GUIDELINES for the PLANNING and DESIGN of TOWN STREETScape PROJECTS

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Date of Adoption

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Sec. 1-16, Standards for Public Improvements

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# Guidelines for the Planning and Design of Town Streetscape Projects

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Guidelines for the Planning and Design of Town Streetscape Projects
Town of Herndon, Virginia
May 1, 2015
CHAPTER 1
Streetscape Guidelines Introduction
INTRODUCTION

A. Purpose of the Guidelines

These guidelines describe the standards, procedures and requirements for planning and design of streetscape improvement projects, throughout the Town of Herndon including within overlay districts. Streetscape may be located on private property or in the public right-of-way or both.

These guidelines are intended for use by town staff, development applicants, consultants, and contractors. Streetscape improvement projects addressed by these guidelines may be capital improvement projects designed and constructed by the town, or private development projects designed and constructed by a developer.

This manual is designed to ensure a connected and consistent plan for improving streets, to enhance coordination between staff, the development community, design professionals, and builders, and to consolidate and formalize town policies, processes, and standards regarding public street design.

B. Objectives of the Guidelines

Streetscapes present the public face of the Town’s built environment and offer a town identity to residents and visitors. As Herndon grows the treatment of the streetscape will continue to be a defining feature of the town’s public sense of place. The combination of standards for sidewalks, streetlights, utilities, landscaping, and other streetscape elements covered within this manual were developed to not only enhance the town’s image and character but to help create a safe, pleasing, and convenient experience along town streets.

The vision for a town’s Rare Sense of Heritage and Place states that:

Thoughtful physical development, including the town’s gateways, public open space, buildings, and public and private infrastructure, provides both pedestrians and motorists with ample opportunity to experience Herndon’s history and ambiance.

In its 2030 Vision Statement, the Herndon Town Council emphasizes the importance of streetscape design and connectivity. The vision for a Modern Multi-Modal Transportation system states that:

Citizens and visitors who journey in, around and through Herndon find modes of transportation that are convenient, safe and accessible. The Town’s internal system of sidewalks, streets, trails, and connections to mass transit and Dulles International Airport ensure that the region and the world are always just a few steps away.

The sidewalk environment in Herndon should be celebrated as being a significant link in the Town’s multimodal transportation system. The sidewalks within the streetscape must have a rational scheme of connectivity and convenience. Coordination with the greater pedestrian circulation system (public or private) outside of the streetscape both in town and in adjacent communities is important to the functionality of the town wide sidewalk system. Table 1.1 lists the Standards for Pedestrian Movement from the zoning ordinance Section 78-501.3, which should be applied to all streetscape projects.

This manual leverages the vision statement and pedestrian movement standards as streetscape planning and design objectives in addition to following objectives from the Transportation Chapter in the Herndon 2030 Comprehensive Plan:
• Design and construct road improvements that preserve the small-town character and scale of Herndon, to include traffic management, landscaping and noise abatement amenities conducive to minimize disruption and maintain quite streets.

• Continue to support the Herndon Metrorail Station of the Dulles Corridor rail system and develop plans for surrounding access to the station.

• Continue to integrate pedestrian and bicycle facilities with the street and transit network through the Trail and Sidewalk Program and other project components of the town’s capital improvement program involving transportation improvements.

• Apply appropriate traffic calming techniques and improvements to enhance vehicular and pedestrian safety and to preserve neighborhood character.

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**Standards for Pedestrian Movement (Section 78-501.3)**

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<tr>
<td>1.</td>
<td>Pedestrian access is designed so as to provide safe and convenient pedestrian ways to, from and within a proposed development. Pedestrian ways within a development are provided to connect the buildings within the development.</td>
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<td>2.</td>
<td>Sidewalks are provided on both sides of every street (including private streets), except in cases where environmental or topographic features make such provision impractical.</td>
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<td>3.</td>
<td>Connections to existing or planned sidewalks are made at the property boundaries by incorporating and continuing all sidewalks stubbed to or shown as stubbed to the boundary of the development by previously approved plans. In addition, future sidewalk connections to adjacent developable parcels are located at planned or current street connections along each side of the development’s boundary.</td>
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<td>4.</td>
<td>Developed recreation space and open space intended for pedestrian use, and schools, religious institutions, and other pedestrian-oriented uses, are connected by pedestrian ways to residential and office uses, with a minimum of street crossings. Where possible, office and residential uses are to be connected by an integrated pedestrian way system.</td>
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<td>5.</td>
<td>Pedestrian crossing(s) at the perimeter of the development are marked and controlled. Where pedestrians are exposed to substantial vehicular traffic, barriers may be warranted to prevent crossing at other than designated points.</td>
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<td>6.</td>
<td>Pedestrian passages over and under vehicular routes are used wherever possible.</td>
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<td>7.</td>
<td>Bicycle paths, trails or lanes are coordinated with the on-site traffic circulation and pedestrian system, to the maximum extent feasible. Where feasible, bicycle crossings and pedestrian crossings are combined.</td>
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C. Types of Streetscape

Herndon streetscape standards vary depending on the land use and overlay district. Each streetscape type may have variations depending on field conditions. This manual provides standards for the following streetscape types:

**STANDARD STREETSCAPE**
- Commercial
- Residential

**DOWNTOWN STREETSCAPE**
- Commercial
- Transitional
- Residential

**GATEWAY STREETSCAPE**
Streets designated as Gateways

**PARKWAY STREETSCAPE**
Herndon Parkway

**HTOC STREETSCAPE**
Streets within Herndon Transit-Oriented Core
D. Bicycles and the Streetscape

Most of the bicycle facilities existing, designed, and planned in Herndon are on-street (bike lanes, sharrows, shared lanes) and outside the streetscape area. Some existing streetscapes have wide sidewalks designed to accommodate bicycles and pedestrians, however wherever possible, per AASHTO bicycle facility standards, new streetscape designs should separate these modes. Nonetheless, bicycle amenities such as racks, lockers, shelters, and bikeshare stations should be integrated into town streetscapes wherever feasible and in concert with relevant Herndon bicycle infrastructure policies and plans. A successful streetscape acts as a convergence point for the various non-motorized modes of travel and conduit for mass transit access.

In Herndon, it is acceptable for children, families, and novice or occasional adult bicyclist to ride on sidewalks although state code requires that they yield to pedestrians. Individuals bicycling with any regularity or frequency are encouraged and legally permitted to travel within the curb lines.

E. The Clear Zone


Town wide, the minimum clear zone on streets without parking lanes is three feet. On collector and arterial streets with higher speeds and volumes the clear zone may go up to 6’. The clear zone must remain clear of all obstacles that are not designed to break away under impact. Breakaway structures are defined as a single 4”x4” square or 4” diameter wooden post or a standard strength, metal pipe post no greater than a 2” diameter. When curbing is used, the clear zone is measured from the face of the curb, except where a bike lane, shoulder, or parking lane exists between the curb and the traveled way. In such a case, clear zone may be measured from the edge of the travel lane. For shoulder and ditch sections, the clear zone is measured from the edge of pavement.

Per the AASHTO guidelines, the clear zone may be reduced to 18” from the face of curb on local urban roads that have lower speeds and greater space limitations along the roadside.

As owners of the right-of-ways within town limits, the Town of Herndon, the Town Manager and Director of Public Works may set the clear zone based on the specific site and roadway conditions. Federal and state standards should be considered but should not dictate the clear zone if local circumstances call for reasonable flexibility through context sensitive solutions policies.

F. Traffic Calming

Streetscape improvements may involve the construction of certain traffic calming techniques in an attempt to enhance pedestrian safety, reduce vehicle speeds, and improve the character of the street. In Herndon curb extensions, chokers, medians with pedestrian refuges, and markings have been used to calm traffic.

Raised crosswalks, speed tables, or raised intersection may be employed as part of a traffic calming approach. Standards for crosswalks in traffic calming settings are provided in the Town of Herndon Public Facilities Manual (Fairfax County PFM 7-1200.). Those standards indicate that:
- The maximum elevation for a raised crosswalk is three inches and a detectable warning surface is required at each end of a raised crosswalk;
- Raised crosswalks should be located mid-block with the edge of the ramp at least 20 feet from the nearest intersection.
- Raised crosswalks shall not be placed over utility access points such as manholes, watergates, junction chambers, etc.

For more information about speed tables, raised crosswalks, and raised intersections, standards from Designing Sidewalks and Trails for Access, Part II of II: Best Practices Design Guide by the Federal Highway Administration should be used.

In Herndon, planning staff shall identify the areas which would be appropriate for the use of traffic calming devices. Such devices shall not pose a significant impact to the operability of motor vehicles as intended for the preferred and expected traffic patterns and volumes.

G. Utilities

Location of Above-Ground Utilities

The visual character of the streetscape is significantly affected by the location and appearance of public utility devices, such as traffic control boxes, and by public signage, such as directional units. These streetscape elements need to be addressed specifically and in detail during implementation of streetscape development. Table 1.2 lists the principles for placement.

**Principles for Utility Placement**

<table>
<thead>
<tr>
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<th>Utilities should not block the view of drivers and their placement should adhere to sight distance standards and visibility clearance standards in Section 78-509 of the Zoning Ordinance.</th>
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<td>2.</td>
<td>Utilities should not block other traffic safety features, such as traffic safety signage and traffic signals, located within the right-of-way.</td>
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<td>3.</td>
<td>The placement of utilities and street trees should be coordinated to minimize conflict with each other and the possibility of damage by one feature upon the other feature (i.e., poles should not be placed within the drip line of street trees.)</td>
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<td>4.</td>
<td>Utilities should be placed outside the sidewalk area (such as within the grassed utility strip) wherever and whenever possible. Placement of poles and signage within the sidewalk area should be avoided if possible.</td>
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Burying New and Existing Utilities

Few streetscape improvements are as noticeable and provide immediate visual appeal as relocating existing overhead utility poles and wires below ground. Not only does the relocation of utilities immediately improve the appearance of the streetscape, but it increases the useable sidewalk width for pedestrians. The placement of utilities underground also provides additional space for streetlights, street trees, landscaping elements, and street furnishings in the public rights-of-way.

