More problems with the Mall elms had become evident by 1945. In this year, A.H. Hanson, landscape architect with NCP Branch of Forestry, conducted an inspection and submitted a report which gives a detailed picture of the state of the elms nine years after their planting:

... In developing their shape the branches have grown outward or crossed over and become so irregular that they will by no means support the original idea whereby the trees were to grow in an upright shape so that the gentle arching branches would meet between rows of trees and form a high overhead arch, reminiscent of the nave of a large church or cathedral....

Some question may arise as to the advisability of replacing apparently healthy trees with smaller trees of better shape. It is most certain that these unshapely trees will obstruct the vista between rows of trees, and it would be much better to remove them now than when they become so large that replacement trees cannot catch up to others in growth. All the Mall trees measure from 10 inches to 1 foot in trunk diameter. Considering that they were practically 3 inches in diameter [when] they were planted indicates a growth of about 9 inches in 8 years.

It is recommended that the largest size of tree that can be planted without a ball of earth be used for replacement. The size of such a tree, affording the greatest margin of safety for successful planting, would be between  $2\frac{1}{2}$ -3 inches in trunk diameter measured 2 feet above the ground line. They should not be taller than 14 feet.

The paramount condition in the specifications for obtaining the true type vase shaped elm would be the actual selection of the tree in the nursery row irrespective of whether the tree was grown from seed or asexually propagated. After all it is the way a tree grows that counts and not its ancestry. . . .

It is therefore strongly recommended that the elm trees now growing in the Mall as part of the Mall scheme, which show a decidedly averse tendency to growing into the typical shape of a vase shaped elm, shall be removed and replaced with actual vase shaped elms, that they shall be actually selected for their shape from the nursery row, shall be shipped bare rooted about 2½-3" in trunk diameter. With dead and missing trees a total of 80 trees should be purchased. (Hanson to Sager 10/2/45 FRC9)

Soon, about forty of the elms were replaced with "new and younger elm trees more of the American Elm type." (NCPC staff meeting 12/5/45 FRC9)

#### Beautification Program, 1964-1968

In 1964, President Lyndon B. Johnson established the Beautification Program, an effort inspired and led by the First Lady, Lady Bird Johnson. Officially in existence until 1968 (though continuing in fact into the 1970s), the Beautification Program focused on projects in Washington, D.C., with a broad mandate for landscape improvements and park rehabilitation. Projects included the planting of trees, shrubs, and floral displays; the creation or rehabilitation of playgrounds; and highway beautification. The National Park Service established a Beautification Task Force in National Capital Parks, where work was handled by staff landscape architects.

On the Mall, Lady Bird Johnson and Secretary of the Interior Stuart Udall unveiled plans for Beautification plantings. Historic photographs show beds installed on either side of a walk connecting the Smithsonian Castle and the National Museum of Natural History, the axis of 10<sup>th</sup> Street. These beds were the first of the "floral displays" added to D.C. parks under the Beautification Program. They were called "seasonal floral displays" because the plantings were changed seasonally – tulips were planted in the fall for spring bloom, followed by annuals in summer and chrysanthemums in fall. It is not known if there were other floral displays on the Mall; in any event, no projects carried out on the Mall under the Beautification Program remain. (The first reservation entirely redesigned under the Beautification Program lies just south of the Mall, Reservation 201, bounded by 3<sup>rd</sup> Street, Maryland Avenue, and Independence Avenue, S.W. A plaque commemorating Lady Bird's involvement in the program, dedicated on March 9, 1965, is located here.)



Floral displays were added along the walk connecting the National Museum of Natural History and the Castle. Lady Bird Johnson is in center, Sec. of the Interior Stewart Udall stands at right. (from MRCE, photo by Abbie Rowe; CLP file "Beautification Planting 9073-J 1965")



View of the completed beds along this walk in autumn. Benches of the standard NCP type had also been added. (from MRCE, photo by Abbie Rowe; CLP file "Mall flower beds 1965 9060-82")

# 1966-1976: Completion of the Mall Landscape and the Skidmore, Owings and Merrill Plans

#### Completion of the Mall Landscape

#### Removal of the Tempos

The Mall was not completed until the last World War I tempos were removed and the last elm trees planted. Tempos C and E stood at the southern end of the block between 5<sup>th</sup> and 7<sup>th</sup> Streets, tempo C to the east and E to the west, just south of Washington Drive and north of Independence Avenue. Tempo E is visible fronting the Mall in a 1964 photograph looking east down the Mall from 7<sup>th</sup> Street (Abbie Rowe, MRCE photo, "Mall from 7 St., 8879-# 1964"). Tempo E was the last to be removed, in 1971. Ground was broken for the National Air and Space Museum on part of the tempo's footprint on November 20, 1972. The last tree panel was planted with elms in the spring of 1975.

#### *Tunneling of 9<sup>th</sup> Street*

Work on the tunnel for south-bound 9<sup>th</sup> Street beneath the Mall began in January 1967 and the tunnel was opened on December 20, 1971. (Information from Joe Cook, NCR Lands Office; Wash. Post 12/21/71:D2)

#### **Bicentennial Projects**

Certain changes were made to the central Mall landscape for the Bicentennial year, following the master plan of 1973 developed by the architectural firm Skidmore, Owings and Merrill, which expanded on the recommendations of a master plan prepared by the same firm in 1966. Both are discussed below. Another Bicentennial project was the construction of four temporary food service buildings in about 1976. In 1993, these were replaced on the same locations by four permanent structures.

#### Playground Equipment

S. Dillon Ripley, Secretary of the Smithsonian Institution from 1964-1984, sought to enliven the Mall. Ripley was responsible for the creation of the Smithsonian Folklife Festival and Smithsonian Magazine. He also added a couple of new objects for the entertainment of children, the Smithsonian carousel (see Buildings and Structures) and the fiberglass dinosaur known as "Uncle Beazley." (Ripley obituary *Smithsonian Magazine* May 2001)

In 1967, Ripley arranged for a twenty-five-foot-long life-size fiberglass model of a triceratops to be placed among the elms in a tree panel in front of the National Museum of Natural History. It was one of nine dinosaur models that had been created for the pavilion of the Sinclair Oil Corporation, whose symbol was the dinosaur, at the 1964 New York World's Fair. When the fair closed, the dinosaurs were taken around the eastern United States to promote Sinclair Oil. In 1967 they were donated to American museums, and the triceratops was given to the Smithsonian. The following year, it was used to portray the character called "Uncle Beazley" in the NBC TV adaptation of the children's book, *The Enormous Egg.* This tells the story of a boy on a New England farm who hatched a triceratops from a chicken egg, then consulted with the Smithsonian about his unusual pet, which he eventually donated it to the National Zoo. The model was used as playground equipment in front of the museum until the early 1980s but was removed because of tort claims by parents whose children had fallen off. In 1990, Uncle Beazley was moved to the National Zoo; its current location is not known. (Goode 1974:260; communication with historian Amy Ballard, Smithsonian Institution, 8/06)

### Report of the President's Council on Pennsylvania Avenue, 1964

The story has it that, while traveling along Pennsylvania Avenue during his inaugural parade on January 21, 1961, President John F. Kennedy expressed dismay about the rundown appearance of the historic street. The following year, Kennedy appointed a team of architects, planners, and other experts to prepare recommendations for improving Pennsylvania Avenue and imparting greater dignity to its appearance. The result was the *Report of the President's Council on Pennsylvania Avenue*, issued in 1964 after Kennedy's assassination. Though never implemented, the report served as an "idea book" for the Pennsylvania Avenue Development Corporation (founded 1972). (interview with Parsons 4/06) It was also the genesis of many design proposals made for the Mall in succeeding reports, among them the Capitol Reflecting Pool and the redesign of Union Square, and the addition of new rows of trees along the inner lines of the Mall elms.

The President's Council on Pennsylvania Avenue was headed by architect Nathaniel Owings of the prominent Modernist architectural firm, Skidmore, Owings & Merrill (SOM), and one result of the plan was the retention of SOM by the National Park Service to prepare a master plan for the Mall. This work was also inspired by the approach of the Bicentennial. Owings may have been the chief designer, along with architect David Childs; landscape architect Dan Kiley and traffic engineer Wilbur Smith & Associates served as consultants. Two reports were submitted, in 1966 and 1973, and several iterations of the drawn plan were prepared from 1966 to about 1976. The two plans differ in details, but share common aims: removing automotive traffic and parking from the Mall; visually strengthening the central vista; and adding outdoor visitor attractions along the Mall and on the grounds of the memorials.

