGY, AND TOPOGRAPHY

The project area is located in Washington, DC, and is situated along the eastern banks of the Potomac River. The surrounding project area is relatively flat and is approximately at 10 feet mean sea level (USGS, 1971). The Lincoln Memorial resides on a graded hilltop, approximately at 20 feet mean sea level. Historically, the area was flat marshland with parent material consisting of gravel, sand, silt, and clay Quaternary lowland deposits (MGS, 1968). The thickness of the deposits varied from 0 to 150 feet, commonly containing reworked Eocene glauconite, varicolored silts and clays, and brown to dark grey lignitic silty clay (MGS, 1968).

Soils within the site have been substantially altered by the placement of fill material. In 1882, a project to improve navigation of the Potomac River transformed the marshes and tidal flats into 600 acres of riverside recreational areas (USDA, 1976). Included within this 600 acres is the current location of the Lincoln Memorial. Dredged sediments from the Potomac River and fill hauled from off site were used in this transformation. Today, mapped soils within the project area are classified as udorthents (U1) (USDA, 1976). (See Figure 4).

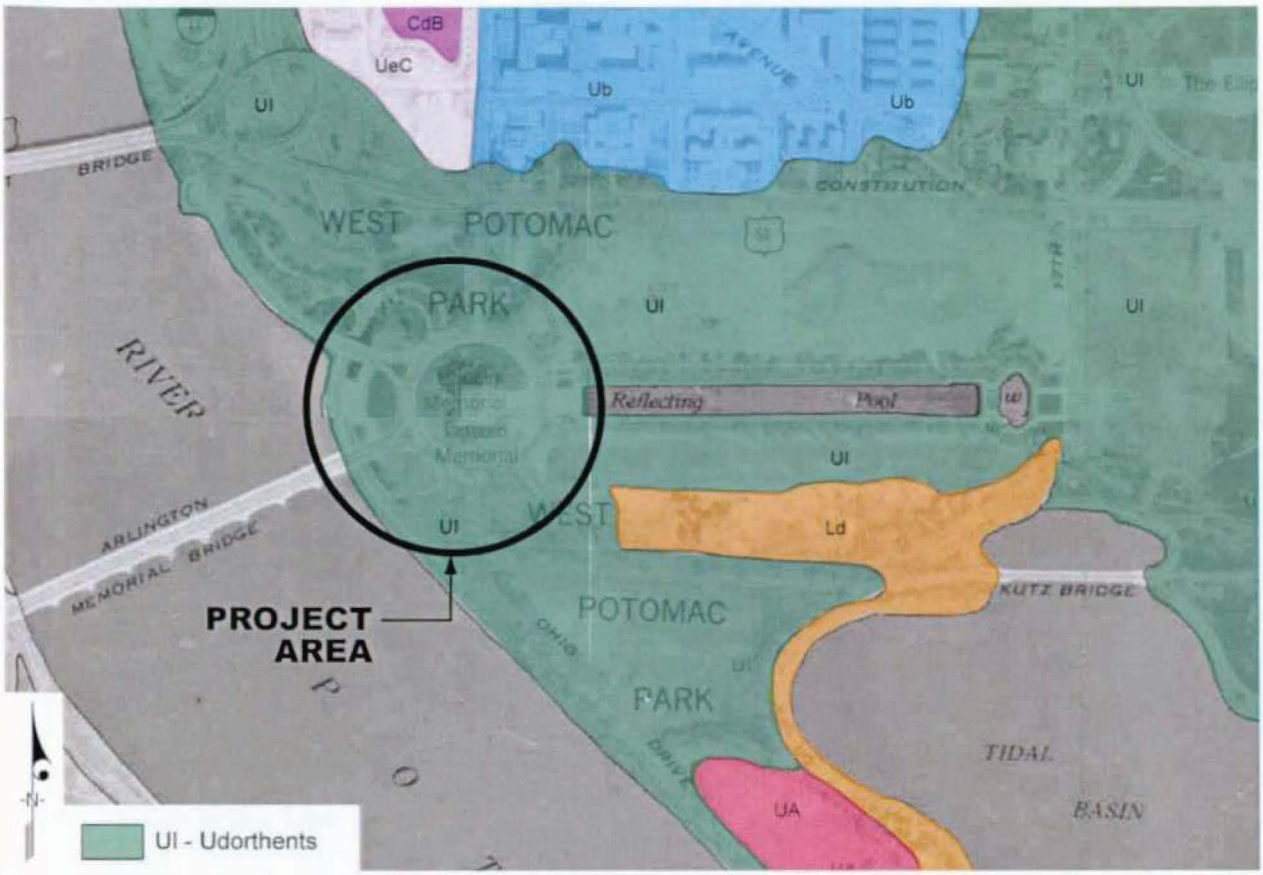

Figure 4: Soil resources in the project area.

The udorthents mapping unit is characterized by earthy fill material that has been placed in poorly drained to somewhat excessively drained soils on uplands, terraces, and floodplains of the Coastal Plain and Piedmont. The thickness of the fill is variable, but typically is more than 20 inches. Permeability, runoff, and internal drainage tend to be quite variable (USDA, 1976).

None of the alternatives will affect the soils, geology, and topography due to the limited amount of earth disturbance under the proposed action and the existing highly disturbed nature of the project area. Therefore, Soils, Geology, And Topography were dismissed as impact topics.

Land Use

The project area is composed of 94 acres in West Potomac Park, within the city limits of Washington, DC. The project area consists of a maintained landscaped lawn and reflecting pools on which the Lincoln Memorial is situated. The project area is bounded by Constitution Avenue to the north, the Vietnam Veterans Memorial to the northeast, the Reflecting Pool and Washington Monument to the east, the Korean War Veterans Memorial to the southeast, Independence Avenue to the south, and the Potomac River and Ohio Drive to the west. The entire site and surrounding areas are designated as the Lincoln Memorial Grounds. Due to the Federal land use designation, the City of Washington, DC, has no land use zoning jurisdiction over the land. The existing use of the land will not change as a result of the proposed security and traffic improvements; therefore, Land Use was dismissed as an impact topic.

AGRICULTURAL LANDS, PRIME AND UNIQUE FARMLANDS SOILS

None of the soils mapped on the project site are regulated under the Federal Farmland Protection Policy Act (7 CFR Part 658 of July 5, 1984, as superseded by the Farmland Protection Policy Act Final Rule of June 17, 1994) (USGS, 1971). Additionally, none of the soils are prime farmland soils, unique farmland soils, farmland soils of statewide importance, or identified as hydric soils by the Natural Resource Conservation Service offices of the District of Columbia. Soils in the project area are not identified as having any Federal designation. None of the alternatives would affect agricultural lands, or prime or unique farmlands soils as defined by the Natural Resource Conservation Service; therefore, these resources were dismissed as an impact topic.

WILDLIFE

Wildlife at the Lincoln Memorial is characteristic of the urban environment, and consists primarily of avian species. Birds commonly observed are those associated with human activity and include house sparrows, European starlings, common grackles, and rock doves (pigeons). Other species present are those associated with edge habitats created by plantings of trees and shrubs and include gray catbirds, northern mockingbirds, eastern phoebes, blue jays, and northern cardinals. Canadian geese and mallards have adapted to human presence and are common along the water edges of the Reflecting Pool and the Tidal Basin. Mammals present include Eastern chipmunks, gray squirrels, and occasional Norway rats, house mice, and beavers. Trees and shrubs planted for landscaping purposes provide nesting sites, food, and cover for many of the wildlife species present.

Should the proposed action be implemented, only a negligible disruption would occur to wildlife during construction because the project area is located within an urban and human dominated landscape surrounded by major access roads and buildings. Therefore, Wildlife was dismissed as an impact topic.

VEGETATION AND LAND COVER

The marshland vegetation that naturally occurred in the vicinity of the Lincoln Memorial has been eliminated and replaced with seeded and transplanted species as the site was developed. The selection of species used for landscaping has been based primarily on aesthetics and growth characteristics and includes native species as well as non-native species that have been introduced from other regions of the United States and other continents.

The vegetated areas around the Memorial comprise a maintained park-like area planted with grasses and various trees and shrubs. Poor soil conditions and diseases have contributed to the loss of many of the trees. The trees in the area around the Lincoln Memorial are predominately large American elms (*Ulmus americana*). Other vegetation present includes red oak (*Quercus rubrum*), flowering dogwood (*Cornu florida*), sugar maple (*Acer saccharum*), southern magnolia (*Magnolia grandiflora*), and azaleas (*Rhododendron spp*).

The proposed action will not require the removal of trees, shrubs, or other vegetation. The proposed security improvements would require placement of a vehicular barrier wall along grassed areas and placement of metal bollards on grassed areas along the steps leading to the east

side of the Memorial. Neither the wall nor the bollards would affect any landscaped plant beds, trees, or shrubs.

Since the proposed action would not impact the existing vegetation, Vegetation and Land Cover were dismissed as impact topics.

RARE, THREATENED, ENDANGERED, CANDIDATE SPECIES AND SPECIES OF CONCERN

The United States Fish and Wildlife Service and the National Park Service were contacted to determine whether any known critical habitats or listed rare, threatened, or endangered species have been documented in the project area.

The U.S. Fish and Wildlife Service stated that, except for occasional transient individuals, no proposed or federally listed endangered or threatened species are known to exist within the project area (USFWS, 2002). The National Park Service indicated that there are no records of any threatened or endangered species or rare species near the Lincoln Memorial (NPS, 2002).

The consultation letters from the U.S. Fish and Wildlife Service and the National Park Service are provided in Appendix A. Based upon the current site conditions and consultation, no known critical habitats or listed rare, threatened, or endangered species or species of concern exist in the project area. Therefore, this impact topic was dismissed from further consideration.

AIR QUALITY

Air quality became a national concern in the mid-1960s, leading to the passage of the Air Quality Act in 1967. The Act (now referred to as the Clean Air Act) and subsequent amendments have established procedures for improving conditions, including a set of National Ambient Air Quality Standards (NAAQS).

The U.S. Environmental Protection Agency is directed to set levels for pollutants in order to protect the public's health. The NAAQS have been adopted for six pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, particulate matter, and lead. A system of monitoring stations has been established across the country to measure progress in meeting these goals. If an area is found to exceed the allowable concentrations, local officials are required to develop a plan for achieving air quality that meets the standards. Generally, the nation is making great progress toward providing good air quality.

The Washington metropolitan area, however, continues to be in non-attainment for ozone and the region is required to develop a plan to move toward attainment. Similarly, the region had been in non-attainment of the carbon monoxide 8-hour standard, and it is required to show that appropriate air quality control measures are in place to maintain recent air quality improvements.

Impacts associated with construction of a vehicular barrier system would have negligible short-term, adverse impacts to air quality due to construction. Once complete, the transportation improvements would help alleviate vehicular emissions as result of enhanced traffic conditions. Therefore, Air Quality was dismissed as an impact topic.

WATER RESOURCES (WETLANDS AND WATERWAYS)

From a review of the available mapping and site visits, wetlands or surface water were not identified in the project area. The Lincoln Memorial is located in an upland area. The closest waterway is the Potomac River, located less than one-half mile to the west of the Lincoln Memorial.

Based on the location of the retaining wall and bollards, the vehicular security barrier will not encroach on the Potomac River's riparian buffers. Although the preferred alternative is relatively close to the river, an existing roadway (Ohio Drive) exists between the Potomac River and the Lincoln Memorial.

The new vehicular barrier system would not add additional impervious surfaces. Minor improvements to water quality are expected to result from the replacement of the existing storm water drainage inlets with improved oil/grit separator inlets. In addition, erosion and sediment control measures would be utilized during construction. The new vehicular barrier system poses no to negligible impacts to groundwater resources.

None of the alternatives considered in this document would affect water resources of the project area because of the nature of the proposed action and no new wetlands or waterways are within the project area. Therefore, this has been dismissed as an impact topic.

SOUNDSCAPE MANAGEMENT

In accordance with the National Park Service *Management Policies* (2001) and Director's Order #47, *Sound Preservation and Noise Management,* an important objective of the National Park Service's mission is the preservation of natural soundscapes associated with national park units. Natural soundscapes exist in the absence of human caused sound. The natural ambient soundscape is the aggregate of all the natural sounds that occur in park units, together with the physical capacity for transmitting natural sounds. Natural sounds occur within and beyond the range of sounds that humans can perceive and can be transmitted through air, water, or solid materials. The frequencies, magnitudes, and duration of human caused sound considered acceptable varies among National Park Service units. Acceptance levels for each park unit are generally greater in developed areas and less in undeveloped areas.

The new vehicular barrier system would result in no long-term differences in noise frequencies, magnitudes, and durations. Typical noise associated with commercial properties surrounding the site is currently produced in the project area. In addition, several transportation noise sources exist such as vehicular traffic, nearby railroads, and the flight path of the Ronald Reagan Washington National Airport. As a result of the nearby land uses and background levels of noise, the proposed action would have negligible impacts on sound preservation and noise management.

Furthermore, construction activities would have negligible, short-term, adverse impacts on noise levels. The contractor would be required to comply with local noise ordinances. Because the proposed action would result in negligible, short-term adverse impacts on noise levels during construction and would have negligible, long-term impacts on sound preservation and noise management, Soundscape Management was dismissed as an impact topic.

LIGHTSCAPE MANAGEMENT

In accordance with National Park Service *Management Policies* (2001), the National Park Service strives to preserve to the extent possible the quality of lighting associated with natural ambient landscapes and the night sky. The new vehicular barrier system would require artificial outdoor lighting to the extent necessary to ensure safe conditions for visitors. Because the proposed action would negligibly impact or contribute to the natural ambient landscapes of the Lincoln Memorial, Lightscape Management was dismissed as an impact topic.

SOCIOECONOMIC RESOURCES

The social economic environment consists of local, regional, and national businesses; the Federal government; the District of Columbia government; residences; the local and regional economy; and tourism. The area surrounding the Lincoln Memorial consists of parkland and Federal buildings. The local economy and businesses include tourism and the Federal government. An additional visitor services area on the north side of the Memorial would create more job opportunities for the park concessionaire.

Since the Lincoln Memorial sits at a major gateway into Washington, DC, construction of the rehabilitation of Lincoln Circle would beneficially impact vehicular access in and out of the City. Improved traffic islands, improved intersections, and a designated tourmobile lane would all contribute to a negligible, long-term, beneficial impact on the economy as a result of improved access.

Socioeconomic impacts of the proposed action would be negligible, long-term, and beneficial. Therefore, Socioeconomic Resources was dismissed as an impact topics.

ARCHEOLOGY RESOURCES

In 1870, the Army Corps of Engineers began the long project of dredging the Potomac River and disposing of dredged materials in such a way to prevent siltation. By 1901, 31 acres adjacent to the Washington Monument had been filled and subsequently turned into Potomac Park. By 1907, the area of Potomac Park that would become the Lincoln Memorial and Reflecting Pool had been filled to a grade of 12 to 13 feet mean sea level. The base height eventually became 14 to 16 feet above mean sea level. Since all the land for the Lincoln Memorial is reclaimed land from the Potomac River, there is no archeological significance to the site. Therefore, Archeology Resources was dismissed as an impact topic.

INDIAN TRUST RESOURCES

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed action by Department of Interior agencies be explicitly addressed in environmental documents. The Federal Indian Trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of Federal law with respect to American Indian and Alaskan native tribes.

There are no Indian trust resources in the area of the Lincoln Memorial. The lands comprising the Memorial are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Therefore, Indian Trust Resources was dismissed as an impact topic.

ETHNOGRAPHIC RESOURCES

The National Park Service defines ethnographic resources as any "site, structure, object, landscape or natural resource feature assigned traditional legendary, religious, subsistence or other significance in the cultural system of a group traditional associated with it" (Director's Order #12, *Cultural Resources Management Guidelines*, P. 181). Because no ethnographic resources are known to exist in or in proximity of the project area, Ethnographic Resources was dismissed as an impact topic.

ENVIRONMENTAL JUSTICE

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations directs Federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority or low-income populations.

