BETHESDA STREETSCAPE PLAN Standards

APPROVED PLAN FOR THE METRO CORE DISTRICT

REINFORCE THE DISTRICTS • REINFORCE THE STREET
HIERARCHY • PROVIDE FOR THE "GREENING" OF
BETHESDA • IMPROVE PEDESTRIAN ACCESS THROUGH-
OUT THE CBD AND INCREASE PEDESTRIAN AMENITIES •
REDUCE VISUAL CLUTTER AND PROVIDE ORDER •

The Maryland-National Capital Park & Planning Commission
MONTGOMERY COUNTY PLANNING DEPARTMENT
URBAN DESIGN DIVISION
8787 Georgia Avenue, Silver Spring, Maryland, 20910-3760

UPDATED PLAN
APRIL 1992
BETHESDA
STREETSCAPE
PLAN
Standards
APPROVED PLAN FOR THE METRO CORE DISTRICT
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INTRODUCTION

The Bethesda Streetscape Plan is designed to achieve a high-quality, attractive image for the Metro Core District. The Plan was developed with the participation of neighborhood citizen associations, developers and property owners, and other local governmental agencies. The Streetscape Plan was approved by the Montgomery County Planning Board on April 18, 1984 and administratively approved by Montgomery County Department of Transportation on June 2, 1986.
SUMMARY OF THE APPROVED BETHESDA STREETSCAPE PLAN

UPDATED, APRIL 1992

Reinforce the districts in Bethesda by using a consistent and unifying streetscape unique to each one. A district approach is desirable given the diversity of building forms, scale, architecture, and the need to create a "center". The Core District will have the greatest pedestrian traffic and should receive the highest level of streetscape improvements. It is the first priority area for implementation.

Emphasize the hierarchy of streets by giving special treatment to the major corridors of Wisconsin Avenue, Old Georgetown Road, and East-West Highway. Achieve a special emphasis for the corridor by selecting a consistent street tree of strong visual character, closely planted to achieve a continuous canopy. Expand and upgrade the existing medians within the corridors also to emphasize these major streets.

Utilize the extensive street tree plantings to increase the amount of greenery, improve human scale in the downtown area, and create a more compatible relationship with the surrounding residential areas. Provide for horticultural diversity in selection of trees. Create a distinctive streetscape which is purposefully suburban in character and achieves a "garden" theme which will complement the extensive redevelopment of Bethesda. Individual project amenity packages are encouraged to reinforce the "greening" theme by providing gardens in the plazas.
IMPROVE PEDESTRIAN ACCESS THROUGHOUT THE CBD AND INCREASE PEDESTRIAN AMENITIES

Upgrade all sidewalks within the Core District with a unifying brick paver which relates well with redevelopment in the area and assures adequate sidewalks and connections are provided. Reinforce the extensive network of pathways and places established by the 14 project plan reviews. Provide ornamental street lanterns, street trees, safe and convenient crosswalks, and comfortable street furnishings throughout the district. Increase the level of pedestrian amenities in the public way along the major pathways.

REDUCE VISUAL CLUTTER AND PROVIDE ORDER

Remove all existing overhead utilities and poles and relocate these services underground. Use street trees to provide a strong visual sense of order. Use new street lighting to create rhythm and grace in the public way. Encourage businesses to incorporate high-quality, well-designed graphics for signage and to renovate storefronts where necessary. Formulate a public signage system for street and highway signage which can simplify and organize these various sign elements. Suggest a proposal for organizing the news vending equipment.