#### The Washington Mall Master Plan, 1966

The 1966 Master Plan report examined the "basic conflicts of types and volumes of circulation, lack of visitor amenities, fragmentation of land uses and unplanned future facilities." (SOM 1966:1) The new plan was presented as "a bolder and more comprehensive landscape structure" with "contrasting elements . . . which deny the monotony of slavish formality." (SOM 1966:8) Envisioning a greatly altered Mall, the designers presented new arrangements not only for Union Square and the Mall proper, but also for the Washington Monument Grounds, the Lincoln Memorial Grounds, and the areas around the Jefferson Memorial and Tidal Basin.

The key recommended change was the removal of roads and roadway parking, and their replacement with a system of shuttle and tour buses and an increased number of pedestrian walks: "The threat [to the Mall] now lies in road and freeway structures which can permanently destroy the beauty and proper use of the Mall." (SOM 1966:6) Underground parking was to be provided on the Mall and satellite parking some distance away. From parking lots at RFK Stadium, Union Station, and the Pentagon, shuttle buses would bring visitors to one of two new gathering points, either the east front of the Capitol or a Mall Orientation Center near the Lincoln Memorial, where tourists would board sightseeing buses that followed one of seven different routes.

In the Mall area, pedestrian and automotive traffic would be separated. All four Mall roads – Jefferson, Adams, Washington, and Madison Drives – would be removed and replaced by walks. Visitor centers would be located at strategic points – the Capitol Grounds, the Mall at 6<sup>th</sup> Street, an "Overlook Terrace" at 14<sup>th</sup> Street, and a large underground Orientation Center with a reception room, an "elegant" restaurant, and rose gardens located northeast of the Lincoln Memorial (the site now occupied by Constitution Gardens). All would have large parking garages, some underground. (SOM 1966:14, 17)

The 1966 plan recognized the importance of Union Square – called the "Grant Overlook Terrace" – as a foreground to the Mall that provided dramatic views of the Washington Monument. First, 2<sup>nd</sup>, and 3<sup>rd</sup> Streets would be entirely removed, replaced by a major reflecting pool near the Grant monument and a single, curving eight-lane road on the route of 2<sup>nd</sup> Street, designated primarily for ceremonial use and therefore named "Ceremonial Drive." (SOM 1966:10)

The lawns and tree plantings of the Mall would begin west of the new road. From 4<sup>th</sup> to 14<sup>th</sup> Streets, the central lawn would be depressed a few feet below the ground plane and lined on either side by sloping banks that would be planted with flowers. (This configuration may have been meant to resemble L'Enfant's design for the Grand Avenue, though the report does not mention this; SOM 1966:11) The rows of trees would be doubled, so that there would have been eight trees on either side, with the inner row composed of a few different species; this change is shown in the model but not discussed in the text.

Fourth, 9<sup>th</sup>, 12<sup>th</sup>, and 14<sup>th</sup> Streets would be tunneled; most other cross-axial streets were eliminated. Walks would run along some cross axes, with fountains placed on the central Mall axis at 6<sup>th</sup>, 8<sup>th</sup>, and 13<sup>th</sup> Streets. The traditional importance of the 8<sup>th</sup> Street axis would be denoted by its larger fountain, set within a paved plaza surrounded by a composition of trees and lawns.

Underneath the 8<sup>th</sup> Street alignment would be an underground garage with parking for 2000 cars. (SOM 1966:11) Another large underground garage would occupy the block between 12<sup>th</sup> and 14<sup>th</sup> Streets, beneath the former Department of Agriculture Grounds. Fifteenth and Seventeenth Streets would be merged into a tunneled 14<sup>th</sup> Street, above which was another Visitor Center with a viewing terrace and ramps leading up to the Washington Monument. (SOM 1966:12)

### The Washington Mall Circulation Systems, 1973

It does not appear that any part of the 1966 report was implemented, with the exception of a Tourmobile interpretive tour bus service, inaugurated in 1969. In October 1973, with the Bicentennial imminent, SOM prepared a second report, building on the same principles, titled *The Washington Mall Circulation Systems*. Defining the Mall as extending between 1<sup>st</sup> and 15<sup>th</sup> Streets, the report enumerated the problems with the design that had become apparent by the 1960s: the four carriage drives had become "parking lots for charter buses and cars"; Dutch elm disease and nearby construction had harmed the elms; and the museum restaurants were "inadequa[te]" while the open-air food stands led to a large amount of trash. (SOM 1973:3)

Circulation was still key. The primary goal was removing cars and buses from the Mall and, as in the previous plan, recapturing the "pedestrian character" of the L'Enfant and McMillan Plans. The four Mall drives would be removed. Walks would replace the inner drives, while two twenty-foot-wide roads, reserved mainly for the use of Tourmobiles, would replace the thirty-five-foot-wide outer drives, Jefferson and Madison. These new roads would be paved in a modular material, such as stone pavers or brick, "to create a human scale and temper the roadway's linear character". (SOM 1973:19) Grade crossings would be extended over 4<sup>th</sup>, 7<sup>th</sup>, 14<sup>th</sup>, and 15<sup>th</sup> Streets. Visitors who drove would park at remote locations and take shuttle buses to the Mall. Charter buses would load and unload from museum entrances on Constitution and Independence Avenues, located off the Mall. (SOM 1973:10)

The seven separate Tourmobile loops of the 1966 plan had been reduced to three "interlocking" figure-eight-shaped loops. The main Tourmobile terminal would be at Union Station. (SOM 1973:7) A "tourmobile interchange and pedestrian gathering point" was developed in the block between 14<sup>th</sup> and 15<sup>th</sup> Streets, entailing some regrading of both streets. (SOM 1973:5)

Once again it was proposed to build a Ceremonial Drive, now replacing 3<sup>rd</sup> Street instead of 2<sup>nd</sup>. The removal of 3<sup>rd</sup> Street would allow the Mall tree panels to be extended east by 100 feet, creating room for two additional rows of trees. Along the west side of Ceremonial Drive would run a forty-five-foot-wide walk made of "crushed compacted stone" and lined with bollards to discourage people from crossing except at Pennsylvania and Maryland Avenues. (SOM 1973:14) The use of this material was inspired by walks in Parisian gardens, such as the Tuileries. First Street would be closed to all vehicles other than Tourmobiles. Only 9<sup>th</sup> and 12<sup>th</sup> Streets would be tunneled. The fountains on the cross-axes were eliminated.

New plantings would include, most importantly, "a new row of trees along each of the inner pedestrian walkways" to provide a clean, regular edge, compensating for the irregular appearance of the elms. (SOM 1973:5) To emphasize the importance of the 8<sup>th</sup> Street axis, the plan recommended planting double rows of trees on the west side of 7<sup>th</sup> Street and on the east side of the pedestrian walks that followed the alignment of the tunneled 9<sup>th</sup> Street, and then extending the rows north of the Archives Building and up through Market Square. (SOM

1973:14) New "informal" plantings between the tourmobile roads and museums would also be developed, increasing the amount of screen plantings to hide service structures and service drives. (SOM 1973:19)

Areas under the elms, both lawns and sidewalks, would be zoned for "visitor services". Next to the Tourmobile road, a forty-five-foot-wide pedestrian "allee" would run beneath the elms. Concessionaires in kiosks would dispense information and sell Tourmobile tickets and film; there would also be room for bike racks, benches, drinking fountains, and trash receptacles. The inner twenty feet of the allee would provide a cool, shady pedestrian walk between the two rows of elms. (SOM 1973:20)

The ground beneath these rows would be reserved for temporary activities: "exhibitions, informal concerts, performances" by historical re-enactors, and so forth, "in character with the dignity of this part of the Mall". (SOM 1973:21) Aware of the threats posed to the elms by soil compaction, events would be of limited duration and located where roots would not be harmed. Measures would be taken to protect the trees: the soil would be spiked for aeration and a "range of protective surfaces" would be used – wood chips on peat moss, wood platforms on piers, or precast concrete slabs on crushed rock that could remain in place for up to a year. Grass strips would provide buffers between activity areas and pedestrian walks, and woodchips would be laid over grass to protect routes to the activities. Even so, it was recognized that the grass would be worn, but the grass under the elms was "not first quality grass – which cannot grow under conditions of constant shade – and it will never present a perfectly groomed appearance." (SOM 1973:22) Reseeding or resodding would be a necessary part of normal maintenance.