According to the 2000 U.S. Census (2002) figures, the minority community in Washington, DC, is approximately 70 percent and approximately 12 percent of the population is over the age of 65. The percentage of all individuals living below the poverty line in Washington, DC, is approximately 19 percent, which is slightly higher than the national average of 13 percent. Disproportionate amounts of minorities or low income populations exist in Washington, DC, but none reside within the project area nor would they be adversely impacted by the proposed action. Therefore, Environmental Justice was dismissed as an impact topic.

COMMUNITY FACILITIES AND SERVICES

Emergency Services and Fire and Rescue – The District of Columbia Fire and Emergency Medical Services Department provides emergency, fire, and rescue services for Washington, DC. The construction of a vehicular barrier system around the Lincoln Memorial would have no effect on existing fire and rescue operations. Special access would be provided for emergency vehicles to reach the Lincoln Memorial.

Police – Residents of Washington, DC, are served by the Metropolitan Police Department of the District of Columbia. The U.S. Park Police are the primary responders to actions occurring on park property and enforce Federal laws and regulations. The construction of a vehicular barrier system would have no effect on the existing police services.

Schools – Based on the review of the District of Columbia Public Schools System, there are no public schools in close vicinity to the Lincoln Memorial. The closest public school by road is located on 7th Street, SW, and is over one mile from the site. The construction of a vehicular barrier system would have no effect on schools in the area.

Parks and Recreation – The Lincoln Memorial is the headway for the National Mall that culminates at the U.S. Capitol building. The Franklin Delano Roosevelt, the Vietnam Veterans,

and the Korean War Veterans Memorials and the Washington Monument are in direct vicinity of the Memorial. No impacts are anticipated to occur. There are existing baseball fields to the north of the Lincoln Memorial between 23rd Street (north) and Henry Bacon Drive. These baseball fields may have to be relocated with the construction of the new visitor services area.

The construction of a vehicular barrier system at the Lincoln Memorial is not anticipated to directly affect existing community facilities. The vehicular barrier system would not impact the quality or quantity of existing emergency, medical, police, and fire and rescue services. Therefore, Community Facilities and Services were dismissed as impact topics.

INFRASTRUCTURE

Existing utilities would be identified prior to earth disturbance activities.

Water and Sewer Service – Water is supplied to the District of Columbia from the Potomac River through the Dalecarlia and McMillan Reservoirs where filtration and treatment occur. The U.S. Army Corps of Engineers operates the reservoirs. Pump stations at the reservoirs, and elsewhere in the system, deliver water through mains to the city and certain surrounding areas.

The District of Columbia is served primarily by combined storm and sanitary sewer facilities. This system collects sewage flows and conveys it to the Blue Plains Wastewater Treatment Facility for treatment. A sewer separation program has been in place since 1930, requiring more recently developed areas to have separate dedicated piping systems for storm drainage and sewage.

The existing water and sewer structure would not be impacted by the construction of a vehicular barrier system because the proposed action would not increase water and sewer service.

Electrical Power and Natural Gas – The Potomac Electric Power Company, Inc., provides electricity to the District of Columbia. The Power Company's main generation plants are located in Maryland, Virginia, and the District of Columbia. Washington Gas supplies natural gas to the District of Columbia through a network of underground conduits fed through larger high-pressure transmission lines, generally located within street rights-of-way. The vehicular barrier system would not affect service levels provided by the power or gas companies because service levels would not increase.

Communication – Verizon provides commercial and private telecommunications to the District of Columbia. The system is designed and constructed to accommodate current and future development. Communication services would not be affected in the area because no new service is anticipated.

Waste Management – The National Park Service collects the waste from the Lincoln Memorial and delivers it to the BFI Transfer Station located at 1220 W Street, NE. Waste management would not be affected in the project area because waste generated at the Memorial is not anticipated to increase.

The existing infrastructure within the project area is not anticipated to be directly affected by the construction of a vehicular security barrier around the Lincoln Memorial. The proposed project

would not adversely impact water and sewer service, storm drainage, electrical power and natural gas, communication, or waste management. Therefore, Infrastructure was dismissed as an impact topic.

The impact topics dismissed from further consideration in this document have no to negligible impacts. Because these impact topics would have no major adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in establishing of legislation or proclamation of the Lincoln Memorial, (2) key to the natural or cultural integrity of the park, or (3) identified as a goal in the park's management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

ALTERNATIVES

This alternatives section describes three alternatives, including the No-Action Alternative, for improving the security at the Lincoln Memorial. Alternatives for rehabilitating Lincoln Circle were developed under a separate traffic project by the Federal Highway Administration in 2001. Following the September 11, 2001, terrorist attacks, the National Park Service revisited the Lincoln Memorial project and further developed the alternatives to include minimizing the threat of attacks from vehicular bombs and enhancing visitor services. Over the course of the last year, the National Park Service, in coordination with the National Capital Planning Commission, the Commission of Fine Arts, Federal Highway Administration, and its consultants, has narrowed down the list of possible viable alternatives.

In order for the National Park Service to determine viable alternatives, the National Capital Planning Commission's Master Plan for security improvements around the Nation's Capital was reviewed. The document, *Designing for Security in the Nation's Capital*, suggests the utilization of gatehouses; terraces, walls, and raised planting beds; trees and planters; walls and fencing; posts and bollards; and other site furnishings and amenities to best meet an urban design plan that provides adequate security to Washington, DC, while enhancing the unique character of the Nation's Capital. Based upon site conditions and use, pedestrian access, cultural landscape features, and other issues, bollards and retaining walls were determined to best meet the purpose and need of this project. Posts and bollards provide the most ubiquitous security elements found in the Nation's Capital. They vary in design and provide ease of pedestrian circulation, meet accessibility requirements, and enhance the streetscape. In addition, retaining walls complement the architecture of adjacent buildings. Furthermore, bollards and retaining walls would form an urban design that would create a sense of unity.

The National Park Service staff considered a range of alternatives during preliminary planning. The project has two distinct parts: protection of the west side and protection of the east side. The protection of the west side consisted of three different options. Two are evaluated in more detail in this document. The third option was dismissed from further analysis and reasons for dismissal are discussed later in this chapter. Protection of the east side consisted of two options, with one being carried through for further analysis and the other being dismissed from further analysis. The two parts of the project (protection measures on the west side and protection measures on the east side) were combined to create the alternatives being evaluated in detail within this document. They include the Alternative A: No-Action Alternative, Alternative B: Construction of retaining wall behind existing sidewalk and installation of bollards along outer ring, and Alternative C: Installation of bollards behind the existing sidewalk and along outer ring. The Preferred Alternative is considered to be Alternative B for the purposes of this document.

ALTERNATIVE A – NO-ACTION

The No-Action Alternative describes the action of continuing the current management operations and conditions. No-action does not imply or direct discontinuing the current action or removing existing uses, developments, or facilities. The No-Action Alternative provides a basis for comparing the management direction and environmental consequences of the other alternatives. Under the No-Action Alternative, no transportation improvements would be made to Lincoln

Circle. The construction of a vehicular barrier wall and installation of bollards to enable the National Capital Parks – Central to provide additional security to the Lincoln Memorial and its visitors would not occur. The lack of a vehicle barrier system would not help prevent attacks from vehicle bombs. Makeshift security improvements, such as concrete jersey barriers, would continue to exist. New visitor services areas would not be constructed.

ALTERNATIVE B – CONSTRUCTION OF RETAINING WALL BEHIND EXISTING SIDEWALK AND INSTALLATION OF BOLLARDS ALONG OUTER RING (PREFERRED ALTERNATIVE)

Under Alternative B, the Preferred Alternative, the National Park Service proposes to rehabilitate Lincoln Circle, construct a vehicular barrier system, and enhance visitor services areas.

Transportation Improvements. The transportation improvements entail rehabilitating Lincoln Circle. A one-way tourmobile lane would be created along the west side from Daniel French Drive to Henry Bacon Drive to allow entry of tourmobiles onto Lincoln Circle without forcing a traffic merge or yield at the entry point. Concrete bus pads would be created on 23rd Street (south), Daniel French Drive, and Henry Bacon Drive.

Intersections at Daniel French and Henry Bacon Drives would be improved for pedestrian access. Crosswalks would be created and new traffic signals would be installed at the intersection of Lincoln Circle with 23rd Street (north) and Henry Bacon Drive to provide safe access for pedestrians visiting the Lincoln Memorial. One median would be created on Lincoln Circle between Henry Bacon Drive and 23rd Street (north) to make the roadway more pedestrian-friendly. The east side of Lincoln Circle, which is currently closed to through traffic with the use of makeshift security barriers, would be permanently closed to all traffic. This section of Lincoln Circle would be raised to sidewalk level to create a pedestrian plaza. No new or additional closures to Lincoln Circle would occur.

Security Improvements. Security improvements would consist of constructing a retaining wall behind the existing sidewalk beginning at Daniel French Drive on the south side of the Lincoln Memorial and continuing around the west side, to the north side, and ending at Henry Bacon Drive. Metal bollards along the outer ring would begin where the retaining wall ended at Henry Bacon Drive and cross Lincoln Circle. The bollards would continue along the outer ring and would descend the outside portion of the middle stairs. A vehicular barrier wall would be constructed from the middle stairs to the inner stairs and granite bollards would be constructed at the base of the inner stairs. A vehicular barrier wall would stretch from the inner stairs to the middle stairs on the west side of the Memorial and metal bollards would continue up the outside of the middle stairs and follow the outer ring. The bollards would cross Lincoln Circle to connect with the retaining wall at Daniel French Drive.

A separate secure access gate would also be provided on the west side of the Lincoln Memorial for access by the Secret Service. This would double as an emergency egress area during extensive use of the Lincoln Memorial during various ceremonies.

Visitor Services. Two visitor services areas would be constructed between Henry Bacon Drive and 23rd Street on the north side and Daniel French Drive and 23rd Street on the south side. The

existing gift shop kiosk and the snack area would be combined into the south side visitor services area. Figure 5 depicts the schematic design of Alternative B. Figures 6 and 7 provide a conceptual plan for the granite and metal bollards, respectively.

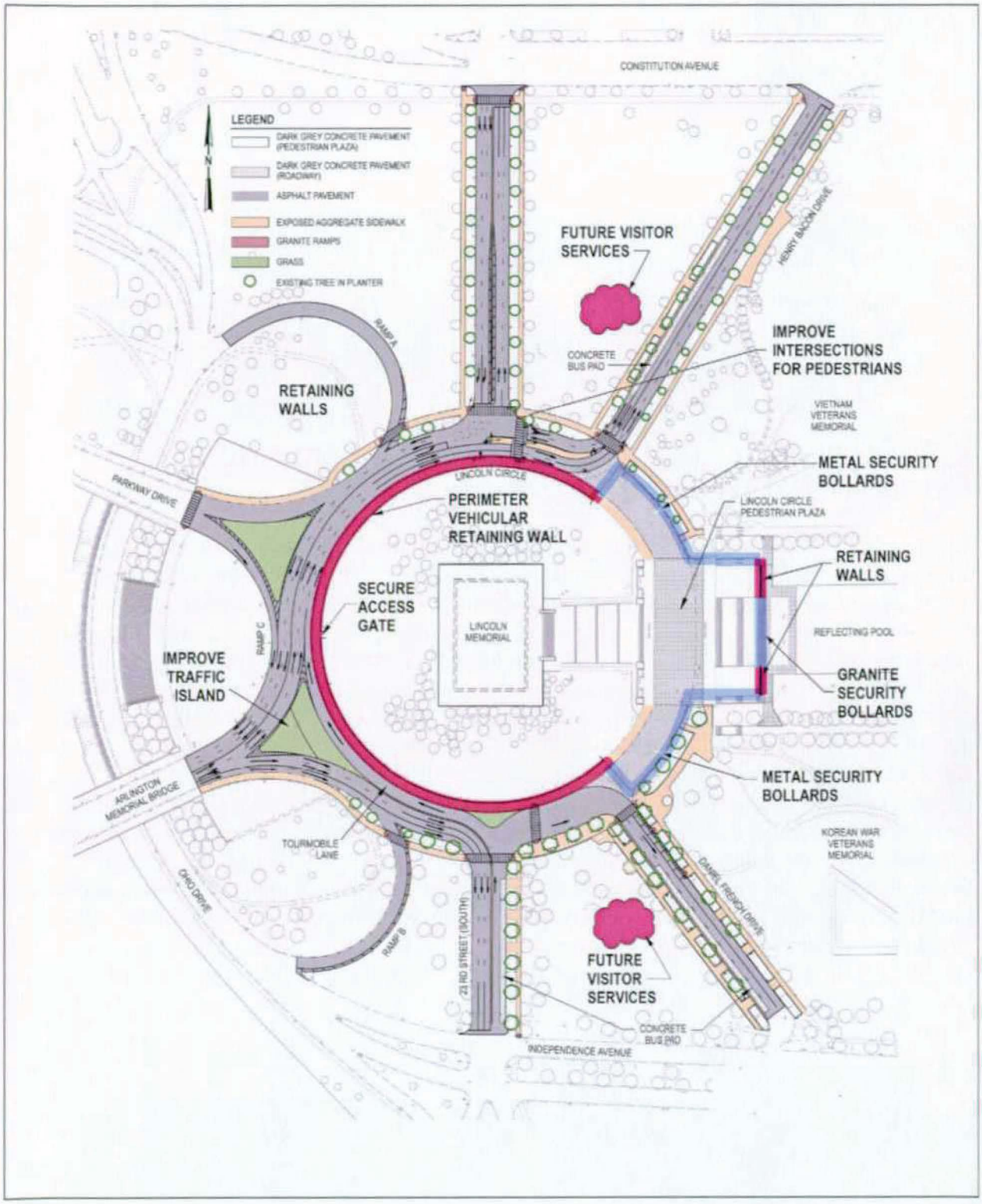

Figure 5: Preferred Alternative B site plan.

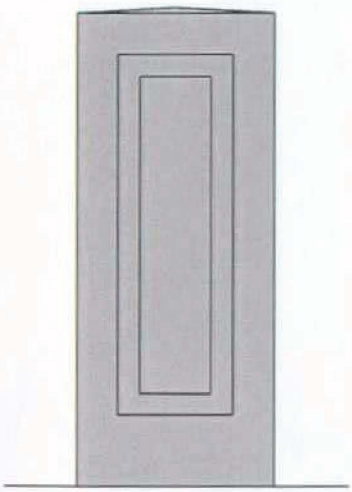

Figure 6: Proposed granite bollard.

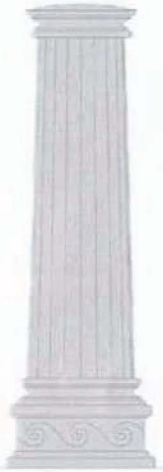

Figure 7: Proposed metal bollard.

ALTERNATIVE C – INSTALLATION OF BOLLARDS BEHIND EXISTING SIDEWALK AND ALONG OUTER RING

Alternative C would include the same transportation improvements and enhanced visitor services areas as described in Alternative B. However, the security improvements under Alternative C would consist of placing metal bollards behind the existing sidewalk beginning at Daniel French Drive on the south side of the Lincoln Memorial and continuing around the west side ending at Henry Bacon Drive. The bollards would cross Lincoln Circle and continue along the outer ring. The bollards would descend the outside of the middle stairs and a retaining wall would be constructed from the middle stairs to the inner stairs. Granite bollards would be constructed at the base of the inner stairs. A retaining wall would stretch from the inner stairs to the middle stairs on the west side of the Memorial and metal bollards would continue up the outside of the middle stairs and follow the outer ring. The bollards would cross Lincoln Circle to connect with the bollards at Daniel French Drive. The Lincoln Circle Pedestrian Plaza would be raised to sidewalk level. A separate secure access gate would also be provided on the west side for the Secret Service. This would double as an emergency egress area during extensive use of the Lincoln Memorial during various ceremonies. Figure 8 depicts the schematic design of Alternative C. See Figures 6 and 7 for the conceptual plans for the bollards.

