US DEPARTMENT OF AGRICULTURE
SITE IMPROVEMENT AND PERIMETER SECURITY PLAN

ENVIRONMENTAL ASSESSMENT

US DEPARTMENT OF AGRICULTURE
WASHINGTON, DC

SEPTEMBER 2013

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SITE IMPROVEMENT AND PERIMETER SECURITY PLAN

ENVIRONMENTAL ASSESSMENT

Responsible Agency:
United States Department of Agriculture

Cooperating Agencies:
The National Capital Planning Commission
The U.S. General Services Administration
The National Park Service

Abstract:

The US Department of Agriculture (USDA), in cooperation with the National Capital Planning Commission, the U.S. General Services Administration, and the National Park Service, has prepared this Environmental Assessment (EA) to evaluate the proposed site and perimeter security improvements at the Whitten and South Buildings, located within the USDA headquarters complex adjacent to the National Mall in southwest Washington, DC. The proposed action includes landscape and site improvements at both buildings to implement the proposed People's Garden, permanent upgrades to the perimeter security of the Whitten Building, and replacement of the guard booths along C Street, at the South Building. This EA addresses the potential impacts associated with the implementation of the two action alternatives and the No Action alternative. Mitigation measures are also provided for the action alternatives.

The USDA prepared this EA pursuant to the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). Government agencies and the public are encouraged to review and comment on this EA. Comments on this EA must be submitted during the official 30-day public review period, beginning on September 17, 2013 and concluding on October 17, 2013.

Written comments should be directed via email or mail to:

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OO – Sustainable Operations Division
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If you have further questions on this project, or would like to request a copy of this EA, please contact Ms. Burks at 202-579-8650.

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1.0 PURPOSE AND NEED

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1.1 Introduction and Background

1.1.1 Introduction

The US Department of Agriculture (USDA) proposes to make site and perimeter security improvements at the Whitten and South Buildings, located within the USDA headquarters complex on Independence Avenue adjacent to the National Mall in southwest Washington, DC (Figure 1-1). The proposed action includes landscape and site improvements at both buildings to implement the proposed People's Garden, permanent upgrades to the perimeter security of the Whitten Building, and replacement of the guard booths along C Street, SW, at the South Building (streets referenced in this document are SW, unless otherwise noted).

The project area includes the Whitten and South Buildings and their adjacent sidewalks. The Whitten Building is located south of the National Mall at 14th Street and Independence Avenue and adjacent to the Smithsonian Quadrangle. The South Building is located to the south of the Whitten Building between Independence Avenue and C Street (Figure 1-1).

Figure 1-1: Site Location Map
Source: AECOM

The proposed People's Garden landscape is designed to expand on principles of the organic garden installed on the site in 2009 as the first garden established under USDA's national and international People's Garden Initiative, to create an outdoor agricultural learning experience for the public, and to enhance the sustainability of the site. The proposed perimeter security system around the Whitten Building is designed to mitigate the threat of explosive-laden vehicles to the Whitten Building, which houses a Presidential Cabinet-level office. The design of the guard booths at the South Building would replace the existing guard booths with current protective standards. The concept design plan for the implementation of the People's Garden landscape improvements and the perimeter security improvements are the subject of this EA.

The USDA has prepared this EA consistent with the National Environmental Policy Act (NEPA) of 1969, as amended, and the Council on Environmental Quality (CEQ) regulations implementing NEPA [40 Code of Federal Regulations (CFR) 1500-1508 (1986)], as amended. The USDA is the lead entity responsible for this EA's preparation. The General Services Administration (GSA) and the National Park Service (NPS) have jurisdiction over the project area and the National Capital Planning Commission (NCPC) has regulatory authority over federal development within the District of Columbia. Therefore these agencies are cooperating agencies in this effort. The project's effects on historic resources are also undergoing a review. In consultation with the cooperating agencies and the DC State Historic Preservation Officer (DC SHPO), USDA must make determinations of effect and comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended.

This EA identifies the affected environment, potential impacts, and recommended mitigation measures resulting from the implementation of the two proposed action alternatives and a no action alternative, including short-term construction impacts, long-term operational effects, and cumulative impacts when taken together with other projects in the vicinity of the site. The primary study area for identifying potential environmental impacts is generally within a one-block radius of the site. The study area may expand or contract for each resource discipline, depending upon the potential for a specific impact to affect a given geographic area.

1.1.2 Background

The USDA complex, including the Whitten and South Buildings, serves as the national headquarters of the USDA, a Presidential Cabinet-level agency responsible for "providing leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on sound public policy, the best available science, and efficient management." The USDA complex contains a variety of interior spaces, both public and non-public, within three buildings: the Whitten Building, the South Building, and the Yates Building. The Whitten and South Buildings are the subjects of this EA. The Whitten Building, originally named the Administration Building, was completed in 1930 and contains grand ceremonial spaces. It is the only USDA building, and the only Cabinet-level office, located on the National Mall. The South Building is the largest building of the USDA complex and is the third largest federal office building after the Pentagon and the Ronald Reagan Building and International Trade Center. The South Building consists of seven north-south wings connected by building segments along Independence Avenue and C Street. Completed in 1936, the South Building features two pedestrian bridges over Independence Avenue that each connect to the Whitten Building. Both the Whitten and South Buildings were constructed for the USDA.

The USDA's national and international People's Garden Initiative began in 2009 as an effort to challenge USDA employees to create agriculturally productive gardens at the agency's facilities in an effort to assist and engage communities. The Initiative is named in honor of President Lincoln's description of USDA as the "People's Department." The inaugural People's Garden site is the garden located at the Whitten Building. These gardens are a collaborative effort led by local and national organizations working together to establish community and school gardens across the country. Currently there are more than 1,900 gardens located in each of the 50 states as well as several US territories and foreign countries. In order to be named a People's Garden, a site must meet three criteria: provide a benefit to the community, be a collaborative effort, and incorporate sustainable practices. These gardens are educational tools that connect people with their food supply and demonstrate sustainable land use

practices. They also produce food that is given back to the community. The initiative recently surpassed 1,200 partner organizations with over 211,000 volunteer hours for communities.

1.1.3 Agency Relationships

Four governmental agencies have jurisdiction over the project site. GSA owns the Whitten Building, the South Building, and most of the adjacent property (approximately 18 acres). The NPS has jurisdiction over the parcel of land between the north face of the Whitten Building and Jefferson Drive (approximately 2 acres), not including the sidewalks at 12th and 14th Streets. DDOT has jurisdiction over the majority of the public sidewalks around the South Building. The USDA administers both buildings and their grounds, out to the curb. GSA's ownership of the Whitten and South Buildings and jurisdiction of the parcels would continue following construction, and the USDA would continue to be responsible for the long-term operation and maintenance of the entire site.

1.2 Purpose and Need

The purpose of the proposed action is to enhance the sustainability of the landscape, the quality of the public realm including educational and community involvement opportunities, stormwater management, and site circulation at the Whitten and South Buildings; and to provide for the required level of security.

The Whitten Building is located along the National Mall and both the Whitten and South Buildings are located near the Smithsonian Metrorail station on Independence Avenue, an arrival point for visitors to the National Mall and commuters to the adjacent federal office buildings. Currently the grounds do not fully engage visitors with the USDA mission and history or the People's Garden Initiative goals. The proposed landscape improvements, including sustainable urban agriculture, stormwater management, and water harvesting installations, are necessary to promote visitor interaction with USDA's mission and the national People's Garden Initiative. The relocation of the vehicular entrances and the reduction in curb cuts are proposed to reduce excessive and unnecessary curb cuts that interrupt the pedestrian flow on sidewalks, visually interrupt the streetscape rhythm, and lessen the effectiveness of perimeter security design.

The permanent perimeter security measures are necessary in order to meet the security requirements for the tenants and the building. The security measures for the site were developed in accordance with the Physical Security Criteria for Federal Facilities. The measures are based on a building-specific risk assessment that determined the necessary level of protection. The determination considers tenant mission, adjacent facilities and targets, significance of the facility, and building size and location. The risk assessment determined that a Level IV standard of protection is necessary at the Whitten Building. The guard booths at the South Building are needed to increase efficiency, meet current protective standards, and integrate their architectural design with the South Building.

1.3 Public Involvement

As part of the preparation of this EA, the USDA contacted public agencies and individuals during the scoping process via letters soliciting comments on the scope of the EA, the identification of potential environmental concerns, and to obtain other relevant information. The public scoping period was open from February 8, 2012 to March 8, 2012. Comments received during this period were taken into consideration in the development of this EA.

Several informal meetings with review agencies and stakeholders were conducted to receive input on initial design development. These meetings were attended by representatives from a number of agencies, including the U.S. Commission of Fine Arts (CFA), NCPC, GSA, the DC SHPO, the District Department of Transportation (DDOT), the District Department of Planning (DCOP), and the National Park Service (NPS). An information presentation was given to NCPC at the March 7, 2013 Commission meeting, and CFA completed a concept review, but did not take formal action, at its Commission meeting on April 18, 2013. The Smithsonian Institution also led members of the design team on a site tour of its recently completed perimeter security installations on the Mall on March 20, 2012. Comments and input received at these meetings, as well as through the Section 106 process described below, were used to inform the design process. Consultation with NCPC, CFA, GSA, NPS, DDOT, DCOP, and the DC SHPO will continue throughout the design process.

The USDA is undertaking the Section 106 process, consistent with the National Historic Preservation Act of 1966, as amended (NHPA). This process was initiated via an official letter to the DC SHPO, dated June 29, 2012. Three consulting parties meetings were conducted to review conceptual designs, discuss the assessment of effects, and to identify minimization and mitigation measures. These meetings were held in 2013 on February 27, May 22 and July 31. Coordination with the DC SHPO and the Section 106 consulting parties is ongoing in order to finalize the assessment of effects report and negotiate the agreement document.

1.3.1 Public and Agency Comments on this EA

Agencies and the public are encouraged to review and comment on the contents of this EA. The agencies, organizations, and individuals included on the notification list in Appendix 5.3 were notified by letter of the availability of the EA for review and comment. The EA is available online at http://greening.usda.gov and copies of the EA are available for public review at the following locations:

National Capital Planning Commission Library
401 9th Street, NW
North Lobby, Suite 500
Washington, DC 20004

Southwest Library
900 Wesley Place, SW
Washington, DC 20024

Martin Luther King, Jr. Memorial Library
901 G Street, NW
Washington, DC 20001

Comments on the EA must be submitted during the official 30-day comment period that concludes on October 17, 2013. Comments should be mailed or emailed to:

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If you have further questions on this project, or would like to request a copy of this EA, please contact Ms. Burks at 202-579-8650.

1.4 Environmental Issues

1.4.1 Environmental Issues Considered

This EA evaluates the potential impacts that the site and perimeter security improvements would have on resources, both natural and man-made. These resources are listed below:

- Land Use
- Planning Policies
- Community Facilities
- Visitation
- Public Space
- Historic Resources
- Archaeological Resources
- Visual Resources
- Roadways and Vehicular Traffic
- Parking
- Public Transit Systems
- Pedestrian and Bicycle Circulation
- Water Resources and Stormwater Management
- Soils
- Vegetation
- Utilities

1.4.2 Environmental Issues Dismissed from Detailed Analysis

Economics and Fiscal Resources

The proposed site and perimeter security improvements would not alter the economic conditions in the area or affect fiscal resources. While some street vendor stalls around the South Building could be moved slightly to accommodate construction activities, this would be a short-term change and no vendor spaces would be eliminated during construction or after construction is complete. Therefore, this topic was dismissed from further analysis.

Demographics and Environmental Justice

Due to the project's location, the proposed site and perimeter security improvements would not directly affect residential populations and no impacts to demographics and environmental justice would occur. Therefore, this resource area was dismissed from detailed analysis.

Geology and Topography

The project site is located within the Atlantic Coastal Plain Region, where natural sedimentary materials of sand, clay, and silt overlie crystalline bedrock. In addition, fill material, placed to create the National Mall, adds to the depth to bedrock, which has been encountered at depths of 32 to 44 feet below the ground surface (Smithsonian Institution 1993). Groundwater, which is retained by an impermeable surface, has previously been identified at a depth of 22 to 26 feet below the ground surface (Smithsonian Institution 1993). The installation of site improvement or perimeter security elements would not require excavation to these depths.

The topography of the project site is relatively flat. Although some soil grading and excavation would occur for the installation of the proposed site improvements and security elements, the topography of the site would not be altered. Therefore, this resource was dismissed from detailed analysis.

Wildlife

Wildlife at the project site is limited to urban species of small mammals and birds, such as grey squirrels, Norway rats, house sparrows, and pigeons. These species would be temporarily dispersed during demolition and construction. However, wildlife would be expected to return to its previous state once construction is completed. There are no rare, threatened, or endangered species, or critical habitat for such species at or proximate the Whitten and South Buildings.

Climate Change

The proposed project would require limited construction and would not increase the number of employees or vehicles traveling to the site. Therefore the proposed project is not anticipated to measurably impact climate change or greenhouse gas emissions.

Noise

Due to the limited type of construction equipment required, and the planned time of day for construction activities, noise generated by the construction activities to implement the proposed site and perimeter security elements would be under 80 dBA, or A-weighted decibels, between the hours of 7:00 a.m. and 7:00 p.m. during the weekday, which is in accordance with DC noise regulations. The project site is also located in an urbanized area where high ambient urban noise levels occur during weekdays. Noise generated by construction activities would be temporary and no long-term impacts to noise would occur. Therefore, this resource topic was dismissed from detailed analysis.

Air Quality

The project is located in the Washington Metropolitan Area, which is a moderate nonattainment area for ozone and a nonattainment area for particulate matter. Construction activities have the potential to produce dust and result in short-term increases in vehicle emissions in the vicinity of the proposed project site. However, the production of dust and the increase in vehicle emissions would be minimal due to the size and scope of the construction activities and would be temporary in nature as they would only occur during construction.

Best Management Practices (BMP) would be used during construction to minimize potential effects, including appropriate dust suppression methods, low sulfur fuels for construction equipment, and the implementation of a construction management plan to minimize interference with motor vehicle traffic. Integrated pest management practices are used in the organic garden and there would be no application of potentially hazardous chemicals to control insects, pests, or weeds that may have a cumulative impact on air quality. Short-and long-term impacts to air quality would be negligible and this resource was dismissed from detailed analysis.

Wetlands

The Whitten and South Buildings do not contain wetlands. There is no wetland vegetation; the project site does not have areas that are inundated or saturated for greater than 12.5 percent of the growing season; and it does not contain hydric soils. Therefore, the proposed site and perimeter security improvements would not impact wetlands and this topic has been dismissed from detailed analysis.

Floodplains

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the District, the Whitten and South Buildings are not located within a floodplain (FEMA 2010). Across the Mall, the area to the north of Madison Drive, including the National Museum of American History and the National Museum of Natural History, is located within the 100-year floodplain of the Potomac River. Areas to the south and west of the project are also within the 100-year floodplain. However, while areas in close proximity to the Whitten and South Buildings are located within the 100-year floodplain, proposed site and perimeter security improvements at the Whitten and South Buildings would not occur within a floodplain. Therefore, this resource has been dismissed from detailed analysis.

Solid Waste and Hazardous Materials

Non-hazardous solid waste is generated by the operation of USDA buildings and is removed for disposal or recycling. All waste materials related to the organic garden and the landscape are recycled or composted at an offsite location. Non-operational activities such as demolition and construction activities generate solid waste that requires separate waste haulers. Several landfills are located near the District for the disposal of various types of non-hazardous solid wastes.

No hazardous materials are utilized on site. The same practices are used to manage the certified organic garden and the rest of the landscape. Fertilizer use is limited to those on USDA's bio-preferred list of approved products and is utilized only as appropriate. Integrated pest management practices are used at the site and no chemicals are used unless certified organic or otherwise approved by USDA. Pest management practices consist mainly of beneficial nematodes and beneficial plants.

While construction of the proposed site improvements and perimeter security elements would generate an increase in solid waste such as asphalt and concrete, the impact would be short-term and minor. After construction is completed, the proposed action alternatives would not increase the amount of solid waste generated on the site, and broken concrete and used asphalt would be recycled. Existing site maintenance practices and waste management practices would continue to be followed. Therefore, this resource was dismissed from detailed analysis.

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2.0 ALTERNATIVES

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2.1 Description of Alternatives

This EA evaluates alternatives for the proposed implementation of new landscape and perimeter security elements at the USDA's Whitten and South Buildings in order to expand the People's Garden concept across the project site, create more interpretive and educational opportunities on the USDA grounds, increase the sustainability of the site, and strengthen perimeter security. The action alternatives share similar approaches to the landscape design but have differing approaches to perimeter security and site elements.

2.1.1 Elements Common to All Action Alternatives

Both action alternatives would implement designs to establish public gardens that would create an outdoor educational and agricultural learning experience on the USDA grounds. This would include the creation of an urban landscape that demonstrates a measurable crop yield with an equal emphasis on both seasonal and perennial harvests. Proposed plantings, including street trees, hedges, and shrub plantings, would contribute to the harvest.

The planting concept across the site would primarily be comprised of native trees and shrubs, which could include edible plantings, in order to maximize the yield of the garden across the site through perennial planting. In addition to these permanent, crop-producing native species plantings, the inclusion of seasonal plants that represent historic or contemporary, commercially significant crops in raised planting beds would be an important educational component of the garden.

Both action alternatives would reduce the overall amount of impervious surfaces on the site by incorporating permeable paving and adding vegetation. In addition to increasing permeability on site, the Low Impact Development (LID) and "wet weather green infrastructure" strategies would be implemented as site-specific design elements in the People's Garden, including: bioretention cells and vegetated filter strips; vegetated roofs; rain barrels and cisterns; infiltration trenches and stormwater planters; curb and gutter elimination; treebox filters, sand filters, and organic filters; and soil amendments. These techniques would be used as demonstration tools for visitors in addition to capturing stormwater, and would incorporate state-of-the-art sustainable landscape designs into the flagship campus of the USDA.

The current ownership and jurisdiction of the project site would remain unchanged under both action alternatives. GSA would continue ownership of the majority of the site and the NPS would continue ownership of the parcel in front of the Whitten Building. The USDA would continue to administer the entire site and would be responsible for the long-term maintenance of the site (see Figure 2-1). As such, the USDA would coordinate with GSA and the NPS regarding proposed project elements located on each agency's property, both during the design and construction phases, as well as regarding long-term maintenance requirements, as needed.

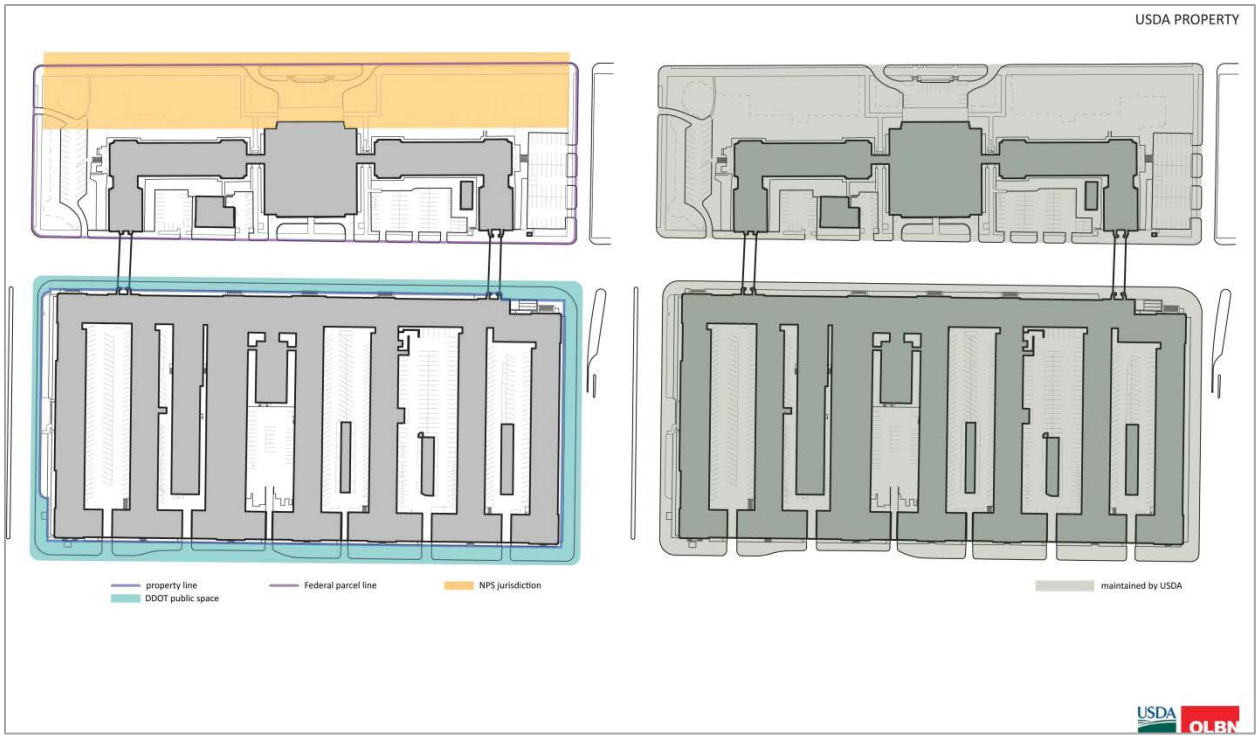


Figure 2-1: Site ownership and jursidiction
Source: OLBN 2013

Whitten Building

The ground plane planting would continue to be composed of a combination of lawn, groundcover, shrubs, hedges, planted slopes, and agricultural beds. The landscape updates to the Whitten Building grounds, which were designed by the Olmsted Brothers, would retain identified original trees. In addition, healthy trees of original species existing in original historic locations would remain. Several new proposed trees would be located based on historic precedent. Some non-historic trees, trees in poor condition, and some non-native trees would be removed.

Along the north side of the Whitten Building, the landscape approach would be based on historic documentation of the Olmsted design for the Whitten Building grounds. The entrance to the central wing would be maintained as the building's ceremonial entrance with controlled access to the semi-circular driveway and the entry court that would continue to be used as a drop-off area with limited parking. The number of parking spaces would be reduced by half to 8 parking spaces.

The central entrance would be flanked by two large symmetrically planted Elm trees, based on historic Olmsted design documentation. The crop planting beds would remain to reflect the core mission of USDA at the entrance of the building. The lawns to the east and west of the central entry court along Jefferson Drive would be punctuated by groupings of trees. Pathways, or promenades, running parallel to the Whitten Building on the east and west Lawns would be located in reference to historic Olmstead Brothers' site plans. The short walkways from the Jefferson Drive sidewalk leading to memorial/commemorative plaques placed below trees would be removed. The moat plantings around the building would be maintained.

While the raised agricultural beds that make up the organic garden would be reconfigured differently in each action alternative, their use as organic, seasonal, demonstration vegetable gardens and their

location near the northeastern corner of the Whitten Building grounds, along Jefferson Drive and 12th Street, would remain. On the south side of the Whitten Building, street trees would be added along Independence Avenue to reinforce the streetscape and match historic conditions, based on photographic documentation. A green roof would be added to the small structure, known as the Alcohol Building, on the south side of the building near the east wing, along with rain barrels to capture excess runoff. The green roof on the utility building between the two western parking courts would remain. A green wall and green "carpet," green roof plantings on the ground plane, would be installed as an extension of the existing green roof to demonstrate vertical agricultural/horticultural applications. The south entry to the Whitten Building would be maintained and seasonal crops would continue to be planted in the small planting area in front of the south entrance.

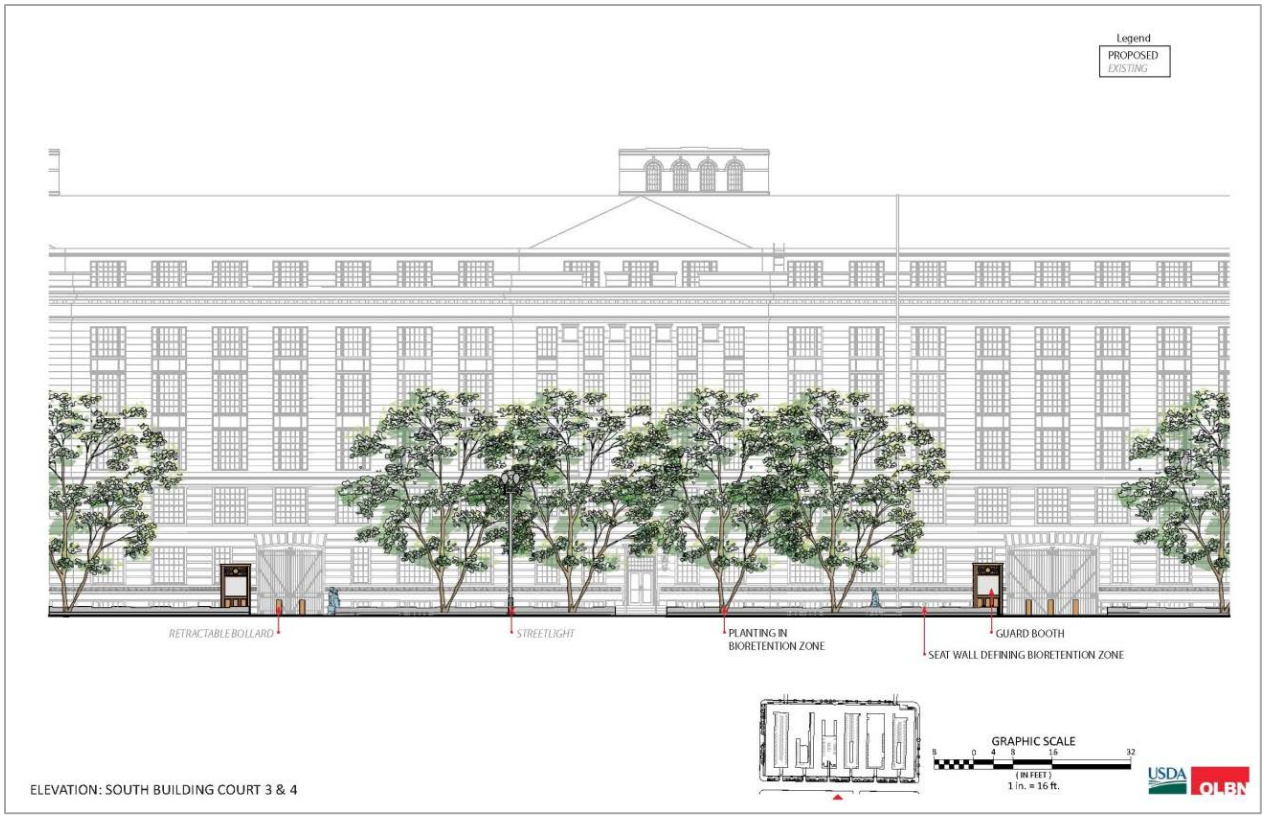
The number of parking courts and parking configurations would vary by alternative; however, in both action alternatives, parking courts at the Whitten Building would be designed as surface parking that could also be used as flexible event space in order to provide USDA the opportunity to host scheduled events and exhibits open to the public as related to activities of the People's Garden. Each parking court would be surfaced with permeable granite cobbles or pervious concrete with subsurface stormwater systems below. Retractable bollards and arm gates would be added at each parking court entry to control entry.

Both action alternatives would install perimeter security elements around the Whitten Building. The approach to the perimeter security and the design of those elements would vary by alternative.

South Building

The design proposed for this block is intended to activate the streetscape and enhance the grounds through the following measures: integrating an interpretive agricultural timeline into the concept for the future paving detailing; providing seating for pedestrians; and providing stormwater management through linked bioretention basins. Street trees and seating would be added around the South Building to enhance the streetscape and the pedestrian experience. Planting beds and trees would be installed between the parking court driveways and building stairways on C Street. The agricultural timeline and bioretention and street tree plantings would match the building by breaking at the stairs and court driveways in a strict rhythmic pattern reflecting the unrelenting façade of the building. The planting design approach along C Street would focus on providing an inviting landscape for the benefit of the pedestrian visitor exploring the interpretive features implemented along the street (Figure 2-2). The C Street sidewalk is also the proposed alignment of the new Southwest Federal Center Heritage Trail. The agricultural timeline along C Street would be designed to connect with the Southwest Eco District Plan and the proposed Southwest Federal Center Heritage Trail.

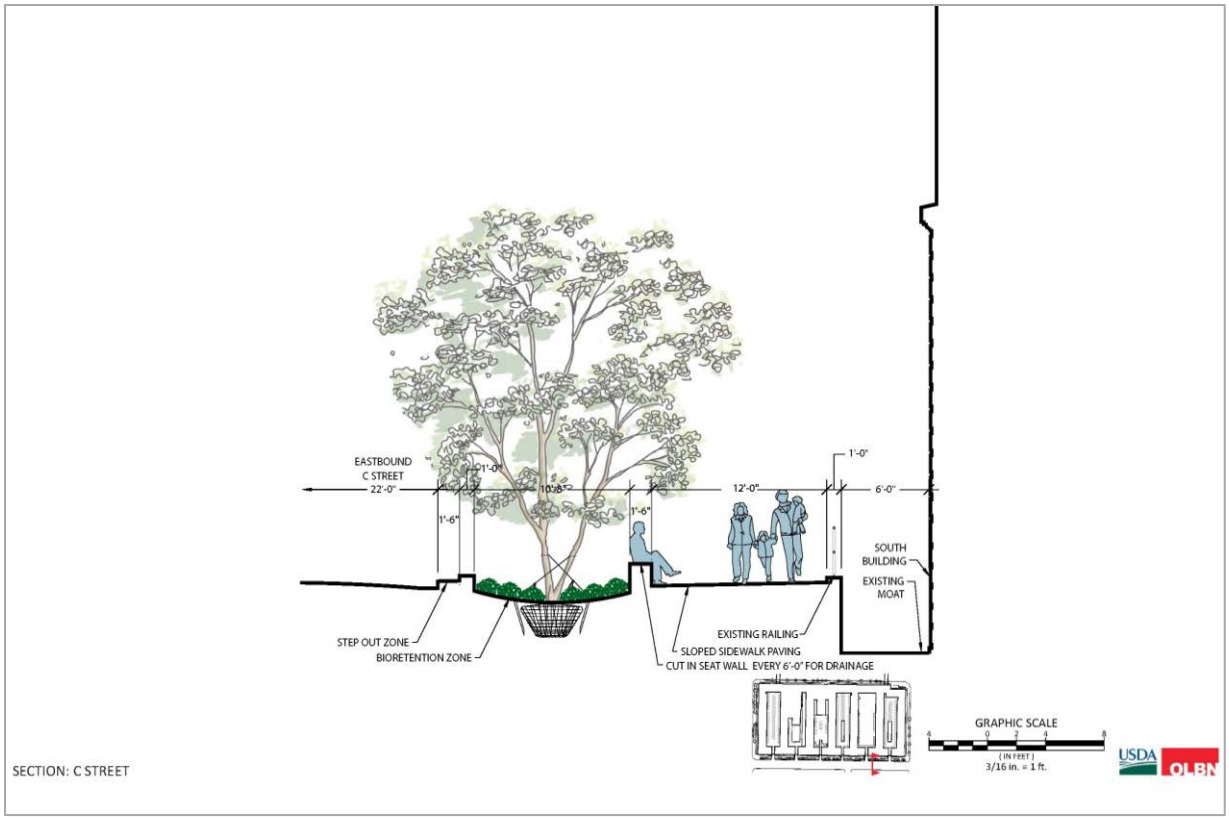
Trees that would be removed and replaced around the South Building would include non-historic, dead, declining, and undesirable exotic species. The landscape changes at the South Building would install additional trees on the site (approximately 43), for a total of 56 trees within the block around the South Building. The ground plane planting would be composed of a combination of lawn, ground covers, shrubs, hedges, planted slopes, and agricultural beds. These landscape changes would reduce impervious surfaces at the South Building, which currently cover 97% of the site. Pervious surfaces on the South Building block would double from 3% to 6%.



This image illustrates the vegetative pattern of the street trees along C Street looking north.

Figure 2-2: South Building Courts 3 and 4 – Elevation View from C Street
Source: OLBN 2013

Sidewalk widths around the South Building along 12th Street, Independence Avenue, and 14th Street would be between 8.5 and 12 feet with a street tree zone more than 7 feet wide between the sidewalk and the curb line. The C Street curb line along the South Building would be straightened to create a more consistent pedestrian environment. The sidewalk width along C Street would be approximately 12 feet, with 18 inches along the curb to serve as a step-out zone, a decrease to accommodate plantings, seating, and bioretention. Curb cuts for the driveways to the South Building parking courts would remain (Figure 2-3).



This image illustrates the enhanced pedestrian realm on C Street at the South Building with formalized curb space, a street tree zone, and shaded sidewalks.

Figure 2-3: C Street Sidewalk Section
Source: OLBN 2013

The South Building parking courts are the major entry points for all deliveries, and for the 430 automobile parking spaces they house. Surface parking would remain within the building's courtyards and would continue to be reserved for carpools and vanpools. The existing retractable bollards at the parking court entries would remain. The existing guard booths would be replaced and updated to better match the building's design, meet current protective standards, and create a more efficient, secure, and comfortable working environment for the guards. The booths' proportions and detailing would be designed to respectfully adapt architectural elements found on the South Building (Figure 2-4).

This image illustrates the relative size and placement of the proposed guard booths on C Street.

Figure 2-4: South Building Guard Booth Elevation
Source: OLBN 2013

2.1.2 Alternative 1

Overall, the design concept for Alternative 1 seeks to expand the existing People's Garden educational and crop-yielding elements across the USDA grounds, create a permanent market space, reestablish the western façade of the Whitten Building as a major public face of USDA, attract visitors to engage the grounds, and increase the sustainability of the site (Figure 2-5). It includes perimeter security around the Whitten Building, with the security elements incorporated into the proposed landscape improvements at the site, and new guard booths at the South Building. Stormwater management and water harvesting techniques are also incorporated into the design.

Landscape Design

On the north side of the Whitten Building, the stairs and historic wall at the central entrance of the building would remain in their existing configurations (Figure 2-6). Two symmetrically-placed fountains would be installed, flanking the corners of the Whitten Building's center section at the ends of the east and west pedestrian promenades, based on proposed Olmsted designs that were never implemented. Agricultural plating beds would flank the central entrance.

The northeast corner of the Whitten Building grounds would be reconfigured. A curved pedestrian pathway would be placed at the corner to invite pedestrians onto the site from the adjoining sidewalks along 12th Street and Jefferson Drive. This pathway would pass through the organic garden to the east promenade pathway along the front of the Whitten Building, connecting the garden to the building's main entrance. The organic garden would be characterized by an integrated layout of raised agriculture planting beds organized along two opposing arcs.

The existing surface parking located along 12th Street at the Whitten Building would be replaced by a market plaza and structure that would provide shaded gathering space and to house market vendors for the farmer's market (Figure 2-7). There would be 14 parking spaces in this location, primarily for market vendors. The semicircular layout of the market structure references the curved drive that once existed in that location. The organic garden would be separated from the market structure plaza by an arbor located along the outside edge of the plaza's pavement. The market structure and the arbor would be designed to be visually light and airy and would include a roof with structural supports and seating incorporated into the base of the structure. The arbor would be constructed with posts supporting a network of cables to provide for a canopy of vines. The storage space for tools and other garden support elements would be located on the outer edge of the market plaza behind the arbor's remote bay. The structure would be screened with vegetation and its access doors would be concealed.

In the northwest corner of the Whitten Building's landscape, the shade garden would be retained and reconfigured. The shade garden would be organized along a curved path that would connect the walkway of the Founder's Garden to the west promenade. A secondary connection to the pathway at the corner of 14th Street and Jefferson Drive would invite visitors into the garden and provide a landscape with a paved stopping place from which visitors could photograph the Washington Monument.

The existing surface parking located along 14th Street at the Whitten Building would be removed and replaced with the Founder's Garden, which would include a curved walkway and a pergola. The walkway location references the curved drive that once existed in that location. Agricultural beds would be planted on the west side of the walkway and the pergola, and lawn, trees, groundcover, and a hedgerow would be planted on the east side.

The landscape changes at the Whitten Building would remove some non-historic trees, trees in poor condition, and non-native trees, some of which would be replaced. Based on historic documentation of the Olmsted design, this would include the 8 non-historic street trees on Jefferson Drive. Removal of street trees along Jefferson Drive would be subject to NPS approval and permitting. Trees would also be added in several locations. Overall, there would be approximately 141 trees, including street trees, on the Whitten block in Alternative 1.

