

VII. Appendices:

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Uptown North Orange Form-Based Code (UNO-FBC)

Appendix A. Landscape Guidelines & Standards

The purpose of this section is to supplement and/or reiterate the planting and landscape standards found in Section III of this UNO-FBC.

1. Building and Streetscape Relationships

The UNO-FBC establishes a strong priority on building and streetscape relationships. As such, landscape and urban design forms are to be considered as integral elements. Landscape architectural features are to be implemented concurrently with UNO's public improvements. The proffers address the timing of implementation of these public improvements. The grading of adjacent buildings shall be coordinated to meet common facilities such as parking lots, building lobbies, driveway entrances, and motor courts at the same grade. While not possible in every case, buildings within the same block should have coordinated finished floor elevations (in addition to coordinated building massing and placement details established by the UNO-FBC.)

2. Landscape and Grading Relationships

Final site designs shall minimize the extent of mass grading within the community. All site grading will be done in a way that enhances the preservation of mature vegetation around the perimeter of UNO. Slopes around exterior building walls shall be minimized as possible however in order to preserve the walk-ability of streets and buildings shall be used to transition between grades wherever practical. Retaining walls may be necessary to preserve existing vegetation. Best Management Practices (BMPs) shall be developed in accord with a SWM and BMP Master Plan and submitted with the final site plan application. Existing natural areas situated outside building zones will be organized into a comprehensive community landscape design program. "Tree save" areas should be incorporated into the landscape design plan.

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3. Transect Zones and Landscape Relationships

The final design of interior blocks within the project shall be given special urban design and landscape treatments that will respond to the particular urban design standards of each Transect Zone. For example, the Center Zones, T5A and T5B shall have unique landscape features that create the most “urban” character. As depicted on the Illustrative Master Plan, open space and park land, active recreational spaces, and intersectional “gateway” landscaping will be incorporated into the final site design by the Owner. These are to be maintained by the Town of Orange. Landscaping for UNO falls into several general categories:

- o **Street Tree Landscape:** These consist of the street tree plantings, sidewalks, and lawn areas adjacent to the project’s major and minor public streets which are intended to be dedicated by the Owner to the Town and to the Virginia Department of Transportation. Roundabouts will be landscaped but will respect VDOT landscape design guidelines.
- o **Public Park and Open Space Landscape Buffers:** These are isolated peripheral “buffer” areas of the project which consist of existing wooded areas and/or new planting areas along the Route 15 frontage the northern perimeter of the property and the boundary between T2 and SD15. However the use of buffers will be minimized as the intent of UNO is to integrate with the fabric of the Town of Orange as much as possible. The final design for the public buffer areas will be incorporated into the final plat and site plan submittals.
- o **Transitional Landscape Areas:** Transitional landscape areas consist of the areas internal to individual blocks and streetscapes, including utility easements and parking lots, which are located between the buildings and common landscape areas. This landscape development shall be implemented by the builders and developers of individual neighborhoods, or blocks, and shall be compatible with the adjacent landscape material in color, form, and texture. Landscape architecture and lot development elements shall be coordinated with the architectural context with respect to scale, color, and organization.

4. Recommended Landscape Categories

The following guidelines shall apply to the major categories of landscape materials in order to create the desired visual harmony among the individual development areas within UNO. All plant material shall be selected from varieties visually compatible with or from the native vegetation and free of odorous or messy fruits or seeds. Species with chronic diseases, pest problems, and/or structural weaknesses shall be avoided. The following categories shall be addressed with the subsequent submission of final site plans and plats:

- o Deciduous and Street Trees
- o Ornamental Trees
- o Evergreen and Coniferous Trees
- o Deciduous Shrubs
- o Evergreen Shrubs
- o Ground Covers
- o Turf

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5. Plant Material Guidelines

Deciduous and Street Trees

Major deciduous trees shall be used in organized streetscape designs between the building zone and the street edge. They may be located either within sidewalk planters or within planting zones between the sidewalk and curb. Also, these street trees should be used in parking islands of surface and structured lots, and on lawns of community facilities, offices and the Center Zone T5A and T5B retail uses, where they do not interfere with the landscape architectural design intent of the street tree plantings. Minimum size: 2 1/2" - 3 1/2" caliper.