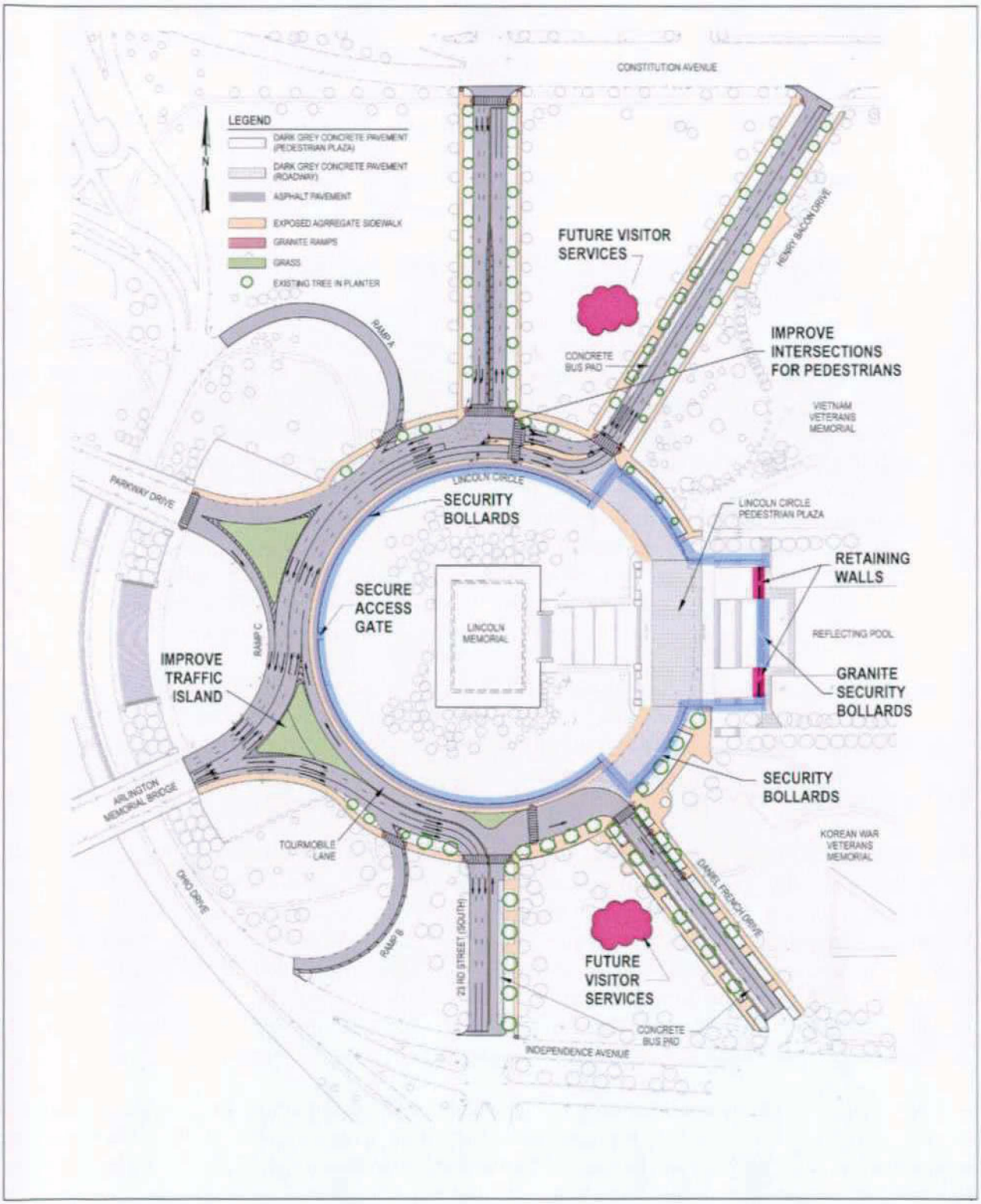

Figure 8: Alternative C site plan.

MITIGATION MEASURES OF THE PREFERRED ALTERNATIVE

Mitigation measures are presented as part of the Preferred Alternative. These actions have been developed to lessen the adverse effects of the Preferred Alternative. The following mitigation measures are recommended for the Preferred Alternative:

- The north service area would be constructed first. Once complete, the gift shop, snack area, and information kiosks already existing on the south side would be transferred to the north side so that construction could begin on the south visitor services area, thereby eliminating disruption to visitor use and experience.

- In order to meet requirements for individuals with disabilities, bollards would be placed a minimum of 4 feet apart.

- The construction of the vehicular barrier system would be mitigated through compatible new design and materials with a context sensitive design in keeping with the cultural landscape and historic setting of the Lincoln Memorial. Vistas to and from the Memorial would be taken into consideration with the site design. Massing, scale, and materials would be reflective of or consistent with the surrounding park resources and historic designed landscape. The redesign of the roadway to the east of the Memorial could be mitigated by the use of design techniques and construction materials that would preserve the aesthetic qualities of the original roadway design and its historic location. A Memorandum of Agreement between the National Park Service and the DC Historic Preservation Office and the Advisory Council on Historic Preservation to provide consultation in order to avoid adverse effects on this historic resource would occur.

- Synchronization of traffic signals at 23rd Street (north)/Lincoln Circle and Constitution Avenue/Henry Bacon Avenue during afternoon peak times would help control traffic at these two intersections; however they should not adversely impact other traffic/flows.

SUSTAINABILITY

The National Park Service has adopted the concept of sustainable design as a guiding principle of facility planning and development. The objectives of sustainability are to design park facilities to minimize adverse effects on natural and cultural values, to reflect their environmental setting, and to maintain and encourage biodiversity; to construct and retrofit facilities using energy-efficient materials and building techniques; to operate and maintain facilities to promote their sustainability; and to illustrate and promote conservation principles and practices through sustainable design and ecologically sensitive use. Essentially, sustainability is living within the environment with the least impact on the environment.

The No-Action Alternative does not support the practice of sustainability because the current use of concrete jersey barriers does not conform to the objectives of sustainability. The concrete jersey barriers adversely affect the natural and cultural resources of the Lincoln Memorial. The Preferred Alternative subscribes to and supports the practice of sustainable planning, design, and use of the Lincoln Memorial through a design that would preserve the sensitive context of the natural and cultural heritage of the Memorial and that minimize the adverse affects on the natural

environment. Following the recommendations of the Commission of Fine Arts and the National Capital Planning Commission, the vehicular barrier system would blend in with the existing landscape, thereby meeting the sensitive context design of the Lincoln Memorial. A Memorandum of Agreement will further outline and mitigate the adverse affects on the cultural resources.

CONSTRUCTION COST AND SCHEDULE

The cost of the project is estimated to be $6.5 million and construction is projected for mid 2003.

ALTERNATIVES CONSIDERED BUT DISMISSED FROM FURTHER ANALYSIS

The National Park Service staff considered a range of alternatives during the preliminary planning. As previously stated, the Lincoln Memorial security project was broken into two parts: protection of the west side and protection of the east side. The first part, protection of the west side, consisted of three separate options. The third option consists of constructing metal bollards along the front of the sidewalk, closest to Lincoln Circle, beginning at Daniel French Drive and continuing around to Henry Bacon Drive. This option was dismissed from further analysis because placement of bollards at this location would detract from the historic cultural landscape of the Lincoln Memorial. In addition, placement of the bollards on the front of the sidewalk would create adverse impacts for visitors with disabilities.

The second part of the Lincoln Memorial security project, protection from the east side, was broken into two options. The first option, protection along the inner ring, consisted of constructing bollards along the inner ring of the Memorial from Henry Bacon Drive to Daniel French Drive on the east side. This option was dismissed due to the large number of visitors who move back and forth on the plaza. Constructing bollards along the inner ring would not provide sufficient security to visitors of the Memorial because Lincoln Circle would be open to vehicular traffic. Visitors would be required to cross Lincoln Circle from the Reflecting Pool, increasing the danger of accidents to pedestrians. This option would also provide easier access for a vehicular bomb to reach the Lincoln Memorial, in addition to creating adverse impacts for visitors with disabilities.

IMPACT COMPARISON MATRIX

Table 1 compares and contrasts each of the alternatives, including the degree to which each alternative accomplishes the purpose or fulfills the need identified in the purpose and need section. Table 2 presents the impacts for comparison purposes of the project alternatives, including the No-Action Alternative. The table presents a concise summary of each alternative's potential effects by impact.

TABLE 1: COMPARATIVE SUMMARY OF THE NO-ACTION AND THE ACTION ALTERNATIVES

Alternative A – No-Action Alternative	Alternative B – Construction of Retaining Wall Behind Existing Sidewalk and Installation Bollards Along Outer Ring (Preferred Alternative)	Alternative C – Installation of Bollards Behind Existing Sidewalk and Along Outer Ring
The construction of a retaining wall and bollards to enable the National Capital Parks – Central to provide additional security to the Lincoln Memorial and its visitors would not occur. The lack of a vehicle barrier system would not help prevent attacks from vehicle bombs. The National Capital Parks - Central would continue the use of concrete jersey barriers to provide security.	Construction of a retaining wall and installation bollards to provide additional security to the Lincoln Memorial and its visitors would occur. A retaining wall would be constructed behind the existing sidewalk along the north, south, and west sides of the Memorial. Bollards along the outer ring would be constructed. They would continue down the outside of the middle stairs and cross the front of the inner stairs. A vehicular barrier wall would be constructed between the middle and the inner stairs.	Installation of bollards behind the existing sidewalk along the north, south, and west sides of the Memorial would occur. Bollards would continue along the outer ring, down the middle stairs, and across the front of the inner stairs. A vehicular barrier wall would be constructed between the middle and the inner stairs.
Meets Project Objectives? No. Continuing the existing conditions would neither improve the transportation around the Lincoln Memorial nor would it provide adequate security from a terrorist threat. Adequate visitor services areas would not be constructed.	**Meets Project Objectives?** Yes. Transportation improvements would alleviate traffic flow problems and create enhanced pedestrian access. Impacts to historic and cultural resources currently being impacted by makeshift security barriers would be alleviated. It would provide adequate security from a terrorist threat. Visitor services would improve.	**Meets Project Objectives?** No. Transportation improvements would alleviate traffic flow problems and create adequate pedestrian access, but impacts to historic and cultural resources currently being impacted by makeshift security barriers would not be fully alleviated. It would not provide the most adequate security from a terrorist threat. Visitor services would improve.

TABLE 2: COMPARATIVE SUMMARY OF THE POTENTIAL ENVIRONMENTAL IMPACTS

Impact Topic	Alternative A No-Action Alternative	Alternative B (Preferred Alternative)	Alternative C
Floodplains	No adverse impacts expected to occur.	No adverse impacts expected to occur.	
Transportation (Traffic)	Impacts would be moderate, long-term, and adverse. Continued impact to traffic on Lincoln Circle would occur. No cumulative effects would occur. No impairment to park resources and values would occur.	Moderate, long-term, and beneficial impacts associated with the rehabilitation of Lincoln Circle would occur. Minor, long-term, and adverse impacts to traffic would continue. No cumulative effects would occur. No impairment to park resources or values would occur. Mitigation measures would be implemented.	
Aesthetics and Visual Resources	Minor, long-term, and adverse impacts would occur. Adverse, cumulative effects would occur. No impairment to park resources and values would occur.	Negligible, long-term, adverse impacts to transportation improvements and minor, long-term, and beneficial impacts would occur from security and negligible, long-term, adverse impacts would occur. Moderate cumulative effects would occur. No impairment to park resources and values would occur. Mitigation measures would be implemented.	Impacts would be the same as for Alternative B, but use of bollards would create a moderate, long-term, adverse impact. Moderate cumulative effects would occur. No impairment to park resources and values would occur. Mitigation measures would be implemented.
Historic Resources	Moderate, short-term, and adverse impacts would occur. Cumulative effects would be moderate and adverse. Impairment to park resources would not occur.	Impacts would be major, long-term, and adverse from security improvements. Minor, long-term, beneficial impacts from transportation improvements and minor, long-term, adverse impacts from enhanced visitor services would occur. Cumulative effects would be indirect, moderate and adverse. No impairment to park resources and values would occur. Mitigation measures would be implemented.	Impacts would the same as for Alternative B, but use of bollards would create a major, long-term, adverse impact. Cumulative effects would be indirect, moderate, long-term, and adverse. No impairment to park resources and values would occur. Mitigation measures would be implemented.

Impact Topic	Alternative A No-Action Alternative	Alternative B (Preferred Alternative)	Alternative C
Cultural Landscapes	Moderate, short-term, and adverse impacts would occur. Cumulative effects would be moderate, short-term, and adverse. Impairment to park resources would not occur.	Impacts would be major, long-term, and adverse for security improvements. Minor, long-term, beneficial impacts from transportation improvements and negligible, long-term, adverse impacts from enhanced visitor services would occur. Cumulative effects would be indirect, moderate and adverse. No impairment to park resources and values would occur. Mitigation measures would be implemented.	Impacts would the same as for Alternative B, but use of bollards would create a major, long-term, adverse impact. Cumulative effects would be indirect, moderate, long-term, and adverse. No impairment to park resources and values would occur. Mitigation measures would be implemented.
Safety (Security)	Moderate, long-term, adverse impacts would occur. No cumulative effects would occur. No impairment to park resources and values would occur.	Moderate, long-term, and beneficial impacts would occur. Moderate cumulative effects would occur. No impairment to park resources or values would occur. Mitigation measures would be implemented.	
Visitor Use and Experience	Moderate, short-term, adverse impacts would occur. No cumulative effects would occur. No impairment to park resources and values would occur.	Moderate, long-term, and beneficial impacts would occur. Moderate beneficial cumulative effects would occur. No impairment to park resources and values would occur. Minor, short-term, adverse impacts during construction would occur. Mitigation measures would be implemented.	
Park Operations	Minor to moderate, short-term, adverse impacts would occur. No cumulative effects would occur. No impairment to park resources or values would occur.	Moderate, long-term, and beneficial impacts would occur to transportation improvements. Minor, long-term, and beneficial impacts from security improvements. Moderate and beneficial cumulative effects would occur. No impairment to park resources and values would occur. No mitigation is recommended.	

ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with Director's Order #12, the National Park Service is required to identify the "environmentally preferred alternative" in all environmental documents, including environmental assessments. The Environmentally Preferred Alternative is determined by applying the criteria suggested in the National Environmental Policy Act of 1969, which is guided by the Council on Environmental Quality. The Council on Environmental Quality provides direction that "[t]he environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of the National Environmental Policy Act," which considers:

1. Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;

2. Assuring for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;

3. Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;

4. Preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;

5. Achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and

6. Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources (National Environmental Policy Act, Section 101)."

The No-Action Alternative (Alternative A) meets only Criterion 4, preserving important natural and cultural resources. Alternative B provides a better environmental approach than Alternative A, including the following advantages:

- Preventing loss of cultural resources (Criteria 1 and 4);

- Protecting cultural resources in an aesthetically compatible manner (Criterion 2); and

- Improving operation efficiency and sustainability (Criteria 3, 5, and 6).

Alternative C provides less aesthetically pleasing protection (due to the use of bollards) while providing the following advantages:

- Preventing loss of cultural resources (Criteria 1 and 4); and

- Improving operation efficiency and sustainability (Criteria 3, 5, and 6).

Alternative B is the Environmentally Preferred Alternative because it meets all six of the criteria set forth in the National Environmental Policy Act, while Alternative A meets only one of the criterion, and Alternative C meets five of the criteria. After review of potential resources and other impacts topics, and developing appropriate mitigation measures, Alternative B best ensures the preservation of park resources and values. Alternative B would alleviate impacts to historic and cultural resources currently being impacted by makeshift security barriers. In addition, Alternative B would meet urban design criteria as proposed by the National Capital Planning Commission Interagency Task Force in *Designing for Security in the Nation's Capital.*

AFFECTED ENVIRONMENT

A summary of the resources identified as impact topics associated with this project is presented in this section.

FLOODPLAINS

Once characterized as relatively flat with great storage capacity associated with its tidal wetlands, the Potomac River floodplain has been substantially altered. Both dredging of the river and filling of the adjacent tidal wetlands has substantially changed the historic nature of the floodplain. The Lincoln Memorial lies adjacent to, but outside of, the 100-year floodplain of the Potomac River. The 100-year floodplain of the Potomac River is at an elevation of 14 to 14.5 feet National Geodetic Vertical Datum 29, adjacent to the Lincoln Memorial (see Figure 9).