THE COMPREHENSIVE STREETSCAPE PLAN FOR THE CORE DISTRICT

The comprehensive streetscape plan provides a District and Corridors approach to upgrading streets within the Core District. Bethesda’s Core District is defined primarily by the areas of higher commercial density and with CBD-3 and CBD-2 zoning (Figure L-1). To distinguish the Core District, the plan calls for a consistent streetscape treatment of brick pavement, "Bethesda" lanterns and trash receptacles, and closely spaced street trees throughout the district, with a special treatment for accenting the major corridors. The comprehensive plan (Figure L-2) identifies streetscape types A, B, C, D, and E, which acknowledges the variations in Bethesda’s streets, in sidewalk dimensions, and in their relationship to parking. A typical layout is provided for each type. The plan is intended to achieve a visually unified treatment throughout the District. Any proposed variations from the approved streetscape plan shall be limited to minor adjustments permitted where necessary in order to avoid conflicts with utilities or other street elements.
Although the Core District is treated in a consistent manner, the plan calls for a special emphasis along the major corridors to differentiate those streets from minor side streets. The major corridors handle greater traffic volumes and pedestrian activity than the minor side streets. The hierarchical treatment is described as follows:

**STREETScape HIERARCHY**

**TYPE A**

Wisconsin Avenue
Old Georgetown Road
East-West Highway

**TYPE B**

Special Narrow Side Streets
Hampden Lane/Elm Street

**TYPE C**

Wider Side Streets
(with sidewalks over 10 feet in width)

**TYPE D**

Typical Narrow Side Streets
(with sidewalks less than 10 feet)

Use Plan Type A to achieve a special emphasis for visually organizing major streets. Plan Type A calls for the use of the Belgium block in the tree wells, a closely spaced consistent street tree specie, and a greater number of benches, trash receptacles, and potted planters to increase the visual amenity of these streets (Figure L-4).

Use Plan Type B to achieve transitional pathways which lead into the adjacent residential neighborhoods. Plant ground cover in the tree wells to increase the amount of greenery along these streets (Figure L-4).

Use Plan Type C to provide for greater sidewalk widths than Type D, achieve a tight spacing of street trees +30 feet on center, and require ground cover planting in the tree wells to increase the amount of greenery for visual interest and compatibility with adjacent residential neighborhoods (Figure L-5).

Use Plan Type D to provide for narrower sidewalk widths than Type C, allow for street trees in a tight spacing pattern, and require ground cover to be planted to increase the amount of greenery along these streets which are transitional areas leading into the adjacent residential neighborhoods (Figure L-5).
TYPE E

EDGE OF THE CORE DISTRICT: WOODMONT AVENUE

Use Plan Type E which requires brick paving on the Core District side of the street, and concrete sidewalks on the opposite side. Use CBD standard high-maintenance cut-off luminaries on both sides of the street. A consistent street tree must also be planted on both sides of the street in a continuous lawn panel to introduce the typical suburban streetscape treatment at the edge of the Core District adjacent to residential areas.

GATEWAYS TO THE CORE DISTRICT

Inner gateways to the Core District along the major corridors are emphasized by new or existing buildings and consequently do not require special streetscape treatment. However, gateways to the periphery of the CBD along the major corridors shall receive special treatment and will be addressed in Phase #2 of Bethesda Streetscape Planning.

STREET TREES AND OTHER PLANTINGS

ACHIEVE THE "GREENING" OF BETHESDA

Plant street trees, approximately 30 feet on center, to achieve an overhead canopy of foliage, provide human scale, and achieve a unifying visual effect within the Core District. (Typical County standards call for 45 to 50 feet on center.) All street trees shall be a minimum of 4 1/2"-s in caliper to achieve an immediate visual effect.

EMPHASIZE THE MAJOR CORRIDORS

Plant a consistent species, the London Plane Tree (Platanus Acerifolia, "Bloodgood"), along the three major streets, and within the median of Wisconsin Avenue/Old Georgetown Road/East-West Highway, to achieve a boulevard effect.