On the south side of the Whitten Building, agricultural beds would be added along Independence Avenue on the inside of the sidewalk where conditions permit and along the north side of each parking court. The surface of the eastern parking court on the south side of the building would be re-graded to slope down from Independence Avenue to lower the parking court and make vehicles in the parking court less visible from Independence Avenue. At this location, two curb cuts would be removed and one curb cut would be altered to allow for entry and exit at a single point. The curb cut at the western-most parking court along Independence Avenue would be altered to add symmetry, provide a larger setback from the street for new plantings, and ease maneuverability for parking. The curb cut near the corner of Independence Avenue and 14th Street would become a roll curb for emergency access. Alternative 1 would reduce surface parking at the Whitten Building to 55 parking spaces, plus 14 vendor parking spaces at the market. This would be a reduction of 113 vehicular parking spaces and 9 motorcycle spaces (Figure 2-8).

Subsurface water storage systems would be installed below the parking courts along the south side the Whitten Building and would perform like cisterns to store stormwater before it percolates into the soil. In addition to the proposed permeable paving system, the two symmetrically-placed fountains on the north side of the Whitten Building would also serve as rainwater harvesting elements and would be located at the central north entry to the Whitten Building, based on proposed Olmsted designs that were never implemented. These fountain elements would be hardened to double as perimeter security elements and would draw directly from the roof rainwater collection system that discharges via downspouts embedded in the hyphen walls of the Whitten Building structure. Cisterns located in the moat would collect roof or paving runoff and serve as a demonstration for rainwater harvesting options with the potential for irrigation re-use. Rain barrels and rain gardens would also be installed. Alternative 1 would reduce the impervious surfaces on the Whitten Building block. In Alternative 1, the site would be comprised of 43% pervious plantings, 14% permeable paving, and 43% impervious surfaces (Figure 2-9).

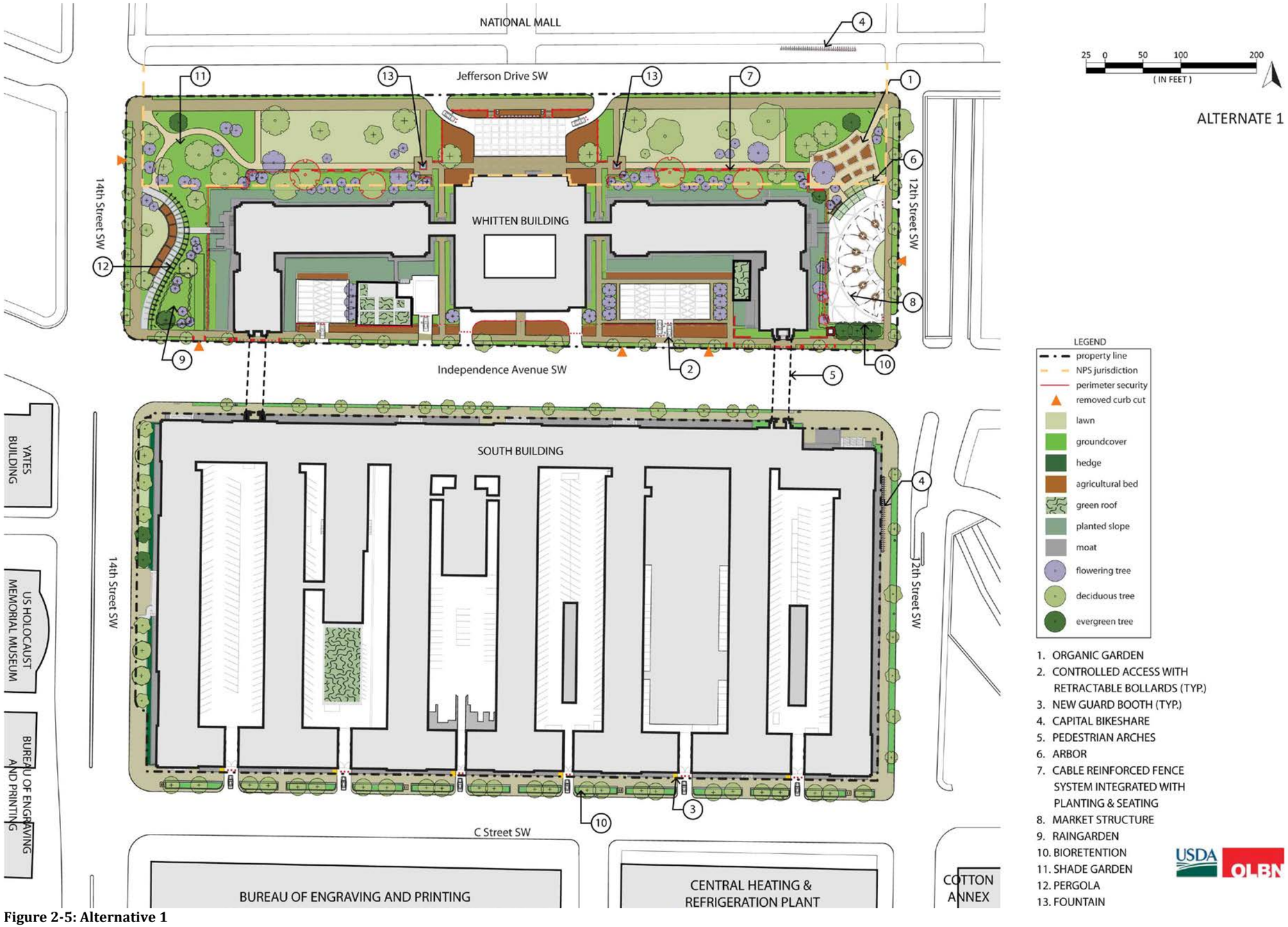


Figure 2-5: Alternative 1
Source: OLBN 2013

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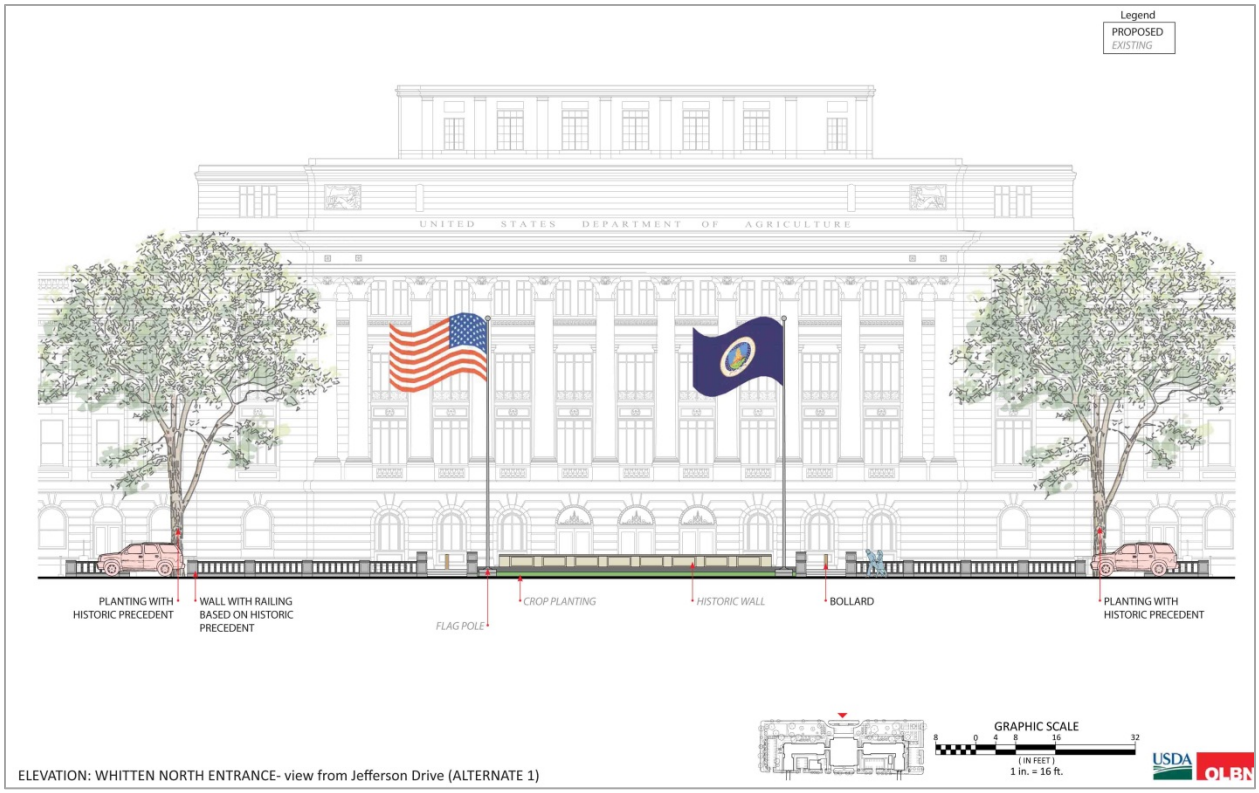
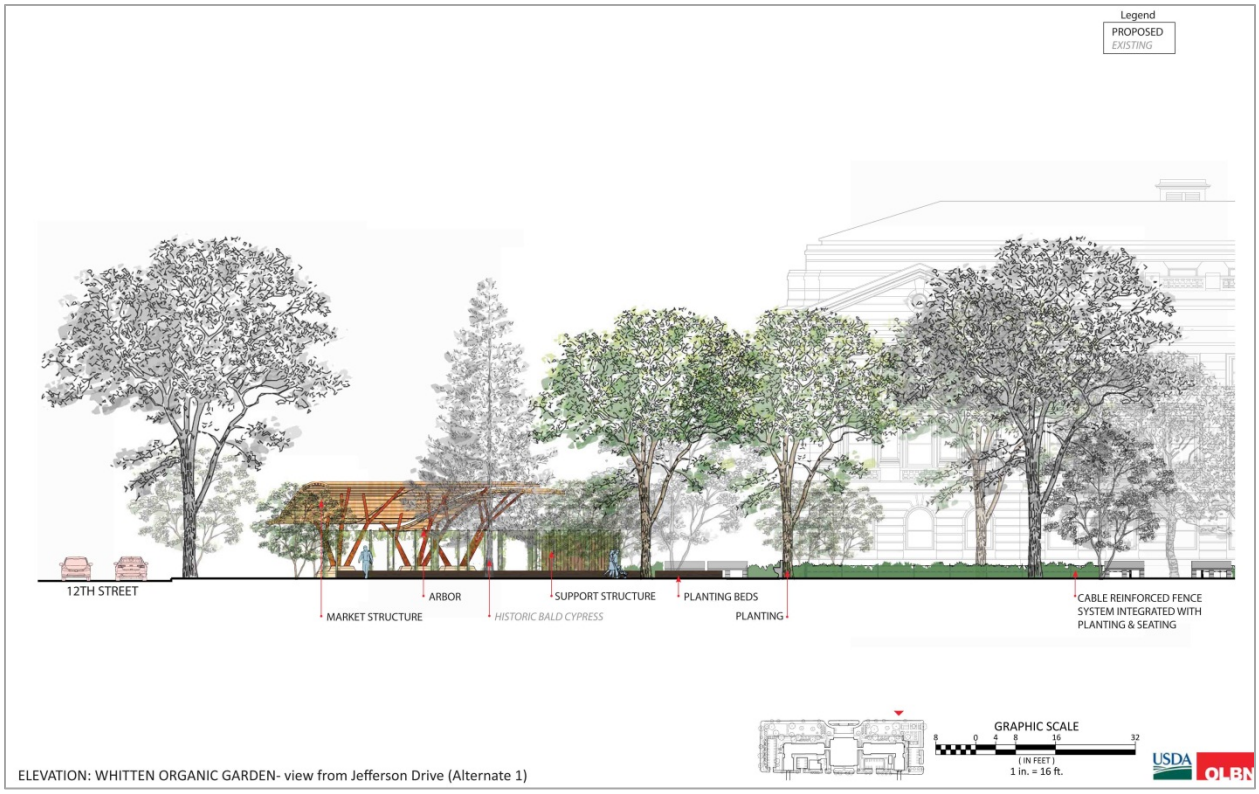


This image illustrates the use of existing wall combined with proposed walls based on historic precedents to provide perimeter security at the central entry to the Whitten Building.

Figure 2-6: Alternative 1 Whitten Building North Entrance – Elevation View from Jefferson Drive
Source: OLBN 2013



This image illustrates the market structure, arbor, support structure and vegetation around the organic garden in the northeast corner of the site.

Figure 2-7: Alternative 1 Whitten Building Organic Garden – Elevation View from Jefferson Drive
Source: OLBN 2013

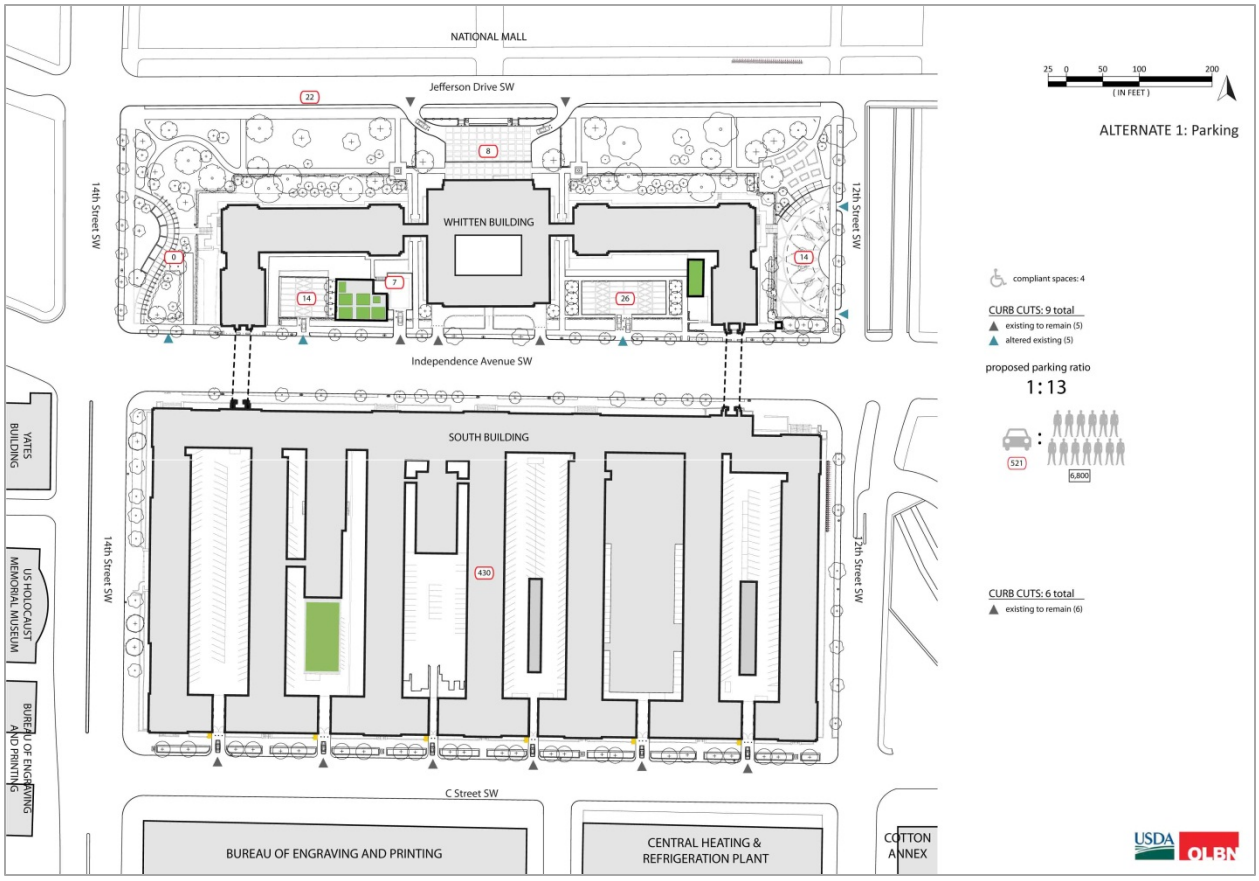


Figure 2-8: Alternative 1, Parking
Source: OLBN 2013

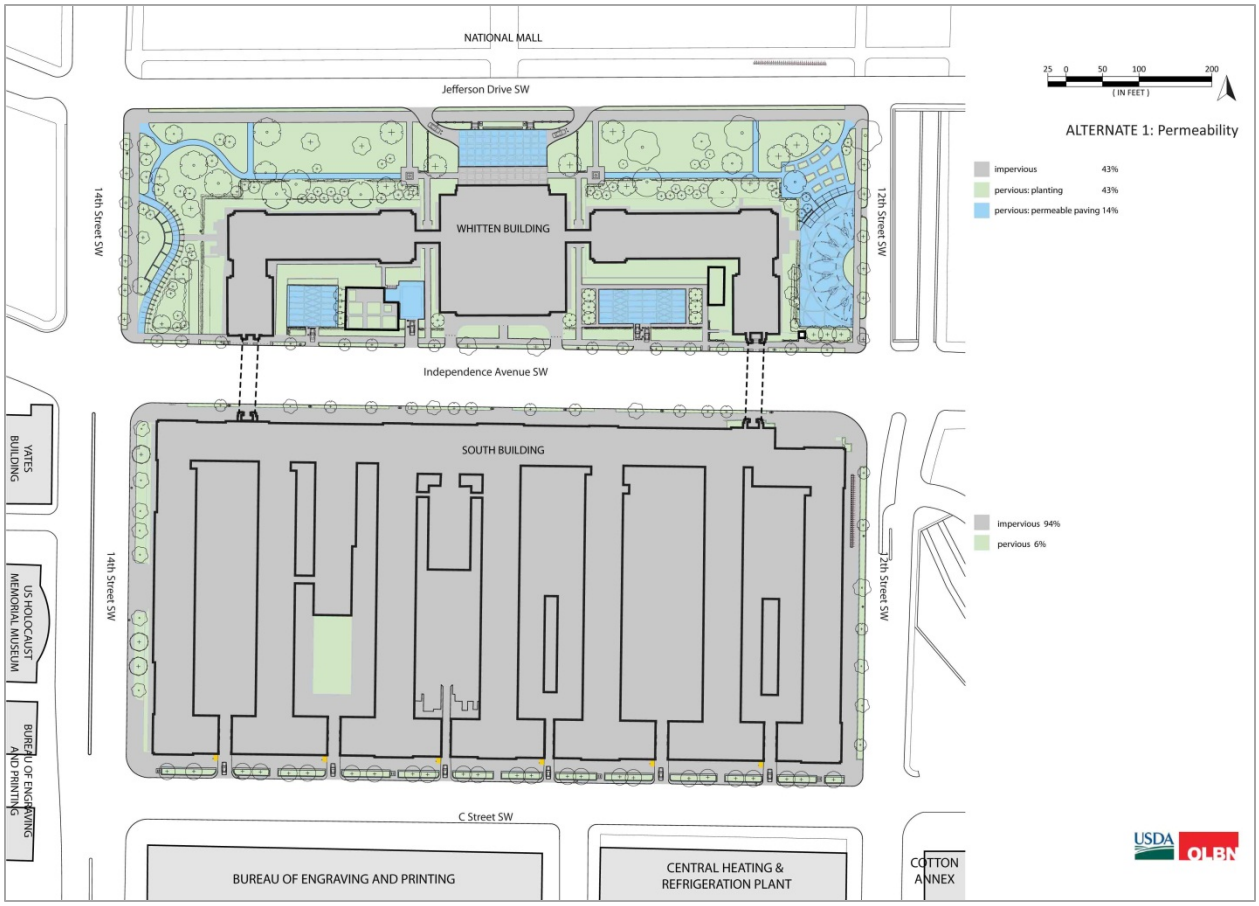


Figure 2-9: Alternative 1, Permeability
Source: OLBN 2013

Perimeter Security

Under Alternative 1, perimeter security at the Whitten Building would be incorporated into the landscape and would utilize as many landscape elements as possible (Figure 2-10). New security elements that are also features of the landscape design would include the fountains, existing and proposed trees, integrated seating, as well as the extensive use of a cable rail system, which would be shielded from view by a double hedge row. The goal of the design is to provide for the required level of perimeter security via a nearly invisible hardened perimeter which would not hinder the site's ability to invite visitors onto the grounds. The perimeter security line would be placed to protect the building and parking courts with a less intrusive presence, prioritizing the aesthetics and the significance of the "Olmsted gardenesque" design.

The existing historic wall located in front of the main block of the Whitten Building along Jefferson Drive would be hardened and several additional segments of wall would be added based on the historic detailing of the structure as documented by historic research. These walls would be hardened by an internal structural cable system to accomplish the security perimeter requirements. Bollards would be added at the top of the entrance steps and inside the hollow historic wall. The cable-rail system in the hedge row integrated with planting and seating along the front of the Whitten Building would also serve as perimeter security elements (Figure 2-10).

Perimeter security on the south side of the Whitten Building at Independence Avenue would be accomplished with a combination of perimeter security elements. As shown in Figure 2-11, the perimeter security would provide protection for parking courts with the cable rail and hedge system. Cable reinforced fencing would be added to the south entrance to the building. Hardened architectural building walls would provide protection for the east and west wings of the Whitten Building and the Mechanical Building. Bollards would be incorporated as necessary where reduced spacing requires. Under the pedestrian arches, perimeter security would narrow the sidewalk by providing increased protection in the form of hardened benches. The sidewalk width would be approximately 4 feet 10 inches along Independence Avenue at the pedestrian arches and 7 to 8 feet elsewhere.

Perimeter security elements around the Whitten Building along 12th Street, Jefferson Drive, and 14th Streets would be setback from the curb line by at least 21 feet, and by up to 110 feet in some locations. The sidewalk widths along 12th Street and Jefferson Drive streets would remain unchanged from between 9 to 14 feet with a street tree planting zone more than 4 feet wide located between the sidewalk and the curb line. Specifically, the Jefferson Drive sidewalk would remain 14 to 15.5 feet wide with a planting strip of 4 to 5 feet, and the 12th Street sidewalk would remain 8.5 to 9.5 feet wide with an 8- to 9-foot planting strip. The width of the 14th Street sidewalk would be widened to 14 feet with a 7- to 8- foot planting strip.

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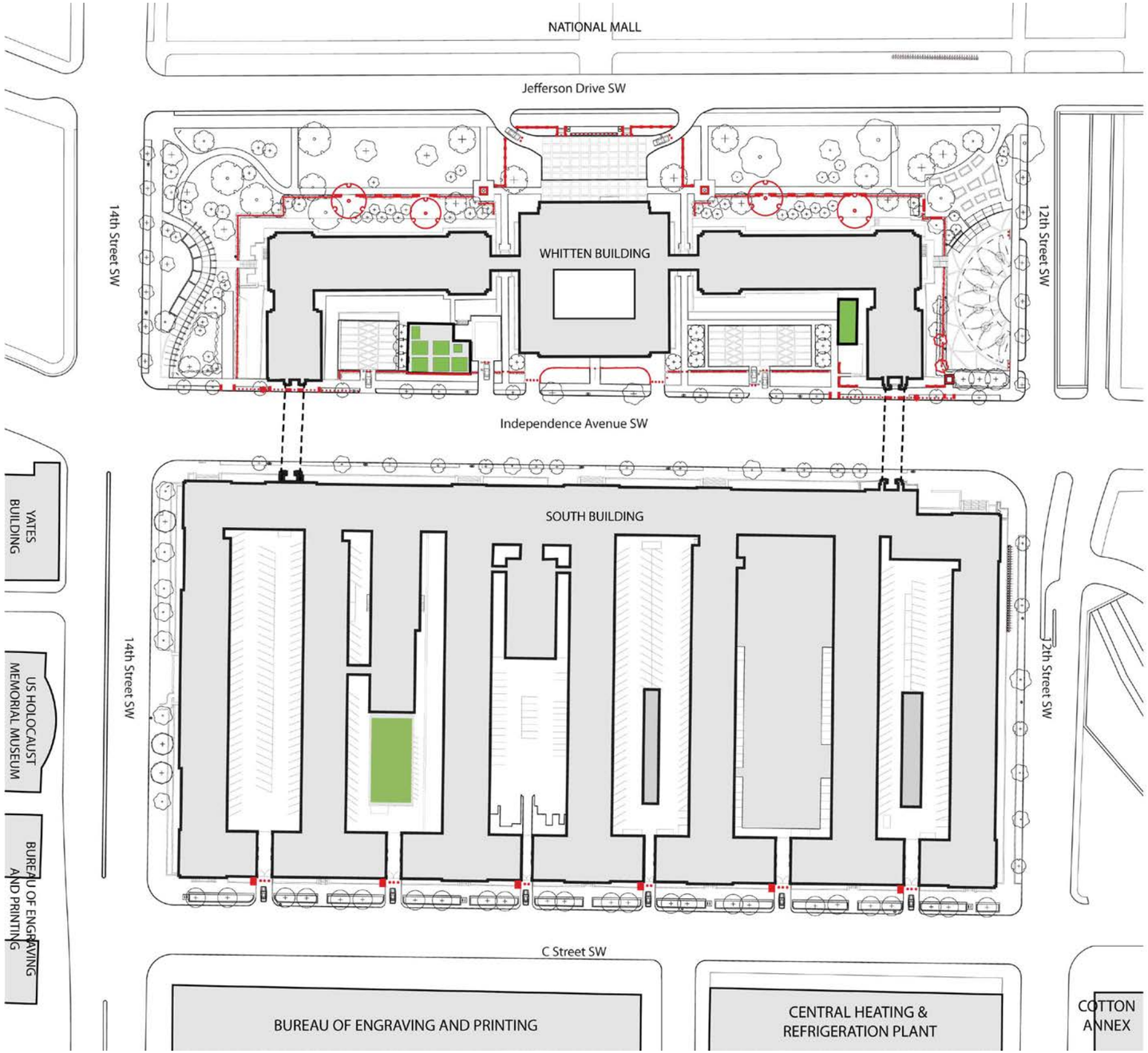

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ALTERNATE 1: Perimeter Security

USDA OLBN

Figure 2-10: Alternative 1 Perimeter Security
Source: OLBN 2013

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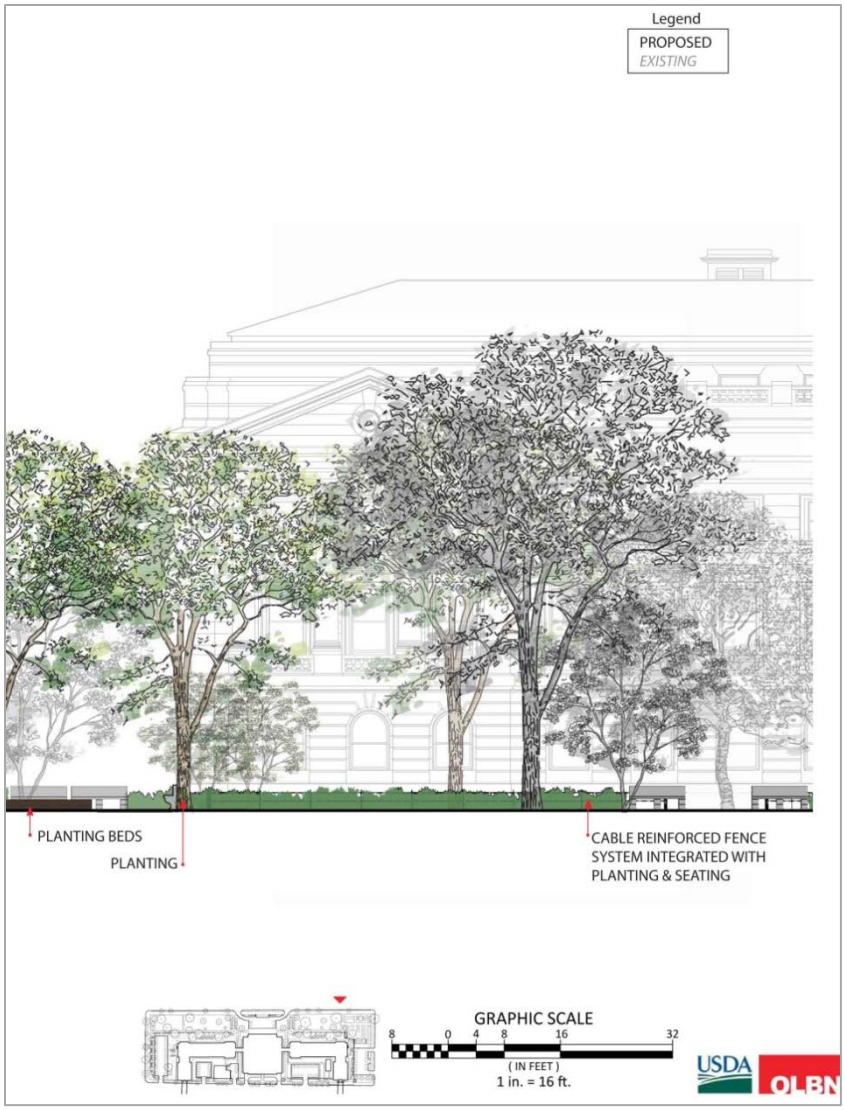
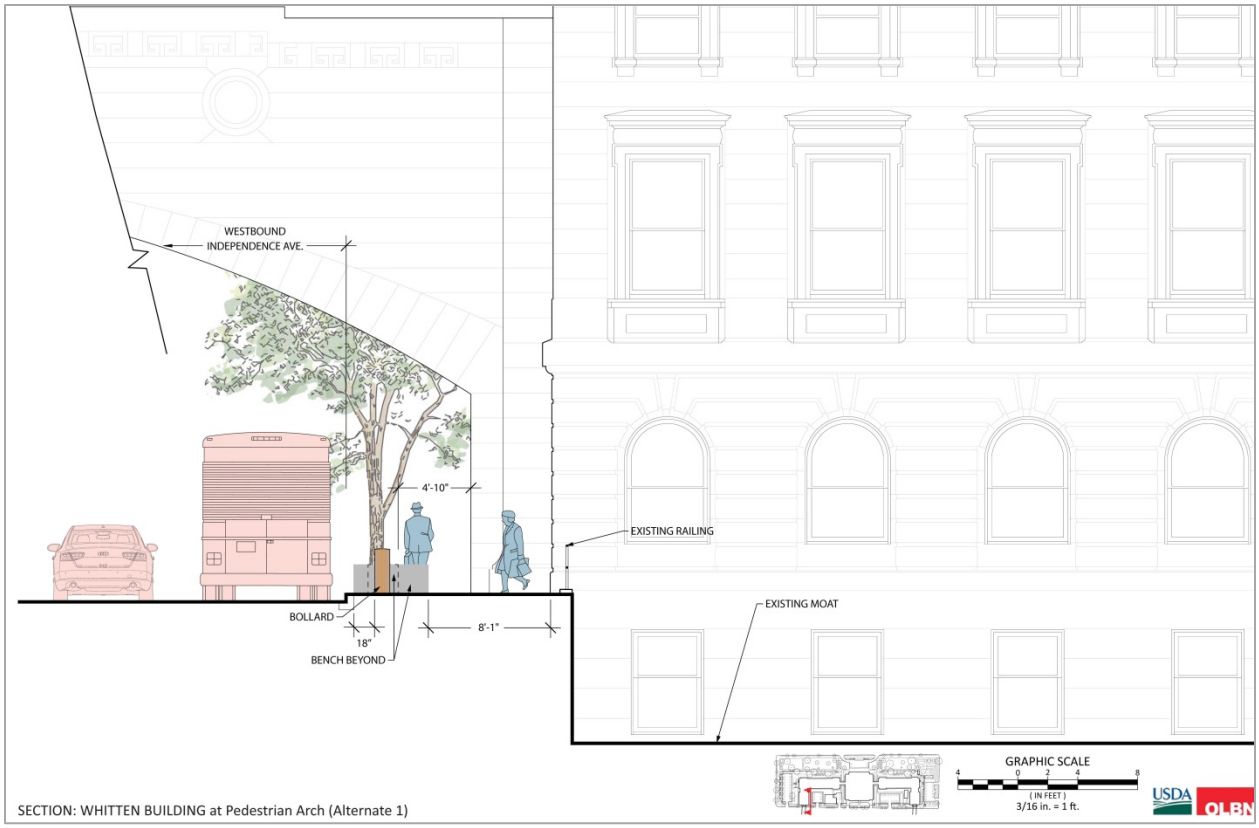


This image illustrates the use of cable reinforced fence system integrated with planting and seating to provide perimeter security.

Figure 2-11: Alternative 1 Whitten Building Perimeter Security – Elevation View from Jefferson Drive
Source: OLBN 2013



This image illustrates the sidewalks along Independence Avenue next to the Whitten Building at the pedestrian arches.

Figure 2-12: Alternative 1 Whitten Building Section at the Pedestrian Arch
Source: OLBN 2012

2.1.3 Alternative 2

Overall, the design concept for Alternative 2 seeks to expand the existing People's Garden educational and crop-yielding elements across the USDA grounds and increase the sustainability of the site (Figure 2-13). It includes perimeter security around the Whitten Building made up of bollards and hardened walls, screened by vegetation where possible, and new guard booths at the South Building. Stormwater management techniques are also incorporated into the design.

Landscape Design

On the north side of the Whitten Building, the steps leading from the driveway to the central wing of the building would be widened to 15 feet in order to create a more inviting pedestrian approach that relates to current conditions and the historic terrace would be maintained. The existing steps originally aligned with 13th Street sidewalks that no longer exist. A pedestrian path lined with trees on either side of the entry court would lead to the Whitten Building (Figure 2-14).

At the northeast corner of the Whitten Building grounds along Jefferson Drive and 12th Street, the raised agricultural beds would be reconfigured. A hedge would be installed along the Jefferson Drive and 12th Street perimeters of the raised planting beds to define and enclose the crop planting area and shield views from the Mall. An arbor with grape vines would be installed between the planting beds and the parking court on 12th Street and would help to define the south perimeter of the organic garden and to provide shade for visitors in the summer. The garden would be set back from the sidewalk edge by an approximately ten-foot lawn to provide consistency to the Jefferson Drive streetscape edge (Figure 2-15).

A garden structure would be added near the planting beds in the northeast corner of the site. The structure would serve as storage for tools and educational materials. It would be comprised of alternating urban-reclaimed wood slats covering a clear box creating transparency during the daytime. There would be no windows or doors to identify it as a building. A new tree would screen the structure from the Mall. Additionally, new site elements would be enclosed and defined by a hedge that would be maintained at approximately 30 inches in height as measured from adjacent finished grade. The parking court along 14th Street at the Whitten Building would remain and would be designed as surface parking that could also be used as flexible event space in order to provide USDA the opportunity to host scheduled events and exhibits open to the public as related to activities of the People's Garden.

In Alternative 2, at the northwest corner of the Whitten Building block, the landscape would include a small rain garden to promote the stormwater management objectives of the project and demonstrate the importance of native plantings and pollinator gardens with native perennials. The parking court along 14th Street would remain in its existing configuration and evergreen trees would be added on its exterior edge to screen it from view.

On the south side of the Whitten Building, groundcover and ornamental trees would be added along Independence Avenue on the inside of the sidewalk where conditions permit. Lawn panels would flank the eastern parking court of the Whitten Building along Independence Avenue. Additional vegetated ground cover would be installed along the two parking courts near the western wing of the building along Independence Avenue.

The landscape changes at the Whitten Building would remove some non-historic trees, trees in poor condition, and non-native trees, some of which would be replaced. Trees would also be added in several locations. One street tree would be removed on Jefferson Drive, subject to NPS approval and permitting, to more evenly space the plantings. Street trees would be added along 12th Street and Independence Avenue. Overall, there would be approximately 120 trees on the Whitten Block, including street trees, in Alternative 2.

Access to the parking court along 12th Street would be reconfigured by removing one curb cut and converting the other two curb cuts into a one-way vehicular entrance and a one-way vehicular exit, both on 12th Street. The surface of the eastern parking court on the south side of the building would be re-graded to slope down from Independence Avenue to lower the parking court and make vehicles in the parking court less visible from Independence Avenue. At this location, one curb cut would be removed. The two remaining curb cuts would be altered to provide two-way entry and exit at each curb cut. The curb cut at the western-most parking court along Independence Avenue would be altered to add symmetry, provide a larger setback from the street for new plantings, and ease maneuverability for parking. Alternative 2 would reduce surface parking at the Whitten Building to 109 parking spaces, a reduction of 59 vehicular parking spaces and 9 motorcycle spaces (Figure 2-16).

Subsurface water storage systems would be installed below the parking courts along the south side the Whitten Building and would perform like cisterns to store stormwater before it percolates into the soil. In addition to the proposed permeable paving system, cisterns, rain barrels and rain gardens would also be installed on the site. Alternative 2 would reduce the impervious surfaces on the Whitten Building block. In Alternative 2, the site would be comprised of 42% pervious plantings, 16% permeable paving, and 42% impervious surfaces (Figure 2-17).

