

The National Capital Urban Design and Security Plan



 NCPC NATIONAL CAPITAL PLANNING COMMISSION

OCTOBER 2002
November 2004 Addendum

The National Capital Urban Design and Security Plan is the result of close collaboration among the federal and District of Columbia governments, the professional planning and design community, security agencies, and civic, business, and community groups. The Interagency Security Task Force invited key public and private stakeholders to participate as members of its Core Advisory Group. During early development of the plan, National Capital Planning Commission staff presented its security design work to dozens of audiences in Washington and around the country. The plan was released in draft for public comment in July 2002. The Commission received dozens of responses from groups and individuals and carefully considered those comments in the preparation of this final plan.

The National Capital Urban Design and Security Plan is available from the National Capital Planning Commission offices and is online at www.ncpc.gov.

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The National Capital Planning Commission is the federal government's planning agency in the District of Columbia and surrounding counties in Maryland and Virginia. The Commission provides overall planning guidance for federal land and buildings in the region. It also reviews the design of federal construction projects, oversees long-range planning for future development, and monitors capital investment by federal agencies.

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The National Capital Urban Design and Security Plan



Illustration: Michael McCann



NATIONAL CAPITAL PLANNING COMMISSION

OCTOBER 2002

MESSAGE FROM JOHN V. COGBILL, III

Chairman, National Capital Planning Commission

Great cities like great nations must continuously reinvent themselves to keep pace with a changing world. The Nation's Capital today is challenged to find acceptable ways to protect itself from new and unprecedented international threats. We are in uncharted waters, seeking innovative technology and design solutions to safeguard our citizens, national buildings, monuments, and civic spaces. But our security must not be gained at the expense of the very values and qualities that we seek to protect—accessibility, openness, and civic beauty. *The National Capital Urban Design and Security Plan* balances legitimate security needs with the preservation of Washington's historic urban design and character and its big-city vitality.

The Plan, which was prepared by the Commission's Interagency Security Task Force, reflects extraordinary collaboration among public agencies, the private sector, the professional design community, and citizens from many walks of life. After years of piecemeal and disjointed efforts, key stakeholders have finally come together to address security design issues in the Nation's Capital.

Task Force Chairman Richard Friedman deserves special recognition for his efforts on behalf of the Plan. It was his passionate commitment to restore dignity to Washington's streets that launched the effort in March 2001, and his vision that has since sustained it. We are indeed indebted to Mr. Friedman and to all of the Interagency Security Task Force participants who helped find a way to secure our city streets while protecting the civic ideals and public spaces we most treasure.





MESSAGE FROM RICHARD L. FRIEDMAN

Chairman, Interagency Security Task Force

The *National Capital Urban Design and Security Plan* addresses the alarming proliferation during the last decade of unsightly and makeshift security barriers that are negatively impacting the historic beauty of Washington, D.C. The Plan reflects our strong conviction that we can have both good urban design and good security; that as we invest to make our streets and public spaces safer, we can also make them more beautiful. Our goal has been to seamlessly integrate building perimeter security into consistent, coherent, and welcoming streetscapes that are truly worthy of the Nation's Capital. If we are to be a free and open society, then our public realm must express those values and at the same time offer the protections mandated by today's security concerns.

A wide range of diverse interest groups worked diligently and cooperatively in reaching consensus on these complex and varied problems that have been neglected for too long.

The Interagency Security Task Force prepared this Plan in cooperation with federal agencies, the District of Columbia government, security experts, the professional planning and design community, the Architect of the Capitol, and the public. We had the benefit of the private sector's best landscape architects and urban design experts, and the help of many truly dedicated professionals. I am particularly appreciative of the efforts and cooperation of the U.S. Secret Service, which contributed greatly to the development of this Plan, and I look forward to continued coordination with all contributors on the further design and implementation of security improvements.

While this Plan was prepared to address the needs of federal facilities, specifically those in the Nation's Capital, its principles and concepts can easily be applied to other public and private lands throughout the nation.

The benefits from this Plan outweigh the costs. Significant funds are already being spent to create the present intolerable environment, and the costs will be much higher if instead of planning for the future, we continue to sit by and watch as jersey barriers and concrete pots engulf our capital city. Future generations will judge our stewardship of this sacred ground. If we allow the deterioration of the city's historic civic spaces we will have failed in our obligation to the American people and to the visionary leaders who came before us. Our success today will impact many generations yet to come.

Our collective work has only just begun. Implementation of the Plan will require the continuing support of the President, Congress, local residents, and Americans across the country. In the coming months my colleagues and I look forward to working with all those who share our passion for a city that is the pride of the nation and the capital of the free world. With conviction, optimism, and imagination we can find the design and funding solutions to reclaim our Nation's Capital and to make our public streetscapes reflect our national values.

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INTRODUCTION

Urban Design and Security Plan

Americans, and the world-at-large, have long admired Washington, D.C. for the sweep and grace of its open public spaces. Secure in the knowledge that the civic environment of the Nation's Capital belongs to all citizens, Americans feel entitled to move about their capital freely and to feel secure in doing so. Such confidence is precious and particularly worth sustaining in an era of heightened concerns about safety and security.

Today, however, guard huts define the National Mall, rows of concrete planters encircle our public buildings, and temporary barriers block Pennsylvania Avenue. These and other fortifications have become familiar features in the Washington landscape in recent years, and since September 11, their number has increased alarmingly. While erected in response to security concerns, these fortifications communicate fear and retrenchment and undermine the basic premises of an open and democratic society.

At present, security measures around federal facilities protect the occupants inside the building, but frequently disrupt access and movement for those on the surrounding streets and sidewalks. In addition, the protective barriers and closed streets that block potential evacuation routes and emergency access present their own security risks. The commercial, cultural, and social vitality that makes Washington one of the world's greatest urban centers depends upon the openness and access that have defined the city from its beginning.

The image and quality of life in the District has suffered in the absence of a well-coordinated and unified approach to the design of building perimeter security. Installation of repetitive elements such as highway barriers or bollards along streets and around monuments will continue to degrade the beauty and openness of these spaces, and uncoordinated installation and maintenance will be more expensive to the agencies and ultimately to the public who pay for these projects. The Task Force recognizes the need for coordination throughout the

federal government in identifying, designing, and implementing security measures.

On November 1, 2001, the National Capital Planning Commission (the Commission) adopted a report of the Interagency Security Task Force entitled *Designing for Security in the Nation's Capital*. The report recommended specific urban design strategies to improve mobility and aesthetic conditions resulting from the installation of makeshift security measures throughout the Nation's Capital.

With the assistance of nationally recognized urban designers, landscape architects, and security experts, the Commission has prepared a design framework and an implementation strategy entitled, *The National Capital Urban Design and Security Plan* (the Plan) for Washington's Monumental Core and the Downtown.

The Plan focuses exclusively on perimeter building security designed to protect employees, visitors, and federal functions and property from threats generated by unauthorized vehicles approaching or entering sensitive buildings. It does not address other kinds of security measures, such as building hardening, operational procedures, or surveillance.

The Plan recognizes that Americans today live with a heightened awareness of how fragile public safety can be; how confidence in the stability of the public environment can suddenly be shaken as security is breached or threatened. Citizens, therefore, demand increased protection for themselves and for their most cherished or most vulnerable institutions. Yet, the nation must not guard against terror at the expense of a long-standing national ideal: the appreciation—indeed, aspiration—for openness, accessibility, and comfort within the public domain.

The goal of the Plan is to restore the beauty and dignity of the Nation's Capital by integrating building perimeter security into an attractive streetscape and by coordinating the design and installation of streetscape projects.



Unsightly jersey barriers, large concrete planters, and guard huts that ring our buildings and line our streets mar the beauty of the Nation's Capital.



The National Capital Urban Design and Security Plan is motivated by six goals:

- Providing an appropriate balance between the need to accommodate perimeter security for sensitive buildings and their occupants and the need to maintain the vitality of the public realm.
- Providing security in the context of streetscape enhancement and public realm beautification, rather than as a separate or redundant system of components whose only purpose is security.
- Expanding the palette of elements that can gracefully provide perimeter security in a manner that does not clutter the public realm, while avoiding the monotony of endless lines of jersey barriers or bollards, which only evoke defensiveness.
- Producing a coherent strategy for deploying specific families of streetscape and security elements in which priority is given to achieving aesthetic continuity along streets, rather than solutions selected solely by the needs of a particular building under the jurisdiction of one public agency.
- Providing perimeter security in a manner that does not impede the City's commerce and vitality, excessively restrict or impede operational use of sidewalks or pedestrian and vehicular mobility, nor impact the health of existing trees.
- Identifying an implementation strategy that can be efficiently coordinated in the most cost effective manner.

On Capitol Hill, the Architect of the Capitol has designed and is in the process of implementing permanent security improvements. The Architect and the Commission's Task Force plan to coordinate on the further design and implementation of security improvements on the Hill and throughout the Monumental Core.



The National Capital Urban Design and Security Plan includes:

- A summary of building perimeter security considerations that influence the streetscape designs proposed in the Plan.
- A variety of streetscape design concepts that incorporate security components. These designs illustrate how an array of landscape treatments and street furniture may be applied within various contextual areas of the Plan and are not intended as final design solutions.
- A proposal to initiate the Circulator transit system and to undertake a set of traffic and parking studies to identify impacts of increased security mitigation strategies, such as developing centralized parking facilities to replace parking spaces lost as a result of new security requirements.
- An implementation strategy for design, construction, funding, maintenance, and operations of security installations. The implementation strategy will ensure that work is completed according to the design intent of the Plan and that improvements are maintained.

The Plan offers a framework that distinguishes the urban design character of various areas within the Monumental Core and identifies perimeter security design solutions most appropriate to the character of each area. This comprehensive approach will ensure that improvements along streets are complementary and enhance the special character of each precinct, while addressing the required security measures for individual buildings.

The National Capital Urban Design and Security Plan covers the following contextual areas, monumental streets, and memorials:

| | | |
|--|---|---|
| <p>CONTEXTUAL AREAS</p> <ul style="list-style-type: none"> ■ Federal Triangle ■ National Mall ■ West End ■ Southwest Federal Center ■ Downtown | <p>MONUMENTAL STREETS</p> <ul style="list-style-type: none"> ■ Pennsylvania Avenue in front of the White House ■ Pennsylvania Avenue between the White House and the Capitol ■ Constitution Avenue ■ Independence Avenue | <ul style="list-style-type: none"> ■ Maryland Avenue <p>MEMORIALS</p> <ul style="list-style-type: none"> ■ Washington Monument ■ Lincoln Memorial ■ Jefferson Memorial |
|--|---|---|



CONTEXTUAL AREAS, MONUMENTAL STREETS, AND MEMORIALS

In recommending security design solutions, the Plan recognizes that one size does not fit all. For example, the Federal Triangle is unified by the classical architecture of its monumental buildings and the two ceremonial streets that border it on each side (Pennsylvania and Constitution Avenues). For this portion of Pennsylvania Avenue, the Plan recommends replacing and hardening the street furniture to emulate the existing streetscape components. A variety of fence and bollard elements are proposed on the north-south streets that reflect the materials and style of the classical buildings. On the other hand, the Southwest Federal Center currently suffers from the absence of a cohesive urban design character and street grid. The Plan proposes to introduce a vocabulary of unifying planters, benches, and seat bollards to help establish the character of this precinct, to improve its connections to other precincts, and to enhance the pedestrian experience.