ACHIEVE HORTICULTURAL DIVERSITY THROUGHOUT THE CORE DISTRICT

Plant a diversity of street trees throughout the secondary and minor side streets in the core. Commission staff has prepared a street tree master plan which reflects tree specie choices initially selected by optional method developers and consequently has established a pattern which should be continued (Figure L-3).
Incorporate the approved tree planting detail designed by staff into all CBD streetscape plans. This detail is designed to expand the amount of amended soil for the tree's roots, improve drainage, and provide for manual watering during the initial establishment period of one to five years. The detail has been revised from the original proposal in the staff's 1984 Streetscape Plan in an effort to reduce costs and conflicts with underground utilities (Figures L-6 and L-7).

Use container planting with year-round plantings and seasonal interest to highlight building entrances, Metro entrances, and pedestrian access points to urban open spaces. Although staff recommends that a consistent type of planter should be used, a variety of styles will be permitted which best complement adjacent buildings and open spaces and add variety to the streetscape. See "Street Furniture" for recommended planter type.

Incorporate the "Bethesda" lantern designed by staff throughout the Core District. The "Bethesda" lantern provides an ornamental character and human scale while also achieving an adequate level of light for the streets. Major intersections within the Core District will receive highmount, cut-off luminaries to highlight the intersections and provide higher levels of light. Future planning efforts may suggest extending the "Bethesda" lantern along the major corridors to the gateways of the CBD (Figures L-8 and L-9).

Special night lighting should be provided by the private sector within development adjacent to the public way to achieve special visual interest, highlight amenities such as sculpture, and provide safe pedestrian access.
SIDEWALK PAVING

USE A CONSISTENT BRICK PAVER THROUGHOUT THE CORE DISTRICT

The Watson's "Garden Blend" shall be used throughout the Core District in a herringbone pattern to best resolve alignment concerns at the corners at street intersections. A border treatment along the street curb and at the building line also is required to contain the brick field and outline the tree wells (Figure L-6). Belgium block pavers must be used within all tree wells along major corridors.

STREET FURNITURE

SEATING AND BENCHES

Use the Lister Company's Warwick Bench (see specifications) with a comfortable back and side arms to best complement the informal "garden" character of the streetscape and provide for pedestrian comfort. Locate the benches adjacent to building entrances and wherever adequate sidewalk space and an appropriate setting exists to increase the overall amount of seating within the CBD. Wherever possible within adjacent private development, incorporate seatwalls or changes in level to provide for additional seating.

WASTE RECEPTACLES

Use the Victor Stanley's "Bethesda" trash receptacles (see specifications) designed by staff to best complement the informal, "garden" treatment of the streetscape and provide adequate storage capacity for trash. Receptacles should be placed at both corners of street intersections and, where appropriate, at building entrances or open spaces.

NEWSPAPER VENDING MACHINES

Organize newspaper vending machines along the street curb between the first set of street trees from the corner to maintain safe pedestrian access at the intersections. Staff's discussions with various newspaper companies have not resulted in a coordinated approach to designing a single unified vending unit.

TRAFFIC LIGHTS AND RELATED TRAFFIC SIGNAGE

TRAFFIC LIGHT POLES

A systematic treatment for traffic lighting has been coordinated with the Montgomery County Department of Transportation and is illustrated on
various sidewalk plan layouts. Installation of traffic lights and high mount, cut-off luminaries is the responsibility of MCDOT, although all streetscape plans must locate the poles at the intersections. The traffic light system locates two poles at each corner of the intersection with a single mast arm extending over the travel lanes. The overall visual objective of the traffic light alignments is to highlight the street intersections, contrast with the more ornamental Bethesda lantern, and achieve standards for traffic safety and visibility.

A comprehensive signage program for traffic and other public signs has not been included in this plan but shall be incorporated into later planning stages. Staff shall initiate a signage study with appropriate agencies, primarily the Maryland State Highway Administration and the Montgomery County Department of Transportation to explore the detailed requirements. It is anticipated that a comprehensive system could be simple and attractive and yet separate from other streetscape elements. In no case should signs or other objects be attached to the Bethesda lantern pole.