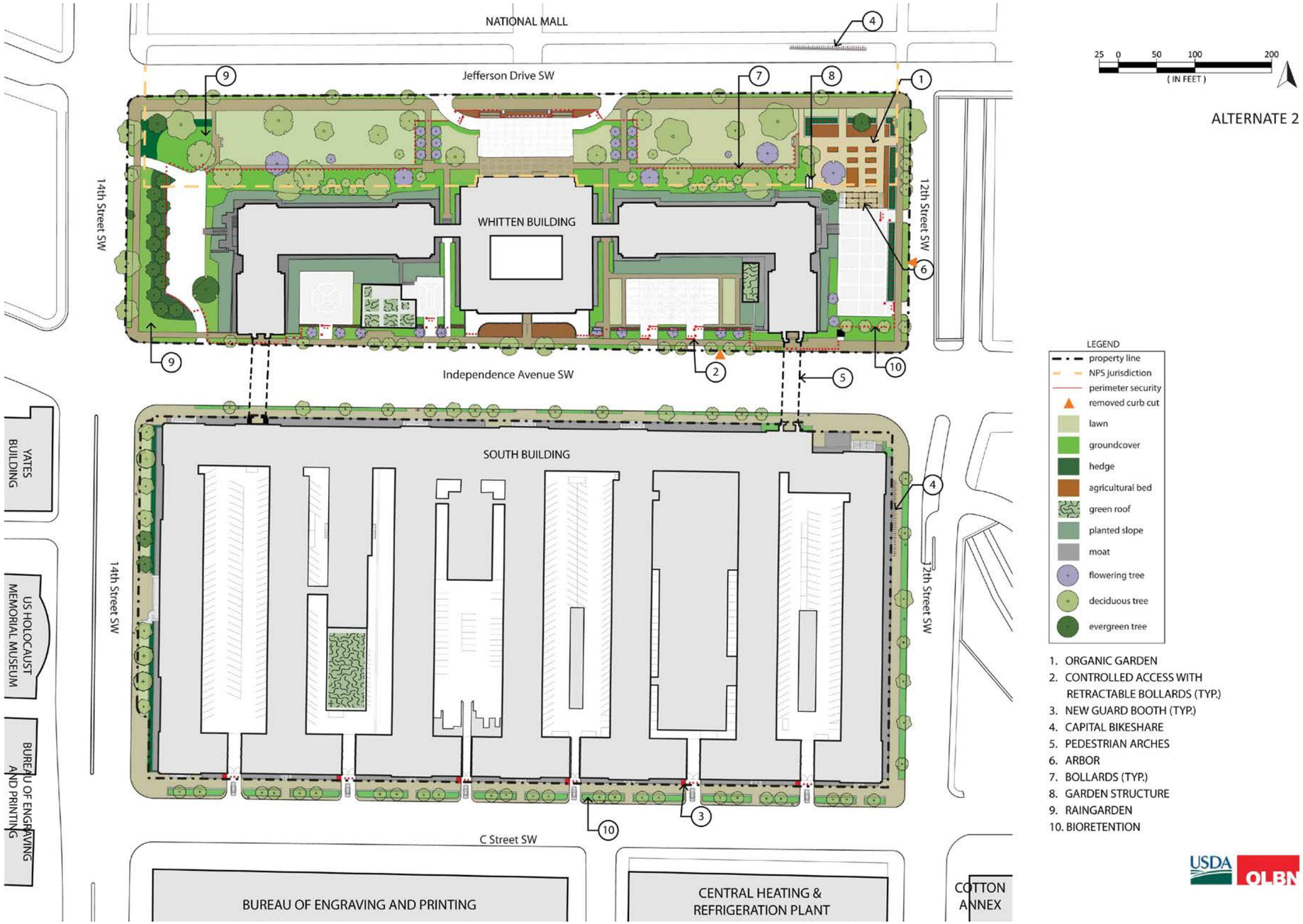


Figure 2-13: Alternative 2
Source: OLBN 2013

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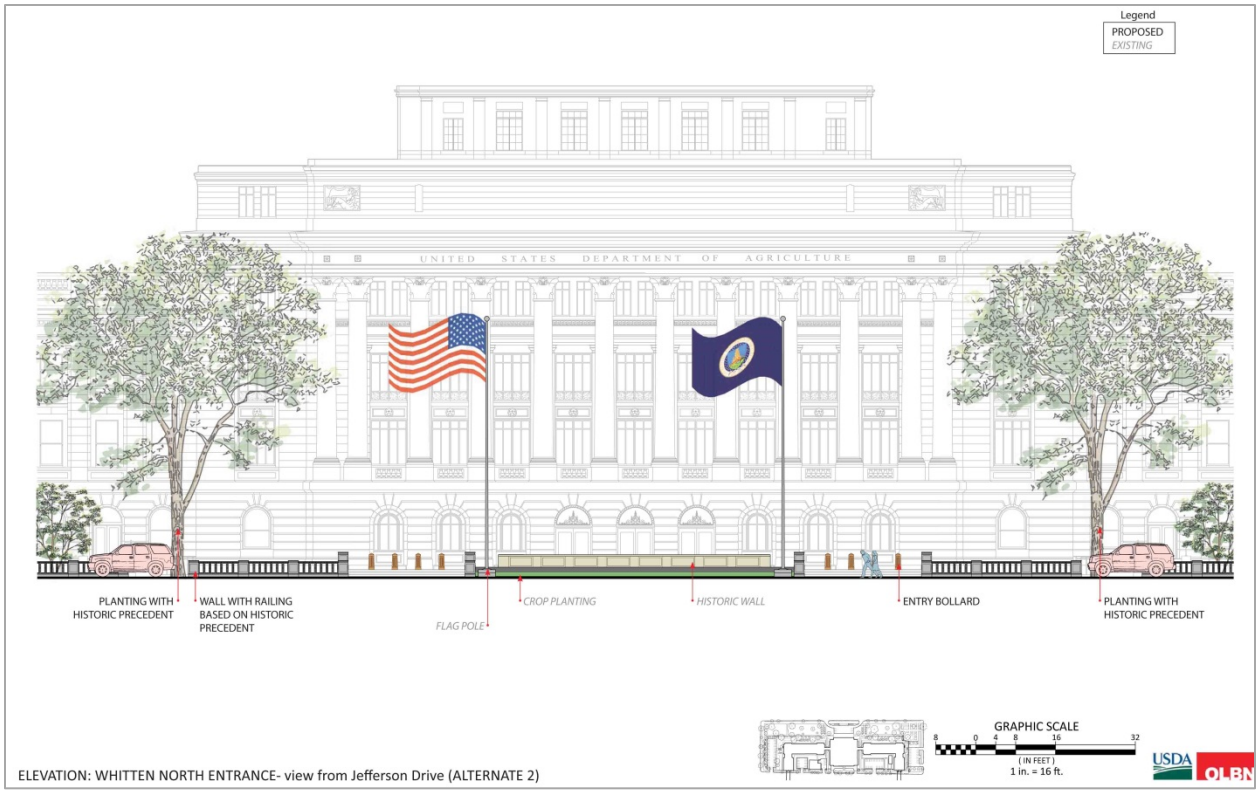

This image illustrates the use of existing wall combined with proposed walls based on historic precedents to provide perimeter security at the central entry to the Whitten Building.

Figure 2-14: Alternative 2 Whitten Building North Entrance – Elevation View from Jefferson Drive
Source: OLBN 2013

This image illustrates the vegetation around the organic garden in the northeast corner of the site.

Figure 2-15: Alternative 2 Whitten Building Organic Garden – Elevation View from Jefferson Drive
Source: OLBN 2013

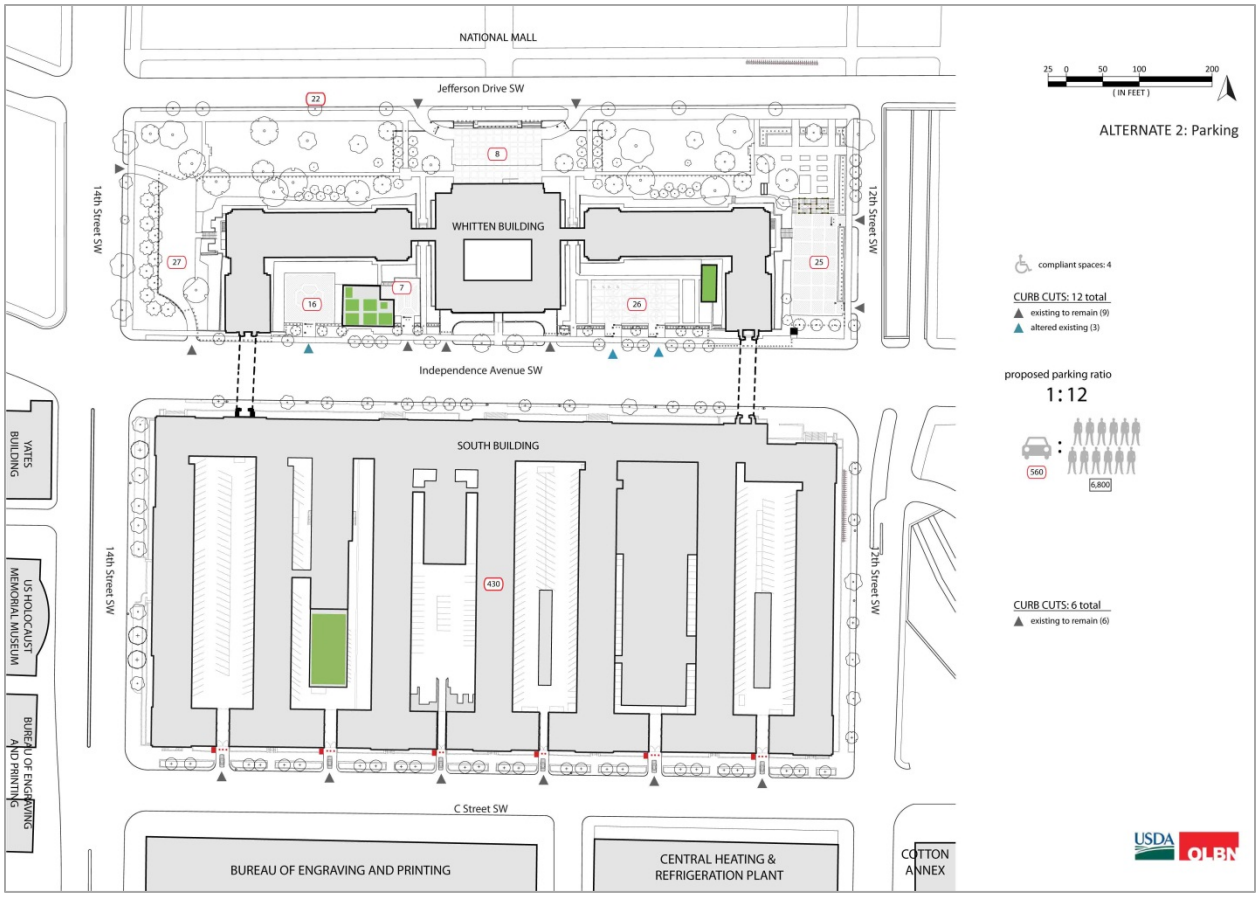

Figure 2-16: Alternative 2, Parking
Source: OLBN 2013

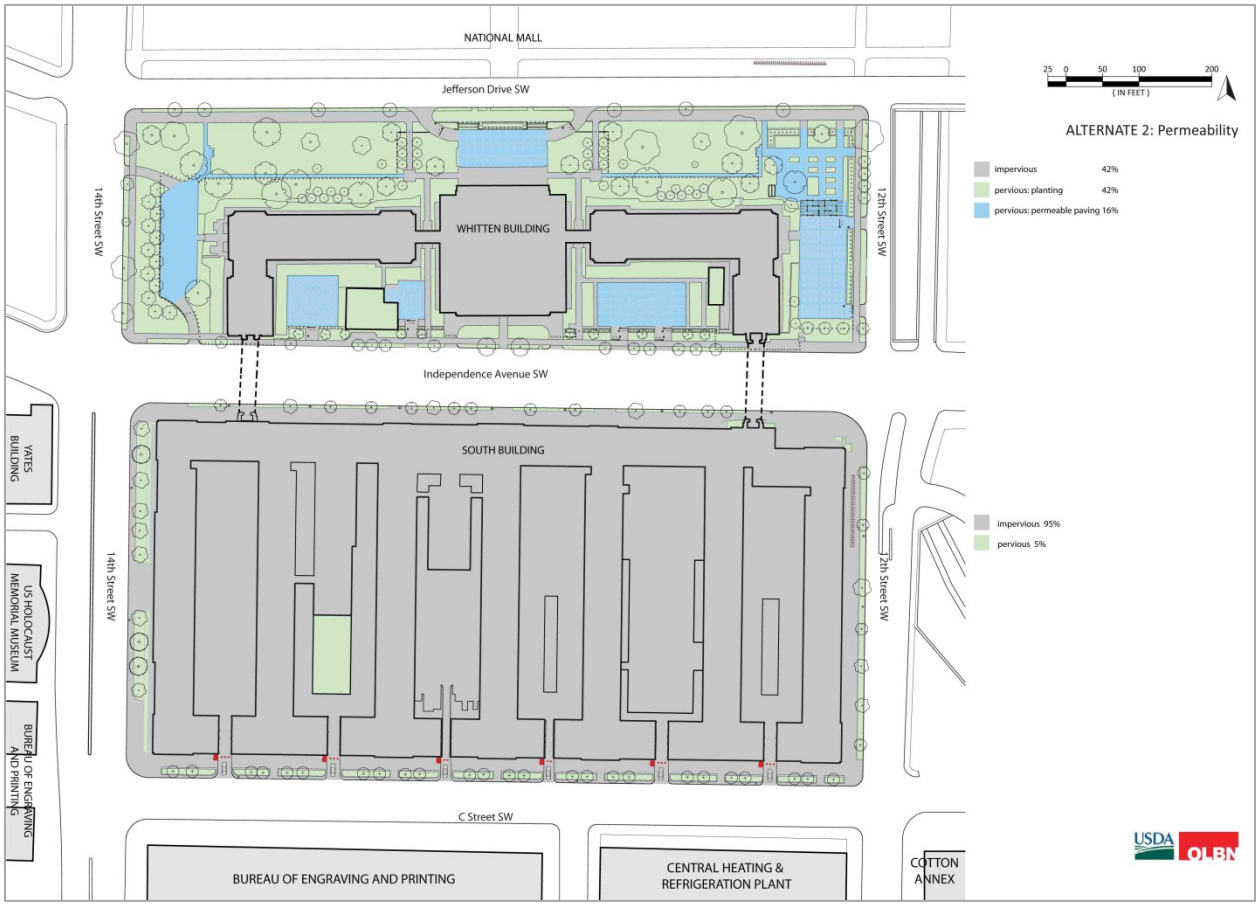

Figure 2-17: Alternative 2, Permeability
Source: OLBN 2013

Perimeter Security

The perimeter security at the Whitten Building in Alternative 2 would primarily be comprised of bollards installed at the site and would not include secondary perimeter security elements within the building yard. The perimeter security line would be placed to provide basic, sufficient protection for the building and parking courts. The perimeter security approach is straightforward and the aesthetics reveal the perimeter security infrastructure (Figure 2-18).

Like Alternative 1, the existing historic wall located in front of the main block of the Whitten Building along Jefferson Drive would be hardened and several additional segments of wall and ornamental open metal work would be added, based on the historic detailing of the structure as documented by historic research. Bollards would be added to the steps that flank the historic terrace at the bottom of the steps along the sidewalk edge. A line of bollards would also run along the outside edge of the short allée of trees that would flank the central entrance pedestrian pathways. Bollards would run along the south side of the pedestrian pathway in front of the east and west wings of the Whitten Building. The line of bollards would continue along the outside edge of the organic garden in the northeastern corner of the site and along the 12th Street parking court (Figure 2-19). Bollards would be placed along the exterior of the 14th Street parking court and would be screened from view by evergreen trees. As shown in Figure 2-20, perimeter security on the south side of the Whitten Building at Independence Avenue would include bollard protection for all parking courts and the line of protection would transition to the street

edge where building walls or other structural elements protrude toward the street. Under the pedestrian arches perimeter security would narrow the sidewalk by providing increased protection in the form of bollards. The sidewalk width would be approximately 4 feet along Independence Avenue at the pedestrian arches and 7 to 8 feet elsewhere.

Perimeter security elements around the Whitten Building along 12th Street, Jefferson Drive, and 14th Streets would be setback from the curb line by at least 17 feet, and by up to 51 feet in some locations. The sidewalk widths along these streets would remain unchanged from 9 to 14 feet, with a street tree planting zone more than 4 feet wide located between the sidewalk and the curb line. Specifically, the width of the 14th Street sidewalk would remain at 9 feet with a 7- to 8-foot planting strip, the Jefferson Drive sidewalk would remain 14 to 15.5 feet wide with a planting strip of 4 to 5 feet, and the 12th Street sidewalk would remain 8.5 to 9.5 feet wide with an 8- to 9-foot planting strip.

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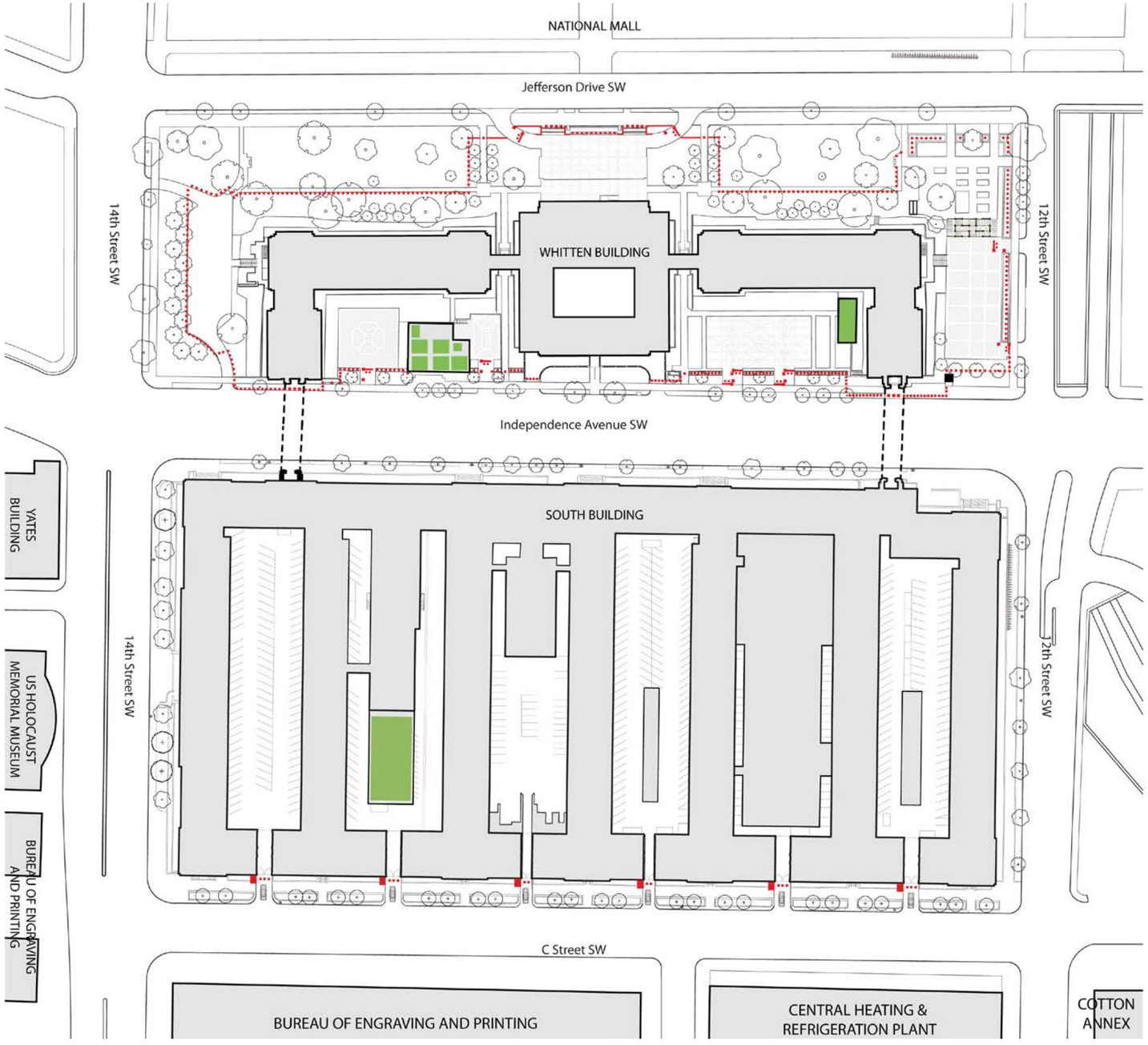

Figure 2-18: Alternative 2 Perimeter Security
Source: OLBN 2013

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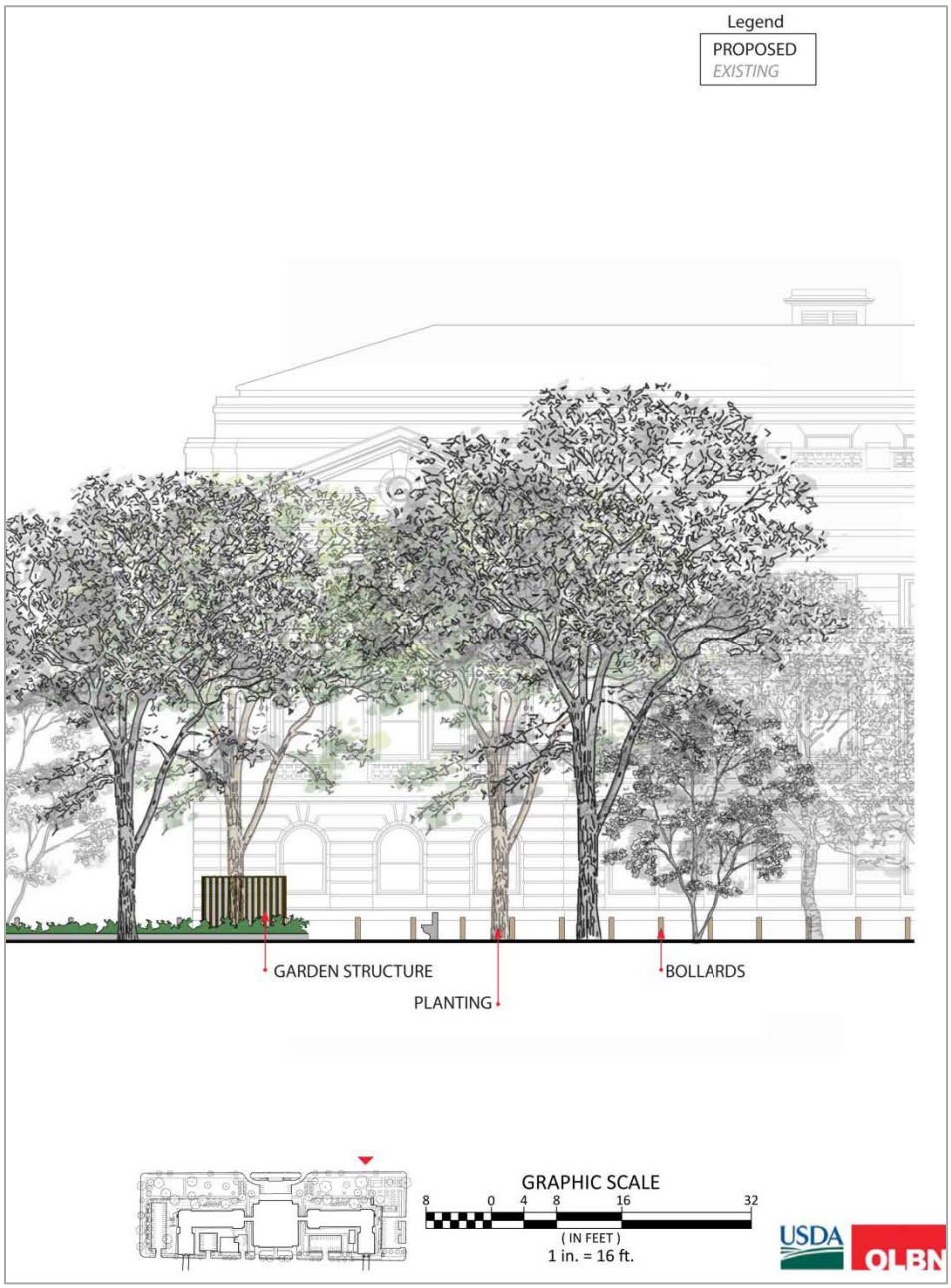

This image illustrates the use of bollards to provide perimeter security.

Figure 2-19: Alternative 2 Whitten Building Perimeter Security – Elevation View from Jefferson Drive
Source: OLBN 2013

This image illustrates the sidewalks along Independence Avenue next to the Whitten Building at the pedestrian arches.

Figure 2-20: Alternative 2 Whitten Building Section at the Pedestrian Arch
Source: OLBN 2013

2.1.4 No Action Alternative

Under the No Action Alternative, the current landscape and organic garden design would remain unchanged (Figure 2-21) and perimeter security elements would not be installed around the Whitten Building (Figure 2-22). The landscape at the Whitten Building would continue to retain the basic structure of the Olmsted plan, lawns punctuated by groupings of trees; however, trees would not be replanted according to historic documentation. No additional educational or interpretational elements would be added to the grounds.

The current ownership and jurisdiction of the parcels would remain unchanged. GSA would continue ownership of the majority of the site and the NPS would continue ownership of the parcel in front of the Whitten Building (see Figure 2-1). The USDA would continue to administer and maintain the entire site.

Circulation around and within the site would retain its existing configurations of interior pathways and public sidewalks at the exterior of the site with intermittent curb cuts to allow for entry to the parking courts at the Whitten and South Buildings.

The guard booths would remain at the South Building. The inconsistent sidewalk edge and minimal plantings along C Street would continue, as would the existing large planters on C Street, which serve as perimeter security. The existing arm gates at the Whitten Building parking court access points would remain. The existing impervious paving, parking courts, and lack of LID measures would remain unchanged on both blocks.

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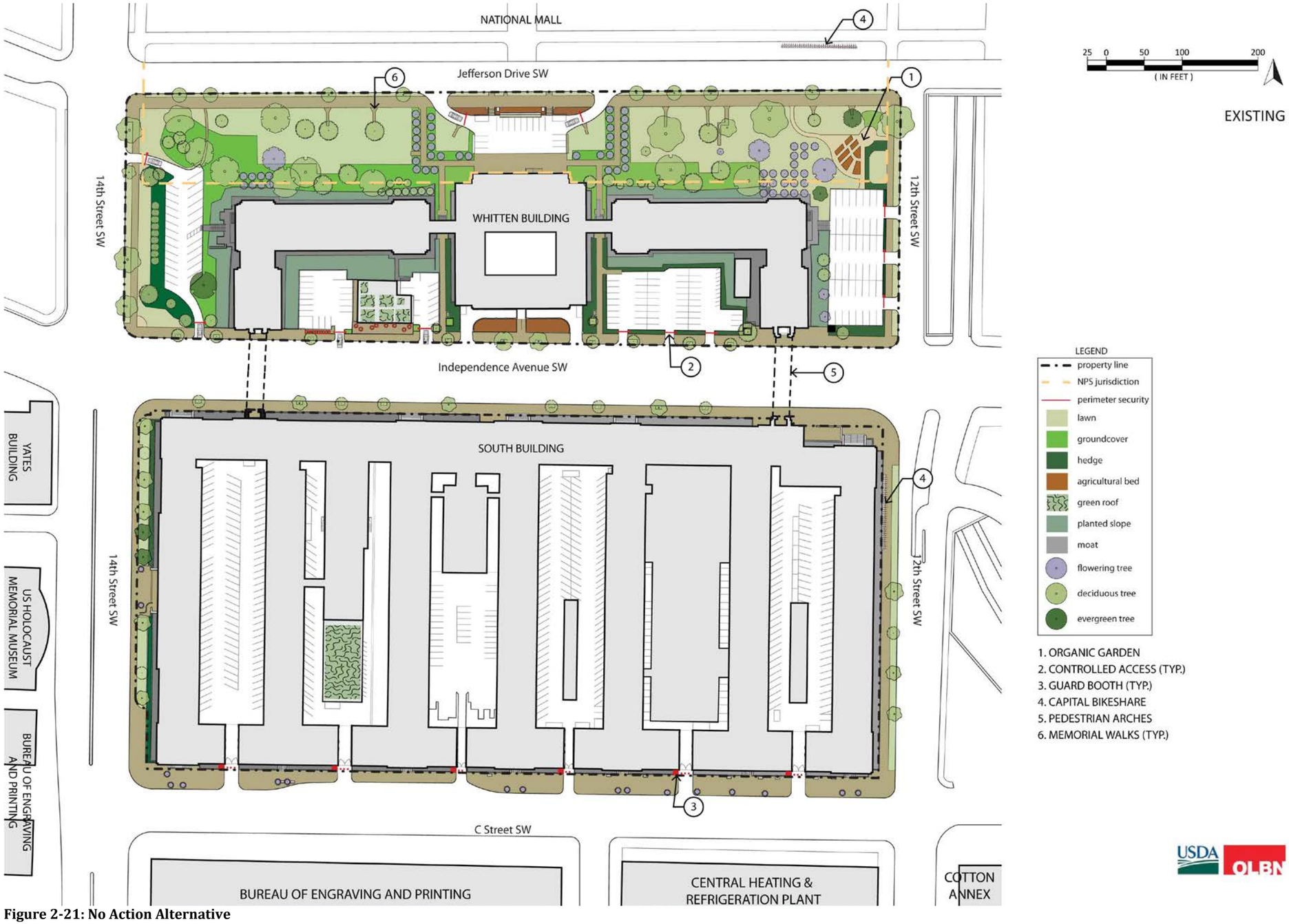
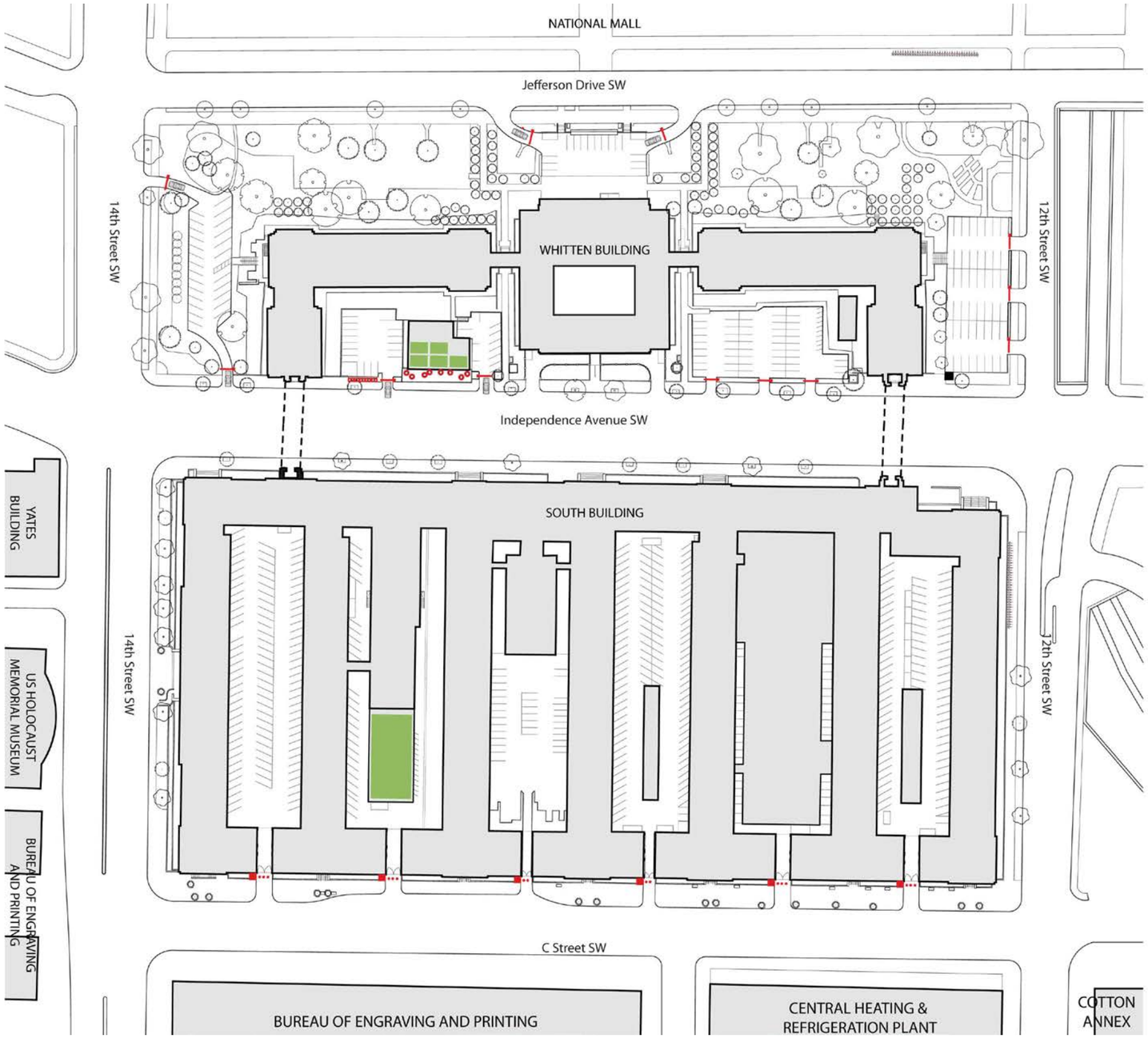


Figure 2-21: No Action Alternative
Source: OLBN 2013



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EXISTING: Perimeter Security

USDA OLBN

Figure 2-22: No Action Alternative Existing Perimeter Security
Source: OLBN 2013

2.2 Comparison of Alternatives

The table below provides a summary of each alternative's impacts on the resources analyzed within this Environmental Assessment. The detailed analysis is included in Chapter 4.

Resource	Alternative 1	Alternative 2	No Action Alternative
Land Use	Beneficial	Beneficial	Negligible
Planning Policies	Beneficial and minor adverse	Beneficial and minor adverse	Negligible
Community Facilities	Beneficial	Beneficial	Negligible
Visitation	Beneficial	Beneficial	Negligible
Public Space	Beneficial	Beneficial	Negligible
Historic Resources	Short-term minor adverse; Long-term minor to moderate and some beneficial; adverse effect under Section 106	Short-term minor adverse; Long-term minor to moderate and some beneficial; adverse effect under Section 106	Negligible
Archaeological Resources	There is a potential for moderate adverse impacts	There is a potential for minor adverse impacts	Negligible
Visual Resources	Moderate adverse to Jefferson Drive; Minor adverse to Independence Avenue; Beneficial to C Street; Minor adverse to 14th Street	Minor adverse to Jefferson Drive; Minor adverse to Independence Avenue; Beneficial to C Street; Minor adverse to 14th Street	Negligible
Roadways and Traffic	Short-term minor to moderate adverse; Long-term minor adverse	Short-term minor to moderate adverse; Long-term minor adverse	Negligible
Parking	Short-term minor to moderate adverse; Long-term minor adverse	Short-term minor to moderate adverse; Long-term minor adverse	Negligible
Public Transit Systems	Short-term moderate adverse; long-term negligible	Short-term moderate adverse; long-term negligible	Negligible
Pedestrian and Bicycle Circulation	Short-term minor; Long-term minor and beneficial	Short-term minor; Long-term minor to moderate and beneficial	Negligible

Resource	Alternative 1	Alternative 2	No Action Alternative
Water Resources and Stormwater Management	Short-term minor adverse; Long-term beneficial	Short-term minor adverse; Long-term beneficial	Negligible
Soils	Short-term minor adverse; Long-term negligible	Short-term minor adverse; Long-term negligible	Negligible
Vegetation	Short-term minor to moderate adverse; Long-term minor adverse and long-term beneficial	Short-term minor to moderate adverse; Long-term minor adverse and long-term beneficial	Negligible
Utilities	Short-term minor adverse; Long-term beneficial	Short-term minor adverse; Long-term beneficial	Negligible

Table 2-1: Comparison of Impacts

2.3 Preferred Alternative

USDA has selected Alternative 1 as its preferred alternative because Alternative 1 best meets the purpose and need of the proposed action by incorporating sustainability measures into the site and increasing the quality of the public realm while still providing for the required level of permanent perimeter security at the Whitten Building. This would be achieved in Alternative 1 through the incorporation of physical security elements into the landscape design.