The zoning ordinance requires the undergrounding of utilities for any new developments on-site, and adjacent to the site, with certain exceptions. The zoning ordinance also prohibits the installation of utilities within required landscape buffers unless the utilities run perpendicular to the street.

Duct bank and conduits should be installed for wired utilities. These must be installed at least 4’ underground and below the storm sewer. (See Detail 4.1)

H. Sources

The guidelines and standards from this manual derive from several sources including:

- TOH Herndon 2030 Comprehensive Plan
- TOH Zoning and Subdivision Ordinances
- TOH Public Facilities Manual
- TOH Downtown Herndon Master Plan and Pattern Book
- TOH Herndon Transit-Oriented Core Plan
- VDOT Guidelines for the Installation of Marked Crosswalks
- VDOT Roadway Design Section A-5 Bicycle and Pedestrian Facility Guidelines
- VDOT Subdivision Street Design Guide
- AASHTO Policy on Geometric Design of Highways and Streets

- American with Disabilities Act Accessibility Design Guidelines
- Virginia Uniform Statewide Building Code

The use of multiple sources is meant to maximize flexibility in the use of this manual. In maximizing flexibility, as a small town within an urbanizing metropolitan area, Herndon qualifies for context sensitive design solutions. Guidance in design flexibility and customization is also offered by the AASHTO Green Book that recommends a range of value for critical dimensions and encourages independent designs tailored to particular situations.

In Herndon, for purposes of this manual, individual project development decisions on specific applications of flexibility ultimately rest with the professional staff in responsible charge, working with the community and Town officials. These decisions are made after carefully processing input from all project stakeholders as well as the project team, and evaluating this input with respect to project goals as well as safety and mobility concerns.
I. Public Streetscape Improvements Review Process

If part of a development application, the review of the streetscape is conducted by staff through the plan review process. Streetscape features are evaluated by staff based on the criteria and standards found in this manual, the 2030 Comprehensive Plan, applicable master plans, town code, the PFM, the building code, and other applicable policies and guides. Streetscape comments are provided to applicants in conjunction with the other plan review comments.

When the project is managed by the town, the lead department invites other appropriate departments in the town to review the proposed plan during scoping and various stages of design and provide written comment within a timely manner.

Upon town approval of the public streetscape improvements, coordination with the utility companies is necessary. Utility companies for electricity, water, storm sewer, sanitary sewer, natural gas, fiber optic cable, and telephone must approve any utility alterations.

J. Streetscape Amenity Sponsorships

Sponsorship of certain streetscape amenities is available to individuals, businesses, organizations, or other private groups. In partnership, with the Town, sponsors are invited to make a donation for the purchase of the sponsor’s chosen amenity, and the Town will complete procurement, installation, and maintenance. Most amenities can accommodate plaques identifying the sponsor and providing any additional information requested by the sponsor and vetted by the Town Manager. Sponsors should contact the Department of Community Development for additional information on this program.

The amenities available for sponsorship include:

- Bus shelters
- Benches
- Recycling Receptacles
- Street Clock
- Bicycle Racks
II. DOWNTOWN STREETSCAPE

A. Design Concept & Map

The purpose of the Downtown Streetscape policy as described in the 2030 Comprehensive Plan is to maintain and to enhance Herndon’s traditional character of a walkable and inviting small town. The standards and guidelines help create public rights-of-way that have a comfortable pedestrian scale and continuity of the built environment while using visual elements that link the past with the present.

In the downtown, three streetscape types are used. The commercial downtown streetscape is the standard for streets within the mixed use core of the downtown. The residential downtown streetscape is mainly applied to the neighborhood streets within the Herndon Heritage Preservation District surrounding the downtown center. The transitional downtown streetscape occurs in those residential areas that are immediately adjacent to the mixed use portions of the downtown core.

The Town of Herndon Downtown Streetscape Map, adopted as part of the Town of Herndon 2030 Comprehensive Plan specifies the locations for residential, transitional, and commercial streetscapes. The map on the following page shows the locations of the various streetscape types. In some situations, opposite sides of the street may be treated differently or only portions of a street may be designated for downtown streetscape improvements.

It is the intent of this policy to enhance the existing character of the Town with unifying elements, acknowledging that current irregularities might preclude the use of these elements in all circumstances. For example, in commercial areas where existing building setbacks do not allow for the ideal 12-foot wide streetscape section, existing storefronts should not be altered to permit the installation of wider streetscape areas.

These guidelines are meant to advance the objectives of the Downtown Master Plan and Pattern Book, which urge the development of a well-connected open space and public right-of-way system thoughtfully designed with an emphasis on walkability. Map 2.1 shows the pedestrian connections as envisioned in the Pattern Book.

These guidelines present a baseline to follow when improving the streetscape in downtown Herndon to ensure some degree of uniformity and identifiable characteristics for the area. They should not however be used as a hindrance to future consideration or implementation of occasional varied and unique streetscape solutions. Creative design elements within public spaces help enhance visual appeal and the pedestrian environment.
Guidelines for the Planning and Design of Town Streetscape Projects
Town of Herndon, Virginia
May 1, 2015
B. Downtown Commercial Streetscape Design

The COMMERCIAL downtown streetscape section consists of a minimum 12 foot wide paver area between the back of curb and the building façade. Within this space street trees are located in tree grates, which are installed at the back of curb. Standard tree grate is 4’ wide by 10’ long. Length may vary depending on site-specific constraints or allowances. Trees shall not be installed less than 18” from the face of curb. Street lights shall be placed in alignment with the trees or as closely to that alignment as possible to maximize the width of the unobstructed space for pedestrian mobility. The remaining 8 feet of streetscape width shall remain largely unobstructed by fixed objects though movable planers, a-frame signs, outdoors seating (public and private), and other streetscape amenities or adjacent business fixtures may be placed in this area but shall not in any area reduce the unobstructed sidewalk width to less than 5’. These types of features should be placed in the street tree and light zone, between the curb and the 8’ pedestrian way whenever possible. Details 2.1 and Detail 2.2 illustrate the downtown commercial streetscape dimensional standards. See subsection E on page 18 for specifications on the various streetscape elements.
C. Downtown Transitional Streetscape Design

The TRANSITIONAL downtown streetscape is applied on streets with predominantly residential on one side and predominantly mixed use or commercial on the other side. These conditions are generally located where the surrounding neighborhoods abut the edges of the more commercial center of downtown. This streetscape is 10’ wide and includes a 5’ wide planting strip against the back of curb and a minimum 5’ wide paver sidewalk. Street lights and any street furniture shall be located within the planting strip. Details 2.3 and 2.4 show the streetscape dimensions. See subsection E on page 18 for details on the various streetscape elements for this design standard.
D. Downtown Residential Streetscape Design

The RESIDENTIAL downtown streetscape standard consists of 5’ wide planting strip abutting a 5’ wide concrete sidewalk. Street lights and any street furniture shall be located within the planting strip. Details 2.5 and 2.6 show the residential streetscape dimensions. See subsection E on page 18 for details on the various streetscape elements for this design standard.
E. Downtown Streetscape Elements

Downtown streetscapes shall use the following specifications. The zoning administrator may approve alternative materials if the standard is no longer available, practical, or feasible.

1. WALKING SURFACE TREATMENT

In the COMMERCIAL and TRANSITIONAL downtown streetscapes clay pavers placed in a running bond pattern shall be used. The approved paver is the Heartland Flashed Paver by Borel Bricks, with a straight edge or approved equal. The paver unit shall be the Standard size (4” wide x 8” long x 2.5” tall). An alternative standard paver is the 2.5” Regimental Full Range paver by Belden Brick. Retaining walls, fountains, signage bases, and other streetscape elements should use brick veneers to match the Heartland Flashed or Regimental Full Range pavers.

These clay pavers may be engraved by a private engraver. Requests for commemorative pavers are reviewed on a case by case basis and must be approved by the Town Manager if located in the public ROW or other town owned property.

Around light poles, the clay paver shall be laid in a radial header course. A straight header course shall be used around tree grates. Decorative 8” by 8” square engraved granite pavers should be used at the soldier course corners or in the center of the soldier course in lieu of bricks. These pavers would be engraved with the train depot motif or an “H” as symbols of the Town of Herndon (Detail 2.11). The primary running bond course runs parallel to the street, with its first course abutting back of curb. The last course at the edge of the streetscape shall have a header bond. See Detail 2.8 for all surface treatment details.

The clay pavers shall be laid on a 4” thick concrete slab below 1” of setting sand. See Details 2.9 and 2.10 for construction specifications.
In the RESIDENTIAL downtown streetscape, the sidewalk shall be concrete. The running slope of any streetscape walking surface shall not exceed 20:1 and the maximum cross slope is 2%.

**2. CURB TREATMENT**

For all downtown streetscapes, standard pre-formed concrete curbs shall be used.

On several streets within the historic neighborhoods within the downtown area, curbs may not be used in order to retain the traditional aesthetic of ditch section roads.

In the COMMERICAL and TRANSITIONAL downtown streetscape, at entrances to private driveways, alleys or access aisles, curb cuts shall have a modified CG-13 driveway ramp with a minimum 5’ wide level crosswalk. Details 2.12 and 2.13 on the following page shows this standard. More specifications on crosswalks are found on page 23.
**Detail 2.12 Driveway Section Detail**

**Detail 2.13 Driveway Plan Detail**
3. CROSSWALKS

In the COMMERCIAL and TRANSITIONAL downtown streetscape, the standard crosswalk is eight to ten feet wide with a clay paver surface treatment arranged in a herringbone pattern. The pavers are placed on a concrete pan with raised one foot wide edges that create a frame for the pavers on either side of the crosswalk. See Details 2.14 and 2.15 for construction specifications. The paver shall be the load-bearing clay brick Regimental Full Range, Type R by Belden Brick or approved equal to match the color and size of the streetscape pavers. For greater PSI, a thicker Regimental Full Range paver may be used.