Incorporate public art into the streetscape wherever appropriate to complement and expand the extensive place-making artworks provided by adjacent private development. Public art should achieve aesthetic excellence, functionally relate to the physical setting, be safe and durable, and express a positive character. Public projects, such as parking facilities and the future pedestrian bridge over Old Georgetown Road, should have a public artwork component using the County’s One-half Percent for Art Program. Although there is no specific recommendation for public art in the sidewalk area at this time, staff will work with the Montgomery Arts Council and the Bethesda Citizen Advisory Board in identifying streetscape opportunities for public art in future planning phases.

On July 1, 1986, the County Council created Urban Maintenance Districts for all three of Montgomery County’s Central Business Districts: Bethesda, Silver Spring, and Wheaton. Consequently, all improvements to the public way will be
maintained by the County’s Urban District. Special programming of community events and promotional activities such as restaurant and retail listing will also be undertaken by the Maintenance District. Funding for the District’s responsibilities will be provided by a special district real estate tax.

THE PUBLIC AND PRIVATE SECTOR REQUIREMENTS FOR STREETSCAPING

Over the past eight years, the Commission has approved 14 optional method developments, each with an extensive package of public benefits. Streetscaping requirements are included in each project approval. On-site streetscaping along the street frontage as well as off-site streetscaping along one side of a street and in some cases both sides of the street has been required in order to satisfy the optional method requirements. Streetscapes within the Core District which are provided by private developments are illustrated on Figure L-10. Segments of streetscape not assigned to a project plan will be completed by the County with a Capital Improvements Program, known as the Bethesda GAP Program. All private development within the Core District requiring County approval for work within the right-of-way will be required to provide the Bethesda streetscape along its street frontage to the extent possible, as per MCDOT’s amended standards for Bethesda CBD sidewalks.
CAST ALUMINUM DECORATIVE FOUNT SEATS ON CAST ALUMINUM CONCEALED NECK.
CAST ALUMINUM DECORATIVE LEAF CROWN, LARGE LEAVES, SMALL LEAVES. CROWN WILL HAVE WEEP HOLES CAST INTO IT TO ALLOW DRAINAGE.
CAST ALUMINUM DECORATIVE, HINGED ROAD TRIM. QUICK RELEASE DZUS BUTTONS & ALL-5 SL. HINGE PIN FOR EASY REMOVING. HOLDING CABLES CONCEALED INSIDE LANTERN ROOF FOR EXTRA SUPPORT WHEN OPENING ROOF.
QUIET DISCONNECTS & MOUNTING HARDWARE FOR FIELD INSTALLATION OF REFLECTOR SYSTEM. REFINISHING SYSTEM NOT SUPPLIED BY CRAFTLITE.
CAST ALUMINUM DECORATIVE HINGED TOP RING WITH CAST ALUMINUM APPLIED ROPE TRIM. 3 EA. FLORAL DESIGNS SPACED 120° AROUND.
5 EA. 7.50" DIA. REEDED VERTICAL ALUMINUM TUBING WITH THREADED PIPE CONCEALED INSIDE FOR LOCKING TOP OF LANTERN TO BOTTOM.
1-1/2" DIA.-1/4" THICK WALL CLEAR ACRYLIC CYLINDER.

CLEAR GLASS RIBBED DECORATIVE SHADE.
POLISHED & CLEAR POWDER COATED BRASS SPUN CONE SECURED TO SHADE WITH SYLAC.
3 EA. 1/4-20 BRASS THUMBSCREWS SECURE SHADE TO CAST FITTER WITH POLISHED BRASS FINISH.
DECORATIVE RIBBED CAST ALUMINUM STAND.
TOP PLATE AREA OF CAGE BOTTOM CASTING WILL BE PAINTED WHITE.
CAST ALUMINUM BOTTOM CAGE RING WITH CAST ALUMINUM APPLIED ROPE TRIM. 3 EA. FLORAL DESIGNS SPACED 120° AROUND. CAST DRAINS HOLE SUPPLIED IN OUTER LIP.
1.50 WATT HPF HIGH PRESSURE SODIUM BALLAST & COMPONENT PARTS ARE ATTACHED TO SLIDE OUT BALLAST TRAY. QUICK DISCONNECTS SUPPLIED.
(CUSTOMER MUST SPECIFY VOLTAGE)

