

BETHESDA STREETSCAPE PLAN

S t a n d a r d s

A P P R O V E D P L A N F O R T H E M E T R O C O R E D I S T R I C T

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 *S t a n d a r d s*

A P P R O V E D P L A N F O R T H E M E T R O C O R E D I S T R I C T

SPECIFICATIONS OF MATERIALS 19

- 19 I. SIDEWALK PAVEMENT
- 19 A. BRICK PAVERS
- 19 B. BITUMINOUS SETTING BED
- 20 C. NEOPRENE - MODIFIED ASPHALT ADHESIVE UNDER PAVERS
- 20 D. JOINT FILLER
- 20 E. CONCRETE SUBBASE
- 21 II. GRANITE BLOCK
- 21 A. TYPE A/STREET TREE WELL
- 21 III. STREET LIGHTING
- 21 A. INTERSECTION LIGHTING/WOODMONT AVENUE LIGHTING
- 22 B. THE BETHESDA LANTERN
- 23 IV. LANDSCAPING
- 23 A. PLANT MATERIALS
- 24 B. AMENDED BACKFILL
- 24 C. MISCELLANEOUS LANDSCAPE MATERIALS
- 25 V. STREET FURNITURE

*T*ABLE OF CONTENTS

I INTRODUCTION

1 SUMMARY OF THE APPROVED BETHESDA STREETSCAPE PLAN

URBAN DESIGN CONCEPTS	1
REINFORCE THE DISTRICTS	1
REINFORCE THE STREET HIERARCHY	1
PROVIDE FOR THE “GREENING” OF BETHESDA	1
IMPROVE PEDESTRIAN ACCESS THROUGHOUT THE CBD AND INCREASE PEDESTRIAN AMENITIES	2
REDUCE VISUAL CLUTTER AND PROVIDE ORDER	2
THE COMPREHENSIVE STREETSCAPE PLAN FOR THE CORE DISTRICT	2
STREETSCAPE HIERARCHY	3
TYPE A: WISCONSIN AVENUE/OLD GEORGETOWN ROAD/EAST-WEST HIGHWAY	3
TYPE B: SPECIAL NARROW SIDE STREETS: HAMPDEN LANE/ELM STREET	3
TYPE C: WIDER SIDE STREETS (with sidewalks over 10 feet in width)	3
TYPE D: TYPICAL NARROW SIDE STREETS (with sidewalks less than 10 feet)	3
TYPE E: EDGE OF THE CORE DISTRICT: WOODMONT AVENUE	4
GATEWAYS TO THE CORE DISTRICT	4
STREET TREES AND OTHER PLANTINGS	4
ACHIEVE THE “GREENING” OF BETHESDA	4
EMPHASIZE THE MAJOR CORRIDORS	4
ACHIEVE HORTICULTURAL DIVERSITY THROUGHOUT THE CORE DISTRICT	4
UTILIZE UPGRADED URBAN TREE PLANTING DETAILS	5
CLUSTER PLANT CONTAINERS ALONG MAJOR CORRIDORS	5
STREET LIGHTING	5
USE THE “BETHESDA” LANTERN THROUGHOUT THE CORE DISTRICT	5
ACHIEVE SPECIAL LIGHTING EFFECTS WITHIN AMENITY PLAZAS AND ALONG RETAIL STOREFRONTS	5
SIDEWALK PAVING	6
USE A CONSISTENT BRICK PAVER THROUGHOUT THE CORE DISTRICT	6
STREET FURNITURE	6
SEATING AND BENCHES	6
WASTE RECEPTACLES	6
NEWSPAPER VENDING MACHINES	6
TRAFFIC LIGHTS AND RELATED TRAFFIC SIGNAGE	6
TRAFFIC LIGHT POLES	6
RELATED TRAFFIC SIGNAGE	7
PUBLIC ART IN THE STREETSCAPE	7
THE MAINTENANCE MANAGEMENT ORGANIZATION	7
THE PUBLIC AND PRIVATE SECTOR REQUIREMENTS FOR STREETLIGHTING	8

LIST **OF** **FIGURES**

L-1: THE CORE DISTRICT	9
L-2: STREETSCAPE TREATMENTS	10
L-3: STREET TREE MASTER PLAN	11
L-4: SIDEWALK PLAN TYPES A AND B	12
L-5: SIDEWALK PLAN TYPES C, D, AND E	13
L-6: PAVING PATTERN & DETAILS	14
L-7: LANDSCAPE PLANTING & IRRIGATION DETAILS	15
L-8: STREET FURNITURE: STREET LIGHTS	16
L-9: DECORATIVE POST TOP LANTERN	17
L-10: PUBLIC AND PRIVATE SECTOR RESPONSIBILITY	18

I NTRODUCTION

The Bethesda Streetscape Plan is designed to achieve a high-quality, attractive image for the Metro Core District ■ **T**he Plan was developed with the participation of neighborhood citizen associations, developers and property owners, and other local governmental agencies ■ **T**he 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.

URBAN DESIGN CONCEPTS REINFORCE THE DISTRICTS

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.

REINFORCE THE STREET HIERARCHY

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.

PROVIDE FOR THE "GREENING" OF BETHESDA

**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**



he 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:

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*).

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)

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**

Innner 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.