In areas with observed or anticipated pedestrian activity, crosswalks should be installed for all approaches at controlled intersections, behind vehicle stop bars. Crosswalks shall be oriented at 90° to the street whenever feasible. Crosswalks that are aligned at an angle may be permitted when existing obstructs prevent a straight alignment. In this scenario, detectable warning surfaces in curb ramps shall be rotated to align with the crosswalk direction.

Detail 2.14 Crosswalk Plan Detail

Detail 2.15 Crosswalk Section Detail
Crosswalks may also be located mid-block or at uncontrolled intersections to improve pedestrian connectivity and safety in areas where there are pedestrian generators like shopping or employment centers, schools, or parks, where there are no other crosswalks within 300’, and when pedestrians can be easily seen from a distance 10x the speed limit. VDOT’s Guidelines for Marking Crosswalks includes criteria to review when considered crosswalks at uncontrolled locations. The table on this page shows when crosswalks are recommended at uncontrolled locations.

All crosswalks in the downtown shall be identified by a Pedestrian Crossing Warning Sign per the MUTCD. Flash beacons may also be considered at uncontrolled crossings.

Crosswalks may be used in conjunction with curb extensions or medians. These traffic calming measures reduce the distance pedestrians must cross and provides a visual identifier for the crosswalk and a physical deterrent to vehicle speeding. Medians act as pedestrian refuges and must be at least 6’ wide and designed with a raised curb and detectable warning strips.

In the RESIDENTIAL downtown streetscape, the Continental striped crosswalk, a minimum of 6’ wide shall be used.

4. CURB RAMPS

Crosswalks shall be accessible with ADA compliant ramps in all directions to the greatest extent possible. Utilize CG-12, Type A whenever possible, and C-12, Type B when space is constrained. See Detail 2.16. Ramps direction should always align with the orientation of the crosswalk. The type of ramp and exact ramp design is evaluated individually and depends on site constraints. Regardless of ramp type, a minimum 4’ x 4’ clear space outside active travel lanes of the roadway must be available at the base of the ramp. A Type A ramp must also have a minimum 4’ x 4’ landing at the top of the ramp.

All ramps shall have detectable warning surfaces demarcating passage from the sidewalk to the street. Truncated domes shall be used as the standard detectable warning surface. In the COMMERCIAL and TRANSITIONAL downtown streetscape, the dark gray (Federal Color No. 36118) Armor-Tile cast-in-place truncated dome surface or approved equal is the standard for new ramps. See Detail 2.17. In the RESIDENTIAL downtown streetscape the truncated dome surface shall be the Colonial Red (Federal Color No. 20109) Armor-Tile cast–in-place unit or approved equal. As an alternative for retrofitting existing ramps, the surface-applied truncated dome systems in the same colors from Armor-Tile may be used.

Pavers used within the ramp or ramp flares shall not be loose. Ramps must be comprised of surface materials that are stable, firm, and slip resistant.

For appropriate accessibility for pedestrians with disabilities new ramps shall align with the direction of the crosswalk. In cases when site conditions do not allow this alignment the truncated domes pad shall be rotated in the ramp to align with the crosswalk.
Curb ramps should follow the Pedestrian Facility Guidelines curb ramp objectives from the VDOT Road Design Manual:

- Provide a curb ramp design and placement that is usable by persons with disabilities
- Provide design and placement alternatives for a range of sidewalk and street conditions
- Provide minimal negative impact to all pedestrians
- Place curb ramps in uniform and consistent locations

**Detail 2.18** shows curb ramp dimensional standards. Wherever possible, obstructions, such as signs, lights, or cabinets shall not be placed near ramps, ramp flares, and ramp landings.

**5. ALTERNATIVE STREET PAVEMENT**

There may be opportunities within downtown Herndon for specialized street pavements at intersections or midblock where there is a justified preference for decorative treatments in lieu of asphalt. Use of decorative load-bearing pavers partially or wholly in certain areas, in this manner, function to create public spaces that are inviting to pedestrians and visually appealing to all roadway users. These focal points can advance the unique character of
Herndon and may serve to further encourage activity and energy at the street level. The design, materials, size, and locations of these specialized street treatments should be evaluated and determined separately. All materials used however must meet all minimum roadway construction standards.

Medians:
Where the roadway design is wide enough to accommodate a center dedicated turn lane, a specialized surface treatment for an at-grade median is recommended. On Elden Street in particular the specifications in Details 2.19 shall be used.

From Monroe Street to Station Street on Elden Street:

**Surface Treatment:**
- Clay brick pavers laid in a herringbone pattern. Use Belden Brick Regimental Full Range standard or approved equal.
- Two-foot wide stamped and colored concrete border to match the color and stamped pattern of the existing stamped concrete median on Elden Street. Use Bomanite or approved equal.
- Sub-base should be comprised of leveling sand and 4” of concrete in similar fashion to crosswalk construction on page

On Elden Street between Monroe Street east to Van Buren Street, the median shall be comprised of grey Bomanite or approved equal in the same color and design at the Bomanite stamped concrete used for the median on Elden Street from Center Street west to Ferndale Avenue.

### 6. LIGHTING

Lighting shall be provided to illuminate the streets, streetscapes, pedestrian ways and activity zones. Lighting shall facilitate safe movement in a secure setting and create a warm and lively visual quality. The objectives outlined below should be achieved for streetscape projects.

1. Illuminate "ways" and "places". "Ways" imply movement and lighting that provides "guide-on" illumination. "Places" are points of special illumination as designated usually by increased intensity and/or expressive lighting patterns.
2. Mark the points of decision. Intersections, crossings, bus stops, steps, arrival points and other special features should be illuminated in a manner that signals their presence, shape, and nature.
3. Differentiate between roadway (vehicular) and walkway (pedestrian) lighting.
4. Provide adequate lighting at pedestrian crossings.
5. Eliminate all sources of glare.
6. Establish consistent lighting hardware and levels of illumination in public areas. Safe and comfortable circulation depends more on the consistency of illumination than on the level/brightness of the lighting.
7. Highlight the more attractive and important structures and site features such as buildings, specimen trees, fountains or the caboose.
8. Couple site lighting with informational and directional signs.
9. Borrow light from adjacent areas and buildings. For example, where
sidewalks are narrow with no space for light poles, light fixtures may be attached to adjacent buildings.

10. Use standard poles, luminaries, and accessories in all public spaces and require the use of compatible designs in private developments.

In ALL downtown streetscapes, the standard streetlight is the HADCO Acorn fixture with WHATLEY pole or approved equal. See Details 2.20 and 2.21 for further streetlight specifications.

Where space is limited, to minimize obstructions to pedestrians, illuminating the sidewalk may be achieving using wall-mounted Acorn lights. At intersections, lights should be added to traffic signal poles to reduce the total number of poles. For both wall-mounted and traffic signals, the fixture may be mounted using decorative arms per Detail 2.24.

Light poles may be fitted with brackets for the placement of vertical banners. Brackets may also be installed to hang flower baskets. To reduce public sign posts, some traffic signs may be installed on light poles however no more than one public sign shall be placed on each pole.

Off-Street Lighting

To supplement standard streetlights, accent lighting should be considered along pedestrian-only access ways, public plazas, or within privately maintained streetscape areas. These types of lighting solutions should be encouraged and evaluated individually.

In private and public parking areas within the downtown, the standard light is the Promenade PRM2 model by Architectural Area Lighting. The fixture shall be attached to the pole by a TRA5D Period Pole Mount Arm from Architectural Area Lighting. Depending on the level of lighting desired, each pole can have up to two fixtures. The standard poles are the Washington AP20 or AP28 models from Shakespeare Composite Structures. For additional parking light standards, see Details 2.22 and 2.23 on page 27.

Luminaire Specifications: HADCO Acorn R34 Wide Refractive Globe. Standard street size: 16 in. diameter, clear acrylic diffuser
- Housing: Tapered Fluted Fitter with Scalloped Petals
- Roof(lens): Victorian style
- Reflection: Full Top Reflector to control uplight
- Optical: High Pressure Sodium, LED, watts vary
- Finish: black
- No finials, no cases or bands

Pole Specifications: WHATLEY Xtreme Fluted XS Series. Fluted, tapered, with a 3” OD and 3.5” high tenon to accept the light fixture. 14’ mounting height. Composite fiberglass.
- Base: Whatley fiberglass base XF45-D3M.
- Surface Finish: Elastomeric urethane finish coat in black for pole and base. The pole shall be abrasion resistant and must not craze or crack when the pole sways.
- Safety: The pole shall be non-conductive and flame resistant in accordance with ASTM D635. Pole shall be direct embedded into concrete footer.


Detail 2.20 Streetlight Specifications
### Alternative Pole

**PHILIPS HADC0**

- **Standard Pole**

**PHILIPS HADC0**

**Standard Light Fixture**

**PHILIPS HADC0**

**Alternative Pole**

**PHILIPS HADC0**

**Pole:** AP20 Washington Pole by Shakespeare Composite Structures (SCS) for 9.5, 12, or 14.5 foot poles. AP28 Washington Pole by SCS for 20-30 foot poles. See Table 2.1 for pole height standards. Fiberglass reinforced composite poles shall be fluted, tapered, with a semi-gloss black finish.

**Fixture:** Promenade PRM2 by Architectural Area Lighting (AAL). Horizontal lamp with a full cut off flat glass lens. Cast aluminum housing with black polyester powder coat finish. Welded to cast arm for mounting.

**Arm:** TRA5D by AAL. Unitized aluminum body with black finish.

**Optical:** High Pressure Sodium, watts vary

**Shroud/base:** Washington model by AAL. 20” shroud for AP20 and 28” shroud for AP28. Black finish.

**Support:** Anchor Base or Direct

Website: [http://www.aal.net/fixture](http://www.aal.net/fixture)

Website: [http://www.aal.net/arm](http://www.aal.net/arm)

Website: [http://www.hadco.com/Herndon](http://www.hadco.com/Herndon)

Website: [http://www.whatley.com/Herndon](http://www.whatley.com/Herndon)
Traffic Signal Lights

To minimize poles within the streetscape, street lights should be added to signal poles whenever possible. The luminaires installed on the standard Union Metal decorative traffic signal poles shall be the HADCO R34 Victorian Acorn model to match the street lights and mounted using the HADCO model #PTH2410 Single or model #PTH2420 Twin post top mounted arms to match the standard arms used on parking lot lights.
7. TRAFFIC SIGNALS

In the downtown streetscape, traffic poles shall match the design of the street lights and include aluminum fluted poles, decorative bases and finials, and mast arms all with a black finish. The Union Metal Nostalgia Series Antique Signal Pole or approved equal is the standard. See Detail 2.28 on following page. To reduce the number of poles at intersections, lights may be affixed to traffic signal poles. See Detail 2.24 for specifications on signal mounted lights.

