

STAFF RECOMMENDATION

NCPC File No. 6562



ANACOSTIA WATERFRONT TRANSPORTATION ARCHITECTURE DESIGN STANDARDS

Washington, DC

Submitted by the District Department of Transportation

January 27, 2005

Abstract

The District Department of Transportation (DDOT) has submitted for conceptual review a draft manual which establishes design standards for transportation architecture within the Anacostia Waterfront Initiative (AWI) area. The concepts of the manual were developed based on the goals of the AWI Plan and also the themes established in NCPC's *Extending the Legacy Plan*. The resulting standards provide guidance for the design of all future improvements within the DDOT right-of-way, including cart way, pedestrian spaces, transit and bicycle lanes, and any related landscaping, street furniture, lighting and signage.

Commission Action Requested by Applicant

Approval of concept design pursuant to Section 5 of the National Capital Planning Act (40 U.S.C. § 8722(b)(1))

Executive Director's Recommendation

The Commission **approves** the draft Anacostia Transportation Architecture Design Manual and **recommends** that:

- For corridors that cross the AWI boundary, DDOT develop streetscape designs that are continuous on both sides of the boundary to create visual continuity between the city and the waterfront, or transition the streetscape elements at logical points along the corridors such as at circles, squares or parks.
- DDOT explore alternative contemporary lighting fixtures for Symbolic Corridors that are more compatible with the traditional Washington Globe fixtures.

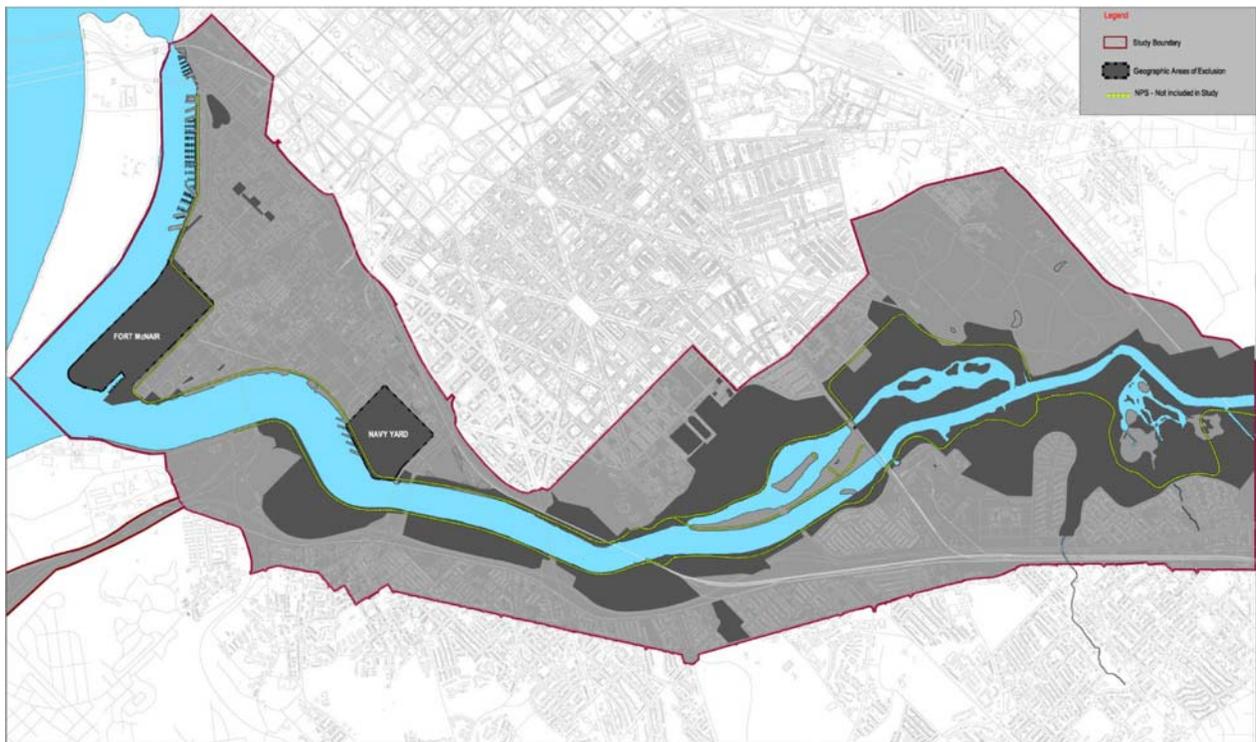
- DDOT work with Washington Metropolitan Area Transit Authority to develop guidelines for bus shelters within the AWI area that are compatible with the planned surrounding streetscape.
- DDOT utilize uniform paving materials along Symbolic Corridors, but select specific materials later in the project planning process, during the streetscape design development phase.

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PROJECT DESCRIPTION

The District Department of Transportation has submitted the draft Anacostia Waterfront Architectural Design Standards for conceptual review. The submission is a manual which provides guidelines and specification for the design of all future right-of-way improvements within the Anacostia Waterfront Initiative area. This area is illustrated below. Please note that these standards do not apply to any federal land.

The Anacostia Waterfront Initiative Area



The manual provides both specific standards and general recommendations for future transportation projects. The specific standards include items such as paving materials, street lighting, and seating while the more general recommendations deal with use of Low Impact Development (LID) techniques, the incorporation of public art and general design direction. The

recommendations and standards of their manual were developed based on the criteria established in the Anacostia Waterfront Initiative Framework Plan. These criteria are listed below:

- Provide Environmental Stewardship
- Increase Waterfront Access
- Promote Pedestrian, bike and transit friendly rights-of-way and enhance safety
- Enhance the identity of neighborhoods and local destinations
- Integrate the Anacostia Waterfront area with the Monumental Core and the Capitol

The manual also cites the NCPC Extending the Legacy Plan as an influencing factor, particularly as it pertains to major L'Enfant Avenues and reconnecting the waterfront area with the monumental core of the city.