Crosswalks would lead to building entrances, and there would be wheelchair accommodation "of some kind". Walks would be made of "compacted crushed stone", providing a softer surface, better for walking (than concrete or asphalt, presumably). (SOM 1973:20) Four-inch agricultural drain tile would be laid beneath the paths for good drainage, eliminating puddles and mud, and aerating the ground and tree roots. Three-foot-wide granite borders were to be placed around each of the center grass panels, giving them clear, sharp edges.

Perhaps the most radical change recommended was the planting of an inner row of American lindens alongside the Mall elms. American lindens, the report explained, would create a colonnade, with branches arching overhead, allowing an "unobstructed view across and down the broad Mall greensward." (SOM 1973:23) This new row of trees was recommended for two reasons: because of the loss of elms to Dutch elm disease, and because removal of the east-west drives "would change the proportional relationships between the tree panels and the greensward". (SOM 1973:23) According to SOM's analysis, the elms served two uses: they provided shade for visitors and a contrast with the open center panel; and they defined the edges of the center panel. The loss of elms was destroying the formal character of the Mall, making it more pastoral, like the Washington Monument grounds: "Much of the aesthetic pleasure of the Mall landscaping is derived from this very juxtaposition of the romantic pastoral landscape with the more formal garden, and the contrast should be preserved." (SOM 1973:24) However, the Mall axis still required a strong edge.

The report discussed the problems facing an elm monoculture, stating that there was a difference between the Mall elms and the "classic American elm". (SOM 1973:26) The latter would achieve a minimum height of eighty to ninety feet. American lindens may grow to a similar height, but had a different form from the classic elm, with the elm having a mushroom

shape and a broad crown and the linden a bell shape with a tapered crown. If lindens grew to the same height as the classic elms, they would not be in scale with each other. However, the Mall elms would not reach their typical height. The elms planted in the 1930s had been seedlings, not "clones" – cuttings from the tops of trees – and seedlings did not grow as well or as tall. By the early 1970s, the Mall elms had grown to forty or fifty feet, and it was not believed that they would grow higher than 50 or 60 feet. (SOM 1973:26; the report referred to the work of Horace Wester.)

Changes were recommended for 14<sup>th</sup> Street, which "slashes on a constant downward grade from Independence Avenue to Constitution Avenue, wholly denying the broad flat plane of the Grand Axis and creating a barrier to pedestrians as they approach the Washington Monument." (SOM 1973:14) Since it had not yet been tunneled, the road could be flattened in time for the Bicentennial to make it relate better to the Mall. Fifteenth Street would be realigned and given a symmetrical curve, complementing Ceremonial Drive at the east. (SOM 1973:17)

The block between 14<sup>th</sup> and 15<sup>th</sup> Streets formed a "natural gathering area" for visitors to the Washington Monument. "Outdoor refreshment stands" and restrooms would be provided (SOM 1973:12); it was recommended that no outdoor food be offered east of 14<sup>th</sup> Street because of the trash problems caused by such a large number of visitors, and that no new restrooms be built on the Mall because they were "inappropriate" for such "valuable land" and led to security problems. (SOM 1973:14).

The formal tree panels would be carried across this block, concealing Tourmobile loading lanes and other tourist services. Additional landscaping would recognize its character as a transitional zone between the formal landscape to the east and the picturesque informality of the Washington Monument and other grounds to the west. (SOM 1973:18)

#### Results of the Plans

Only a few of the recommendations contained in the SOM plans were carried out. While Washington and Adams Drives were removed, Jefferson and Madison were retained. Automobile traffic and parking continued on the two remaining Mall drives and on the cross streets. The paving of walks was changed in 1975 from concrete to gravel. Union Square, between 1<sup>st</sup> and 3<sup>rd</sup> Streets at the Mall's east end, was largely rebuilt to the SOM plan, with the result that much the of landscape designed by Frederick Law Olmsted Jr. and dating from 1935 was eliminated (see the CLI for Union Square).

A major issue for the 1973 document was the addition of the inner row of linden trees. Both the Commission of Fine Arts and the National Capital Planning Commission disapproved of the introduction of a fifth line of trees, as well the introduction of another species to the American elms. (Parsons 4/06)

After construction bids were out on work to remove the inner Mall drives, a lawsuit was filed by a group of Smithsonian employees, charging that the NPS had failed to carry out an Environmental Impact Statement. The suit ended up costing the NPS nine months and \$900,000 in lost time and wages, with the result that not enough money remained to build the granite borders around the grass panels. (Parsons 4/06)

In about 1972, President Lyndon Johnson was approached by Joseph Hirshhorn, who offered to leave the nation his art collection and a building to house it, providing it could be located on the Mall. The only available site on the 1966 SOM plan was at the south end of the 8<sup>th</sup> Street axis. The initial proposal had a trench connecting the new gallery's sunken garden with the National Gallery of Art sculpture garden proposed for the north side. George Hartzog, newly appointed director of the NPS, managed to get this provision defeated. (Parsons 4/06) The Hirshhorn Museum and Sculpture Garden, designed by Gordon Bunshaft of SOM, was completed in 1974 at the south end of the 8<sup>th</sup> Street axis. The reductive geometry of Bunshaft's concrete cylinder can be interpreted as having precedents in the severity of eighteenth-century European Neoclassicism.

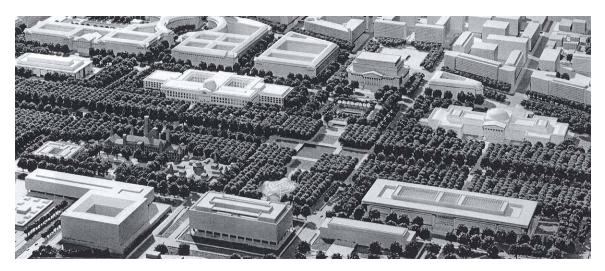
After 9<sup>th</sup> and 12<sup>th</sup> Streets had been tunneled in the 1960s and early 1970s, scars were left on the Mall landscape as seen from Constitution Avenue and Madison Drive. Because of this, tunneling of additional streets was reconsidered. Fourteenth Street had utility problems that precluded easy tunneling. (Parsons 4/06)



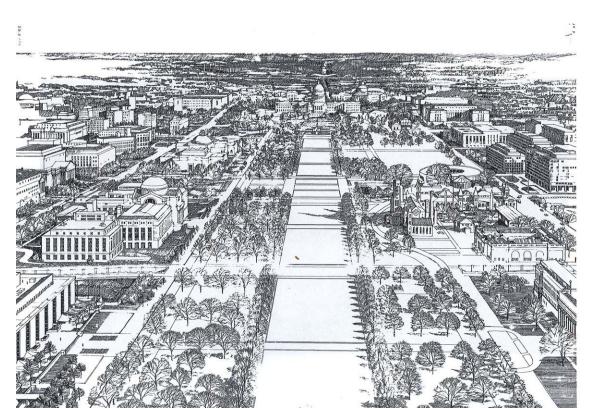
Detail of birdseye view from 1940s shows the World War I Tempo E remaining on the Mall between 5<sup>th</sup> and 7<sup>th</sup> Streets, above center of photo. Many trees on the Smithsonian Grounds had not yet been removed. (MRCE; CLP file, "LM to Capitol 1940s crop")



This view of the Mall looking east from 7<sup>th</sup> Street shows the World War I tempo still fronting the Mall in 1964. (MRCE, photo by Abbie Rowe; CLP file "Mall from 7 St. 8879-D 1964")



View of the large model prepared for the 1966 "Washington Mall Master Plan," looking north. Note the elaboration of the 8<sup>th</sup> Street axis and the additional rows of trees along the greensward. (CLP file "SOM 1966 following p. 10")



The 1973 "Circulation Systems" report included a graphic of the recommended treatment, showing the drives converted to walks and a row of American lindens providing a more uniform inner edge to the tree panels. (CLP file "SOM 1973 following p. 23")

## 1976-2006: The Mall Since the Bicentennial

Since 1976, great changes have been made to the surroundings of the Mall landscape, but relatively few changes to the Mall itself. Four small food service buildings, designed by architect Mary Oehrlein, have been built, in front of the National Museum of American History, the National Museum of Natural History, the Arts and Industries Building (next to the Smithsonian carousel), and the Air and Space Museum. An entrance to the Metro subway was opened on the Mall itself southeast of the Freer Gallery of Art in 1976. Regular maintenance has been carried out on the Mall: lights and benches have been repaired or replaced as necessary, and various new signs have been erected. About half of most walks have been repaved in exposed aggregate concrete of similar color and appearance to the existing gravel to make them accessible, so that many walks are composed of parallel sections of gravel and concrete. These issues are covered in more detail under the appropriate sections in Analysis and Evaluation.