The Plan recognizes that not all buildings on a block will need security, yet it acknowledges the importance of a coherent streetscape. Therefore, the Plan proposes custom-designed treatments for those portions of a building or block where perimeter security is needed only at entries to buildings, or where only a small portion of the street or block requires increased security. In other instances, the Plan proposes consistent design treatment for entire streets or blocks where additional security is required. In such cases, the Plan acknowledges that some blocks, or portions of blocks, will be hardened while others will not.

The Plan also recognizes that a vibrant Downtown must provide space for a variety of pedestrian experiences. Therefore, the Plan uses streetscape manuals of the D.C. Department of Public Works and the Downtown Business Improvement District as a framework for designing streetscape elements that will seamlessly integrate security of federal properties with existing and future development in the Downtown. Additionally, there are a number of monumental and unique buildings in Downtown which, because of their civic importance or special location, warrant custom-designed solutions.

While the Plan focuses on security improvements for federal properties, it can also be used to guide design solutions for private properties.



DESIGNING FOR SECURITY

The Security Threat and Response

The Plan provides design solutions for building perimeter security intended to protect against threats resulting from unauthorized vehicles approaching or entering sensitive buildings. Included in this category of threats are bomb-laden vehicles, which are considered to be the easiest mode of attack and could cause extensive structural damage, progressive collapse, and loss of life. This Plan does not address bombs carried by pedestrians, air attack, or chemical and biological weapon terrorism.

To establish the appropriate security response or level of intervention, individual agencies must conduct risk assessments to determine the magnitude of the security threat and the level of protection required for individual buildings. Not all buildings and facilities require the same level of security. The Interagency Security Committee, a group examining federal security responses, circulated design criteria to federal agencies in May 2000. These criteria and responses form the basis of the current federal policies and guidelines for assessing security risks. Buildings are assigned a "protection level" based on factors that include symbolic importance, critical nature of operations, consequences of an attack, and surrounding site conditions. This approach, used in conjunction with a detailed risk assessment, identifies the appropriate level of protective measures to be applied to any federal facility. Concerned that agencies may have a natural tendency to elevate the required level of protection and to over-design security, the National Capital Planning Commission recommends that the federal government develop a protocol similar to that used by the General Services Administration for agencies under its jurisdiction. This process will facilitate a consistent application of the Interagency Security Committee Guidelines.

In conjunction with determining the protection levels of each building, the required strength of the perimeter barrier must also be determined. Some barriers must be designed to stop heavy vehicles at high rates of speed, while others may be designed to protect against a lesser vehicle threat. Barriers of less structural capacity may be used for protection at reduced cost when travel speed is restricted

due to the angle of approach to the building. A higher level of protection will be required when an approach is unimpeded, therefore allowing vehicles to approach at higher speeds.

Perimeter security design must also consider the existing standoff distance of the building from the street. The Interagency Security Committee criteria recommends a minimum standoff distance of 20 feet, with a more desirable standoff distance of 50 feet. Many buildings throughout Washington's Monumental Core have setbacks in excess of 100 feet, while others have less than 20 feet. The force of an explosion's impact on a structure decreases with the linear distance from the blast. In simple terms, every foot counts.

While outside the scope of this study, structural measures can also be taken to enhance facility security and blast resistance. Each building has its own unique engineering characteristics. Therefore, effective standoff distances can vary.

The General Services Administration has developed specifications for six security zones surrounding federal buildings for each of the designated protection levels. These security zones correspond to building and site relationships. Three of the zones make up the perimeter security areas, which are the focus of this Plan. The Plan focuses on solutions within the building yard or sidewalk. Only where absolutely necessary does the Plan consider elimination of curbside parking or restriction of access to streets adjacent to buildings that require a high level of protection. In these instances, parking and mobility studies should be conducted to identify impacts and appropriate mitigation measures. Additional countermeasures include hardening and/or modifying buildings and implementing operational measures to control access to the building.

Based on the preliminary analysis of some security consultants, it appears that only a few buildings will require an extremely high level of protection. While many facilities in the District of Columbia are assigned a very high protection level, site conditions, such as significant setbacks from streets or inability to approach the building head-on at a high speed, may decrease the risk to a given building.

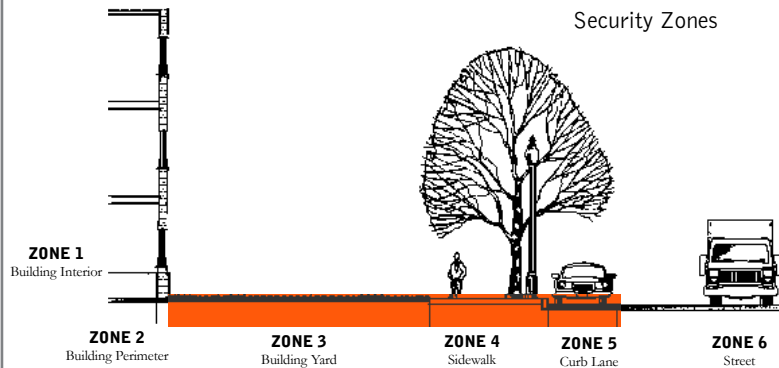


▲ Permanent security at the Ellipse in President's Park



▲ Jersey barriers on the sidewalk and in the closed parking lane in the West End

▼ Security Zones



URBAN DESIGN FRAMEWORK AND STREETScape DESIGN SOLUTIONS



Entrance to Old Post Office on Pennsylvania Avenue in the Federal Triangle

Urban Design Framework

The Plan identifies a framework of precincts or contextual areas, as well as streets and landscape features, that contribute to the unique urban design character of the Monumental Core. The Plan illustrates streetscape design solutions for the following four street types, based on roadway widths, sidewalks, and building setbacks.

MONUMENTAL AVENUES

Monumental avenues connect and define the most important areas of the city. Pennsylvania, Constitution, Independence, and Maryland Avenues are treated as significant, coherent spaces within the public realm. The design of these avenues should emphasize streetscapes as a whole, rather than the parts. Attention should be given to axiality and formality.

DIAGONAL AVENUES

Diagonal avenues criss-cross the orthogonal grid of city streets. These streets are typically wider than most city streets and have significant landscaping. Avenues such as Vermont, Connecticut, and New York should be treated in a manner that emphasizes their landscape features. Significant tree cover and ground planting are appropriate elements to characterize the design of these streets.

SPECIAL STREETS

Special streets are those that make important connections or have been included in special planning areas. For example, the 10th Street L'Enfant promenade creates an axis between the Smithsonian Castle and Banneker Overlook, while 4th and 7th Streets, SW are significant connectors to the Mall and waterfront. The streetscape designs of these streets should derive from and further reinforce their unique conditions and individual character.

West End



The unique architecture and site conditions of the contextual areas and special streets call for design solutions that complement the distinctive character of various precincts.

GRID STREETS

Grid streets are the consistent and repeated city streets, running at right angles to one another, north-south and east-west. The design of these streets should be specific to each area. In the Downtown, design should build upon existing streetscape standards of the District to provide continuity with previous design efforts and to minimize the contrast between security and streetscape elements.

Streetscape Design Solutions

Design applications may differ from area to area, based on the character of the contextual area or special street.

Designs of these areas include an array of streetscape elements that incorporate security components, such as walls and fences, planters, bollards, and hardened street furniture ranging from light posts to seating. The composition and arrangement of these elements should respond to the various conditions and street typologies within the contextual areas. The rhythm and repetition should reflect the area's planning, urban design character, and security requirements. Streetscapes should be designed as an amenity to the public realm that will provide necessary security and not unduly impede street life activities and the normal movements of pedestrians and traffic.

Southwest Federal Center



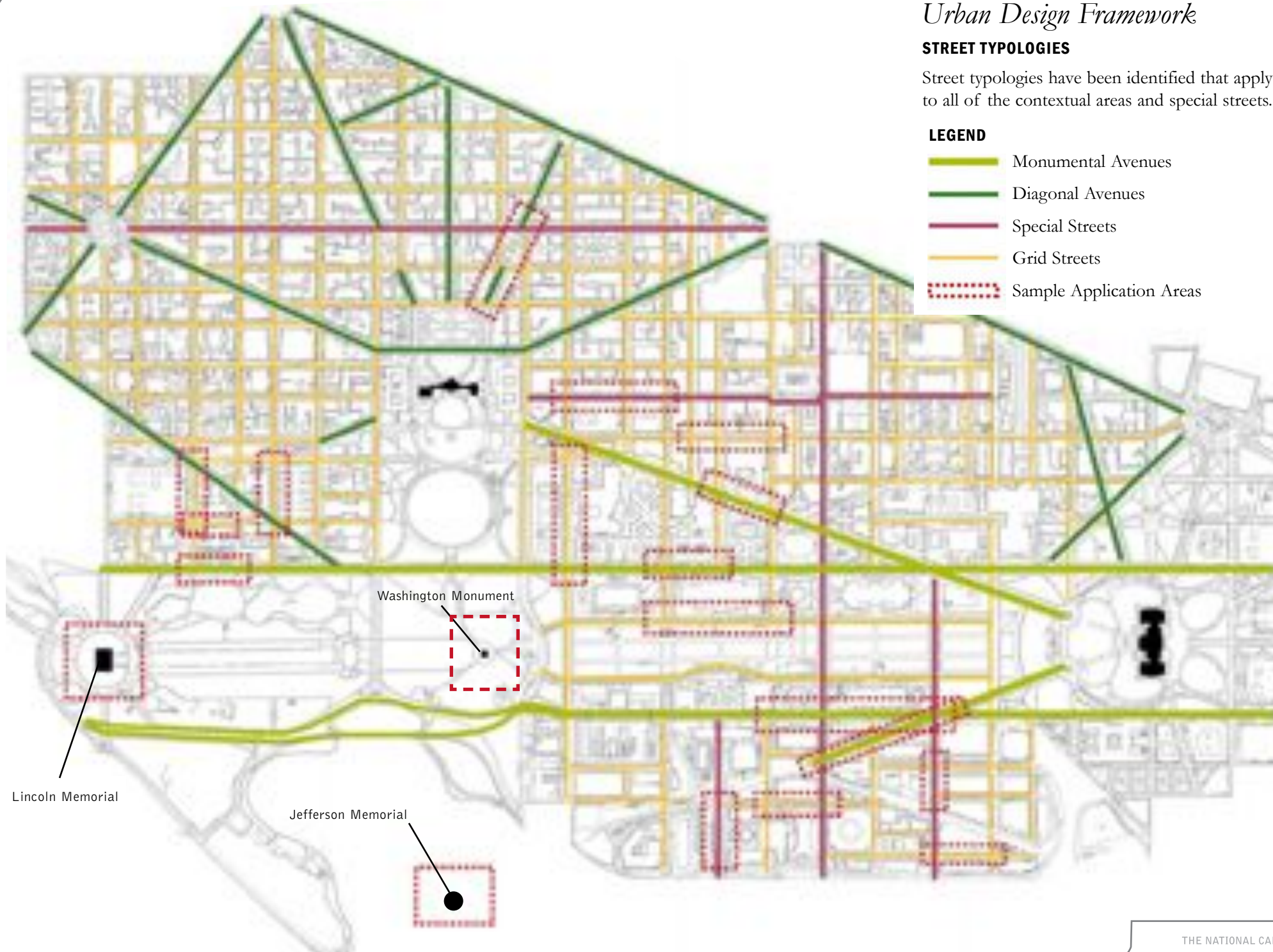
Urban Design Framework

STREET TYPOLOGIES

Street typologies have been identified that apply to all of the contextual areas and special streets.