UTILIZE UPGRADED
URBAN TREE PLANTING DETAILS

CLUSTER PLANT CONTAINERS
ALONG
MAJOR CORRIDORS

STREET LIGHTING
USE THE
"BETHESDA"
LANTERN THROUGHOUT
THE CORE DISTRICT

ACHIEVE SPECIAL LIGHTING
EFFECTS WITHIN
AMENITY PLAZAS
AND
ALONG RETAIL STOREFRONTS

SIDEWALK PAVING

USE A CONSISTENT BRICK
PAVER THROUGHOUT
THE CORE DISTRICT

The Watontown'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

RELATED TRAFFIC SIGNAGE

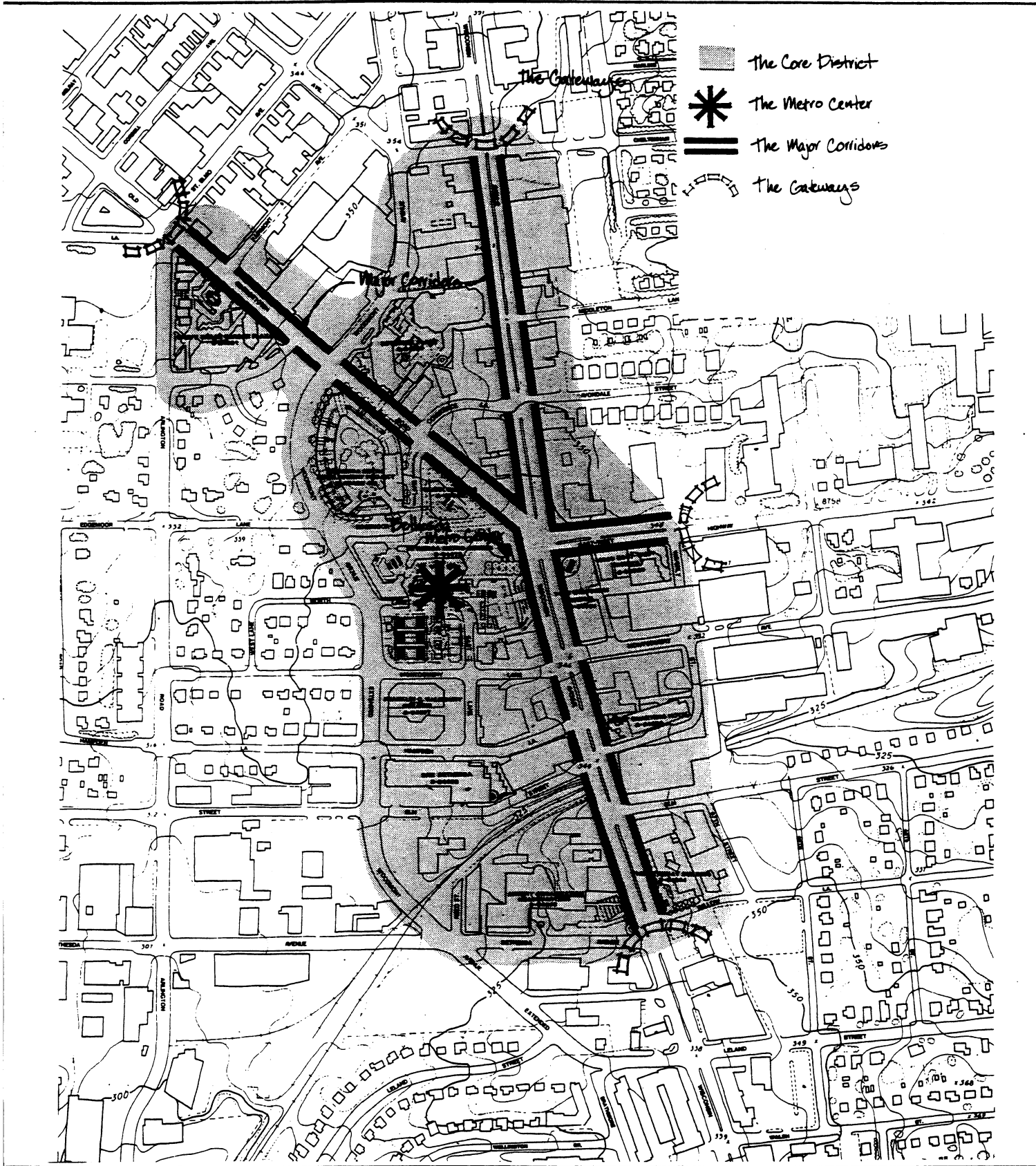
PUBLIC ART IN THE STREETScape

THE MAINTENANCE MANAGEMENT ORGANIZATION

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.