Alternative 1 would create a more welcoming landscape and streetscape with increased activities and educational elements at the Whitten and South Buildings, as well as reduced parking at the Whitten Building that would be better incorporated into the landscape. It would also create permanent space for the USDA Farmers Market. The implementation of sustainability measures at the project site would provide increased stormwater management and public demonstration opportunities. The streetscape and pedestrian realm along C Street would be enhanced. In addition, it would provide updated perimeter security in an aesthetically integrated style at the Whitten Building and updated guard booths at the South Building to meet current protective standards.

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3.0 AFFECTED ENVIRONMENT

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3.1 Affected Environment

The chapter describes the existing conditions of social and environmental resources that could be impacted by the implementation of the proposed alternatives, either adversely or beneficially, and provides a baseline for subsequent evaluation of impacts, which are documented in Chapter 4. Resources that are not likely to be impacted by the alternatives have been dismissed from detailed analysis and are described in Chapter 1.

3.2 Land Use and Planning Policies

3.2.1 Land Use

Project site

The Whitten Building and the South Building are located in Southwest Washington, D.C. The Whitten Building fronts the National Mall and is located on the southwestern corner of the National Mall. It is bounded by Jefferson Drive to the north, 12th Street to the east, Independence Avenue to the south, and 14th Street to the west. GSA owns most of the land within these boundaries, as well as the Whitten and the South Buildings. The NPS owns the parcel of land between the Whitten Building and the Mall. USDA administers the entire site. The Whitten Building is comprised of a central square volume and two large wings projecting to the east and west. A long, formal park-like open space characterized by shade trees and lawns set within the context of the Mall and the main ceremonial entrance to the Whitten Building are located on the north side of the building in the setback between the building and Jefferson Drive. The USDA visitor information center is located in the Whitten Building, accessed from Jefferson Drive. The existing People's Garden includes a certified organic vegetable garden comprised of raised and at-grade planting beds and is located in the northeastern portion of the site. Surface parking lots, screened from view on the north side by plantings, define the east and west ends of the site. The eastern lot also serves as the location for the weekly seasonal farmer's market, currently held on Fridays. Surface parking lots are also located on the south side of the building along Independence Avenue.

The South Building is located south of the Whitten Building across Independence Avenue and is bounded by Independence Avenue to the north, 12th Street to the east, C Street to the south, and 14th Street to the west. The building's massive form is articulated by seven wings and six internal courtyards which completely fill the two city blocks, allowing for little to no setback from the sidewalks. Along Independence Avenue, near 12th and 14th Streets, arched pedestrian bridges provide connections to the Whitten Building to the north. Parking, both surface parking and some underground parking covered by infill buildings, is located in the building's courtyards and is accessed from C Street.

Study Area

The area immediately surrounding the People's Garden project site is characterized by federal buildings, institutional and cultural buildings, and the open space of the National Mall. North of the project site, the Mall includes more than 300 acres of public open space that links the Washington Monument to the U.S. Capitol Building. Extending from the Capitol Grounds to the Washington Monument, the Mall's central axis is an open greenspace defined by lines of American Elms. The National Mall is America's park; on a day-to-day basis it is the site of numerous recreational activities, including walking, jogging, softball, and soccer. It is also used for special events, parades, and demonstrations throughout the year, including the Cherry Blossom Festival in the spring and the Folklife Festival in the summer. A series of monumental

institutional buildings, including the Whitten Building and numerous Smithsonian Institution museums, define the northern and southern edges of the Mall. The Whitten Building is adjacent to the Smithsonian's Freer Gallery of Art, located to the east across 12th Street. The National Museum of American History is located directly across the Mall from the Whitten Building.

Land uses south and east of the project site are generally a combination of large scale commercial office developments and federal office buildings, both with supporting retail spaces. The Forrestal Building (Department of Energy) and the Federal Aviation Administration Building are located along the south side of Independence Avenue, south and east of the project site. The currently vacant Cotton Annex building and L'Enfant Plaza are located to the southeast of the South Building. The Bureau of Printing and Engraving Annex and the GSA Central Heat Plant are located south and southwest of USDA's South Building. Further south is the large Portals development that includes a mixture of retail, restaurants, hotel, and office space.

The Yates Building is located to the west of the South Building at 14th Street and Independence Avenue. It is part of the USDA complex and houses the headquarters of the U.S. Forest Service. The Holocaust Memorial Museum is located on the south side of the Yates Building. The expansive open and recreation space of the Washington Monument Grounds and the Tidal Basin are located further to the west of the project site, and the Jefferson Memorial is sited on the edge of the Tidal Basin, southwest of the project site.

Other land uses in the area include cultural attractions, retail establishments, and transportation infrastructure. The ramp to the below-grade 12th Street Expressway is to the southeast of the South Building. An entrance to the Smithsonian Metrorail Station is located on Independence Avenue adjacent to the South Building, near the intersection of 12th Street and Independence Avenue, SW.

Within the study area, the NPS administers historic sites and memorials, including the National Mall, the Washington Monument Grounds, the Tidal Basin, and the Jefferson Memorial.

3.2.2 Planning Policies

The Whitten and South Buildings are federally-owned properties and as such are not subject to District of Columbia zoning regulations. Instead, the development of federally-owned properties is regulated by the National Capital Planning Commission (NCPC), pursuant to the District of Columbia Zoning Enabling Act of 1938. In accordance with the Act, NCPC has approval authority for use, open space, height, and bulk. The National Park Service has jurisdiction over a portion of the Whitten Building site and therefore proposed actions are also guided by NPS laws and policies.

The *Comprehensive Plan for the National Capital: Federal Elements* is the primary tool used by NCPC to guide the planning of federal facilities in Washington, DC and the surrounding region. The Plan contains goals, objectives, and policies intended to guide growth and development in the National Capital Area. Of particular relevance to the proposed People's Garden landscape and perimeter security improvements are the Federal Workplace Element, the Federal Transportation Element, the Federal Parks and Open Space Element, the Federal Environment Element, the Preservation and Historic Features Element, and the Visitors Element.

Policies from the **Federal Workplace Element** that are relevant to the landscape and perimeter security improvements at the Whitten and South Buildings include the following:

- Plan federal workplaces to be compatible with the character of the surrounding properties and community and, where feasible, to advance local planning objectives such as neighborhood revitalization.
- Associate federal workplaces in urban areas to their urban context and appropriately scale them to promote pedestrian activity.
- Locate publicly accessible activities within federal workplaces on public streets and other pedestrian access levels, as well as within courtyards and on rooftops.
- Incorporate civic art, including memorials, plazas, public gardens, fountains, sculpture, and murals, into federal workplaces. Proposals for civic art should be coordinated with local agencies.
- Provide and maintain space for activities that encourage public access to and stimulate public pedestrian traffic around, into, and through federal facilities.
- Encourage the use of federal workplaces for occasional cultural, educational, and/or recreational activities, providing suitable space and equipment for such activities.
- Consult with local agencies to ensure that federal workplaces enhance the design qualities and vitality of their communities.
- Agencies requiring physical perimeter security improvements should design such improvements in accordance with guidance included in The National Capital Urban Design and Security Plan (and related policies).
- Coordinate the planning, design, and construction of building perimeter security for neighboring federal buildings that share frontage on a street.
- Incorporate security needs into the design of buildings, streetscapes, and landscapes using urban design principals in a manner that: enhances and beautifies the public realm, resulting in coherent and welcoming streetscapes; does not excessively restrict or impede operational use of sidewalks or pedestrian, handicap, or vehicular mobility; and does not impact the health of existing mature trees.
- Design projects in a manner that does not impede commerce and economic vitality, but balances the need for perimeter security with the need to enhance and maintain the vitality of urban areas.
- Design security barrier lines and elements that complement and enhance the character of the area in which they will be located and that respect the historic context of the area when applicable.
- Design security elements to respond to site-specific conditions, such as vehicle approach speed and angles, in order to minimize the size of security elements when possible.
- Design security barriers and checkpoints at vehicular entry points on federal installations to accommodate vehicular queuing on site and to avoid adverse effects on adjacent public roadway operations and safety.

The **Federal Transportation Element** identifies a policy relevant to the landscape and perimeter security improvements at the Whitten and South Buildings include the following:

- Within the Central Employment Area, the parking ratio should not exceed one space for every five employees.

Policies from the **Federal Park and Open Space Element** that are relevant to the landscape and perimeter security improvements at the Whitten and South Buildings include the following:

- Provide facilities and areas for events such as concerts, fairs, and displays throughout the National Capital Region, at appropriate locations where such activities will not damage significant existing resources, disturb commemorative settings, or adversely impact adjacent neighborhoods.
- Enhance the great cross-axes of the Mall, and protect them from inappropriate development.

Policies from the **Federal Environment Element** that are relevant to the landscape and perimeter security improvements at the Whitten and South Buildings include the following:

- Use pervious surfaces and retention ponds to reduce stormwater runoff and impacts on off-site water quality.
- Encourage the use of innovative and environmentally friendly "Best Management Practices" in site and building design and construction practice, such as green roofs, rain gardens, and permeable surface walkways, to reduce erosion and avoid pollution of surface waters.
- Encourage the natural recharge of groundwater and aquifers by limiting the creation of impervious surfaces, avoiding disturbance to wetlands and floodplains, and designing stormwater swales and collection basins on federal installations.
- Encourage the implementation of water reclamation programs at federal facilities for landscape irrigation purposes and other appropriate uses.
- Incorporate new trees and vegetation to moderate temperatures, minimize energy consumption, and mitigate stormwater runoff.
- Enhance the environmental quality of the national capital by replacing street trees where they have died or where they have been removed due to development.
- Encourage the use of native plant species, where appropriate.

Policies from the **Federal Preservation and Historic Features Element** that are relevant to the landscape and perimeter security improvements at the Whitten and South Buildings include the following:

- Protect and enhance the vistas and views, both natural and designed, that are an integral part of the national capital's image.
- Promote continuity in the historic design framework of the nation's capital by protecting and enhancing the elements, views, and principles of the L'Enfant Plan.
- Protect the settings of historic properties, including views to and from the sites where significant, as integral parts of the historic character of the property.
- Take into account the historic spatial significance of the L'Enfant rights-of way and reservations when designing and locating physical security measures along L'Enfant streets and reservations.

Policies from the **Federal Visitors Element** that are relevant to the landscape and perimeter security improvements at the Whitten and South Buildings include the following:

- Support publicly accessible federal visitor attractions on federal property throughout the region.
- Encourage exhibits and other educational activities and events in lobbies and public areas of government buildings to inspire and educate visitors about the role of government.
- Balance the needs of security with visitor accessibility by ensuring that federal visitor attractions in the National Capital Region provide for the safety of visitors while remaining accessible and aesthetically pleasing, following the recommendations in The National Capital Urban Design and Security Plan.

- Promote a pedestrian friendly monumental core and improved pedestrian access to neighborhoods and federal visitor attractions within the nation's capital through the development of sidewalks, streetscape enhancements, and ground level retail or other amenities.
- Continue to sponsor displays, special events, and arts, cultural, and recreational activities in, on, and around federal facilities in the monumental core, in other areas of the District, and throughout the region.

Comprehensive Plan for the National Capital: District Elements (2006)

The *Comprehensive Plan for the National Capital: District Elements* guide planning decisions for non-federal lands and facilities within the District of Columbia. The *District Elements* include thirteen elements that provide goals, objectives, and policies for development citywide, and ten area elements that relate to specific geographic areas of the city. Policies that are applicable to the site improvements at the Whitten and South Buildings come from the Environmental Protection, Historic Preservation, Urban Design, Transportation, and Central Washington Elements. These policies include the following:

Environmental Protection

- Policy E-1.1.1: Street Tree Planting and Maintenance – Plant and maintain street trees in all parts of the city, particularly in areas where existing tree cover has been reduced over the last 30 years. Recognize the importance of trees in providing shade, reducing energy costs, improving air and water quality, providing urban habitat, absorbing noise, and creating economic and aesthetic value in the District's neighborhoods.
- Policy E-3.1.1: Maximizing Permeable Surfaces – Encourage the use of permeable materials for parking lots, driveways, walkways, and other paved surfaces as a way to absorb stormwater and reduce urban runoff.
- Policy E-3.1.2: Using Landscaping and Green Roofs to Reduce Runoff – Promote an increase in tree planting and landscaping to reduce stormwater runoff, including the expanded use of green roofs in new construction and adaptive reuse, and the application of tree and landscaping standards for parking lots and other large paved surfaces.
- Policy E-3.3.1: Promotion of Community Gardens – Continue to encourage and support the development of community gardens on public and private land across the city.
- Policy E-3.3.5: Produce and Farmers Markets – Encourage the creation and maintenance of produce markets in all quadrants of the city to provide outlets for community gardens and healthful, locally grown produce for District residents.
- Policy E-4.2.3: Control of Urban Runoff – Continue to implement water pollution control and "best management practice" measures aimed at slowing urban runoff and reducing pollution, including the flow of sediment and nutrients into streams, rivers, and wetlands.

Historic Preservation

- Policy HP-2.3.4: Public Space Design in the L'Enfant Plan – Reinforce the historic importance and continuity of the streets as public thoroughfares through sensitive design of sidewalks and roadways. Avoid inappropriate traffic channelization, obtrusive signage and security features, and other physical intrusions that obscure the character of the historic street network. Work jointly with federal agencies to preserve the historic statuary and other civic embellishments of

the L'Enfant Plan parks, and where appropriate extend this tradition with new civic art and landscape enhancements of the public reservations.

- Policy HP-2.5.2: Historic Landscapes – Preserve the distinguishing qualities of the District's historic landscapes, both natural and designed. Protect public building and monument grounds, parks and parkway systems, government and institutional campuses, gardens, cemeteries, and other historic landscapes from deterioration and incompatible development.
- Policy HP-2.5.4: Landscaped Yards in Public Space – Preserve the continuous and open green quality of landscaped front and side yards in public space. Take special care at historic landmarks and in historic districts to protect this public environment from intrusions, whether from excess paving, vehicular access and parking, high walls and fencing, or undue disruption of the natural contours or bermed terraces.

Urban Design

- Policy UD-2.2.10: Surface Parking – Encourage the use of shade trees and landscaping or screening of surface parking areas. Parking should be designed so that it is not the dominant element of the street, and should be located behind development rather than in front of it
- Policy UD-3.1.2: Management of Sidewalk Space – Preserve the characteristically wide sidewalks of Washington's commercial districts. Sidewalk space should be managed in a way that promotes pedestrian safety, efficiency, comfort, and provides adequate space for tree boxes. Sidewalks should enhance the visual character of streets, with landscaping and buffer planting used to reduce the impacts of vehicle traffic.
- Policy UD-3.1.12: Programming of Outdoor Space – Encourage the programming of outdoor space with events and activities (such as performances, arts, and farmers markets) that stimulate streetlife and active use.
- Policy UD-3.2.3: Site Planning and Design Measures to Increase Security – Encourage architectural design and site planning methods that minimize perimeter security requirements and have a reduced impact on the public realm. Such measures include separating entryways, controlling access, "hardening" of shared walls, and the selection of more resilient building materials.
- Policy UD-3.2.4: Security Through Streetscape Design – Develop and apply attractive, context-sensitive security measures in the design of streets, plazas, and public spaces. These measures should use an appropriate mix of bollards, planters, landscaped walls, vegetation, and street furniture rather than barriers and other approaches that detract from aesthetic quality.

Central Washington Area Element

- Policy CW-2.7.1: Enhancing the Near Southwest – Work collaboratively with the National Capital Planning Commission to improve the aesthetic quality, identity, and pedestrian character of the Near Southwest. Plans for the area should identify streetscape and signage improvements, pedestrian circulation changes, measures to mitigate the scale of the area's monolithic buildings, and guidelines for new (or replacement) buildings within the area.

National Capital Urban Design and Security Plan (2002) and the Objectives and Polices Addendum (2005)

The *National Capital Urban Design and Security Plan* was adopted in 2002 and its goals are intended to balance the need for perimeter security with the need to protect public space by keeping it open, accessible, and attractive. The *Objectives and Policies Addendum* was adopted in 2005 to clarify the objectives and the implementation of the security measures policies set out in the 2002 plan, including contextual design, vehicular and pedestrian controls, and the placement and design of physical security elements. These policies apply to permanent and temporary physical perimeter security projects for existing buildings and new construction. These policies are used to guide federal agencies when evaluating, planning, and designing proposed perimeter security projects, as well as to review development plans for perimeter security projects in the National Capital Region.

The policies and objectives from the 2005 Addendum, which complement, clarify, and expand on the 2002 plan, include the following:

- Strike a balance between physical perimeter security for federal buildings and the vitality of the public realm.
- Encourage a multi-faceted approach to selection of appropriate security measures that considers intelligence information, operational and procedural measures (such as surveillance and screening), and design strategies (such as structural engineering, window glazing, emergency egress, and physical perimeter barriers).
- Intelligence information, operational controls, and physical design measures should be used to protect against vehicle-borne explosives.
- For existing buildings in urban areas, perimeter security barriers should be located within the building yard when the face of the sensitive building to the outside edge of the building yard is a minimum of 20 feet. If the distance from the face of the building to the outside edge of the building yard is less than 20 feet, then perimeter security barriers may be permitted in public space adjacent to the building.
- The placement of physical security barriers in public space is discouraged and should be minimized.
- Existing streetscape, landscape or building site features should be hardened or perimeter security should be integrated into the topography of the site to provide physical perimeter security where feasible. If this is not achievable, then security barriers should be integrated into the urban landscape in a manner that minimizes their visual impact and physical infringement into public space.
- When physical perimeter security elements are located at the edge of the building yard, designs should accommodate visual and physical public access to the building lawn and designated entries.
- The location of perimeter security barriers should minimize interruption of pedestrian circulation. Barriers should not unduly cross sidewalks perpendicularly, causing pedestrians to maneuver between them.
- Perimeter security barriers at intersections, corners and near crosswalks or other highly used pedestrian areas should be minimized; barriers that are needed should be located to allow safe pedestrian waiting areas and pedestrian movement.

- The design of security barriers, including their mass, form and materials should respond to the architectural and landscape context in which they are located and complement and aesthetically enhance the special character of the associated building and precinct.
- Physical perimeter security barriers within the building yard should be incorporated into the landscape design and include low walls, fences, seating, landscaping, and other public amenities typically found within the landscape. The design of these barriers should be architecturally compatible with adjacent buildings and respect the overall character of the streetscape.
- Perimeter security barriers in public space should incorporate decorative tree wells, planters, light poles, signage, benches, parking meters, trash receptacles and other elements and public amenities typically found in a streetscape.
- Guard booths should be integrated into, and designed in context with, the site and building design. When feasible, guard booths should be located in the building yard; where the depth of the building yard is insufficient, the guard booth should be located to minimize interruption of pedestrian movement along the pathway.
- Vehicular controls at building entries, such as vehicle barriers and guard booths should be located so that pedestrian movement along sidewalks is not blocked. Check points should be designed to allow off-street queuing space that does not block pedestrian movement or traffic flow.
- The Capital's monumental avenues, such as Pennsylvania, Constitution, Independence, Maryland, Virginia and New Jersey Avenues should receive special treatment to ensure that security projects are addressed comprehensively, emphasizing the streetscape as a whole with attention to their axiality and formality.

Monumental Core Framework Plan

The Monumental Core Framework Plan (Framework Plan) is a planning document prepared jointly by NCPC and CFA aimed at easing demand for construction on the National Mall while creating lively urban spaces throughout the city. Adopted by NCPC in 2009, the Framework Plan provides a guide to create new destinations for cultural attractions throughout the city and improve connections among them. The Framework Plan's primary goals include: protect the National Mall from overuse; create distinctive settings for cultural facilities and commemorative works; improve connections between the National Mall, the city, and the waterfront; and, transform the monumental core into a vibrant and sustainable place to visit, work, and live.

The Framework Plan includes specific recommendations for four precincts, or focus areas, surrounding the National Mall. The Whitten and South Buildings are located in the Southwest Rectangle focus area. The Framework Plan calls for the Southwest Rectangle to become a lively and sustainable urban center that connects the downtown core with the National Mall and the Potomac riverfront. It proposes maintaining the Southwest Rectangle as a major federal workplace while integrating additional uses to improve the livability of the precinct. The Framework Plan also identifies the Whitten Building as a potential site for reuse as a cultural institution along the Mall. Key goals identified by the Framework Plan for the Southwest Rectangle include: redeveloping 10th Street as a vibrant mixed-use corridor between the Mall and the waterfront; reestablishing Maryland Avenue as a grand boulevard between the U.S. Capitol and the Jefferson Memorial; and improving connections throughout the precinct by restoring the street grid.

Smithsonian Institution Mall-Wide Perimeter Security Improvements Plan

The Smithsonian Institution developed a plan, *Mall-Wide Perimeter Security Improvements Plan* (2004), for providing upgraded, permanent perimeter security around 10 of its buildings located on the National Mall in order to neutralize the threat of explosive-laden vehicles by providing an adequate defended standoff between the security line and the building face. The plan proposed two approaches to perimeter security treatments. The first approach is the unified approach, which is proposed for the sides of buildings located along Constitution and Independence Avenues in order to respect the avenues monumentality, character, and role within the L'Enfant Plan. The second approach is the contextual approach which is proposed for the sides of the buildings located along Madison and Jefferson Drives and the numbered streets, including 14th and 12th Streets. This approach responds to the fact that each museum has a different configuration and would need site-specific security features to provide adequate protection. Perimeter security is accomplished by using a variety of landscape solutions and vehicular access controls. The ultimate goal is to blend these features into the building fabric and site design to the greatest extent possible.

The Whitten Building is not included in the plan; however, it is directly adjacent to and shares frontage on Jefferson Drive and Independence Avenue with Smithsonian facilities to the east, as well as across the Mall to the north. Therefore, the plan's guidelines are pertinent to perimeter security plans at the Whitten Building.

NPS Organic Act

Through the NPS Organic Act of 1916 (Organic Act), Congress has directed the U.S. Department of Interior and NPS to manage units "to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations" (16 USC 1). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that NPS must conduct its actions in a manner that will ensure no "derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress" (16 USC 1a-1). Despite these mandates, the Organic Act and its amendments afford the NPS latitude when making resource decisions that balance resource preservation and visitor recreation.

Because conservation is an important function of the agency, NPS seeks to avoid or to minimize adverse impacts on park resources and values. NPS has discretion to allow impacts on park resources and values when necessary and appropriate to fulfill the purposes of a park (NPS, 2006 sec. 1.4.3). While some actions and activities cause impacts, NPS cannot allow an adverse impact that would constitute impairment of the affected resources and values (NPS, 2006 sec. 1.4.3). The Organic Act prohibits actions that permanently impair park resources unless a law directly and specifically allows for the acts (16 USC 1a-1). An action constitutes an impairment when its impacts "harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values" (NPS, 2006 sec. 1.4.5). To determine impairment, NPS must evaluate "the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts" (NPS, 2006 sec. 1.4.5).

Park units vary based on their enabling legislation, natural resources, cultural resources, and missions; management activities appropriate for each unit and for areas within each unit vary as well. An action appropriate in one unit could impair resources in another unit.

National Parks Omnibus Management Act

The National Parks Omnibus Management Act (16 USC 5901 et seq.) underscores NEPA and is fundamental to NPS park management decisions. It provides direction for articulating and connecting resource management decisions to the analysis of impacts, using appropriate technical and scientific information. Both the National Parks Omnibus Management Act and NEPA also recognize that such data may not be readily available and provide options for resource impact analysis should this be the case.

The National Parks Omnibus Management Act directs the NPS to obtain scientific and technical information for analysis. The NPS handbook for Director's Order 12 states that if "such information cannot be obtained due to excessive cost or technical impossibility, the proposed alternative for decision will be modified to eliminate the action causing the unknown or uncertain impact or other alternatives will be selected" (Management Policies, 2006; NPS, 2006 sec 4.4).

Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making

Director's Order 12 and its accompanying handbook outlines policies and procedures by which NPS carries out NEPA and the NPS Organic Act. This order provides specific guidance on analysis standards required by legislation, and describes the roles and responsibilities for decision makers within NPS. It encourages the use of interdisciplinary approaches to decision making, establishment of benchmarks demonstrating best management practices, use of alternative dispute resolution, peer review panels, and analysis of impairment to resources as part of the environmental impact analysis process.

Director's Order 28: Cultural Resource Management

Director's Order 28 calls for NPS to protect and manage cultural resources in its custody through effective research, planning, and stewardship and in accordance with the policies and principles contained in the NPS Management Policies (NPS, 2006). This order also directs NPS to comply with the substantive and procedural requirements described in the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation*, the Secretary of the Interior's Standards for the *Treatment of Historic Properties with Guidelines for Treatment of Cultural Landscapes*, and the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*.

National Mall Plan

The NPS *National Mall Plan*, completed in 2010, is the primary management document for the National Mall. It provides various use classifications and restrictions in conjunction with a variety of proposed physical and programmatic improvements. The main focus of the *National Mall Plan* is to protect the cultural resources located on the Mall, continue to allow citizens the ability to express their First Amendment rights, and enhance the experience of visitors to the Mall.

The plan defines the National Mall as the area stretching from Union Square (in front of the U.S. Capitol Building) to the Lincoln Memorial and associated grounds and from Constitution Avenue to the Jefferson Memorial and associated grounds. East of 15th Street, the area narrows to the space located between Constitution Avenue and Independence Avenue.

The overarching goal of the preferred alternative in the *National Mall Plan* is to "establish a sense of place and an overall identity for the National Mall" (NPS 2010). In order to accomplish this, the plan proposes four conservation zones that provide a range of allowable uses and activities to best improve

site functionality and visitor experience. The four conservation zoning areas are: Memorial Area, Character Protection Area, Multipurpose Area, and High Use Area. Each of these zones is located in the vicinity of the Whitten Building, except for the Memorial Area.

- **Memorial Areas** are zoned to be the most restrictive areas, allowing visitors to fully appreciate the memorials located on the Mall in a pedestrian-only space, providing a tranquil and contemplative atmosphere for visitors.
- **Character Protection Areas** are zoned to serve as a buffer between the memorials and higher-intensity zones. In addition to providing a spatial buffer, the Character Protection Areas protect important views and vistas by restricting the allowable uses.
- **Multipurpose Areas** are zoned as small, targeted areas located adjacent to the Memorial Areas, where the land forms or other natural features do not allow for high-intensity use or partially obscure views and vistas of important cultural resources. These areas present opportunities for signage, pedestrian and vehicular access, programs and activities, events and recreation.
- **High-Use Areas** include the large tracts of land that are able to accommodate large, well-attended activities that include First Amendment demonstrations, national celebrations, and other special events. Additionally, these areas can accommodate active recreation, such as organized and impromptu athletics, and sightseeing.

Directly to the north of the Whitten Building, the Mall is classified as a Character Protection Area in the outer Mall panels and a High-Use Area in the central Mall panels. The area to the west of the Whitten Building on the Washington Monument grounds is also classified as a Character Protection Area. A Multipurpose area is located at the northern corner of the intersection of 12th Street and Jefferson Drive.

The Whitten Building is included within the *National Mall Plan* planning area; however it is located south of the Mall and no specific improvements or use classifications are proposed for the site in the plan. Several improvements are proposed around the perimeter of the Whitten Building and within its vicinity. These include crosswalk improvements at all four corners of the building and at its central entrance on Jefferson Drive, pedestrian improvements along 14th Street, and a multi-purpose information/orientation and restroom facility on the Mall at Jefferson Drive and 12th Street.

District of Columbia Bicycle Master Plan

The District of Columbia's Bicycle Master Plan establishes recommendations for bicycle facilities within Washington, DC. The plan includes several recommendations that address the area surrounding the Whitten and South Buildings:

- Recommendation 1.8 – Upgrade and extend key existing trails.
    - Establish and upgrade two shared use path routes traversing the National Mall from the Theodore Roosevelt and Memorial Bridges to the Capitol Grounds, one serving the north side Mall destinations and one serving south side destinations.
- Recommendation 1.10 – Facilitate and support development of regional and national trail routes through the District of Columbia.
    - Two East Coast Greenway routes through the District, including one through the National Mall.
- Recommendation 1.11 – Establish bicycling as a preferred mode of transportation in the National Mall area.

DDOT Manual for Design and Engineering

The District of Columbia Department of Transportation (DDOT) Manual for Design and Engineering describes DDOT's project development policies and standards. The manual establishes standards that are relevant to the detailed design of the proposed project, including: guidance on sidewalk widths under differing conditions, guidance on the size and spacing of street trees, tree box and street lighting standards, and roadway and driveway standards.

Tree Removal Permit

The Urban Forestry Administration, a division of DDOT, requires permits for the removal of street trees. In addition, the Urban Forest Preservation Act of 2002 established an urban forest preservation program requiring a Special Tree Removal Permit for the removal of a tree with a circumference of 55 inches or more (equivalent to 17.51 inches in diameter). The Special Tree Removal Permit requires the replacement of lost trees (based on caliper), either on the site or in a comparable area and/or payment of a fee to the Urban Forestry Administration's Tree Fund.

Energy Independence and Security Act of 2007

The stated purpose of the Energy Independence and Security Act of 2007 (EISA) is "to move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas capture and storage options, and to improve the energy performance of the Federal Government, and for other purposes." Under Section 438 of EISA, federal agencies are required to reduce stormwater runoff from federal development and redevelopment projects to predevelopment levels in order to protect water resources.

Executive Order 13508: Chesapeake Bay Protection and Restoration

Executive Order 13508, signed in 2009, calls on the federal government to lead the effort to restore the health of the Chesapeake Bay. The executive order's goal is to protect and restore the health, heritage, natural resources, and social and economic value of the Nation's largest estuarine ecosystem and the natural sustainability of its watershed. Restoring the health of the Chesapeake Bay will require controlling pollution from all sources as well as protecting and restoring habitat and living resources, conserving lands, and improving management of natural resources, all of which contribute to improved water quality and ecosystem health. The pollutants largely responsible for pollution of the Chesapeake Bay are nutrients from a variety of sources, such as sewage treatment plants, city streets, development sites, agricultural operations, and deposition from the air onto the waters of the Chesapeake Bay and the lands of the watershed. The following goal is relevant to the People's Garden site improvements:

- Strengthen storm water management practices at Federal facilities and on Federal lands within the Chesapeake Bay watershed.

Executive Order 13514: Federal Leadership in Environmental, Energy, and Economic Performance

This 2009 executive order sets sustainability goals for federal agencies and focuses on making improvements in their environmental, energy, and economic performance. The order expands on the energy reduction and environmental performance requirements identified in Executive Order 13423, *Strengthening Federal Environmental, Energy and Transportation Management*, the Energy Independence and Security Act and the Energy Policy Act of 2005. It requires federal agencies to set a

2020 greenhouse gas emissions reduction target; increase energy efficiency; reduce fleet petroleum consumption; conserve water; reduce waste; support sustainable communities; and leverage federal purchasing power to promote environmentally responsible products and technologies. Goals that are particularly relevant to the site improvements at the Whitten and South Buildings include:

- Improve water use efficiency and management by:
    - Reducing agency industrial, landscaping and agricultural water consumption by 2% annually;
    - Identifying, promoting, and implementing water reuse strategies that reduce potable water consumption;
    - Implementing and achieving the objectives identified in the stormwater management guidance referenced in section 14 of this order (guidance on the implementation of Section 438 of the Energy Independence and Security Act of 2007);
- Minimize the generation of waste and pollutants through source reduction.
- Pursue cost-effective, innovative strategies, such as highly reflective and vegetated roofs, to minimize consumption of energy, water, and materials.

3.2.3 Community Facilities

Recreational Facilities

The National Mall stretches west from the U.S. Capitol to the Potomac River, and north from the Thomas Jefferson Memorial to Constitution Avenue. The National Park Service uses the term National Mall to encompass three specific areas: (1) the Mall, which includes Union Square, just to the west of the U.S. Capitol grounds, to 14th Street at the east edge of the Washington Monument grounds; (2) The Washington Monument and its grounds; and (3) West Potomac Park, which lies west of 17th Street and extends to the Potomac River on the west and south and generally to Constitution Avenue on the north.

The National Mall serves as one of the primary recreational spaces in Washington, DC. It is used by residents and visitors year-round for both active and passive recreation. Common activities on the National Mall include soccer, volleyball, football, softball, Frisbee, kite-flying, picnicking, walking, jogging, and cycling.

Cultural Facilities

There are two visitors' centers in the vicinity of the project site; the USDA's Visitor Information Center in the Whitten Building and the USDA Forest Service National Headquarters Information Center, located on the first floor of the Yates Building. There are also ten Smithsonian museums or galleries located on the Mall. These include the National Museum of American History, the National Museum of Natural History, the Freer Gallery of Art, the S. Dillon Ripley Center, the Sackler Gallery, the National Museum of African Art, the Arts and Industries Building (currently undergoing renovations), the Hirshhorn Museum and Sculpture Garden, the National Air and Space Museum, and the National Museum of the American Indian; the National Museum of African American History and Culture is currently under construction and anticipated to open in 2015. The Smithsonian Castle Visitor Information Center is located on the Mall near the Freer Gallery of Art and the Arts and Industries Building. The East and West Building of the National Gallery of Art are located at the east end of the Mall. The National Archives is located just north of the National Sculpture Garden on the Mall, and the Holocaust Memorial Museum is located directly south of the Yates Building.

There are also numerous monuments and memorials along the Mall and within the larger monumental core. Among these are well known memorials such as the Washington Monument northwest of the project site and the Jefferson Memorial southwest of the project site. These and the many other memorials within the monumental core are popular year-round visitor destinations.

Other Facilities

There are several educational facilities within and in the vicinity of the project site. Dedicated to continuing education, Graduate School USA, formerly known as the USDA Graduate School, holds classes in the Capital Gallery Building at 600 Maryland Avenue, SW. The Smithsonian facilities also fulfill an educational function. The S. Dillon Ripley Center, east of the Whitten Building, houses the Smithsonian Associates program and several classrooms and lecture spaces. There are no religious facilities in the area immediately surrounding the project site.

3.2.4 Visitation

There are two USDA visitor's centers in the vicinity of the project site. The USDA's Visitor Information Center, located on the first floor of the Whitten Building, receives approximately 8,000 visitors annually. This facility offers visitors the opportunity to learn general information on the mission of the USDA and the work that the USDA undertakes. Operating hours are from 9:00 to 3:00 p.m., Monday through Friday. The cafeteria in the South Building is open to the public and is utilized by a number of school groups when visiting the area. The USDA Forest Service National Headquarters Information Center, located on the first floor of the Yates Building, which currently houses the USDA Forest Service, receives approximately 32,000 visitors annually. This facility, which is currently closed for renovation, provides interpretation for the history and mission of the USDA Forest Service.

Outside, visitors to the USDA facilities can explore the existing grounds of the Whitten Building, including property under NPS jurisdiction. The People's Garden allows visitors to experience food gardens in an urban environment, while the outdoor seasonal farmers market offers visitors access to produce.

Washington, DC receives approximately 16 million visitors each year, and approximately 1.4 million of those visitors are international visitors. In 2010 and 2011, visitation was over 17 million. The National Park Service memorials and the Smithsonian museums around the Mall are popular visitor destinations. National Park Service locations on the Mall recorded 20.8 million visits and National Park Service locations throughout Washington, DC recorded 40 million visits. The Smithsonian locations on the Mall recorded 23.5 million visits. These visitation numbers include local and out-of-town visitors, and indicate the number of visits to a site rather than the total number of people visiting the area (Destination DC 2012).

3.3 Public Space

3.3.1 Existing Public Space

According to District of Columbia Department of Transportation (DDOT), public space is defined as all the publicly owned property between the property lines on a street and includes, but is not limited to, the roadway, tree spaces, sidewalks, and alleys. DDOT maintains the roadways in the vicinity of the USDA Complex and the sidewalks surrounding the South Building, while the USDA maintains the Whitten Building sidewalks and yard. The exception to this is the Jefferson Drive roadway, which is maintained by the National Park Service (NPS).

On Independence Avenue, the public realm of the South Building includes the sidewalk and tree boxes. Along the South Building, the window wells, or moats, are sub-surface projections that are also considered part of the public realm. The public realm along 12th Street at the South Building includes a Capital Bikeshare Station. The C Street public realm contains the roadway (including a layby, or paved area adjacent to the roadway for temporary vehicular stoppage), a sidewalk of varying widths to accommodate the layby, and planters. Guard stations and bollards at the vehicular entrances to the South Building are also located in public space.