CAST ALUMINUM DECORATIVE HINGED BALLAST HOUSING DOOR WITH 2 EA. 1/4 TURN QUICK RELEASE DZUS BUTTONS & ALL-5 SL. HINGE PIN FOR EASY MAINTENANCE OF BALLAST & COMPONENT PARTS.
CAST ALUMINUM DECORATIVE BOTTOM M.D. HOUSING WELDED TO BOTTOM CAGE RING & POST FITTER.
BOLT EYE PHOTO CELL SUPPLIED & SECURED TO DOOR. QUICK DISCONNECTS SUPPLIED.

CAST ALUMINUM POST FITTER.
ALL EXTERNAL FASTENERS WILL BE STAINLESS STEEL.

NOTE:
1. LANTERN WILL BE GASKETED BETWEEN ROOF & UPPER HINGED TOP RING, BETWEEN TOP & BOTTOM RING & 16" DIA. CYLINDER, BETWEEN BALLAST M.D. HOUSING & HOUSING.
2. FINISH TO BE "2" DARK GREEN (EXCEPT WHERE NOTED ABOVE) THERMOSET POLYURETHANE POWDER COAT.
3. LAMP NOT SUPPLIED BY CRAFTLITE. E-23 1/2 Mogul, base recommended for horizontal mounting.
4. ALL EXTERNAL DECORATIVE DESIGNS ON CASTINGS ARE RAISED. ALL EXTERNAL DECORATIVE DESIGNS OF CASTINGS TO BE APPROVED BY CUSTOMER PRIOR TO RELEASING FOR MANUFACTURING.

S-3823-D LANTERN AS SHOWN & DESCRIBED
S-3823-F
S-3823-E IS THE SAME AS S-3823-D EXCEPT S-3823-E HAS 200 WATT HPF HIGH PRESSURE SODIUM BALLAST.

APPROVED BY:

AS SHOWN WITH CHANGES NOTED

DATE

R.E.A.

BETHESDA MD.

MARYLAND NATIONAL CAPITAL PARK & PLANNING COMMISSION
8787 Georgia Avenue
Silver Spring, MD 20907

URBAN DESIGN DIVISION

REV.

DECORATIVE POST TOP LANTERN

BETHESDA STREETSCAPE PLAN Spring 84 UPDATED SPRING 89

L-9
SPECIFICATIONS OF MATERIALS

The following specifications are developed to provide quality control and uniformity between the various public and private developers in Bethesda. The specifications cover only products recommended in the streetscape plan. They are not to be considered a complete set of specifications for bid. Demolition, site preparation, contractor's responsibilities and guarantees, and installation techniques are not included in these specifications.

A. BRICK PAVERS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Watontown &quot;Garden Blend&quot; or approved equal. &quot;Equal&quot; must be submitted to staff of Urban Design Division, M-NCPPP for approval.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSORPTION RATE</td>
<td>Average water absorption rate 4%.</td>
</tr>
<tr>
<td>COMPRRESSIVE STRENGTH</td>
<td>Shall be not less than 10,000 pounds per square inch for any 5 bricks tested.</td>
</tr>
<tr>
<td>FREEZE-THAW CYCLES</td>
<td>Shall be capable of withstanding a minimum of a 100 freeze-thaw cycles.</td>
</tr>
<tr>
<td>TOLERANCES</td>
<td>Shall conform to ASTM Designation C-902-79a.</td>
</tr>
<tr>
<td>BOND</td>
<td>Herringbone, square with curb.</td>
</tr>
<tr>
<td>BORDER</td>
<td>8&quot; sailor course.</td>
</tr>
</tbody>
</table>