At signalized intersections downtown, pedestrian signals should be provided. The standard pedestrian signal assembly is the PELCO Modular Station model # SE-2135 with a pushbutton, direction arrow, and mount for the pedestrian signal sign. See Detail 2.25. The signal counter standard is the CD Series LED 16” by LeoTek. See Detail 2.26. Sign standard...

For accessible pedestrian signals (APS), the EZ Communicator Navigator Model by Polara Engineering or approved equal is the standard. This is an ADA-compliant pedestrian signal station with vibration, tactile, and audio indicators fully integrated into a single unit. The unit housing shall be black. See Detail 2.27.

Websites: http://www.leotek.com/counter
http://www.pelcoinc.com/pedsignal
http://www.polara.com/navigator
Website: http://www.unionmetal.com/trafficsignalHERNDON

Detail 2.28 Traffic Signal Pole Specification
8. OTHER STREETSCAPE FEATURES

Other structural elements such as stairs or walls may be integrated into the downtown streetscape. These types of features should be designed and built in a manner that is compatible with the streetscape. Vertical surfaces shall be faced with clay brick veneer that matches the standard streetscape clay pavers in color, texture, and general appearance. Variation in vertical surface treatment may be considered when a focal point is desired. **Details 2.29, 2.30 and 2.31** preset construction details for stairs and retaining walls within or adjacent to the downtown streetscape.

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**Detail 2.29 Stairway Cross Section**

**Detail 2.30 Stairway Longitudinal Section**

**Detail 2.31 Retaining Wall Cap Section**
9. LANDSCAPING

Street Trees

All downtown streetscapes shall have street trees unless space or other environmental limitations prevent effective growth of trees. Street trees should be placed in a consistent pattern on both sides of the road though reasonable variation in spacing is acceptable given obstacles such as storm drains, curb cuts, or insufficient building setback. When possible, trees should be placed 25-40’ on-center. Clear zone regulations permit trees adjacent to parking lanes to be placed a minimum of 18” to the face of curb. With no on-street parking the clear zone required is 3’ to face of curb.

Canopy shade trees shall be used unless existing and anticipated future conditions present physical limitations to the growing space. Streetscape areas with overhead utility lines or underground storm sewer infrastructure, for example, may not accommodate large canopy trees. In these instances only, small ornamental trees shall be considered. Trees should be located in a manner that avoids obstruction of wall signs when possible. Native species shall be used for all street trees. The same tree species shall be planted on each side of the street for each block. Species should not alternate within the block. Approval by the Community Forester on the exact species of tree to be planted is required.

In the COMMERCIAL downtown streetscape, street trees shall be planted in soil pits that are covered by tree grates. Canopy trees shall use a Model #R-8817 grate by Neenah Foundry. Ornamental trees shall use Neenah grate Model #R-8809. These grates are heel proof and ADA-compliant. They shall be placed at the back of curb. Specifications for tree grates are included in Detail 2.32. Tree pits shall be constructed to the specifications presented in Detail 2.33. When water service is available the tree wells shall be irrigated.

For street trees to grow into canopy trees, roots must be provided space to grow. Tree wells under the standard grates do not provide enough room for root growth. Uncompacted soil should extend beyond the tree wells under the pavers and concrete streetscape. Structural soils or reinforced sidewalks can be used to retain uncompacted soil underneath. In areas where this design is not feasible, root paths or tunnels shall be used. At least two root paths per tree grate are required. If impervious surface is nearby, the paths should be laid to direct roots towards those areas. Root paths can also be between each grate. Specifications for root paths are shown in Detail 2.34.
Detail 2.33 Tree Pit Section Detail

Detail 2.34 Root Path Detail
Planters

To add color and visual interest to the streetscape, owners of businesses and properties abutting roads in the downtown are urged to use movable planters within the streetscape immediately adjacent to their respective businesses or properties. These planters may be placed within the public right-of-way; maintenance however will be the responsibility of the business or property owner. Annual or perennial flowers, groundcovers, grasses, or small shrubs may be planted. Planters may be placed against a building or arranged to define specific use areas like outdoor seating, small plazas, or other focal spaces within or abutting the streetscape.

The standard planters are from the Spencer Series by Petersen Manufacturing Company, Inc. including both the rectangular planter (model #SPCP63) and the square planter (model #SPCP31), or approved equals. The design and size of movable planters may vary from the standard; however non-standard planters require individual evaluation and approval. The specifications for planters are listed in Detail 2.36.

An alternative standard for movable planters is the round fiberglass Terrace model from Victor Stanley. See Detail 2.35. These planters are available in two different sizes. The round planters may be placed individually or arranged in groups at streetscape focal point where space allows.

Manufacturer:
Petersen Manufacturing Company, Inc.

Model & Options:
- Spencer Series model #SPCP31 and #SPCP63
- powder-coated Bike Black
- surface-mount option available

Website: [http://www.petersenmfg.com/planters1](http://www.petersenmfg.com/planters1)

Detail 2.36 Standard Planter Specifications

Manufacturer:
Victor Stanley

Model & Options:
- Terrace Series, Round Fiberglass,
  Models 3526R and 3025R
- matte finish in Mushroom

Website: [http://www.victorstanley.com/terraceplanter/Herndon](http://www.victorstanley.com/terraceplanter/Herndon)

Detail 2.35 Alternative Planter Specifications
On-Street Bio-Retention Landscaping

In areas where the optional streetscape treatment involving bio-retention is used, the standard street tree pit covered by a tree grate arrangement shall be replaced by the bio-retention facility. For detailed standards on these types of facilities, see Section 10 on page 35. Each bio-retention facility should have a canopy tree where space allows, aligned and spaced similar to the other downtown streetscapes. Where conditions constrain tree growing space, Grey Dogwood, Fringe Tree, or Redbud are the small ornamental tree options. The table below lists the shrubs and perennials that may be planted within the on-street stormwater planters. The Community Forester may approve additional plants not listed.

<table>
<thead>
<tr>
<th>Perennials/Herbaceous</th>
<th>Shrubs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia Wild Rye (Elymus virginicus)</td>
<td>Common Winterberry (Ilex verticillata)</td>
</tr>
<tr>
<td>Redtop Grass (Agrostis alba)</td>
<td>Inkberry (Ilex glabra)</td>
</tr>
<tr>
<td>Swamp Milkweed (Asclepias incarnata)</td>
<td>Sweet Pepperbush (Clethra alnifolia)</td>
</tr>
<tr>
<td>Switchgrass (Panicum virgatum)</td>
<td>Wax Myrtle (Myrica cerifera)</td>
</tr>
<tr>
<td>Cardinal Flower (Lobelia cardinalis)</td>
<td>Virginia Sweetspire (Itea virginica)</td>
</tr>
<tr>
<td>Common Three Square (Scirpus americanus)</td>
<td>Swamp Azeala (Azeala viscosum)</td>
</tr>
<tr>
<td>Sensitive Fern (Onoclea sensibilis)</td>
<td>Button Bush (Cephalanthus occidentalis)</td>
</tr>
<tr>
<td>Blue Flag (Iris versicolor)</td>
<td>Black Haw (Virburnum prunifolium)</td>
</tr>
<tr>
<td>Woolgrass (Scirpus cyperinus)</td>
<td>Indigo Bush (Amorpha fruticosa)</td>
</tr>
<tr>
<td>Indian Grass (Sorghastrum nutans)</td>
<td>Arrowwood (Virburnum dentatum)</td>
</tr>
<tr>
<td>Marsh Marigold (Caltha palustris)</td>
<td></td>
</tr>
<tr>
<td>Joe Pye Weed (Eupatorium purpureum)</td>
<td></td>
</tr>
<tr>
<td>Turk’s cap lily (Lilium superbum)</td>
<td></td>
</tr>
<tr>
<td>Bee Balm (Monarda didyma)</td>
<td></td>
</tr>
<tr>
<td>Northern Sea Oats (Chasmanthium latifolium)</td>
<td></td>
</tr>
</tbody>
</table>

Other Landscaping

Special landscaped areas at focal points within the public streetscape or within private areas adjacent to the public ROW may use a variety of native plant materials and plant arrangements. These areas shall receive site-specific evaluation and may include specialized streetscape amenities.

On streetlights owned by the Town of Herndon, pole-mounted flower baskets may be installed. If used on the Whatley fiberglass pole, each flower basket cannot exceed 100lbs in total weight. Clamshell style baskets shall be used, no more than one per pole. **Detail 2.37** describes the specifications for the pole-mounted flower baskets.

**Manufacturer:**
Kinsman Company, Inc.

**Model & Options:**
- Item #KCLP25, 25" Lamppost
  - Hayrack-Euro Classic
  - Black powder coat

**Detail 2.37 Hanging Basket Specifications**

10. **STORMWATER BIO-RETENTION**

Bio-retention tree pits...

Pervious pavement/sidewalks...
11. STREETSCAPE AMENITIES

LITTER & RECYCLING RECEPTACLES

Trash receptacles should be consistently available along the COMMERCIAL downtown streetscape. In strategic areas in the downtown, trash receptacles shall be paired with recycling receptacles. The standard trash container is the 36-gallon, Rectangular Receptacle from OCCOutdoors Inc. in black. Specifications are provided in Detail 2.38. This receptacle shall be used as the standard recycling receptacle as well but will be blue and have a different lid. See Detail 2.39.

Private individuals, businesses, or organizations can sponsor a recycling receptacle in partnership with the Town of Herndon. Sponsors are identified by plaques installed on the side of the recycling containers. For more information on sponsorship opportunities for streetscape amenities, see Chapter 1, page 12.