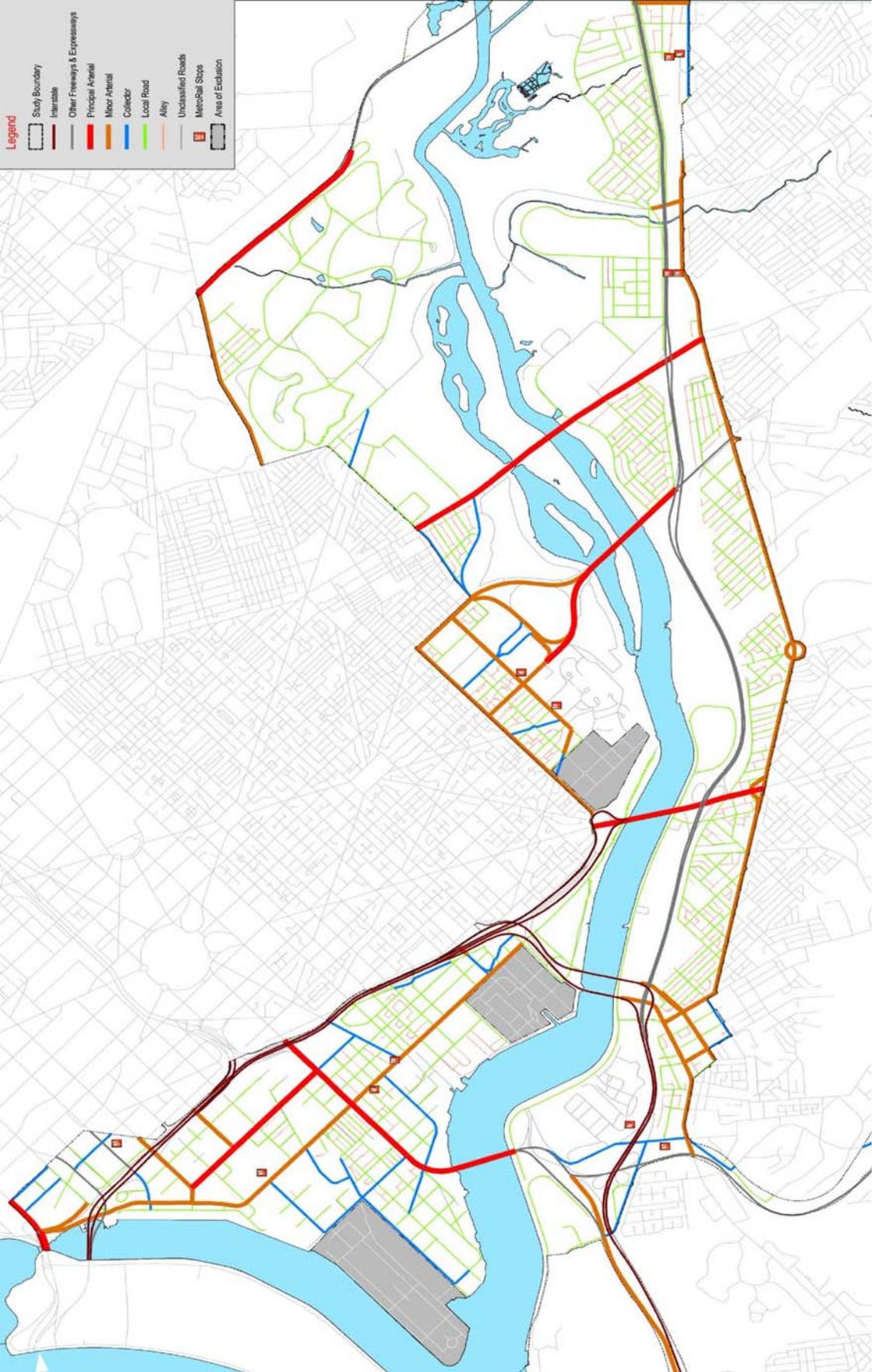
The manual is organized in a “layered” fashion with guidelines and standards being compiled for each street based on its characteristics. First, base standards are established for all streets and alleys based on their functional classification. This is the typical street classifications for roads including arterials, collectors, local road, etc. Secondly, these standards are modified slightly based on surrounding land uses (residential vs. mixed-use). The final layer is called “Special Areas” and pertains to streets selected for their role in defining the character of the AWI area. In these Special Areas additional guidelines and specifications are added to the base standards to help enhance design and to meet the goals of the AWI Framework Plan.

Base Standards

As stated above, the manual first sets forth base standards for all streets and alleys based on their functional classification. These classifications include:

- Interstate
- Other Freeways and Expressways
- Principle Arterial
- Minor Arterial
- Collector
- Local Road
- Alley

The following illustration displays the street classifications within the study area.



These classifications are further grouped into three categories: Thoroughfares, Major Urban Streets, and Local Streets and their base standards and guidelines are described below. Please note that transportation projects within the AWI area have to meet all existing, applicable, transportation standards such as American Association of State Highway Transportation Officials (AASHTO), and the Manual of Uniform Traffic Control Devices (MUTCD). Further, projects would have to comply with all existing city-wide DDOT standards unless otherwise noted.

Thoroughfares

This category includes all interstate and freeway classifications. The standards and guidelines for these classifications include the following:

- Utilize architectural concrete in structural walls
- Integrate high quality landscaping and incorporate Low Impact Development (LID) strategies and public art in design.

Major Urban Streets

This category includes the Principal Arterial, Minor Arterial and Collector functional classifications within the AWI area. The standards and guidelines for these classifications include the following:

- Integrate high quality landscaping, Low Impact Development (LID) strategies, and public art in design
- Utilize architectural concrete in structural walls
- Utilize District BID Wayfinding Program in developing signage
- Utilize unique, high quality street furnishings (seating, trash bins, bike racks, etc.)
- Utilize DDOT standard Washington Globe street lighting (twin globe)
- Implement granite curbs with brick gutters
- Utilize concrete/london pavers for sidewalks in non-historic areas, and brick sidewalks in historic areas
- Colored pavement should be used to denote bicycle lanes, transit lanes, bus pads etc.

Local Streets

This category includes all streets and the Local Road functional classification. The standards and guidelines for this classification include the following:

- Integrate high quality landscaping, and LID strategies in design
- Utilize applicable District Business Improvement District (BID) Wayfinding Program in developing signage
- Utilize high quality street furnishings (seating, trash bins, bike racks, etc.)
- Utilize DDOT standard Washington Globe street lighting (single globe)
- Implement granite curbs with brick gutters