Ornamental Trees

Ornamental trees that normally grow from 12' to 25' tall at maturity should be liberally planted for accents and visual emphasis. The flowering habits of ornamental trees are very effective when used on non-residential lawns or in the vicinity of Center Zone T5A and T5B buildings where space is adequate. Ornamental trees are most effective with a dark background provided by architecture or evergreen trees. Multiple or single stem, small scale trees may be used in small scale pedestrian locations where space is limited and an intimate feeling is appropriate. Minimum size: 10'-12' tall at planting.

Evergreen and Coniferous Trees

Evergreen trees shall be used at strategic locations for screening and buffers within UNO and should be designed into group plantings to enhance "winter" seasonal interest, screen objectionable views of service areas and parking structures, and as a backdrop for ornamental trees. Evergreen trees shall be selected from species native to the area or species that are similar in appearance to natives. See selection list on following pages for recommended species. Minimum size: 8'-10' tall at planting.

Deciduous Shrubs

Deciduous shrubs shall be used as accents on private residential lots to create seasonal color interest. Due to their informal appearance, they should not be used in high image areas where a manicured formal image is desired. Deciduous shrubs should be maintained with a "natural" growth habitat and shall not be used as formal hedges, except in occasional streetscape settings. Minimum preferred size: 3'-4' height. These shall be selected from varieties of winter hardy shrubs commonly found in the mid-Atlantic region. They may be used where a low level screen or hedge is desired at parking lots, sidewalks or as mass plantings in the landscape; they may also be used as effective ground covers on slopes. Minimum size: 18"-24" spread.

Ground Covers

Euonymus fortunei "Coloratus" (Evergreen Wintercreeper) and native grasses are recommended for ground cover plantings fronting on the roundabouts and the non-residential properties fronting on public streets. Certified turf grass may be a substitute where warranted by design. Recommended spacing: plant 18" on center. Appropriate ground covers are recommended for use on all slopes steeper than a rise of one foot in three feet of run. Minimum size: Vines - 2 1/4" pots, Shrubs - 18"-24" spread.

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5. Plant Material Guidelines (continued)

Lawns

Lawns and other turf zones within the public street rights of way, residential lots, and other private development areas shall be sodded. Sod shall be used on all disturbed areas and individual lawns within block development projects not otherwise planted or in mulched beds or where existing ground cover is adequate and can be preserved. Where sod is employed, it shall be of a quality meeting the certification requirements for materials and installation practices of the Virginia Association of Turf Growers. Sodding, in combination with other methods of infiltration on individual lots, shall qualify as a site-specific BMP measure.

6. Plant Material List

The following plant materials are among those recommended to be employed in conjunction with final landscape plans to be submitted with final site plans and subdivision plats. This list does not limit the potential approval of other species.

Canopy Trees

Acer rubrum	Red Maple
Acer saccharum	Sugar Maple
Chionanthus virginicus	White Fringetree
Cladrastis lutea	American Yellowwood
Fagus grandifolia	American Beech
Fraxinus americana	White Ash
Fraxinus pennsylvanica "Newport"	Newport Green Ash
Ginkgo biloba	Ginkgo (male)
Gleditsia triacanthos var. inermis	Thornless Honeylocust
Liquidambar styraciflua	Sweet Gum
Nyssa sylvatica	Sourgum
Oxydendrum arborium	Sourwood
Platanus occidentalis	Sycamore
Quercus alba	White Oak
Quercus coccinea	Scarlet Oak
Quercus palustris	Pin Oak
Quercus phellos	Willow Oak
Quercus rubra	Red Oak
Quercus shumardii	Shumard Oak
Taxodium disticum	Common Baldcypress
Tilia cordata	Littleleaf Linden
Zelkova serrata	Japanese Zelkova

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6. Plant Material List (continued)

Ornamental Trees

Amelanchier canadensis	Shadblow Serviceberry
Cercis canadensis	Eastern Redbud
Chioanthus virginicus	White Fringetree
Cornus florida	Flowering Dogwood
Cornus kousa	Kousa Dogwood
Crataegus sp.	Hawthorn
Halesia carolina	Carolina Silverbell
Lagerstroemia indica	Crapemyrtle
Magnolia soulangeana	Saucer Magnolia
Magnolia stellata	Star Magnolia
Magnolia virginiana	Sweetbay Magnolia
Malus sp.	Flowering Crabapple
Prunus serrulata	Flowering Cherry
Stewartia ovata	Mountain Stewartia
Styrax japonicum	Japanese Snowbell