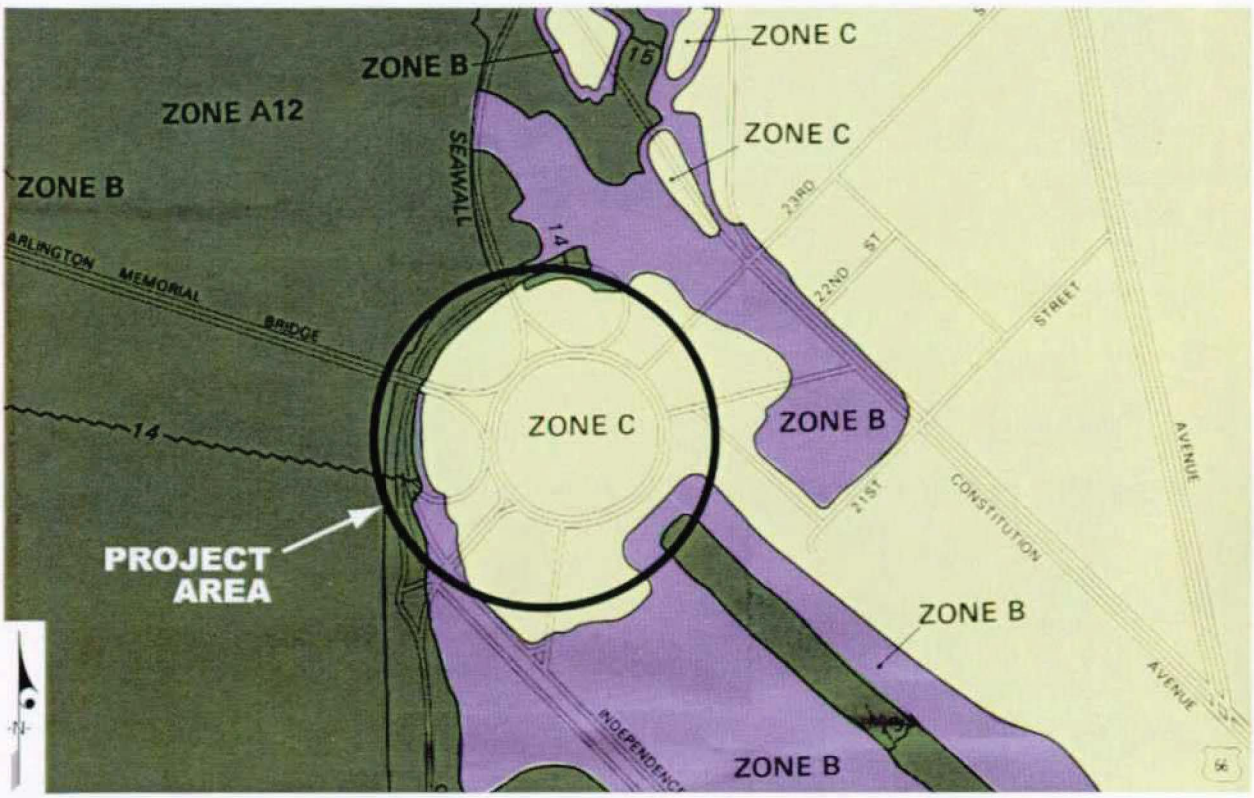

Figure 9: Floodplain Map. Source: FEMA, Flood Insurance Rate Map, District of Columbia, Washington, DC, 1985.

TRANSPORTATION (TRAFFIC)

Lincoln Circle was originally constructed as a one-way counter-clockwise circle. The circle fed from two-way radial roads. In 1972, the circle was closed to through traffic along the east side between Henry Bacon and Daniel French Drives. Tourmobiles and taxis were still able to access the front of the Lincoln Memorial. By closing the east portion of the circle, the circulation was changed to two-way traffic. After the bombing of the Alfred P. Murrah Federal Building, the east section of the circle was closed completely to all traffic. Tourmobiles, buses, and taxis utilize Daniel French Drive for pick-up and drop-off of visitors. Parking currently exists along

Constitution and Independence Avenues. Pedestrians access the Memorial from the east along walking paths leading from the Vietnam Veterans and Korean War Veterans Memorials. Pedestrian access from the west is hazardous due to the two-way traffic along the circle. The Memorial was made accessible to visitors with disabilities in 1976.

AESTHETICS AND VISUAL RESOURCES

The project area is defined visually by a network of roads, Memorials, and the historic designed landscape of the Lincoln Memorial. Arlington Memorial Bridge and the Watergate steps are to the west of the project area. Directly north of the project area is 23rd Street (north) and Henry Bacon Drive. The Vietnam Veterans Memorial is located to the northeast. To the east are the Reflecting Pool and Washington Monument. The Korean War Veterans Memorial sits to the southeast and 23rd Street (south) and Daniel French Drive to the south. A few elm trees remain to suggest the design landscape in the 1920s.

The main views and vistas from the Lincoln Memorial are the views to the Washington Monument and beyond (See Figure 10, View 2). This vista includes a bank of elm trees that provides symmetry and balance. The Reflecting Pool and future World War II Memorial, now under construction, help comprise the vista looking east to the Washington Monument. The visual quality is heightened by the visitor's ability to see the U.S. Capitol Building past the Washington Monument. Vistas looking east to the Lincoln Memorial include views from the Watergate steps. Other important vistas include looking north from 23rd Street (south) and looking south from 23rd Street (north). Looking west the vista includes Arlington Memorial Bridge (Figure 10, View 5). Other views are also shown in Figure 10 as well as corresponding photographs on the following page.

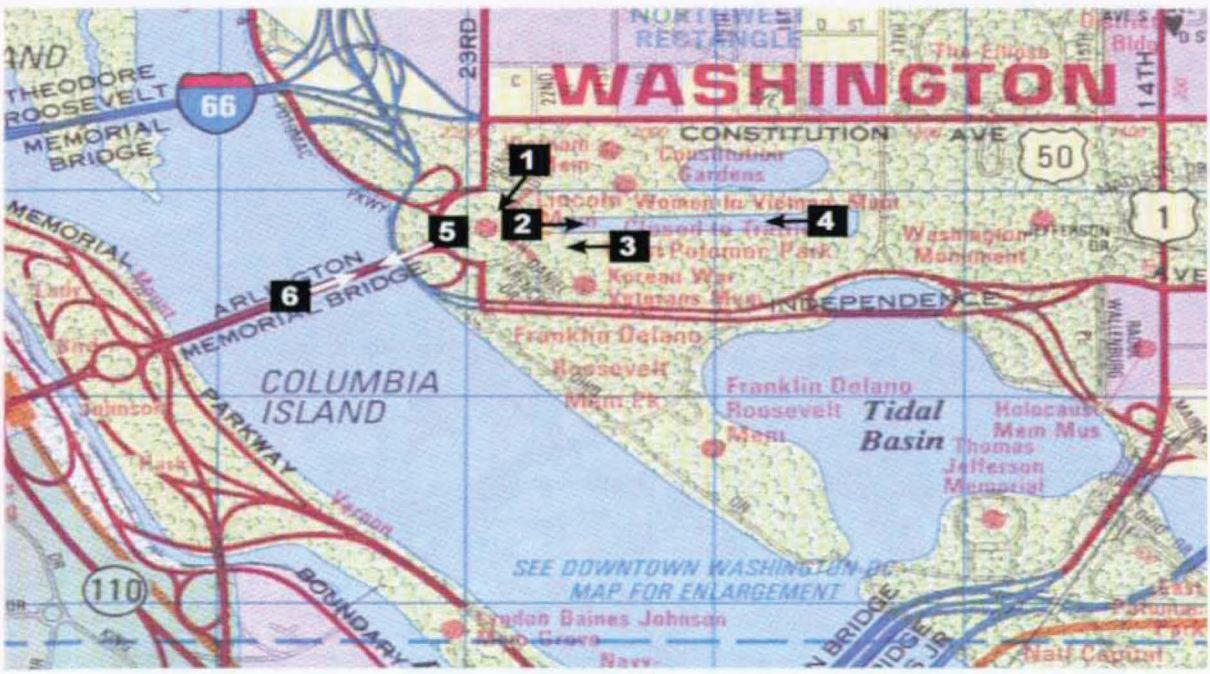

Figure 10: Views and vistas from and to the Lincoln Memorial.

View 1: Looking south on Henry Bacon Drive.

View 2: Looking east toward the Washington Monument.

View 3: Looking west from southeast corner of the Reflecting Pool.

View 4: Looking west from end of the Reflecting Pool.

View 5: View looking west from the Lincoln Memorial to the Arlington Memorial Bridge.

View 6: Looking east from the Arlington Memorial Bridge to the Lincoln Memorial.

Figure 10 continued: Views 1 through 6 depicting views and vistas from and to the Lincoln Memorial.

HISTORIC RESOURCES

"Historic properties" are any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places as defined in the National Historic Preservation Act (36 CFR 800). This term includes artifacts, records, and the remains that are related to and located within such properties, as well as traditional and culturally significant Native American sites and historic landscapes. The term "eligible for inclusion in the National Register" includes both properties formally determined eligible and all other properties that meet National Register listing criteria.

The Lincoln Memorial is a contributing element to the designation of West Potomac Park in the National Register. The West Potomac Park nomination to the National Register was approved in 1972. The 1972 nomination lists structural features, such as monuments, memorials, and statues, but landscape features that contribute to the character of the Lincoln Memorial Grounds (Lincoln Memorial, Reflecting Pool, and Watergate areas) were not covered. The nomination was updated in 2001 to include more specific information on the contributing landscape features.

Other surrounding resources listed on the National Register include:

- Washington Monument
- National Mall
- Ellipse
- L'Enfant Plan
- McMillan Plan

CULTURAL LANDSCAPES

As described by the National Park Service *Cultural Resource Management Guideline* (Director's Order # 28), a cultural landscape is:

> "...a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions."

The Lincoln Memorial Grounds are listed on the National Register of Historic Places as a historic designed landscape. The Lincoln Memorial Grounds gained historical significance from 1914 to 1933, at which time landscape plans were implemented and completed. The distinct formal landscaped grounds were initially envisioned by the McMillan Commission in 1901 based upon the Commission's adaptation of Pierre L'Enfant's 1791 design for the Federal city. Subsequent plans developed during the period of historic significance further defined and incorporated many of the McMillan Commission's underlying ideas (NPS, 1999).

Three distinct landscapes compose the Lincoln Memorial Grounds. They include the Reflecting Pool area, the Lincoln Circle and radial roads, and the Watergate area. In addition, the relationship with the buildings and structural features with the landscape cannot be separated.

Therefore, the Lincoln Memorial, Arlington Memorial Bridge, Watergate plaza and steps, Parkway Drive, and the Reflecting/Rainbow Pool are also considered contributing features to the historic landscape.

The Lincoln Memorial Grounds comprise three different landscape types as defined by the National Register for designed landscapes. They include:

- Monuments and Memorial Grounds – Lincoln Circle and radial road, 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.

A Cultural Landscape Report was completed in August 1999 by the National Capital Parks – Central. This report was completed to obtain a better understanding of the landscape surrounding the Lincoln Memorial Grounds. This document is also used to guide park managers in their efforts to manage and preserve the historic designed landscape of the Lincoln Memorial.

SAFETY (SECURITY)

In order to provide adequate security to Lincoln Memorial and safety to its visitors, many makeshift security measures have taken place. Since the bombing of the Alfred P. Murrah Federal Building in 1995, concrete jersey barriers had been erected bisecting Lincoln Circle at Henry Bacon Drive on the north and Daniel French Drive on the south, eliminating vehicular access to the entrance of the Lincoln Memorial on the east side. Since September 11, 2001, additional concrete jersey barriers were double-lined and continued around the west side of the Memorial as seen in Figure 11.

Figure 11: Current makeshift security measure along the west and north sides of the Lincoln Memorial.

At Henry Bacon Drive, the concrete jersey barriers meet with the existing concrete barriers bisecting Lincoln Circle and continue along the outer rim of Lincoln Circle. The barriers connect with the existing barriers at Daniel French Drive. Concrete planters were placed

between the traffic island at the Arlington Memorial Bridge and the existing sidewalk of the Lincoln Memorial to restrict access to the south side of the Lincoln Memorial.

Existing traffic conditions also provide unsafe conditions for visitors to the Lincoln Memorial. There are no traffic signals along the west side of Lincoln Circle to allow for pedestrian crossing.

VISITOR USE AND EXPERIENCE

The Lincoln Memorial is part of the Monumental Core of Washington, DC and comprises 107 acres. Along with the Lincoln Memorial, the Monumental Core is composed of the Franklin Delano Roosevelt Memorial, the Thomas Jefferson Memorial, the Korean War Veterans Memorial, the Vietnam Veterans Memorial, the Washington Monument, and President's Park (White House). Of the approximate 20 million visitors to the Monumental Core in a given year, approximately 4 million visit the Lincoln Memorial. The busiest time for the park is in the spring and summer months.

Once visitors arrive at the Lincoln Memorial, they can acquaint themselves with the site and find information needed through color site brochures, ranger staff, outdoor maps, and a visitor information kiosk. The visitor information kiosk is located on the south side of the Lincoln Memorial.

Visitors to the Lincoln Memorial often visit other nearby memorials, monuments, and museums prior to or after visiting the Memorial. Visitors may view on their own or participate in guided tours of the various memorials and monuments that make up the Monumental Core. Tourmobiles offer daily narrated tours to the Lincoln Memorial and other sights on the National Mall, Arlington Cemetery, and the U.S. Capitol Building. This tour includes the Lincoln Memorial, Washington Monument, Jefferson Memorial, West Potomac Park, Arlington National Cemetery, Bureau of Engraving and Printing, Holocaust Museum, U.S. Capitol, Union Station, Smithsonian Museums, and the White House and President's Park.

PARK OPERATIONS

The park is open daily from 8 a.m. to midnight except on Christmas Day when the Memorial is closed. The Park hosts numerous special events during the course of the year. Such events include the Annual 4th of July Fireworks Celebration.

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ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This section describes the environmental consequences associated with each alternative of the proposed action. It is organized by impact topics, which refine the issues and concerns into distinct topics for discussion analysis. These topics allow a standardized comparison between the alternatives based on their impact to the environment. The National Environmental Policy Act of 1969 requires consideration of context, intensity, and duration of impacts, indirect impacts, cumulative impacts, and measures to mitigate for such impacts. In addition, National Park Service policy also requires that "impairment" of park resources be evaluated in all environmental documents.

METHODOLOGY FOR ASSESSING IMPACTS AND IMPAIRMENT TO PARK RESOURCES AND VALUES

Potential impacts are described in terms of:

- Type - are the effects beneficial or adverse,
- Context - are the effects site-specific, local, or even regional,
- Duration - are the effects short-term, lasting through construction or less than one year, or long-term, lasting more than one year, and
- Intensity - are the effects negligible, minor, moderate, or major.

In this Environmental Assessment, the intensity of impacts is evaluated within a local (i.e., project area) context, while the intensity of the contribution of effects to cumulative impacts is evaluated in a regional (i.e., Monumental Core) context. Because definitions of intensity (negligible, minor, moderate, major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed in this environmental assessment.

In addition, the National Park Service's *Management Policies, 2001* (2000) require analysis of potential effects to determine whether or not actions would impair park resources. The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. National Park Service managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values. However, the laws do give the National Park Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. A though Congress has given the National Park Service the management discretion to allow certain impacts within the park, that discretion is limited by the statutory requirement that the National Park Service must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is the integrity of park resources

or values. An impact to any park resource or value may constitute an impairment, but an impact would be more likely to constitute an impairment to the extent that it has a major or severe adverse effect upon a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park; or
- Identified as a goal in the park's general management plan or other relevant NPS planning documents.

Impairment may result from National Park Service activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. A determination on impairment is made in this section for impact topics retained for further analysis.

CUMULATIVE EFFECTS

The Council on Environmental Quality regulations, which implement the National Environmental Policy Act, require assessment of cumulative effects in the decision-making process for Federal projects. Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative effects are considered for all alternatives and are presented at the end of each impact topic discussion analysis.