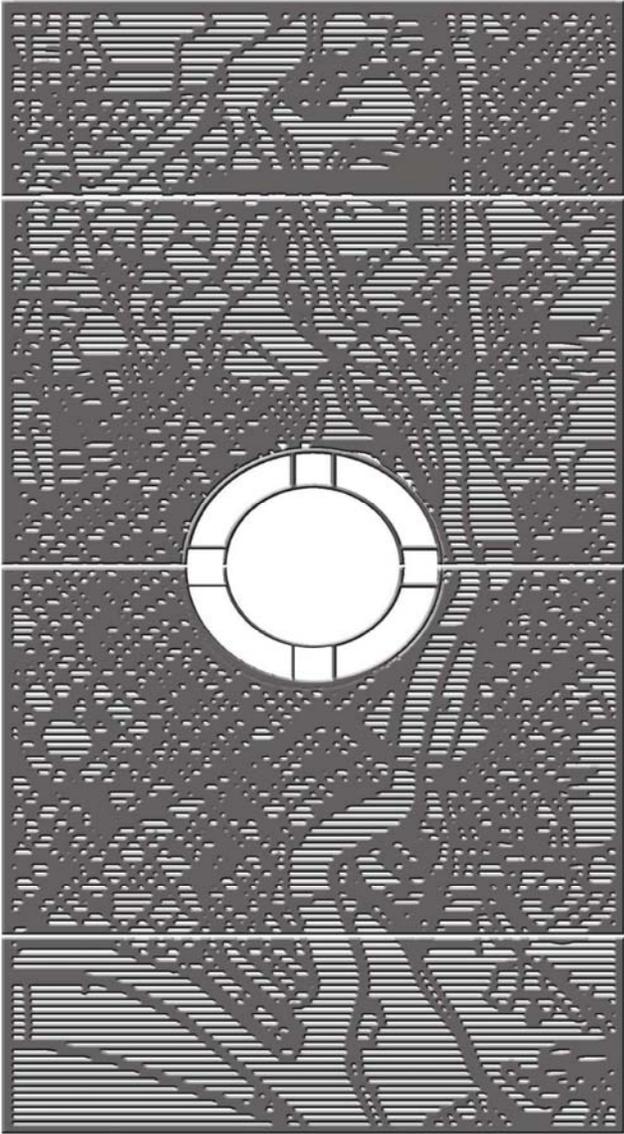
- Utilize concrete/London pavers for sidewalks in non-historic areas, and brick sidewalks in historic areas
- Colored pavement should be used to denote bicycle lanes, transit lanes, bus pads etc.

Public Art and Street Furnishings

The manual requires the incorporation of public art and unique street furnishings in virtually all transportation projects throughout the AWI area. Examples are given in the manual to provide guidelines for the design of elements to be used. Public art will be used to enhance elements such as structural walls and medians and the design of street furnishings will be unique to the AWI area. The following images are examples of elements encouraged by the manual.



Manhole Cover



Tree Grate



Integration of public art in a structural wall

Low Impact Development (LID)

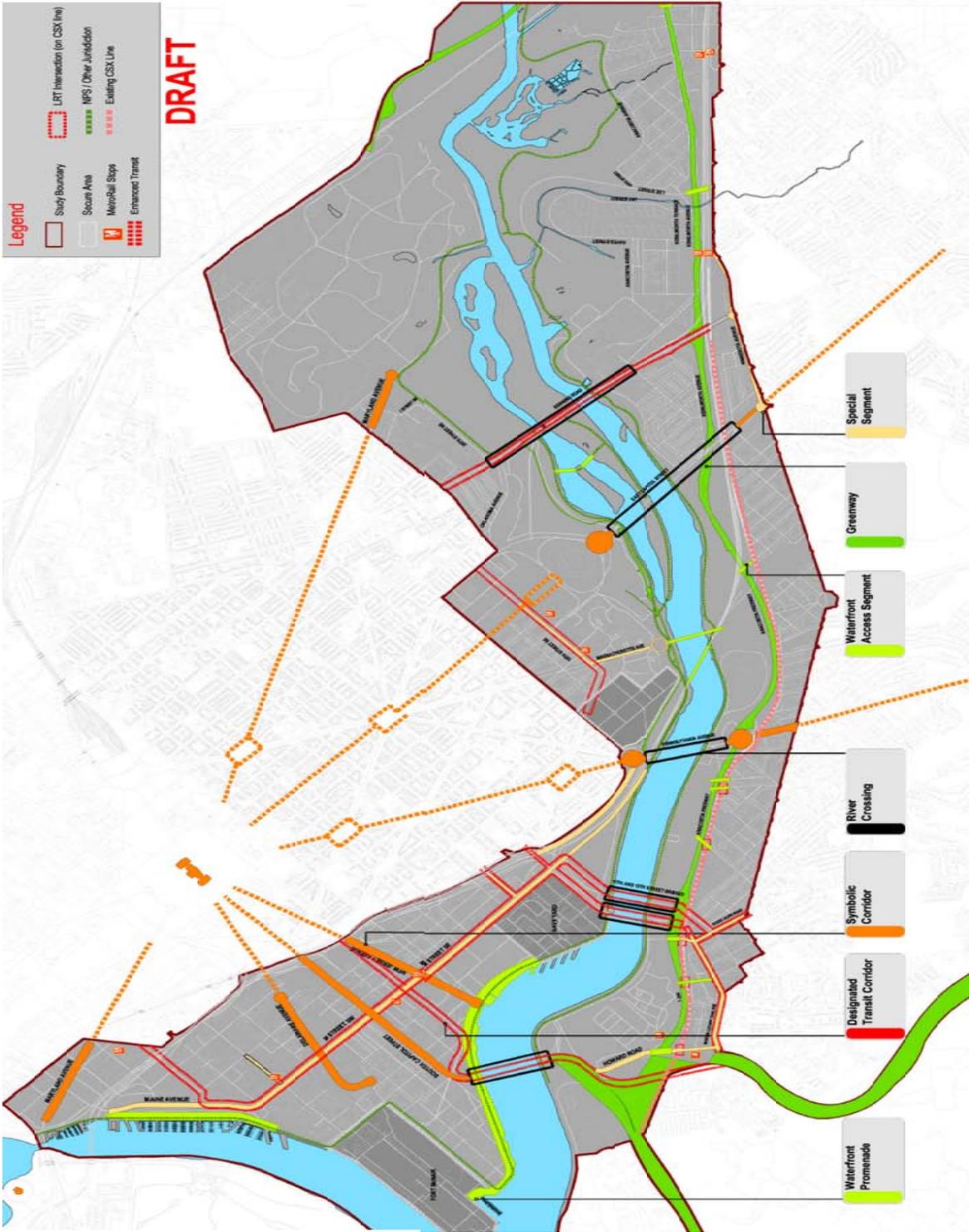
The manual also requires Low Impact Development (LID) strategies be used for all transportation projects. LID strategies are aimed at reducing environmental impacts and are specifically focused on reducing and cleaning stormwater run-off. This requirement is directly related to the overall effort to clean the Anacostia River. Recommended LID strategies include the use of Permeable Asphalt, Concrete and Unit Pavers, Sand Filters, Infiltration Trenches, Bioswales, Bioslopes, Street Trees, Bioretention Cells, Underground Cisterns and other progressive technologies.