Manufacturer:
OCCOutdoors, Inc.

Model & Options:
- Steel Rectangular Receptacle
- Black powder coat
- Flat Top Lid with Full Rain Guard

Website: http://www.occoutdoors.com/TrashReceptacle/Herndon

Detail 2.38 Standard Trash Receptacle Specifications
**Manufacturer:**
OCCOutdoors, Inc.

**Model & Options:**
- Steel Rectangular Receptacle
- Blue powder coat
- Cans and Bottles Recycle Lid with Full Rain Guard
- Recycle Decal on Lid

**Website:** [http://www.occoutdoors.com/TrashReceptacle/Herndon](http://www.occoutdoors.com/TrashReceptacle/Herndon)

**Detail 2.39 Standard Recycling Receptacle Specifications**

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**Manufacturer:**
Victor Stanley, Inc.

**Model & Options:**
- CBF-10 Classic Series
- powder-coated
- 6’ length
- anchor to concrete base per manufacturer’s specifications

**Website:** [http://www.victorstanley.com/bench](http://www.victorstanley.com/bench)

**Detail 2.40 Downtown Bench Specifications**

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**BENCHED**

The standard bench in the downtown streetscape is the Victor Stanley C-10 with iron slats and a black powder-coating. See **Detail 2.40**. Benches should be placed at focal points, bus stops, and other gathering places.

Donations can be made to the town for the purchase of a bench to be specifically used as a memorial. Additional information can be provided by the Community Development.

**BICYCLE RACKS**

The standard bike rack in the downtown streetscape is the Bike Post Bicycle Rack-Model BP manufactured by Creative Pipe, Inc. or approved equal. These racks can accommodate up to two bicycles although where space allows, multiple rack installations are permitted. Racks should have a 2’ by 6’ clear zone on either side for bicycle parking. A minimum 6’ unobstructed
passing lane should be maintained outside this bicycle parking area. Additional bike rack standards are included in the Criteria for Locating and Using Bicycle Parking Racks in Chapter IV on page 70.

**Detail 2.41 Downtown Bicycle Rack Specifications**

- Bike Post Rack-Model BP
- polyester powder-coat black
- flanged surface mount with concrete anchors
- post: 1.9” OD, 39” height

**Placement:**
- within streetscape; install parallel to road between 2’ to 3’ from the back of curb and at least 8’ from edge of streetscape
- within public plazas, parking areas, or other public off-street spaces; may be installed in groups, parallel to each other, at least 4’ apart

**Website:** [http://www.creativepipe.com/rack1](http://www.creativepipe.com/rack1)

With a major regional trail bisecting the downtown, there may be the necessity to provide bicycle racks with higher capacities. Racks that can accommodate more than two bikes should be considered within the W&OD Regional Trail NVRPA property and in other public and private areas near the trail. High capacity bike racks should also be considered outside businesses and civic institutions that serve the community, where space allows. The town-wide standard for high capacity bike racks is the Campus Rack manufactured by Peak Racks. Specifications for this model and standards on the use and placement of these larger bike racks are provided in Chapter IV on page 71.

Private individuals or groups may sponsor high capacity bike racks. Sponsorships are identified by plaques installed directly on the rack. For more information on sponsorships, refer to Chapter I, page 11.

Bicycle rack spacing requirements are shown in **Detail 2.42** below.

**BOLLARDS**

The Victorian Model #M9002 manufactured by Ironsmith or approved equal is the standard bollard. Bollards may be imbedded in concrete for permanent installations or be equipped with a lock tab for removable
applications. These bollards may be manufactured with rings for chain barriers. Detail 2.43 provides more information.

**Manufacturer:**
Ironsmith, Inc.

**Model and Options:**
- Victorian M9022
- Cast Aluminum
- black polyurethane finish
- 48” tall

Website: [http://www.ironsmith.cc/BOLLARD](http://www.ironsmith.cc/BOLLARD)

Detail 2.43 *Downtown Bollard Specifications*

**CLOCKS**

There is opportunity downtown for the installation of clocks within the streetscape and in public or private plazas or other publically-accessible gathering areas. The standard clock is the Street Danbury Model by Canterbury International. See Details 2.44 for specifications. Private individuals or groups may sponsor a clock. Sponsorships are identified by plaques installed directly on a base panel of the clock post. For more information on sponsorships, refer to Chapter I, page 12.

**Manufacturer:**
Canterbury Designs, Inc.

**Model and Options:**
- Danbury Post Clock w/ Solid Top Ornament, double-sided
- cast aluminum
- black paint finish
- Heritage Style dial, back-lit
- relief of Town of Herndon motif on top ornament
- Renaissance Style bezel
- 12’ high with 24” dial
- chimes are non-standard

**Placement:**
- within the streetscape, clock shall be oriented perpendicular from the road in a highly visible area with minimal obstruction from trees, light poles, signs, or awnings. Location shall not obstruct pedestrian passage; a minimum of 5’ of clearance is required around the clock base.
- in open plaza areas, the cloak should be centrally located

Website: [http://www.canterburyintl.com/CLOCK](http://www.canterburyintl.com/CLOCK)

Detail 2.44 *Downtown Clock Specifications*
DRINKING FOUNTAIN

The standard drinking fountain within the downtown is the #M-C76B Bi-Level Bowl Classic Style model manufactured by Murdock. This model offers two fountain stations, one of which is wheelchair accessible. An alternative drinking fountain is model #M-C76A by Murdock which only offers the wheelchair accessible fountain bowl. At least one drinking fountain should be provided in the downtown. It should be centrally located, highly visible, and have proximity to the W&OD Regional Trail. The fountain shall be installed on a hardscape surface with less than a 2% slope in any direction. To accommodate wheelchairs, the side of the fountain with the accessible bowl shall be oriented adjacent to a minimum 5’ wide paved path with connectivity to the trail or streetscape. The drinking fountain shall not be located any closer than 2’ from the face of curb and shall not any obstruction to pedestrian mobility and ADA-compliant accessibility. Detail 2.45 provides the specifications on the standard drinking fountain. Fountain dimensions are shown in Detail 2.46.

Manufacturer:
Murdock Manufacturing, Inc.

Model and Options:
- #M-C76B Bi-Level Bowl Classic Style
- cast iron with cast brass bowls
- Self-closing pushbutton activation
- Gloss, black enamel finish
- freeze-resistant valve option (FRU2)*

*see Detail 2.46 for valve installation specifications

Website: http://www.murdockmfg.com/DFOUNTAIN

Detail 2.45 Downtown Fountain Specifications
FENCING/RAILING –

Areas that require railings or fencing the standard in Detail 2.47 should be used. Exact specifications may change depending on code requirements and function of the fencing/railing.

Specifications:
- Steel with a black satin finish
- 1.25” sq posts, .5” sq. pickets, 1.25” channel bottom rail, 1.75” wide decorative top rail (see photo)
- Posts 5’ OC, PICKETS 4.5” OC
- Bottom rail maximum 4” above s
- 8” minimum depth of posts in cor
- Height varies

BUS FACILITIES

Shelters

Several public bus routes are located within the downtown. Where space allows, bus shelters should be used. The standard shelter at bus stops is the Southampton model, #AL10/02+HRsp, by Columbia Equipment Company Inc. or approved equal. Shelter widths vary depending on the size of the bus stop and the level of usage. Benches shall be provided within the shelter and affixed half the length of the back wall. Internal lighting shall not be used. Instead, shelters should be paired with Acorn street lights to provide adequate illumination and security.

Within the COMMERCIAL and TRANSITIONAL downtown streetscape, shelters shall be installed over the clay paver surface. Concrete pads shall be used for shelters within the RESIDENTIAL downtown streetscape. No bus shelters shall be located in an area that creates obstruction to safe and accessible passage by pedestrians. Signs shall not be placed on the shelters walls.

Private individuals or groups may sponsor bus shelters. Sponsorships are identified by plaques installed directly on a side panel of the shelter. For more information on sponsorships, refer to Chapter I, page 11.

Bus shelter specifications are included in Detail 2.48 and Detail 2.49.

Bus Stops

Whether or not bus stops include a shelter, sufficient lighting from Acorn street lights should be provided. This may require additional an additional pole placed outside the standard street light zone. Detectable warning surfaces (truncated domes) shall be installed on the platform at the back of curb.

Manufacturer:
Columbia Equipment Company, Inc.

Model and Options:
- #AL10/02+HRsp, Southampton
- black finish
- decorative braces at corner posts
- minimum eave of 1.5’
- no internal lighting
- interior wood bench attached to back wall, not to exceed half the length of shelter, to accommodate wheelchairs
- clear glass panels with colonial style grilles
- one or two glass panel depth
- at least four glass panel width (approximately 13’ long); wider, six-panel shelter appropriate at busy bus stops

Website: http://www.columbiaequipment.com/BUS_SHELTER

Detail 2.48 Bus Shelter Specifications
Detail 2.49 Bus Shelter Specifications

Note: This shelter features a 3" Framing System and a double set of roof beams. Windows are set back behind grillwork that is flush with outside of wall framing. Optional bench, not shown.
OUTDOOR SEATING

In certain areas within the streetscape but mostly in public spaces off the street such as the Town Green and Town Hall Square, there are opportunities for picnic tables with built-in seating and umbrellas and also separate portable chairs. The standard for tables is outlined in Detail 2.50. **Detail 2.51** shows the specifications for portable chairs.

**Manufacturer:**
Ultrasite, Inc.

**Models and Options:**
- #P358-OP; 46” Octagonal Table, Perforated, 4 Seats
- #P358H-OP, Octagonal Table, Perforated, 3 Seats
- Powder Coated Frame, Black

**Umbrella (from Umbrella Source):**
- Item #USYG6S3; 7.5’ Commercial Logo Market Umbrella
- Single Canopy Fabric, Sunbrella Awning Color Red (4666-0000)
- Aluminum Pole, Black Finish
- White Herndon Brand applied on two panes

**Umbrella Stand:**
- Item #US-PGENF; 50lb. Concrete Umbrella Stand, Black Finish

**Detail 2.50 Downtown Picnic Table Specifications**

OTHER AMENITIES

The Town supports the installation of other streetscape amenities that currently are not specifically covered in these guidelines. Features within the streetscape that do not have set standards shall be evaluated individually. In some instances, staff may determine that inclusion of standards for a specific feature, not specifically addressed in the streetscape guidelines, should be added to this document.