LEGEND

- Monumental Avenues
- Diagonal Avenues
- Special Streets
- Grid Streets
- Sample Application Areas



Contextual areas are best understood as urban precincts with similar buildings, blocks, and streets that follow traditional boundaries. Monumental streets are the great linear connectors of the city and provide an important symbolic and ceremonial function in the Nation's Capital.

For streets within each contextual area and for monumental streets, conceptual design solutions have been developed as sample applications for each street typology based on the distance between building and street.

Security Zones

The General Services Administration's *Urban Design Guidelines for Physical Perimeter Entrance Security: An Overlay to the Master Plan for the Federal Triangle* identifies several security zones located between the building and the street. These are the building yard, the sidewalk, and the curb or parking lane. All of the proposed perimeter streetscape design solutions occur within one of these three security zones.

Building Yard

The building yard is the exterior space between the building and the sidewalk. It typically consists of a grassy area adjacent to the building flush with the sidewalk or a planted bed raised above the level of the sidewalk. Pedestrian entries and loading docks typically occur within the building yard. Security components located in this zone should complement the building architecture and the landscaping of the yard. In cases where the building yard provides an acceptable standoff distance from the building, the GSA guidelines recommend that the security perimeter be located near the outer edge of the yard. When the security barrier is provided in this location, for example, through the use of a raised plinth or wall, the sidewalk can remain free from all security elements. Security appears as an extension of the building, visually present yet seamlessly integrated.

Sidewalk

The sidewalk zone is located between the building yard and the curb or parking lane. In this urban context, the sidewalk serves as the common space for pedestrian interaction, movement, and activity. It is therefore important to allow for and to promote active public use of the sidewalk.

To the greatest extent possible, sidewalks should be left open and accessible to pedestrian movement. Generally, streetscape security components should be excluded from this zone. Adjustment to

the width of this zone may occur. Where widths are too great, the building yard can be extended to make the sidewalk more appropriately scaled for pedestrians.

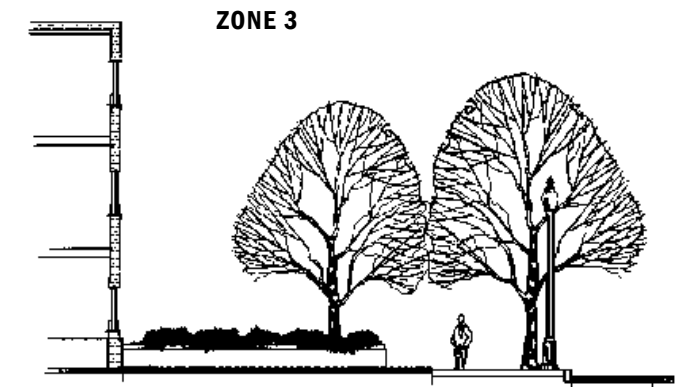
Streetscape security components should be placed at least 18" from the edge of the curb to allow for the opening of car doors and pedestrian movements from car to sidewalk. This area is the most common location for streetscape elements, and it typically offers the most compatible location for the security barriers. Curbside parking and traffic lanes do not need to be removed when security requirements can be met at the curb.

Parking meters, streetlights, benches, planters, and trash receptacles are familiar elements found at or near the curb. Streetscape designs incorporating hardened versions of these elements should be designed to reinforce the pedestrian realm.

Curb Lane

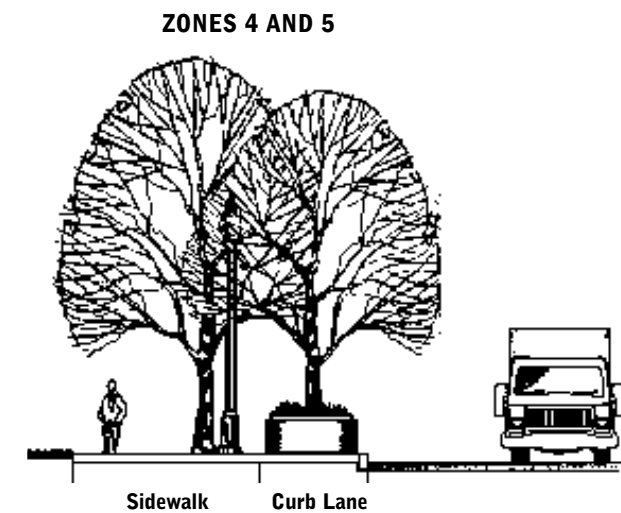
The curb lane is the lane of the street closest to the sidewalk. Curbside parking, passenger drop-off, loading, and service vehicles most often use this lane.

Curbside parking should be removed only in locations where the need for additional standoff distance is absolutely required and only for buildings with the highest security threat. With the exception of the proposed removal of the curb or parking lanes on 10th Street, NW, adjacent to the Department of Justice, and in the West End around the Department of State, the majority of solutions that propose removing the curb lane are in the Southwest Federal Center area. In very limited circumstances when curb lane restrictions are contemplated, consideration should be given to using this portion of the roadway as a secure dedicated transit way to accommodate the Circulator. The parking needs of adjacent owners and of the entire area should be assessed and parking replaced prior to the removal of any existing curbside lanes.



Building Yard

Raised planter or plinth wall provides security barrier in the building yard.



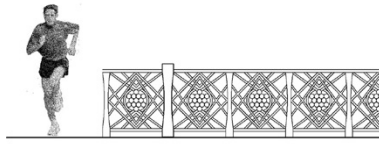
Trees, planters, and other streetscape elements are incorporated into sidewalks. There are limited situations where parking may be removed to widen the sidewalk and increase setback from the street.

STREETScape SECURITY ELEMENTS



Hardened Street Furniture

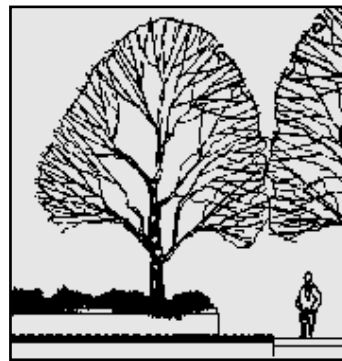
Seat Bollard



Fence Wall



Decorative Fence



Plinth Wall



Fence and Bollard

Bollards



Planters



Seat Planter

Streetscape Security Elements

The Monumental Core of Washington, D.C. is composed of distinct areas that have distinguishable boundaries and unique characteristics. Streetscape design is intended to reinforce or establish (in the case of areas with less recognizable features) urban design and architectural character.

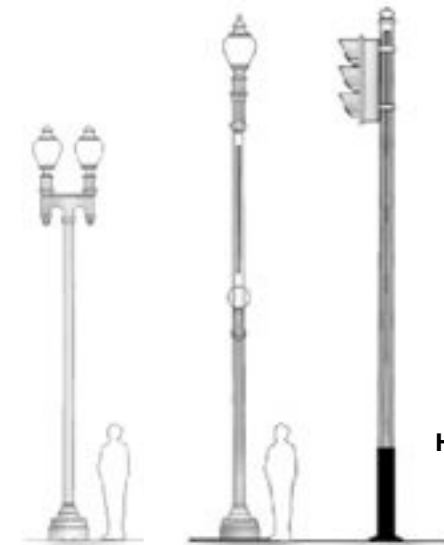
The goal of *The National Capital Urban Design and Security Plan* is to seamlessly incorporate building perimeter security into a beautifully designed streetscape. The Plan broadens the palette of perimeter security elements into an attractive streetscape, including a range of street furnishings and elements, such as streetlights, walls, planters, fences, and seats. These elements have been studied to determine the feasibility of "hardening" them so that they function as both amenities and as components of physical building perimeter security. The structural design, spacing, shape, and detailing of the perimeter security components must be designed to address the required level of protection for a particular building.

While some elements may apply universally, others must respond to contextual areas, reflecting the unique character through use of appropriate materials, scale, and design detail. Though a family of streetscape elements has been designed for each contextual area or street, there are seven basic security design concepts. These include hardened street furniture, fences or fence walls, plinth walls, hedges and bollards, planters, bollards, and custom-designed solutions. While one or more of these concepts are used in multiple areas, the style of the elements will vary based on the character of a particular area.

The Plan's Streetscape Element Catalogue includes an array of streetscape components and landscape solutions developed for each Contextual Area and Monumental Street. The application of these elements is illustrated in the Area Concept Plans as they apply to various conditions found throughout the Monumental Core.

Tested and installed streetscape components have served as the basis for the security design concepts proposed in the Plan. In general, proposed solutions use materials and capabilities as those applied in proven elements such as the Presidential Bollard. This bollard has been integrated with new streetscape and security designs for light poles, newspaper racks, and benches.

Many of these new designs will need to be engineered and crash tested to verify that they are effective. The feasibility and cost of implementing these solutions will be determined as individual assessments are conducted and design of the components are tested to prove their effectiveness in defending against a variety of specified threats.



Hardened Light Fixtures

Mobility and Parking

Security needs should be addressed by measures that have the least adverse impact on parking, traffic, and pedestrian circulation. Since providing for physical perimeter security may, on occasion, compete with the space used to accommodate vital transportation needs of the city, great care must be given to ensuring that neither is diminished through this effort. In fact, improvements to traffic flow also promote safety because they allow for faster emergency response and evacuation times when necessary. Improved circulation throughout the Monumental Core along more attractive and more secure streets should be a beneficial product of the Plan. The Plan should also advance the District's long-range goals of increasing the use of public transit and better managing on- and off-street parking.

At individual locations, where the need to improve building stand-off zones requires impact to roadways, detailed traffic analyses must be conducted to determine the associated impacts to traffic movements and the parking supply. These studies will require participation and approval by the District of Columbia Department of Transportation and other affected agencies. In most cases, such actions should be reversible so that if and when restrictions are lifted, streets can easily be used again to improve vehicular circulation.