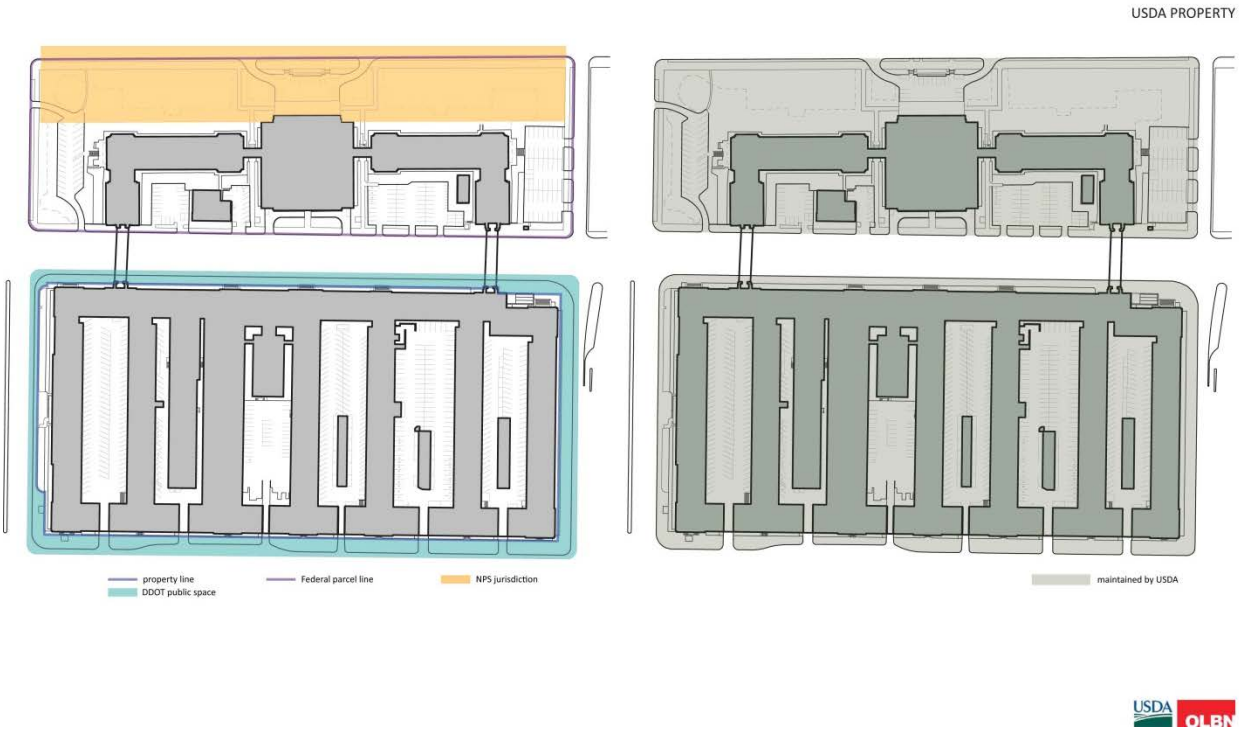

Figure 3-1: Site ownership and jurisidiction
Source: OLBN

3.3.2 Public Space Plans and Policies

The District of Columbia Department of Transportation, Public Space Management

DDOT has management and oversight responsibility for the use and occupancy of the public space. In December 2003, DDOT issued Departmental Order 301.03 as a guiding policy for evaluating security requests in public space. The policy states the following:

- Requests to install perimeter barriers shall be consistent with the policies established in the *National Capital Urban Design and Security Plan,* issued by NCPC in October 2002.
- DDOT encourages security perimeters to be established within privately owned space or federal public space adjacent to buildings (i.e. not on sidewalks, curbs, gutters, streets, or public alleys).
- Security measures installed to protect buildings shall require a Public Space Permit from the Government of the District of Columbia.
- Perimeter barriers shall be no closer than two (2) feet from the curb line and shall not impede pedestrian traffic flow from the curb line to the sidewalk, and shall not present unreasonable barriers to pedestrians traveling within the sidewalk.

District of Columbia Public Realm Design Manual

The District of Columbia Public Realm Manual was created to summarize the regulations and specifications, as well as the rationale, for public space elements within Washington. In this design manual, the public realm refers to important features of the city's public right-of-way, including roadways, sidewalks, planting areas, building projections, and other open spaces that comprise the characteristics of the urban environment. The manual seeks to document the appropriate use of public space, including how it should look in terms of material and components, and to define standard guidance for enhancing the public realm within the city. Specific topics addressed within the manual include pavement options, landscaping and street trees, pedestrian amenities, and retaining walls.

3.4 Historic and Cultural Resources

This section describes the cultural resources present at the project site and in the surrounding area. This information is derived from historic structures reports, National Register nominations, National Historic Landmarks documentation, the District of Columbia Inventory of Historic Sites, determinations of eligibility (DOE) for properties within the area of potential effect (APE), historic maps, and site reconnaissance and observation.

The National Historic Preservation Act (NHPA) of 1966, as amended, is the guiding legislation for the preservation of historic properties. As broadly defined by 36 CFR 800, 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." Section 106 of the NHPA requires that federal agencies take into account the effects of their actions on properties listed, or eligible for listing, in the National Register of Historic Places (National Register).

As the lead agency, USDA has entered into Section 106 consultation on behalf of GSA with the District of Columbia State Historic Preservation Officer (DC SHPO) and other interested agencies and individuals. The Section 106 consultation process works to identify historic properties that could be affected, to assess potential adverse effects, and to resolve the adverse effects through mutually agreed upon avoidance, minimization, or mitigation measures. To begin this process, a determination of the area within which historic properties will be affected or are likely to be affected was developed and was refined through several iterations in consultation with consulting parties. The area of potential effects (APE) as defined by 36 CFR 800.16(d) represents "the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist."

The APE for historic resources is shown below in Figure 3-2 and is bounded to the north by Constitution Avenue, to the east by 4th Street, to the south by Maryland Avenue and D Street, and to the west by the Tidal Basin and 17th Street.

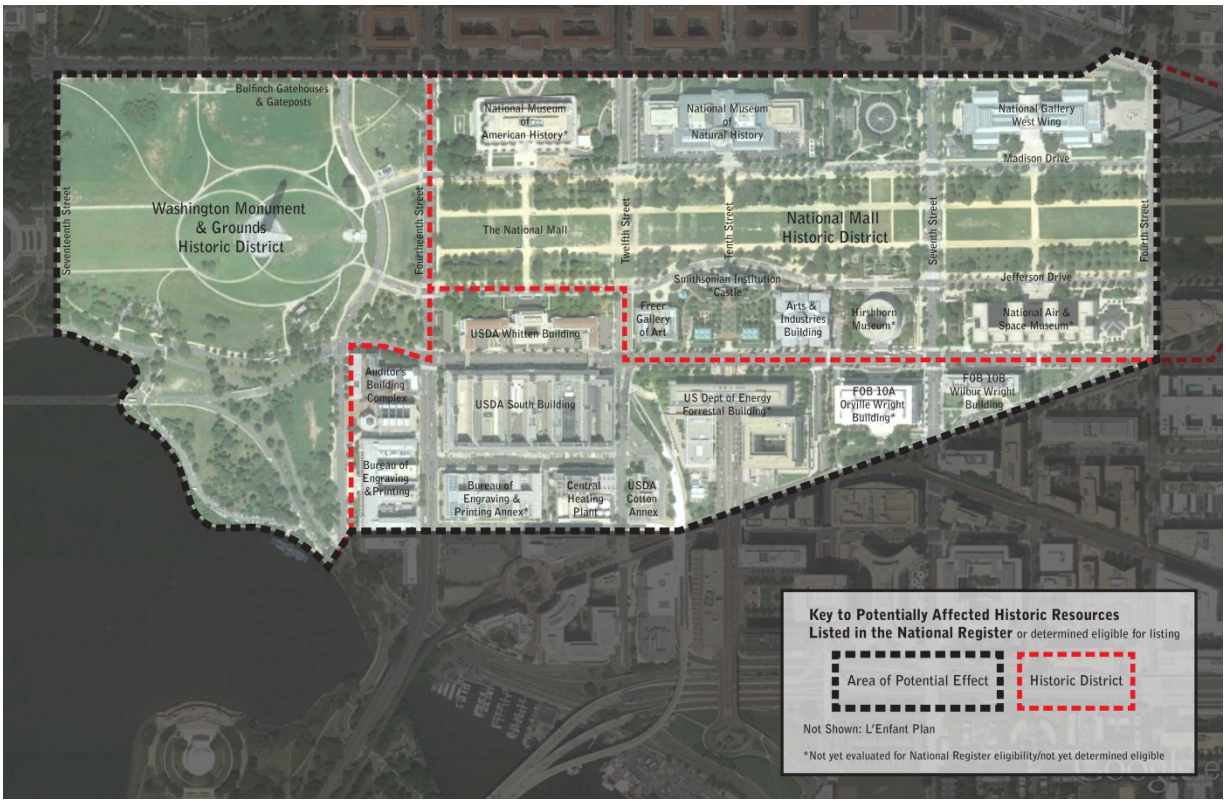

Figure 3-2 Area of Potential Effects (APE)
Source: EHT Traceries, Inc.

3.4.1 Historic Resources

US Department of Agriculture Administration Building (Whitten Building)

Date: 1904-1908, 1928-1930, 1936
Architect: Rankin, Kellogg, and Crane
Designation: DC Inventory of Historic Sites, 1964; National Register, 1974

The Department of Agriculture Building was the first of the large, Neoclassical departmental headquarters in Washington, D.C. and was designed by the Philadelphia architectural firm of Rankin, Kellogg and Crane. It was one of the first government buildings to employ reinforced concrete. The Beaux-Arts, white marble building features two L-shaped wings with four pedimented ionic porticoes. The wings were constructed as laboratory space for the USDA. The pediments feature sculptures by Adolph Weinman representing symbols of agriculture, including fruit, flower, cereal, and forestry. The central projecting portion of the building was constructed in 1928-1930 to house the administrative functions of the USDA. Two elevated bridges were constructed in 1936 to connect the wings of the Whitten Building to the South Building over Independence Avenue. The US Department of Agriculture's prominent location conveys the importance of the department at the turn of the 20th century.

A Draft Determination of Eligibility has been written for the Whitten Building landscape in order to assess the eligibility of the landscape surrounding the Whitten Building for inclusion in the National Register of Historic Places. The landscape was not found to be individually eligible for National Register listing. However, it does provide crucial context for the development of the Whitten Building site, and its history reinforces the established National Register criteria under which the building is listed. The

Whitten Building site is significant as a partially intact example of a landscape designed by the Olmsted Brothers, a preeminent landscape architecture firm whose senior partner, Frederick Law Olmsted, Jr., was closely involved with the creation and implementation of the McMillan Plan. The Whitten Building and its surrounding landscape were among the first to be designed and constructed according to the tenets of the plan. As such, they were an important model for future buildings in the city's monumental core. It is also significant for its representation of the physical evolution of the Department of Agriculture headquarters, which traces its history on the Mall to the 1850s. Despite change over time, the landscape has retained sufficient integrity to convey its historic significance. Therefore, the DOE recommended that the existing National Register nomination should be revised to expand this historic context and include the landscape as a contributing element. The Draft Determination of Eligibility is currently being reviewed by the DC SHPO.

Figure 3-3: Whitten Building Southern Exterior
Source: Library of Congress, Prints and Photographs Division

Figure 3-4: Whitten Building Northern Exterior, circa 1920-1950
Source: Library of Congress, Prints and Photographs Division

US Department of Agriculture South Building

Date: 1930-1936
Architect: Louis Simon
Designation: DC Inventory of Historic Sites, 2007; National Register, 2007

The Department of Agriculture South Building was designed by Louis Simon, Chief of the Architectural Division of the Office of the Supervising Architect of the Treasury. The government constructed the building in phases between 1930 and 1936 to consolidate the functions of the department, and provide necessary laboratory and office space. The South Building, located across the street from the department's Administration Building, is an excellent example of minimalist Classical style architecture typical during the Works Progress Administration era. However, the varied use of materials, including variegated brick, limestone, glazed terra cotta, and cast iron, set the building apart from other government projects from the same period.

Originally called the Extensible Building, it is a two-block long, five-story structure, marked by seven wings and six internal courtyards. With its 4,500 rooms and seven miles of corridors, it was the largest office building in the world when it was constructed in 1936. The style of the building is "Stripped Classical," popular for government construction during the 1930s. A combination of matte gray, cream, and buff bricks is employed on the main body of the building to achieve a variegated effect, while granite elements and terra cotta panels serve as simple decorative accents.

Figure 3-5: South Building façade, from Independence Avenue, SW
Source: AECOM

Figure 3-6: Whitten and South Buildings, with the Yates Building in the foreground, view from the Washington Monument, 1938
Source: Records of the Secretary of the Department of Agriculture, National Archives

National Mall Historic District

Date: Planned 1791, 1901
Architect: Designed by Pierre L'Enfant (1791)
Designation: DC Inventory of Historic Sites, 1964; National Register, 1966

L'Enfant designed the National Mall to serve as the central axis of Washington's monumental core. The plan called for the Mall to be a four-hundred foot wide, mile long, "grand avenue" from the Capitol to a point directly south of the President's house. The site was to be lined with landscaped areas and gardens. The 1901 McMillan Commission restored and supplemented the L'Enfant Plan primarily by removing obtrusive elements and bordering the Mall with public buildings.

The Mall extends from the Capitol Grounds and 3rd Street on the east, to 14th Street and the Washington Monument Grounds on the west, and from Constitution Avenue on the north to Independence Avenue on the south, as defined by the National Park Service. The National Register nomination identifies "Landscape Architecture" as the Area of Significance, an acknowledgement of the formal rows, or allées, of mature elm trees that help define the open space at the center of the Mall.

Figure 3-7: Aerial view showing the Mall and the Washington Monument Grounds
Source: AECOM

The Plan of the City of Washington (L'Enfant Plan or L'Enfant-McMillan Plan)

Date: 1791, 1901
Architect: Pierre L'Enfant, McMillan Commission
Designation: DC Inventory of Historic Sites, 1964 (major elements, 1971; expanded, 1997); National Register, 1997

In 1791, George Washington announced the square ten mile tract forming the nation's new capital as the District of Columbia. Major Pierre L'Enfant, a French artist and engineer, developed the new city's "Baroque plan that feature[d] ceremonial spaces and grand radial avenues…resulting in a system of intersecting diagonal avenues superimposed over a grid system." The L'Enfant Plan is the sole American example of a comprehensive Baroque city plan. It defined the physical and symbolic character of the nation's capital through its arrangement of buildings, structures, and views. At the turn of the century, the McMillan Commission expanded L'Enfant's Plan to create the most elegant example of the "City Beautiful" tenets in the nation. The McMillan Commission, including Daniel Burnham, Frederick Law Olmsted, Jr., and Charles McKim, improved the urban environment, restored and reestablished L'Enfant's plan for the monumental core of the Capital and Mall, and created a comprehensive park system.

The National Park Service has prepared a National Historic Landmark nomination for the L'Enfant Plan. This nomination also recognizes components of the McMillan Plan that contribute to the plan of the historic city of Washington, D.C. The nomination identifies historic streets, reservations and appropriations, and historic vistas. Independence Avenue is recognized as a contributing Major Street, and the Mall is recognized as a contributing element because it was part of Original Appropriation No.2. Jefferson Drive, C Street, SW, 12th Street, SW, and 14th Street, SW are listed as contributing elements.

Figure 3-8: L'Enfant Plan for the City of Washington, 1791
Source: NCPC

Washington Monument Grounds

Date: Built 1848-88
Architect: Robert Mills (Lt. Col. Thomas L. Casey redesigned with assistance from George Perkins Marsh.)
Designation: DC Inventory of Historic Sites, 1964; National Register, 1966

While often considered part of the Mall, the Washington Monument Grounds are a separate reservation. The equestrian statue envisioned by L'Enfant as the western terminus of the great axis from the Capitol was never built; instead, the obelisk designed by Robert Mills was constructed over an extended period from 1848 to 1884. The McMillan Commission's plans for a formal, geometric garden to improve the grounds were never implemented (See Figure 3-7).

Bulfinch Gatehouses and Gateposts

Date: Built after 1814, removed in 1874, relocated 1880
Architect: Charles Bulfinch
Designation: DC Inventory of Historic Places, 1964; National Register, 1973

The former gate structures of the Capitol, built after 1814 at the foot of the west Capitol grounds, were part of the reconstruction of the Capitol after the War of 1812. They are generally attributed to Charles Bulfinch, the architect in charge of the restoration. The gatehouses and posts were removed in 1874 and reconstructed at their present locations in 1880; they were restored in 1940. They are located on Constitution Avenue at 7th, 15th, and 17th Streets, NW. The two one-room gatehouses of rusticated Aquia sandstone were designed to harmonize with the building's basement story. Their classical facades are in the style of Roman Triumphal arches with Doric columns, arched doorways, a guilloche frieze, and heavily foliated scroll of acanthus leaves and rosettes. The four rusticated gateposts are similar, topped with acanthus motifs and volutes.

Figure 3-9: Bulfinch Gates
Source: AECOM

Smithsonian Building

Date: 1847-1855, 1865
Architect: James Renwick (alterations by Adolph Cluss)
Designation: DC Inventory of Historic Sites, 1964; National Historic Landmark 1965; National Register, 1966

The Smithsonian Institution Building, often referred to as "the Castle," was designed by James Renwick and is located on Jefferson Drive between 9th & 12th Streets. It is a premier example of Norman Revival architecture, a blend of late Romanesque and early Gothic styles, in the United States. Constructed of red sandstone, the building's towers, buttresses, and crenellations epitomize the Romantic architectural movement. Originally, the building housed all of the institution's operations, including the administrative offices, research rooms, laboratories, libraries, and even living quarters for the Smithsonian's Secretary. James Renwick's other buildings include St. Patrick's Cathedral and Grace Church, both located in New York.

Figure 3-10: Smithsonian Building
Source: AECOM

Arts and Industries Building, Smithsonian Institution (National Museum)

Date: 1879-1881
Architect: Cluss and Schulze
Designation: DC Inventory of Historic Sites, 1964; NHL and National Register, 1971

The Arts and Industries Building, located at 900 Jefferson Drive, SW, was originally known as the National Museum and was constructed to house the international exhibits from the Philadelphia Centennial Exhibition (1876). The building is the premier example of 19th Century exposition or "world's fair" architecture in America as it reflects the three principle design requirements of the architectural type: 1) enclosing and covering a large area; 2) tasteful, dramatic, and pleasing environment; and 3) inexpensive construction. Due to the temporary nature of exposition architecture, few of the buildings have survived. However, the Arts and Industries building remained intact because it functioned as a permanent addition to the Smithsonian building only 50 feet away. The Arts and Industries Building is currently undergoing renovations.

Figure 3-11: Arts and Industries Building
Source: Library of Congress, Prints and Photographs Division

Freer Gallery of Art, Smithsonian Institution

Date: 1923
Architect: Charles Adam Platt
Designation: DC Inventory of Historic Sites, 1964; National Register, 1969

The Freer Gallery of Art, located on the Smithsonian grounds at 12th Street and Jefferson Drive, SW, was located in accordance with the McMillan Commission's Plan to restore L'Enfant's original vision for the Mall. Charles Platt designed the building around an open courtyard, referencing a Florentine Renaissance palazzo. The gallery was built to house Charles Freer's donated collection of American and Oriental art.

Figure 3-12: Freer Gallery of Art
Source: AECOM

Auditor's Building Complex (Yates Building)

Date: 1880, 1895, 1900, 1906
Architect: James Hill (Auditors' Building); James Knox Taylor (Annex #3)
Designation: DC Inventory of Historic Sites designation, 1978; National Register, 1978

Prior to the 1880s, the Treasury Department engraved, printed, and processed securities in the Treasury Building itself. However, a lack of space led to the construction of the Auditor's Building at 14th Street and Independence Avenue, SW. The red brick Romanesque building was the first example of industrial construction in Washington, D.C. to display a high degree of architectural expression. The Auditor's Building continued to expand with multiple extensions and the construction of auxiliary buildings. The first two annex buildings, located to the south, were demolished for the Holocaust Museum in the 1980s. However, Annex #3, located to the west and the most architecturally distinguished of the auxiliary buildings, remains intact. The Classical Revival brick building was constructed in 1905 to accommodate the printing presses. Today, the Auditor's Building is known as the Yates Building. It houses the USDA Forest Service Headquarters, is owned by GSA, and is currently undergoing renovations.

Figure 3-13: Auditor's Building (Yates Building)
Source: Library of Congress, Prints and Photographs Division

Central Heating Plant

Date: 1933-1934
Architect: Paul Phillip Cret
Designation: DC Inventory of Historic Sites, 1975, augmented 2007; National Register, 2007

The Central Heating Plant's Art Deco style is representative of industrial design in the 1930s. It is located at 325 13th Street, SW. Architect Paul Philip Cret successfully incorporated the heating plant with the surrounding monumental buildings. After its completion, the monolithic steel and masonry building served as the main heating plant for 22 Federal buildings within Washington, D.C., burning 230 tons of coal a day. In 1957, the refrigeration unit to the east of the main plant was constructed. Today, the facility is owned by GSA and continues to heat federal government buildings.

Figure 3-14: Central Heating Plant
Source: AECOM

Cotton Annex (to USDA South Building)

Date: 1937
Architect: Louis A. Simon
Designation: Determined eligible for the National Register

The Cotton Annex was completed and dedicated in 1937 and is located at 12th and C Streets, SW. The structure built is the northwest quadrant of the original design, which featured a C-shaped plan with an exterior court yard. The building was intended to have three bays fronting on 12th Street; however, the USDA ran out of funds and the building was never completed. Standing seven and a half stories, the building functioned as office and warehouse space. Warehouses were located on the half or mezzanine floors. The warehouse levels were converted, circa 1970, to office space. The building, which is owned by GSA, is currently vacant. The Stripped Classical style building's exterior façade is void of ornamentation. The most decorative elevation faces 12th Street, which is composed of several shades of brick ranging from buff tan to darker brown.

Figure 3-15: Northwest corner of Cotton Annex
Source: AECOM

Bureau of Engraving and Printing

Date: 1914
Architect: W.B. Olmsted
Designation: DC Inventory of Historic Sites, 1964; Considered eligible for the National Register

By 1905, the Bureau of Engraving and Printing's Auditor's Building Complex lacked land for further expansion and new facilities were necessary to keep pace with the country's growing economy. Congress appropriated money to construct a new building immediately south of the Auditor's Complex at 14th and C Streets, SW. In 1914, a Neoclassical building with a full-width stone column façade and a granite and limestone exterior housed the new headquarters. The Bureau of Engraving and Printing continues to use the site and building as one of two currency printing locations.

3-16: Bureau of Engraving and Printing
Source: Wikimedia Commons

Bureau of Engraving and Printing Annex

Date: 1936
Architect: Louis A. Simon
Designation: Considered eligible for the National Register

The Bureau of Engraving and Printing Building, constructed in 1914 at 14th and D Streets, quickly became insufficient to hold the various functions of the bureau. During World War I, several temporary buildings were constructed to accommodate the bureau's expanding responsibilities. In 1935, Congress appropriated funds for the construction of the Annex Building; a Federal style building constructed of reinforced concrete with a limestone façade. The irregular floor plan consists of a central "I," parallel to C and D Streets, with five wings extending both north and south to 13th and 14th Streets. Two tunnels are beneath the building; one tunnel connects to the main building and the other connects with a freight-receiving building and railroad siding. President Franklin D. Roosevelt used the railroad tracks under the Annex Building as a secretive departure point from Washington, D.C.

Figure 3-17: Bureau of Printing and Engraving Annex
Source: AECOM

National Gallery of Art (West Building)

Date: 1941
Architect: John Russell Pope; Eggers & Higgins
Designation: Local, 1968; within National Mall HD

Completed in 1941, the National Gallery was among the last of the great Neoclassical Buildings to be completed in Washington, D.C. and on the National Mall. John Russell Pope's coolly classical design for the building features a monumental central rotunda and Ionic portico, extending out from which are (nearly windowless) lateral wings that contain the museum's vast halls and galleries. The pink Tennessee marble in which the building is clad softens the severity of its design. Andrew Mellon, the wealthy industrialist and Secretary of the Treasury under three successive presidents, championed the project, gave funds for the museum's construction, and donated his collection of Old Master paintings to the gallery.

Figure 3-18: National Gallery of Art (West Building)
Source: Library of Congress

National Museum of Natural History, Smithsonian Institution

Date: 1910
Architect: Hornblower & Marshall
Designation: Local, 1964; within National Mall HD

Opened in 1910, the National Museum of Natural History was one of the first Smithsonian Institution buildings constructed exclusively to hold collections and research facilities. The Beaux Arts style of the museum is defined by a central rotunda lit by massive Roman thermal windows. The museum was the first permanent building to be completed on the northern side of the National Mall, in accordance with the guidelines established by the McMillan Plan.

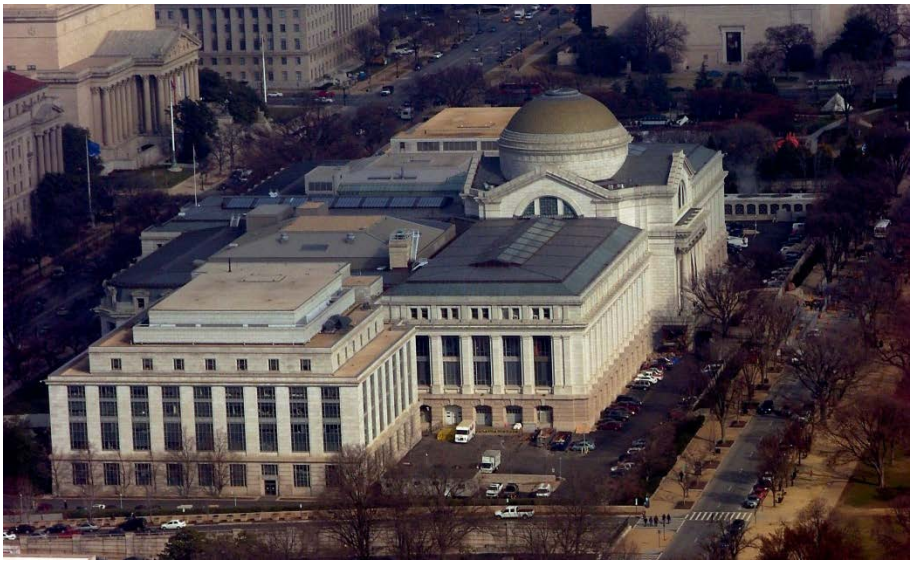

Figure 3-19: National Museum of Natural History, Smithsonian Institution
Source: Wikimedia Commons

Federal Office Building 10B (Wilbur Wright Building)

Date: 1960
Architect: Holabird & Root & Burgee; Carroll, Grisdale & Van Alen
Designation: Determined eligible for the National Register

Federal Office Building 10B (FOB 10B) was designed as a pair of buildings for the U.S. General Services Administration. The building was designed in the International Style, as revealed through its emphasis on volume (rather than mass), smooth walls surfaces, ample fenestration, industrial-age building materials, flat roof, and horizontality. The building currently houses the headquarters of the Federal Aviation Administration and is owned by GSA.

The sister building to FOB 10B, FOB 10A (the Orville Wright Building) was designed and constructed in conjunction with the former. It has not yet been evaluated for National Register eligibility.

Figure 3-20: Federal Office Building 10 (Wilbur Wright Building)
Source: AECOM

Forrestal Building

Date: 1965-1969
Architect: Curtis and Davis; Fordyce and Hamby; Frank Grad and Sons
Designation: Not evaluated

The Forrestal Complex at 1000 Independence Avenue was constructed from 1965-1969 and consists of three buildings: 1) the main four-story building raised 35 feet on pilotis along Independence Avenue and spanning L'Enfant Promenade; 2) a nine-story office building to the southeast; and 3) a one-story cafeteria to the southwest. The two office buildings are connected by a lobby and four-story bridge, while all of the buildings are connected by a subsurface esplanade. The Brutalist influenced architectural style of the main office building is mirrored throughout the complex. The Forrestal Building was the first building to utilize air rights above a street in Washington, D.C., necessitating an Act of Congress. In addition, the building is a direct result of the government's urban renewal of Southwest DC. The Department of Defense originally occupied the complex; however, President Jimmy Carter designated the building for the newly created Department of Energy in 1977, which continues to occupy the GSA-owned building.

3-21: Forrestal Building
Source: Wikimedia Commons

3.4.2 Archaeological Resources

For the purposes of this section, the APE for archaeological resources includes the city blocks that serve as the sites of the Whitten and the South Buildings.

Part of the larger Potomac River watershed, the land surrounding the Mall was historically marshland. Prior to the 19th century, Tiber Creek ran along the Mall, to the north of the project site. In the early 19th century, however, the marshlands were filled. Soils on and around the Mall are classified as Urban Land Associations and Udorthents, both of which are comprised of disturbed land and fill material (NRCS 2006). While the site has been disturbed, due to the site's proximity to both Tiber Creek and the Potomac River, there could be an increased potential for Native American sites at the project site.

During the 19th and early 20th centuries, the area surrounding the project site contained a combination of residential, commercial, and industrial uses. Historic maps indicate that buildings were constructed in the immediate area by 1836. In the 1870s, the Baltimore and Potomac Railroad Company constructed a depot north of the project site on the Mall. In addition, during both the Civil War and the Second World War, temporary troop encampments were set up on the Mall.

Beginning in the 1860s, the USDA utilized the grounds between 12th and 14th Streets, north of Independence Avenue for various activities and uses including experimental farming, an arboretum and a small museum. The construction of the Whitten and South Buildings beginning in the early 1900s further disturbed the project site. The construction of the Smithsonian Metrorail station, completed in 1977, required excavation in the vicinity of the site and additional ground disturbances. In preliminary archeological investigations conducted by Stantec Inc., late nineteenth century maps were compared to current maps using GIS. This mapping indicated that, due to the location of the late nineteenth to early twentieth century Agricultural Department development, there could be the potential for structural remains on the north side of the Whitten Building.

3.5 Visual Resources

3.5.1 Existing Visual Environment

The USDA complex is located at the southwest corner of the National Mall. The Mall is a mile-long uninterrupted vista of open lawn, monumentally anchored by the U.S. Capitol Building at the east end and the Washington Monument at the west. The Mall's expansive greensward forms the major east-west axis of the Monumental Core in the Nation's Capital and connects with a major north-south axis at the Washington Monument. The central lawn area of the Mall is lined with formal allées of mature elm trees, dividing the open space from the monumental buildings and formal gardens that front Constitution and Independence Avenues.

The Whitten Building defines the Mall's southwest corner. The monumental classical building fronts the Mall and has a curving entrance drive and small parking lot directly in front of the main entrance. On either side of this, expansive treed lawns stretch between the north elevation of the building and Jefferson Drive. On the south side, the central block of the Whitten Building is divided from the sidewalk by a narrow hedge. The building's flanking wings are set back slightly, providing for paved courts that provide vehicular parking during specified business hours, between the south faces of the wings and Independence Avenue. The Whitten Building is connected at its corners to the South Building via two overhead enclosed bridges above Independence Avenue. Parking lots, screened from view by lines of shrubs, mark the east and west ends of the building. Along 14th Street, the lot is set back somewhat, allowing for a generous lawn between the edge of the sidewalk and the hedges screening the parking lot.

Jefferson Drive

The Jefferson Drive viewshed in the vicinity of the Whitten Building encompasses Jefferson Drive between 14th Street and the 10th Street axis, where the roadway curves north around the Smithsonian Castle. The viewshed is defined by a one-lane roadway with two lanes of parking, sidewalks, and lines of trees in an urban and park-like setting (Figure 3-22). Breaks in the visual lines occur along the southern portion of the viewshed, where the driveway and parking area for the Whitten Building interrupt regular streetscape, including trees and curb. The view terminus to the east is the Smithsonian Castle and grounds, while the terminus to the west is the Washington Monument grounds and beyond.

Figure 3-22: View east on Jefferson Drive, SW, from 14th Street, SW, with the Whitten Building on the right.
Source: AECOM

Independence Avenue

Between 14th Street and Capitol Hill, Independence Avenue is a broad, eight-lane roadway lined by trees and mid- to low-rise buildings. These buildings vary in form, materials, and setbacks, creating an inconsistent building line along the Avenue (Figure 3-23). The lines of street trees and buildings are broken by open spaces and roadway intersections. The vista along Independence Avenue is interrupted by the arched pedestrian bridges that connect the Whitten and South Buildings. Looking east, the tower of the Yates Building west of 14th Street rises noticeably above the other buildings in the foreground. Sidewalk furnishings, such as lampposts, wayfinding signs, and other elements, are also visible.

Figure 3-23: View west on Independence Avenue, SW, from 12th Street, SW
Source: Library of Congress, Prints and Photographs Division

C Street

The C Street viewshed in the vicinity of the South Building encompasses the area between 14th and 12th Streets, where the viewshed is terminated by the Bureau of Printing and Engraving building and the Forrestal Building, respectively. The viewshed along C Street is a five-lane roadway (including two parking lanes) lined by large, mid-rise buildings with shallow setbacks (Figure 3-24). The roof lines appear as almost continuous lines along the length of the viewshed, although breaks occur at roadway intersections. Landscape elements are visible along the southern portion of the viewshed, while planters with small trees are located along the South Building sidewalk.

Figure 3-24: View east on C Street, SW, from 12th Street, SW
Source: AECOM

14th Street

The 14th Street viewshed in the vicinity of the Whitten and South Buildings encompasses 14th Street between downtown and approximately C Street. 14th Street is a six-lane boulevard lined with trees. Between Constitution and Independence Avenues, the roadway is flanked by the wide park space of the National Mall, while the mid-rise buildings with consistent setbacks define the visual corridor to the north and the south of Constitution and Independence Avenues, respectively, and serve as visual endpoints (Figure 3-25). Roadway intersections provide additional breaks in the visual lines. The Whitten Building is set back, with moderately dense vegetation screening the parking along 14th Street.

Figure 3-25: View south on 14th Street, SW and Jefferson Drive, SW
Source: AECOM

3.6 Transportation Systems and Circulation

3.6.1 Roadways and Vehicular Traffic

The project site is bounded by Jefferson Drive to the north; 12th Street and the I-395/12th Street Expressway to the east; C Street to the south; and 14th Street to the west. Independence Avenue runs east-west between the Whitten Building and the South Building. The 12th Street Expressway runs in a tunnel below-grade underneath the Mall and connects to Interstate 395 (I-395), which is located south and east of the project site. I-395 can also be accessed via 14th Street. Regional access is provided by I-395 to northern Virginia and northern DC with connections to I-295 east into Maryland. These roadways connect to I-495 (the Capital Beltway) and I-95 to the north and south.

Adjacent to the project site, the District of Columbia has roadway jurisdiction over 12th, 14th and C Streets, the 12th Street Expressway, and Independence Avenue. The National Park Service has jurisdiction over Jefferson Drive. The District classifies roadways based on the number of lanes, traffic volume, land use, and expected growth. DDOT's 2011 Functional Classification Map identifies six classifications: interstate, other freeway and expressway, principal arterial, minor arterial, collector, and local. Each classification has design criteria that maintains and protects the primary purpose of the roadway. Each street is described below, including its approximate average daily traffic volume from DDOT's 2010 traffic volume estimates.

Jefferson Drive is a one-lane, one-way street traveling eastbound with a lane of parking on both sides of the street and is managed by the National Park Service. DDOT estimates the average annual daily traffic volume on Jefferson Drive in front on the Whitten Building between 14th and 12th Streets to be approximately 6,000 vehicles. Average daily traffic volume is between 6,000 and 7,000 along the entire stretch of Jefferson Drive.

The 12th Street Expressway is classified by the District as "other freeway and expressway". Northbound vehicles can enter the 12th Street Expressway as it transitions to a tunnel beneath the Mall at Independence Avenue. Twelfth Street is classified as a local street and is directly to the west of the below-grade 12th Street Expressway. Between Jefferson Drive and Independence Avenue, 12th Street is a two-way, two-lane road with an estimated average annual daily traffic volume of 9,200. South of Independence Avenue, it becomes a six-lane roadway including a parking lane on each side, two northbound lanes, and two southbound lanes. The estimated average annual daily traffic volume is 11,100 for this portion of 12th Street. During rush hours (7:00 to 9:30 AM and 4:00 to 6:30 PM), parking is prohibited to create additional through lanes on 12th Street.

The District classifies 14th Street as a principal arterial. Adjacent to the project site, it is a seven-lane separated roadway, with four lanes running northbound that includes a right-hand turn lane and three lanes running southbound. The estimated average annual daily traffic volume is 40,700 for this portion of 14th Street.

Independence Avenue is classified as a principal arterial. Independence Avenue is also identified as a monumental avenue. It is an eight-lane roadway with a parking lane on each side and three eastbound and three westbound lanes. It has an estimated average annual daily traffic volume of 26,200. During rush hours parking is prohibited to create additional through lanes on Independence Avenue.