Downtown Herndon would benefit from the following streetscape amenities not otherwise included within the streetscape guidelines:

- Bicycle work station
- Information kiosk
- Trail shelter and/or covered bicycle parking
- Water jug/bottle filler

Additionally, the Town encourages public art within the streetscape and other public spaces abutting the streetscape to add color and visual interest and create a unique sense of place within the public right-of-way. The Department of Community Development with approval by the Town Manager’s Office and in consultation with Herndon’s arts community, reviews any proposals for artwork on an individual basis.

Lastly, local historic markers offer another specialized feature within the downtown streetscape. This program, managed by the Department of Community Development, has specific guidelines and standards for the placement and design of historic markers.

12. SIGNS

**Public Signs**

The amount of public sign poles should be limited to the greatest extent practical. Traffic signs shall be consolidated onto single poles where possible and signage should be affixed to street light and traffic poles when feasible. When separate posts are necessary for traffic signage downtown, the posts shall be painted black.
In the downtown streetscape, blue streets signs shall be used instead of the standard green. Within the historic district limits, a street name topper identifying the area as the Herndon Historic District may be used. Specs on topper...

Town-sponsored wayfinding signs are located within the streetscape. These signs function to direct people to certain destinations downtown. Wayfinding signs are anchored into the concrete in highly visible areas that do not pose any obstruction to safe and accessible pedestrian passage. Refer to the Wayfinding Sign Program, as managed by the Department of Community Development for additional information on sign design and placement.

Seasonal banners may be installed on street light poles throughout the downtown streetscape. This program is managed by the Department of Public Information. Detail 2.52 includes the specifications for the banners downtown.

**Private Signs**

In the downtown, businesses are permitted to place A-frame signs within the streetscape with approval. Section 78-508.6 of the Herndon Zoning Ordinance lists the standards for A-frame signs.

Signs attached to or applied on buildings such as awning signs or projecting signs, may be placed over the public streetscape. These signs must comply with the regulations of the Herndon sign ordinances.
CHAPTER 3
HTOC Streetscape Guidelines
III. HERNDON TRANSIT-ORIENTED CORE STREETSCAPE

A. Design Concept

Within Herndon's metro station area, potential high density redevelopment provides an opportunity for an urban landscape with a greater emphasis on walkability. In this area, streetscapes should have a robust design to accommodate, encourage, and invite activity at the street level. Creative and environmentally-conscience solutions should be sought when designing the public and private components of the pedestrian network within the metro area. Streetscape guidelines for this area may contain certain features that correspond to streetscapes elsewhere within the Town, however a public realm visually apart from the areas outside the HTOC is preferred.

Design of the various streetscapes within the Herndon Transit-Oriented Core is regulated by the Urban Design and Architectural Guidelines. The Urban Design Principles for transportation connections, the Architectural Guidelines for exterior amenity zones, and the Sustainability Section of this document each include direction on the design and standards to follow for both public and private streetscape areas. Though not yet developed, Section D will include Landscaping Guidelines which will provide additional HTOC streetscape policy. Upon adoption of the Landscaping Guidelines, all of the streetscape-related content from the HTOC Urban Design and Architectural Guidelines, will be translated into consolidated standards supplemented by material and construction specifications and included within this chapter of the Herndon streetscape guidelines.

Detail 3.1 Private drive rendering
Taken from HTOC Urban Design and Architectural Guidelines

Detail 3.2 Herndon Parkway rendering
Taken from HTOC Urban Design and Architectural Guidelines
CHAPTER 4
Standard Streetscape Guidelines
IV. STANDARD STREETSCAPE

A. Design Concept

Streets outside the Downtown Herndon and HTOC overlay districts, and streets not designated Gateways or Green Streets shall have the standard streetscape design as provided for in this chapter. The standard streetscape design as its name suggests is mostly void of any specialized treatments or amenities that would otherwise be used in certain areas of town. The two standard streetscape types, commercial and residential, may have variations depending on whether a sidewalk also serves as an Intermodal Trail or a Regional Trail. Given new policies to separate bicycle facilities from pedestrian facilities; these variations are no longer recommended although should be maintained where existing.

B. Standard Streetscape Design

Detail 4.1 shows the dimensional standards for the standard commercial streetscapes (Type SC1 and SC2). Detail 4.2 shows the standard residential streetscapes (SR1 and SR2). These street sections are largely regulated by ADA standards and TOH buffer requirements specified in zoning ordinance Sec 78-503.4(b). Per the buffer regulations, required street trees placed 35’ apart may be placed within the required 10’ buffer on private property or within utility strips that are at least 5’. For streetscape Type SR1, the buffer requirement is waived.

C. Standard Streetscape Elements

1. SIDEWALKS

Sidewalks are required by Section 70-202(c) of the Subdivision Ordinance and Section 78-501.3(2)(b) of the Zoning Ordinance and shall be provided on both sides of every street, including private streets. In accordance with Section 1-16 (a)(2)a. of the Herndon Public Facilities Manual, sidewalks should be on both sides of new public streets, regardless of street width, projected traffic volumes, or type of subdivision.

The Zoning Administrator may grant a waiver for sidewalk on only one side of new streets where environmental or topographic features make provision of a sidewalk on both sides of the street impractical.

Sidewalks shall be designed and constructed in accordance with the standards of VDOT, the Americans with Disabilities Act Accessibility guidelines and the Virginia Uniform Statewide Building Code.

Sidewalks shall be a **minimum of five feet in width**. The passage along or within a sidewalk shall be clear of obstructions underfoot, overhead, or in between. The Zoning Administrator may approve sidewalks of less than five feet in width, but not less than three feet in width, where environmental or topographic features make a continuous sidewalk of five feet in width impractical.
Standard Commercial Streetscape

**TYPE SC-1**

**Detail 4.1**

- 10’ buffer on private property
- Street tree every 35’
- 2’ min. 5’ sidewalk
- 2’

**total width 17’-20’**

---

Standard Commercial Streetscape

**TYPE SC-2**

- 10’ buffer on private property
- min. 5’ sidewalk
- 5’ utility strip
- tree every 35’

**total width 20’**
Standard Residential Streetscape

**TYPE SR-1**

**Detail 4.2**

---

Standard Residential Streetscape

**TYPE SR-2**

---

Guidelines for the Planning and Design of Town Streetscape Projects
Town of Herndon, Virginia
May 1, 2015
New sidewalks less than five feet wide must provide a pedestrian passing area, minimum 60"x 60" at reasonable intervals not to exceed 200 feet. These passing areas can be provided at entrances or street intersections.

Sidewalks shall be located to allow for a vegetated utility strip of a minimum of two feet in width between the sidewalk and back of curb or edge of pavement when no curb is present. If trees are planted in the utility strip, the minimum distance between the sidewalk and back of curb/edge of pavement is 5’.

Sidewalk under-drains are required when warranted. When the street section has been rough graded and CBR tests are made for street pavement design, sieve and PI analysis will be included with the CBR tests. If these tests indicate that under drains are required, additional classification tests will be made of the sidewalk sub grade to determine if sidewalk under drains are required. These tests will be made at all changes of sub grade materials and not more than 500’ apart. Based on these tests, plan revisions showing under drains will then be prepared by the design consultant and submitted to the Director of Public Works for review and approval. This revision will include a section of UD-3 under drain.

A minimum of 4” of VDOT21-A, or equivalent stone, shall be placed and compacted on a stable sub grade prior to pouring the concrete.

Sidewalks shall not be less than 4 inches thick, except when used in conjunction with mountable curb, in which case the thickness shall be 7 inches.

Some older streets in town especially residential streets within the historic district have ditches in lieu of curb, gutter, storm sewer. Sidewalks along ditch section streets:

- shall be constructed in accordance with VDOT specifications for asphalt concrete sidewalk, on a compacted sub grade, and include under-drains in accordance with the VDOT’s Standard UD-3.

- shall be placed behind the ditch in a manner that will be compatible with the roadway if the roadway is converted to a curb and gutter section. (Note: Placement of sidewalk within the shoulder area is not permitted.)

2. CURB RAMPS

Crosswalks shall be accessible with ADA compliant ramps in all directions to the greatest extent possible. Utilize CG-12, Type A whenever possible, and C-12, Type B when space is constrained. The type of ramp and exact ramp design is evaluated individually and depends on site constraints. Regardless of ramp type, a minimum 4’ x 4’ clear space outside active travel lanes of the roadway must be available at the base of the ramp. A Type A ramp must also have a minimum 4’ x 4’ landing at the top of the ramp.

All ramps shall have detectable warning surfaces demarcating passage from the sidewalk to the street. Truncated domes shall be used as the standard detectable warning surface. On sidewalks using conventional concrete, the detectable warning surface shall be “colonial red,” Federal No. 20109 or similar. The standard product used is the Armor-Tile cast–in-place unit or approved equal. As an alternative for retrofitting existing ramps, the surface-applied truncated dome systems in the same colors from Armor-Tile may be used.

For appropriate accessibility for pedestrians with disabilities new ramps shall align with the direction of the crosswalk. In cases when site conditions do not allow this alignment the truncated domes pad shall be rotated in the ramp to align with the crosswalk.

Curb ramps should follow the Pedestrian Facility Guidelines curb ramp objectives from the VDOT Road Design Manual:

- Provide a curb ramp design and placement that is usable by persons with disabilities.
Provide design and placement alternatives for a range of sidewalk and street conditions

- Provide minimal negative impact to all pedestrians
- Place curb ramps in uniform and consistent locations

Per **Detail 2.19 in Chapter 2 on page 24** which shows curb ramp dimensional standards, ramp slope shall not exceed 12:1. Ramp flanges cannot exceed 12:1 and the gutter pan adjoining the ramp cannot exceed a 20:1 slope. Obstructions, such as signs, lights, or cabinets shall not be placed with 4' of ramps, ramp flares, and ramp landings.