#### Museum Buildings along the Mall

Many new museum buildings have been erected on empty sites along the Mall. East of the Hirshhorn, the National Air and Space Museum (designed by Gyo Obata for Hellmuth Obata Kassabaum) was built between 1970 and 1976 on the former site of the Army Medical Museum. The severe Modernist structure took cues from the Roman neoclassicism of Pope's National Gallery of Art facing it to the north, such as the five-part façade division and the use of marble as a veneer.

In 1978, the East Building of the National Gallery of Art (architect I.M. Pei) opened immediately east of the Pope structure, in the constricted trapezoidal block formed by Pennsylvania Avenue, 3<sup>rd</sup> and 4<sup>th</sup> Streets, and Madison Drive. Its series of interlocking triangles derived from the peculiarities of its site. The marble sheathing came from the same Tennessee quarry which had supplied the stone for the original gallery. (The National Gallery of Art, the Smithsonian Institution, and the National Park Service are separate federal organizations.) At the insistence of the NPS, the tennis courts on the National Gallery site were relocated to East Potomac Park as part of the project costs.

On the opposite side of the National Gallery West Building, designated by the SOM plans for a sculpture garden, a concession building designed by Charles Bassett of SOM was built in 1987-1989 to serve the National Mall skating rink, which had opened in 1973. The block between Constitution Avenue, 7<sup>th</sup> Street, Madison Drive, and 9<sup>th</sup> Street was transferred from the National Park Service to the National Gallery of Art in 1991. The National Gallery of Art Sculpture Garden did not open here until 1999, when the installation of numerous modern sculptures in a landscape designed by the Olin Partnership was completed. In the warm months, the skating rink becomes a fountain. It is surrounded by a formal planting of a double row of pleached lindens.

Two underground Smithsonian museums were constructed in 1987. Access to the Museum of African Art and the Arthur M. Sackler Gallery of Asian Art (both designed by Jean Paul Carlhian of Shepley, Bulfinch, Richardson, and Abbott) is through small pavilions situated in the Enid A. Haupt Garden behind the Smithsonian Castle.

The most recent addition to the Mall is the National Museum of the American Indian (architects Douglas Cardinal, John Paul Jones, and GBQC Architects of Philadelphia), completed in 2004 on the last empty site facing the Mall, between 3<sup>rd</sup> and 4<sup>th</sup> Streets, and directly south of the East Building of the National Gallery of Art. More than any of its predecessors, this structure broke with aesthetic precedent, its curving stone walls suggesting a geologic formation rather the classical, historical architectural prototypes recalled by most of the other twentieth-century Mall structures. Similarly, the landscape garden, designed by landscape architects with EDAW, that wraps around its irregular footprint evokes specific ecosystems instead of drawing from the landscape design tradition of the Mall. The museum introduced a slightly different and yellow-tinged stone color to the palette of the buildings facing the Mall.

In 2006, a site on the northeast side of the Washington Monument Grounds, in the block between 14<sup>th</sup> and 15<sup>th</sup> Streets, was selected for the National Museum of African American History.

### The Smithsonian Folklife Festival and Other Uses

The Smithsonian Festival of American Folklife is held on the Mall for two weeks every July. Tents and other venues are set up on the grass and tree panels in front of the museums, particularly in the blocks between 7<sup>th</sup> and 14<sup>th</sup> Streets. The festival employs hundreds of people and attracts many thousands of visitors.

The festival has had a number of different locations. First held in 1967 on the Mall itself, it remained there through 1972. From 1973 through 1976, it was held in West Potomac Park on the north and south sides of the Reflecting Pool. From 1977 through 1981 the festival was staged on the Washington Monument Grounds between 14<sup>th</sup> and 15<sup>th</sup> Streets, adjacent to Constitution Avenue, with some activities on the Mall itself; also, from 1977 to 1980, it was held in the fall, around Columbus Day weekend, rather than in the summer. In 1982, the festival was moved back to the Mall, where it has remained ever since. (Information provided by Smithsonian Center for Folklife and Cultural Heritage.)

The intensive use of the Mall during the Folklife Festival, and its effects on the health and longevity of the elms and turf, have caused National Park Service staff great concern. A moratorium on use of the Mall was considered, but never instituted. Studies on these issues have been conducted for both the NPS and the Smithsonian Institution and conclusions have varied. Different means of handling the perceived problem of overuse have been considered over the years. A few of these are outlined below.

In 1975, an Environmental Impact Statement on "The Proposed Rehabilitation of the National Mall" was prepared. The NAMA Cultural Resource files contain a copy of an undated notice in the Federal Register amending NPS regulations of the 36 Code of Federal Regulations. Effective in September 1989, it announced the prohibition of the use of the "National" Mall for "activities . . . which would tend to exacerbate or accelerate the deterioration of the appearance and condition of the turf areas and half-century-old elm trees which serve to outline the open grass spaces stretching from the Capitol to the Washington Monument." NCR staff had surveyed the area, and determined that the heavy use of various marches and events, from the

Pope's Visit in 1985 to the Folklife Festival, had produced "excessive soil compaction", threatening the health of the elms and turf and damaging the Mall's "aesthetic quality". It continued:

If uncontrolled use of this area continues, this trend will be irreversible. In balancing First Amendment Freedoms of speech and expression against the rights of the park visitor to utilize this historic area for aesthetic purposes, alternative sites have been selected nearby where such rights may be freely exercised. (NAMA CR file, "National Mall – Description/Research")

In May 1989, the Regional Director of Operations sent a memo to the Superintendent of National Capital Parks – Central recommending a temporary but long-term closure of the Mall. The memo includes the following:

Therefore, from August 15, 1989, through August 15, 1991 all public use and access to certain designated turf panels will be barred so to allow renovation, restoration and preservation to occur. After August 15, 1991 organized games, special events, and those demonstrations which adversely impact the turf areas will be prohibited due to the more destructive nature such activities have caused to the turf panels. The proposed restrictions affect only certain turf and tree panels of the National Mall. It will not apply to the wide pedestrian walkways that criss-cross the National Mall. During renovation of the panels, these walkways will be open to pedestrian traffic and demonstrations will be allowed to continue so that persons may communicate their views on these walkways. Furthermore, beginning on August 15, 1991, when it is anticipated that the turf panels can withstand limited types of activities and recognizing the importance of First Amendment activities, demonstrations will be permitted within the turf panels to the extent that such events may be conducted without damage to the panels.

As to certain designated tree panels, from August 15, 1989 through August 15, 1991, all public use and access will be barred so as to allow the renovation, restoration and preservation of the elm trees. (Associate Regional Director, Operations, to Superintendent, NACC, re: Proposed Draft Regulations – "National Mall Closure," May 23, 1989, pp. 6-7, from NAMA CR file "National Mall – Internal Memos/Correspondence")

It is not clear whether this was done. None of the people the author has spoken with at NAMA or NCR remembers this prohibition taking effect, or activities ever being barred from the Mall.

In August 1990, the Acting Superintendent of National Capital Parks – Central (now National Mall & Memorial Parks) sent a memo to the NCR Regional Director stating that studies prepared on the Mall all indicated that the Folklife Festival and similar activities damaged the Mall landscape and that such activities should not be held on the tree panels. He recommended that "all Special Event activities, including the Festival of American Folklife, be barred from the Mall, and relocated to areas less fragile and better suited to restoration." (Memo, to Regional Director, NCR, from Acting Sup., NACC, re: proposed Mall usage Policy, Aug. 21, 1990, NAMA CR file "National Mall – Description/ Research". The documents referred to included "The Mall Master Plan" [1966], "The Mall Circulation Systems" [1973], Philip J. Craul, Ph.D., "The Condition of the Soil and Vegetation on the Mall", and recommendations of the NPS Center for

Urban Ecology Chief Scientist William Anderson. The "Circulation Systems" plan did not, in fact, recommend eliminating activities from the tree panels, but recommended safer strategies for their use.)