B. BITUMINOUS SETTING BED

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VISCOSITY GRADE</td>
<td>Shall be A.C. 10 or A.C. 20.</td>
</tr>
<tr>
<td>PROPORTION OF MATERIAL</td>
<td>Approximate proportion shall be 7% asphalt cement and 93% fine aggregate. The mix shall be heated to approximately 380 degrees Fahrenheit.</td>
</tr>
</tbody>
</table>
C. NEOPRENE - MODIFIED ASPHALT ADHESIVE UNDER PAVERS

**MASTIC**  
(Asphalt Adhesive)  
Solids (base) .................................................................................................................. 75%+ - 1%  
Lbs./Gal ................................................................................................................................. 8-8.5 lbs.  
Solvent ................................................................................................................................. Varsol (Over 100°F Flash)

**BASE**  
2% Neoprene, 10% Fibers,  
88% Asphalt)  
Melting Point ASTM D-36 ........................................... 200°F Min.  
Penetration ........................................ 77°F 100 Gram Load 5 Second  
(1m.m.) ............................................................................................................................... 23-27  
Ductility .................................................. ASTM D-113-44 @ 25°C 5 cms/minute .............. 125 cm Min.

D. JOINT FILLER

**TYPE**  
Portland Cement shall conform to ASTM C-150 and sand shall conform to ASTM C-33.

**PROPORTION OF MATERIALS**  
One part Portland Cement to three parts sand.

E. CONCRETE SUBBASE

**CONCRETE MATERIALS**  
Portland Cement - ASTM C150, Type 1. Use only one brand of cement throughout the project.

Aggregates - ASTM C33, fine and coarse aggregates shall be clean, sharp, and free from clay, organic matter and other deleterious substances.

Coarse aggregates shall be crushed stone with a maximum size no larger than one-fifth of the narrowest dimension between side forms, one-third the depth of the slab, nor three-fourths of the minimum clear spacing between individual reinforcing bars.

**REINFORCING MATERIALS**  
Water shall be clean, drinkable and meet the PH requirements of AASHTO T-26 Method B.  
Reinforcing Bar shall conform to ASTM A615, Grade 60.  
Welded Wire Fabric shall conform to ASTM A285.
Supports for reinforcement shall comply with CRSI recommendations. Wood, bricks or other devices will not be acceptable as supports for reinforcement.

**ADMIXTURES**
- Air-entraining admixtures shall conform to ASTM C260.
- Water-reducing admixtures shall conform to ASTM C494, Type A.
- Retarding admixtures shall conform to ASTM C494 as follows:
  1. Type B: Retarding
  2. Type C: Accelerating
  3. Type D: Water reducing and retarding
  4. Type E: Water reducing and accelerating
  5. Calcium chloride shall meet the requirements of AASHTO M144, Type 1 or 2.

**COMPRESSIVE STRENGTH**
Minimum of 3,000 psi shall be achieved by the 28th day of a strength test. Control testing shall be in conformance with Montgomery County Standards.

**SLUMP REQUIREMENTS**
- 2"-4" range is acceptable.

**AIR CONTENT**
- 5% to 8%

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### A. TYPE A /STREET TREE WELL

<table>
<thead>
<tr>
<th><strong>TYPE</strong></th>
<th>Dakota Mahogany granite, Rough Cut</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SIZES</strong></td>
<td>60% .................................. 4' x 4' granite sets</td>
</tr>
<tr>
<td></td>
<td>40% .................................. 8' x 4' belgium block</td>
</tr>
<tr>
<td><strong>SETTING BED</strong></td>
<td>Sand to be fine, clean sharp and free from clay, organic matter and other deleterious matter.</td>
</tr>
</tbody>
</table>