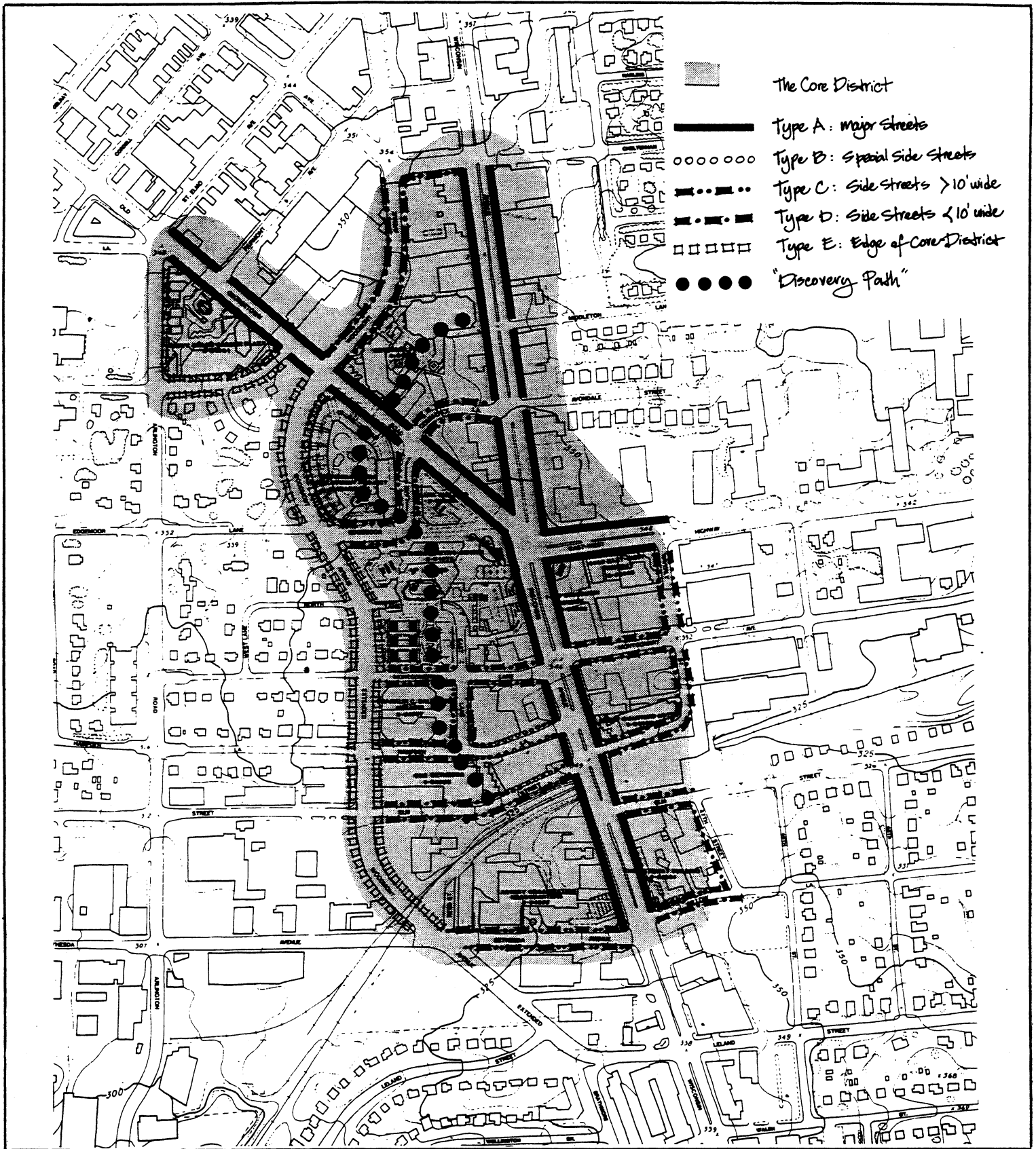


THE CORE DISTRICT
BETHESDA STREETSCAPE PLAN Spring 84
 UPDATED SPRING 89

URBAN DESIGN DIVISION
MARYLAND NATIONAL CAPITAL
PARK & PLANNING COMMISSION
 8787 Georgia Avenue
 Silver Spring, MD. 20907

Revisions

L-1



STREETSCAPE TREATMENTS

BETHESDA STREETSCAPE PLAN Spring 84 UPDATED SPRING 89

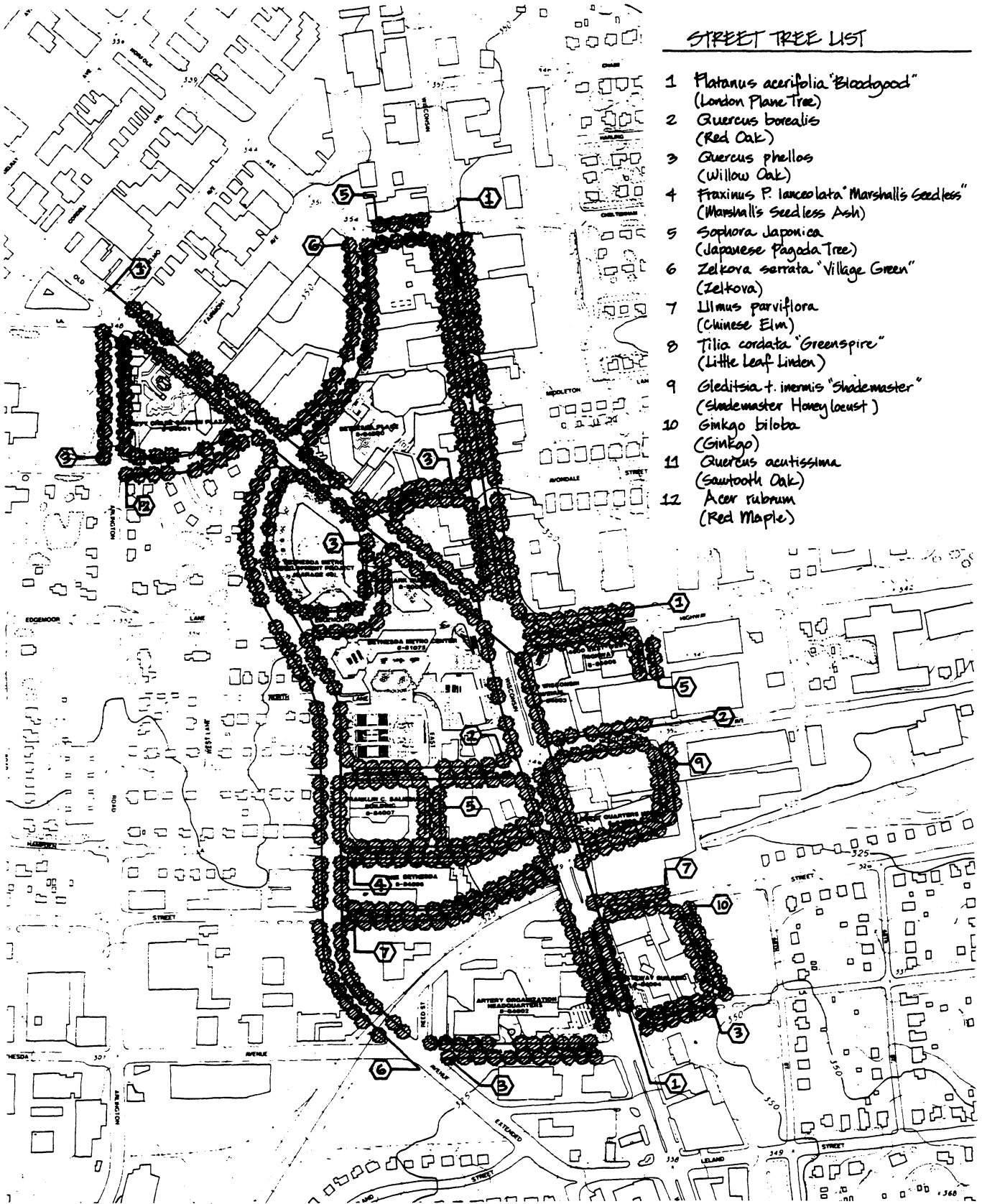
URBAN DESIGN DIVISION
MARYLAND NATIONAL CAPITAL
PARK & PLANNING COMMISSION
8787 Georgia Avenue
Silver Spring, MD. 20907

Revisions

L-2

STREET TREE LIST

- 1 *Platanus acerifolia* "Bloodgood"
(London Plane Tree)
- 2 *Quercus borealis*
(Red Oak)
- 3 *Quercus phellos*
(Willow Oak)
- 4 *Fraxinus P. lanceolata* "Marshall's Seedless"
(Marshall's Seedless Ash)
- 5 *Sophora japonica*
(Japanese Pagoda Tree)
- 6 *Zelkova serrata* "Village Green"
(Zelkova)
- 7 *Ulmus parviflora*
(Chinese Elm)
- 8 *Tilia cordata* "Greenspire"
(Little Leaf Linden)
- 9 *Gleditsia + inermis* "Shademaster"
(Shademaster Honey Locust)
- 10 *Ginkgo biloba*
(Ginkgo)
- 11 *Quercus acutissima*
(Sawtooth Oak)
- 12 *Acer rubrum*
(Red Maple)