C Street is classified as a collector street. It is a five-lane roadway that runs for two blocks between 12th and 14th Streets. There are two westbound travel lanes, one eastbound travel lane and a parking lane

on either side of the street. During rush hours, parking is prohibited on the south side of C Street to create an additional through lane. The estimated average annual daily traffic volume is 15,100 for this portion of C Street.

There are a number of curb cuts leading to driveways around the site to facilitate entry into the two buildings' parking courts. At the Whitten Building, there are two curb cuts along Jefferson Drive, three curb cuts along 12th Street, 8 curb cuts along Independence Avenue, and one curb cut along 14th Street. There are six curb cuts along the north side of C Street at the South Building. Access to each of these driveways is restricted and vehicle access is allowed for delivery of supplies, emergency services, permitted employee parking, and security personnel. Vehicles entering South Building's courtyards at C Street are screened by guards located at the gate of each driveway.

3.6.2 Parking

The surface parking areas at the Whitten and South Buildings provide parking for a limited number of employees, including cabinet-level officials (Figure 3-26). There are several commercial parking lots located within walking distance south and east of the project site near the Portals development and L'Enfant Plaza. On-street parking is available in the vicinity of the project site; however, it is restricted to specific durations and time periods and in some places parking is prohibited at all times. During rush hours (7:00 to 9:30 AM and 4:00 to 6:30 PM), on-street parking is generally prohibited when parking lanes become rush hour traffic lanes. ADA-accessible on-street parking is provided, although there are some curb areas where parking is prohibited. Limited vendor stand, service loading areas, and tour bus loading areas are also accommodated.

At the Whitten Building, there are six existing parking courts; one on the north side of the building, one on both the east and west sides of the building, and three on the south side of the building. The parking court on the north side of the building is in front of the building's ceremonial entrance and used as a drop-off area with limited parking. These parking courts provide a total of 168 automobile parking spaces and 9 motorcycle spaces. None of these spaces are ADA compliant. Access to these parking courts is gated and restricted to employees only.

The surface parking courts at the South Building are reserved for carpools and vanpools, provide 430 automobile parking spaces, and are located within the building's courtyards. A number of these spaces are ADA compliant. Some motorcycle parking spaces are also available in one of the South Building's courtyards. The South Building parking courts also function as the main entry point for deliveries. These entries are restricted by guards stationed at the guard booths, gates, and retractable bollards.

On-street parking around the Whitten Building includes 22 USDA employee permit-only parking spaces on Jefferson Drive between 6:00 AM and 6:00 PM Monday through Friday. Parking is prohibited in these spaces between 1:00 AM and 6:00 AM and is limited to three hours when not regulated by permits. Limited public parking is also provided on Jefferson Drive for durations of three hours. Parking in these spaces is prohibited between 1:00 AM and 10:00 AM. There is no public or employee parking along 14th and 12th Streets at the Whitten Building. On the Independence Avenue side of the building, two-hour metered parking is allowed. There are several ADA-accessible parking spaces on Jefferson Drive.

At the South Building, along Independence Avenue, two-hour metered public parking spaces are interspersed between no parking areas. There is no parking along 14th Street at the South Building, and limited two-hour metered parking along 12th Street. There are also a limited number of two-hour

metered parking and vendor spaces along the north side of C Street in front of the South Building and one-hour metered spaces along the south side of C Street.

Parking meters downtown in the Central Business District are enforced between 7:00 AM and 10:00 PM, Monday through Saturday. This is a change from previous enforcement times, which ended at 6:30 PM. As parking signage is updated, the new enforcement policies will take effect. Some of the signage around the site has already been updated.

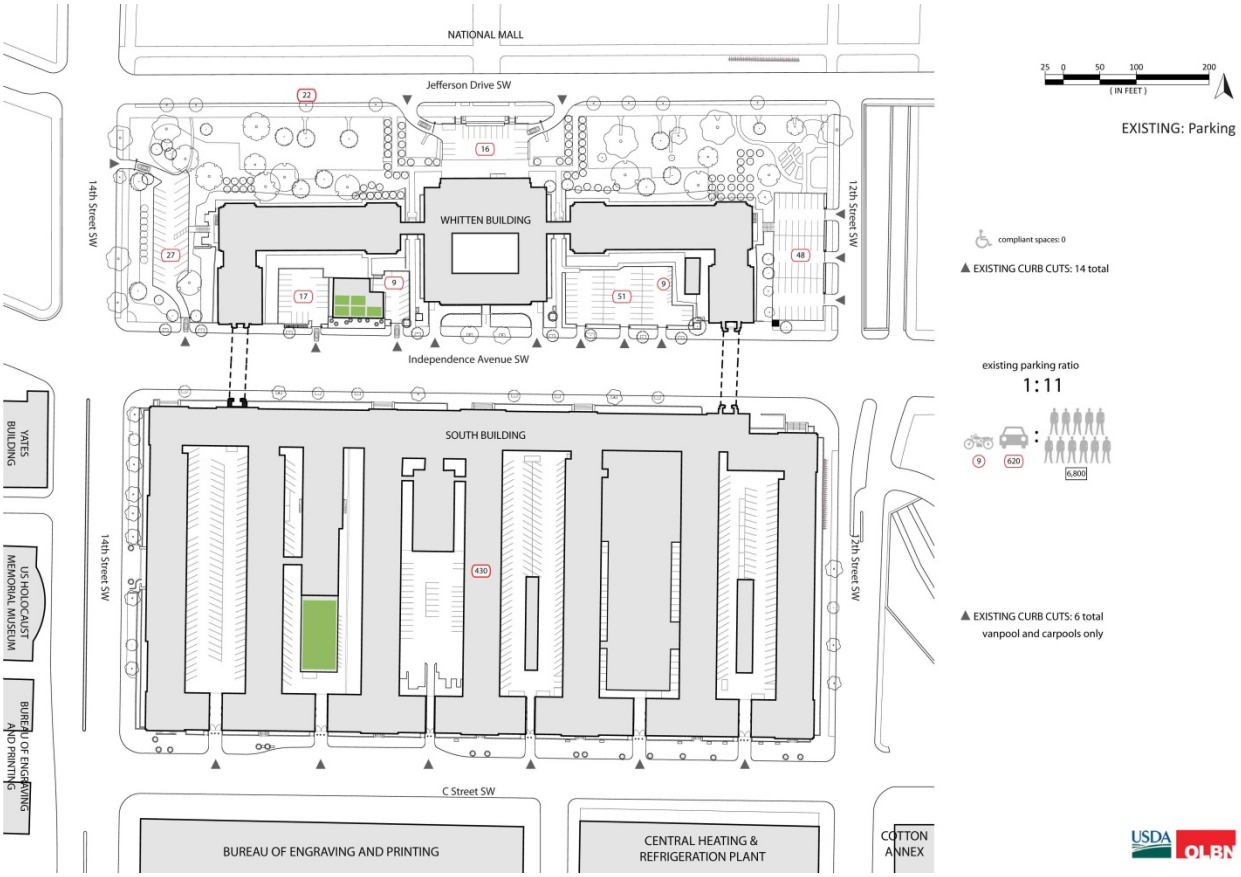

Figure 3-26: Existing on-site parking and curb cuts
Source: OLBN

3.6.3 Public Transit Systems

The project site is well-served by public transit, including the Washington Metropolitan Area Transportation Authority's (WMATA) Metrorail and Metrobus systems, the Virginia Railway Express commuter rail service, and commuter bus service. In addition, USDA provides shuttle service for its employees to travel between USDA work sites throughout the workday.

There are four WMATA Metrorail stations near the site: the Smithsonian, Federal Triangle, L'Enfant Plaza, and Archives-Navy Memorial Stations. The Smithsonian Station is the closest station to the project site, with an entrance at the northeast corner of the South Building and another entrance on the Mall near the northeast corner of the Whitten Building. The Federal Triangle, L' Enfant Plaza, and Archives-

Navy Memorial Stations are within three to six blocks of the project site. These stations provide direct access to four of the five Metrorail lines (Blue, Orange, Yellow, and Green).

The WMATA Metrobus routes that serve the area and stop adjacent to the project site include the V7, V9, 13F, 16F, 11Y, 13G, and the 52. At the Whitten Building, a Metrobus stop is located along 14th Street and two bus stops are located along Independence Avenue on the north side of the street. At the South Building, two Metrobus stops are located along the south side of Independence Avenue, one along 14th Street on both the east and west sides of the street, and two along C Street on the north side of the street.

The area surrounding the project site provides access to destinations within Washington, DC, as well as regional connections to Virginia and Maryland. Commuter rail service to Northern Virginia is provided at the Virginia Railway Express (VRE) stop at 7th and D Streets, SW, adjacent to the L'Enfant Plaza Metrorail Station entrance. Several commuter bus routes run by Loudon County and the Potomac and Rappahannock Transportation Commission also stop within walking distance of the project site. Union Station, an important intermodal transportation hub, is located on the Metrorail Red line and can be accessed by transferring from one of the four Metrorail lines that serve the site to the Red line at the Gallery Place-Chinatown or Metro Center stations. Commuter rail service to Virginia and Maryland, long-distance rail service on Amtrak, and bus service within the District and to other regional and long-distance destinations are provided at Union Station.

3.6.4 Pedestrian and Bicycle Circulation

Employees accessing the Whitten and South Buildings, as well as the other federal office buildings in the area, generate a substantial amount of pedestrian traffic. Pedestrian activity in the immediate area is also generated by other Metrorail stations, parking garages and on-street parking, and tour bus and visitor drop-off areas, as well as visitors walking to or from the Mall. Key pedestrian entry points to the Mall include 12th Street from the Metrorail Stations to the north, and the east and west ends of the Mall from the Capitol and the Washington Monument, respectively. The intersection of Independence Avenue and 14th Street is a gateway to the Monumental Core.

Pedestrian circulation around the Whitten and South Buildings is accomplished on gravel and cement sidewalks along Jefferson Drive at the Whitten Building on the Mall, as well as concrete sidewalks on each of the other sides of the buildings. These sidewalks have widths varying from 5 to 18 feet. Crosswalks with pedestrian signals and marked crosswalks are provided at signalized intersections. Pedestrian pathways in the project area are compliant with the Americans with Disabilities Act (ADA) and include curb access at all crosswalks directly connected to USDA buildings. Vendor stands are located at the four corners of the South Building. These stands attract pedestrians, who congregate to purchase food, drinks, and memorabilia. This activity creates pedestrian congestion on the narrow sidewalks, which can inhibit pedestrian circulation at the corners.

Pedestrian access into the Whitten and South Buildings is limited to employees at most entrance points. The public can access the Whitten Building through the center section of the building on Jefferson Drive or Independence Avenue. Public access to the South Building is through the 1st and 7th wings on Independence Avenue and the 2nd wing along C Street. Pedestrian access to the building grounds is limited to the north, east, and west side of the Whitten Building, where gardens, lawn areas, and specimen and memorial trees are located.

The museums, monuments, galleries, and gardens of the Mall generate a major volume of pedestrians in the area. The east-west axis of the Mall is a popular route for pedestrian traffic. High pedestrian activity

corridors include the sidewalks along both sides of Independence Avenue and Jefferson Drive. The location of the Smithsonian Metrorail Station between the Whitten and South Buildings provides pedestrians a major access point to and from the Mall. The entrance to the station at the northeast corner of the South Building generates heavy pedestrian flow and congestion on the sidewalks adjoining this corner along Independence Avenue and 12th Street.

Sidewalks on and adjacent to the Mall also provide pedestrian connections to areas outside of the Mall. The Mall provides access to the Ellipse and White House to the north; the U.S. Capitol Building to the east; the Holocaust Memorial Museum and Bureau of Engraving and Printing to the south; and the Washington Monument, the Lincoln Memorial, and the Korean, Vietnam, and World War II Veterans Memorials to the west.

According to the 2011 DDOT Bicycle Map, the paths along the center of the Mall and along Jefferson and Madison Drives function as off-street bike trails. There is also an off-street bike trail on the west side of 15th Street that runs along the Washington Monument Grounds. There are no other signed bike routes in the immediate vicinity of the project site. The off-street bike trails on the Mall run from the U.S. Capitol, through the Washington Monument Grounds, around the Lincoln Memorial, and across the Arlington Bridge to connect with the Mount Vernon Trail along the George Washington Parkway in Virginia. Bicycle parking at the project site is accommodated at bicycle racks in courtyards 2 and 5 of the South Building.

The District of Columbia, Arlington County, and Alexandria operate a bikesharing system, Capital Bikeshare, with over 1,670 bicycles and over 175 stations in the three jurisdictions. There are three Capital Bikeshare stations located near the project site. One is located along the eastern side of the South Building on the 12th Street sidewalk. Another station is located just north of the Whitten Building on the Mall at the intersection of Jefferson Drive and 12th Street. The third station is located along Jefferson Drive between 14th and 15th Streets.

3.7 Water Resources and Stormwater Management

The Whitten and South Buildings are located within the Potomac River drainage basin, a sub-basin of the Chesapeake Bay Watershed. The area drains towards the Tidal Basin and the Washington Channel, which drain to the Potomac River. There are no permanent bodies of surface water located on or near the project site; the nearest surface water bodies are the Tidal Basin (approximately 0.3 miles to the southwest) and the Washington Channel (approximately 0.4 miles to the south), which drain to the Potomac River (approximately 0. 7 miles to the southwest).

The urbanized nature of the site and its surroundings has altered the natural drainage patterns in the area. The project site is primarily covered with impervious surfaces, including the buildings' footprints, sidewalks, driveways, and parking areas (Figure 3-27). The Whitten Building block is comprised of approximately 56% impervious surfaces and the South Building block is comprised of approximately 97% impervious surfaces.

Land area that has been covered with grass or garden areas provide porous surfaces for stormwater to be assimilated by vegetation or to migrate through the soil column to recharge the local aquifer. This reduces the volume of stormwater runoff and its pollutants; however, the majority of the project site has been historically altered and covered with impervious materials such as asphalt, concrete, and building materials for roadways, buildings, and structures. Soils at the site are classified as Urban Land Association and Udorthents (see Section 3.8). Permeability varies depending on soil compaction and the presence of impervious surfaces. There are limited lawn areas within the project area in the form of open space and courtyards. There are no existing stormwater detention facilities on the project site.

Normal rainfall in Washington, DC (calculated as a 30-year average) is 39.74 inches annually. In the summer, spring and autumn, the normal rainfall is approximately 10.5 inches and approximately 8.5 inches in the winter (NOAA 2013). At the site, rainfall that does not soak into the ground or other pervious surfaces becomes stormwater that flows over paved and impervious surfaces, drains away from the buildings, is collected in storm drains and catch basins, and flows through the District's separate storm sewer system to the Tidal Basin or the Washington Channel, and then to the Potomac River.

Stormwater runoff can become contaminated by pollutants from impervious surfaces such as fuel, oil, antifreeze, grease from moving and parked vehicles, sediment from disturbed or exposed soil, and solid waste collected in catch basins or storm drains. As such, contaminated stormwater discharged untreated into adjacent water bodies through the separate storm sewer system can adversely affect the water quality. The District of Columbia Department of the Environment Stormwater Management Section governs stormwater management in DC.

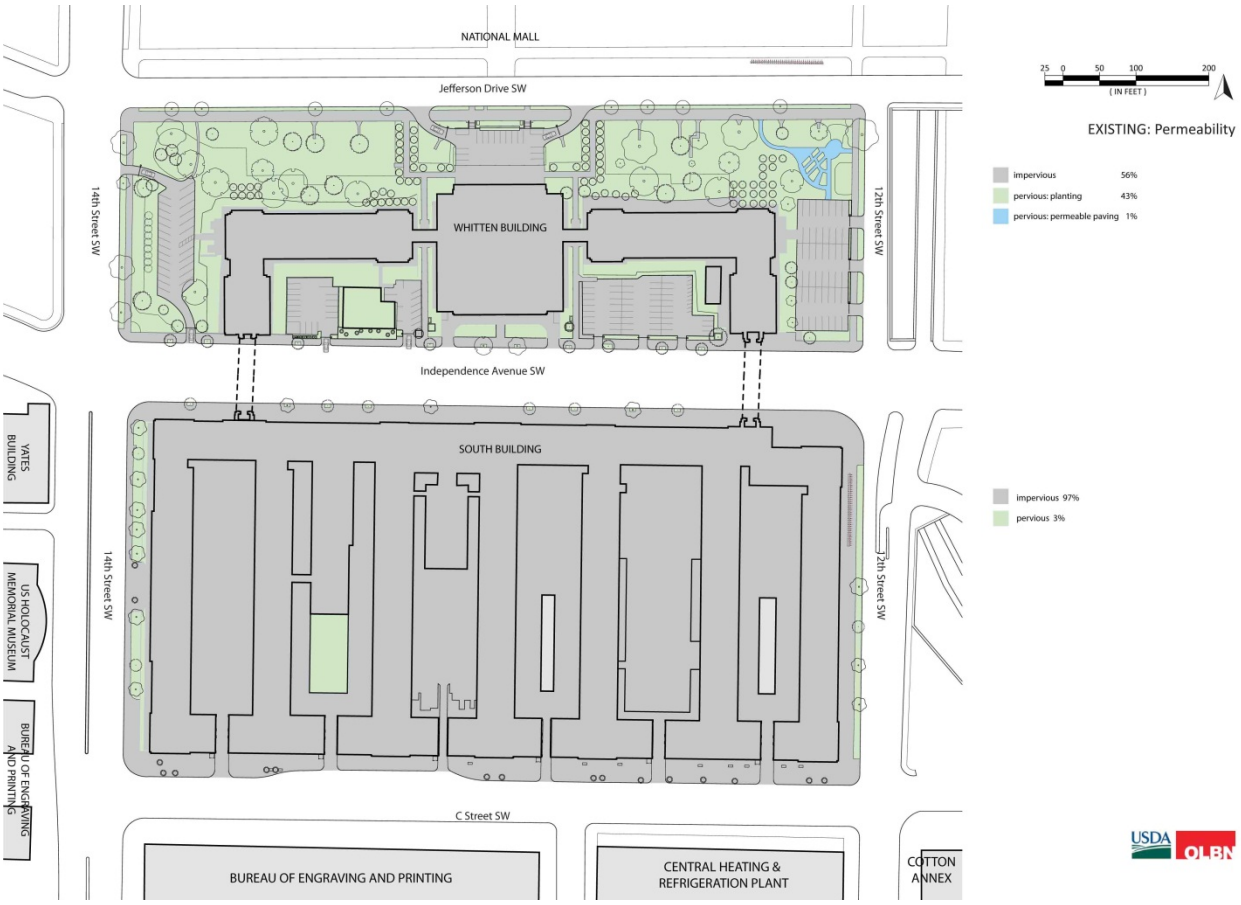

Figure 3-27: Existing pervious and impervious surfaces
Source: OLBN

Regionally, the groundwater aquifer system under the project site is composed of unconsolidated Coastal Plain sediments and groundwater flows through it to the southwest. Groundwater levels may fluctuate seasonally and yearly with variations in precipitation, evaporation, surface absorption (and groundwater recharge), and groundwater pumping from soil dewatering for construction and facility operation. Locally, groundwater migration may be altered by proximity to underground Metrorail tunnels and pipelines that often act as barriers to flow, raising the groundwater level on the up gradient side of the obstruction and lowering the level on the down gradient side. This may cause variation in the local depth to groundwater (DC WRRC 1993). Groundwater levels for the Mall have been estimated to be approximately 22 to 26 feet below the ground surface, which is 12 to 16 feet below sea level (Smithsonian Institution 1993).

3.8 Soils

Soils at the Whitten and South Buildings are classified as Urban Land Association and Udorthents (NRCS 2006). These soils have been previously disturbed, cut, or filled, and may be covered by impervious surfaces. Urban Land Association soils are deep to moderately deep, well-drained soils that consist of cuts, fills, and otherwise disturbed land. Areas with this soil classification consist of areas where more than 80 percent of the surface is covered by asphalt, concrete, buildings, or other impervious surfaces. Udorthents consist of earthy fill material that has been placed on poorly drained to somewhat excessively drained soils on uplands, terraces, and floodplains soils to provide sites for buildings, roads, and other development. The thickness of the fill is quite variable, but is more than 20 inches. The source of the fill material is also variable (USDA SCS 1976).

Existing fill material may be present on the project site at varying depths and, based on previous investigations on the Mall, may contain foreign materials and trace petroleum odors due to historical use of the Mall. Soil borings on the Mall and the Washington Monument Grounds indicate the previous placement of imported fill of unknown origin and date for grading and development on the Mall (Smithsonian Institution 1993). Therefore, it is possible that contaminated fill material from previous development may exist below the ground surface of portions of the Whitten and South Buildings. Soil contamination is a concern where humans are exposed to soils due to excavation or grading activities. Contamination may be natural, containing trace amounts of arsenic, copper, chromium, or zinc; or manmade, containing volatile organic compounds from hydrocarbon-containing products (fuels, oils, solvents).

3.9 Vegetation

The Whitten Building is characterized by open space on the north, east and west sides. The vegetation in the open space at the Whitten Building is characterized by a combination of lawns punctuated by trees, groundcover, shrubs, hedges, planted slopes, and agricultural planting beds for seasonal crops. The planted slopes are primarily comprised of English Ivy. The trees on the northern face of the building include a succession of deciduous memorial trees with respective placards set within the landscaped lawns. There are crop planting beds used for seasonal crop plantings at the entrance to the Whitten Building on the north side at Jefferson Drive and on the south side at Independence Avenue. The agricultural beds housing the organic garden are located on the northeastern corner of the site, along Jefferson Drive and 12th Street.

The planting plan for the Whitten Building grounds was originally designed by the Olmsted Brothers, and several trees remain in their identified original locations or trees of original species exist in identified historic locations. These trees are located on the north side of the Whitten Building and include two Ginkgoes, a White Oak, and a Saucer Magnolia.

The east end of the building bordering 14th Street is lined with hedges which help to screen the adjacent parking areas. Along 14th Street, the hedges are Crepe Myrtle and Abelia.

The size and design of the South Building presents limited space for landscape elements, other than some street trees and lawn strips. Therefore, the South Building has minimal vegetation.

There are 169 trees on the Whitten Building grounds and 39 trees on the South Building grounds, including street trees. The street trees around the Whitten Building are fairly regularly spaced, with the exception of 12th Street, where only one street tree stands near the corner of 12th Street and Jefferson Drive. The street trees at the South Building are also fairly regularly spaced. However, on 12th Street, there are fewer trees on the north end of the street. The trees along C Street are housed in planters on the sidewalk and are clustered towards the east and west ends of the block.

Additional vegetation at the Whitten Building in the form of a green roof is located on the utility building between the two western parking courts. There is also a green roof located on a portion of the South Building's roof in Court 5.

3.10 Utilities

The District of Columbia Water and Sewer Authority (DC Water) provides wastewater management in DC that includes collection, treatment, and the discharge of effluent. The sewer lines that serve the site collect and transport wastewater and stormwater separately. Wastewater is conveyed from the buildings via the sanitary sewer system for treatment at DC Water's Blue Plains Wastewater Treatment Plant. Stormwater is conveyed via the stormwater sewer system and discharges into the Potomac River via the Tidal Basin and the Washington Channel. Storm drains that connect to the separate sewer system are located along the edges of the Whitten and South Buildings.

DC Water supplies potable water to the District. The source of the raw water is the Potomac River, treated via the Dalecarlia and McMillan Reservoirs (for sedimentation) and DC Water's treatment plants. Pump stations deliver water through mains and laterals to the buildings and facilities (fire hydrants) around the Whitten and South Buildings. Water mains are located along Independence Avenue. Distribution pipes connect the water mains to the buildings for water supply.

PEPCO provides electricity to the Whitten and South Buildings and the street lampposts that are located along the perimeter of the Whitten and South Building grounds. Natural gas is provided by Washington Gas. The Central Heating Plant provides steam heat via a steam tunnel that runs to the west of 12th Street.

All of these utility services, as well as the telecommunication lines, are fed into the two buildings via underground lines that run underneath the street right of ways, crossing underneath the buildings' sidewalks to connect into the two buildings. There are also underground Metrorail system tunnels located below and in close proximity to certain portions of the project site due to the adjacent location of the Smithsonian Metrorail station.

4.0 ENVIRONMENTAL CONSEQUENCES

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4.1 General Approach and Methodology for Establishing Impact Thresholds and Measuring Effects by Resource

This chapter analyzes beneficial and adverse impacts that would result from implementing the alternatives considered in this EA. Impacts of the alternatives were considered for the construction and long-term operation of the proposed People's Garden site and perimeter security improvements. As documented in Chapter 1, resources that are not likely to be impacted by the alternatives have been dismissed from detailed analysis.

As required by CEQ regulations implementing NEPA, a summary of the environmental consequences for each alternative, is provided in Table 2-1 in Chapter 2. The resource topics presented in this chapter, and the organization of the topics, correspond to the resource discussions contained in Chapter 3: Affected Environment of this EA.

Potential impacts of the action alternatives are described in terms of type (beneficial or adverse); duration (short-or long-term); and intensity (negligible, minor, moderate, and major). Definitions of these terms include:

Type: The impact type refers to whether it is adverse (negative) or beneficial (positive). Adverse impacts would potentially harm resources, while beneficial impacts would improve resource conditions. Within the analysis, impacts are assumed to be adverse unless identified as beneficial.

Duration: Impacts resulting from construction are considered short-term and would occur during the construction of the site improvements. Long-term impacts would persist once the construction is complete.

Intensity: The intensity of an impact describes the magnitude of change that the impact generates. The intensity thresholds are as follows:

- **Negligible:** There would be no impact, or the impact would not result in a noticeable change in the resource;
- **Minor:** The impact would be slight, but detectable, resulting in a small but measurable change in the resource;
- **Moderate:** The impact would be readily apparent and/or easily detectable;
- **Major:** The impact would be widespread and would substantially alter the resource. A major adverse impact would be considered significant under NEPA.

In addition to the factors detailed above, impacts may be characterized as direct, indirect, or cumulative. A direct impact is caused by the action and occurs at the same time and place. An indirect impact is caused by the action, but occurs later in time, or farther removed in distance. A cumulative impact occurs when the proposed action is considered together with other past, ongoing, or planned actions.

4.2 Land Use and Planning Policies

4.2.1 Land Use

Alternative 1

Alternative 1 would remove two surface parking courts from the Whitten Building on 12th and 14th Streets and replace them with pedestrian elements and permanent market space, resulting in a change in land use at the Whitten Building. The other proposed landscape changes, streetscape enhancements, or perimeter security elements in Alternative 1 would not alter the overall character of land uses at the Whitten and South Buildings. This would include the reconfigured organic garden and installation of perimeter security elements, sustainable landscape designs and rainwater harvesting features that would occur on land under NPS jurisdiction. The proposed expansion of public gardens to create an outdoor learning experience on the USDA grounds, the creation of permanent market space for the USDA Farmers Market, and the addition pedestrian elements could enhance the land use of the existing gardens and public space at the Whitten Building, as could the removal of 113 vehicular and 9 motorcycle parking spaces, reducing land used for parking area at the Whitten Building. The perimeter security elements at the Whitten Building under Alternative 1 would include varied elements incorporated into the landscape that would be installed within the building yard, except along portions of Independence Avenue. While existing land uses would change at the Whitten Building, these changes would be consistent with the character of other existing land uses on and adjacent to the Whitten Building. The existing land uses would not change at the South Building. Alternative 1 would not alter any adjacent land uses or the management of NPS historic sites, memorials, or resources. Therefore, short- and long-term impacts would be negligible and beneficial impacts could occur.

Alternative 2

In Alternative 2, the proposed landscape changes, streetscape enhancements, and perimeter security elements would not alter the overall character of the existing land uses at the Whitten and South Buildings. This would include the reconfigured organic garden and installation of perimeter security elements and sustainable landscape designs that would occur on land under NPS jurisdiction. Alternative 2 would expand the public gardens on the USDA grounds and would remove 59 vehicular and 9 motorcycle parking spaces, reducing land used for parking area at the Whitten Building which would enhance the existing land uses. In Alternative 2, the perimeter security elements at the Whitten Building would primarily be in the form of bollards, to establish the perimeter security line within the building yard, except along portions of Independence Avenue. Alternative 2 would not alter the character of the existing land uses at the Whitten or South Buildings, any adjacent land uses, or the management of NPS historic sites, memorials, or resources. Therefore, short- and long-term impacts would be negligible and beneficial impacts could occur.

No Action Alternative

Under the No Action Alternative, no landscape, streetscape, or perimeter security elements would be installed at the Whitten and South Buildings. Thus, impacts to land uses would be negligible.

4.2.2 Planning Policies

Alternative 1

Alternative 1 would comply with portions the *Comprehensive Plan for the National Capital: Federal Elements*. It would enhance the public realm and incorporate security elements into the landscape, which would promote a pedestrian-friendly environment. It would provide educational activities and encourage public access to the site. The parking court areas at the Whitten Building would provide for areas to be used for public events. Parking at the Whitten Building would be reduced and the parking ratio for the Whitten and South Buildings (one parking space for every 13 employees) would comply with the parking ratios established in the *Federal Elements*. The landscape and streetscape improvements would reduce impervious pavement, increase stormwater management practices, and implement water harvesting at the site. Additional street trees would be added around the Whitten and the South Buildings, increasing the environmental quality of the area. Alternative 1 would generally protect the setting of historic properties; however, the perimeter security elements at the curb line on Independence Avenue would not support the L'Enfant and McMillan Plans and would be located within public space. The guard booths along C Street would also protrude into the public space along the sidewalk. These elements of Alternative 1 would not comply with the *Federal Elements*.

Alternative 1 would generally comply with the *Comprehensive Plan for the National Capital: District Elements*. Impervious surfaces would be decreased, green roof surface area would be added to the site, and rain water harvesting elements would be added to the landscape to decrease stormwater runoff. The creation of an outdoor educational component, a permanent USDA Farmers Market space, and the expansion of the People's Garden Initiative would encourage community gardening and maintain the farmers market held at the site. Parking would be reduced at the Whitten Building and better incorporated into the landscape. The perimeter security elements would also be incorporated into the landscape and the public space would be maintained and increased. Contrary to the *District Elements*, the perimeter security elements between the sidewalk and the vehicular right-of-way on Independence Avenue would not enhance the L'Enfant and McMillan Plan.

Alternative 1 would comply with portions of the *NCPC Security Plan* and the *Policies and Objectives* addendum. The design of the physical perimeter security would be incorporated into the landscape design utilizing varied elements, including public amenities such as seating. The guard booths would be integrated into the site design to better match the South Building's design and would be located to minimize interruption of pedestrian movement along C Street. The *Policies and Objectives* allow for barriers in public space if the distance from the face of the building to the outer edge of the building yard is less than 20 feet, but also state that the placement of barriers in public space is discouraged and should be avoided. The building yard at the Whitten Building is less than 20 feet along Independence Avenue and therefore perimeter security elements placed along the curb line may still be allowed. This would adversely impact pedestrian circulation in limited locations along Independence Avenue.

Alternative 1 complies with a number of other planning policies. In accordance with the *Monumental Core Framework Plan*, Alternative 1 would maintain federal workplaces in the Southwest Rectangle while also providing additional educational and open space on its grounds and improving the streetscape. The perimeter security installed at the Whitten Building would be coordinated with the *Smithsonian Institution Mall-Wide Perimeter Security Plan* and the integration of the security elements would create more accessibility and openness relative to the Mall. Alternative 1 would also comply with the *National Mall Plan* by enhancing the Whitten Building landscape adjacent to the Mall. The

streetscape improvements would be coordinated with those proposed in the *National Mall Plan*. Alternative 1 would comply with NPS laws and policies including the NPS Organic Act, the National Parks Omnibus Management Act, Director's Order 12, and Director's Order 28. Alternative 1 would not remove any trees over 55 inches in circumference and would conform to the Urban Forestry Administration's Tree Removal Permit program. The proposed stormwater management elements in Alternative 1 would comply with the Energy Independence and Security Act of 2007 to the maximum extent technically feasible. Alternative 1 would also comply with Executive Order 13508, *Chesapeake Bay Protection and Restoration* and Executive Order 13414, *Federal Leadership in Environmental, Energy, and Economic Performance* by reducing impervious surfaces, adding green roof surface area added to the site, and adding rain water harvesting elements on the site to decrease stormwater runoff and improve water quality.

Overall, Alternative 1 would result in beneficial impacts on plans and policies. Specifically, beneficial impacts would occur due to compliance with the stormwater management and enhanced public realm elements of Executive Order 13508, Executive Order 13414, the *Federal* and *District Elements*. The limited perimeter security elements located at the curb line of Independence Avenue and within the public space on C Street would result in minor adverse impacts on planning policies.

Mitigation

The *NCPC Security Plan* and the Policies and Objectives addendum should be followed to ensure the proposed perimeter security elements respond to the Whitten Building's surrounding context. Consultation should occur with the Smithsonian Institution on their *Smithsonian Institution Mall-Wide Perimeter Security Plan* and the National Park Service on the *National Mall Plan* to ensure consistency with these plans. Consultation should also be undertaken with DDOT to ensure the consistency of the sidewalk design with the principles put forth in the *DDOT Design and Engineering Manual*.

Alternative 2

Impacts to planning policies under Alternative 2 would be similar to those in Alternative 1. Alternative 2 would comply with portions the *Comprehensive Plan for the National Capital: Federal Elements* by enhancing the public realm through landscape improvements that would provide education activities and encourage public access to the site; however, the perimeter security elements would not be incorporated into the landscape. The parking court areas at the Whitten Building would provide for areas to be used for public events and parking would be reduced at the Whitten Building. The parking ratio for the Whitten and South Buildings (one parking space for every 12 employees) would comply with the parking ratios established in the *Federal Elements*. The landscape and streetscape improvements would reduce impervious pavement and increase stormwater management practices. Additional street trees would be added around the South Building, increasing the environmental quality of the area. Alternative 2 would generally protect the setting of historic properties; however, the perimeter security elements would be discernible within the landscape facing the Mall and the security elements at the curb line on Independence Avenue would not support the L'Enfant and McMillan Plans. Alternative 2 would locate some security features on Independence Avenue within public space. The guard booths along C Street would also protrude into the public space along the sidewalk. The existing parking configurations at the South Building and a higher parking ratio than that identified in the *Federal Elements* would remain. These elements of Alternative 2 would not comply with the *Federal Elements*.

Alternative 2 would generally comply with the *Comprehensive Plan for the National Capital: District Elements*. The proposed design would plant additional street trees at the South Building. Impervious surfaces would be decreased and green roof surface area added to the site to decrease stormwater runoff. The creation of an outdoor educational component and the expansion of the People's Garden Initiative would encourage community gardening and maintain the farmers market held at the site. Parking would be reduced at the Whitten Building and better incorporated into the landscape. The public space would be maintained. Contrary to the *District Elements*, the perimeter security elements between the sidewalk and the vehicular right-of-way on Independence Avenue would not enhance the L'Enfant and McMillan Plan and perimeter security elements would be discernible within the landscape facing the Mall.

Alternative 2 would comply with portions of the *NCPC Security Plan* and the *Policies and Objectives* addendum. The guard booths would be integrated into the site design to better match the South Building's design and would be located to minimize interruption of pedestrian movement along C Street. The *Policies and Objectives* allow for barriers in public space if the distance from the face of the building to the outer edge of the building yard is less than 20 feet, but also states that the placement of barriers in public space is discouraged and should be avoided. The building yard at the Whitten Building is less than 20 feet along Independence Avenue and therefore perimeter security elements placed along the curb line may still be allowed. This would adversely impact pedestrian circulation in limited locations along Independence Avenue. The design of the physical perimeter security would include some elements screened by vegetation within the landscape, but security elements such as bollards would be identifiable and visible and would not generally be incorporated as public amenities such as seating; thus it would not conform with the *NCPC Security Plan*.

Alternative 2 complies with a number of other planning policies. In accordance with the *Monumental Core Framework Plan*, Alternative 2 would maintain federal workplaces in the Southwest Rectangle while also providing additional educational and open space on its grounds and improving the streetscape. The perimeter security installed at the Whitten Building would be coordinated with the *Smithsonian Institution Mall-Wide Perimeter Security Plan*. Alternative 2 would also comply with the *National Mall Plan* by enhancing the Whitten Building landscape adjacent to the Mall. The streetscape improvements would be coordinated with those proposed in the *National Mall Plan*. Alternative 2 would comply with NPS laws and policies including the NPS Organic Act, the National Parks Omnibus Management Act, Director's Order 12, and Director's Order 28. Proposed changes to sidewalks would be coordinated with DDOT's *Manual for Design and Engineering*. Alternative 2 would not remove any trees over 55 inches in circumference and would conform to the Urban Forestry Administration's Tree Removal Permit program. The proposed stormwater management elements in Alternative 2 would comply with the Energy Independence and Security Act of 2007 to the maximum extent technically feasible. Alternative 2 would also comply with portions of Executive Order 13508, *Chesapeake Bay Protection and Restoration* and Executive Order 13414, *Federal Leadership in Environmental, Energy, and Economic Performance* by reducing impervious surfaces, and adding green roof surface area added to the site to decrease stormwater runoff and improve water quality.