Special Areas

The main focus of the draft manual is the standards and guidelines for the designated Special Areas. These areas are identified as being critical to the character and function of the AWI area and therefore warrant a higher level of design. Seven special areas have been identified and are listed below:

1. Greenways
2. Symbolic Corridor
3. Designated Transit Corridors
4. Special Segments
5. River Crossing
6. Waterfront Access Segment
7. Waterfront Promenade

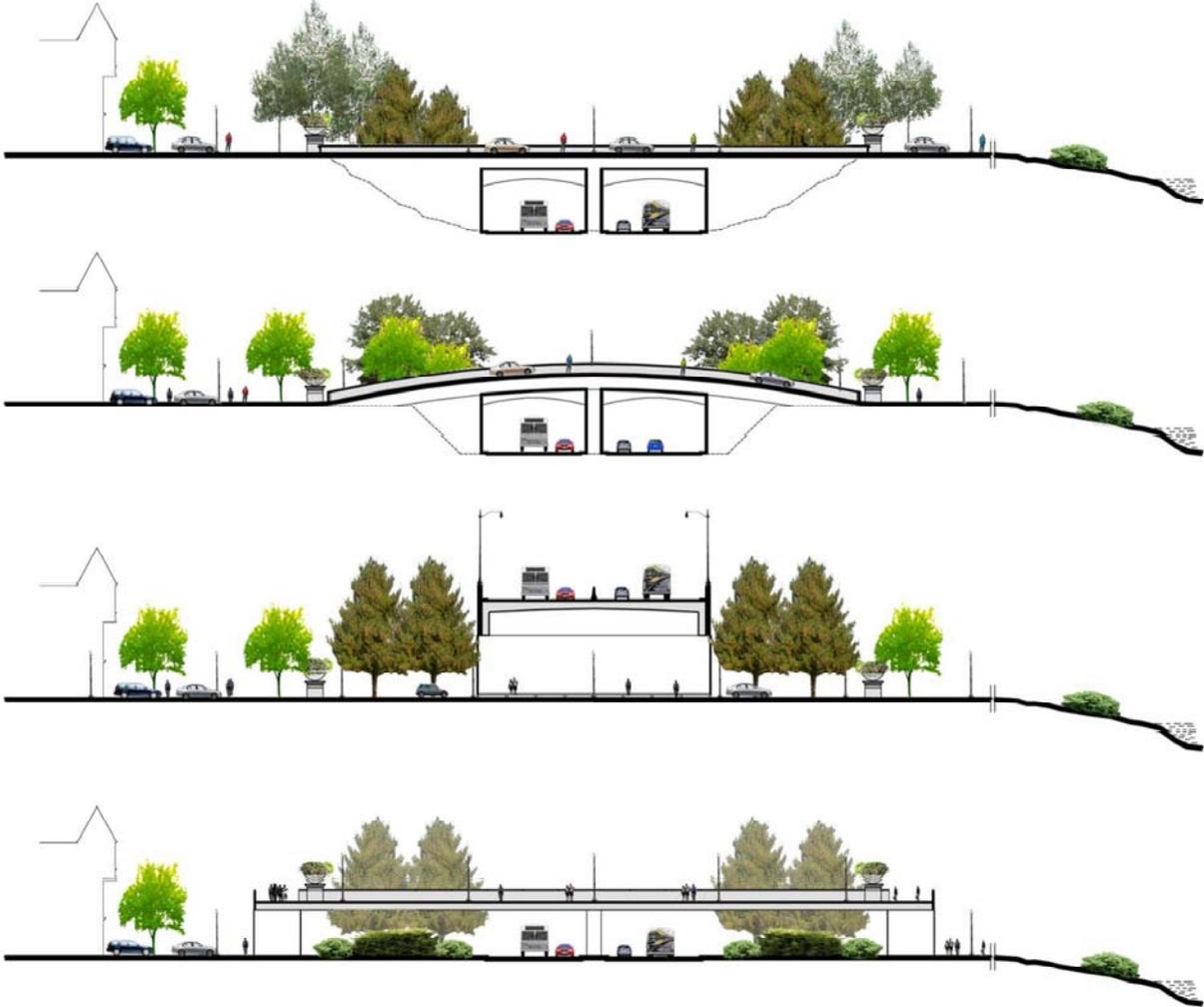
Some streets have multiple Special Areas to reflect a combination of roles in which it plays. For example, M Street, SE is both a Designated Transit Corridor and a Special Segment. In these cases all of the standards and guidelines in each area will apply. The following map illustrates the location of these Special Areas.



Greenways

The roads that have been designed with Greenways Special Area designation include Kenilworth Avenue, Anacostia Freeway, Suitland Parkway, and Interstate 295. Currently, these roads are barriers to waterfront access and have “highway-like” conditions. The additional specifications and guidelines presented in the Greenways designation seek to eliminate these roads as barriers so as to increase public access to the Anacostia and also look to integrate these roads into the “Washingtonian Greenway” system. This implies a design approach similar to the George Washington Parkway. The design themes of this Special Area and its specifications and guidelines are summarized below:

- **Change the roadway profile to restore the city grid and increase public access.** To accomplish the manual recommends four different approaches which include depressing the roads so deck-over type facilities can be accommodated. The following image reflects the different approaches:



- **Introduce Architectural Treatment in the tradition of the Washingtonian Parkways.** To accomplish this the manual requires the use of rustic features and low stone walls.
- **Soften the character through landscape applications.** To accomplish this, the manual recommends the promotion of landscape in the medians and the use of groundcover in clear zones where possible.

Symbolic Corridor

Major L'Enfant avenues which provide a direct visual connection to the Capitol and monumental core are designated as Symbolic Corridors. This includes South Capitol Street, Delaware Avenue, New Jersey Avenue, and parts of Pennsylvania Avenue, East Capitol Street and Maryland Avenue. The intent of these design guidelines is to:

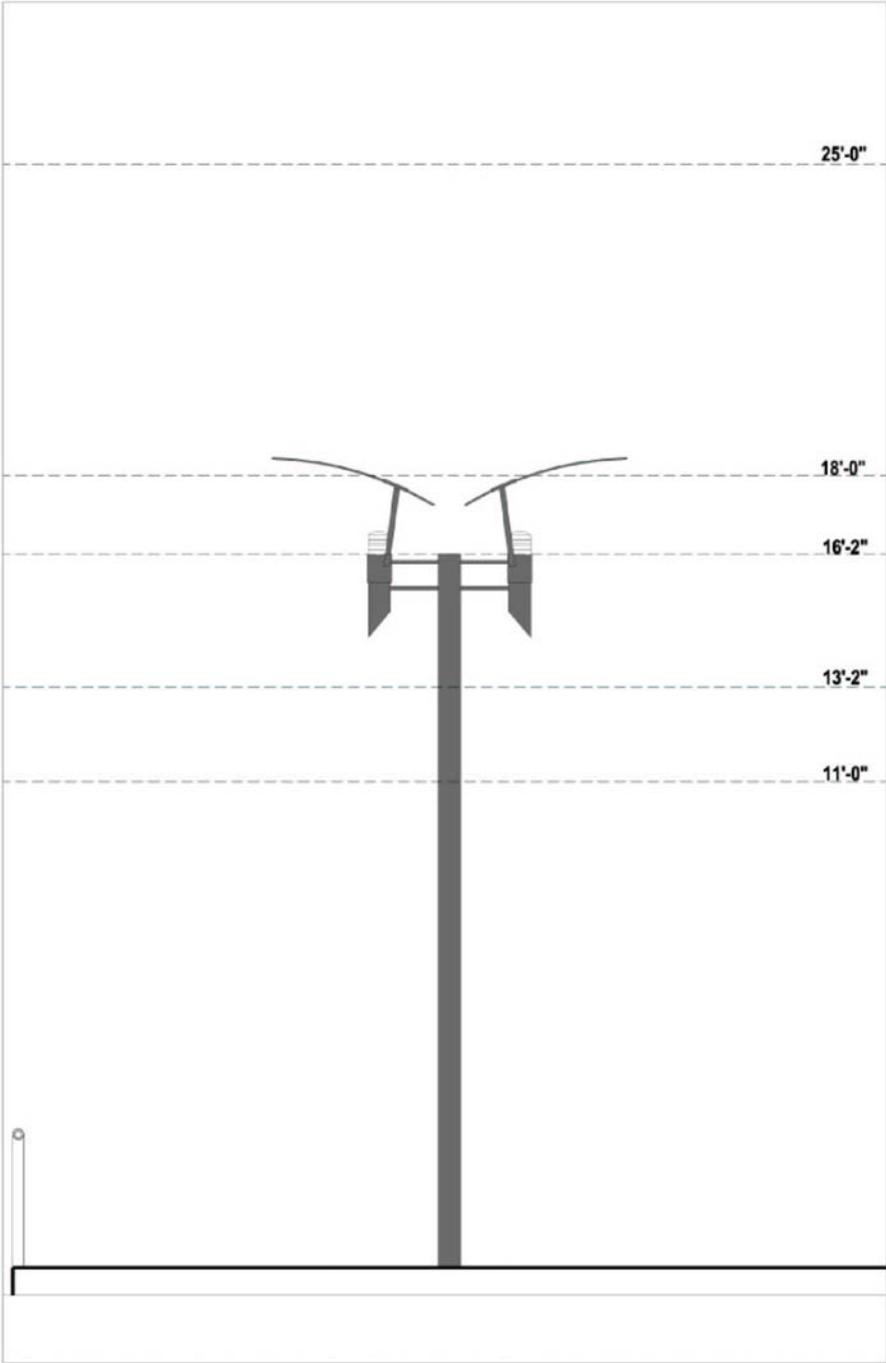
- Integrate the Anacostia Area with the Monumental Core
- Enhance View Sheds to the Capitol
- Highlight the Significance of these Corridors
- Create a memorable Experience for visitors

The design themes and accompanying specifications and guidelines for the Symbolic Corridor are as follows:

- **Visually and physically integrate the Avenues with the other corridors in the Monumental Core.** To accomplish this the manual recommends:
 - Utilize exposed aggregate concrete similar to that found in the Monumental Core in sidewalk areas. Any unit pavers in the planting zones should be of a similar color.
 - Granite material should be used in adjacent elements such as curbs, curb ramps, driveway ramps, and benches.
- **Emphasize view sheds to the US Capitol and scale of avenues.** To accomplish this, the manual recommends:
 - Utilize large canopy, shade trees in large planting areas along the street edge. The preference is to not have trees in the median.
 - Utilize either a contemporary or a traditional approach to street lighting on the Symbolic Corridor. The manual recommends a Twin 20 Washington Globe for the traditional approach or a Contemporary Street Light System. Examples of both of these elements are detailed below.



The Washington Globe



Contemporary Street Light



Illustration of Contemporary Street Lighting along Symbolic Corridor

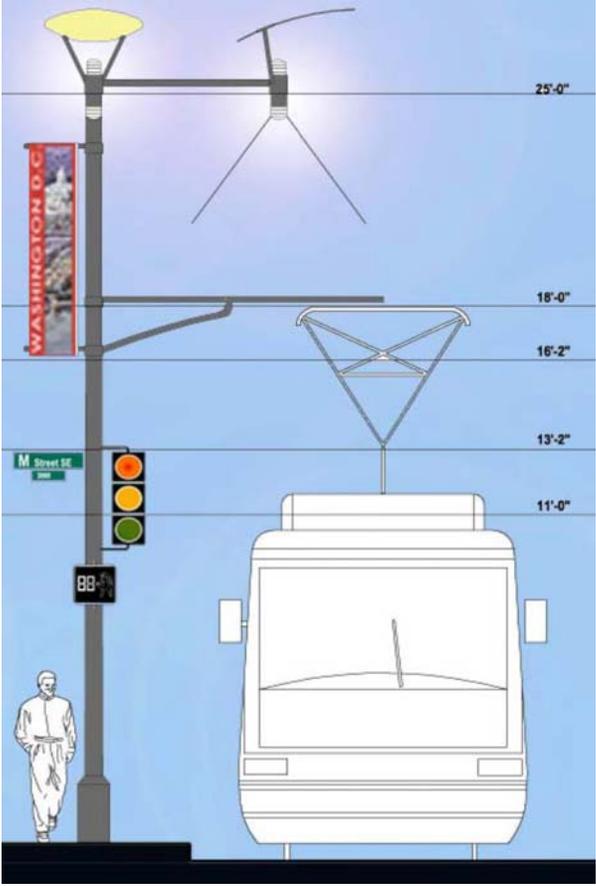
- **Develop memorable places for commemorative art.** To accomplish this, the manual recommends:
 - Include art in the form of sculpture, inscriptions and other textual and pictorial references at key intersections.
 - Intersections, medians, smaller parks, and traffic circles where art is located should be easily accessible by pedestrians.