Evergreen Trees

Ilex opaca	American Holly
Pinus nigra	Austrian Pine
Pinus strobus	White Pine
Pinus thunbergii	Japanese Black Pine
Tsuga canadensis	Canadian Hemlock

Deciduous Shrubs

Berberis sp.	Barberry
Cotoneaster sp.	Costoneaster
Euonymus sp.	Euonymus
Forsythia x intermedia	Forsythia
Fothergilla gardenii	Dwarf Fothergilla
Hamamelis virginiana	Witchhazel
Jasminum nudiflorum	Winter Jasmine
Potentilla fruticosa	Shrubby Cinquefoil
Pyracantha coccinea 'lowboy'	Firethorn
Rhododendron sp.	Azalea
Rhododendron sp.	Rhododendron
Viburnum sp.	Viburnum

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6. Plant Material List (continued)

Evergreen Shrubs

Ilex sp.	Holly
Ilex glabra "Shamrock"	Inkberry
Juniperus sp.	Juniper
Kalmia latifolia	Mountain Laurel
Mahonia aquifolium	Oregon Grapeholly
Pieris japonica	Japanese Pieris
Taxus sp.	Yew

Groundcovers

Ajuga reptans	Buglewort
Euonymus fortunei "Coloratus"	Purple Wintercreeper
Hedera helix	English Ivy
Hosta sp.	Hosta
Hypericum sp.	Hypericum
Liriope muscari	Liriope
Liriope spicata	Spreading Liriope
Pachysandra terminalis	Japanese Spurge
Vinca minor	Periwinkle

7. Plant Materials Standards

All plant materials to be used in UNO shall be nursery grown in accordance with the highest standards of horticultural practices and should be grown under climatic conditions similar to those of the site for at least two years. Plants shall be typical of their species or variety and should have normal growth habits. Plants shall be free of disease and shall have healthy, well-developed root systems. All plants shall conform to the American Standard for Nursery Stock as published by the American Association of Nurserymen. The use of a plant bed edging or mowing strip is recommended. The following materials are acceptable: steel (black), concrete, stone, and brick. Mulch shall be dark, well rotted bark from a pine, fir, or hardwood source. Maximum dimension for chunk type should not exceed 1.5 inches. Maximum length for shredded type should not exceed 4 inches.

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8. Landscape Maintenance

Landscape maintenance is the responsibility of the Town. It is recommended that individual owners shall be responsible for executing a landscape maintenance program for landscape areas within their home sites. The program shall include the following and be coordinated with the maintenance of common areas:

- o Prune trees and shrubs as necessary to maintain an attractive shape; remove dead branches and provide clearance for vehicles and pedestrians.
- o Replace dead and disfigured plant material immediately with plants of equal size except in environmentally sensitive areas at the discretion of the Property Owners' Association.
- o Fertilize, mulch, water, and weed plant beds. Apply insecticides and fungicides as necessary to maintain plant vigor and appearance. Environmentally-friendly fertilizers are recommended.
- o Lawns shall be watered, mowed, and maintained in a dense, weed-free condition. Lawns shall be edged adjacent to paved surfaces.
- o Remove fallen leaves, branches, paper, and other debris from lawn, shrub, and pavement areas.

9. Landscape Quality Guidelines

The following general standards and guidelines shall apply to the planning, design, installation and maintenance of all landscape and site plan improvements and regulated by the UNO-FBC and the ordinances of the Town:

- A. A Lot Development and Landscape Plan meeting the requirements of the UNO-FBC shall be required for all subdivision, site plan, and other development plan applications. Landscaping, screening, and buffering for any subdivision and site development activity shall be guided by the UNO-FBC as well as generally accepted site and landscape design principles.
- B. Landscape design plans shall maximize the preservation of existing trees and minimize the disruption of established landscape materials, employing preservation and protection criteria provided in the Virginia Erosion and Sediment Control Manual and the State's Urban BMP Handbook.
- C. Quality and type of all new plant materials installed on a site shall be in accord with the specifications of the American Association of Nurserymen, provided. Transplanting of trees and shrubs may be done in accordance with accepted horticultural and forestry practices. The planting and placement of trees shall be done in accord with the standardized landscape specifications of the Virginia Society of Landscape Designers and the Virginia Code of Development of the American Society of Landscape Architects.