Overall, the Alternative 2 would result in beneficial impacts on plans and policies due to compliance with the stormwater management and enhanced public realm elements of Executive Order 13508, Executive Order 13414, the *Federal* and *District Elements*. The design of physical perimeter security with some elements identifiable and visible in the landscape facing the Mall as well as the limited perimeter

security elements located at the curb line of Independence Avenue and within the public space on C Street would result in minor adverse impacts on planning policies.

Mitigation

Mitigation measures for Alternative 2 would be the same as those identified above for Alternative 1.

No Action Alternative

The No Action Alternative would not alter the existing landscape, streetscape, or guard booths at the project site and therefore there would be negligible impacts on planning policies.

4.2.3 Community Facilities

Alternatives 1 and 2

The National Mall and its recreational spaces, the museums and memorials near the site, and the educational facilities in the vicinity of the project site at Graduate School USA and the Smithsonian would not be disrupted by the landscape changes, streetscape improvements or perimeter security elements proposed under Alternatives 1 and 2. Public access to the two USDA visitor centers would remain and the addition of public gardens creating an outdoor agricultural learning experience on the USDA grounds would create more interpretive and educational opportunities. The parking courts would be designed to function as flexible event space for scheduled events and exhibits open to the public relating to activities of the People's Garden. The organic garden at the Whitten Building would be expanded with further crop plantings at the garden and edible plants where feasible throughout the project site. Overall, Alternatives 1 and 2 would increase the community facilities in the area, creating beneficial impacts.

No Action Alternative

Under the No Action Alternative, the changes to the landscape, streetscape improvements, and perimeter security would not be undertaken. The existing organic People's Garden site would remain at the northeast corner of the Whitten Building block, but activities related to the garden would not be expanded and impacts to community facilities would be negligible.

4.2.4 Visitation

Alternative 1

Alternative 1 would not alter visitor access to the USDA visitor center at the Yates Building. Access to the visitor center in the Whitten Building would become more welcoming due to the landscape changes and integrated landscape perimeter security elements. Street trees along Jefferson Drive would be removed, reducing sidewalk shade cover; the removal of these trees would be subject to NPS approval and permitting. The streetscape improvements around the South Building would also create more welcoming public access to the cafeteria in the South Building. As discussed above in Section 4.2.3 Community Facilities, activities and experiences available to the public around the Whitten and South Buildings would increase. These would include events and exhibits relating to the People's Garden, sustainable landscape designs and rainwater harvesting that would serve as demonstration tools for visitors, and demonstration vegetable gardens and planting beds, much of which would occur on land under NPS jurisdiction.

There could be short-term minor adverse impacts to visitor circulation around the site during construction activities related to Alternative 1. Overall, visitation to the larger area, including the Mall and nearby memorials and museums, would not be altered by the proposed actions in Alternative 1. However, visitors in the area would frequent the USDA grounds more often. Visitors walking along Jefferson Drive would experience less shade, which would adversely affect pedestrians during high temperatures in the warmer months. As the site would be designed to accommodate and encourage visitation, overall beneficial impacts would occur.

Mitigation

During construction of the landscape changes, streetscape improvements, and perimeter security elements, appropriate signage should be posted to ensure that access is clearly marked to guide visitors to the USDA visitor centers, the South Building cafeteria, and the surrounding museums and memorials. Removal of street trees along Jefferson Drive would be subject to NPS approval and permitting.

Alternative 2

Alternative 2 would be similar to Alternative 1; however, Alternative 2 would employ the use of bollards to establish the primary perimeter security around the Whitten Building. At the Whitten Building, the landscape changes would make access to the USDA visitor center more attractive and inviting, although the perimeter security line would be visible. The street trees on Jefferson Drive would remain and would continue to provide shade cover.

There could be short-term minor adverse impacts to visitor circulation around the site during construction activities related to Alternative 2. Overall, visitation to the larger area, including the Mall and nearby memorials and museums, would not be altered by the proposed actions in Alternative 2. However, visitors in the area would frequent the USDA grounds more often. As the site would be designed to accommodate and encourage visitation, beneficial impacts would occur.

Mitigation

Mitigation measures for Alternative 2 would be the same as those identified above for Alternative 1.

No Action Alternative

Under the No Action Alternative, the changes to the landscape, streetscape improvements, and perimeter security would not be undertaken. The existing organic People's Garden site would remain in its existing configuration, including the land under NPS jurisdiction. Impacts to visitation would be negligible.

4.3 Public Space

Alternative 1

Alternative 1 would maintain much of the public realm near the Whitten and South Buildings, but would alter the existing landscape and add new features. At the South Building, new guard booths and gates would be installed at parking entrances. The new guard booths would extend slightly further into the public space. Alternative 1 would redesign the existing sidewalk and layby along C Street at the South Building. The layby would be removed, and a sidewalk of continuous width along the southern portion of the South Building would be installed. The design would remove the planters and instead install landscape strips with street trees. These improvements would be coordinated with DDOT and would conform to the DDOT streetscape standards, further integrating the street into the urban fabric. The removal of planters and the expansion of the sidewalk would improve pedestrian circulation and provide a more inviting experience.

The streetscape along Independence Avenue and 12th and 14th Streets at the South Building would be revised to provide consistent landscape strips and street trees. These improvements would require coordination with DDOT. As a result of changes to public space, including the removal of curb cuts and the enhancement of the streetscape, there would be beneficial impacts on public space.

Mitigation

USDA should coordinate with DDOT during the design process in order to ensure compliance with their *Design Engineering Manual* and the *Public Realm Design Manual.* In addition, DDOT would require USDA to receive a public space permit for the changes to C Street, and its sidewalk.

Alternative 2

Alternative 2 would result in the same changes to public space as Alternative 1. The guard booths would be replaced and the planters and C Street layby removed. Landscape strips would be installed and the sidewalk widened. As a result of these changes, there would be beneficial impacts due to the streetscape improvements.

Mitigation

Mitigation measures for Alternative 2 would be the same as those identified above for Alternative 1.

No Action Alternative

Under the No Action Alternative, the changes to the landscape, streetscape improvements, and perimeter security would not be undertaken. As a result, there would be negligible adverse impacts to public space.

4.4 Historic and Cultural Resources

As described in Chapter 3, the NHPA is the guiding legislation for the preservation of historic properties and it establishes standards for evaluating potential effects on historic resources. The NHPA defines "effect" as an "alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register" (36 CFR 800.16), and requires that the lead agency, in consultation with the SHPO, determine whether the effect is adverse. According to the NHPA, an "adverse effect" occurs "when an undertaking may alter, directly or indirectly, any of the characteristics of the historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" (36 CFR 800.5).

The Section 106 process is being conducted concurrently with the NEPA process. The analysis of cultural resources that follows considers potential impacts to historic resources, identifies potential adverse effects to historic resources under NHPA, and identifies ways to avoid, minimize, or mitigate adverse effects, as being determined through the Section 106 process. Potential effects to historic resources and archaeological resources include direct and indirect effects. The alteration, physical displacement, or demolition of a resource is a direct adverse effect; changes in the use, operation or character of a resource can be either direct or indirect effects; and changes to the visual context are considered indirect effects. “Impacts”, as defined in the CEQ regulations implementing NEPA, and “effects”, as used in NHPA, are interchangeable here.

4.4.1 Historic Resources

Alternative 1

Alternative 1 would not alter the Whitten or South Buildings or their perimeter moats, but would change the setting of these historic buildings. In Alternative 1, the Whitten Building perimeter security would be integrated into the landscape design, which would retain its Olmsted-era plantings form of open lawns punctuated by groupings of trees on the north side of the building, and the planted moats. Alternative 1 would also reconfigure the organic garden and the shade garden, replace surface parking on the east and west sides of the Whitten Building with a market structure and arbor structures, and reduce the amount of paved surface parking on the south side of the Whitten Building. Newly designed site elements would be referential to the Olmsted-designed landscape and the historical development of the site.

The historic stone wall at the central entrance to the north side of the Whitten Building would be hardened using bollards placed within the wall. The wall would then be reconstructed in place around the bollards using original materials. The existing stairs leading from the sidewalk to the driveway north of the Whitten Building would be retained and their configuration would not be changed. The original entry drive configuration would be retained and paving would be added to remove marked parking spaces and reference the historic paving on the upper plaza. These changes would retain the historic condition of the entry drive, wall, and stairs and would not adversely affect the physical fabric. The Whitten Building landscape was designed by the Olmsted Brothers and, through a Draft Determination of Eligibility, has been identified as a contributing element to be added to the existing Whitten Building National Register Nomination. The proposed site improvements would remove a number of non-contributing and incompatible elements, including planting and paving, and would restore significant

elements of the original or intended design, including balance and symmetry, open space, views to and from the Whitten Building, and original circulation patterns. This would also include the removal of the 8 non-historic street trees on Jefferson Drive, subject to NPS approval and permitting, that were not included as part of the Olmsted planting plan according to historic design documentation. The design would retain existing plantings dating from the Olmsted-era landscape plans and locate some new plantings based on historic precedent.

On the north side of the Whitten Building in Alternative 1, fountains would be added to the formal paved paths on either side of the central court. These existing paths would be extended with new east-west paths and ornamental planting beds. The memorial plaques and signage would be removed to restore the open character of the original design. These elements would help to restore and enhance the viewshed across the north lawns of the Whitten Building to the Mall and the National Museum of American History along the former 13th Street view corridor. Alternative 1 would reconfigure the existing organic garden in the northeast corner of the site to better reflect the geometry of the site and the Whitten Building. The existing shade garden in the northwest corner of the site would be modified to improve and better integrate circulation across the site. The historic plantings in both locations would be retained. These new landscape elements would be visible from the Mall; however the proposed fountains and paths are interpretations of an Olmsted-era design feature that was never implemented and the open character of the landscape between the Mall and the Whitten Building would be maintained. The proposed plantings would be designed to be compatible with the Mall plantings. Therefore there would be long-term minor adverse impacts on the historic district's setting as well as long-term beneficial impacts to the Whitten Building landscape. There would be no adverse effect.

The parking courts along 12th and 14th Streets would be replaced with landscape and site elements. Along 12th Street, an open-air paved marked space with a permanent market structure, an arbor and a garden support structure would be installed. The curved path of the proposed market structure references the curved drive that once existed in that location. The introduction of a large and permanent market structure would alter the spatial character of the site in this location and would obscure views to and from the site. Along 14th Street, the evergreen plantings that currently screen the parking lot would be removed to restore the view along the 14th Street corridor; however, the curved path, pergola, and plantings that would be added would alter the spatial character of the site and would obscure views to and from the site. These elements would cause long-term direct moderate adverse impacts to the Whitten Building landscape and indirect impacts to views to and from adjacent historic sites, structures, and districts and would constitute an adverse effect.

On the south side of the Whitten Building, the size of the surface parking would be reduced, curb cuts would be removed and reconfigured, and the parking courts would be repaved to better complement the architecture of the Whitten Building. Plantings would be added along Independence Avenue that would regularize the planting pattern and enhance the character of the L'Enfant Plan in this location, which would cause long-term beneficial impacts. The existing south entry would not be modified. Removal of paving and curb cuts would remove historic features of the area but would not reduce its ability to act as a utilitarian space. There would be long-term minor to moderate adverse impacts due to the reduction of the south courts and these actions would constitute an adverse effect to the character of the site. The two historic buildings within these courts (Alcohol and Mechanical Buildings) would not be adversely affected. No identified historic plantings exist in these locations, and therefore changes in the planting plans would not represent adverse effects. The integration of perimeter security into the landscape and existing hardened site elements would minimize its visual presence, as would combining cable-rail

systems with deciduous hedges. The perimeter security line would follow the Whitten Building footprint as closely as possible while being sufficiently removed so as not to impact the historic building or perimeter moats. This placement would avoid historic trees, preserve the open character of the site, and minimize visual impacts to surrounding historic sites, districts, and views. At the central entrance on the north side of the Whitten Building, the perimeter security line would be extended to the sidewalk in order to protect automobiles and passengers entering the north ceremonial court. The placement and appearance of these perimeter security elements would be integrated into existing structures and new site elements and would be designed to limit visual and physical impacts to the original court, stairs, wall, walks, and landscape. The perimeter security elements located along the curb line on Independence Avenue would alter the setting of the Whitten Building and would have a minor adverse impact on the historic structure. These perimeter security elements would be also be visible from the South Building and would change the street level view between the two buildings. The perimeter security elements on Independence Avenue would also alter the visual continuity of Independence Avenue, a contributing element to the L'Enfant Plan. These changes would cause minor adverse impacts to the L'Enfant Plan. The physical components of perimeter security implementation would affect the entire site and create a functional boundary between the Whitten Building and its landscape, causing long-term direct moderate adverse impacts to the Whitten Building and its landscape and long-term indirect adverse visual impacts to the Whitten Building and its landscape. This would constitute an adverse effect under Section 106, which would be minimized through sensitive design and planning.

The guard booths that would be constructed at the South Building to replace the temporary guard booths would be designed to be more cohesive with the South Building's design. The replacement of the guard booths would maintain the presence of non-historic structures adjacent to the South Building and would continue to have a long-term minor adverse impact on the setting of the South Building and the visual continuity of C Street, a contributing element to the L'Enfant Plan. Street trees would be added, with existing street trees retained where possible, which would regularize and enhance the streetscapes surrounding the South Building and create a beneficial impact to the historic district; no historic plantings have been identified around the South Building. Replacement of the non-historic guard booths and plantings around the South Building would not constitute an adverse effect. The removal of the layby along C Street would straighten the sidewalk edge and add to the visual continuity of the street and the street trees would be added to Independence Avenue based on historic documentation. Beneficial impacts to the L'Enfant Plan would occur from these elements in Alternative 1.

There would be long-term minor indirect and visual impacts to the historic properties that are located within the boundaries of the APE but not within the immediate project area due to the nature of the planned improvements and perimeter security measures—predominantly low-scale planting, alterations in paving and access, and hardened bollards and cable rails. Changes in topography, in conjunction with the plantings and structures on and around the National Mall, would further screen views and lessen visual impacts to historic properties. No direct long-term adverse impacts would occur to the historic properties.

Short-term minor adverse impacts to historic structures and districts would occur during construction due to the visual impact of construction equipment and materials staging.

Mitigation

The Section 106 process is ongoing and the consulting parties are continuing to seek ways to avoid, minimize, and mitigate adverse effects to historic resources. The consulting parties will finalize

mitigation measures that would be implemented in accordance with the agreement document developed as part of the Section 106 process. This could include measures to address the visual impact of perimeter security measures, avoid negative impacts to historic trees and their root structures, restore certain aspects of the intended Olmsted designs, and expand and update the National Register Nomination for the Whitten Building to include the Whitten Building landscape. The Section 106 agreement will document the mitigation measures and stipulate that consultation will continue through the detailed design process. Removal of street trees along Jefferson Drive would be subject to NPS approval and permitting.

Alternative 2

The Whitten Building perimeter security in Alternative 2 would be implemented as a primary perimeter security line comprised mainly of bollards and some hardened walls and benches. The landscape would retain its Olmsted-era form of the open lawns punctuated by groupings of trees on the north side of the building, and the planted moats. The parking courts on the east and west sides of the Whitten Building would remain.

The historic stone wall at the central entrance to the north side of the Whitten Building would be hardened using bollards placed within the wall. The wall would then be reconstructed in place around the bollards using original materials. The original entry drive configuration would be retained and paving would be added to remove marked parking spaces and reference the historic paving on the upper plaza. These changes would retain the historic condition of the entry drive and wall. The stairs leading from the sidewalk to the driveway north of the Whitten Building would be widened, which would result in the loss of historic fabric and would alter the relationship of the plaza to the sidewalk, causing long-term moderate adverse impacts to the Whitten Building site and would constitute an adverse effect under Section 106.

The proposed site improvements would remove a number of non-contributing and incompatible elements from the Whitten Building landscape, including planting and paving, and would restore significant elements of the original or intended design, including balance and symmetry, open space, views to and from the Whitten Building, and original circulation patterns. The design would retain existing plantings dating from the Olmsted-era landscape plans and locate some new plantings based on historic precedent.

The memorial plaques and signage would be removed to restore the open character of the original design, which would help to restore and enhance the viewshed across the north lawns of the Whitten Building to the Mall and National Museum of American History along the former 13th Street view corridor. Alternative 2 would reconfigure the existing organic garden in the northeast corner of the site and would establish a design with formal geometry, which would more closely align with the Whitten Building's architecture. In Alternative 2, the northwest corner would be modified to include a small rain garden. The historic plantings would be retained in both locations. Several additions and changes to the landscape on the north side of the Whitten Building would be implemented in Alternative 2, including the placement of one glass and wood garden structure in the northeast portion of the site near the organic garden and an arbor near the organic garden. The view of these elements and the reconfigured planting beds from the Mall would be screened by vegetation to limit their visibility. The open character of the landscape between the Mall and the Whitten Building would be maintained. These new landscape elements would be visible from the Mall. The proposed plantings would be designed to be compatible with the Mall plantings. While the new landscape elements would not be overly obtrusive, they would

have a long-term minor adverse impact on the historic district's setting, as well as long-term beneficial impacts to the Whitten Building landscape. There would be no adverse effect.

The addition of evergreen trees along the existing parking court on the west side of the Whitten Building would screen the surface parking from view, but would also screen the view of the Whitten Building from 14th Street, which would have a long-term minor adverse impact on the historic 14th Street view corridor.

On the south side of the Whitten Building, the size of the surface parking would be reduced, curb cuts would be removed and reconfigured, and the parking courts would be repaved to better complement the architecture of the Whitten Building. Plantings would be added along Independence Avenue that would regularize the planting pattern and enhance the character of the L'Enfant Plan in this location, which would create long-term beneficial impacts. The existing south entry would not be modified. Removal of paving and curb cuts would remove historic features of the area but would not reduce its ability to act as a utilitarian space. There would be long-term minor to moderate adverse impacts due to the reduction of the south courts and these actions would constitute an adverse effect to the character of the site. The two historic buildings within these courts (Alcohol and Mechanical Buildings) would not be adversely affected. No identified historic plantings exist in these locations, and therefore changes in the planting plans would not represent adverse effects.

The perimeter security elements in Alternative 2 would be screened with landscape features in some instances, but would create a visible line within the open lawn landscape on the north side of the Whitten Building, modifying the open character of the site. These perimeter security elements would alter the setting of the Whitten Building, its landscape, and its relationship to the Mall and would have a moderate adverse impact on the historic structure, site and the historic district. The perimeter security elements would be screened from view by vegetation on 12th and 14th Streets. Therefore, in these locations the perimeter security elements would not alter the setting of the Whitten Building, the Mall, or other adjacent properties.

The perimeter security elements located along the curb line and in the sidewalk on Independence Avenue would alter the setting of the Whitten Building and would have a minor adverse impact on the historic site and structure. These perimeter security elements would be also be visible from the South Building and would change the street level view between the two buildings. The perimeter security elements on Independence Avenue would also alter the visual continuity of Independence Avenue and would cause minor adverse impacts to the L'Enfant Plan. The physical components of perimeter security implementation would affect the entire site and create a functional and visible boundary between the Whitten Building and its landscape, causing long-term direct moderate adverse impacts to the Whitten Building and its landscape and long-term indirect adverse visual impacts to the Whitten Building and its landscape. This would constitute an adverse effect under Section 106, which would be minimized through sensitive design and planning.

The guard booths that would be constructed at the South Building to replace the temporary guard booths would be designed to be more cohesive with the South Building's design. The replacement of the guard booths would maintain the presence of non-historic structures adjacent to the South Building and would continue to have a minor adverse impact on the setting of the South Building and the visual continuity of C Street, a contributing element to the L'Enfant Plan. Street trees would be added, with existing street trees retained where possible, which would regularize and enhance the streetscapes surrounding the South Building and create a beneficial impact to the historic district; no historic

plantings have been identified around the South Building. Replacement of the non-historic guard booths and plantings around the South Building would not constitute an adverse effect.

The removal of the layby along C Street would straighten the sidewalk edge and add to the visual continuity of the street and the street trees that would be added to Independence Avenue based on historic documentation. Beneficial impacts to the L'Enfant Plan would occur from these elements in Alternative 2.

Under Alternative 2, there would be long-term minor to moderate indirect and visual impacts to the historic properties that are located within the boundaries of the APE but not within the immediate project area due to the nature of the planned improvements and perimeter security measures—predominantly low-scale planting, alterations in paving and access, and visible hardened bollards. Changes in topography, in conjunction with the plantings and structures on and around the National Mall, would help to screen views in some locations and lessen visual impacts to historic properties. No direct long-term adverse impacts would occur to the historic properties.

Short-term minor adverse impacts to historic structures and districts would occur during construction due to the visual impact of construction equipment and materials staging.

Mitigation

Mitigation measures for Alternative 2 would be the same as those identified above for Alternative 1.

No Action Alternative

The No Action Alternative would not implement any landscape or streetscape improvements or perimeter security elements and impacts to historic resources would be negligible.

4.4.2 Archaeological Resources

Alternative 1

Alternative 1 would require excavation for the placement of the perimeter security elements at the Whitten Building, which would be located within the building yard except in limited locations along the curb line on Independence Avenue. Excavation for perimeter security elements would vary by the type of element, with depths from approximately four to six feet. Ground disturbance would also occur during the removal and replacement of existing trees and the addition of new trees within the Whitten Building yard and street trees adjacent to the Whitten and South Buildings (depths of approximately four feet), as well as during the replacement of the existing guard booths on C Street. In order to install the rainwater harvesting elements, excavation would occur in several places, including for the fountains with integrated water harvesting cistern capacity located at the central entrance to the Whitten Building (depths of approximately 8 to 12 feet) and subsurface water storage systems below the parking courts (depths of approximately four to six feet). Ground disturbance would also occur on the east and west sides of the Whitten Building during removal of the surface parking courts and installation of the pergola foundation (depths of approximately 5 to 8 feet) and the market structure foundations (depths of approximately 5 to 8 feet). The east parking court on Independence Avenue would be lowered slightly, which would require minimal grading, and each other Whitten Building parking courts would be modified and repaved.

The Whitten and South Buildings are sited on disturbed soils; however, due to the site's proximity to both Tiber Creek and the Potomac River, there could be an increased potential for Native American and

prehistoric archaeological resources, which could be affected by the implementation of Alternative 1. Intact historic archaeological remains could be encountered, particularly along the north, east, and west sides of the Whitten Building where late nineteenth to early twentieth century development has been identified based on historic maps.

While there could be potential impacts to archaeological resources as a result of the ground disturbances that would occur in Alternative 1, subsurface testing has not yet been conducted and no archeological sites have been identified. Therefore, impacts to archaeological resources cannot be fully evaluated at this time and possible adverse impacts to archaeology could be moderate. Impacts would be mitigated through consultation with the DC SHPO regarding archaeological investigations, including site borings that would occur during the planning phase in order to determine the depth of fill and the potential for intact soils that could contain prehistoric resources.

Mitigation

In consultation with the DC SHPO, site borings would take place during the planning phase in order to determine the depth of fill and whether intact soils that could contain Native American artifacts are present below fill. Additional site investigations could be identified through the Section 106 process. In the event that archaeological resources are uncovered during ground-disturbing activities, construction would stop while appropriate archaeological studies are conducted. All such work shall follow the "Guidelines for Archaeological Investigations in the District of Columbia" (1998, as amended), the "Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation" (1983), and NPS "Director's Order 28: Cultural Resource Management" (1998). In the event of an unanticipated archaeological discovery, the DC State Archaeologist shall be notified to determine the level and type of recording or recovery if warranted. The ongoing Section 106 consultation to evaluate and mitigate adverse effects on historic properties, including archaeological resources, will identify and document mitigation measures in the Section 106 agreement document, and will stipulate that consultation continue through the design and construction process.

Alternative 2

The excavation, grading, and ground disturbances related to construction described in Alternative 1 would also occur under Alternative 2, with the exception of the rainwater harvesting fountains and the installation of the pergola on the west side of the Whitten Building and the market structure on the east side of the Whitten Building, which would not be installed under Alternative 2. Excavation would occur for the arbor and garden structure on the east side of the Whitten Building.

As described in Alternative 1, while the Whitten and South Buildings are sited on disturbed soils, there could be the potential for prehistoric and historic archaeological resources. These resources could be affected by the implementation of Alternative 2; however, subsurface testing has not yet been conducted and no archeological sites have been identified. Therefore, impacts to archaeological resources cannot be fully evaluated at this time and possible adverse impacts to archaeology could be minor.

Mitigation

Mitigation measures for Alternative 2 would be the same as those identified above for Alternative 1.

No Action Alternative

Under the No Action Alternative, the changes to the landscape, streetscape improvements, and perimeter security would not be undertaken and excavation would not occur on the site. As a result, there would be negligible impacts to archaeological resources.

4.5 Visual Resources

Alternative 1

Jefferson Drive

Alternative 1 would remove a portion of the existing trees within the Whitten Building yard along Jefferson Drive, including the landscape in the northwest corner of the site, along the north face of the Building, and along the walkway flanking the circular drive. Paved paths leading to the trees from the Jefferson Drive sidewalk would be removed, as would existing street trees along Jefferson Drive. Alternative 1 would add paths of crushed stone leading from the sidewalk along Jefferson Drive. Alternative 1 would install trees forming a shade garden along Jefferson Drive at the northwest corner of the site, and small trees along the front of the Whitten Building. In the northeast corner of the site, the existing organic garden would be expanded, and new trees would be added along Jefferson Drive and 12th Street. An arbor and garden support structure would be located near Jefferson Drive to the south of the organic garden. At the circular drive entry, the existing wall would be hardened and bollards would be installed at the top of the stairs. The existing parking lot would be replaced with granite stone. The existing grass panels flanking the parking area would be reduced in size by the addition of agricultural beds on either side. Along the perimeter security line near the building, a cable system would be integrated into a new row of hedges.

Alternative 1 would alter the Jefferson Drive viewshed by introducing new landscape elements throughout the site, and by removing street and landscape trees and walkways, most noticeably along Jefferson Drive. The primary character of the viewshed would be altered to an urban and park setting, while maintaining the tree-lined promenade character of the National Mall. The removal of street and landscape trees would allow for a more open viewshed and views of the Whitten Building. The wall at the circular drive entrance would retain its existing low scale, while bollards would add additional visual elements to the view. The new trees along these paths would also be similar in scale to the existing plantings. The removal of multiple entry paths from the Jefferson Drive sidewalk would help unify the visual line of the viewshed, although new entry paths would be added at the northwest and northeast corners of the site. Overall, Alternative 1 would result in moderate adverse impacts on the Jefferson Drive viewshed as a result of changes to the overall character of the viewshed.

Independence Avenue

Alternative 1 would remove the existing planters and remove two curb cut entrances. Along Independence Avenue, Alternative 1 would place new landscape elements near the Whitten Building, including trees that would serve as perimeter security and agricultural beds along much of the Independence Avenue sidewalk and the parking areas. The trees would also serve to buffer views of the parking lots from Independence Avenue, several of which currently use hedges to obscure the parking areas. At the southeast corner of the site, trees would be removed and replaced by a consecutive row of trees. Behind this row of trees, a market commons support structure would be located east of the Whitten Building. At the southwest corner of the site, existing trees would be replaced and access to a pedestrian walkway, lined by a pergola, would curve along the western portion of the Whitten Building site. The number of curb cuts would be reduced by two, although two of the remaining curb cuts would be expanded to accommodate both entering and exiting vehicles. Hedges with integrated perimeter security features would be placed along much of the Whitten Building, with bollards located at the curb cuts. Perimeter security elements, including bollards, would be placed along the north side of

Independence Avenue near the roadway at the central portion of the site near the main driveways near the arches. Bollards would cross the northern sidewalk along Independence Avenue at four places. Additional trees would be planted in front of the Whitten Building's main Independence Avenue entrance. Along the north and south sides of Independence Avenue, Alternative 1 would expand the tree boxes and install vegetation, including additional street trees.

Alternative 1 would alter the Independence Avenue viewshed by introducing new landscape and perimeter security elements along Independence Avenue, as well as by eliminating curb cuts. The increase in the number of street trees would reinforce the visual lines along Independence Avenue, as well as provide additional filtering of views of parking. The removal of curb cuts would increase the unity of the viewshed by eliminating visual breaks. The perimeter security elements would add new features into the viewshed that would distract from the existing visual lines, as would the market support structure and pergola along the periphery of the viewshed. As a result, there would be overall minor adverse impacts on the Independence Avenue viewshed due changes in the character of the viewshed.

C Street

Alternative 1 would alter the existing sidewalk and roadway of C Street by replacing current sidewalk of uneven width that accommodates a layby lane for buses with a standard sidewalk width. The sidewalk would be enhanced by the replacement of the existing planters with landscape strips and street trees along Independence Avenue. The existing guard booths would be replaced with newer versions, similar in scale to the existing structures.

Alternative 1 would alter the C Street viewshed by creating a more consistent sidewalk and installing street trees along the northern sidewalk, both of which would reinforce the visual lines of the viewshed and add an additional vegetative layer. There would be beneficial impacts to the reinforcement of visual lines and minor adverse impacts as a result of obscuring the viewshed terminus under Alternative 1.

14th Street

Along 14th Street, Alternative 1 would retain the existing street trees and landscape strip between the curb and the sidewalk, and augment it with additional street trees. The design would remove trees and bushes in the building yard at the western portion of the site that serve as visual buffer for the parking lot, which would also be removed. Instead, curved paths would link 14th Street to Independence Avenue and Jefferson Drive. A planted bed and pergola would flank the southern path. Along with the pergola, landscape trees would shield the integrated perimeter security features along the western side of the Whitten Building. The existing curb cut at the northwest corner of the site would be removed. Trees would be placed at the northwest corner of the site, along with a rain garden. The design would expand the sidewalk along 14th Street. Alternative 1 would maintain the portion of streetscape along the South Building.

Alternative 1 would alter the 14th Street viewshed by changing the landscape elements and by removing the existing curb cut. The placement of street and landscape trees along 14th Street would reinforce the visual character of the viewshed as a tree-lined street, and repeat existing visual lines. In addition, Alternative 1 would remove the existing curb cut and add two pedestrian access points, limiting visual breaks to points behind street trees. The pergola structure would also be visible, introducing built elements into the periphery of the viewshed. As a result, there would be overall minor adverse impacts on the 14th Street viewshed.

Mitigation

The USDA People's Garden should consider minimizing the impacts on viewsheds as the design progresses. The perimeter security elements should be low and unobtrusive, and use materials that are consistent with the urban context of the site. Built elements within the building yard should use materials that complement the landscape setting. Removal of street trees along Jefferson Drive would be subject to NPS approval and permitting.

Alternative 2

Jefferson Drive

Alternative 2 would remove a portion of the existing trees within the Whitten Building yard along Jefferson Drive, including the landscape in the northwest corner of the site, along the north face of the Building, and along the walkway flanking the circular drive. The paved paths leading to the trees from the Jefferson Drive sidewalk to the parking areas and to trees along Jefferson Drive would be removed. Alternative 2 would install one tree and a rain garden flanked by a hedge along Jefferson Drive at the northwest corner of the site and small trees along the front of the Building. In the northeast corner of the site, the existing organic garden would be expanded, but would be bordered by a hedge row with bollards along Jefferson Drive and 12th Street. At the circular drive entry, the existing wall would be hardened and bollards would be installed at the foot of the stairs; small trees would be installed along the entrance walkways' north-south axis. Along the perimeter security line near the Whitten Building, a series of bollards would be installed.

Alternative 2 would alter the Jefferson Drive viewshed by introducing new landscape elements throughout the site, and by removing trees and walkways. The primary character of the viewshed would remain a tree-lined street in an urban and park setting, although the removal of trees would allow for a more open viewshed and views of the Whitten Building. Conversely, the addition of the hedge and one tree at the northwest corner of the site would obscure views beyond them. The bollards along the perimeter security line would introduce a repeating built element into a landscape area. The wall at the circular drive entrance would retain its existing low scale, while bollards would add additional visual elements to the view. The new trees along these paths would also be similar in scale to the existing plantings. The removal of multiple entry paths from the Jefferson Drive sidewalk would help unify the visual line of the viewshed. Overall, Alternative 2 would result in minor adverse impacts on the Jefferson Drive viewshed as a result of the low peripheral location of new bollards in the building yard and changes to the overall character of the viewshed.

Independence Avenue

Alternative 2 would also remove the existing planters, but it would remove one curb cut and install bollards along the perimeter security line at Independence Avenue. Along Independence Avenue, Alternative 2 would place new landscape elements near the Whitten Building, including trees that would serve as perimeter security. The trees would also serve to buffer views of the parking lots from Independence Avenue. At the southeast corner of the site, an existing tree would be removed and replaced by a consecutive row of trees. One curb cut would be removed, the westernmost curb cut would remain, and the four other curb cuts would be expanded to accommodate vehicular ingress and egress. Also as a result of the curb cut locations, there would be two fewer street trees installed along Independence Avenue under Alternative 2 than under Alternative 1. Bollards would be placed along the entry driveway at the western parking lot and along the eastern parking lot.

Alternative 2 would alter the Independence Avenue viewshed by introducing new landscape and perimeter security elements along Independence Avenue, as well as by eliminating curb cuts. The increase in the number of street trees would reinforce the visual lines along Independence Avenue, as well as provide additional filtering of views of parking. The removal of curb cuts would increase the unity of the viewshed by eliminating visual breaks. In addition, bollards would be introduced into the viewshed at the eastern and western ends of the Whitten Building. As a result, there would be minor adverse impacts on the Independence Avenue viewshed.

C Street

Alternative 2 would be similar to Alternative 1. The sidewalk and landscape improvements and the new guard booths would be incorporated into Alternative 2. As a result, there would be beneficial impacts to the reinforcement of visual lines along C Street under Alternative 2.

14th Street

Along 14th Street, Alternative 2 would retain the existing streetscape, including the street trees, sidewalk, and driveway entrance. The design would remove trees and plantings in the building yard at the western portion of the site that serve as visual buffer for the parking lot, and replace them with a hedge and tree. Bollards would run along the interior portion of the hedge and the driveway to the western parking lot in order to provide perimeter security. A hedge and one tree would be placed at the northwest corner of the site, along with a rain garden. Alternative 2 would maintain the portion of streetscape along the South Building.

Alternative 2 would alter the 14th Street viewshed by altering the landscape elements. The removal and replacement of trees and hedge to buffer views of the parking along 14th Street would continue the visual character of the viewshed. As a result, there would be minor adverse impacts on the 14th Street viewshed.

Mitigation

The USDA People's Garden should consider minimizing the impacts on viewsheds as the design progresses. The perimeter security elements should be low and unobtrusive, and use materials that are consistent with the urban context of the site.

No Action Alternative

Under the No Action Alternative, no changes to the landscape, streetscapes, or perimeter security would occur at the USDA Complex. As a result, there would be negligible impacts to visual resources.

4.6 Transportation Systems and Circulation

4.6.1 Methodology and Assumptions

Vehicular traffic generated by the proposed project at the Whitten and South Buildings is anticipated to be negligible. Therefore, the proposed landscape and site improvements are unlikely to affect the local traffic network. As the vehicular trips generated by the site would be minimal, additional insights would not be provided by a quantitative traffic analysis.

The traffic analysis in this EA makes several assumptions for future traffic once the site and perimeter security improvements are completed. The assumptions include the following:

- The number of parking spaces on the Whitten Building block would be reduced.
- The number of curb cuts providing access to the parking courts at the Whitten Building would be reduced.
- The number of parking spaces available in each of the Whitten Building parking courts would be under 30 spaces, limiting the number of vehicles entering and exiting the parking courts.
- The number of parking spaces and number of vehicles entering and exiting the South Building parking courts would remain unchanged from existing conditions.
- Existing commuting patterns to the Whitten and South Buildings would remain unchanged.
- Visitors to the site would primarily arrive as pedestrians coming from nearby attractions.

4.6.2 Roadways and Traffic

Alternative 1

Construction of some landscape and perimeter security elements, especially near the perimeter of the site, as well as the streetscape improvements could require the temporary rerouting of vehicular traffic and/or the temporary narrowing or closure of vehicular travel lanes or parking lanes for varying durations. This would require traffic to be temporarily diverted to other roadway lanes, and/or require vehicles to seek other parking spaces, which would reduce the available capacity of the roadway segment. This would result in minor, short-term increases in traffic congestion and traffic delays on adjacent roadway segments and/or intersections, especially during peak AM and PM traffic periods. Trucks delivering construction materials to the site and hauling demolished sidewalk materials and excavated soil would access the project site via area roadways. This could also result in and/or add to minor, short-term traffic delays and congestion during peak AM and PM traffic periods. Work would be coordinated with off-peak traffic hours whenever feasible and short-term impacts to vehicular traffic during construction would be minor to moderate.