Where roadway impacts occur at multiple locations, the associated effects on traffic and parking could be compounded. The following actions will be necessary to mitigate these effects:

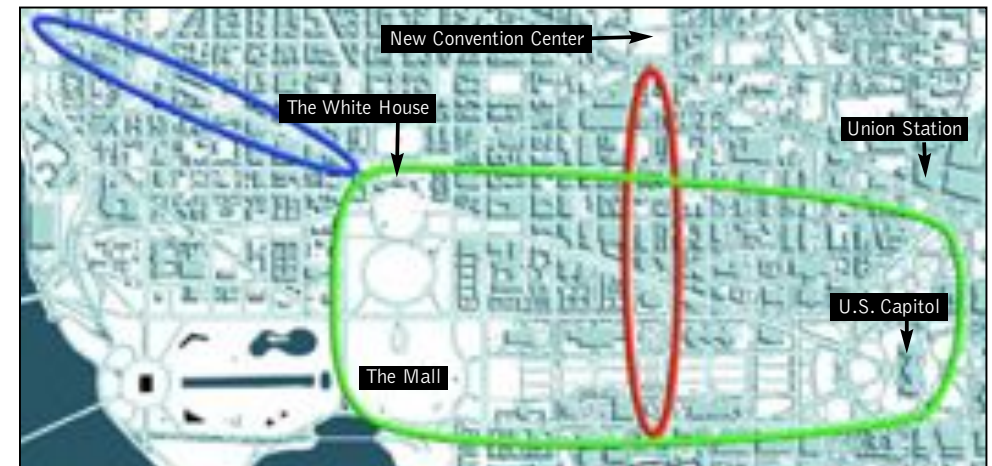
- Fund and implement the Downtown Circulator to supplement the existing transit system, reduce Downtown traffic congestion, increase mobility, and mitigate transportation impacts caused by security improvements and street closures.
- Fund and conduct comprehensive traffic and parking studies to address impacts of increased security at federal properties within the Monumental Core.
- Identify and fund mitigation strategies to address any adverse circulation impacts, adverse impacts to the roadway network, or parking supply caused by security measures.
- Replace any substantial loss of on-street parking, including structured or off-street parking. Initiate a study identifying potential parking repositories in relationship to existing or potential transit corridors.
- Fund and initiate a feasibility and impact study for mitigating and enhancing transportation access along the Pennsylvania Avenue/E Street corridor, including developing secure tunnel options and reopening E Street as soon as possible.

A future transit Circulator could be accommodated without taking away from the generally pedestrian character of the Avenue.



Illustration: Wolff Clements and Associates

One of the Circulator routes should provide service along Pennsylvania Avenue in front of the White House.



CONCEPT DESIGNS FOR CONTEXTUAL AREAS AND SPECIAL STREETS

Pennsylvania Avenue at the White House

Historic Character

Pennsylvania Avenue at the White House is one of the most historic and symbolically sensitive places in the nation. The White House at 1600 Pennsylvania Avenue lies within President's Park, a special precinct of the Nation's Capital. Generous public spaces and views, historic buildings and landscapes, and associations to historical events and people characterize this precinct and tell its history. These settings, buildings, and associations have great significance for the American people.

Pennsylvania Avenue is an important element in the White House setting. It traverses the L'Enfant reservation between the White House and Lafayette Park and provides a world-renowned address, public access, open views, and orientation for the White House and other buildings situated on and near it. The route of Pennsylvania Avenue through the reservation was not part of L'Enfant's 1791 Plan. It developed as the White House was built, and continued as an informal path in subsequent years.

Pennsylvania Avenue was formally made a public street in 1824, the same year that General Lafayette visited Washington and spoke to the public from the park now named in his honor. The segment of Pennsylvania Avenue in front of the White House has been designated a contributing element of the historic street plan of Washington, also known as the L'Enfant Plan.

The layout of Lafayette Park, designed by Andrew Jackson Downing, the noted horticulturist and landscape designer, was implemented in the mid-19th century. Most of the 19th-century buildings along Madison and Jackson Places facing Lafayette Park are now executive branch offices, although they were originally private dwellings. Similarly, the buildings on the north side of Pennsylvania Avenue, such as the Smithsonian Institution's Renwick Gallery, Blair House, and Riggs Bank, reflect earlier private development near the White House. Lafayette Park is the centerpiece of the Lafayette Square Historic District, designated a National Historic Landmark in 1970. It contains approximately 30 buildings, including the Eisenhower Executive Office Building and the Treasury Building flanking the White House. The 15th Street Financial Historic District and the Pennsylvania Avenue National Historic Site are other designations that document the area's significance.

As in other parts of Washington, and particularly in this area, open space—including the street rights-of-way and parkland—is as significant to the historic setting and as worthy of protection as the buildings. The views and vistas along Pennsylvania Avenue and in all directions to and from the avenue are significant, since they comprise an important aspect of the setting of the White House. Views to and from the radiating avenues were planned by L'Enfant in his design of the White House and they have been reinforced by subsequent architects and designers.

Existing Context

The Secretary of the Treasury ordered the closure of Pennsylvania Avenue on May 19, 1995, following the recommendation of a Blue Ribbon Panel charged with reviewing security at the White House to prevent catastrophic damage of the mansion by a vehicle bomb. The security booths and vehicle barriers installed on the avenue and surrounding streets, which were never intended to be a permanent solution, detract from this powerful, historic, and symbolic place. In preparing the recommendations contained in its report, *Designing for Security in the Nation's Capital*, the Interagency Security Task Force analyzed the current and future security needs of the area, past proposals for either reopening or permanently closing the street, and traffic alternatives to the continued closure of the street to normal vehicular traffic.

While pursuing every possible solution that would permit reopening the street, the Task Force, responding to overwhelming and legitimate security concerns, ultimately concluded that the street must remain closed to normal city traffic at this time. However, the Commission and the Task Force have emphasized that any design for this section of Pennsylvania Avenue must be reversible, and that changes in the security threat or improvements to security technology could result in its future reopening. They further recommended the design and construction of a landscaped civic space that respects and enhances the historic setting and views of the White House.

Pennsylvania Avenue in front of the White House
c. 1791



Given its great symbolic importance, the security needs of this portion of the avenue, and its current unacceptable appearance, the Task Force invited four of the country's top landscape architecture firms to submit proposals to create a pedestrian-oriented public space and to accommodate a Circulator vehicle in front of the White House.

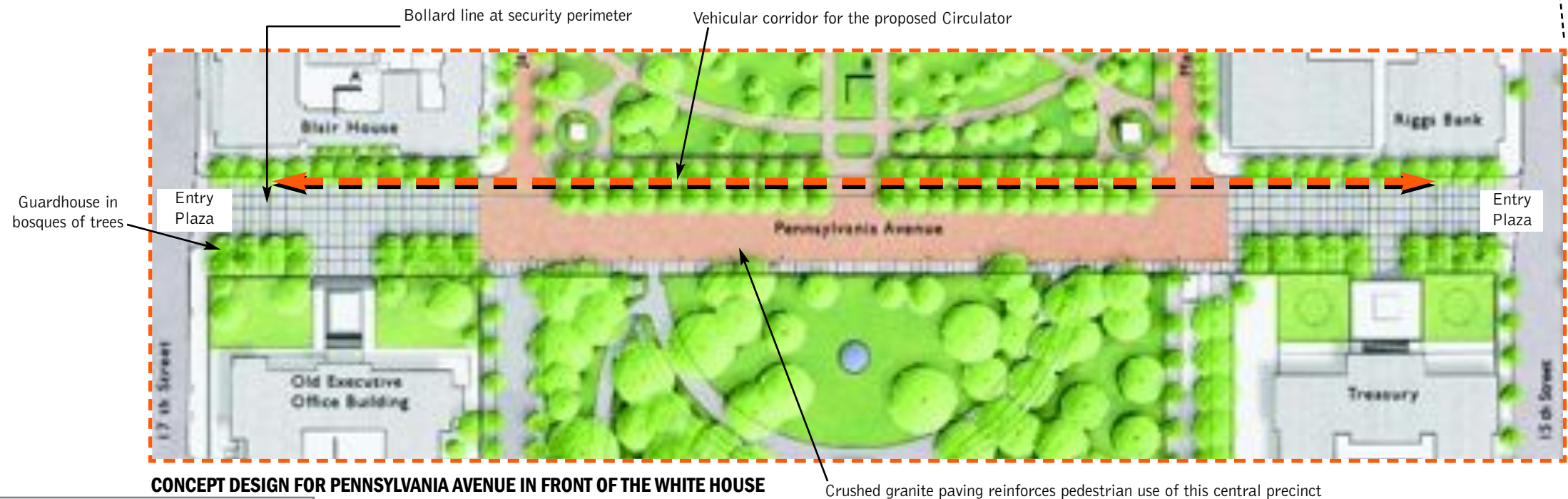
The four firms were Balmori Associates and Michael Van Valkenburgh Associates of New York City; EDAW Inc. of Alexandria, Virginia; and Peter Walker and Partners of Berkeley, California.

The Task Force provided the designers with the objectives outlined in its November 2001 report, and with the design guidelines contained in the Comprehensive Design Plan for the White House and President's Park, which were prepared with extensive public consultation by the National Park Service in 1999. In addition to respecting the historic setting of the White House and reflecting the memory of the street's historic use, the Task Force's design criteria required that the proposals:

- Accommodate the staging of inaugural parades.
- Accommodate the Circulator, a new transit system planned for Downtown Washington.
- Permit the possible future reopening of Pennsylvania Avenue.
- Permit the possible future construction of a tunnel.

In assessing the submissions, the Task Force examined how well each responded to several urban design objectives including security, circulation, pedestrian environment, visual quality, and historic character.

Based on the recommendation of the Task Force, the Commission selected Michael Van Valkenburgh Associates to proceed with the conceptual design for Pennsylvania Avenue at the White House. The Commission noted that it was selecting a designer and a design approach and that the design concept may be modified and refined as the actual design process goes forward.



Design Framework

The Van Valkenburgh design scheme creates a precinct in front of the White House that uses familiar materials and mediates between the European formality of the L'Enfant Plan, the naturalism of Downing's Lafayette Park, and the open setting of the grounds of the White House.

The scheme creates a pedestrian precinct and environment that is welcoming and dignified, and that is able to accommodate multiple uses, including the inaugural parade. It incorporates a simple array of historic Washington light fixtures, stone benches, and other traditional streetscape elements. It preserves the historic axis and existing street pattern and ensures views of the White House.

The design includes a simple array of historic Washington light fixtures, stone benches, and discreet bollards.

The concept consists of four primary components:

- Entry plazas at 15th and 17th Streets are formed by the addition of bosques of trees in front of the Treasury Building at the 15th Street entrance and the Eisenhower Executive Office Building at the 17th Street entrance. These plazas provide locations for the required security checkpoints and, together, they frame the area of the avenue in front of the White House.
- Crushed granite granular paving is proposed for the area of Pennsylvania Avenue in front of the White House between Madison and Jackson Places. This pavement is similar to that used on the Mall walkways and in other renowned civic landscapes around the world. This material encourages pedestrian use of the space and acts as a joining element between Lafayette Park and the White House grounds, reinforcing the relationship of the White House within President's Park. The timelessness of the granular paving also references the historic origins of the avenue. The design maintains this central area as an open space, preserving views of the White House and the axial view corridor of the avenue.
- A corridor lined with large trees is proposed on the north side of Pennsylvania Avenue adjacent to Lafayette Park. This corridor serves as a roadway for presidential and visiting dignitaries, motorcades, security and emergency vehicles, and for the proposed Circulator vehicle.
- The concept allows for secure public access to the White House precinct and President's Park through the proposed Circulator. A Circulator would permit a partial and limited use of Pennsylvania Avenue to allow for controlled and secure vehicular traffic in front of the White House. A Circulator would also help mitigate the closure of Pennsylvania Avenue by restoring a cross-town transportation link and, once more, offer to both visitors and residents the experience of riding in front of the White House.