STREET TREE MASTER PLAN

BETHESDA STREETScape PLAN

Spring 84

UPDATED SPRING 89

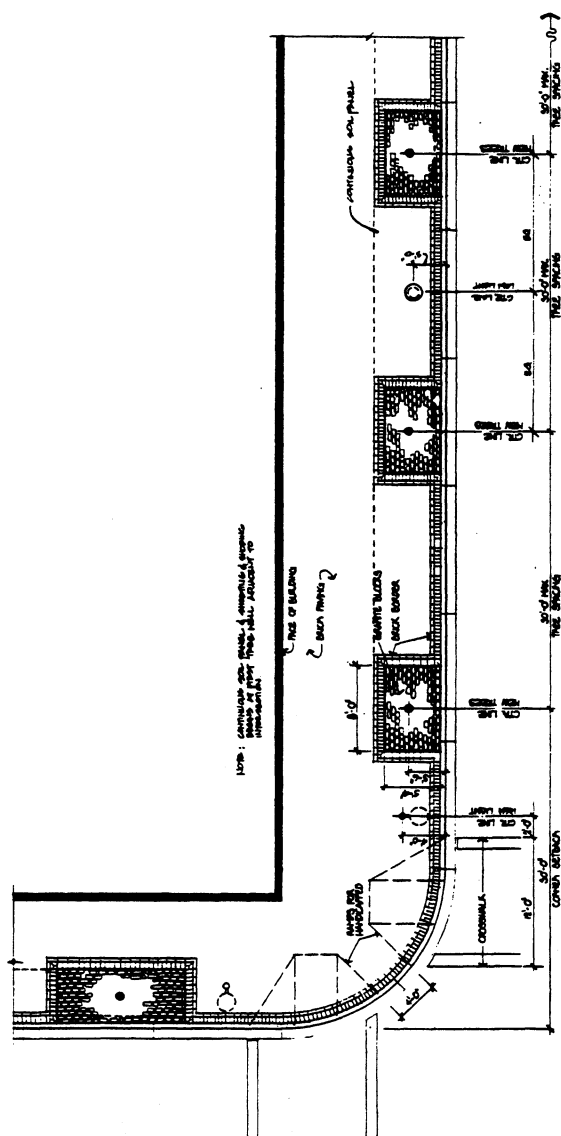
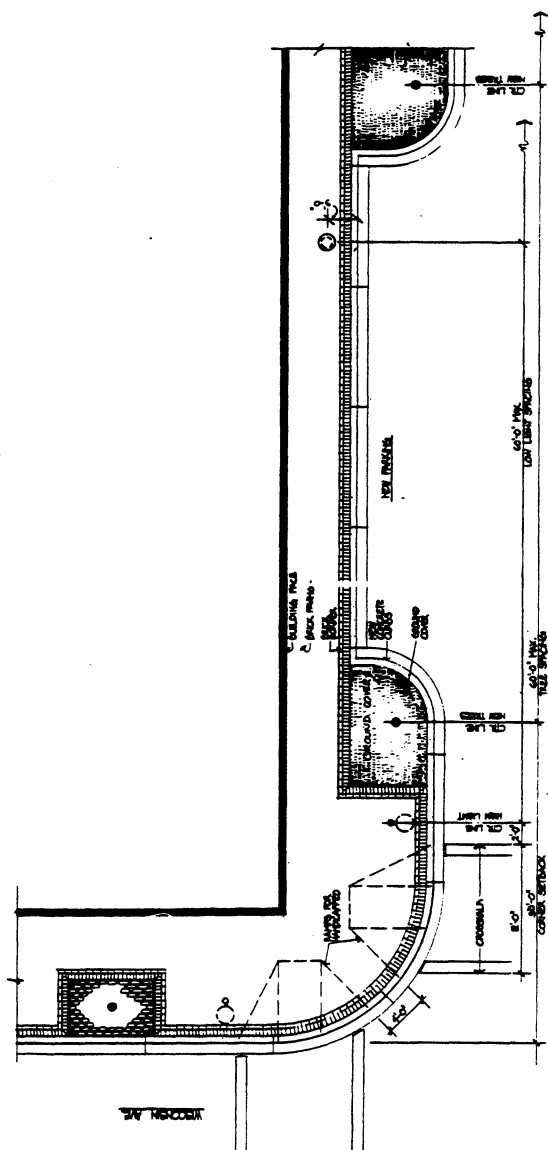
URBAN DESIGN DIVISION

MARYLAND NATIONAL CAPITAL PARK & PLANNING COMMISSION

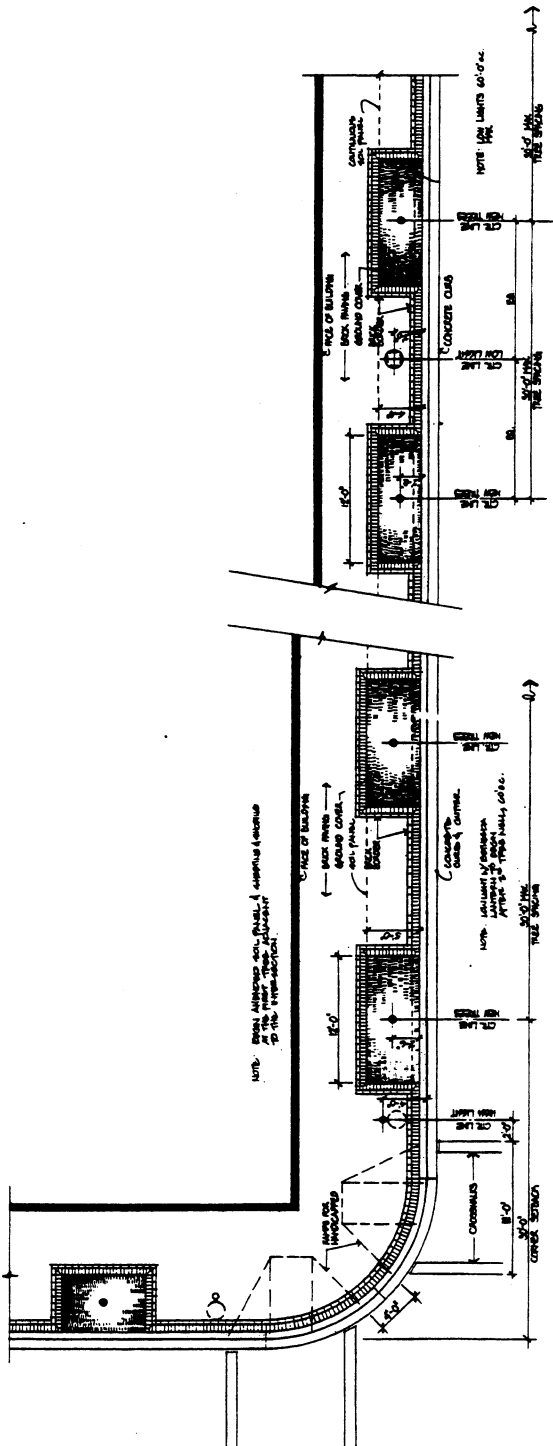
8787 Georgia Avenue
Silver Spring, MD. 20907