Cumulative effects were determined by combining the impacts of the proposed action with other past, present, and reasonable foreseeable future actions. Therefore, it was necessary to identify other ongoing or foreseeable future projects at the Lincoln Memorial and, if necessary, the surrounding region. Future projects that may have the potential to add to cumulative impacts include security improvements at the Washington Monument and the Jefferson Memorial, and road improvements at the Kennedy Center, Theodore Roosevelt Bridge, the west side of Arlington Memorial Bridge, Constitution Avenue, and Ohio Drive. These road improvement projects were considered in evaluating cumulative effects for the Lincoln Memorial Circle Rehabilitation and Security Project.

MITIGATION MEASURES

Mitigation measures are described at the end of each impact topic when appropriate. Mitigation measures are designed to offset or minimize the effects of the proposed action. If no or negligible impacts are anticipated, mitigation measures may not be included for the alternative.

IMPACTS ON FLOODPLAINS

DEFINITION OF INTENSITY LEVELS

Analyses of the potential intensity of impacts to floodplains were derived from the available information on the Lincoln Memorial and the professional judgment of the National Capital Parks - Central staff. The thresholds of change for the intensity of impacts on floodplains are defined as follows:

- *Negligible* - Floodplains would not be affected, or changes would be either non-detectable or if detected, would have effects that would be considered slight, and local;
- *Minor* - Changes in floodplains would be measurable, although the changes would be small, and the effects would be localized. No mitigation measure associated with water quality or hydrology would be necessary;
- *Moderate* - Changes in floodplains would be measurable and would be relatively local. Mitigation measures associated with water quality or hydrology would be necessary and the measures would likely succeed; or
- *Major* - Changes in floodplains would be readily measurable, would have substantial consequences that would be measurable and widespread. Mitigation measures would be necessary and their success would not be guaranteed.

ALTERNATIVE A – NO-ACTION ALTERNATIVE

Under the No-Action Alternative, transportation improvements would not be made, and no changes would occur to the vehicular security barrier or visitor services. Makeshift security measures would continue. No impacts to the floodplain would occur as a result of the No-Action Alternative.

Cumulative Effects. A variety of past, present, and reasonably foreseeable actions have affected and would continue to affect the floodplain. However, because the No-Action Alternative would not impact floodplains or floodplain functions or values, it would not contribute to cumulative effects.

Conclusion. No impacts to floodplains would occur under the No-Action Alternative, nor would it contribute to cumulative effects. There would be no impairment to park resources or values.

ALTERNATIVE B – CONSTRUCTION OF RETAINING WALL BEHIND EXISTING SIDEWALK AND INSTALLATION OF BOLLARDS ALONG OUTER RING (PREFERRED ALTERNATIVE) AND ALTERNATIVE C – INSTALLATION OF BOLLARDS BEHIND EXISTING SIDEWALK AND ALONG OUTER RING

Under Alternatives B and C, no impacts to the 100-year floodplain would occur from the construction of a vehicular security barrier, security access gate, visitor services areas, and rehabilitation to Lincoln Circle because these proposed actions are outside the floodplain and do not affect functions or values of the nearby floodplain.

Cumulative Effects. A variety of past, present, and reasonably foreseeable actions have affected and would continue to affect the floodplain. However, neither Alternative B nor C would contribute to cumulative effects on floodplains because these proposed actions are outside the floodplain and do not affect functions or values of the nearby floodplain.

Conclusion. There would be no impacts to floodplains as a result of Alternatives B and C. Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. No mitigation measures are recommended.

IMPACTS ON TRANSPORTATION (TRAFFIC)

DEFINITION OF INTENSITY LEVELS

Analyses of the potential intensity of transportation and traffic in and around the Lincoln Memorial were derived from the available information on the Lincoln Memorial and the professional judgment of the National Capital Parks - Central staff. The thresholds of change for the intensity of impacts on transportation and traffic are defined as follows:

- *Negligible* - Traffic would not be affected, or the effects would be at the lower levels of detection and would not have an appreciable effect on traffic flow. There would be no changes in the level of service;

- *Minor* - The effect would be detectable, but would be of a magnitude that would not have an appreciable effect on traffic flow. There would be no noticeable changes in the traffic congestion or level of service. If mitigation was needed to offset adverse effects, it would be simple and likely successful;

- *Moderate* - The effects would be readily apparent, and would result in a substantial change in traffic flow patterns, congestion, and/or level of service, in a manner noticeable to the public. Mitigation would be necessary to offset adverse effects and would likely be successful; or

- *Major* - The effects would be readily apparent and would result in a substantial change in traffic flow in a manner noticeable to the public and be markedly different from the current traffic flow patterns and levels of service. Extensive mitigation measures to offset adverse effects would be needed and their success could not be guaranteed.

ALTERNATIVE A – NO-ACTION ALTERNATIVE

Under the No-Action Alternative, improvements to the existing roadway along Lincoln Circle would not occur. New pedestrian crosswalks and signal installation would not occur. A new tourmobile lane would not be created. The impacts under the No-Action Alternative to traffic would be moderate, long-term, and adverse.

Cumulative Effects. Future road improvements at the Arlington Memorial Bridge, the Theodore Roosevelt Bridge, the Kennedy Center, Constitution Drive, and Ohio Drive would improve traffic conditions to and around the Monumental Core. The No-Action Alternative would not contribute to these beneficial impacts, but would rather detract from them.

Conclusion. Impacts to traffic would be moderate, long-term, and adverse because no improvements to the existing traffic structure would occur. Continued impact to the traffic around the Lincoln Memorial would occur. There would be no cumulative impacts under the No-Action Alternative. There would be no impairment of park resources or values

ALTERNATIVE B – CONSTRUCTION OF RETAINING WALL BEHIND EXISTING SIDEWALK AND INSTALLATION OF BOLLARDS ALONG OUTER RING (PREFERRED ALTERNATIVE) AND ALTERNATIVE C – INSTALLATION OF BOLLARDS BEHIND EXISTING SIDEWALK AND ALONG OUTER RING

Transportation Improvements. Rehabilitation of Lincoln Circle would occur under Alternatives B and C and these changes would have moderate, long-term, beneficial impacts. A one-way tourmobile lane would be created along the west side from Daniel French Drive to Henry Bacon Drive to allow entry of tourmobiles onto Lincoln Circle without forcing vehicles to merge or yield at the entry point. One lane would be reduced on Henry Bacon Drive between Lincoln Circle and Constitution Avenue. This would be expected to cause a diversion of existing traffic from Henry Bacon Drive to 23rd Street (north).

Intersections at Daniel French and Henry Bacon Drives would be improved for pedestrian access. Crosswalks would be created and signals would be installed. A median would be created on Lincoln Circle between Henry Bacon Drive and 23rd Street (north) to make the roadway more pedestrian-friendly. The east side of the Memorial would continue to be closed to all through traffic and the existing roadway would be raised to sidewalk level to create a pedestrian plaza. Concrete bus pads would be constructed on 23rd Street (south), Daniel French Drive, and Henry Bacon Drive.

Impacts associated with these traffic changes would be moderate, long-term, and beneficial to circulation around the Lincoln Memorial. However, there would be an adverse impact to surrounding roadways that would be minor and long-term. The intersections of Constitution Avenue/Henry Bacon Drive and Constitution Avenue/23rd Street (north) currently operate at or near capacity during both the a.m. and p.m. peak periods (FHWA, 2001). Modifications to Lincoln Circle at Henry Bacon Drive and associated traffic diversion would have the potential for these two intersections to exceed their theoretical capacity.

Security Improvements. The east side of the Memorial would be permanently closed to all through traffic and the existing roadway would be raised to sidewalk level to create a pedestrian plaza. This change would have a minor, long-term, adverse impact on traffic. Because the east side of the Memorial has been closed to through traffic for a number of years, the proposed action would not create a discernable effect.

Visitor Services. The construction of new visitor services areas would not impact transportation or traffic conditions.

Cumulative Effects. Future road improvements at the Arlington Memorial Bridge, the Theodore Roosevelt Bridge, the Kennedy Center, Constitution Drive, and Ohio Drive would improve traffic conditions to and around the Monumental Core. These road improvements, along with those proposed under Alternatives B or C, would have a beneficial cumulative impact on traffic flow. There would be no cumulative impacts to traffic and transportation from the security. Proposed security improvements at the Washington Monument and the Jefferson Memorial could result in a reduction in available parking. However, Alternatives B or C would not contribute to cumulative impacts to parking.

Conclusion. Beneficial impacts associated with the circulation around the Lincoln Memorial are anticipated to be moderate and long-term. Continued adverse impacts to the traffic at Constitution Avenue and Henry Bacon Drive and 23rd Street (north) would be minor and long-term. Impacts to traffic from proposed security improvements would be minor, long-term, and adverse. Changes to visitor services would not impact traffic. Beneficial cumulative impacts to traffic flow could result from future road improvements.

Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. Synchronization of traffic signals at 23rd Street (north)/Lincoln Circle and Constitution Avenue/Henry Bacon Avenue during afternoon peak times would help control traffic at these two intersections; however, they should not adversely impact other traffic/flows.

IMPACTS ON AESTHETICS AND VISUAL RESOURCES

DEFINITION OF INTENSITY LEVELS

Analyses of the potential intensity of aesthetics and visual resources were derived from the available information on the Lincoln Memorial and the professional judgment of the National Capital Parks - Central staff. The thresholds of change for the intensity of impacts on aesthetics and visual resources are defined as follows:

- *Negligible*, when the impact is localized and not measurable or at the lowest level of detection;
- *Minor,* when the impact is localized and slight, but detectable;
- *Moderate,* when the impact is readily apparent and appreciable; or
- *Major,* when the impact is severely adverse and highly noticeable.

ALTERNATIVE A – NO-ACTION ALTERNATIVE

Aesthetics and visual resources in the project area would not be further impacted by the No-Action Alternative. The existing security measures (concrete jersey barriers) would continue to

adversely impact the aesthetics and vistas of the Lincoln Memorial. Landscaping maintenance would continue as suggested in the Cultural Landscape Report on the Lincoln Memorial Grounds. The impacts would continue to be minor, long-term, and adverse. No transportation improvements or enhanced visitor services would occur.

Cumulative Effects. Temporary security measures put in place at the Washington Monument and the various memorials in the Monumental Core have impacted aesthetics and visual resources in the past. Planned future road improvements, and proposed security improvements at the Washington Monument and the Jefferson Memorial may impact the aesthetics and visual resources of the Monumental Core. The No-Action Alternative would contribute to the cumulative impact of these past and future actions.

Conclusion. The No-Action Alternative would continue to have a minor, long-term, and adverse impact to aesthetics and visual resources in or surrounding the project area as a result of existing makeshift protective measures. Existing security measures would continue to detract from the vistas of the Lincoln Memorial. The No-Action Alternative, along with other proposed projects, would have adverse cumulative impacts to aesthetics and visual resources. There would be no impairment to park resources or values.

ALTERNATIVE B – CONSTRUCTION OF RETAINING WALL BEHIND EXISTING SIDEWALK AND INSTALLATION OF BOLLARDS ALONG OUTER RING (PREFERRED ALTERNATIVE)

Transportation Improvements. The improvements to the transportation surrounding the Lincoln Memorial would have minor, long-term, beneficial impacts on aesthetics and visual resources of the Memorial. Traffic conditions are anticipated to improve, thereby not detracting from the views and vistas. The east side of the Memorial would be permanently closed to all through traffic and the existing roadway would be raised to sidewalk level to create a pedestrian plaza.

Associated features of the transportation improvements (including an additional bus queuing area on the north side of the Memorial) would result in negligible, long-term, adverse impacts to the vistas of the Lincoln Memorial and the Washington Monument. Appropriate sensitive context design would minimize the potential for impact.

Security Improvements. Under Alternative B, the installation of bollards and a vehicular barrier wall would improve the aesthetics and visual resources when compared to existing site conditions. A minor, long-term, beneficial impact would result from the removal of existing makeshift security measures such as concrete jersey barriers. Currently, the concrete jersey barriers are adversely impacting the vistas to and from the Lincoln Memorial.

Moderate, short-term, adverse impacts would occur during construction of the vehicular security barrier system. Minor, long-term adverse impacts to aesthetics and visual resources would occur after installation of the barrier system because of the change in views of the Memorial. The existing historic designed landscape would help maintain the vistas of the Lincoln Memorial by providing a visual buffer. Consultation and coordination have begun with the Commission of Fine Arts and the National Capital Planning Commission on the design of the security barrier as it will relate to the vistas of the Lincoln Memorial.

Visitor Services. Two visitor services areas would be constructed. The adverse impact of the visitor services area would be negligible and long-term to aesthetics and visual resources because the visitor services area would be seen from all views and vistas of the Lincoln Memorial, but it would not detract from the historic designed landscape.

Cumulative Effects. Temporary security measures put in place at the Washington Monument and the various memorials in the Monumental Core have negatively impacted aesthetics and visual resources in the past. Planned future road improvements, and proposed security improvements at the Washington Monument and the Jefferson Memorial may impact the aesthetics and visual resources of the Monumental Core. When added to past and reasonably foreseeable future actions, Alternative B would have adverse cumulative impacts to aesthetics and visual resources.

Conclusion. The vehicular barrier system would impact aesthetics and visual resources of the Lincoln Memorial. Negligible, long-term, adverse impacts would result from the construction of visitor services areas and transportation features, such as new bus circulation patterns. Minor, long-term, beneficial impacts would result from the removal of the existing security measures (concrete jersey barriers) and negligible, long-term, beneficial impacts would result from transportation improvements to Lincoln Circle. Moderate, short-term, adverse impacts would result from construction of the vehicular barrier system, and minor, long-term, adverse impacts would occur after construction. The existing vehicular barrier system would be in keeping with the historic character of the Lincoln Memorial Grounds. Alternative B, along with other proposed projects, would have adverse cumulative impacts to aesthetics and visual resources.

Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. The National Park Service would enter into a Memorandum of Agreement with the DC Historic Preservation Office and the Advisory Council on Historic Preservation to provide consultation in order to avoid effects associated with the views and vistas of the Lincoln Memorial. Consultation and coordination would continue with the Commission of Fine Arts and the National Capital Planning Commission. Appropriate sensitive context design that would be in keeping with the cultural landscape and historical setting would be implemented. Vistas to and from the Memorial would be taken into consideration with the design.

ALTERNATIVE C – INSTALLATION OF BOLLARDS BEHIND EXISTING SIDEWALK AND ALONG OUTER RING

Transportation Improvements. Impacts under Alternative C would be similar to those impacts described under Alternative B.

Security Improvements. Aesthetics and visual resources impacts would be the same for the security improvements, except for the use of bollards around the west side of the Memorial, which would have additional moderate, long-term, adverse impacts on aesthetics and visual

resources because the bollards would impact the views and the vistas of the historic designed landscape.

Visitor Services. Impacts would be the same as under Alternative B.

Cumulative Effects. Cumulative effects under Alternative C would be the same as those described under Alternative B.

Conclusion. Impacts under Alternative C would be the same as under the Preferred Alternative, except for the use of bollards along the west side of the Memorial. These impacts would be moderate, long-term, and adverse. Alternative B, along with other proposed projects, would have adverse cumulative impacts aesthetics and visual resources.

Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. The National Park Service would enter into a Memorandum of Agreement with the DC Historic Preservation Office and the Advisory Council on Historic Preservation to provide consultation in order to avoid effects associated with views and vistas. Consultation and coordination would continue with the Commission of Fine Arts and the National Capital Planning Commission. Appropriate sensitive context design that would be in keeping with the cultural landscape and historical setting would be implemented. Vistas to and from the Memorial would be taken into consideration with the design.

IMPACTS TO CULTURAL RESOURCES AND SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Section 101(b)(4) of the National Environmental Policy Act of 1969 (P.L. 91-190), as amended, requires the Federal government to coordinate and plan its actions to, among other goals, "preserve important historic, cultural and natural aspects of our national heritage...." The Council of Environmental Quality implementing regulations require that Federal impacts to historic and cultural resources be included as part of the National Environmental Policy Act process.