### 3. CROSSWALKS

Marked **crosswalks should be provided at all controlled intersections** and all controlled intersections should accommodate a pedestrian access route connecting to other pedestrian areas, elements and facilities. The Town is engaged in an effort to add pedestrian signals whenever possible to intersections that are otherwise controlled by a traffic signal.

Marked **crosswalks may also be appropriate at uncontrolled intersections and mid-block**, per the VDOT **Guidelines for the Installation of Marker Crosswalks**:

- when a pedestrian generator like a school or shopping center is nearby;
- when another crossing is not with 300’, and;
- when the crosswalk is visible from a distance 10x the speed limit.
- These guidelines offer a matrix that sets criteria for installing a marked crossing at uncontrolled locations. See the “Recommendations for Considering Marked Crosswalks and Other Needed Pedestrian Improvements at Uncontrolled Locations” below.

All crosswalks must have **ramps** for persons with mobility impairment designed to standards included in the Sidewalks section above. The curb ramp should be aligned with the crosswalk so there is a straight path of travel from the top of the ramp to the curb ramp on the other side.

Crosswalks should be designed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD). In Herndon, transverse lines may be used along with longitudinal lines to demarcate a crosswalk however transverse lines shall not be used singly. Under this standard, the **ladder or continental crosswalks designs**
shall be used, per Detail 4.3. According to the FHWA Designing Sidewalks and Trails for Access Best Practices Design Guide, these designs are visible to drivers and research indicates that it is the most visible to drivers and improves crosswalk detection for people with low vision and cognitive impairments.

Crosswalks should be provided across commercial entrances with any new development or any site plan revisions for existing development.

Crosswalks shall be no less than 6’ wide and whenever possible oriented 90° from the curb line. Detail 4.4 presents VDOT recommended criteria for considering marked crosswalks at uncontrolled locations.

<table>
<thead>
<tr>
<th>Density (ADT)</th>
<th>Width (m)</th>
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<tr>
<td>≤ 9,000 ADT</td>
<td>&lt; 3.0</td>
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<tr>
<td>&gt; 9,000 ADT</td>
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<tr>
<td>&gt; 15,000 ADT</td>
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Candidate sites for marked crosswalks. Marked crosswalks must be installed carefully and selectively. First, an engineering study is needed to determine whether the location suitability for a marked crosswalk. For an engineering study, a site review may be sufficient at some locations, but a more in-depth study of pedestrian volume, vehicle speed, sight distance, vehicle mix, etc., may be needed at other sites. If the speed is less than or equal to 30 mph, use Level 1 or Level 2 devices. If the speed limit exceeds 30 mph, use Level 2 devices. Refer to Level 1 and Level 2 devices in the Special Treatments section.

Probable candidate sites for marked crosswalks. Pedestrian crash risk may increase marked crosswalks are added without other pedestrian facility enhancements. Add Level 3 or Level 4 devices if feasible. Refer to Level 3 and Level 4 devices in the Special Treatments section.

Marked crosswalks alone are insufficient, since pedestrian crash risk may increase if only marked crosswalks are provided. Consider using Level 5 devices if feasible. Refer to Level 5 devices in the Special Treatments section.

Criteria when Considering Marked Crosswalks at Uncontrolled Areas

4. LIGHTING

Standards for roadway lighting are provided in the Town of Herndon Public Facilities Manual (Fairfax County Public Facilities Manual, Section 7-1000.)

There are two standard lighting fixture styles and poles available for use in Herndon outside of the downtown area, HTOC, AND Gateways. The PFM provides detailed criteria for the use of each style and illumination standards. In general, the cobrahead (RF-1 and RF-2) is used on major roadways and non-residential areas. On streets in residential areas, the preferred luminaire is the Colonial (RF-3).

Detail 4.5 and Detail 4.6 on the following page provides specifications of both standard street light fixtures taken from the Fairfax County Public Facilities Manual.

According to the Town’s PFM, on curb sections, poles with cobrahead fixtures shall be placed behind the curb and preferably behind the sidewalk. Poles with colonial fixtures may be placed between the sidewalk and the curb. All lighting proposed within the rights of way must be designed in accordance with the AASHTO guide for Roadway Lighting and shall meet the current Illuminating Engineering Society of North America (IESNA) Standards. A number of considerations should be included in planning any site-specific or town-wide street lighting system:

- Illuminate "ways" and "places". "Ways" imply movement and lighting that provides "guide-on" illumination. "Places" are points of special illumination as designated usually by increased intensity and/or expressive lighting patterns. Mark the points of decision. Intersections, crossings, bus stops, steps, arrival points and other special features should be illuminated in a manner that signals their presence, shape, and nature.
- Differentiate between roadway (vehicular) and walkway (pedestrian) lighting.
- Provide adequate lighting at pedestrian crossings.
- Eliminate all sources of glare.
If streetlights are placed within the utility strip, wiring must be located within a conduit. Other streetlight installations are also encouraged to use a conduit for wiring. Conduits shall be installed at 48” deep and below the storm sewer.
5. TRAFFIC SIGNALS

New traffic signal installations shall include traffic signal poles with a Nostalgia Series ornamental 16’ flute taper as manufactured by Union Metal Corporation, per Detail 2.31 on page 29, or zoning administrator approved equal. The pole and mast arm shall be black. Traffic signal poles shall be designed to meet current AASHTO Standards for Structural Supports for Highway Signs, Luminaries, and Traffic Signals, within 90 MPH wind zone.

At signalized intersections with crosswalks, pedestrian signals should be provided. The standard pedestrian signal assembly is the ADA-compliant PELCO Modular Station model #SE-2135 with a pushbutton, direction arrow, and mount for the pedestrian signal sign. The signal counter standard is the CD Series LED 16” by LeoTek. The housing of the signal station and counter shall be finished in black.

For audio-tactile accessible pedestrian signals (APS), the EZ Communicator Navigator Model by Polara Engineering or approved equal is the standard. This pedestrian signal station with vibration, tactile, and audio indicators fully integrated into a single unit. The unit housing shall be black.

Specifications for both pedestrian signal standard models and pedestrian counter are included in Chapter 2 on page 28. (Details 2.28, 2.29, 2.30).

Pedestrian signals shall be located on streetlight poles or traffic signal poles whenever possible. The location shall be accessible to wheelchair users per ADA standards for placement. Leading interval signal timing shall be utilized at controlled intersections to the greatest extent practical.

6. LANDSCAPING

Any new development along public right-of-ways requires the installation of street trees as required in Section 503.4 of the zoning ordinance. Canopy street trees must be placed every 35’ along the street frontage either on the private property if the utility strip is less than 5’ or alternatively within a utility strip of 5’ or more in width. The location of trees may be also affected by clear zone and site distance regulations.

Regardless of the street tree location, if installed as part of a development application, street trees must be maintained by the private property owner. If located in the public right-of-way, a landscape maintenance agreement with the town is required. If installed as part of a public improvements project, all landscaping in the public right-of-way shall be maintained by the town.

In some cases the town may design a public street to include additional landscaping such as flowering ornamental trees or landscaping within medians for traffic calming, improved vehicular mobility, aesthetics or pedestrian enhancements. Such situations should be reviewed by the Community Forester on a case-by-case basis.

Native species shall be used for all street trees. The same tree species shall be planted on each side of the street for each block. Species should not alternate within the block. Approval by the Community Forester on the exact species of tree to be planted is required.
7. STREETSCAPE AMENITIES

Litter and Recycling Receptacles

The standard trash receptacles used outside the Downtown and HTOC areas are the Victor Stanley model #RB-36 with a black powder coat, or equivalent. (see Detail 4.8)

The standard recycling receptacles is the same model as the trash receptacle, except the powder coating shall be blue and the receptacle shall have a recycling lid, recycling lid decal, and recycling sign side panel, per the specifications in Detail 4.7. Recycling receptacles shall be paired with trash receptacles and should be concentrated on streets adjacent to commercial and mixed uses and streets with strong pedestrian connections, as determined by the zoning administrator.

Business owners are encouraged to participate in the Recycling Receptacle Sponsorship program, whereby the business and town partner in the procurement, installation, and maintenance of a recycling receptacle designed to include the name of the business. The side panels that would be installed on receptacles installed through this program are shown below.

Website: http://www.victorstanley.com/TRASH

Detail 4.7 Recycling Receptacle Signage

Detail 4.8 Trash/Recycling Receptacle Specifications
**Benches**

Benches might be appropriate within the streetscape in areas of high pedestrian activity, near bus stops, and as part of streetscape focal features. In particular, bench locations should be coordinated with transit routes as long as ADA compliant passing width can be maintained within the streetscape. The standard bench is the 6’ long Victor Stanley Model #PRS-127 with a black powder coat, or equivalent. See Detail 4.9.

**Bus Stop Shelters**

The standard bus stop shelter is Columbia Equipment Company model #AL10-05spHR, or equivalent per the specification in detail 4.10. Standard bus stop shelters must meet the following criteria:

- Shall be constructed of extruded aluminum framing designed to withstand wind loads as required by building code, clear quarter inch thick lexan on the side and rear walls, and a metal standing seam hip roof.
- A durable bench shall be integrated into the shelter and run along the length of the back wall unless altered by ADA regulations to accommodate a wheelchair.
- Both the standing seam roof and the aluminum framing shall have a factory finish. The standing seam shall be black and the aluminum framing shall be finished black to match.
- The size shall be approximately 5’ wide by 10’ long and access must meet current ADA requirements.

**Bicycle Racks**

The standard bicycle racks include both the Hoop (inverted u style) with a black powder coat finish, or equivalent, and the Swerve in galvanized steel, or equivalent. See Detail 4.11. Both are manufactured by American Bicycle Security Company. Use of this rack is appropriate for use at bus stop shelters, public facilities, commercial sites and residential properties when adhering to the Criteria for Selecting and Locating Bicycle Parking Racks as listed below.

Both bike racks maybe be grouped and attached on rails to create higher capacity racks. High capacity racks should be considered where space allows especially at public facilities and transit stops. Racks installed on private property are encouraged to use these specifications for on-site bicycle parking.