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### II. GRANITE BLOCK

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### A. INTERSECTION AND WOODMONT AVENUE LIGHTING

<table>
<thead>
<tr>
<th><strong>LAMP TYPE</strong></th>
<th>150 watt, color-corrected Sodium Vapor.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REFLECTOR TYPE</strong></td>
<td>&quot;Gardco&quot; type 3 distribution.</td>
</tr>
<tr>
<td><strong>HOUSING TYPE</strong></td>
<td>Rectangular.</td>
</tr>
<tr>
<td><strong>HOUSING FINISH</strong></td>
<td>&quot;Bronze&quot; color heat set epoxy.</td>
</tr>
<tr>
<td><strong>MOUNTING HEIGHT</strong></td>
<td>30'</td>
</tr>
<tr>
<td><strong>POWER SUPPLY</strong></td>
<td>Montgomery County.</td>
</tr>
<tr>
<td><strong>ACTIVATION</strong></td>
<td>Solar cell mounted in Pole To.p</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>POLE TYPE</strong></th>
<th>Spun aluminum, round section.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POLE HEIGHT</strong></td>
<td>30'</td>
</tr>
</tbody>
</table>

(Note: A large number of intersection lighting poles will also serve as traffic signal or walk signal poles.)
POLE WALL THICKNESS 3/16"
HAND HOLE AT BASE At least 4" diameter.

POLE FOUNDATION
BOLT CIRCLE 12-1/2", for 4 bolts.
ANCHOR BOLTS 5/8" hot-dipped steel, 24" long plus 3" leg, exposed 3" above foundation top.
CONDUIT SIZE INTO BASE 2-4" diameter.

BALLAST
TYPE Mounted in lamp housing.

To be specified.

B. THE BETHELDA LANTERN

LAMP TYPE 150 watt color corrected Sodium Vapor.
REFLECTOR TYPE "Gardco long throw", or type 3 medium cutoff.
HOUSING As illustrated, see notes below.
LAMP HEIGHT 16'+
POWER SUPPLY Montgomery County.
ACTIVATION Solar Cell mounted in Lantern Housing.

HOUSING MATERIAL Cast Aluminum base and roof, min. 1/8" wall thickness.
LANTERN POSTS Aluminum, Ribbed design.
SHELL 1/8" "Lexan" Acrylic, 18" diameter drum.
FINISH Dark Green heat set epoxy finish. "HADCO J-Dark Green" or staff approved equal, factory applied.
ASSEMBLY Factory assembled, shipped assembled.
ORNAMENTATION Cast into surface or factory welded to surface (see detail).
INTERIOR ORNAMENT Cast clear glass, approximately 6" high x 8" wide (see detail design).
ORNAMENT REFLECTOR Polished Brass Cone, approximately 8" high.

POLE TYPE "Washington" series.
POLE HEIGHT 13" to base of lantern.
POLE MATERIAL Cast Iron.
POLE FINISH Field Painted to Match lantern (shipped factory primed).
POLE BRACKET Cast Iron to extend over 15" beyond pole and capable of supporting a hanging basket of seasonal flowers. To be used only along Wisconsin Avenue, Old Georgetown Road, and East-West Highway. Double-collar attachment to Pole. (see design detail).
(Note: Use of brackets to be determined upon resolution of Bethesda Streetscape Management Organization.)

HAND HOLE

at least 8" diameter in base, tamper-resistant installation.

FOUNDATION

Reinforced Concrete footing (see detail).

BOLT CIRCLE

12-1/2", for 4 bolts.

CONDUIT

4" in, 4" out.

ANCHOR BOLTS

5/8" hot-dipped steel, 24" long, with 3" leg, exposed 3" above foundation top (see foundation detail). All bolts concealed within base.

BALLAST

Mounted in base of lantern, provide drawer behind access panel matching lantern ornamentation.

BALLAST TYPE

To be specified.

A. PLANT MATERIALS

Street trees, groundcovers and turf sod shall be furnished in accordance with the drawings.