An allee of large trees delineates the route for the Circulator and defines and humanizes the space in front of the White House.



The design concept addresses the functional requirements of security, circulation, the inaugural parade, and pedestrian amenities in the following ways:

Security

The security perimeter is in the same location as the existing temporary security barriers. Inside the perimeter no additional vehicular security is required. Security elements consist of a row of bollards located at each end of the avenue inside the 15th and 17th Street intersections. Guard booths are proposed to be located within the tree bosques. The ultimate design and location of these security elements will change as required to meet criteria established by the U.S. Secret Service and other law enforcement agencies.

Circulation

The design accommodates the planned Circulator by including a travel lane for controlled and secure vehicular traffic in front of the White House. As proposed, vehicles entering the avenue will either be turned away or cleared to proceed through the

perimeter barrier at the entrance to the street on the north side of Pennsylvania Avenue. This street is delineated by a shallow curb and a second row of trees that parallel the existing street trees on the south side of Lafayette Park. Whereas the Circulator will remain on this street, Presidential motorcades, VIP, law enforcement, and other authorized vehicles would cross the central pedestrian area to enter the ceremonial drive of the White House.

Inaugural Parade

A 60-foot-wide uninterrupted right-of-way is maintained throughout the length of Pennsylvania Avenue between 15th and 17th Streets, as required for the Inaugural Parade. The total width of the central area in front of the White House is 90 feet, including the 15-foot sidewalk on the south, but excluding the 24-foot vehicular street on the north. Temporary bleachers that are able to seat approximately 21,000 spectators will line both sides of this route. (Temporary bleachers for the 2001 Inaugural Parade accommodated 17,500 spectators.)

Site Amenities

As proposed, the entry plazas facing the Eisenhower Executive Office Building and the Treasury Building will be constructed with monolithic 10- by 15-foot slabs of granite. The central area in front of the White House will be constructed of crushed granite. Bench seating will be located in shaded areas under the trees. A simple order of historic Washington light fixtures, stone benches, and bollards chosen for their timeless appearance, will reinforce the existing overall sense of the avenue.

ADDITIONAL DESIGN CONSIDERATIONS

- The design concept offers a conceptual starting point for the permanent design of Pennsylvania Avenue in front of the White House. The extraordinary historic, symbolic, and security concerns of this area will require modification and refinement as the design proceeds.
- The design and location of security elements will be modified, as necessary, to meet the criteria established by the U.S. Secret Service and other law enforcement agencies.
- The design may require modification to meet the unique requirements of the Inaugural Parade, including Presidential viewing, media stands, and bleachers.
- The design must ensure that the avenue can be quickly and easily reopened to normal vehicular traffic.
- A contingency plan should be prepared to ensure that construction does not impact the Inaugural Parade. Ideally, construction should be completed in time for the 2005 parade.
- The design should not preclude the ability to incorporate a tunnel in the future if deemed necessary and appropriate at this location.



Illustration: Michael McCann

Proposed streetscape looking east on Pennsylvania Avenue

Pennsylvania Avenue—White House to the Capitol



"America's Main Street"— Pennsylvania Avenue from the White House to the Capitol



Historic Character

Pennsylvania Avenue, today the most symbolic thoroughfare in the city, was also the most significant in L'Enfant's plan for Washington. The Pennsylvania Avenue right-of-way is a contributing element of the historic L'Enfant Plan designation, and the buildings along this right-of-way comprise part of the Pennsylvania Avenue National Historic Site. The U.S. Capitol and the Treasury Building near the White House grounds flank the segment from 3rd to 15th Streets, NW, creating some of the most recognized vistas in the Nation's Capital and the world. Parks, water features, statues, and memorials further enhance the avenue. The U.S. Navy Memorial and the National Archives mark the 8th Street cross-axis. The non-orthogonal intersections with Indiana and Constitution Avenues have inspired distinctive building footprints and open spaces.

Conceived by the Pennsylvania Avenue Development Corporation (PADC), the 1974 Pennsylvania Avenue Development Plan guided the design and implementation of the current streetscape design. The features include uniform brown square pavers, rows of willow oaks, and a family of street furniture, all reflecting the era in which they were designed.

The architecture on the south side of the avenue is more uniform and monumental in character, reflecting the federal government's planning and architectural design throughout the 20th century.

The north or commercial side of the avenue denotes the southern edge of the city's commercial Downtown. The Canadian embassy and the Market Square buildings are notable recent additions, and the Willard Hotel, the Evening Star Building, and the Apex Building are rehabilitations of significant landmarks.

Existing Context

The existing streetscape design incorporates a pedestrian walkway approximately 12 to 15 feet wide with a row of street trees on either side. This walkway is set back 8 to 10 feet from the curb and is typically 40 to 45 feet from the face of the buildings. A line of streetscape elements is located within each row of trees, mostly in the line closest to the street. The streetscape elements are designed to sit above the ground, as separate distinct objects animating this spatial environment. These objects are arranged in a repetitive pattern establishing a rhythm that respects block-to-block relationships and idiosyncrasies.

Security needs and pedestrian conditions vary greatly along the length of Pennsylvania Avenue from the Capitol to the White House. Some buildings are set far back from the street on wide sidewalks, while others are not; some buildings require maximum security, while others do not.





Design Framework

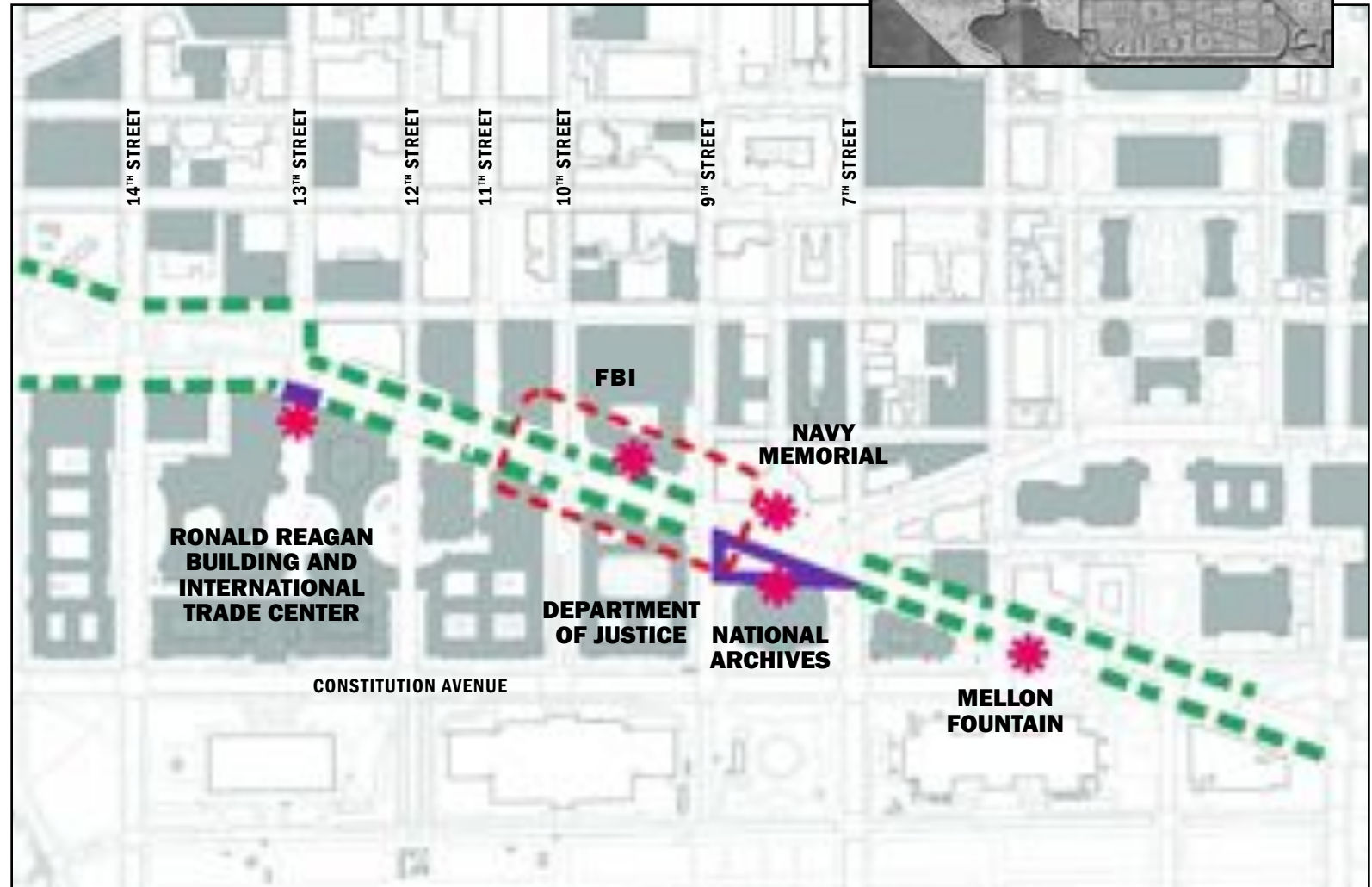
The proposed streetscape design for Pennsylvania Avenue reinforces the existing streetscape of the avenue by the incorporation of new, custom-designed, hardened street furniture.

The proposed security perimeter reinforces the existing line of streetscape elements that are located at the row of trees closest to the street (8 to 10 feet from the curb). This results in most of the buildings along the avenue having a standoff distance of approximately 40 feet. The proposed security barrier consists of custom-designed, hardened street furniture. The palette is expanded to include the additional components of bollards, planters, and custom-designed bus shelters.

Ultimately, final design direction for the avenue between 3rd and 15th Streets will be determined based on the design of new, hardened street furniture and the updated national historic register nomination currently being conducted by the National Park Service.

PENNSYLVANIA AVENUE - WHITE HOUSE TO THE CAPITOL KEY PLAN

- LEGEND**
-  Typical Streetscape Design
 -  Custom-Designed Area
 -  Custom-Designed Elements
 -  Sample Application Area



Line of hardened streetscape furniture on the centerline of the first row of trees



PENNSYLVANIA AVENUE SAMPLE APPLICATION

Sample Applications

The block between 9th and 10th Streets, NW is used to illustrate the proposed typical streetscape design solution for Pennsylvania Avenue. This block of the avenue contains the headquarters of the Department of Justice (DOJ) on the south and the J. Edgar Hoover Building of the Federal Bureau of Investigation (FBI) on the north. The existing condition in front of the DOJ is typical of most of the avenue while conditions in front of the FBI Building, with an additional 30 feet of sidewalk width and an additional row of street trees, are atypical.