A briefing statement prepared for Secretary of the Interior Manuel Lujan, Jr., titled "Special Events on the National Mall," is dated March 5, 1991. (NAMA Cultural Resource Files, folder "Internal Memos/Correspondence.") This states: "The festival of American Folklife is the single largest contributor to the degradation of Mall's most significant horticultural resources: the American elm trees and the carefully manicured turf panels", because of the numbers of visitors, the "extensive networks of utilities trenches," and the use of "heavy vehicles". Though the Festival ran for only "two weeks in July," the entire set-up and removal activities took over three months, and harmed the health of the elms and the appearance of the Mall for the entire summer, and "acceptable appearance is never fully attained before the next year's Festival is underway."

The Lujan statement cited a 1990 study by Dr. Philip J. Craul, Harvard University, and NPS and private studies "dating back to 1973 . . . [that] concluded without exception that serious and ongoing damage to the landscape features of the Mall is being inflicted as a result of the continued intensive usage." Soils have been compacted to the "density of concrete . . . [and] drastically shortened the expected life span of the trees, and already resulted in either death or heightened susceptibility to disease" . . . To "reverse this decline" and allow the soil to be improved and trees and turf to recover, events needed to be limited, with the most damaging events, particularly the Folklife Festival, relocated.

In October 1993, the representatives of the National Park Service met with officials from the Smithsonian to discuss the Mall and Folklife Festival. (NAMA Cultural Resource Files, folder "Internal Memos/Correspondence.") The NPS sent a memo dated March 22, 1994, to the Smithsonian on regulations for the festival; this noted that a "long-term agreement" was now being drafted for signing by the officials of both institutions. The memo outlined "major issues" and suggested solutions.

In the mid-1990s, the National Capital Region and the Smithsonian developed a cooperative agreement regarding mutual responsibilities for the Folklife Festival. "High-impact events" would be held in the center grass panels, while "low-impact activities" that do not require structures needing trenching, and that seated 75 people or fewer, could be held in the tree panels. The agreement stressed the importance of rotating uses among the panels to allow time for maintenance, and of using protective measures, such as mulch and platforms. (draft copy, cooperative agreement, fax, April 19, 1994, from NAMA CR files, "National Mall – Contracts & Projects")

### The Mall Elms

The first case of Dutch elm disease in Washington was reported in 1947 on an elm growing on the Lincoln Memorial grounds. Overall, except for a burst of cases in the late 1970s, the ability to control Dutch elm in the NCR parks has been good. One to two percent of the Mall elms contract and/or die from Dutch elm disease each year, an acceptable percentage. Other trees die from other causes. Replacements include the species *Ulmus americana*, as well as DED resistant *U americana* cultivars such as 'Jefferson' and 'Princeton.' 'Jefferson' elms are currently being produced at the NCR nursery on Daingerfield Island. The cultivar was jointly

released by the USDA Agricultural Research Service and the National Park Service National Capital Region in February 2005 and should soon be commercially available. (interview with Sherald 3/06)

A far more prevalent disease threatening the Mall elms is bacterial leaf scorch (BLS), caused by *Xylella fastidiosa*. BLS affects trees in mid- to late summer, reducing growth and causing leaf scorch and dieback. The pathogen is likely spread by xylem-feeding leaf-hoppers. Scorch puts trees under moisture stress so that they are more susceptible to breeding attacks by the European elm bark beetle which transmits the DED pathogen. Unlike DED, BLS is a chronic disease that affects elms over many years. Since the disease spreads slowly within a tree and only affects it late in the summer, trees are allowed to remain until they become unsightly or contract DED. The removal of BLS-affected elms may not have a significant impact on disease spread since the vectors may be transmitting the pathogen from herbaceous hosts to trees rather than from tree to tree. The specific vectors and their host preferences have not been determined. (Sherald 3/06 & 7/06)

Elm yellows, caused by a phloem-inhabiting phytoplasma, is the most serious threat to the elm population. In the late 1990s a yellows epidemic occurred in eastern West Virginia. So far no cases have been found in Washington, D.C. Unfortunately, there is little that can be done to control a yellows epidemic once it begins. (Sherald 7/06)

National Mall & Memorial Parks staff has numbered each tree and recorded its location with GPS. NAMA staff closely monitors the elms, and each summer a crew, assisted by students, documents their condition. Trees infected with DED are either treated or removed; fungicide therapy is one technique that is sometimes successful. (Sherald 3/06 & 7/06)

#### Current Maintenance

A regular maintenance routine is followed for the Mall. NAMA maintenance staff fertilizes, aerates, seeds, and irrigates grass panels, and mows and edge-trims turf in season. There is a regular regime to allow grass panels to rest, described in more detail under Analysis & Evaluation: Vegetation. In addition to regular litter pick up, trash is removed twice daily from the Mall, three times daily during events. The irrigation system, benches, trash receptacles, and street lights are regularly repaired and parts replaced as needed. (McLarty and Kennealy 3/06)

The sprinkler system installed by National Capital Parks in the 1930s worked into the 1990s, and still remains in the ground. The center panels had a mist spray, and the tree panels had lines that hoses could be connected to. More recently, in the 1970s, pop-up sprinkler heads were installed in the center grass panels; quick-couplers to which hoses can be attached were installed in the tree panels. (McLarty & Kennealy 3/06)

#### Recent Legislation and Current Issues Affecting the Mall

Over the last twenty years, several important legislative acts have protected changes to the Mall and the greater Mall area. The Commemorative Works Act of 1986 declared that events and individuals could not be memorialized in the area of the Mall until twenty-five years after the termination of an event or the death of an individual. In 1989, the NCPC adopted a policy that precluded the construction of any new memorials on the Mall between 3<sup>rd</sup> and 14<sup>th</sup> Streets. The NCPC Legacy Plan of 1997, prepared by the National Capital Planning Commission, identified

new areas for growth and commemorative works in the city beyond the monumental core. Specific areas were presented in greater detail in NCPC's *Memorials and Museums Master Plan* (2001).

The terrorist attacks of September 11, 2001, on New York City and the Pentagon have led to landscape changes throughout Washington, such as restrictions on and the closing of walks and roads and the addition of various kinds of bollards and barriers. Barrier walls were recently added to the Washington Monument Grounds, and the parking lot at the Jefferson Memorial has been closed. The Smithsonian Institution is currently implementing a security system, designed by the architectural firm Beyer, Blinder, Bell, for each of their museums. No such changes have been made on the Mall itself.

In 2003, a not-for-profit fundraising group, The Trust for the National Mall (TNM), was established via a formal agreement with the NPS for the purpose of restoring, revitalizing, and maintaining the National Mall in Washington, D.C. The area covered by the TNM agreement includes the NPS-managed areas of the National Mall and public areas of President's Park.

In 2003, Congress amended the Commemorative Works Act. In Section 202 of the amendments, Congress declared the area containing the National Mall to be a "substantially completed work of civic art" – and labeled the area as the Reserve, to which no new or unapproved memorials or visitor centers could be added. Previously approved (and still authorized) memorials and visitor centers include: the Martin Luther King, Jr., Memorial; the Vietnam Veterans Memorial Center; and the National Museum of African American History and Culture. These sites include the edge of the Tidal Basin in West Potomac Park, the Lincoln Memorial grounds, and the Washington Monument Grounds – not on the Mall, the focus of the CLI.

In Section 206 of the amendments, Congress directed the National Park Service, the responsible federal agency, to begin planning. The NPS *National Mall Comprehensive Management Plan/Environmental Impact Statement* is underway. The NPS plan is a fifty-year plan for use and management of the National Mall and adjacent Pennsylvania Avenue Historic Park. This CLI study is one of several studies providing background information for the planning.



A view of the Mall from the Washington Monument in 1977 shows the new inner walks, and the Metro entrance at center right. All the elms had been planted. By this date, the Mall landscape was complete. (from MRCE; CLP file "Mall 12103-E Aug. 1977")

# Analysis and Evaluation

### Summary

The central Mall landscape is bounded by four roads: 3<sup>rd</sup> Street, Madison Drive, 14<sup>th</sup> Street, and Jefferson Drive. Madison and Jefferson Drives are both one way east-west streets, and provide access to the many museums lining the Mall. Third, 4<sup>th</sup>, and 7<sup>th</sup> Streets cross the Mall on grade; 9<sup>th</sup> and 12<sup>th</sup> Streets, leading between the city's downtown and I-395, have been tunneled. All streets have granite curbs and curb cuts.