Type A street trees shall be platanus acerifolia "Bloodgood". All other streetscape Types B, C, D and E shall have different street trees approved by staff of the Urban Design Division, M-NCPPC. All lawns shall be certified sod and consist of 10% to 20% certified Ken blue (Kentucky Original, certified Merion or South Dakota certified Kentucky Bluegrass and 80% to 100% certified Kentucky 31 Tall Fescue.)

QUALITY

Plants shall be nursery grown in accordance with the latest edition of USA standards for Nursery Stock.

Plants shall be hardy under climatic conditions similar to those in the locality of the project.

Plants shall be sound, healthy and vigorous. Free from disease and insect pests, eggs or larvae.

All plants shall be typical of their species or variety and shall be well-branched and densely foliated when in leaf.

Each piece of sod shall be well covered with turf grass, free from weeds and cut to a length of not less than 1-1/2 inch nor more than 4 inches before sod is cut.

SIZE

Street trees shall be 4-1/2-5 inches in caliper and shall begin branching no less than 5-1/2 feet from the base.

IV. LANDSCAPING
Street trees shall be balled and burlapped with root balls dug larger than USA standards require.

Ground cover shall be established, well-rooted in containers or peat pots, with not less than the minimum number and length of runners required by ANSI 260-1 for pot size used. Pot sizes shall be large enough to establish 90% plant coverage within 2 years.

B. AMENDED BACKFILL

Shall consist of 2/3 topsoil mixture and 1/3 native soil. However, if native soil is predominately composed of deleterious matter, such fill as construction materials, do not use.

QUALITY

Topsoil shall be sandy loam, uniform in composition, free of stones, lumps, roots and other debris. PH range shall be 5.0 to 7.0 and organic matter shall be minimum of 1%.

Organic matter used in backfill mix shall be peat, composted bark or leaf mold.

MIXTURE

Top soil mixture shall be 2/3 topsoil and 1/3 organic matter. The need for Dolomite lime, fertilizer, or other soil additives shall be tested in field and adjustments shall be made to obtain proper PH and nutrient levels.

C. MISCELLANEOUS LANDSCAPE MATERIALS

GRAVEL

Washed gravel shall be clean, crushed stone complying with ASTM C.33, size 8 or 9.

FILTER MAT

Fiberglass mat filter: “Poly-filter G-B”, manufactured by Carthage Mills, or equal.

ANTI-DESSICANT

Emulsion type, film forming agent similar to Dowax by Dow Chemical Company, or Wilt-proof by Nursery Specialty Products, Inc., designed to retard excessive loss of moisture from plants.

WRAPPING

4" wide, standard manufactured tree wrapping paper, brown in color with crinkled surface, and installed to prevent water collection with a 2" overlap. Trees should be wrapped only for transit to the site. Wrapping should
be removed upon installation.

STAKING
Trees over 4' in caliper should not be staked or receive guy wires.

STEEL EDGING
Shall be 16' x 4' in size and manufactured by Ryerson and Son, Inc. or an approved alternative.

P.V.C PIPE
Type 1, Grade 1, Normal impact unplasticized, high density polyvinyl chloride. Sized according to the drawings.

IRRIGATION BOX
Neenah square manhole frame and lid, #R-6660 DH T hinged.

A. BENCH
Teakwood bench, model - "Warwick", length to vary according to location. Finish shall be natural teak. Bench shall be bolted into pavement. Provide certification from either the Rainforest Alliance or Friends of the Earth that the teak is plantation grown timber.

B. TRASH RECEPTACLE

C. PLANT CONTAINERS
Jardin Garden Planters by Canterbury Designs. Lightweight concrete, tan color, sand-blasted finish. Approved sizes shall be 1'-6" dia. x 2' high and 3'-6" dia. x 2' high. Potting soil and seasonal flowering plants to be approved by M-NCPPC staff.
ACKNOWLEDGMENTS

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