The proposed streetscape design and security barrier, where required, should be identical on both sides of the avenue. For buildings that must be secured, hardened street furniture will be necessary; for buildings that do not require security, similar but unhardened versions of the same furniture will be installed at greater spaced intervals.

The proposed security elements consist of hardened designs of new street furniture, including: benches, drinking fountains, trash containers, and pedestrian light fixtures. Other elements include bollards, planters, and a new design for the bus shelters. All of these new components are custom-designed both to accommodate the required hardening and to respect the design of the existing furniture. The illustrated solution applies these components to create a rhythm and, at major building entrances, to reflect the significance of the space and the architecture of the building.

The additional setback of the FBI Building offers the opportunity to custom design this section of the avenue to add either a unique feature or simply provide additional green space. Although shown as a raised landscaped planting bed that offers further protection as a secondary vehicle barrier, the appropriate design of this area is yet to be determined.

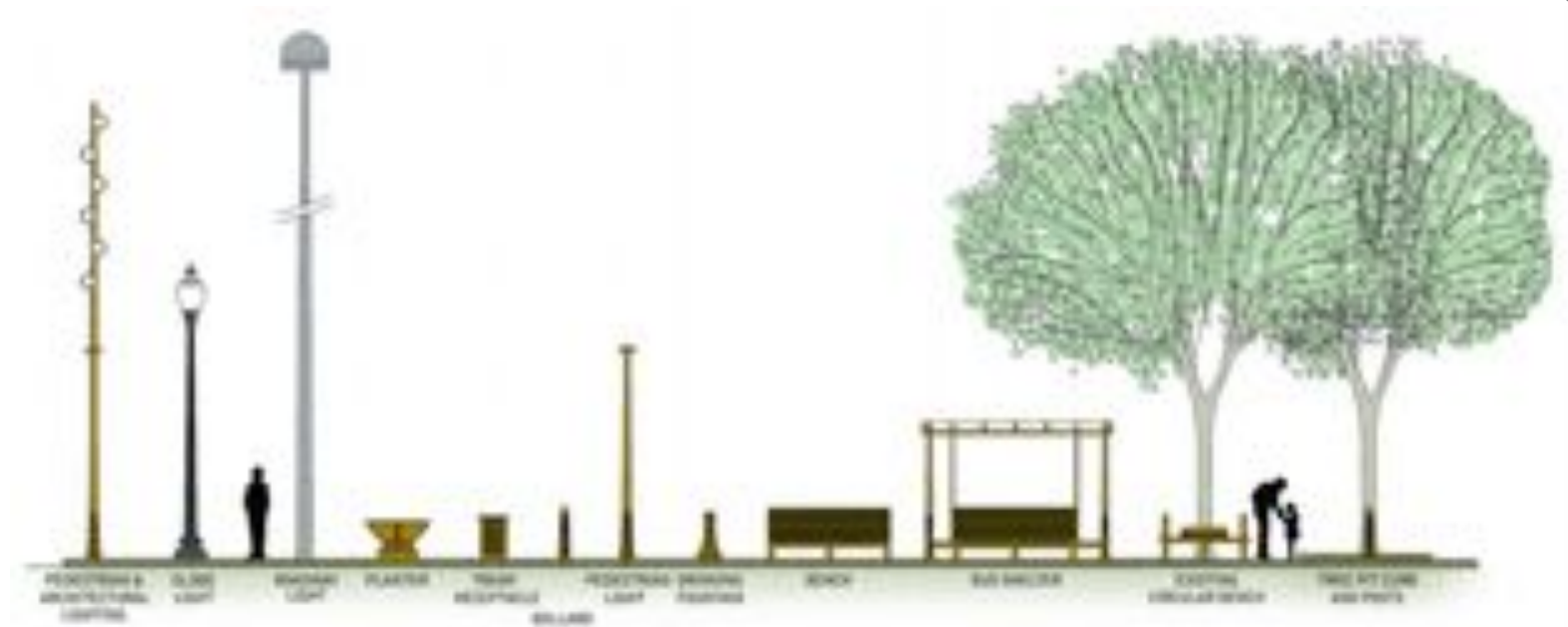
Special Projects

Over the length of any street, some variety is apparent. On Pennsylvania Avenue, this variety includes design challenges to which the typical design concept will need to adapt and where more site-specific design is appropriate. Locations that call for site-specific design include:

- Fountain at the eastern end of the Federal Triangle on 4th Street.
- Navy Memorial and Archives, between 7th and 9th Streets, both sides of Pennsylvania Avenue.
- In front of the J. Edgar Hoover FBI Building.
- Terminus of 13th Street at the Ronald Reagan Building and International Trade Center.

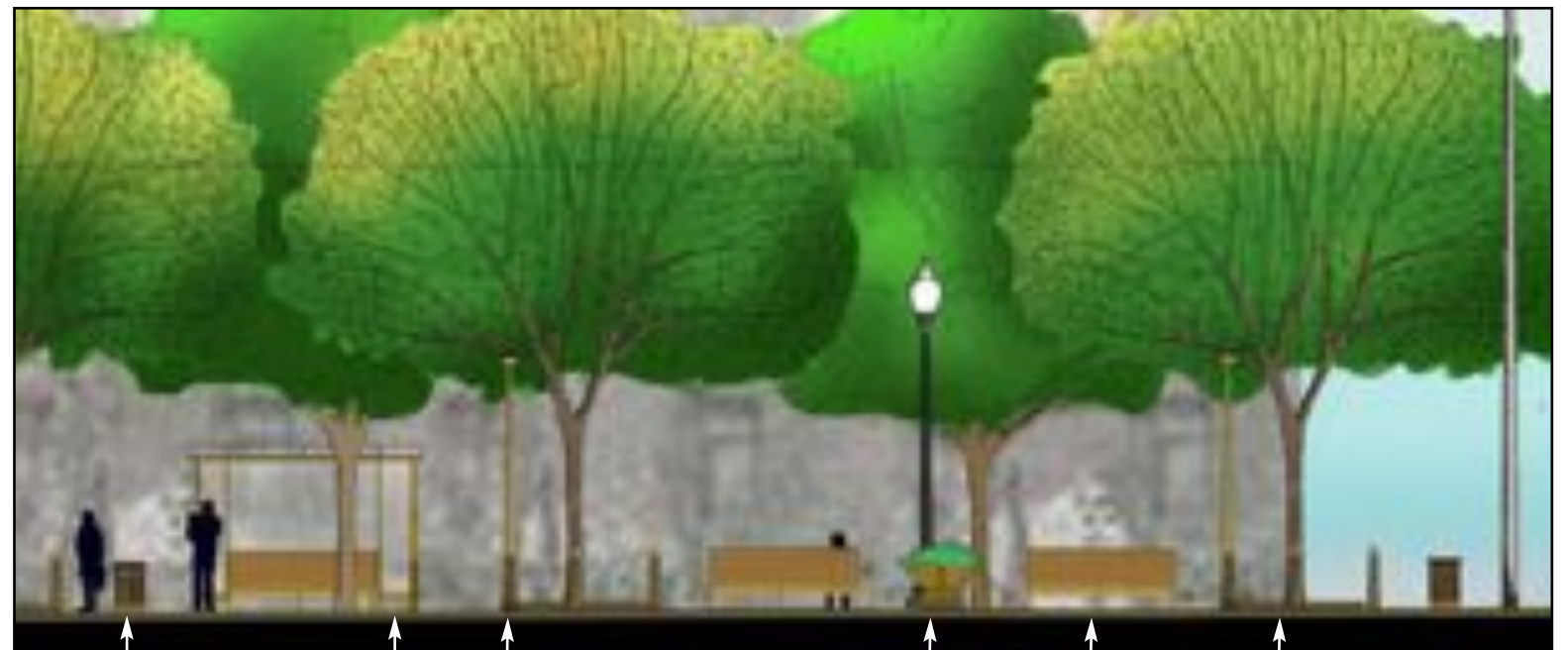
ADDITIONAL DESIGN CONSIDERATIONS

- The design of hardened street furniture components must be appropriate to the 1974 PADC design concepts for the avenue.
- Hardened street furniture must be tested to ensure that it satisfies security requirements.
- Underground utility locations are yet to be determined.



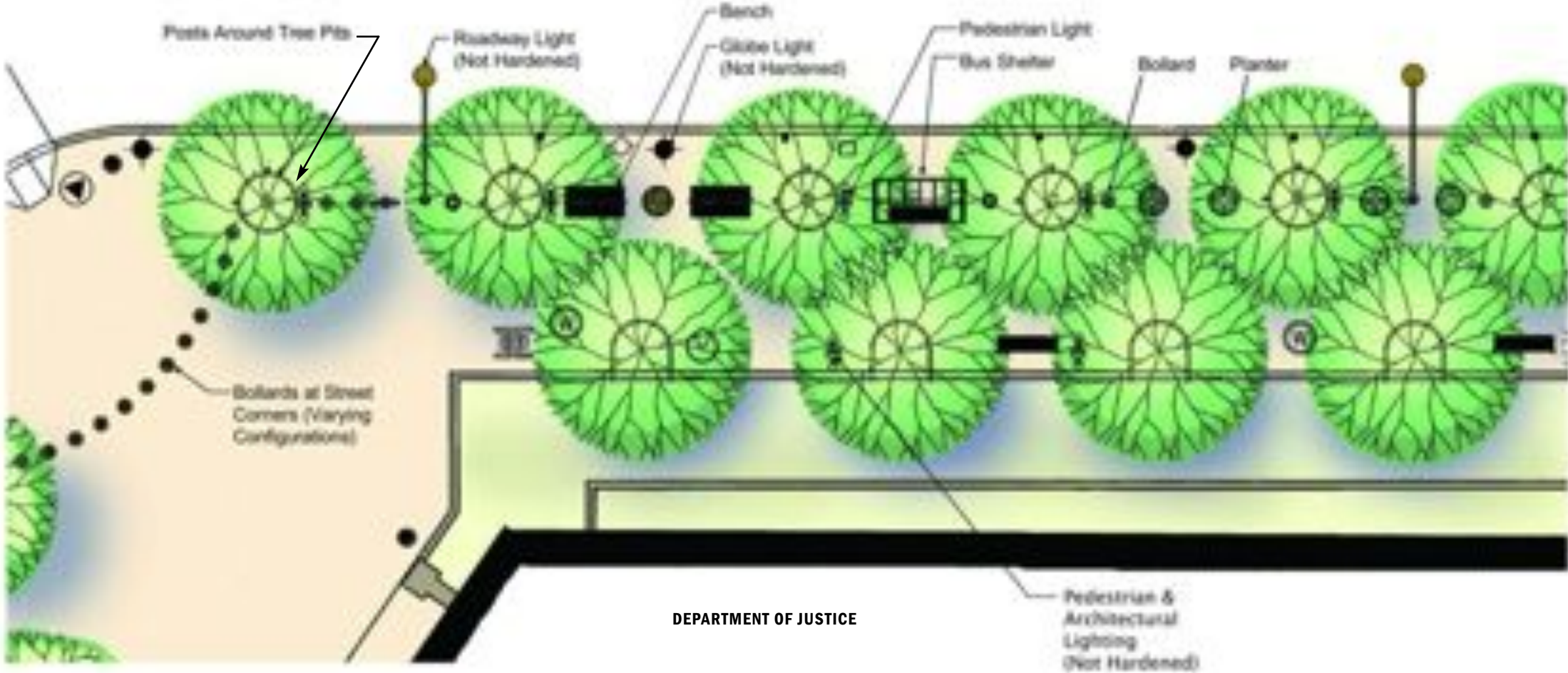
PENNSYLVANIA AVENUE HARDENED STREETSCAPE ELEMENTS

Proposed line of hardened street furniture ►



Trash Receptacle Bus Shelter Pedestrian Lighting Planter Bench Tree Pit Curb and Posts