In this environmental assessment, impacts to cultural resources are described in terms of type, context, duration, and intensity, as described above, which is consistent with the regulations of the Council of Environmental Quality that implement the National Environmental Policy Act. These impact analyses are intended, however, to comply with the requirements of both the National Environmental Policy Act and Section 106 of the National Historic Preservation Act. In accordance with the Advisory Council on Historic Preservation's regulations implementing Section 106 of the National Historic Preservation Act (36 CFR Part 800, Protection of Historic Properties), impacts to archeological and cultural resources were identified and evaluated by (1) determining the area of potential effects; (2) identifying cultural resources present in the area of potential effects that were either listed in or eligible to be listed in the National Register of

Historic Places; (3) applying the criteria of adverse effect to affected cultural resources either listed in or eligible to be listed in the National Register; and (4) considering ways to avoid, minimize, or mitigate adverse effects.

Under the Advisory Council's regulations, a determination of either adverse effect or no adverse effect must also be made for affected National Register eligible cultural resources. An adverse effect occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion in the National Register (e.g., diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association). Adverse effects also include reasonably foreseeable effects caused by Alternative B that would occur later in time, be farther removed in distance, or be cumulative (36 CFR Part 800.5, Assessment of Adverse Effects). A determination of no adverse effect means there is an effect, but the effect would not diminish in any way the characteristics of the cultural resource that qualify it for inclusion in the National Register.

IMPACTS TO HISTORIC RESOURCES

DEFINITION OF INTENSITY LEVELS

In order for a structure or building to be listed in the National Register of Historic Places, it must meet one or more of the following criteria of significance: A) associated with events that have made a significant contribution to the broad patterns of our history; B) associated with the lives of persons significant in our past; C) embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; or D) have yielded, or may be likely to yield, information important in prehistory or history. In addition, the structure or building must possess integrity of location, design, setting, materials, workmanship, feeling, and association (*National Register Bulletin, How to Apply the National Register Criteria for Evaluation*). For purposes of analyzing potential impacts to historic structures/buildings, the thresholds of change for the intensity of an impact are defined as follows:

- *Negligible* - Impact(s) is at the lowest levels of detection - barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be *no adverse effect.*

- *Minor* - Adverse impact - impact would not affect the character defining features of a National Register of Historic Places eligible or listed structure or building. For purposes of Section 106, the determination of effect would be *no adverse effect.* Beneficial impact - stabilization/ preservation of character defining features in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* For purposes of Section 106, the determination of effect would be *no adverse effect.*

- *Moderate* - Adverse impact - impact would alter a character defining feature(s) of the structure or building, but would not diminish the integrity of the resource to the extent that its National Register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *no adverse effect.* Beneficial impact – rehabilitation of a structure or

building in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. For purposes of Section 106, the determination of effect would be *no adverse effect.*

- *Major* - Adverse impact - impact would alter a character defining feature(s) of the structure or building, diminishing the integrity of the resource to the extent that it is no longer eligible to be listed in the National Register. For purposes of Section 106, the determination of effect would be *adverse effect.* Beneficial impact – restoration of a structure or building in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. For purposes of Section 106, the determination of effect would be *no adverse effect.*

ALTERNATIVE A – NO-ACTION ALTERNATIVE

Historic resources would not be further impacted by the No-Action Alternative. In addition, no transportation improvements would occur. The proposed vehicular barrier system would not be completed and visitor services areas would not be constructed.

The Lincoln Memorial, a contributing element to the West Potomac Park National Register designation, would continue to be impacted by the use of concrete jersey barriers. The No-Action Alternative currently has a moderate, short-term, adverse impact on historic resources.

Cumulative Effects. Temporary security measures put in place at the Washington Monument and the various memorials in the Monumental Core have negatively impacted historic resources in the past. Planned future road improvements, and proposed security improvements at the Washington Monument and the Jefferson Memorial may impact the historic resources of the Monumental Core by altering the historic setting of the monuments. The No-Action Alternative would continue to have an adverse impact to historic resources and, when added to past and reasonably foreseeable future actions, would have a moderate cumulative impact on historic resources.

Section 106 Summary. In accordance with Section 106 of the National Historic Preservation Act, implementation of the No-Action Alternative would have *no adverse effect* on historic properties. The historic resources have been impacted with the use of concrete jersey barriers, but this does not diminish the integrity of the resource to the extent that the site's National Register eligibility is jeopardized.

Conclusion. Existing security barriers would remain in place and existing makeshift security measures would continue to have a moderate, short-term, adverse impact on historic resources, but no further adverse impacts to the historic resources of the Lincoln Memorial would occur. Cumulative effects associated with the No-Action Alternative would be moderate, short-term, and adverse. No impairment to park resources or values would occur.

ALTERNATIVE B – CONSTRUCTION OF RETAINING WALL BEHIND EXISTING SIDEWALK AND INSTALLATION OF BOLLARDS ALONG OUTER RING (PREFERRED ALTERNATIVE)

Transportation Improvements. The improvements to the transportation surrounding the Lincoln Memorial would have minor, long-term, beneficial impacts on historic resources of the Memorial

because the traffic conditions are anticipated to improve, and would not detract from the views and vistas of the Lincoln Memorial. The east side of the Memorial would be permanently closed to all through traffic and the existing roadway would be raised to sidewalk level to create a pedestrian plaza.

Security Improvements. Under Alternative B, a vehicular barrier system consisting of a vehicular barrier wall and bollards would be constructed. Because the Lincoln Memorial is a contributing element to the National Register designation of West Potomac Park, Alternative B may have the potential to have a major, long-term, adverse effect on historic properties under Section 106 of the National Historic Preservation Act. The construction of a vehicular barrier wall and installation of bollards introduces a new element into the historic resources of the Memorial. The National Park Service has entered into consultation with the DC Historic Preservation Office and the Advisory Council on Historic Preservation (see letter in Appendix A). As design, development, and consultation continue, other potential adverse effects could be identified.

Visitor Services. Two visitor services areas would be constructed on the north and south sides of the Lincoln Memorial. The adverse impact of the visitor services area would be minor and long-term because the visitor services areas would be seen from all views and vistas of the Lincoln Memorial; however, the impact would be mitigated through compatible new design and materials.

Cumulative Effects. Temporary security measures put in place at the Washington Monument and the various memorials in the Monumental Core have negatively impacted historic resources in the past. Planned future road improvements, and proposed security improvements at the Washington Monument and the Jefferson Memorial may impact the historic resources of the Monumental Core by altering the historic setting of the monuments. The security improvements proposed under Alternative B would also have adverse impacts to historic resources. When added to past and reasonably foreseeable future actions, the Alternative B would have a moderate adverse cumulative impact on historic resources within the Monumental Core.

Section 106 Summary. In accordance with Section 106 of the National Historic Preservation Act, the Alternative B may have an *adverse effect* on historic properties. However, through a Memorandum of Agreement with the DC Historic Preservation Office and the Advisory Council on Historic Preservation, the National Park Service would mitigate to avoid or reduce the impacts to a moderate or minor level so that the proposed action would have no adverse effect on historic properties. Therefore, Alternative B would impact historic properties, but these impacts would not diminish the integrity of the resource to the extent that the site's National Register eligibility would be jeopardized.

Conclusion. With appropriate mitigation, the impacts associated with construction of the security improvements would be moderate, long-term, and adverse. Impacts from transportation improvements and enhanced visitor services would be minor, long-term, and adverse. When added to past and reasonably foreseeable future actions, Alternative B would have a moderate adverse cumulative impact on historic resources within the Monumental Core.

Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. The construction of a vehicular barrier system would be mitigated through compatible new design and materials. The redesign of the roadway to the east of the Memorial could be mitigated by the use of design techniques and construction materials that would preserve the aesthetic qualities of the original roadway design at its historic location. As the design, development, and consultation continue, other potential adverse effects may be identified. A Memorandum of Agreement with the DC Historic Preservation Office and the Advisory Council on Historic Preservation to provide consultation in order to avoid adverse effects on this historic resource would occur.

ALTERNATIVE C – INSTALLATION OF BOLLARDS BEHIND EXISTING SIDEWALK AND ALONG OUTER RING

Transportation Improvements. The impacts for Alternative C would the same as with Alternative B.

Security Improvements. Under Alternative C, a vehicular barrier system consisting of bollards would be installed. Because the Lincoln Memorial is a contributing element to the National Register designation of West Potomac Park, Alternative C may have the potential to have an adverse effect on historic properties under Section 106 of the National Historic Preservation Act that would be major and long-term. The construction of bollards introduces a new element into the historic landscape. The National Park Service has entered into consultation with the DC Historic Preservation Office and the Advisory Council on Historic Preservation (see letter in Appendix A).

Visitor Services. Impacts would the same as under Alternative B.

Cumulative Effects. Cumulative effects under Alternative C would be the same as those described under Alternative B.

Section 106 Summary. In accordance with Section 106 of the National Historic Preservation Act, the Alternative C may have an *adverse effect* on historic properties. However, through a Memorandum of Agreement with the DC Historic Preservation Office and the Advisory Council on Historic Preservation, the National Park Service would mitigate to avoid or reduce the impacts to a moderate or minor level so that the proposed action would have no adverse effect on historic properties. Therefore, Alternative C would impact the historic properties, but these impacts would not diminish the integrity of the resource to the extent that the site's National Register eligibility is jeopardized.

Conclusion. With appropriate mitigation, the impacts associated with construction of the security improvements would be moderate, long-term, and adverse. Impacts from transportation improvements and enhanced visitor services would be minor, long-term, and adverse. When

added to past and reasonably foreseeable future actions, the Alternative C would have a moderate adverse cumulative impact on historic resources within the Monumental Core.

Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. Mitigation measures would the same as under Alternative B.

IMPACTS TO CULTURAL LANDSCAPES

DEFINITION OF INTENSITY LEVELS

In order for a cultural landscape to be listed in the National Register, it must meet one or more of the following criteria of significance: A) associated with events that have made a significant contribution to the broad patterns of our history; B) associated with the lives of persons significant in our past; C) embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; D) have yielded, or may be likely to yield, information important in prehistory or history (*National Register Bulletin, How to Apply the National Register Criteria for Evaluation*). The landscape must also have integrity of those patterns and features - spatial organization and land forms; topography; vegetation; circulation networks; water features; and structures/buildings, site furnishings or objects - necessary to convey its significance (*Secretary of the Interior's Standards for the Treatment of Historic Properties With Guidelines for the Treatment of Cultural Landscapes*). For purposes of analyzing potential impacts to cultural landscapes, the thresholds of change for the intensity of an impact are defined as follows:

- *Negligible* - Impact(s) is at the lowest levels of detection - barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be *no adverse effect.*

- *Minor* - Adverse impact - impact(s) would not affect the character defining patterns and features of a National Register of Historic Places eligible or listed cultural landscape. For purposes of Section 106, the determination of effect would be *no adverse effect.* Beneficial impact – preservation of character defining patterns and features in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties With Guidelines for the Treatment of Cultural Landscapes.* For purposes of Section 106, the determination of effect would be *no adverse effect.*

- *Moderate* - Adverse impact - impact(s) would alter a character defining pattern(s) or feature(s) of the cultural landscape, but would not diminish the integrity of the landscape to the extent that its National Register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *no adverse effect.* Beneficial impact – rehabilitation of a landscape or its patterns and features in accordance with the *Secretary of the Interior's*

Standards for the Treatment of Historic Properties With Guidelines for the Treatment of Cultural Landscapes. For purposes of Section 106, the determination of effect would be *no adverse effect.*

- *Major* - Adverse impact - impact(s) would alter a character defining pattern(s) or feature(s) of the cultural landscape, diminishing the integrity of the landscape to the extent that it is no longer eligible to be listed in the National Register. For purposes of Section 106, the determination of effect would be *adverse effect.* Beneficial impact – restoration of a landscape or its patterns and features in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties With Guidelines for the Treatment of Cultural Landscapes.* For purposes of Section 106, the determination of effect would be *no adverse effect.*

ALTERNATIVE A – NO-ACTION ALTERNATIVE

Under the No-Action Alternative, no transportation improvements would occur. The proposed vehicular barrier system would not be completed and visitor services areas would not be constructed.

The Lincoln Memorial Grounds, a historic designed landscape and a contributing element to the West Potomac Park National Register designation, would continue to be impacted by the use of concrete jersey barriers. No new impacts would occur under this alternative. The view and vistas contributing to this nomination would continue to be adversely impacted. The No-Action Alternative would have a moderate, short-term, adverse impact on cultural landscapes.

Cumulative Effects. Temporary security measures put in place at the Washington Monument and the various memorials in the Monumental Core have negatively impacted historic landscapes in the past. Planned future road improvements, and proposed security improvements at the Washington Monument and the Jefferson Memorial may impact the historic resources of the Monumental Core by altering the historic setting of the monuments. The No-Action Alternative would continue to have an adverse impact on the cultural landscape and, when added to past and reasonably foreseeable future actions, would have a moderate cumulative impact on cultural landscapes.

Section 106 Summary. In accordance with Section 106 of the National Historic Preservation Act, implementation of the No-Action Alternative would have *no adverse effect* on historic properties. The cultural landscape has been impacted with the use of concrete jersey barriers, but this does not diminish the integrity of the resource to the extent that the site's National Register eligibility is jeopardized.

Conclusion. Existing security barriers would remain in place and existing makeshift security measures would continue to have moderate, short-term, adverse impacts on cultural landscapes, but no further adverse impacts to cultural landscapes of the Lincoln Memorial would occur. The No-Action Alternative and other past and future actions would have moderate adverse cumulative impacts on cultural landscapes. No impairment to park resources or values would occur.

ALTERNATIVE B – CONSTRUCTION OF RETAINING WALL BEHIND EXISTING SIDEWALK AND INSTALLATION OF BOLLARDS ALONG OUTER RING (PREFERRED ALTERNATIVE)

Transportation Improvements. The transportation improvements surrounding the Lincoln Memorial would have negligible, long-term, beneficial impacts on the cultural landscape because the traffic conditions are anticipated to improve, and would not detract from the views and vistas associated with the historic designed landscape. The east side of the Memorial would be permanently closed to all through traffic and the existing roadway would be raised to sidewalk level to create a pedestrian plaza.

Security Improvements. The Lincoln Memorial Grounds, composed of the Reflecting Pool area, Lincoln Circle and radial roads, and the Watergate area, all contribute to the West Potomac Park designation on the National Register of Historic Places as a historic designed landscape. The installation of bollards and a vehicular barrier wall may potentially create an adverse effect on historic properties under Section 106 of the National Historic Preservation Act that would be major and long-term because they would introduce a new element into the historic designed landscape of the Memorial. The National Park Service has entered into consultation with the DC Historic Preservation Office and the Advisory Council on Historic Preservation (see letter in Appendix A).

Visitor Services. Two visitor services areas would be constructed on the north and south sides of the Lincoln Memorial. The adverse impact of the visitor services area would be minor and long-term because the visitor services areas would be seen from all views and vistas of the Lincoln Memorial; however, the impact would be mitigated through compatible new design and materials.

Cumulative Effects. Temporary security measures put in place at the Washington Monument and the various memorials in the Monumental Core have negatively impacted cultural landscapes in the past. Planned future road improvements, and proposed security improvements at the Washington Monument and the Jefferson Memorial may impact the cultural landscape of the Monumental Core by altering the historic setting of the monuments. The security improvements proposed under Alternative B would also have adverse impacts to the cultural landscape. When added to past and reasonably foreseeable future actions, the Alternative B would have a moderate adverse cumulative impact on the cultural landscape within the Monumental Core.

Section 106 Summary. In accordance with Section 106 of the National Historic Preservation Act, Alternative B may have an *adverse effect* on historic properties. However, through a Memorandum of Agreement with the DC Historic Preservation Office and the Advisory Council on Historic Preservation, the National Park Service would mitigate to avoid or reduce the impacts to a moderate or minor level so that the proposed action would have no adverse effect on historic properties. Therefore, Alternative B would impact the historic properties, but the impacts would not diminish the integrity of the resource to the extent that the site's National Register eligibility is jeopardized.