The Mall is defined by its primary view, the grand vista between the Capitol and the Washington Monument. Without this vista, the Mall would not exist in anything like the form it has today. The potential vista is what inspired L'Enfant to plan a Grand Avenue connecting the Capitol building with the equestrian monument to George Washington he anticipated would be located near the Potomac River. L'Enfant placed buildings, walks, and gardens along this avenue to reinforce the visual corridor. The McMillan Commission adapted this idea as the basis for their Mall plan. The essential features of the 1930s version of the McMillan Commission's plan – the grass panels, the eight rows of elms, and the orthogonal arrangement of walks and buildings – all lead the eye from the Capitol to the Washington Monument, and from the Washington Monument to the Capitol. Since the monument had been built southeast of the actual crossing of the two axes, the axis of the Mall was slanted to the southwest to place the monument directly on line with the Capitol.

The 135-acre central landscape of the Mall offers a continuous series of other views along its length. People moving along the Mall or under the trees add movement and color, an effect sought by the McMillan Commission. Views of the monumental building facades and vistas up the walks and cross streets also enliven the scene.

One of the most intensively used public spaces in the country, the Mall has become the setting for rallies, marches, and demonstrations, for concerts, exhibits, and displays, and for the Folklife Festival, cosponsored by the Smithsonian Institution and the National Park Service, each June and/or July. Visitors walk between museums and surrounding memorials and buildings. People run, bike, fly kites, play pick-up games (soccer, football) and watch the scene from benches. Mounted U.S. Park Police officers patrol the Mall, and vehicles, from carts to trucks, used by the NPS, the Smithsonian Institution, and their concessionaires and vendors, drive on the Mall walks.

The Mall has been thoroughly altered from its original condition of marshy, often flooded fields spreading along the banks of the Tiber Creek, and is an entirely constructed landscape. All the vegetation has been planted. The topography is nearly entirely level but rises slightly east to west. At the west end is a slight slope descending north to Madison Drive and to 14<sup>th</sup> Street. A small terrace extends east-west in the narrow tree panel in front of the Smithsonian Castle.

The interdependence of the space with the view and the landscape helps give this design its drama. The lines of elms to the north and south, reinforced by the facades of the imposing monumental museum buildings behind them, create the spatial corridor, which expands out at the ends, into Union Square at the east and into the sloping grounds of the Washington Monument at the west. Along the Mall beneath the elms is a more filtered space, with subordinate spatial openings along the lines of the cross streets.

Overlaid on the Mall landscape is an intricate grid of pedestrian walks. Along the streets run wide sidewalks. The former inner Mall drives, Adams and Washington Drives, were replaced in the 1970s with wide graveled walks. Single or paired walks also follow the alignments of most cross axes created by the city's grid of numbered streets. Walks are composed of a natural beige-toned compacted gravel/sand/clay mix. Many are half gravel, half exposed aggregate concrete installed to meet unusual access requirements. On the slope in front of the Castle are two curved gravel walks and a number of social trails; other occasional social trails run parallel to Mall walks.

The Mall has a simple vegetative palette, composed of central grass panels flanked north and south by panels planted with American elm trees, nearly 600 in all. Most of the tree panels have four rows each of elms, planted fifty feet on center. The American elm tree was specified in the McMillan Plan and in the 1930s revised plans for its vase shape. The rows of columnar trunks and arching branches form natural arcades. Some portion of the existing elms on the Mall date from the original planting of 333 elms in 1935; the rest are from later plantings over the next forty years or are replacements. The large elms on the south side of the block between 3<sup>rd</sup> and 4<sup>th</sup> Streets, and perhaps some others at the Mall's east end, were planted in the 1920s.

There are a few limited variations in the vegetation. No elms are planted in the historically important 8<sup>th</sup> Street axis, where there are sculpture gardens at the north and south, each with its own landscaping. The Smithsonian Castle extends into the tree panel in front of it, so that it narrows to a single row of elms. The Joseph Henry statue in front of the Castle stands in its own small planting bed. Five bald cypress trees grow in front of the National Museum of Natural History. One cypress is located in the north-south walk leading between Natural History and the Castle, intruding into that view corridor. Two oak trees grow along 14<sup>th</sup> Street, one of them directly in the view corridor between the Capitol and Washington Monument.

The Smithsonian Institution museums and the National Gallery of Art are under separate jurisdiction from the Mall, which is administered by the National Park Service. Each museum building facing the Mall has its own landscaping scheme on its immediately surrounding property. Many of the landscapes were designed in relation to the Mall landscape. The NPS retains jurisdiction over the sidewalks in front of the museums and the adjacent land up to the face of the curbs on Madison and Jefferson Drives.

Large buildings help define the Mall's edges, but within the CLI study boundaries, the only buildings are small utilitarian structures, including four food service buildings set within the tree panels in front of the National Museum of American History, the National Museum of Natural History, the Arts and Industries Building, and the National Air and Space Museum. A hexagonal Tourmobile ticket kiosk is located along Madison Drive, and another stands on Jefferson Drive. An entrance to an underground Metro station, surrounded by a wall, hedge, and chain-link fence, is located on the Mall northwest of the Freer Gallery of Art. The Joseph Henry statue, a bronze figure of the first Smithsonian Secretary stands on a granite pedestal in front of the Smithsonian Castle, in the sloping tree panel just off Jefferson Drive. A carousel owned by the Smithsonian Institution occupies the tree panel in front of the Arts and Industries Building. All of these buildings and structures are non-contributing.

The Mall has only a few types of small-scale features. Contributing features include the "Mall" benches and the "Olmsted" street lights.

All benches used on the National Mall are the standard design developed for the National Capital Parks in 1934/35. The benches are located along the walks along the Mall's east-west axes. Facing towards the center of the Mall, they are bolted to concrete pads set into the walks next to the lawns, or within the walks, in some cases.

The type of street light used on the Mall was designed by General Electric especially for this site as part of the 1930s construction. A twenty-one-foot high steel fluted post is topped by a cylindrical lamp suspended from two supports. With its simplified geometric ornament abstracted from classical motifs, the street lights are late Art Deco in style. The lights are placed along Madison and Jefferson Drives, and along the inner walks of the Mall, next to the inner rows of elm trees, spaced about 100 feet apart, alternating between the benches with trash receptacles. Trash receptacles on the Mall are the "tulip" type, with vertical wood slats and plastic liners, supported on a central steel post. Post-and-chain barriers have been erected in certain areas to protect the grass.

Seven characteristics are used to assess historic integrity for landscapes that are listed on, or are eligible for, the National Register of Historic Places: location, setting, design, materials, workmanship, feeling, and association. Analysis of the Mall landscape according to these characteristics shows that the Mall retains its historic integrity.

Location – The location of the Mall has not changed.

Setting – The setting of the Mall has changed substantially since 1935 with the addition of six new museum buildings (not including the underground museums behind the Castle), but this conforms generally to the development planned for in the McMillan Plan and its 1930s revisions, in that these are large buildings housing prominent cultural institutions. While many are Modern structures, they face the Mall and share a common cornice line.

Design – The design of the Mall has not greatly changed since 1935, when a little over half the elms had been planted. The remaining elms were planted over the following forty years. Some original elms have been replaced with different cultivars. A few new structures have been added, such as the food service buildings and the Metro entrance, but these are relatively minor alterations, and the spatial relationships remain the same. The Inner Mall Drives have been converted into gravel walks.

Materials – The simple palette of materials that make up the Mall landscape have not greatly changed. The original concrete paving of the walks has been replaced with a combination of gravel and exposed aggregate concrete, and certain modifications have been made to the mix of elm varieties.

Workmanship - This characteristic is not applicable to the Mall.

Feeling – The feeling of the Mall can be defined as a landscape that manifests the grandeur and monumentality of the Capitol and Washington Monument, allowing visitors to draw a visual connection between the two structures and to understand the relationship between what they represent regarding American history and democracy. This feeling remains.