Revisions

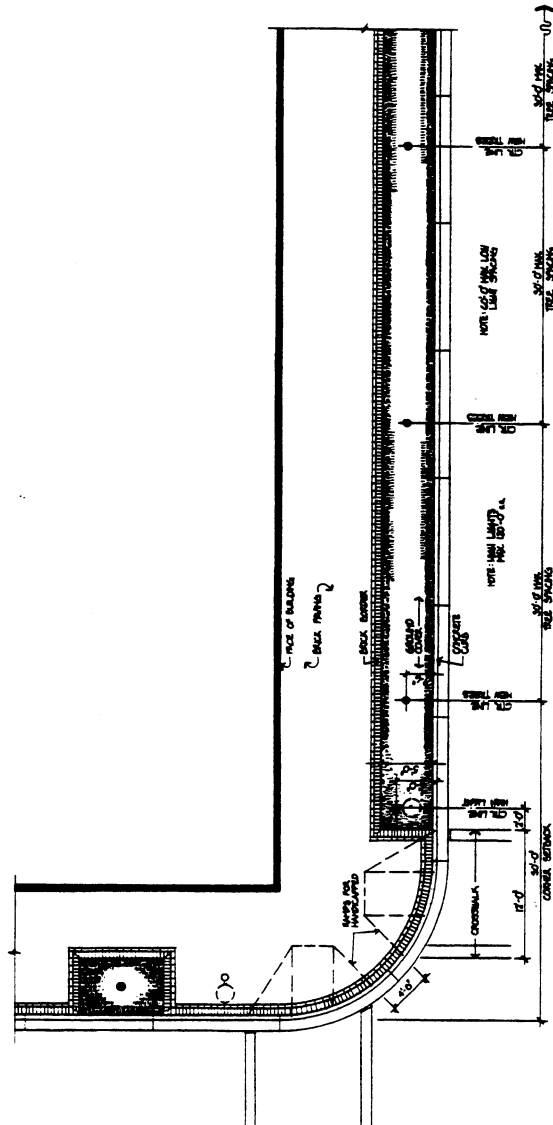
L-3



L-4



PLAN TYPE C: SIDEWALKS OVER 10' WIDE
SCALE: 1/4" = 1'-0"



PLAN TYPE E: SIDEWALKS w/ CONTINUOUS LAWN STRIP
SCALE: 1/4" = 1'-0"

NOTE: SIDEWALKS OVER 10' WIDE MUST BE CONCRETE
NOTE: SIDEWALKS OVER 10' WIDE MUST BE CONCRETE
NOTE: SIDEWALKS OVER 10' WIDE MUST BE CONCRETE

SIDEWALK PLAN TYPES C, D AND E

BETHESDA STREETSCAPE PLAN

Spring 84
UPDATED SPRING 89

URBAN DESIGN DIVISION
MARYLAND NATIONAL CAPITAL
PARK & PLANNING COMMISSION
8787 Georgia Avenue
Silver Spring, MD. 20907

Revisions
1/1/89
2/1/89
3/1/89
4/1/89
5/1/89
6/1/89
7/1/89
8/1/89
9/1/89
10/1/89
11/1/89
12/1/89

L-5

PAVING PATTERN & DETAILS

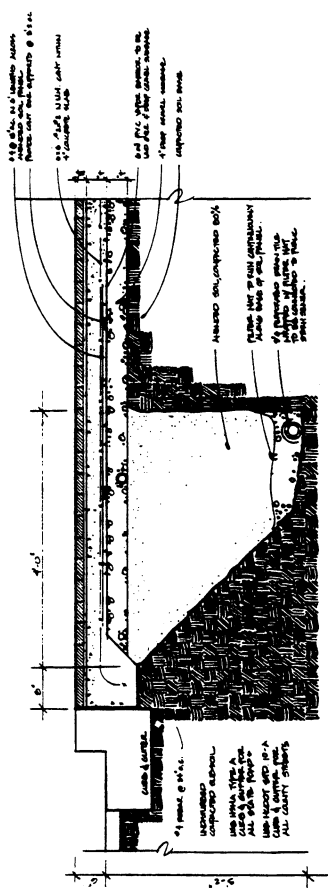
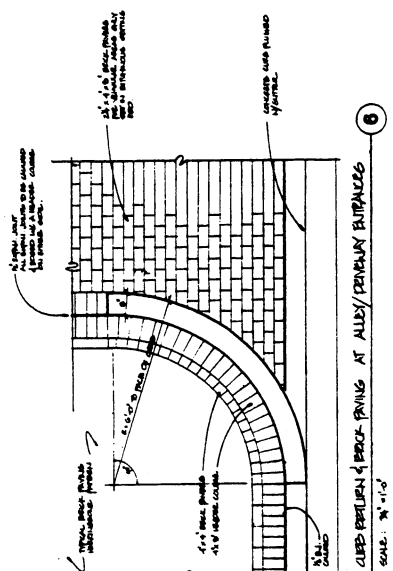
BETHESDA STREETSCAPE PLAN Spring 84 UPDATED SPRING 89

URBAN DESIGN DIVISION
MARYLAND NATIONAL CAPITAL
PARK & PLANNING COMMISSION

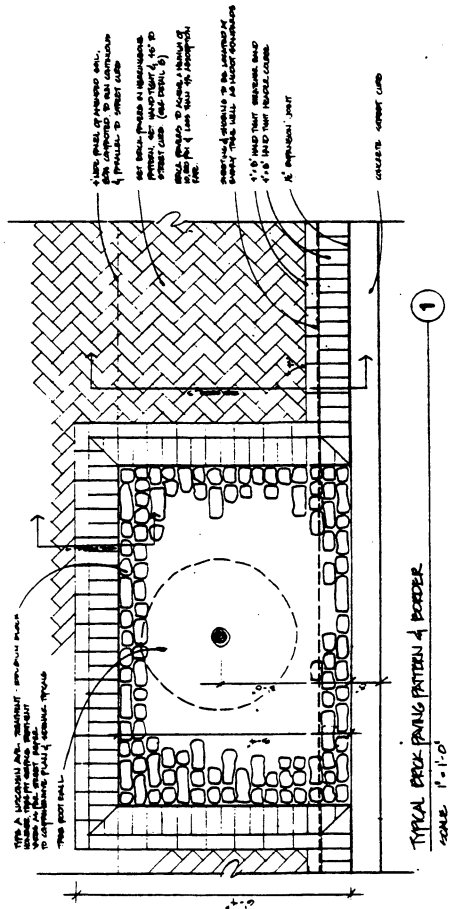
8787 Georgia Avenue
Silver Spring, MD 20907