Designated Transit Corridor

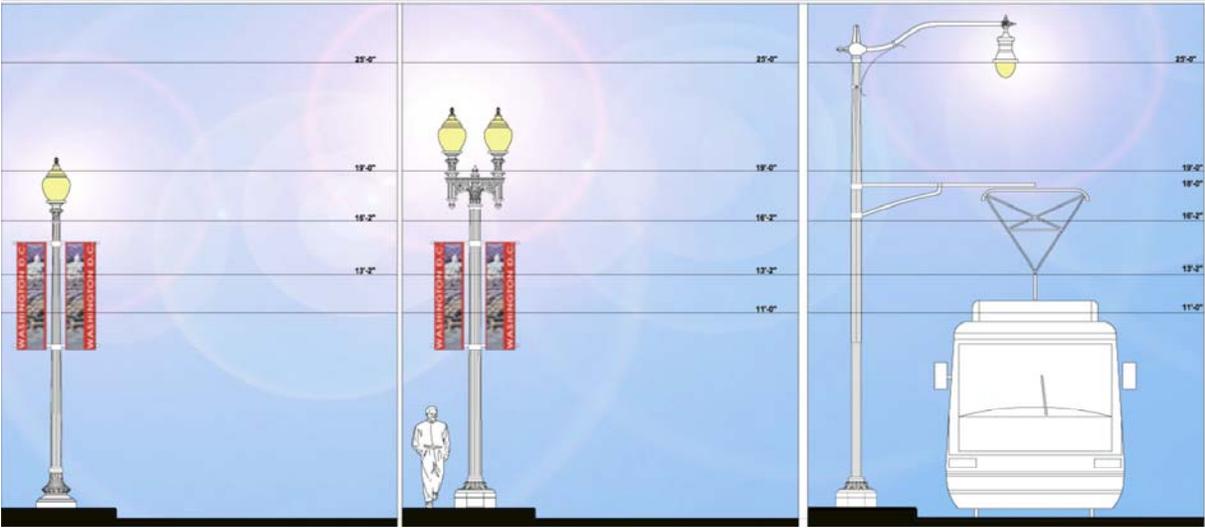
The manual identifies several corridors which have potential for new transit technologies such as Light Rail Transit (LRT) Bus Rapid Transit (BRT) and streetcars. These corridors are a Special Areas called Designated Transit Corridors. Streets include Martin Luther King, Jr. Avenue, M Street, SE, Maine Avenue SW, Howard Road, 8th Street, SE, 19th Street, SE and Good Hope Road. The intent of this Special Area is to increase overall safety while creating a multi-modal, vibrant mixed-use environment which encourages bicycle, pedestrians and transit activity. The

design themes and specifications and guidelines for the Designated Transit Corridor are as follows:

- **Dedicate generous areas for pedestrian and transit based activities.** To accomplish this, the manual recommends:
 - Sidewalks wide enough to accommodate a 4-foot wide Walkway Zone, 4-foot wide Furnishing and Planning Zone, and a minimum of 2-foot Spill Out area for outdoor displays.
 - Sidewalks should be paved with either exposed concrete aggregate or standard brick.
- **Enhance aesthetics and usability of these corridors with adequate landscaping.** To accomplish this, the manual recommends:
 - Use columnar shade trees along the sidewalk to prevent a conflict with any Overhead Contact System (OCS).
 - Flowering trees should be utilized in public areas and the sidewalk should be embellished with ornamental grasses, groundcover, perennial and shrubs to demarcate pedestrian areas from the roadway.
- **Integrate art work in street furnishings.** To accomplish this, the manual recommends:
 - Utilize highly visible bike racks, seating, street sign attachments and neighborhood identifiers which incorporate artwork into their design.
- **Enhance lighting strategies to address pedestrian, transit and vehicle need.** To accomplish this, the manual recommends:
 - Utilize Contemporary Street Lighting like those recommended in the Symbolic Corridors along areas with contemporary style developments, and utilizing a traditional lighting approach with Washington Globe, along traditional neighborhood streets. The following graphic illustrates these lighting concepts.



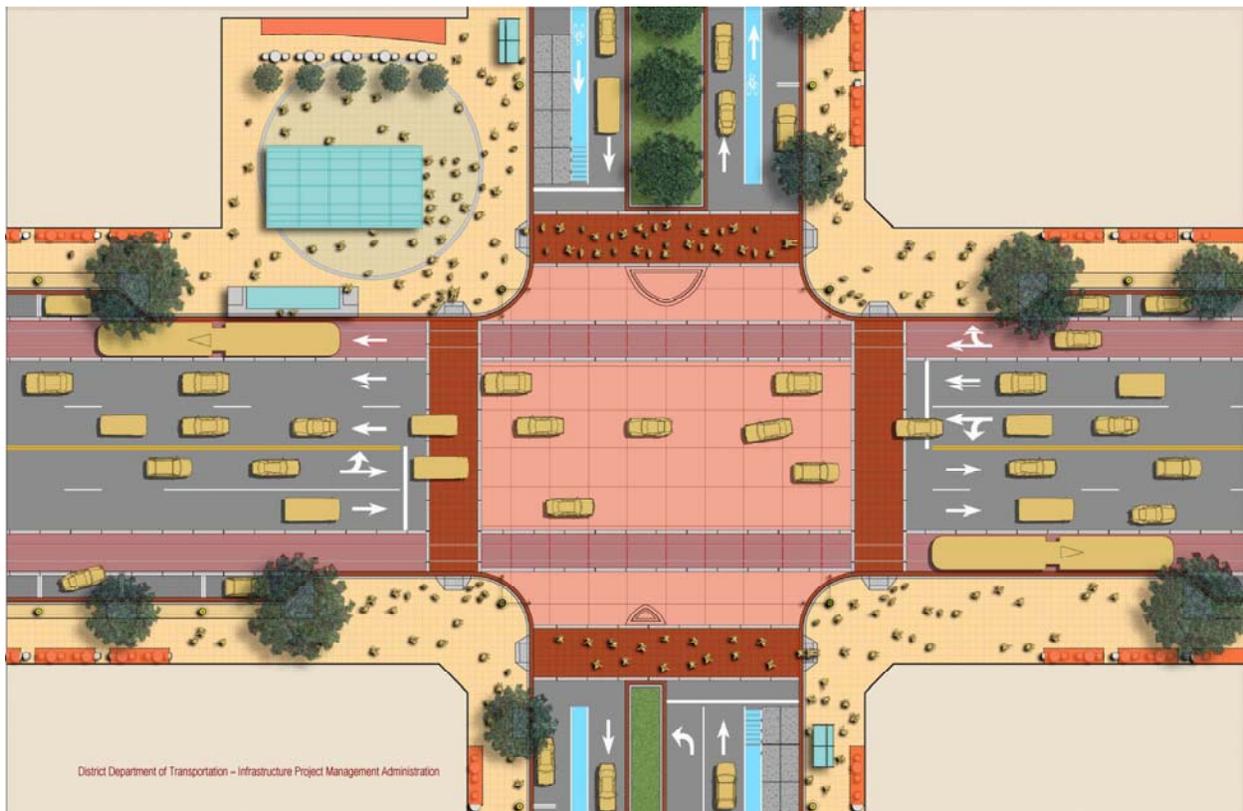
Contemporary Street Lighting



Traditional Street Lighting

- **Highlight roadway surface treatment for transit and bicycle lanes.** To accomplish this, the manual recommends:
 - Designated bicycle lanes will be painted to highlight and enhance safety
 - Dedicate transit lanes shall be paved with unit pavers.
 - Streetcar lanes shall be colored concrete.
- **Develop special intersections for the overall safety and place making.** To accomplish this, the manual recommends:
 - Utilize unique paving patterns and colors for sidewalks and bulbout to denote locations of transit stops and crosswalks. Colored stamped concrete or unit pavers shall be used in crosswalks
 - The roadway intersection shall be constructed with stamped concrete or unit pavers to aid in place making, increase safety and slow traffic.