Association – The Mall embodies an association with the 1791 L'Enfant Plan for Washington. The 1902 McMillan Commission Plan interpreted rather than recreated this plan, retaining what they defined as its essential principles – a linear landscape of gardens and monumental structures forming a view corridor between the Capitol and a monument honoring the commander of the Revolutionary Army and the nation's first president. The 1930s plans which led to the construction of the McMillan Mall plan adapted it for modern needs without changing its essential elements. The Mall, therefore, retains its association with these uniquely important city plans.

# Topography

Much of the work that was done in the 1930s to create the modern Mall involved the grading of its west end, from 9<sup>th</sup> to 14<sup>th</sup> Streets. Olmsted wrote a number of reports discussing the irregular, "wobbly" condition of the ground, the "longitudinal" slope – apparently south to north – and the marked hump in front of the Department of Agriculture site. From his initial recommendation to leave much of the ground plane in its natural state, Olmsted soon came to agree with the position taken by Charles Eliot, William Delano, and others that the Mall should be raised with fill where necessary – particularly at the west end – to create an even grade.

Today the Mall is generally level. The grade rises slightly from east to west. Between 12<sup>th</sup> and 14<sup>th</sup> Streets there is a discernable downward slope from south to north. The west end of the Mall slopes down to 14<sup>th</sup> Street; this is particularly steep at the northwest corner. The land north of the Mall, beyond Madison Drive and its north sidewalk, slopes steeply down to Constitution Avenue, and the National Museum of American History (1964) and the National Museum of Natural History (1904) were built into this slope, so that their main, north facades are entered from Madison Drive on the Mall (a high stair leads up to the elevated entrance of the National Museum of Natural History), and their exposed basement stories are entered from Constitution Avenue.

East of 9<sup>th</sup> Street, the Mall was more or less level with the surrounding land as a result of grading in the nineteenth century, and little regrading seems to have been necessary. A small slope or terrace extends in front of the Castle, occupying the narrow tree panel, probably because the Castle was an existing building that intruded into the Mall, and its original grade had to be accommodated.

# **Archeological Sites**

No archeological surveys have been carried out within the study boundaries of this CLI for the Mall, but this area has the potential for archeological remains. The route of the Washington Canal, beneath Constitution Avenue, N.W., defined the north side of the greater Mall area and crossed south over the study area around 3<sup>rd</sup> Street. Densely packed rows of houses and other structures stood between 3<sup>rd</sup> and 4½ Streets, in blocks bordered by the former Maine and Missouri Avenues. During the Civil War, the Armory Hospital complex stretched across the center of the Mall between 6<sup>th</sup> and 7<sup>th</sup> Streets. From 1873 to 1907, the busy Baltimore & Potomac Railway Depot stood at 6<sup>th</sup> Street, N.W., with its tracks extending south across the Mall.

Some discoveries of nineteenth- and twentieth-century glass, ceramics, dishes, and pavers have been found through excavation for road projects and new memorials adjacent to the Mall. These discoveries have not resulted in any significant finds or further archeological study. The 1995 *National Capital Area Archeological Overview and Survey Plan* states that the park areas of the National Mall & Memorial Parks "do not have high archeological potential due to the infilling of much of the land from swamp." (p. 296) The highest priority archeological project for the park was identified as the Shoreline Study of the Potomac and Anacostia Rivers, outside of the project area of this CLI. However, recent archeological surveys by John Milner Associates, Inc., on the site of the National Museum of the American Indian, uncovered many objects associated with nineteenth-century inhabitants.

# Land Use

The Mall is one of the most intensively used public spaces in the country. Certainly it is the most heavily used park in Washington, D.C. The National Capital Region issues thousands of permits each year for groups to use the Mall for a wide variety of events. Rallies, marches, and demonstrations by many different political constituencies and for a myriad of causes are held on the Mall. It is the setting for concerts, exhibits, displays of houses and buildings, of military equipment, public events associated with presidential inaugurations, and state funerals. For many years, the Smithsonian Folklife Festival has been held on the Mall in June and/or July, essentially in the museums' front yard.

The Mall is one of the primary places in the country where citizens exercise their rights under the First Amendment. The question of how these issues affect the Mall has been summarized by the Solicitor for the Department of the Interior:

Any governmental regulation of demonstration and sales activity is subject to First Amendment jurisprudence, and the NPS regulation of demonstration/sales activities on Federal parkland has been the subject of extensive First Amendment litigation for many years. While recognizing the importance of the National Mall and its nearby monuments and memorials, the United States Court of Appeals for the District of Columbia Circuit has stated that "the Mall is more than home to these enduring symbols of our nationhood" in that "its location in the heart of our nation's capital makes it a prime location for demonstrations. . . . As the court has stated before, 'It is here that the constitutional rights of speech and peaceful assembly find their fullest expression."" (Friends of Vietnam Memorial v. Kennedy, 116 F.3d 495, 496 (D.C. Cir. 1997), guoting ISKCON of Potomac v. Kennedy, 61 F.3d 949, 952 (D.C. Cir. 1995)) In the context of such longstanding First Amendment jurisprudence, and consistent with NPS regulations and policies that allow demonstration/sales activities under certain conditions, the various demonstration sites which engage in permitted sales, must be considered to be at least legally consistent with the special nature and sanctity of the Mall.

Nearly every day of the year the Mall is crowded with pedestrians. Visitors walk between museums and the memorials to the west, or government offices or buildings that surround the Mall area. People use the walk system but also cross over the grass panels. An underground Metro stop is located directly on the Mall at 12<sup>th</sup> Street, between the Freer Gallery of Art and the Department of Agriculture.

Since March 1969, Tourmobile buses have offered visitors interpretive tours around the Mall as well as to other popular destinations nearby. The buses are shuttles on continuous looping routes, with passengers allowed to embark and disembark at designated points along the route.

Runners and bikers use the Mall walks. People rest on the benches, and have picnics on the lawns under the elms. Others fly kites on the central grass panels, or enjoy impromptu games of frisbee, softball, and soccer.

Mounted U.S. Park Police officers patrol the Mall. Many vehicles used by the NPS, the Smithsonian Institution, and their concessionaires and vendors drive on the Mall walks – small service vehicles, vans, and trucks and tractors for setting up and taking down activities. A few small vendor carts sell food.

# Vegetation

The Mall has a simple vegetative palette, but it may present the most exacting maintenance challenges of any park in the National Capital Region. Lawns, American elm trees, and several bald cypress trees retained from the pre-1930s landscape comprise the vegetation of this large park. The only additional planting features are a hedge around the Metro entrance and the landscaping of shrubs and trees around the Hirshhorn Sculpture Garden. Neither of these are maintained by the National Park Service.

The Mall landscape is composed of flat grass panels and American elm trees *(Ulmus americana)*. The linear landscape extends from 3<sup>rd</sup> to 14<sup>th</sup> Streets and is bounded on the north by Madison Drive and on the south by Jefferson Drive. On the north and south are tree panels planted with four rows each of elms, planted fifty feet on center. Between the tree panels, extending down the center of the Mall, are grass panels. These center lawn panels, framed by the elms, create the Mall vista, which extends along the line of sight between the Capitol and the Washington Monument. A number of trees (mostly elms but including two red oaks on 14th Street) grow in the strips of grass between the sidewalks and roadways along cross streets – 3<sup>rd</sup>, 7<sup>th</sup>, and 14<sup>th</sup> Streets; these trees and the grass strips are probably under D.C. jurisdiction. (The National Capital Region has jurisdiction over all sidewalks on Mall cross streets; whether NCR also has jurisdiction over the grass strips depends on the street right-of-way. Information from Joe Cook, NCR Lands Specialist.)

Currently, there are 585 elm trees growing on the Mall. About eight spaces for elms are unoccupied; if planted, these would bring the total number of elms to 593. (information from Brad Conway, GIS Specialist, NAMA) There are a few local variations in the regular ranks of elms: along the 8<sup>th</sup> Street axis; in front of the Smithsonian Castle; in front of the National Museum of Natural History; at the Mall's southwest corner along 14<sup>th</sup> Street; and at the base of the Joseph Henry statue.