Conclusion. Under Alternative B, the impacts associated with construction of the security improvements would be moderate, long-term, and adverse due to the impacts of the security barrier system to the historic designed landscape. Minor, long-term, beneficial impacts would

result from the transportation improvements and minor, long-term, adverse impacts would result from enhanced visitor services. There would be a moderate adverse cumulative impact on cultural landscapes from Alternative B and other past and reasonably foreseeable future actions.

Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. The construction of a vehicular barrier system would be mitigated through compatible new design and materials with a context sensitive design in keeping with the cultural landscape and historic setting of the Lincoln Memorial. Vistas to and from the Memorial would be taken into consideration with the site design. Massing, scale, and materials would be reflective of or consistent with the surrounding park resources and designed historic landscape. The redesign of the roadway to the east of the Memorial could be mitigated by the use of design techniques and construction materials that would preserve the aesthetic qualities of the original roadway design at its historic location. As the design, development, and consultation continue, other potential adverse effects may be identified. A Memorandum of Agreement with the DC Historic Preservation Office and the Advisory Council on Historic Preservation to provide consultation in order to avoid adverse effects on this historic resource would occur.

ALTERNATIVE C – INSTALLATION OF BOLLARDS BEHIND EXISTING SIDEWALK AND ALONG OUTER RING

Transportation Improvements. The impacts would be the same as under Alternative B.

Security Improvements. As previously stated under Alternative B, the construction of security improvements would have the potential to have an adverse affect on the cultural qualities of the Lincoln Memorial, but they would be greater for Alternative C because the use of bollards creates a greater adverse impact to the historic designed landscape. Impacts associated with Alternative C would be moderate, long-term, and adverse because the use of bollards along the existing sidewalk would adversely impact the historic landscape of the Lincoln Memorial. As design, development, and consultation continue, other potential adverse effects may be identified.

Visitor Services. Impacts would be the same as those described under Alternative B.

Cumulative Effects. Cumulative impacts under Alternative C would be the same as those described under Alternative B.

Section 106 Summary. In accordance with Section 106 of the National Historic Preservation Act, the Alternative B may have an *adverse effect* on historic properties. However, through a Memorandum of Agreement with the DC Historic Preservation Office and the Advisory Council on Historic Preservation, the National Park Service would mitigate to avoid or reduce the impacts to a moderate or minor level so that the proposed action would have no adverse effect on historic properties. Therefore, Alternative C would impact the historic properties, but the

impacts would not diminish the integrity of the resource to the extent that the site's National Register eligibility is jeopardized.

Conclusion. Under Alternative B, the impacts associated with construction of the security improvements would be moderate, long-term, and adverse due to the impacts of the security barrier system to the historic designed landscape. Minor, long-term, beneficial impacts would result from the transportation improvements and minor, long-term, adverse impacts would result from enhanced visitor services. There would be a moderate adverse cumulative impact on cultural landscapes from Alternative B and other past and reasonably foreseeable future actions.

Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. Mitigation would the same as those described under Alternative B.

IMPACTS ON SAFETY (SECURITY)

DEFINITION OF INTENSITY LEVELS

Analyses of the potential intensity of safety and security were derived from the available information on the Lincoln Memorial and the professional judgment of the National Capital Parks - Central staff. The thresholds of change for the intensity of impacts on safety and security are defined as follows:

- *Negligible* - Public health and safety would not be affected, or the effects would be at low levels of detection and would not have an appreciable effect on the public health or safety;
- *Minor* -The effect would be detectable and would likely be short-term, but would not have an appreciable effect on public health and safety. If mitigation were needed, it would be relatively simple and would likely be successful;
- *Moderate* - The effects would be readily apparent and long-term, and would result in substantial, noticeable effects to public health and safety on a local scale. Mitigation measures would probably be necessary and would likely be successful; or
- *Major* - The effects would be readily apparent and long-term, and would result in substantial, noticeable effects to public health and safety on a regional scale. Extensive mitigation measures would be needed, and their success would not be guaranteed.

ALTERNATIVE A – NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the makeshift security measures would continue. The use of concrete jersey barriers and concrete planters as security measures are anticipated to be temporary and short-term. They do not provide adequate security necessary to protect the Lincoln Memorial and its visitors from the possible threat of vehicular bombs. The impacts to

security of the Lincoln Memorial and its visitors are moderate, long-term, and adverse under the No-Action Alternative. Access for individuals with disabilities would continue.

In addition, under the No-Action Alternative, visitor services areas would not be constructed and transportation improvements would not occur, which would not affect security at the site.

Cumulative Effects. Proposed security improvements at the Washington Monument and Jefferson Memorial would improve visitor safety. The No-Action Alternative would not contribute to cumulative impacts on safety and security.

Conclusion. Impacts to safety and security of the Lincoln Memorial, under the No-Action Alternative would be moderate, long-term, and adverse. The No-Action Alternative would not contribute to cumulative effects on security and safety of the Lincoln Memorial. No impairment to park resources or values would occur.

ALTERNATIVE B – CONSTRUCTION OF RETAINING WALL BEHIND EXISTING SIDEWALK AND INSTALLATION OF BOLLARDS ALONG OUTER RING (PREFERRED ALTERNATIVE) AND ALTERNATIVE C – INSTALLATION OF BOLLARDS BEHIND EXISTING SIDEWALK AND ALONG OUTER RING

Transportation Improvements. Under Alternatives B and C, improvements to the transportation surrounding the Lincoln Memorial would occur. Closure of the east side of Lincoln Circle for pedestrian access would create moderate, long-term, beneficial impacts to safety and security of the visitors by reducing the conflict between motorized vehicles and pedestrians.

Security Improvements. A new vehicular barrier system would be constructed under these alternatives, resulting in moderate, long-term, beneficial impacts to safety and security. Construction of vehicular security barriers surrounding the Lincoln Memorial would provide more adequate protection to the Memorial and its visitors from the threat of vehicular bombs. Access for individuals with disabilities would be improved. Bollards would be placed at a minimum distance of 4 feet apart, and Lincoln Circle would be elevated to sidewalk level, creating easier pedestrian access.

Visitor Services. New visitor services areas would be constructed on the north and south ends of the Memorial. No impacts to safety and security would occur as a result of this construction.

Cumulative Effects. Proposed security improvements at the Washington Monument and Jefferson Memorial would improve visitor safety. Alternatives B and C would also improve visitor safety. Therefore, reasonably foreseeable future actions along with Alternatives B and C, would have a moderate beneficial cumulative impact on safety and security in the Monumental Core.

Conclusion. Impacts to the safety and security of the Lincoln Memorial and its visitors would be moderate, long-term, and beneficial. Alternatives B and C, along with reasonably foreseeable future actions, would have a beneficial cumulative effect on safety in the memorial core.

Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or

proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. In order to meet requirements for individuals with disabilities, the bollards would be placed a minimum of 4 feet apart.

IMPACTS ON VISITOR USE AND EXPERIENCE

DEFINITION OF INTENSITY LEVELS

Analyses of the potential intensity of visitor use and experience were derived from the available information on the Lincoln Memorial and the professional judgment of the National Capital Parks - Central staff. The thresholds of change for the intensity of impacts on visitor use and experience are defined as follows:

- *Negligible* - Visitors would not be affected or changes in visitor use and/or experience would be below or at the level of detection. Any effects would be short-term. The visitor would not likely be aware of the effects associated with the alternative;

- *Minor* - Changes in visitor use and/or experience would be detectable, although the changes would be slight and likely short-term. The visitor would be aware of the effects associated with the alternative, but the effects would be slight;

- *Moderate* - Changes in visitor use and/or experience would be readily apparent and likely long-term. The visitor would be aware of the effects associated with the alternative and would likely be able to express an opinion about the changes; or

- *Major* - Changes in visitor use and/or experience would be readily apparent and have important long-term consequences. The visitor would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

ALTERNATIVE A – NO-ACTION ALTERNATIVE

Under the No-Action Alternative, new visitor services areas would not be constructed; therefore, the visitor use and experience would not improve. Under the No-Action Alternative, the current security barriers would remain, causing moderate, long-term, and adverse impacts to visitor use and experience. The current makeshift security barriers detract from the visitor experience and impede visitor movement. In addition, no transportation improvements would occur, which would continue to impact visitor use and experience. The impact would be moderate, long-term, and adverse.

Cumulative Effects. Planned road improvements and security improvements at the Washington Monument and Jefferson Memorial would have beneficial impacts on visitor use and experience by providing better access to the Monumental Core and better security for visitors. The No-Action Alternative would not contribute to these beneficial impacts. Therefore, there would be no cumulative effects on visitor use and experience.

Conclusion. Visitor use and experience would continue to be impacted under the No-Action Alternative. Moderate, short-term, adverse impacts would continue to occur as a result of the makeshift security barriers currently being used. Moderate, long-term, adverse impacts would occur by not improving transportation around the Memorial. No cumulative effects on visitor use and experience would occur. No impairment to park resources and values would occur.

ALTERNATIVE B – CONSTRUCTION OF RETAINING WALL BEHIND EXISTING SIDEWALK AND INSTALLATION OF BOLLARDS ALONG OUTER RING (PREFERRED ALTERNATIVE) AND ALTERNATIVE C – INSTALLATION OF BOLLARDS BEHIND EXISTING SIDEWALK AND ALONG OUTER RING

Transportation Improvements. Under Alternatives B and C, improvements to the transportation surrounding the Lincoln Memorial would occur. Improved vehicular and pedestrian access, and the closure of the east side of Lincoln Circle for pedestrian access, would create moderate, long-term, beneficial impacts to visitor use and experience.

Security Improvements. Construction of a vehicular barrier system would provide beneficial impacts to visitor use and experience by providing ease of access to and from the Lincoln Memorial that would be moderate and long-term. Minor, short-term, adverse impacts to visitors would occur during construction.

Visitor Services. For Alternatives B and C, new visitor services areas would be constructed on the north and south sides of the Memorial. The existing gift shop kiosk and the snack area on the south side would be combined into the south side visitor services area. Impacts to visitor use and experience would be similar for Alternatives B and C. These impacts would be moderate, long-term, and beneficial.

Cumulative Effects. Planned road improvements and security improvements at the Washington Monument would have beneficial impacts on visitor use and experience by providing better access to the Monumental Core and better security for visitors. The improvements proposed under Alternatives B and C would also have beneficial impacts, leading to a moderate, beneficial cumulative impact on visitor use and experience.

Conclusion. Alternatives B and C would have moderate, long-term, and beneficial impacts on visitor use and experience as a result of new visitor services areas and enhanced access to and from the Lincoln Memorial. Minor, short-term, adverse impacts would result from construction. Moderate, beneficial impacts on visitor use and experience would occur under these alternatives.

Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. To mitigate impacts to visitors during the construction of the visitor services areas, the north service area would be constructed first. Once complete, the gift shop, snack area, and information kiosks already existing on the south side would be transferred to the

north side so that construction could begin on the south visitor services area, thereby eliminating disruption to visitor use and experience.

IMPACTS ON PARK OPERATIONS

DEFINITION OF INTENSITY LEVELS

The National Park Service staff's knowledge regarding operational efficiency, protection, and preservation of important resources, and providing an effective visitor experience was used to determine intensity levels of potential impacts on Memorial operations. For purposes of analyzing potential impacts, the thresholds of change for the intensity of an impact are defined as follows:

- *Negligible* - Park operations would not be affected, or the effects would be at low levels of detection and would not have an appreciable effect on park operations;

- *Minor* -The effect would be detectable and likely short-term, but would be of a magnitude that would not have an appreciable effect on monument operations. If mitigation was needed to offset adverse effects, it would be simple and likely successful.

- *Moderate* - The effects would be readily apparent, likely long-term, and would result in a substantial change in park operations in a manner noticeable to staff and to the public. Mitigation measures would be necessary to offset adverse effects and would likely be successful; or

- *Major* - The effects would be readily apparent and would result in a substantial change in park operation in a manner noticeable to staff and the public and be markedly different from existing operations. Extensive mitigation measure to offset adverse effects would be needed and their success could not be guaranteed.

ALTERNATIVE A – NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the existing concrete jersey barriers would remain. The concrete jersey barriers provide temporary security to the Lincoln Memorial and its visitors, but inadequate protection. New visitor services areas would not be constructed. The existing gift shop and information kiosks would remain. No transportation improvements would occur. Traffic congestion and flow would continue to be problematic. Overall park operations would be expected to sustain minor to moderate, long-term, adverse impacts as a result of inefficient visitor services and traffic congestion.

Cumulative Effects. Planned road improvements and security improvements at the Washington Monument would have beneficial impacts on park operations by improving visitor services and providing better access to the Monumental Core. The No-Action Alternative would not contribute to these beneficial impacts. Therefore, there would be no cumulative effects on park operations.

Conclusion. The No-Action Alternative would have minor to moderate, long-term, adverse effects on park operations. Inefficient visitor services and traffic congestion would continue and remain problematic. No cumulative affects would occur. No impairment to park resources and values would occur.

ALTERNATIVE B – CONSTRUCTION OF RETAINING WALL BEHIND EXISTING SIDEWALK AND INSTALLATION OF BOLLARDS ALONG OUTER RING (PREFERRED ALTERNATIVE) AND ALTERNATIVE C – INSTALLATION OF BOLLARDS BEHIND EXISTING SIDEWALK AND ALONG OUTER RING

Transportation Improvements. Under Alternatives B and C, transportation improvements would occur. Traffic congestion and flow would be beneficially impacted through installation of traffic signals and pedestrian crosswalks. This impact would be moderate and long-term. The plaza would be raised to be even with the existing sidewalk and would create easier access to the Lincoln Memorial from the Reflecting Pool. This would eliminate vehicles from driving in front of the Memorial and increase park operations.

Security Improvements. For Alternatives B and C, a vehicle barrier system would be built. Long-term objectives for security at the Memorial and for its visitors would be met, creating minor, long-term, beneficial impacts.

Visitor Services. New visitor services areas would be constructed on the north and south sides of the Memorial under these alternatives. There would be no beneficial or adverse impacts to park operations as a result of these areas.

Cumulative Effects. Planned road improvements and security improvements at the Washington Monument would have beneficial impacts on park operations by improving visitor services and providing better access to the Monumental Core. The improvements proposed under Alternatives B and C would also have beneficial impacts, leading to a moderate, beneficial cumulative impact to park operations.

Conclusion. Alternatives B and C would be expected to create moderate, long-term, beneficial impacts on National Park Service operations as a result of transportation improvements. Minor, long-term, beneficial impacts from security improvements would occur. Visitor services would not impact park operations. There would be moderate, beneficial cumulative effects to park operations under these alternatives.

Because there would be no major, adverse impacts to resources or values whose conservation are (1) necessary to fulfill specific purposes identified in the establishing of legislation or proclamation of the Lincoln Memorial; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning document, there would be no impairment of the park's resources or values.

Mitigation Measures. No mitigation measures are recommended.

CONSULTATION AND COORDINATION

Scoping is the effort to involve agencies and the general public in determining the scope of issues to be addressed in the environmental document. Among other tasks, scoping determines important issues and eliminates unimportant issues; allocates assignments among the interdisciplinary team members and/or other participating agencies; identifies related projects and associated documents; identifies other permits, surveys, consultations, etc., required by other agencies; and creates a schedule that allows adequate time to prepare and distribute the environmental document for public review and comment before a final decision is made. Scoping includes any interested agency, or any agency with jurisdiction by law or expertise (including the Advisory Council on Historic Preservation, the State Historic Preservation Officer, and Indian Tribes) to obtain early input.

Design Analysis studies have been completed that have helped the National Capital Region and the National Capital Parks – Central to examine a number of alternatives for construction of a vehicular barrier system at the Lincoln Memorial. Numerous meetings have been held with the Commission of Fine Arts and the National Capital Planning Commission on the design criteria. The National Park Service presented their preliminary design concept to the National Capital Planning Commission on July 11, 2002. The National Park Service should receive the Planning Commission's recommendation at the August 30, 2002, Commission hearing.

The National Park Service has also invited the DC Historic Preservation Officer and the Advisory Council on Historic Preservation to enter into consultation to develop a Memorandum of Agreement in order to avoid the potential for adverse effects on historic resources.