STREETSCAPE ELEVATION



PENNSYLVANIA AVENUE SAMPLE APPLICATION – PLAN DETAIL 1



Proposed streetscape design for Pennsylvania Avenue looking west from the Treasury Building



Existing conditions

Federal Triangle

Historic Character

The Federal Triangle, an enclave of federal office buildings conceived in the McMillan Plan, is listed in the National Register of Historic Places. Part of the Pennsylvania Avenue National Historic Site, the area was designated for its exceptional architectural and planning significance and for its contribution to the image of the federal government in the Nation's Capital. All of the buildings in the Federal Triangle were designed and constructed in the 1920s and 1930s, with the exception of the Old Post Office (a surviving 1890s landmark), the Wilson Building (1908), and the Ronald Reagan Building and International Trade Center (completed in the 1990s).

The Federal Triangle complex represents a high standard of coordinated federal planning and design in the Beaux Arts style. Massive in size but classically proportioned and adroitly scaled, the buildings dominate the south side of Pennsylvania Avenue between the White House and the U.S. Capitol. These buildings also line the north side of Constitution Avenue and complement the scale of the museums across the avenue. John Russell Pope's National Archives Building punctuates the 8th Street cross-axis in both plan and elevation. Within and between the buildings, graceful plazas, generous courtyards, and carefully modulated facades showcase a sophisticated architectural vocabulary.



Plaza entrance to Ronald Reagan Building and International Trade Center



View north on 14th Street in front of the Department of Commerce



Bus operations on 10th street adjacent to the Department of Justice and IRS

Existing Context

Conceived as a unified precinct, the Federal Triangle originally consisted of manicured lawns with minimal, entranced-focused foundation plantings. The Triangle is articulated by a landscaped building yard, typically with low moat walls at the building wall, and wide sidewalks incorporating a generous tree-planting strip. A hierarchy of vehicular and pedestrian movement exists within the Federal Triangle. Although all of the north-south streets extend through the Triangle, several terminate at their intersection with Constitution Avenue and the Mall.

UNIQUE OR SPECIAL CONDITIONS INCLUDE:

- National Archives with its plinth walls and Beaux Arts landscaping.
- Old Post Office building and its narrow sidewalk on 12th Street.
- Buildings around the hemicycle that are at the curb on both sides of 12th Street.
- Terminus of 13th Street at the Ronald Reagan Building.
- Ronald Reagan Building entrance plaza on 14th Street.

These special conditions represent opportunities for the custom design of streetscape, landscape, and related urban design and security solutions.

Design Framework

Streetscape designs for the Federal Triangle reflect the hierarchy of Pennsylvania Avenue, Constitution Avenue, and the north-south streets in this precinct. The designs distinguish the avenues from the streets. Design concepts respond to the historic site and architectural character while enhancing the pedestrian experience.

The Federal Triangle design concept incorporates a uniform streetscape design for the majority of the north-south streets. Specific design solutions are applied to the special conditions that exist on these streets, including: custom design of the hemicycle on 12th Street, the terminus of 13th Street, and the 14th Street entry plaza of the Ronald Reagan Building and International Trade Center.

Security components proposed for the Federal Triangle include several bollard designs, a street fence design, and modifications of existing plinth and retaining walls. The typical north-south streetscape design incorporates a fence and bollard wall located on the curbside of the existing tree planting beds (typically two trees in length). Where breaks in this element exceed security requirements, a bollard or other hardened streetscape component is incorporated. While not proposed as a component of this security barrier, hardening of the street light poles is also an option. Bollards are used on corners and where the sidewalk is too narrow to incorporate street trees and the associated fence wall.

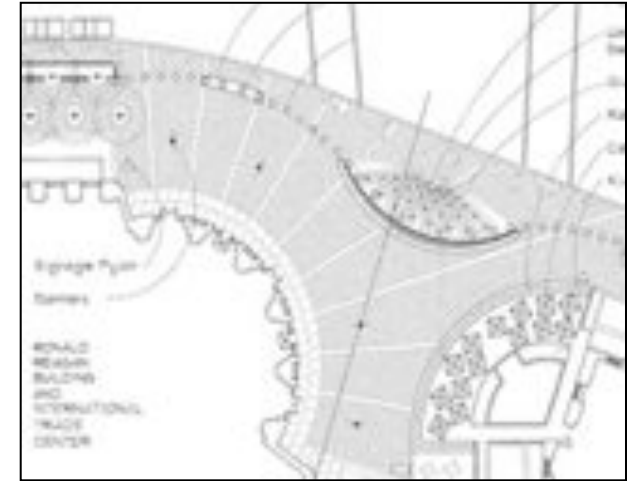


FEDERAL TRIANGLE KEY PLAN

LEGEND

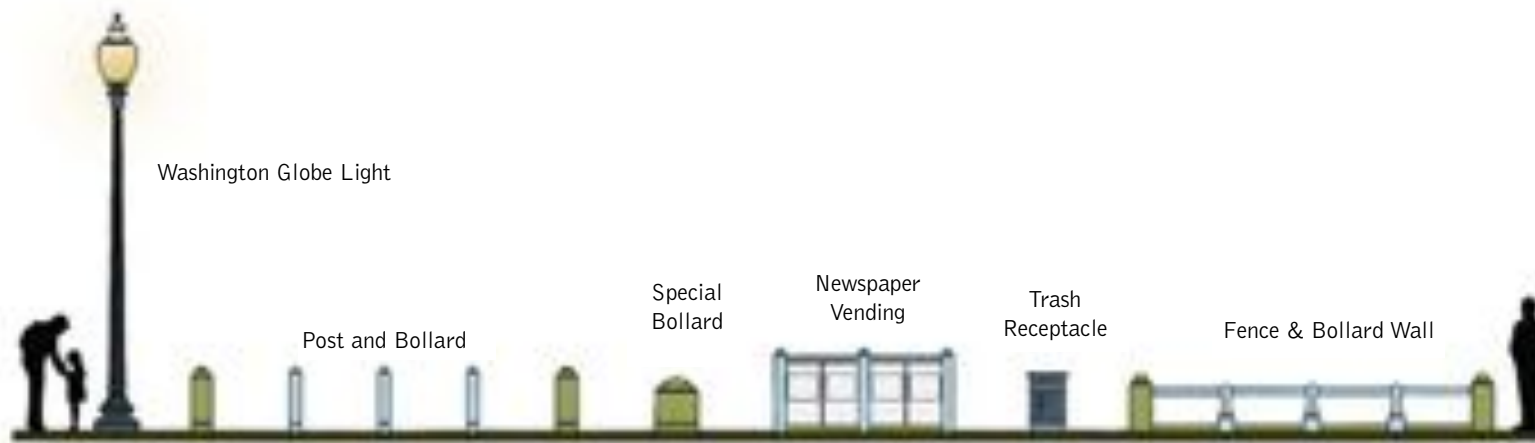
- Post and Bollard
- Fence and Bollard
- Plinth Wall
- Special Bollard
- E Vehicle Entrance
- * Special Projects
- Sample Application Area

The Plan endorses the General Services Administration's proposal for the design of a fountain at the 13th Street terminus at Pennsylvania Avenue.