The following graphic represents the manual's design concept for intersections within the Designated Transit Corridor:



Special Segments

The next Special Area identified by the manual is Special Segments. These are areas which establish a neighborhood identity and character as well as include the presence of cultural or significant destinations. Typically they are Main Street type business districts or historically significant areas. Streets within this Special Area designation include M Street, SE and Maine Avenue SW, 8th Street, SE and Martin Luther King Jr. Avenue. The design themes and accompanying specifications and guidelines for Special Segments are as follows:

- **Establish neighborhood identity and sense of place.** To accomplish this, the manual recommends:
 - Working with the appropriate BID and neighborhood groups to develop interpretative signage, street sign attachments, banners and neighborhood identifiers.
- **Reinforce character through street lighting.** To accomplish this, the manual recommends:
 - Utilize traditional or contemporary street lighting depending on the character of adjacent developments, similar to the lighting approach in the Designated Transit Corridors.
- **Develop special intersections for place making.** To accomplish this, the manual requires:
 - Intersection paving shall be constructed with stamped concrete or unit pavers. The crosswalk shall be constructed with colored stamped concrete or unit pavers.

River Crossing

The River Crossing Special Area includes all river crossings in the AWI area. These crossings present future opportunities for great new urban water crossings. The guidelines in this Special Area are general as any new bridge will under go an extensive design process. However, these Special Area guidelines and specifications provide a foundation on which any new bridge in the AWI area will be designed. The design themes and specifications and guidelines are as follows:

- **Create convenient, safe, and grand bridge approaches for all transportation modes.** To accomplish this, the manual recommends:
 - Minimization of elevation changes in order to increase pedestrian comfort and usability.
 - Provide grand access to the waterfront as in the case of Memorial Bridge.

- Resolve pedestrian/vehicular conflicts from approaching streets through the use of rotaries and roundabouts.
 - Limited access freeways should be depressed under rotaries
 - Embellish rights-of-way with landscaping and LID.
- **Create great “Urban Connections”.** To accomplish this the manual recommends:
 - Implement decorative elements with commemorative sculptures and utilize large structure elements to mark entrances.
- **Create bridge decks as destinations for pedestrians and cyclists.** To accomplish this the manual recommends:
 - Mandate lower speeds of 25 miles per hour
 - Allocate a wide sidewalk area.
 - Raise sidewalks from roadway pavement.
 - Clearly delineate rest areas for pedestrians/bicyclists to observe views
 - Provide safe, around the clock access across the bridge with adequate lighting.
 - Install transparent edge-wall railing.

Waterfront Access Segment

Much of the eastern bank of the Anacostia River is cut off from the waterfront by I-295 and other transportation barriers. A key principle in the AWI Framework Plan is increasing public access to the Anacostia Waterfront. Consistent with this principle, the manual has identified several streets as Waterfront Access Segments because of their potential to provide increased public access to the Anacostia. These streets include: Howard Road, Good Hope Road, 16th Street, SE, W Street, SE, Naylor Road SE, Nicholson Street, SE, Massachusetts Avenue, and Nannie Helen Burroughs Avenue. The design themes and accompanying specifications and guidelines for Waterfront Access Segments are as follows:

- **Minimize elevation changes of bridges/overpasses.** To accomplish this, the manual recommends:
 - Bridges, overpasses and underpasses shall be designed to maintain a at-grade condition where possible.

- **Provide generous pedestrian sidewalks and bike lanes.**
- **Enhance right-of-way aesthetics and usability with landscaping**
- **Emphasize lighting of pedestrian areas.**
- **Highlight entrances and approaches with gateway elements**
- **Select compatible cladding materials**

Waterfront Promenade

The final Special Area is Waterfront Promenades. This Special Area is applied to both the Anacostia Waterfront and the Southwest Waterfront as they will be locations for future public promenades. While these promenades will undergo an extensive design process prior to their implementation, the manual provide general guidelines which will direct their design. These design themes and accompanying guidelines for Waterfront Promenades are listed below:

- **A unified, coherent urban waterfront.** To accomplish this the manual recommends:
 - Utilize consistent paving material along promenade, with unit pavers being utilized for pedestrian paths.
 - Lighting hardware shall compliment developments along the waterfronts.
 - Lit bollards shall be used as accent lighting to highlight specific areas of the promenade.
 - Comprehensive, coordinated directional and way-finding signage shall be provided.
 - Furnishings that provide pedestrians with opportunities for rest and convenience shall be provided.
 - Railings shall be utilized which are compatible with other design elements and are designed to maximize views.
- **Public places for gathering.** To accomplish this the manual recommends:
 - Public plazas should be developed where roads terminate into the promenade.
 - Locations for symbolic elements shall be provided at strategy points.
 - Unique paving patterns shall be used in pedestrian areas.
 - Surface paving around monuments and memorial locations shall be exposed aggregate concrete.
 - Landscape design shall compliment the envisioned uses of the promenade.
 - Planting materials shall be used along the promenade to extend a park like environment.

PROJECT ANALYSIS

Summary

Staff is in support of this unique effort and applauds the District Department of Transportation for its coordination of this project. The concept submission provides an opportunity for the Commission to give direction to DDOT as the manual moves into further refinement.

In keeping with the principles of the Anacostia Waterfront Initiative, the manual successfully provides opportunities to element barriers and increase public access in the Anacostia area. Furthermore, staff appreciates the manual's reference to future commemorative works and its consideration of them in future transportation projects. Further, the manual's use of Low Impact Development (LID) and public art in its design recommendations will increase the environmental and design quality of right-of-way improvements in the AWI area. DDOT should consider adopting these strategies in its District wide manuals.

Issues

There are several areas within the manual which need further refinement as the project moves forward. These areas include the recommend approaches to paving and lighting in the Special Areas, the incorporation of bus shelters and the overall methodology of the manual.