Revisions
#11-187 SUBMITTED FOR REVIEW
FOR THE DESIGN

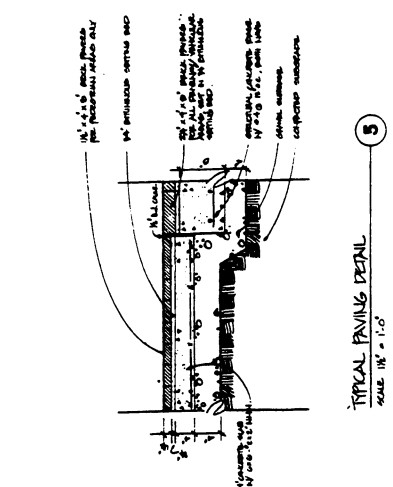
L-6



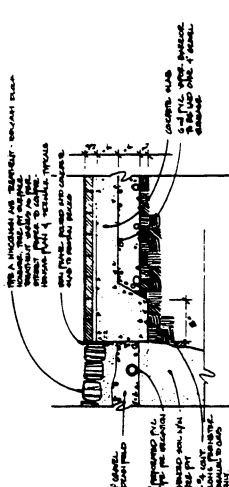
ANCHORED SOL PANEL SECTION (SEE THE TYPICAL SECTION)
SCALE: 1/4" = 1'-0"



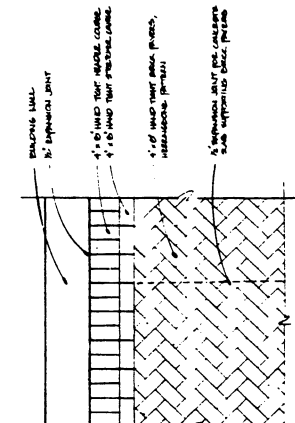
TYPICAL BRICK PAVING PATTERN & BORDER
SCALE: 1/4" = 1'-0"



TYPICAL FINING DETAIL
SCALE: 1/4" = 1'-0"



TREE WELL EDGE
SCALE: 1/4" = 1'-0"



BRICK BORDER/BUILDING EDGE
SCALE: 1/4" = 1'-0"

BETHESDA STREETSCAPE PLAN Spring 84

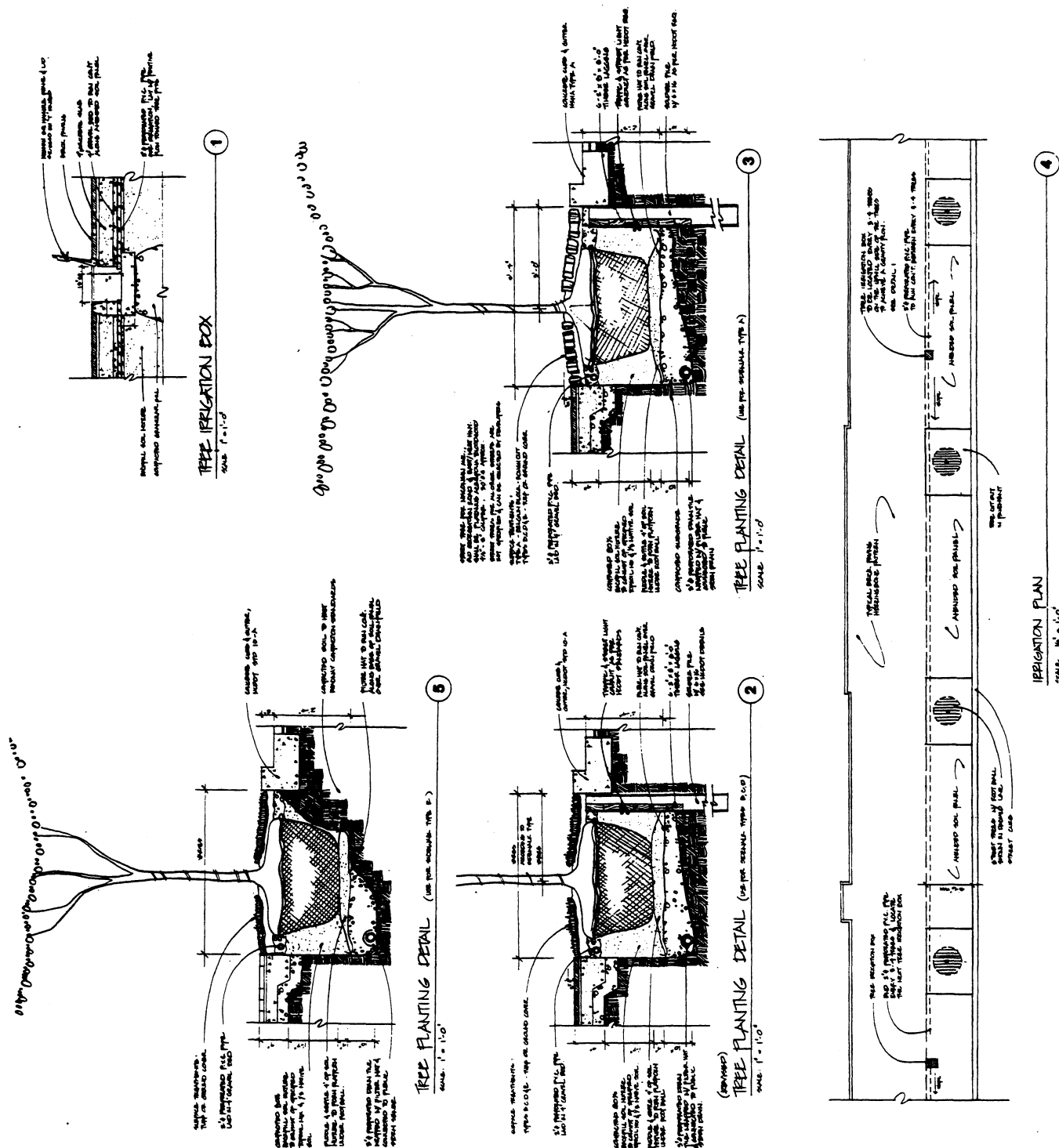
UPDATED SPRING 89

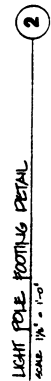
**8787 Georgia Avenue
Silver Spring, MD.20907**