Detail 4.12 shows the spacing requirements for both bike racks.
Website: http://www.columbiaequipment.com/BUS_SHELTER

**Detail 4.10 Standard Bus Shelter Specifications**
Website: [http://ameribike.com/BIKERACKs](http://ameribike.com/BIKERACKs)

Detail 4.11 Bicycle Rack Specifications

Detail 4.12 Bicycle Rack Spacing Requirements
As an alternative where space is limited and high capacity bicycle parking is preferred, the Campus Rack model by Peak Racks, Inc. is the standard. Detail 4.13 includes the specifications for this rack. This rack can accommodate five bicycles parked at a 45 degree angle to conserve space. The spacing requirements are shown below and provided in Chapter 2 on page 39.

Private individuals or groups may sponsor bicycle racks. For more information on sponsorships, refer to Chapter I, page 11.

**Website:** [http://peakracks.com/CAMPUSRACK](http://peakracks.com/CAMPUSRACK)

**Detail 4.13 High Capacity Bike Rack Specifications**

**Criteria for Locating and Using Bicycle Parking Racks**

1. Bicycle parking racks should be located in a clearly designated safe and convenient location.

2. The design and location shall be harmonious with the surrounding environment.

3. The racks must be durable and should be securely anchored to the ground or building structure.

4. The surface of the racks should be designed and maintained to be mud and dust free.

5. Bicycle parking spaces should be clearly at least 2 feet wide (2 feet from center of one space to center of adjacent spaces.)

6. The rack allows the frame and wheel(s) to be locked directly to the rack with a U-shaped lock without bending the wheel or otherwise damaging the bicycle.

7. The rack must support the bicycle frame in at least 2 places.

8. The rack must prevent the wheel of the bicycle from tipping over.

9. The rack has a simple design that needs no explanation as to how the rack works.

10. If the rack is intended to park more than one bicycle at the same time, the handlebars must not overlap.

11. The rack has spaces that are clearly designated for each bicycle (it is obvious to the user where each space is) whether the rack is designed for single or double sided loading.

12. When bicycles are parked at the rack, there must be at least a six-foot clear walkway, to comply with the Americans with Disabilities Act. This does not include frontage occupied by street furniture.

13. The bicycle rack cannot be located directly in front of a store/building entrance nor in a driveway.

14. Any street utilities, such as light poles, signs, manhole covers, and overhead utility poles must have a two foot clearance from a bicycle parked at a rack, not the rack itself.

15. The bicycle rack cannot be located adjacent to handicap parking.

16. The rack cannot be located closer to the curb than two feet. Three feet from the curb is ideal, although in certain circumstances, the distance may be greater.
8. **SIGNS**

**Public Signs**
The amount of public sign poles should be limited to the greatest extent practical. Traffic signs shall be consolidated onto single poles where possible and signage may be affixed to street light poles in certain circumstances.

All public traffic signs shall comply with MUTCD design and placement standards.

Town-sponsored wayfinding signs are located within the streetscape where feasible or within easements adjacent to the right-of-way. These signs function to direct people to certain destinations throughout town. Wayfinding signs are anchored into the concrete in highly visible areas that do not pose any obstruction to safe and accessible pedestrian passage. Refer to the Wayfinding Sign Program, as managed by the Department of Community Development for additional information on sign design and placement.

**Private Signs**
Generally, private signage is not permitted within the streetscape unless in overlay areas such as the downtown or HTOC. The Town Manager may approve private signage within the public right-of-way under certain circumstances.

9. **OTHER STREETSCAPE ELEMENTS**
The standard streetscape may include features or amenities not specifically regulated by the guidelines and standard in this chapter. In those instances, the Zoning Administrator in conjunction with the Public Works Director shall review such variations and decide the most appropriate specifications.
V. GATEWAY and PARKWAY STREETSCAPE

A. Design Concept

Certain roads in Herndon per Section 78.505 of the zoning ordinance are designated Gateway Streets. Street with this designation have specialized streetscape regulations. This chapter contains the guidelines and standards for the design of Gateway Streets in addition to the Herndon Parkway as it pertains to the zoning ordinance, public facilities manual, and other relevant regulatory and advisory policy from local, state, and federal sources. Many of the design elements and streetscape amenities for these streets are the same as those for the standard streetscape though some items such as street lights and some surface treatments differ.

On streets serving as gateways, the streetscape design philosophy focuses on demarcating entrance into the town and advancing an image and experience of walkability and community. Depending on right-of-way width and existing space constraints, Gateway Street design must be flexible. The gateways into Town include:

- Van Buren Street (from the southern town boundary to new Spring Street)
- Dranesville Road (northern town boundary to Park Avenue)
- S. Elen Street (southern town boundary to Sterling Road)
- E. Elen Street (eastern town boundary to Van Buren Street)
- Sterling Road (western town boundary to Elden Street)
- Spring Street (eastern town boundary to Van Buren Street)

The concept for Herndon Parkway outside of the HTOC area focuses on developing and ensuring a strong green space buffer along the roadway designed to function as a screen for adjacent properties and an amply landscaped streetscape for Parkway users.

B. Gateway & Parkway Streetscape Design

Where space allows, the standard Gateway Street design is presented in Detail 5.1. In constrained space, the buffer should be reduced or omitted first. Sidewalk width and landscaped strip width may then be reduced to a minimum of 5' where the right-of-way is too narrow accommodate a wider streetscape. Canopy street trees and specialized streetlights shall be placed withi the landscape strip. Specialized landscaping, as approved by the Community Forester may be placed in the buffer area when present.

Detail 5.2 shows the streetscape for Herndon Parkway. Of the two designated green streets, the most important element is the landscaped buffer. The Herndon Parkway and W&OD Regional Trail are designed as landscaped corridors flanked with continuous natural screening in all areas other than the HTOC and downtown. As stated in Section 78-505 of the zoning ordinance, the maintenance, retention, and in some cases improvement of these buffers are vital to enhance the townscape, provide areas to augment the sense of urban forest, calm traffic, promote safe and orderly operation of vehicles, and coordinate the interface of certain public right-of-ways with private developments. Parkway streetscapes consist of a minimum 5’ wide sidewalk, minimum 3’ wide vegetated utility strips, and 25’ wide landscaped buffers.
Gateway Streetscape
TYPE GS-1
Detail 5.1

- 8' reduced landscape buffer
- 6' sidewalk
- 6' landscape-utility strip

Total width 20'

Parkway Streetscape
TYPE GRS-1
Detail 5.2

- 25' landscape buffer with canopy trees every 35' and evergreen trees every 70'
- 5' sidewalk
- 3' utility strip
C. Gateway Streetscape Elements

Most streetscape elements along streets designated as Gateways shall adhere to the specifications for the standard streetscape provided in Chapter 4. This includes sidewalk treatment, traffic and pedestrian signals, crosswalks, and curb ramps. Streetscape amenities for Gateway Streets shall also be consistent with the standard streetscape, including bus shelters, trash and recycling receptacles, bicycle racks, and benches.

The only specialized streetscape elements for Gateways are for landscaping and lighting. In certain instances at planned focal points or key intersections within gateway corridors, design flexibility is encouraged. The streetscape in those areas may contain specialized sidewalk or crosswalk surface treatments, to be considered and approved by the Zoning Administrator and Public Works Director.

1. LIGHTING

Within Gateway streetscapes, street lights should be placed within the landscaped utility strip between the sidewalk and the curb. If the utility strip is not wide enough to accommodate the street light clear zone, then the light should be placed within the landscape buffer. For Gateway Streets, context sensitive solutions are applied to reduce the clear zone for non-breakaway structures such as light poles to 18” from face of curb. Light poles must be at least 2’ from the edge of the sidewalk on either side.

Lights on Gateway Streets should provide moderate and consistent levels of illumination to both the streetscape and the roadway. In residential areas, light level should be minimal or street lights should only be placed to increase safety and visible in certain areas such as intersections. The street light objectives lists in Chapter 2 on page 24 should be met. Detail 5.3 and Detail 5.4 provides the specifications for Gateway Street lighting.

Luminaire Specifications: HADCO Teardrop TF8 with glass long globe and housing finished black.
- Optical: High Pressure Sodium, LED, watts vary

Pole Specifications: Smooth round pole with a black finish. Height to vary depending on preferred light coverage. Height should be minimized as much as possible to retain a pedestrian scale to the streetscape. For high poles, a cast aluminum pole from Union Metal or approved equal is necessary. Lower poles may be able to use fiberglass options from Whatley, Valmont, or Hadco or approved equal.

Manufacturer Options:
- Base:
  - Safety: The pole shall be non-conductive and flame resistant in accordance with ASTM D635. Pole shall be direct embedded into concrete footer.

Arm Specifications:
- Manufacturer Options: HADCO

Detail 5.3 Gateway Streetlight Specifications
2. **SURFACE TREATMENT**

For Gateway Street, specialized surface treatments may vary however the design specified in **Detail 5.5** is the standard and shall be used unless a specialized treatment was approved for use.

This surface treatment shall be used at intersections for sidewalks, ramps, and crosswalks and also at bus stops, mid-block crossings, and to separate bicycle lanes from the sidewalk when both facilities are off-street. Many of these uses are shown in the renderings included in **Detail 5.6**.
3. CROSSWALKS

At certain intersections on Gateway Streets, a specialized crosswalk design shall be used. Community Development staff shall determine the intersection where this treatment would be used. The intersection may serve as nodes of activity, may be highly visible, may have higher traffic counts, may have full four approaches with traffic control measures, and generally, may be deemed as areas of importance where additional attention to design should be applied to enhance the character of the street and the safety of all road users. **Detail 5.7** illustrates the design of the crosswalk. Stamped concrete or pavers may be used to achieve the design. For all other intersections along Gateway Streets, the standard Ladder or Continental marked crosswalks should be used.
D.  Parkway Streetscape Elements

The Standard Streetscape guidelines and specifications should be followed for the Herndon Parkway streetscape with the exception of landscaping and buffer requirements.

STILL IN DEVELOPMENT...
APPENDIX
Streetscape Guidelines