Paving

The manual recommends concrete London pavers for sidewalks along major urban streets in non-historic areas and brick sidewalks in historic areas. It recommends exposed aggregate sidewalks along Symbolic Corridors including South and East Capitol Streets. Examples of the two paving approaches are shown below:



London Pavers



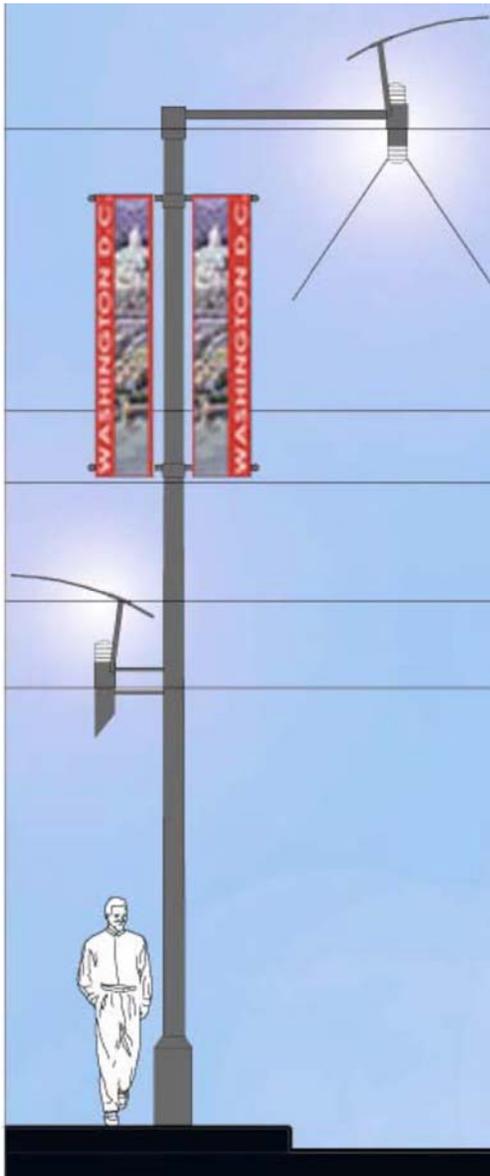
Exposed Aggregate

In the Monumental Core, aggregate sidewalks are generally limited to areas adjacent to significant green spaces such as the grounds of the U.S. Capitol and the National Mall, or within specific contextual areas such as Federal Triangle. Concrete London pavers are commonly used in more urban areas. Staff prefers the London pavers as more characteristic of Washington, but believes that selecting a specific material is premature as the character of the Symbolic

Corridors, particularly South Capitol Street, has not yet been defined. Therefore, staff supports the selection of a uniform treatment for these Symbolic Corridors, but recommends that the selection of a specific paving material occur later in the project planning process, as the character of the overall streetscape becomes more defined and following further study of alternatives.

Lighting

In several Special Areas, the manual recommends alternative approaches to lighting, specifically a contemporary approach versus a more traditional approach. The contemporary approach consists of a modern lighting fixture whereas the traditional approach uses the standard Washington globe fixtures. Examples of each fixture are illustrated below.



Contemporary Street Lighting



Washington Globe

While staff supports DDOT's effort to utilize contemporary lighting, staff believes that the contemporary lighting standards shown in the manual will become dated in their design. Staff is also concerned about how contemporary lighting on South Capitol Street would transition onto the Fredrick Douglass Bridge, which has yet to be designed. To ensure lighting that is contemporary but still appropriate for the Washington DC context, staff recommends that DDOT explore alternative contemporary light fixtures that feature an illuminated globe on a post, which would be more compatible with the traditional Washington Globe fixture.

Bus Shelters

The manual provides guidelines and specifications for many of the critical elements which characterize public space in the AWI area. This includes seating, planting areas, plaza areas, bicycle racks, etc. While providing guidelines for bus pad paving, the manual does not address the character of bus shelters, which play a prominent role in defining the character of public areas. Staff understands that DDOT has been coordinating this effort with the Washington Metro Transit Authority (WMATA), however staff recommends that the Commission encourage DDOT to work with WMATA in developing guidelines for bus shelters within the AWI area so as to ensure their quality of design and compatibility with the surrounding streetscape.

Methodology

Staff has a final concern related to the overall methodology of the manual. Staff supports the effort to delineate the AWI area so as to provide a unique character, however, staff has a concern regarding the manual's treatment of corridors which stretch outside of the AWI boundary. For example, the manual's recommendations for Delaware Avenue, South Capitol Street and New Jersey only technically apply to areas from the Anacostia River to the Southeast/Southwest Freeway but not the areas from the Freeway to the Capitol grounds despite these segments being critical pieces of these corridors. Staff believes that the design concepts would be better served if guidelines either applied to the whole corridor or identified natural transition points such as squares or circles which lie outside of the AWI boundary. Refining the design concepts in such a manner would help integrate the waterfront with the city. Therefore, staff recommends that for corridors that cross the AWI boundary, DDOT develop streetscape designs that are continuous on both sides of the boundary to create visual continuity between the city and the waterfront, or transition the streetscape at logical points such as circles, squares or parks

CONFORMANCE

Comprehensive Plan

This project is consistent with several elements of the Comprehensive Plan for the National Capitol including increasing public access to the Anacostia Waterfront and undertaking strategies to improve the water quality of the Anacostia River.

National Environmental Policy Act

The current submission, as a concept design proposal, does not require the Commission to complete any form of environmental review or determination at this stage of project review. Based on the initial information supplied by the applicant, the proposal involves standards that the agency would be seeking to implement within specific District of Columbia agency projects.

As a District of Columbia agency proposal, with many locations outside of the central area of the District on non-federal property, the National Environmental Policy Act does not apply to the present action.

Nevertheless, applicant should be reminded that future specific implementing proposals using these design standards are required to comply with the Commission's Environmental and Historic Preservation Policies and Procedures if submitted through the Planning Act review process to NCPC. The Commission should be identified as a cooperating federal agency, in the drafting of any environmental assessment required at the federal review level, to ensure timely and mandatory adoption of the document by NCPC, as specified by the Commission's submission requirements. Furthermore, in developing the submission of any future project plans to the Commission, responsible District of Columbia agencies should respond to any substantive comments on any environmental review prior to the submission of the proposal for NCPC consideration.

National Historic Preservation Act

The current submission is outside the Central Area of the District of Columbia and does not require NCPC compliance with the National Historic Preservation Act. However, DDOT has consulted with the State Historic Preservation Office in the development of this project and will continue such consultation as the project is refined.

CONSULTATION

Coordinating Committee

The Coordinating Committee reviewed the proposal on January 12, 2005. The Committee forwarded the proposal to the Commission with the statement that the project has been coordinated with all agencies represented. The participating agencies were: NCPC; the District of Columbia Office of Planning; the Department of Housing and Community Development; the District Department of Transportation; the General Services Administration and the Washington Metropolitan Area Transit Authority

Commission Fine Arts

This concept submission was before the Commission of Fine Arts on January 25th. The official Commission recommendation has not yet been issued, but at that meeting the Commission was supportive of the effort and made several design comments. The Commission expressed general support of the exposed aggregate approach to paving and also recommended that all of the street

furniture and lighting be made of a durable material. They were also in favor of a contemporary approach to lighting but recommended something that was more of a bridge between the contemporary and traditional design approach. The Commission also recommended that DDOT view these streets as corridors so as to ensure a uniform approach to the streetscape despite crossing through different neighborhoods.