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9. Landscape Quality Guidelines (continued)

- D. The property owner, developer and or successor in title to a given property shall be responsible for the perpetual maintenance as well as timely repair and replacement of all landscaping, buffers and screening as required by this Code of Development. A failure to adequately maintain landscape improvements in a healthy state and to keep such improvements free of litter, refuse and debris shall be deemed a violation of Design Review Committee requirements. Landscape planting, maintenance and repair regulations also shall apply to all land in common open space, active recreational areas, or other lands not in lots in residential subdivisions. Property owners' documents should incorporate such requirements.
- E. Landscape plans to accompany any Round Hill Village site plan or subdivision plat shall be prepared by a qualified landscape designer, nurseryman or horticulturist in association with a Professional Engineer, Architect or Surveyor of record (certifying the plan or plat) or shall be prepared and certified by a Certified Landscape Architect licensed to practice in the State of Virginia.
- F. The landscaping and buffering standards hereinafter established provide minimum guidelines for landscape architecture of commercial, institutional and residential properties. Refer to the Streetscape Sections of the UNO-FBC (Section 3) for graphic examples and standards.

10. Streetscape and Canopy Planting Guidelines and Standards

Plans to be submitted to the Urban Design Review Committee shall demonstrate that the following canopy and tree preservation standards with any application for a development project within UNO are met. These following standards and guidelines shall not supercede the street tree spacing standards established in Section III.

- A. The developer shall make strong efforts to preserve and protect existing trees in the design and development of individual sections of UNO and, where infeasible to preserve trees, shall replace those trees that may need to be necessarily removed during such development.
- B. As a general guideline, the subdivision plat or site plan for any subdivision or site development section within the UNO should include the planting and/or replacement of trees on the site to the extent that, at twenty (20) years of growth, minimum tree canopies or tree covers within that section of development will be provided in accord with the following standards:
 - 1. Center Zones T5A and T5B: Ten percent (10%) of the total site area shall be covered in tree canopy.
 - 2. General Zone T4: Fifteen percent (15%) of the total site area shall be covered in tree canopy.
 - 3. Edge Zones T3 and T2: Twenty percent (20%) of the total site area shall be covered in tree canopy
 - 4. Off-Site Planting Option: If the full canopy guideline cannot be met by on-site plantings within each Transect Zone, this standard may be satisfied by off-site plantings or right of way plantings, where approved by both the Town and the Urban Design Review Committee.

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10. Streetscape and Canopy Planting Guidelines (continued)

- C. All landscape materials shall conform with the following minimum size or height (at date of planting) standards:
1. Deciduous shade trees: 2.5" caliper
 2. Street trees: 2.5" caliper
 3. Ornamental and understory trees: 6' height
 4. Coniferous trees: 6' height
 5. Evergreen shrubs: 18" spread or height
 6. Deciduous shrubs: 18" spread or height
- D. "Tree canopy" or "tree cover" is defined to include all areas of coverage by trees and plant materials, including street trees, provided that all such trees and plant materials exceed six (6) feet in height at date of planting.
- E. All landscape materials shall be selected and sized in accordance with hardiness rating and growth habit appropriate for the intended placement of materials. All landscape materials should be well branched and well formed, vigorous, healthy and free from disease, sun and wind and insect damage and shall have healthy and unbroken root systems.
- F. Tree canopy requirements may be reduced on a case-by-case basis by waiver of the Planning Commission or Town Planner during the site plan and/or subdivision plat approval process where it can be clearly demonstrated by the applicant that either (a) the reduced canopy achieves the intended landscape design objective through a combination of alternative landscape architectural and landscaping techniques or (b) where the characteristics property is such that the canopy coverage would not be effective and other methods of landscaping provide equal and adequate design responses. The stipulated sizes may be modified based on property conditions and site design requirements.
- G. The removal of any trees which exceed 12" caliper (dbh, breast height) shall be justified by the applicant in cases where modifications to the layout and design elements of the site plan could protect such trees without impairing the function and economy of the intended use.
- H. Existing trees which are to be preserved may be included to meet all or part of the aforementioned canopy requirements; provided that the landscape plan identifies such existing trees and that these trees meet standards of desirability, hardiness and life expectancy as established by the Town.
- I. In cases where the application of the screening and/or parking lot landscape requirements cited hereinafter may be less than the above minimum canopy guideline, the final canopy requirement, tree placement, landscape materials type, and quantity of landscape materials shall be determined as a part of the Urban Design Review Committee process, provided that nothing herein shall restrict the applicant from exceeding the minimum canopy requirements.
- J. No landscaping materials shall be installed which interfere with minimum transportation site distances for public and private streets. The landscape plan shall depict sight distance alignments and the location of sight easements.