FEDERAL TRIANGLE KEY PLAN

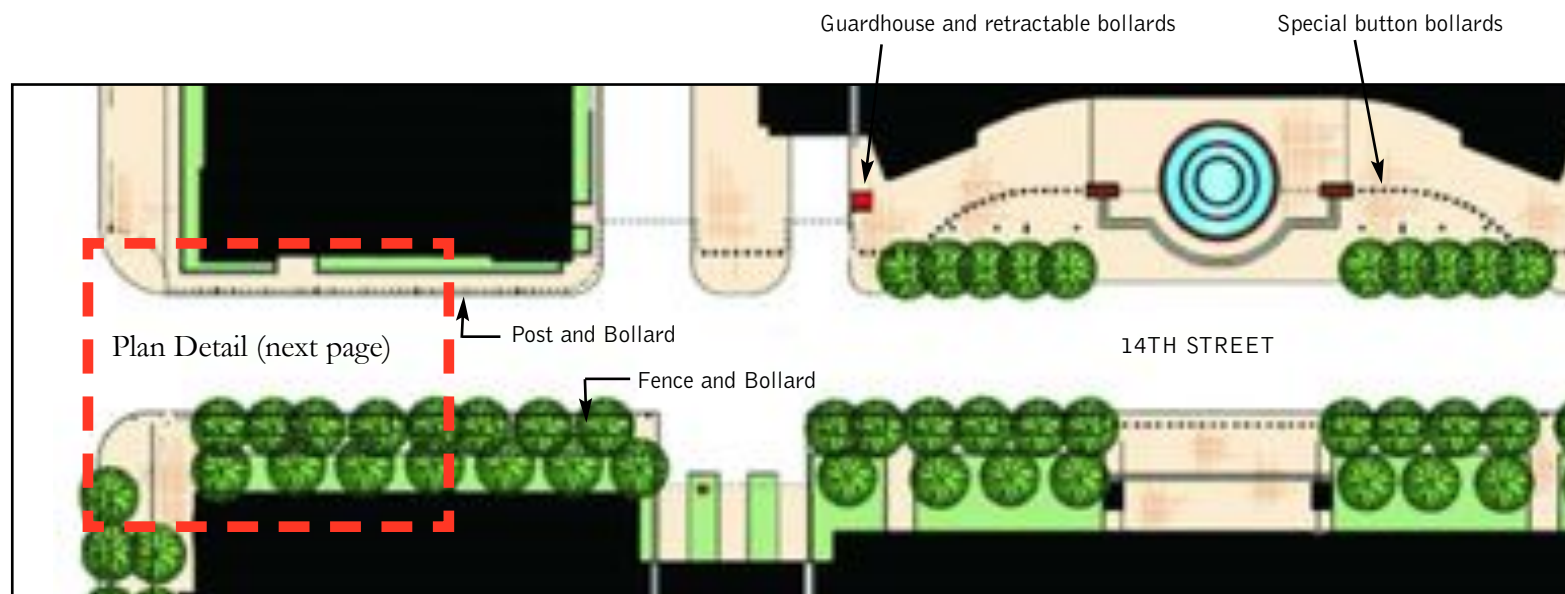
14th Street Sample Application Area



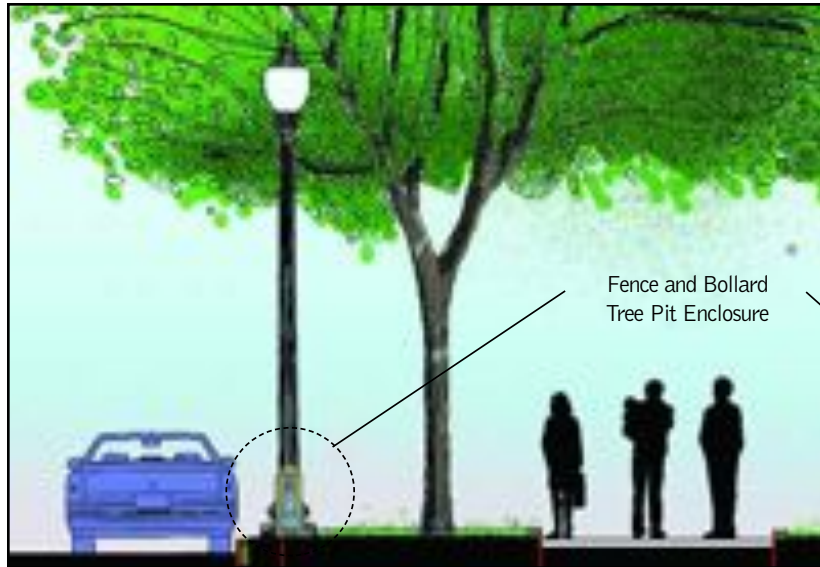
FEDERAL TRIANGLE - HARDENED STREETScape ELEMENTS

The proposed streetscape design framework on the north-south streets of the Federal Triangle incorporates:

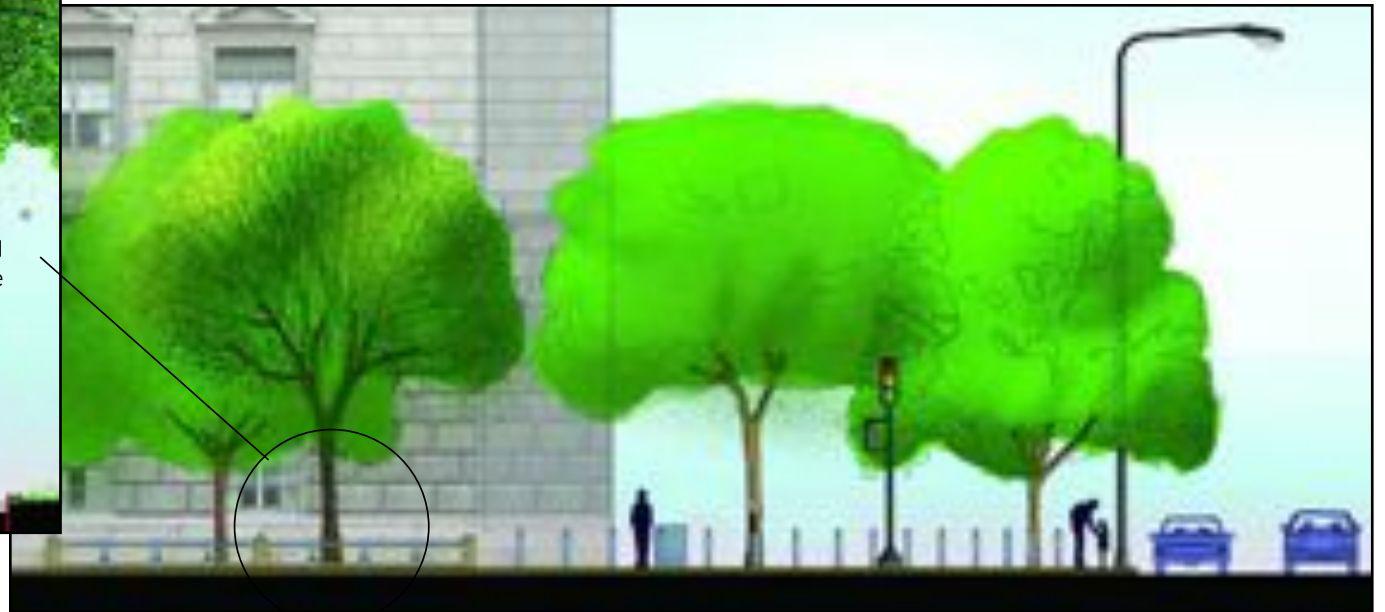
- A fence and bollard wall on the curbside of the tree planting beds.
- Bollards where sidewalk conditions are too narrow to employ the fence wall, such as adjacent to the Wilson Building on 14th Street.
- Custom-designed solutions for the 12th Street hemicycle and 14th Street plaza in front of the Ronald Reagan Building.
- The General Services Administration's proposal for the design of a fountain at the 13th Street terminus at Pennsylvania Avenue.
- Redesign of the fountain in front of the National Archives on Pennsylvania Avenue to accommodate security requirements.
- Removal of the parking lanes on both sides of 10th Street. A study to develop modifications of 10th Street bus operations is recommended to make the street more pedestrian friendly, as appropriate to this street and its termination at the Constitution Avenue entrance to the National Museum of Natural History.
- Guardhouses, as required at points of vehicular entry to parking and service areas, to be located close to the buildings, and designed to be compatible with the associated building architecture. Gate arms are acceptable in areas of high traffic volume.



FEDERAL TRIANGLE - 14TH STREET SAMPLE APPLICATION AREA



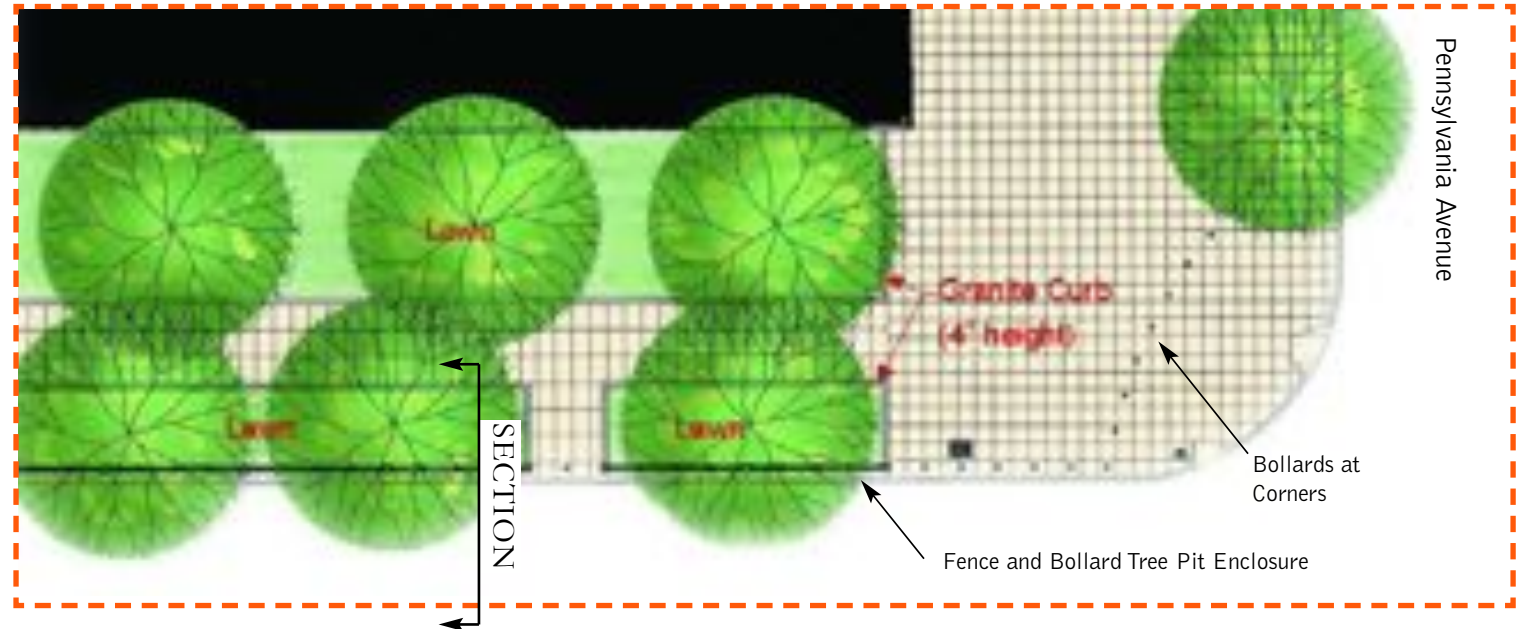
TYPICAL FENCE AND BOLLARD SECTION



TYPICAL NORTH-SOUTH STREET ELEVATION

ADDITIONAL DESIGN CONSIDERATIONS

- The proposed fence and bollard wall component requires both engineering and testing to ensure that it satisfies security requirements.
- Removal of the parking lanes on 10th Street requires a traffic study and parking analysis and confirmation by DCDOT.
- Underground utility locations have yet to be determined.



TYPICAL PLAN DETAIL



Illustration: Christopher Grubbs



Existing conditions

Proposed and typical Federal Triangle streetscape design looking north on 14th Street in front of the Department of Commerce

Department of Justice

Within the Federal Triangle, the Department of Justice (DOJ) has designed perimeter security for its headquarters building on Pennsylvania Avenue. It's recommended that the streetscape designs for the surrounding streets of Pennsylvania Avenue on the north, Constitution Avenue on the south, and the typical streetscape design proposed for the north-south streets in the Federal Triangle apply to the DOJ headquarters building. (These proposed streetscape designs are described in the respective sections for each of these avenues and the Federal Triangle.)



Department of Justice Building as viewed from Pennsylvania Avenue

- The proposed Pennsylvania Avenue streetscape design concept constitutes a new design for the 1974 Pennsylvania Avenue Development Corporation plan for the avenue. The design incorporates hardened components that are consistent with the existing design of the avenue, e.g., benches, drinking fountains, etc., and include the addition of bollards at the corners and at major entrances to the buildings.
- The proposed Constitution Avenue streetscape incorporates a plinth wall design that raises the existing coping stone on the inside of the sidewalk.
- The Federal Triangle north-south streetscape design introduces a fence and bollard wall at the curbside of the tree planting beds. Bollards are incorporated in the sidewalk between this wall and at vehicular entrances where retractable bollards and/or gate arms are employed.
- Guardhouses are proposed to be custom-designed for compatibility with the building architecture.
- Given the high level of security applicable to the DOJ and the special condition that exists on 10th Street between Pennsylvania and Constitution Avenues, the Plan recommends incorporating the existing curb/parking lanes on both sides of this block in widened sidewalks, thereby increasing the standoff distance. This widening of the sidewalk incorporates the redesign of this predominately pedestrian street in a manner appropriate to its limited traffic use and termination at the Constitution Avenue entrance to the National Museum of Natural History