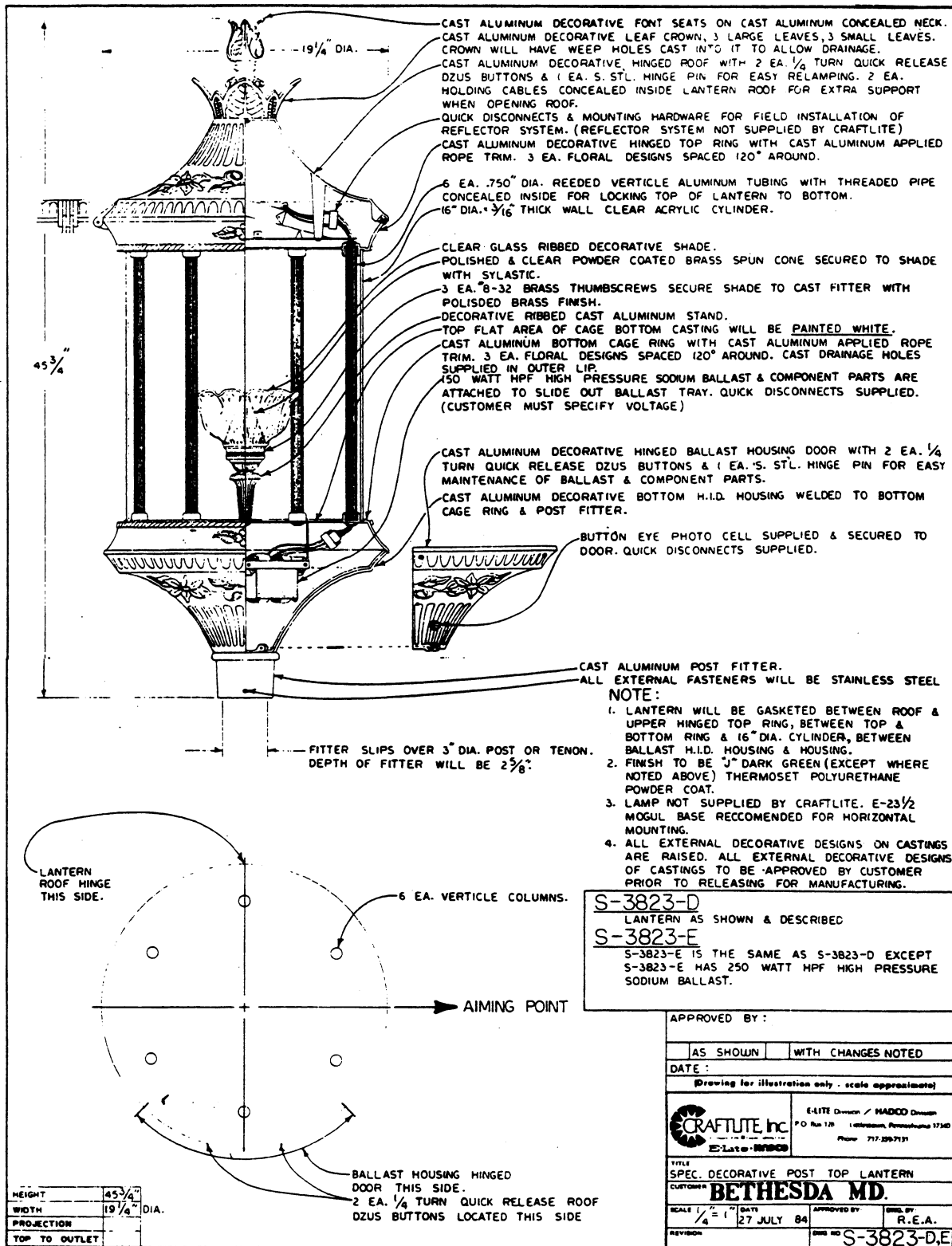
2/20/80 RECALCULATED 6' x 4' 6" CEMENTED FOOTING TO SUPPORT 2 & 3

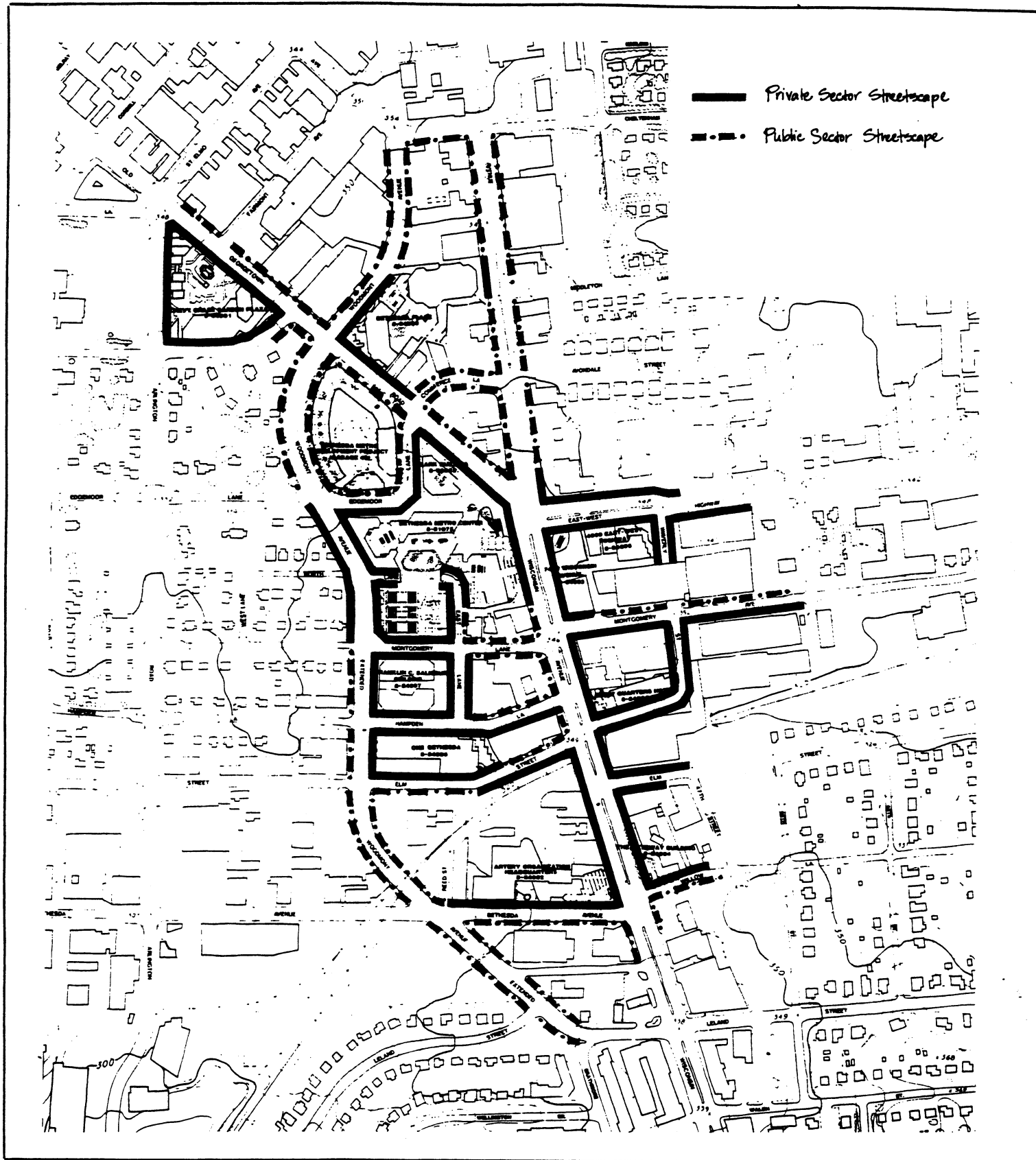
2/27/81 RECALCULATED CEMENTED 4' CEMENTED TO SUPPORT 2 & 3. RECALCULATED CEMENTED FOOTING