COMPLIANCE WITH FEDERAL AND STATE REGULATIONS

The following laws and associated regulations provided direction for the design or project alternatives, the analysis of impacts, and the formulation of mitigation/avoidance measures:

National Environmental Policy Act of 1969 (Title 42 U.S. Code Sections 4321 to 4370 [42 USC 4321-470]). The purposes of the National Environmental Policy Act include encouraging "harmony between [humans] and their environment and promote efforts which will prevent or eliminate damage to the environment...and stimulate the health and welfare of[humanity]." The purposes of the National Environmental Policy Act are accomplished by evaluating the effects of Federal actions. The results of these evaluations are presented to the public, Federal agencies, and public officials in document format (e.g., environmental assessments and environmental impact statements) for consideration prior to taking official action or making official decisions. Implementing regulations for the National Environmental Policy Act are contained in Part 1500 to 1515 of Title 40 of the U.S. Code of Federal Regulations (40 CFR 1500-1515).

Endangered Species Act of 1973, as amended (16 USC 1531-1544). The purposes of the Endangered Species Act include providing "a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." According to the Endangered Species Act, "all Federal departments and agencies shall seek to conserve endangered species and threatened species: and "[e]ach Federal agency shall...insure that any action authorized, funded, or carried out by such agency...is not likely to jeopardize the

continued existence of any endangered species or threatened species." The U.S. Fish and Wildlife Service (non-marine species) and the National Marine Fisheries Service (marine species, including anadromous fish and marine mammals) administer the Endangered Species Act. The effects of any agency action that may affect endangered, threatened, or proposed species must be evaluated in consultation with either the U.S. Fish and Wildlife Service or National Marine Fisheries Service, as appropriate. Implementing regulations that describe procedures for interagency cooperation to determine the effects of actions on endangered, threatened, or proposed species are contained in 50 CFR 402. The National Park Service has obtained concurrence from the U.S. Fish and Wildlife Service that the proposed action is not expected to impact Federally listed endangered and threatened species or species of concern.

National Historic Preservation Act of 1966, as amended (16 USC 470 *et sequentia*). Congressional policy set forth in the National Historic Preservation Act includes preserving "the historical and cultural foundations of the Nation" and preserving irreplaceable examples important to our national heritage to maintain "cultural, educational, aesthetic, inspirational, economic, and energy benefits." The National Historic Preservation Act also established the National Register of Historic Places composed of "districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture." Section 106 of the National Historic Preservation Act requires that Federal agencies take into account the effects of their actions on properties eligible for or included in the National Register of Historic Places and coordinate such actions with the State Historic Preservation Office. National Historic Preservation Act also requires Federal agencies, in consultation with the State Historic Preservation Office, to locate, inventory, and nominate all properties that appear to qualify for the National Register of Historic Places, including National Historic Landmarks. Further, it requires Federal agencies to document those properties in the case of an adverse effect and propose alternatives to those actions, in accordance with the National Environmental Policy Act.

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Personal Communications

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APPENDIX A

Agency Correspondence and Coordination Letters

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401

September 9, 2002

Mr. Steven E. Pomeroy
Environmental Scientist
Greenhorne & O'Mara, Inc.
9001 Edmonston Road
Greenbelt, Maryland 20770

RE: Proposed Installation of Vehicle Barrier Systems at the Lincoln and Jefferson Memorials, Washington, District of Columbia

Dear Mr. Pomeroy:

This responds to your letter, received August 12, 2002, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened in the above referenced project area. We have reviewed the information you enclosed and are providing comments in accordance with Section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Except for occasional transient individuals, no proposed or federally listed endangered or threatened species are known to exist within the project impact area. Therefore, no Biological Assessment or further Section 7 consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or should additional information on the distribution of listed or proposed species become available, this determination may be reconsidered.

This response relates only to federally protected threatened or endangered species under our jurisdiction. Limited information is currently available regarding the distribution of other rare species in the District of Columbia. However, the Nature Conservancy and National Park Service (NPS) have initiated an inventory of rare species within the District. For further information on such rare species, you should contact Ellen Gray of the DC Natural Heritage Program at (202) 342-1443 ext. 223.

An additional concern of the Service is wetlands protection. Federal and state partners of the Chesapeake Bay Program have adopted an interim goal of no overall net loss of the Basin's remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin's wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should

be identified, and if alterations of wetlands is proposed, the U.S. Army Corps of Engineers, Baltimore District, should be contacted for permit requirements. They can be reached at (410) 962-3670.

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interests in these resources. If you have any questions or need further assistance, please contact Charisa Morris at 410-573-4550.

Sincerely,

Mary J. Ratnaswamy, Ph.D.
Program Supervisor
Threatened and Endangered Species

United States Department of the Interior
NATIONAL PARK SERVICE
Center for Urban Ecology
Natural Resources and Science
4598 MacArthur Blvd., N.W.
Washington, D.C. 20007

N16 (NCR-NRS)

August 21, 2002

Steven E. Pomeroy, Environmental Scientist
Greenhorne & O'Mara, Inc.
9001 Edmonston Road
Greenbelt, MD 20770

Dear Mr. Pomeroy:

We have reviewed your letter and map of August 7 requesting information regarding federally listed endangered and threatened species as well as rare species in and near the Lincoln and Jefferson Memorials in Washington, DC. We have no records of rare, threatened, and endangered species in either location. In addition, we recommend that you contact the Fish and Wildlife Service, which has Federal oversight for rare, threatened, and endangered species.

If you have any questions, or need further assistance, please contact me at 202-342-1443 Ext. 223.

Sincerely,

Ellen S Gray

Dr. Ellen van Snik Gray
Interim Director, DC Natural Heritage Program

Enclosure

United States Department of the Interior

NATIONAL PARK SERVICE
National Capital Region
1100 Ohio Drive, S.W.
Washington, D.C. 20242

IN REPLY REFER TO

L3215(NCR-LRP)

JUL 1 2002

Mr. Gregory McCarthy
Historic Preservation Officer
District of Columbia Office of Planning
801 North Capitol Street, NE., 3rd Floor
Washington, D.C. 20002

Dear Mr. McCarthy:

Lincoln Memorial Circle was closed to vehicular traffic in the early 1970s in order to eliminate pedestrian-vehicular conflict in at one of our most heavily visited memorials. More recently, temporary security measures to protect the Lincoln Memorial, including planters, jersey barriers and fencing, have been installed. The Lincoln Circle Rehabilitation and Security Improvement project would rehabilitate the existing traffic lanes, create a pedestrian plaza reminiscent of the historic circle east of the Memorial and incorporate a vehicular barrier system composed of low walls and bollards. Under separate cover, we are transmitting to you the necessary materials for review by your office and the District of Columbia Historic Preservation Review Board.

The project includes approximately 6,800 linear feet of roadways. The rehabilitation work will include replacement of deteriorated and/or substandard components and installation of new components. Items to be removed and replaced are street pavement, curbs, sidewalks, storm drainage systems, drinking fountains, and streetlights. New components include traffic signals, realignment of some traffic lanes, and a perimeter security system.

A primary feature of this project is the new pedestrian plaza that will be located in the eastern one quarter of Lincoln Circle which will highlight and facilitate the increased pedestrian use of this area for public gatherings of national interest. This plan permanently removes vehicular traffic in this section of the circle. The plaza will be concrete with a rectilinear scoring pattern. It will follow the historic circle roadway, complete with a curb line, but the curb will be flush and the roadbed raised to provide a plaza. The plaza will re-establish the historic footprint of the easternmost area of Lincoln Circle.

Concrete pads will be installed adjacent to the west curbs of both Henry Bacon and Daniel French Drives to provide access points for public transportation systems. French Drive will also accommodate handicapped parking spaces. Future concession kiosks are planned for the

parkland adjoining both French and Bacon Drives. These have been indicated on the site plan as future projects.

All of the design features are being developed in accordance with the Streetscape Manual and the Cultural Landscape Report for the Lincoln Memorial Grounds as well as with the assistance of the National Capital Planning Commission Security Task Force and its design consultants. In order to maintain the existing trees, one of the character defining features of the Lincoln Memorial Grounds, construction measures will be included to minimize any disturbance to roots, limbs, and branches.

To improve pedestrian safety, traffic flow, and Tourmobile access, there will be changes along the west side of Lincoln Circle and at its intersections with 23rd Street and Bacon Drive, north of the Memorial. The design concept provides three lanes on the eastbound inner loop of the Lincoln Circle, consisting of two 12-foot wide through lanes, and a dedicated left turn lane. A dedicated lane for Tourmobile will added from 23rd Street south of the Memorial to the west side of the Circle. At that point, other eastbound traffic can merge into that lane as well. On the north side of the Memorial, 23rd Street would also be modified to accommodate four 12-foot wide lanes (2 northbound and 2 southbound) and a wider median. This is consistent with the new intersection geometry and anticipated traffic levels. In addition, new traffic signals with a pedestrian feature in their sequence will be installed at both intersections.

This project incorporates a vehicular barrier system that includes a low retaining wall encircling the Lincoln Memorial on the south, west and north and bollards on the east and along the Approachway Steps. The wall will be 30 inches in height measured from the adjacent edge of the inner sidewalk to the top of the coping stone. The face of the wall will be offset 20 inches from the edge of the inner sidewalk. At the ground level there will be a stone strip 6 inches in height that covers the area between the edge of the sidewalk and the face of the wall. There will also be a 6-inch coping stone approximately 18 inches wide. This permits an 18-inch high stone panel between the coping stone and the 6-inch stone strip, that will be Milford Pink Granite quarried in Massachusetts. In order to provide for secure emergency access to the circular terrace, a gate system will be incorporated into the wall on the west side of the Memorial. The access gate will be 12 feet wide and will either be a folding wall, constructed to match the proposed retaining wall, or if this is not feasible, two retractable bollards will be installed.

A line of bollards will cross the pedestrian plaza at the north and south termination points of the security wall, follow the outer perimeter of the pedestrian plaza until reaching the first set of steps that lead to the Reflecting Pool. At the point the bollards will turn and follow the steps to within approximately 20 feet of the Reflecting Pool, then turn and extend parallel to the end of the Reflecting Pool. Two additional wall segments would be constructed between the main stairs to the Reflecting Pool and the interior stairs flanking both sides. These walls each measure approximately 50 feet wide. This scheme will complete the security perimeter, but allow official and emergency vehicles to pass north/south along the west end of the Reflecting Pool. The design of the bollards will be compatible with the Lincoln Memorial.

We have applied the criteria of effect of the Advisory Council on Historic Preservation and have determined that the Lincoln Memorial Circle rehabilitation and associated security improvements

would potentially have an adverse effect on the National Register qualities of the Lincoln Memorial. The construction of the wall and bollards introduces a new element into the historic landscape, which could be mitigated through compatible new design and materials. The loss of the historic roadway to the east of the Memorial could be mitigated by the evocation of the historic roadway through new materials, including the curb line, at the historic location. As the design development and consultation continue, other potential adverse effects may be identified.

We hope that you will concur in our finding of potential adverse effect and work with us and the Advisory Council on Historic Preservation in developing a Memorandum of Agreement to provide for consultation in order to avoid adverse effects on this historic resource. For further information, please contact me or Steve Lorenzetti, Chief, Division of Resource Management, National Capital Parks – Central. Mr. Lorenzetti can be reached at (202) 485-9680.

Sincerely,

Acting Regional Director, National Capital Region

APPENDIX B

Environmental Screening Form

Environmental Screening Form

Project Description/Location:

The Lincoln Memorial Circle Rehabilitation and Security Project, Washington, DC

	Yes	No	Data Needed to Determine
Mandatory Criteria (A-N). Would the proposal, if implemented:			
A. Have material adverse effects on public health or safety?		X	
B. Have adverse effects on such unique characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; or ecologically significant or critical areas, including those listed on the National Register of Natural Landmarks?			Are in discussions with the SHPO
C. Have highly controversial environmental effects?		X	
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?		X	
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?		X	
F. Be directly related to other actions with individually insignificant, but cumulatively significant, environmental effects?		X	
G. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places?			X
H. Have adverse effects on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have adverse effects on designated Critical Habitat for these species?		X	
I. Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act?	X		

	Yes	No	Data Needed to Determine
J. Threaten to violate a federal, state, local, or tribal law or requirement imposed for the protection of the environment?		X	
K. Involve unresolved conflicts concerning alternative uses of available resources (NEPA sec. 102(2)(E).		X	
L. Have a disproportionate, significant adverse effect on low income or minority populations (EO 12898).		X	
M. Restrict access to and ceremonial use of Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)		X	
N. Contribute to the introduction, continued existence, or spread of federally listed noxious weeds (Federal Noxious Week Control Act).		X	
O. Contribute to the introduction, continued existence, or spread of non-native invasive species or actions that may promote the introduction, growth or expansion of the range of non-native invasive species (EO 13112).		X	
P. Require a permit from a federal, state, or local agency to proceed, unless the agency from which the permit is required agrees that a CE is appropriate?	X		
Q. Have the potential for significant impact as indicated by a federal, state, or local agency or Indian tribe?		X	
R. Have the potential to be controversial because of disagreement over possible environmental effects.		X	
S. Have the potential to violate the NPS Organic Act by impairing park resources or values?		X	
Tailor the following to meet individual park unit/project needs. Are any measurable impacts possible in the following categories relating to physical, natural, or cultural resources?			
A. Geological resources—soils, bedrock, streambeds, etc.		X	
B. From geohazards		X	
C. Air quality, traffic, or from noise	X		
D. Water quality or quantity	X		
E. Streamflow characteristics		X	
F. Marine or estuarine resources		X	
G. Floodplains or wetlands	X		

	Yes	No	Data Needed to Determine
H. Land use, including occupancy, income, values, ownership, type of use		X	
I. Rare or unusual vegetation—old growth timber, riparian, alpine, etc.		X	
J. Species of special concern (plant or animal; state or federal listed or proposed for listing) or their habitat		X	
K. Unique ecosystems, biosphere reserves, World Heritage sites		X	
L. Unique or important wildlife or wildlife habitat		X	
M. Unique or important fish or fish habitat		X	
N. Introduce or promote non-native species (plant or animal)		X	
O. Recreation resources, including supply, demand, visitation, activities, etc.	X		
P. Visitor experience, aesthetic resources	X		
Q. Cultural resources, cultural landscape, sacred sites, etc.			X
R. Socioeconomics, including employment, occupation, income changes, tax base, infrastructure, etc.		X	
S. Minority and low-income populations, ethnography, size, migration patterns, etc.		X	
T. Energy resources		X	
U. Other agency or tribal land use plans or policies		X	
V. Resource, including energy, conservation potential		X	
W. Urban quality, gateway communities, etc.	X		
X. Long-term management of resources or land/resource productivity		X	
Y. Other important environmental resources		X	

Please answer the following questions.

1. Are the personnel preparing this form familiar with the site, and/or has a site visit been conducted? (Attach additional pages noting when site visit took place, staff attending, etc.)

   The person preparing this form is the chief of the Resource Management division of the park. He visits the site at least once a week and is familiar with past historical natural and cultural research on the site.

2. Has consultation with all affected agencies or tribes been completed? (Attach additional pages detailing the consultation, including the name, date, and summary of comments from other agency or tribal contacts.)

   The National Park Service is the only affected agency and there are no recognized tribes in this area.

Instructions

When you have completed a site visit (or if staff are familiar with the specifics of the site) and consultation with affected agencies and/or tribes, and if the answers in the checklist above are all "no," you may proceed to the categorical exclusion form (appendix 2) if the action is described in section 3-4 of NPS-12. If any answers in the checklist are "yes" or "data needed to determine," or if the action is not described in section 3-4, prepare an environmental assessment or environmental impact statement.

Attach maps, notes of site visits, agency consultation, relevant data or reports, the categorical exclusion form or other relevant information to this form to begin the statutory/administrative record file.

Signatory

In signing this form, you are saying you have completed a site visit or are familiar with the specifics of the site, that you have consulted with affected agencies and tribes, and that the answers to the questions posed in the checklist are, to the best of your knowledge, correct.

Stephen Lorenzetti **Interdisciplinary Team Leader**	October 8, 2002 **Date**
Stephen Lorenzetti **Technical specialist/field of expertise**	Resource Manager **Technical specialist/field of expertise**

APPENDIX C

Floodplain Statement of Findings