Alternative 1 would reduce the number of driveway curb cuts around the Whitten Building leading to the parking courts by removing two curb cuts along the Independence Avenue and one curb cut each along 12th and 14th Streets. The two curb cuts along 12th Street would be utilized primarily to access limited market vendor parking. The number of parking spaces would also be reduced in each parking court at the Whitten Building, reducing the number of vehicles entering and exiting the driveways. The parking court along 14 Street would be removed, eliminating the vehicular entrance on Independence Avenue and the vehicular exit on 14th Street. The existing curb cut along Independence Avenue near 14th Street would become a roll curb and would be utilized only for emergency access. The reduced number of parking courts and curb cuts would reduce the number of locations where vehicles could queue to enter the parking courts. The reduced number of vehicles accessing the Whitten Building site

and the reduced parking court access points could potentially improve vehicular flow around the Whitten Building. At the South Building, the existing guard booths along C Street would be replaced and vehicles accessing the building's courtyards would continue to be screened at the guard booths.

Alternative 1 would redesign the existing sidewalk and layby along C Street at the South Building. The layby would be removed and the sidewalk would be extended to create a continuous width along the southern portion of the South Building. This change would not remove a vehicular through-lane; however, it would alter the bus stop at the layby and require buses to stop within the vehicular right-of-way or the parking lane. The two buses that stop here (V7 and V9) also stop at the Metrobus stop along C Street near its intersection with 12th Street, which does not have a layby. The removal of the layby near 14th Street could cause short traffic delays while passengers enter and exit the bus. Overall, long-term adverse impacts to vehicular traffic would be minor. These improvements would require coordination with DDOT.

Mitigation

Construction activities and the transport of construction materials should occur during the weekday off-peak period, and utilize lower volume streets whenever possible. USDA should coordinate with DC Fire and Emergency Services to ensure that emergency vehicle access is maintained during construction and after completion.

USDA should coordinate with DDOT during the design process in order to ensure compliance with DDOT's *Design Engineering Manual* and to ensure appropriate vehicular levels of service. USDA should also coordinate with WMATA to accommodate the Metrobus stop on C Street.

Alternative 2

Alternative 2 would be similar to Alternative 1. The removal of the layby on C Street in Alternative 2 and the truck traffic related to construction would be similar to that described under Alternative 1 and short-term minor to moderate impacts to vehicular traffic would occur during construction in Alternative 2.

Alternative 2 would also reduce the number of driveway curb cuts around the Whitten Building. This alternative would remove one curb cut each from Independence Avenue and 12th Street. The number of parking spaces would also be reduced in each parking court at the Whitten Building, which would reduce the number of vehicles entering and exiting the driveways. The reduced number of curb cuts would eliminate the number of locations where vehicles could queue to enter the parking courts, which could potentially improve vehicular flow around the Whitten Building. At the South Building, the existing guard booths along C Street would be replaced and vehicles accessing the building's courtyards would continue to be screened at the guard booths.

As in Alternative 1, the existing sidewalk and layby along C Street at the South Building would be redesigned by removing the layby and extending the sidewalk. This change would not remove a vehicular through-lane; however, it would alter the bus stop at the layby and require buses to stop within the vehicular right-of-way or the parking lane, which could cause short traffic delays. Overall, long-term adverse impacts to vehicular traffic would be minor. These improvements would require coordination with DDOT.

Mitigation

The mitigation measures identified for Alternative 1 would also apply to Alternative 2.

No Action Alternative

Under the No Action Alternative, no changes to parking, curb cuts, landscaping, streetscapes, or perimeter security would occur at the USDA Complex. As a result, there would be negligible adverse impacts to roadways and traffic.

4.6.3 Parking

Alternative 1

Some of the on-street parking spaces located directly adjacent to the Whitten and South Buildings could be unavailable for varying durations during construction of the landscape and perimeter security elements in Alternative 1. On-street parking on the north side of C Street would be unavailable during the removal of the bus layby and construction of the sidewalk extension there. Surface parking at the Whitten Building would be limited during the repaving and reconfiguration of the building's parking courts. These temporary parking restrictions would cause short-term minor to moderate adverse impacts to parking.

Once construction is complete, the number of surface parking spaces at the Whitten Building would be reduced to 55 spaces, plus 14 vendor parking spaces at the market. This would be a reduction of 113 vehicular parking spaces and 9 motorcycle spaces. Surface parking at the South Building would remain unchanged. These surface parking spaces serve employees and are not open to the public. Existing on-street parking adjacent to the site, including on C Street, would remain Long-term minor adverse impacts to parking would occur due to the removal of a small number of surface parking spaces from the Whitten Building.

Alternative 2

Under Alternative 2 impacts to parking would be similar to those under Alternative 1. Short-term construction impacts would occur as described in Alternative 1. Short-term adverse impacts to parking due to temporary parking restrictions would be minor to moderate.

Once construction is complete, the number of surface parking spaces at the Whitten Building would be reduced to 109 spaces, a reduction of 59 vehicular parking spaces and 9 motorcycle spaces. Surface parking at the South Building would remain unchanged. These surface parking spaces serve employees and are not open to the public. On-street parking adjacent to the site would remain unchanged. Long-term minor adverse impacts to parking would occur due to the removal of a small number of surface parking spaces from the Whitten Building.

No Action Alternative

Under the No Action Alternative, parking in the vicinity of the project site would change. As a result, there would be negligible impacts to parking.

4.6.4 Public Transit Systems

Alternative 1

Construction on C Street to remove the layby near 14th Street and straighten the sidewalk edge would cause temporary disruptions to Metrobuses serving the V7 and V9 bus stops on C Street at 12th and 14th Streets. Construction would be timed to minimize the amount of time Metrobus service would need to be rerouted and so that nearby stops served by these lines would not be impacted. During

construction, access to the Smithsonian Metrorail Station entrance at the northeast corner of the South Building would be maintained. Short-term adverse impacts to public transit systems would be moderate.

In the long-term, the Metrobus stop on C Street at 14th Street would be maintained on the sidewalk after the removal of the C Street layby like the Metrobus stop on C Street at 12th Street. The proposed landscape and perimeter security changes would not alter the public transit service available in the vicinity of the site and long-term impacts would be negligible.

Mitigation

USDA should coordinate with DDOT and WMATA on design features and construction schedules to accommodate the Metrobus stop on C Street. USDA should also coordinate with WMATA to ensure construction does not interfere with the Metrorail lines underground in the vicinity of the project and to facilitate access to WMATA Metrorail and Metrobus stations during construction.

Alternative 2

Impacts to public transit systems in Alternative 2 would be similar to those described in Alternative 1. The construction on C Street to remove the layby near 14th Street and straighten the sidewalk edge would cause temporary disruptions to Metrobuses serving the V7 and V9 bus stops on C Street at 12th and 14th Streets. In the long-term changes would not occur to the public transit service available in the vicinity of the site. Similar to Alternative 1, short-term adverse impacts to public transit systems under Alternative 2 would be moderate and long-term impacts would be negligible.

Mitigation

Mitigation measures identified in Alternative 1 would also apply to Alternative 2.

No Action Alternative

The No Action Alternative would not cause any changes to the public transit system in the vicinity of the site and therefore impacts would be negligible.

4.6.5 Pedestrian and Bicycle Circulation

Alternative 1

Construction related to the landscape and streetscape enhancements and the perimeter security elements would temporarily close sidewalks adjacent to the site, which would disrupt pedestrian circulation on sidewalks that border the site. The replacement of the guard booths on C Street and the removal of the C Street layby would also disrupt pedestrian circulation on the north side of C Street during construction. Short-term impacts to pedestrian circulation would be minor as pedestrians would be routed to proximate sidewalks.

In Alternative 1, the Whitten Building perimeter security would include elements integrated into the landscape as well as a cable rail system screened by a double hedge row and integrated seating. Landscape design elements such as the fountains and larger trees would serve as perimeter security, providing pedestrians with an open and accessible landscape and unobstructed sidewalks on the north, east, and west sides of the building at Jefferson Drive, 12th and 14th Streets where security elements would be setback from the curb line by at least 17 feet, and by up to 95 feet in some locations. Pedestrian entrances would be added at the northeast and northwest corners of the Whitten Building

site to create a more inviting pedestrian approach and to relate the steps to current conditions. Bollards would be placed at the top of the steps of the Whitten Building central entrance to provide perimeter security, which would create a small barrier to pedestrian flow. The removal of curb cuts would decrease interruptions in the sidewalk along 12th Street, 14th Street, and Independence Avenue and would provide a more consistent pedestrian environment.

On the south side of the Whitten Building along Independence Avenue, the limited building setback would place some perimeter security elements and along the curb line (bollards and hardened benches). These perimeter security elements would narrow the sidewalk at the pedestrian arches to approximately 4 feet 10 inches and would inhibit pedestrian flow on these short stretches of the sidewalk. The sidewalk width on 14th Street would be increased to 14 feet. Sidewalk widths around the Whitten Building would remain unchanged along the other sides of the building. Non-historic street trees would be removed from Jefferson Drive, which would remove some shaded cover for pedestrians. Street trees would be added along Independence Avenue to reinforce the streetscape and groundcover and ornamental trees added along the inside of the sidewalk where conditions permit, in order to enhance the pedestrian environment.

Street trees and seating would be added around the South Building to enhance the streetscape and the pedestrian experience. The C Street curb line along the South Building would be straightened to create a more consistent pedestrian environment and the sidewalk width along C Street would be approximately 12 feet, which is a decrease to accommodate pedestrian amenities such as plantings, interpretive elements, and seating, as well as bioretention elements to increase stormwater management. The new guard booths would protrude from the building face along the sidewalk; however, they would be evenly spaced along C Street and would be in line with the driveways, which also cause a break in the sidewalk. Sidewalk widths around the other sides of the South Building would remain unchanged, as would the curb cuts for the driveways to the South Building parking courts.

Overall, long-term minor adverse impacts to pedestrian circulation would occur under Alternative 1 due to perimeter security elements located within the sidewalk. Beneficial impacts would occur to pedestrian circulation and the overall pedestrian environment due to the open and welcoming characteristics of the landscape design and integrated perimeter security elements surrounding the majority of the site as well as the streetscape improvements and additional street trees. No adverse impacts are anticipated to bicycle circulation as there are no signed bicycle routes or trails that border the site and the off-street bicycle paths along the Mall would remain.

Mitigation

During construction of the landscape, streetscape, and perimeter security elements, appropriate signage and other best management practices for construction should be implemented to ensure pedestrian safety and guide pedestrians to available circulation routes. Removal of street trees along Jefferson Drive would be subject to NPS approval and permitting.

Alternative 2

Under Alternative 2, short-term impacts to pedestrian circulation described in Alternative 1 would also occur in Alternative 2. These short-term impacts would be minor and pedestrians would be routed from temporarily closed sidewalks to proximate sidewalks.

The Whitten Building perimeter security in Alternative 2 would be implemented mainly through the use of bollards and some hardened walls and benches. These elements would be screened with landscape

features in some instances, but would create a visible line within the landscape. The perimeter security elements would be set back from the curb line along 12th Street, Jefferson Drive, and 14th Streets by at least 17 feet, and by up to 51 feet in some locations and would not obstruct pedestrian flow along these sidewalks. The entrance steps to the central entry at the Whitten Building would be widened to create a more inviting pedestrian approach and to relate the steps to current conditions. Bollards would be placed at the bottom of the steps to provide perimeter security, which would create a small barrier to pedestrian flow between the sidewalk and the steps. The removal of curb cuts would decrease interruptions in the sidewalk along 12th Street and Independence Avenue and would provide a more consistent pedestrian environment.

On Independence Avenue along the south side of the Whitten Building, bollards would be located within the sidewalk and along the curb line near the pedestrian arches. Under the pedestrian arches, perimeter security would narrow the sidewalk by providing increased protection in the form of hardened benches. The sidewalk width would be approximately 5 feet along Independence Avenue at the pedestrian arches and 7 to 8 feet elsewhere. Sidewalk widths around the Whitten Building would remain unchanged along the other sides of the building. Street trees would be added along Independence Avenue to reinforce the streetscape and groundcover and ornamental trees added along the inside of the sidewalk where conditions permit to enhance the pedestrian environment.

Street trees and seating would be added around the South Building to enhance the streetscape and the pedestrian experience. The C Street curb line along the South Building would be straightened to create a more consistent pedestrian environment and the sidewalk width along C Street would be approximately 12 feet, which is a decrease to accommodate pedestrian amenities such as plantings, interpretive elements, and seating, as well as bioretention elements to increase stormwater management. The new guard booths would protrude from the building face along the sidewalk; however, they would be evenly spaced along C Street and would be in line with the driveways which also cause a break in the sidewalk. Sidewalk widths around the other sides of the South Building would remain unchanged, as would the curb cuts for the driveways to the South Building parking courts.

Overall, long-term minor to moderate adverse impacts to pedestrian circulation would occur under Alternative 2 due to perimeter security elements located within the sidewalk and the primary perimeter line located around the Whitten Building that would create a less open and porous pedestrian experience leading into the building's grounds. Beneficial impacts would occur to pedestrian circulation and the overall pedestrian environment due to enhanced landscape design and the streetscape improvements and additional street trees. No adverse impacts are anticipated to bicycle circulation as there are no signed bicycle routes or trails that border the site and the off-street bicycle paths along the Mall would remain.

Mitigation

Mitigation measures identified in Alternative 1 would also apply to Alternative 2.

No Action Alternative

The No Action Alternative would not implement any landscape or streetscape improvements or perimeter security elements and impacts to pedestrian and bicycle circulation would be negligible.

4.7 Water Resources and Stormwater Management

Alternative 1

Construction activities under Alternative 1 such as excavation and pavement removal, the removal and replacement of landscape features, the addition of site elements, and the addition of rainwater harvesting elements would temporarily expose soils, which would potentially be subject to erosion due to stormwater runoff. While the topography of the project site is relatively level, minor velocities of stormwater flow causing soil erosion would create the potential for conveyance of sediment into adjacent catch basins, which discharges the Potomac River via the Tidal Basin or the Washington Channel. Therefore, there would be the potential for short-term minor adverse impacts to water quality. Implementation of appropriate best management practices (BMPs) to control sedimentation and stormwater would minimize these impacts.

The proposed landscape and streetscape designs at the Whitten and South Buildings would reduce the amount of impervious surfaces, increase permeable pavement on the site, install low impact development techniques such as bioretention basins and green roofs, and install rainwater harvesting elements at the site. These elements of the design would all increase the capture of stormwater runoff, which would be managed as much as possible on-site. These elements would also include filtration properties to help capture pollution and sediment loads and prevent them from entering catch basins and then be released into adjacent water bodies.

Alternative 1 would reduce the impervious surface coverage at the Whitten Building block. The site would be comprised of 43% pervious plantings, 14% permeable paving, and 43% impervious surfaces. Pervious paving would make up most of the paved surfaces within the Whitten Building's yard. Water harvesting elements installed in Alternative 1 would include two fountains with below-grade cisterns that would be installed at the central entrance, subsurface water storage systems installed below the parking courts, three above-ground cisterns, and four rain barrels. These elements would detain stormwater to be released slowly and percolate into the ground or to be used for irrigation. Rain gardens to capture stormwater would also be installed on the Whitten Building grounds on the west side and southeast corner of the site. A small green roof would be installed on the Alcohol Building and the existing green roof on the Mechanical Building would be extended with plantings to the ground plane.

At the South Building, linked bioretention basins and additional street tree plantings would be incorporated into the streetscape design along C Street. Pervious surface coverage on the South Building block would be 6%, an increase of 3% over existing conditions.

All of these elements would capture stormwater runoff on-site, promote infiltration to improve groundwater recharge, treat stormwater runoff to improve water quality, reduce irrigation using potable water, and reduce stormwater velocity during storm events. These elements would be installed in order to restore, to the maximum extent technically feasible, the predevelopment hydrology of the site. USDA would prepare a stormwater management plan with detailed calculations and management practices to address EISA and DDOE requirements. Overall, long-term impacts to stormwater management and water quality would be beneficial.

Mitigation

Stormwater management and soil erosion measures would be implemented in accordance with the District of Columbia regulations and applicable federal stormwater management guidelines and regulations. USDA would prepare a stormwater management plan with detailed calculations and management practices to address stormwater runoff, potential pollutant discharge, and EISA and DDOE requirements regarding water quality and water quantity. The relocation of any existing storm drains would require consultation with DC Water and DDOT.

Prior to construction, an erosion and sedimentation control plan would be prepared in order to address potential soil erosion caused during construction activities, as required by the District of Columbia's Erosion and Sediment Control Act of 1977. Erosion and sedimentation control plans include measures to prevent erosion of cleared areas and the transport of soil and sediment. Measures identified in the plan could include techniques such as the utilization of silt fencing and sediment traps to prevent sediment runoff. Any grading activities would follow this plan to ensure soil stability.

The implementation of mitigation measures specified in these plans would minimize erosion of exposed soils, slow the rate at which water leaves the site, and capture eroded soils and concentrated nutrients in order to avoid or minimize impacts on water resources.

If dewatering is necessary during construction of any of the rainwater harvesting elements, it would be undertaken in compliance with all local and federal permits, and DC WASA permitting processes, thereby minimizing any impacts to groundwater. Any water collected during construction would be tested for potential contaminants and would be managed to minimize any potential impacts to water quality.

Alternative 2

Under Alternative 2, short-term impacts to water resources and stormwater management described in Alternative 1 would also occur in Alternative 2 and there would be a potential for short-term minor adverse impacts to water quality.

Alternative 2 would be similar to Alternative 1; however in Alternative 2, rainwater harvesting elements would not be installed at the Whitten Building which would reduce the amount of stormwater that could be handled on the site. As described in Alternative 1, the proposed landscape and streetscape designs at the Whitten and South Buildings under Alternative 2 would reduce the amount of impervious surfaces, increase permeable pavement on the site, and install low impact development techniques at the site including bioretention basins, rain gardens, and several small green roofs. These elements of the design would increase the capture of stormwater runoff, which would be managed as much as possible on-site.

The amount of impervious surfaces at the Whitten Building in Alternative 2 would be reduced from existing conditions. In Alternative 2, the site would be comprised of 42% pervious plantings, 16% permeable paving, and 42% impervious surfaces. Pervious paving would make up most of the paved surfaces within the Whitten Building's yard. Pervious surfaces on the South Building block would also cover the same amount as under Alternative 1 (6% of the site).

All of these elements would reduce the stormwater runoff on-site that leaves the site, promote infiltration to improve groundwater recharge, treat stormwater runoff to improve water quality, and reduce stormwater velocity during storm events. Overall, long-term impacts to stormwater management and water quality would be beneficial.

Mitigation

Mitigation measures identified in Alternative 1 would also apply to Alternative 2.

No Action Alternative

In the No Action Alternative, no changes would be made to the site or its stormwater management. Impacts to water resources would be negligible and existing stormwater runoff would continue.

4.8 Soils

Alternative 1

Alternative 1 would require excavation to implement the landscape and streetscape improvements, and perimeter security elements at the project site. Excavation for the placement of perimeter security elements at the Whitten Building would occur primarily within the building yard, except in limited locations along the curb line on Independence Avenue. Soil disturbance would also occur during the removal and replacement of existing trees and other landscape elements within the Whitten Building yard, the removal of pavement in the Whitten Building parking courts, addition of the pergola and market structures on the east and west sides of the Whitten Building, the removal and replacement of adjacent street trees at the Whitten and South Buildings, and during the replacement of the existing guard booths on C Street. Fairly extensive excavation would also occur to install the rainwater harvesting elements at the Whitten Building, including the fountains and subsurface water storage systems below the parking courts. The east parking court on Independence Avenue would be lowered slightly, which would require minimal grading and excavation.

Soil excavated at the site would either be reused at the site when feasible, or hauled from the site for either reuse or disposal, depending on the soil composition and contaminant levels. Due to presence of imported fill of unknown origin, soils of the Whitten and South Buildings could include soils contaminated by pollutants. If excavated, these soils may be unsuitable for reuse as fill, and/or may require treatment prior to disposal.

Construction of all of these elements would cause short-term minor adverse impacts to soils due to the potential erosion of exposed soils. Best management practices would be implemented to minimize soil erosion during construction. The Whitten and South Buildings are sited in an urban area on previously-disturbed soils and therefore, long-term adverse impacts to soils would be negligible.

Mitigation

Soil exposed by clearing, grading, excavation, or construction; and stockpiled excavated soils should be stabilized using appropriate BMPs. Potential erosion and sedimentation should also be minimized by the implementation of the measures identified for water resources and stormwater management (Section 4.7). Environmental soil testing is recommended to identify any potential contaminated soils in the areas to be excavated. If excavated soils are contaminated, as determined by the laboratory testing results, the soils should not be reused on the project site and should be disposed of at an appropriate facility following all applicable local, state, and federal guidelines.

Alternative 2

The excavation and grading related to construction described in Alternative 1 would also occur under Alternative 2, with the exception of the rainwater harvesting fountains and the installation of the pergola on the west side of the Whitten Building and the market structure on the east side of the Whitten Building, which would not be installed under Alternative 2. Construction of all of these elements would cause short-term minor adverse impacts to soils due to the potential erosion of exposed soils. Best management practices would be implemented to minimize soil erosion during construction. The Whitten and South Buildings are sited in an urban area on previously-disturbed soils and therefore, long-term adverse impacts to soils would be negligible.

Mitigation

The mitigation measures identified in Alternative 1 would also be applicable to Alternative 2.

No Action Alternative

Under the No Action Alternative, no changes to landscapes, streetscapes, or perimeter security would occur at the site. As a result, there would be negligible impacts to soils.

4.9 Vegetation

Alternative 1

In Alternative 1, much of the vegetation and most of the existing trees at the Whitten Building would be removed. Many of the existing trees around the South Building would also be removed. Trees that would be removed would include non-historic, dead, declining, and undesirable exotic species. None of these trees would have a circumference of over 55 inches.

The proposed landscape at the Whitten Building would remove and replace much of the existing vegetation and most of the existing trees. A total of approximately 141 trees, including street trees, would be located on the Whitten block in Alternative 1. This would decrease the total number of trees on the Whitten Building block by approximately 28 trees. The 8 street trees along Jefferson Drive in front of the Whitten Building would be removed, subject to NPS approval and permitting. Along the other sides of the Whitten Building, some existing street trees would be removed and replaced, and additional street trees would be installed. Overall, the number of street trees at the Whitten Building would increase due to the addition of street trees along 12th Street, 14th Street, and Independence Avenue; however, the street trees along Jefferson Drive would not be replaced.

The landscape changes at the South Building would remove and replace some existing street trees as well as install additional street trees on the site. Street trees would be added along Independence Avenue, 12th Street, 14th Street, and C Street at the South Building, for a total of approximately 56 trees within the block around the South Building. This would be an increase of approximately 17 trees on the South Building block. Alternative 1 would also add bioretention plantings along C Street.

At the Whitten Building, the form of the open lawns punctuated by groupings of trees on the north side of the building would be retained, as would the planted moats. Within the landscape at the Whitten Building grounds, designed by the Olmsted Brothers, several trees which have been identified as original plantings, or healthy trees of original species in their identified original locations, would be retained. These include two mature historic Ginkgo trees in the northwest corner of the site, an existing Bald Cypress in a historic location, and newly planted Ginkgo in historic locations in the northeast corner of the site. Several proposed trees would be located based on historic precedent, including two large symmetrically planted Elm trees that would flank the central entrance to the Whitten Building and a Bald Cypress in the northwest corner of the site.

Raised agricultural beds would make up the organic garden in the northeastern portion of the Whitten Building site. These plantings would change seasonally and be used as demonstration gardens. An arbor planted with vines would also be located near the organic garden. Seasonal agricultural planting areas would also be located in front of the north and south entrances to the Whitten Building, on the south side of the Whitten Building at the parking courts, and along the pergola on the west side of the Whitten Building. Native and edible plantings would be added to the site to increase the yield of the site's garden. A small green roof at the Alcohol Building and additional green roof plantings at the Mechanical Building would be installed.

Alternative 1 would have short-term minor to moderate adverse impacts to existing vegetation due to the removal of a large portion of the site's vegetation, in order to implement the landscape and streetscape updates and perimeter security elements. The reduction in the number of trees at the site would have a long-term minor adverse impact. Long-term beneficial impacts would also occur due to the

increased sustainability of proposed landscape elements and an increase in native plants installed on the site.

Mitigation

USDA should coordinate the placement, type, and size of street trees and other new trees in public space with DDOT. The removal of street trees along Jefferson Drive would be subject to NPS approval and permitting. Coordination should also occur with the Urban Forestry Administration to comply with street tree permitting.

Alternative 2

Alternative 2 would be similar to Alternative 1, with several differences. The parking court along 14th Street would be screened by evergreen trees. There would be approximately 120 trees on the Whitten block in Alternative 2, including street trees. This would decrease the total number of trees on the Whitten Building block by approximately 49 trees. One street tree along Jefferson Drive in front of the Whitten Building would be removed and subject to NPS approval and permitting. Along Independence Avenue, some existing street trees would be removed and replaced, and additional street trees would be installed there and along 12th Street. As in Alternative 1, there would be approximately 56 trees within the block around the South Building, an increase of approximately 17 trees, and bioretention plantings would be installed at the South Building along C Street.

Alternative 2 would have short-term minor to moderate adverse impacts to existing vegetation due to the removal of a large portion of the site's vegetation, in order to implement the landscape and streetscape updates and perimeter security elements. The reduction in the number of trees at the site would have a long-term minor adverse impact. Long-term beneficial impacts would occur due to the increased sustainability of proposed landscape elements and an increase in native plants installed on the site.

Mitigation

Mitigation measures for Alternative 2 would be the same as those identified above for Alternative 1.

No Action Alternative

Under the No Action Alternative, no changes to the landscape, streetscapes, or perimeter security would occur at the site. As a result, there would be negligible impacts to vegetation.

4.10 Utilities

Alternative 1

Alternative 1 would not increase the number of employees or visitors to the Whitten and South Buildings and any increase in visitors to the exterior site would not use utilities. Therefore, there would not be a greater demand for energy or potable water or an increase in wastewater generation. The rain water harvesting at the site that would be implemented under Alternative 1 would decrease the use of potable water for irrigation purposes at the site. Therefore, the capacity of the utility systems of the project site would not be adversely impacted by the implementation of the Alternative 1.

Excavation in Alternative 1 would occur in a number of locations that could impact underground utility lines, including: the construction of perimeter security elements within the Whitten Building yard and in limited locations along the curb line on Independence Avenue; the removal and replacement of existing trees within the Whitten Building yard and street trees adjacent to the Whitten and South Buildings; the replacement of the existing guard booths on C Street; the installation of rain water harvesting elements at the central entry to the Whitten Building, below the parking courts, and in the moat; the removal of the east and west Whitten Building parking courts and the installation of the pergola and market structures at those locations; and the modification and repaving of the Whitten Building parking courts along Independence Avenue. This site construction could also disturb surrounding storm sewer inlets, lampposts, and fire hydrants.

During construction, there would be short-term minor adverse impacts to utilities. Long-term beneficial impacts to utilities would occur due to the decrease of potable water used for irrigation purposes at the site.

Mitigation

USDA should coordinate with utility providers prior to construction to verify the location of utility lines in areas of proposed excavation. Coordination should occur with DC Water regarding storm sewer inlets, sewer lines, and water lines. Coordination should occur with PEPCO regarding electrical lines and Washington Gas regarding gas lines to ensure their safety during construction. New or replacement street lighting should be provided in accordance with District standards and with NPS standards along Jefferson Drive. Emergency access to the building and adjacent fire hydrants should be maintained and coordination should occur with the DC Fire Marshal to ensure this.

Alternative 2

As in Alternative 1, the capacity of the utility systems of the project site would not be adversely impacted by the implementation of Alternative 2.

Excavation in Alternative 2 would occur in a number of locations that could impact underground utility lines, as described in Alternative 1. However, in Alternative 2, the rainwater harvesting fountains at the central entry to the Whitten Building would not be installed. The parking lot on the east side of the Whitten Building would repaved and screened with evergreen trees and the parking court on the west side of the Whitten Building would be modified and repaved.

During construction, there would be short-term minor adverse impacts to utilities. Long-term beneficial impacts to utilities would occur due to the decrease of potable water used for irrigation purposes at the site.

Mitigation

The mitigation measures identified for Alternative 1 would also apply to Alternative 2.

No Action Alternative

Under the No Action Alternative, no changes to the landscape, streetscapes, or perimeter security would occur at the site. As a result, there would be negligible impacts to utilities.

4.11 Cumulative Impacts

4.11.1 Cumulative Impact Projects

Cumulative impacts 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 nonfederal) or person undertakes such other actions" (40 CFR 1508.7). These impacts are considered as part of the analysis so that the environmental impacts of the proposed action are understood within the context of other ongoing and planned changes.

Several ongoing and planned projects in the area could generate cumulative impacts when considered together with the impacts of the proposed action. These projects are as follows:

Under Construction

Sidney R. Yates Building Renovations

The Yates Building houses the U.S. Forest Service headquarters and is currently undergoing renovations to improve the building and its systems. During the renovations, the U.S. Forest Service Visitor Center remains open.

National Mall Turf Rehabilitation

NPS seeks to improve the vegetation and soil on the Mall by removing and replacing the existing soil and irrigation system in portions of the Mall between 3rd and 7th Streets, and installing new curb and gutter profiles around turf panels. This project is currently under construction and is expected to be completed in 2013.

National Museum of African American History and Culture

The National Museum of African American History and Culture (NMAAHC) is under construction to the northwest of the Whitten and South Buildings at the Constitution Avenue and 14th Street on the Mall. This new Smithsonian museum will consist of approximately 400,000 sf of space and is the first national museum to be devoted exclusively to the documentation of African American life. The museum is scheduled to open in 2015.

Constitution Avenue Street Improvements

Constitution Avenue between 23rd and 15th Streets are being be rehabilitated; streetscape improvements will introduce new street lighting and storm sewer upgrades.

Arts and Industries Building Renovation

The Arts and Industries Building is undergoing interior and exterior renovations. The building is part of the Smithsonian system. While undergoing renovations, the building is vacant and a new use is still being determined.

Washington Monument Repairs

The Washington Monument is undergoing repairs to address damage caused by the August 2011 earthquake. The work will repair exterior damage to the Monument, which is surrounded by temporary scaffolding while the repairs are completed.

Ongoing

National Mall Plan

The National Park Service's National Mall Plan and Memorial Parks has developed a management plan and environmental impact statement for the National Mall. The Whitten Building is included in the planning area and is located adjacent to the Mall. The Mall Plan seeks to balance the use of parks with the preservation of their natural and cultural resources over the next 50 years. Ongoing projects within the Mall Plan include the 17th Street Levee, the enhancement of Constitution Gardens, and the renovation of the Sylvan Theater. The redesign of the Sylvan Theater area would include a multi-purpose visitor contact facility.

Perimeter Security Projects within the Nation's Capital

Numerous perimeter security projects are planned, have been approved, or have been recently completed within Washington, DC. In addition, several rights-of-way have been closed for security purposes. These security improvements are widespread, including those to the south on the National Mall, to the east around the U.S. Capitol Building, and to the west around the White House. North of the Whitten Building along the Mall, permanent perimeter security has been installed or approved for installation at the majority of the Smithsonian museums, including NMAI, NASM, the Hirshhorn Museum, the Smithsonian Castle, the NMNH, and the NMAH. Permanent perimeter security has also been installed at the White House. Temporary perimeter security measures have been installed around buildings within the Federal Triangle, and permanent security measures are under consideration for several of the buildings, including the Herbert C. Hoover Building and the National Archives.

Herbert C. Hoover Building Renovation

The Herbert C. Hoover Building, which houses the Department of Commerce, is currently undergoing interior renovations and exterior improvements. As part of the renovation, the National Aquarium entrance would be relocated to Constitution Avenue, and ADA entrance ramps and perimeter security would be added.

Planned

Southwest Ecodistrict Plan

The Southwest Ecodistrict is located to the east of the Whitten and South Buildings. The district is bound by Independence Avenue to the north, Maine Avenue to the south, 12th Street to the west, and 4th Street to the east. The plan proposes to transform the Southwest Rectangle into a sustainable and livable neighborhood that uses federal land and natural resources efficiently and contributes to the economic vitality and environmental health of the city. Adjacent to the Whitten and South Buildings, the plan proposes infill development and redevelopment to the east of the South Building, across 12th Street. The plan also proposes to reconnect C Street between 12th Street and 9th Street. The plan proposes sustainable systems across the district, including comprehensive stormwater management using low impact development and green infrastructure.

Washington Monument Security Screening

The National Park Service proposes to build upon a previously completed effort to improve the landscape and perimeter security around the Washington Monument and to replace and improve the existing visitor screening facility at the base of the Monument, replacing the existing temporary facility

and improving the overall security of the Monument in a manner that maintains and preserves the visitor experience and cultural landscape of the Washington Monument Grounds.

4.11.2 Cumulative Impacts

Land Use and Planning Policies (includes visitation and community facilities)

The proposed site improvements at the Whitten and South Buildings would create cumulative impacts to land use. The National Mall Plan and the *Southwest Ecodistrict Plan* could have beneficial impacts to land use in the vicinity of the Whitten and South Buildings. The proposed expansion of public gardens on the USDA grounds, when considered together the National Mall Plan and Southwest Ecodistrict improvements, could have a beneficial cumulative impact to the land use.

Public Space

The proposed site improvements at the Whitten and South Buildings would create cumulative impacts to public space. The removal of curb cuts and the enhancement of the streetscape, when considered together with the National Mall Plan and Southwest Ecodistrict proposed improvements, would have a beneficial cumulative impact on public space near the project site. The installation of bollards and perimeter security features along the curb line on Independence Avenue, when considered together with other perimeter security projects completed or planned within Washington, DC, that have security elements located outside of the building yard would adversely impact public space by interrupting the continuity of the sidewalks. Moderate adverse cumulative impacts would occur.

Historic Resources

The proposed site improvements at the Whitten and South Buildings have the potential to generate cumulative impacts to historic resources, when considered together with perimeter security projects that have been recently completed or are planned within nearby portions of DC. The relationships between the rights-of-way, building yards, and reservations are important features of the L'Enfant Plan. Perimeter security placed between the sidewalk and the vehicular right-of-way at facilities in the vicinity of the project site and along the Mall would physically interrupt these relationships, and could potentially contribute to a moderate adverse cumulative impact. However, the Smithsonian Museum Mall-Wide Perimeter Security Improvements Plan seeks to minimize these impacts at Smithsonian facilities along the Mall.

Visual Resources

The proposed site improvements at the Whitten and South Buildings have the potential to generate cumulative impacts to visual resources. The *Southwest Ecodistrict Plan* proposes to reconnect C Street between 12th and 9th Streets and, when considered together with the reinforcement of visual lines around the Whitten and South Building under the proposed site improvements, beneficial cumulative impacts to visual resources would occur.

The installation of perimeter security at the Whitten Building, when considered together with other constructed or planned perimeter security within the area of visual influence, has the potential to adversely impact visual resources. Impacts would be greater where security is placed along the curb line, as proposed on Independence Avenue, as it would interrupt the open visual relationship between the sidewalks and the vehicular right-of-way. Further, security elements crossing the sidewalk would interrupt continuous views from the walkways and moderate adverse cumulative impacts to visual resources would occur.

Roadways and Traffic

If construction of the proposed site improvements at the Whitten and South Buildings occur simultaneously with other projects in the area, short-term minor to moderate cumulative impacts to vehicular circulation would occur. Depending on project schedules, the Yates Building, the NMAAHC, and the Arts and Industries Building Renovation are all ongoing projects that could occur during the proposed site improvements.

Public Transit

If construction of the Whitten and South Building site improvements occurs simultaneously with other projects in the area, this would contribute to a minor adverse cumulative impact to Metrobus routes, due to the need to temporarily relocate bus stops.

Water Resources and Stormwater Management

The proposed landscape and streetscape designs at the Whitten and South Buildings would reduce the amount of impervious surfaces, increase permeable pavement on the site, and utilize low impact development techniques, which would have beneficial impacts on stormwater management. These improvements, when considered together with the proposed stormwater improvements proposed in the *Southwest Ecodistrict Plan*, would contribute to a cumulative beneficial impact.

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5.0 APPENDICES

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5.1 References

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