L-7









**PUBLIC AND PRIVATE
SECTOR RESPONSIBILITY**

BETHESDA STREETSCAPE PLAN Spring 84 UPDATED SPRING 89

URBAN DESIGN DIVISION
**MARYLAND NATIONAL CAPITAL
PARK & PLANNING COMMISSION**
5767 Georgia Avenue
Silver Spring, MD. 20907

Revisions

L-10

SPECIFICATIONS OF MATERIALS



he 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

TYPE	Watson town "Garden Blend" or approved equal. "Equal" must be submitted to staff of Urban Design Division, M-NCPPC for approval.
ABSORPTION RATE	Average water absorption rate 4%.
COMPRESSIVE STRENGTH	Shall be not less than 10,000 pounds per square inch for any 5 bricks tested.
FREEZE-THAW CYCLES	Shall be capable of withstanding a minimum of a 100 freeze-thaw cycles.
TOLERANCES	Shall conform to ASTM Designation C-902-79a.
BOND	Herringbone, square with curb.
BORDER	8" sailor course.

I. SIDEWALK PAVEMENT

B. BITUMINOUS SETTING BED

TYPE	Asphalt cement shall conform to ASTM Designation D-3381. Fine aggregates shall be clean, hard sand, and free from adherent coating, lumps of clay, alkali salts and organic matter. Aggregates shall meet the standard method of test for sieve analysis of fine and coarse aggregates ASTM Designation C-136-81.
VISCOSITY GRADE	Shall be A.C. 10 or A.C. 20.
PROPORTION OF MATERIAL	Approximate proportion shall be 7% asphalt cement and 93% fine aggregate. The mix shall be heated to approximately 380 degrees Fahrenheit.

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/per
 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.

Water shall be clean, drinkable and meet the PH
 requirements of AASHTO T-26 Method B.

REINFORCING MATERIALS

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..... admixtures shall conform to ASTM C494, Type A. Set ...control 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 M.144, 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%

A. TYPE A /STREET TREE WELL

TYPE	Dakota Mahogany granite, Rough Cut
SIZES	60% 4" x 4" granite sets 40%8" x 4" belgium block
SETTING BED	Sand to be fine, clean sharp and free from clay, organic matter and other deleterious matter.

II. GRANITE BLOCK

A. INTERSECTION AND WOODMONT AVENUE LIGHTING

III. STREET LIGHTING

LAMP TYPE	150 watt, color-corrected Sodium Vapor.
REFLECTOR TYPE	"Gardco" type 3 distribution.
HOUSING TYPE	Rectangular.
HOUSING FINISH	"Bronze" color heat set epoxy.
MOUNTING HEIGHT	30'
POWER SUPPLY	Montgomery County.
ACTIVATION	Solar cell mounted in Pole To.p
POLE TYPE	Spun aluminum, round section.
POLE HEIGHT	30'

(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	Reinforced Concrete (see approved detail).
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	Mounted in lamp housing.
TYPE	To be specified.

B. THE BETHESDA 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 bracket 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-8", 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 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

"The Bethesda Series", steel basket with span steel dome number S-42 and standard plastic inner container. Produced by Victor Stanley, Inc. Shall stand 3' high with a 2'-6" flared opening.

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.

V. STREET FURNITURE

[illegible]

Acknowledgments

**THE
MARYLAND-NATIONAL CAPITAL
PARK AND PLANNING
COMMISSION**

MONTGOMERY COUNTY PLANNING DEPARTMENT

ROBERT W. MARRIOTT, JR.	<i>Planning Director</i>
MELISSA C. BANACH	<i>Deputy Planning Director</i>
CHARLES R. LOEHR	<i>Deputy Planning Director</i>

PROJECT STAFF

DOUGLAS ALEXANDER	<i>Chief, Urban Design</i>
JOHN CARTER	<i>Coordinator, Urban Design</i>
KAREN KUMM MORRIS	<i>Coordinator, Urban Design</i>

TECHNICAL STAFF

MARIE ELAINE E. LANZA	<i>Graphic Designer</i>
-----------------------	-------------------------

DIVISIONS OF THE PLANNING DEPARTMENT THAT CONTRIBUTED TO THIS PLAN

INCLUDE:

URBAN DESIGN/MAPPING AND GRAPHICS
RESEARCH - ADMINISTRATIVE SERVICES



Published by the
MONTGOMERY COUNTY PLANNING DEPARTMENT
of
The Maryland-National Capital Park & Planning Commission
8787 Georgia Avenue, Silver Spring, Maryland, 20910-3760



0000000320

STREETSCAPE BETHESDA