No elms are planted between the parallel walks along the 8<sup>th</sup> Street axis. This cross-axis to the Mall was given particular importance in the L'Enfant Plan, where a site for a National Church was shown several blocks north of the Mall and a large turning basin was located at the canal. The significance of the axis was retained in the McMillan and the 1930s plans. This importance is noted in the landscape by the omission of elms and the resulting open views of the Hirshhorn and National Gallery Sculpture Gardens. The sunken Hirshhorn Sculpture Garden, under the jurisdiction of the Smithsonian Institution, actually extends into the Mall's tree panel, and has its own landscape of trees and shrubs defining its perimeter. The Castle, located only 300 feet from the Mall's center line, and the section of Jefferson Drive in front of the Castle intrude into the tree panel, narrowing it so that in front of the Castle there is only room for one line of elms. Five bald cypress trees (Taxodium distichum) grow in front of the Natural History Museum, in an irregular pattern, somewhat interrupting the regularity of the tree lines. These were retained from the earlier picturesque landscape when the Mall was replanted in the 1930s; some may date from the nineteenth century, while two are young and may be recent replacements. One cypress is located within the cross-walk between the Natural History Museum and the Castle. The only other variation in the planting occurs at the end of the Mall, in the grass strip along 14<sup>th</sup> Street, where two red oak trees (Quercus rubra) grow. One is aligned with the inner edge of the south row of elms (next to it on the south is a single elm); the other oak is near the center line, the only intrusion into this visual line along the entire length of the Mall. Judging by historic photographs and surveys, these oaks do not appear to have been retained from the original

Mall planting, but seem rather to have been planted by the city as street trees, probably in the 1940s. As said above, they are probably under D.C. jurisdiction. They will not be replaced when they die. (The planting around the base of the Joseph Henry statue is discussed in Buildings and Structures.)

The central panels are planted with tall fescue, a strong, tolerant grass that does well in the sun but needs to be reseeded every year or so due to the impact of visitor use. Under the elms is a bluegrass mixture that grows well in the shade and rejuvenates better than the fescue. Seed rather than sod is typically used. (McLarty & Kennealy, 3/06)

Under the turf management program for the Mall, the tree and lawn panels are closed in two sections, from 3<sup>rd</sup> Street (actually, from the Capitol Reflecting Pool in Union Square) to 7<sup>th</sup> Streets and from 7<sup>th</sup> to 14<sup>th</sup> Streets, alternating year to year. With some exceptions, they are closed from early September to the end of March. The closure allows for aeration of the soil, grading, soil replacement and amendment, seeding, irrigation, and establishment. The work and closures are necessary to mitigate the soil compaction resulting from the heavy visitation on the Mall.

The American elm tree was specified for use in the McMillan Plan and in the 1930s revised plans because of its growth habit. The columnar trunks of this native species and the arching, spreading branches were believed to form a natural equivalent of an architectural arcade, giving a pleasing combination of formal regularity and a picturesque openness. Though the use of other species or a combination of species was suggested in the 1930s, Frederick Law Olmsted Jr. strongly defended the original choice of the American elm (see letters in Supplemental Information.)

It is not known what percentage of the existing elms on the Mall date from the original planting of 333 elms in 1935, and what percentage were planted between 1935 and the mid-1960s, or are replacements. The elms on the south side of the block between 3<sup>rd</sup> and 4<sup>th</sup> Streets date from the 1920s and are today noticeably larger than the other elms.

Some of the Mall elms are a cultivar of the American elm called 'Augustine Ascending.' These trees have an upright, fan-shaped form, distinctly different from and taller than the surrounding elms. They were replacement trees purchased in the 1960s or earlier; it was probably not known what their ultimate form would be. They are highly susceptible to Dutch elm disease, and when they die, they are replaced with the species *Ulmus americana*, or DED-resistant *U. americana* cultivars such as 'Jefferson' or 'Princeton.' (Sherald 3/06 & 7/06)

Along the alignment of  $12^{th}$  Street are four rows on each side of European elms (perhaps *Ulmus X hollandica*). These were installed as part of the construction of the  $12^{th}$  Street underpass, probably to plant elms on the Mall that were less susceptible to Dutch elm disease. They have a rounder crown than American elm trees. (Sherald 3/06)

Since 1988, the cultivar 'Jefferson' has occasionally been planted. The parent tree grows in front of Freer Gallery of Art. It was first recognized by NPS Plant Pathologist Horace Wester for its habit of coming into leaf earlier and holding its leaves longer than other elms on the Mall, and also because it has a U-shaped, rather than a V-shaped, crotch. This particular tree was found to be resistant to Dutch elm disease through trials conducted by the NPS and the USDA National Arboretum. When infected with the Dutch elm disease pathogen, the infection spreads

only a few feet before the tree recovers. While American elms are tetraploid and European and Asiatic elms are diploid, this particular elm is a triploid (these terms refer to having, respectively, four, two, and three times the basic number of chromosomes per cell). In February 2005, 'Jefferson' was jointly released to the nursery trade by the USDA Agricultural Research Service and the NPS National Capital Region. 'Jefferson' will soon be available commercially. (Horace Wester found another DED-resistant elm on the Mall, but unfortunately the parent tree was cut down during a construction project. A few progeny from this tree remain and it has been named 'Washington.' Sherald, 3/06) Over the years, other disease-resistant elm cultivars have been planted on the Mall to increase disease resistance in the population. (Sherald and DeFeo 7/06)

It is possible that the American elms on the Mall have not developed the form anticipated by Olmsted. Their branching might be more irregular than was desired for the vase-shaped American elm. In October 1936, NCP Superintendent Finnan noted: "While the character of these trees [at the south end of the 3<sup>rd</sup>-4<sup>th</sup> Street block] is undeniably wrong, they do give a reasonably satisfactory mass effect and I hesitate to condemn them when we have such a vast number of doubtful trees recently supplied us by the Leissler Nursery." (Finnan to Hanson 10/7/1936 FRC9) In 1945, NCP Branch of Forestry landscape architect A.H. Hanson surveyed the elms and wrote:

In developing their shape the branches have grown outward or crossed over and become so irregular that they will by no means support the original idea whereby the trees were to grow in an upright shape so that the gentle arching branches would meet between rows of trees and form a high overhead arch, reminiscent of the nave of a large church or cathedral.... It is most certain that these unshapely trees will obstruct the vista between rows of trees ... (Hanson to Sager 10/2/45 FRC9)

About forty of the elms were soon replaced. (NCPC staff meeting 12/5/45 FRC9)

Of course, there has been attrition of the original elms due to disease and other factors. The trees now are of various sizes because the total number of original trees were planted over a period of about forty years, and also because dead or diseased trees have had to be replaced periodically. Olmsted and others likely anticipated greater uniformity. Further study of historic documents might provide more specific information on the character Olmsted, and others, sought for the elms.

Each building or site facing the Mall has its own landscaping scheme on its immediately surrounding property. Many of the landscapes were designed in relation to the Mall landscape – the Department of Agriculture landscape was actually designed by Frederick Law Olmsted Jr. under a contract with the USDA in the years Olmsted was working on the Mall, using trees moved from the Mall and conceived to complement it. Similar intentions motivated the original landscape plan of the National Gallery of Art West Building: "We are particularly anxious to have our arrangement of trees fit into existing tree plantings, and in general to have this new work conform to the spirit of the Mall development." (Landscape Architect Malcolm Kirkpatrick, for Geiffert Landscape Architecture firm, to Cammerer 6/15/39 FRC9) Further analysis and information about these and other adjoining landscapes are beyond the purview of this inventory.

#### List of contributing features:

grass panels tree panels *Ulmus americana* planted in 1920s-1975 *Ulmus* americana cultivars, such as 'Jefferson' and 'Princeton,' planted to replace original elms

#### List of non-contributing features:

*Ulmus americana* 'Augustine Ascending' cultivar European elms along 12<sup>th</sup> St. axis bald cypresses *(Taxodium distichum)* two oak trees *(Quercus* rubra) along 14<sup>th</sup> Street other street trees under D.C. jurisdiction hedge around Metro entrance landscaping of Hirshhorn Sculpture Garden



This view north to the National Museum of American History shows the difference between the vertical "Augustine Ascending" cultivar on the left and the vase-shaped American elms on the right. (CLP file "variety of elms S of NMAH 2 BW" Feb. 18 2005)



The columnar trunks and arching branches of the Mall's elms create natural arcades, welcome shady retreats along the Mall. Looking west in front of the National Gallery of Art West Building. (CLP file "View W NGA elms 5 200 BW" May 29, 2006)