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11. Transitional Screening

The landscape plan to be submitted to the Urban Design Review Committee shall meet the following canopy and tree preservation standards with any application for a development project within UNO:

- A. All outdoor storage and loading areas shall be screened from public streets and adjacent residential properties with dense fencing, landscape materials or opaque walls a minimum height of eight (8) feet tall.
- B. No landscape materials or screening shall be installed which interfere with minimum transportation site distances. The landscape plan shall depict sight distance alignments and the location of sight easements in accord with transportation design standards.
- C. The applicant's architect, engineer, landscape architect or qualified landscape designer shall submit a plan and program for transitional screening during the final site plan phase to determine the most appropriate buffer and screening design concepts, tree placement and suitable species of trees to be used for screening purposes.

12. Subdivision Landscaping & Street Tree Requirements

The landscape plan to be submitted to the Town and the Urban Design Review Committee and shall meet the following canopy and tree preservation standards with any application for a development project within UNO:

- A. The plan shall be submitted with any residential subdivision plats and development plans required for the construction of public streets.
- B. A minimum of one street tree on each side of a given subdivision street shall be established on average for each thirty (30) feet to fifty (50) feet of ROW length.
- C. Within each Transect Zone, the street tree landscape plan shall provide an integrated program of street tree plantings and tree preservation for all lots.
- D. Street trees shall be counted towards the canopy requirement, however the canopy requirement shall not supercede street tree spacing standards established in Section III.
- E. No street trees shall be installed which interfere with minimum transportation sight distances for public and private streets. The landscape plan shall depict sight distance alignments and the location of sight easements.

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Appendix B:

Best Practices, Utility & Public Infrastructure, Erosion & Sediment Control Standards

The purpose of the following sections is to supplement and/or reiterate standards and guidelines established in Section III.

1. Stormwater Management & Best Practices

A Stormwater Management and Best Management Practices master plan shall be submitted to the Town and the Design Review Committee with the first final site plan for UNO. This plan shall incorporate facilities and measures to be located on both dedicated community open space property and individual lots, and, further, shall be prepared in accord with all state and local requirements. All subsequent site plans, lot development and landscape plans, E&S plans, and site construction activity within the Village shall be consistent with this master plan. As the community matures, SWM and BMP facilities must be maintained during the construction process. It shall be the responsibility of each site or building developer to protect existing BMPs during construction and to ensure that the BMP capacity is maintained. Prior to dedication to the Town, the developer shall inspect, clean, rehabilitate, and otherwise re-establish the BMPs to their original design capacity. Refer to the Proffer Statement for SWM/BMP facility construction, dedication and maintenance agreements.

Where permanent erosion and sediment control measures, stormwater management facilities, and BMPs are to be constructed on private lots and which are not otherwise maintained by the Town, the maintenance shall be the responsibility of the individual lot owner, with oversight and review by the Urban Design Review Committee and the Town of Orange which shall have the right to assess a maintenance fee as a part of the homeowners' dues structure. Individual BMP measures, including mandatory sodding of lawns as well as "rain gardens", infiltration strips, and/or "rain barrel" retention devices shall be provided on all single family detached lots.

2. Utility and Public Infrastructure

Service mains and essential public infrastructure shall be constructed by the developer and located within public rights of way and other utility easements. To be constructed underground, infrastructure includes water, sewer, storm drainage, telephone, electricity, cable, and gas. Utilities and infrastructure shall be sized in accord with capacity analysis to be submitted with approved final site plans and subdivision plats. In order to achieve the desired Traditional Neighborhood Development site organization and streetscape forms, the Town recognizes that water, sewer and drainage improvements should be located within the public street and alley sections. (See Section 3 of the UNO-FBC.) Service mains shall be bonded prior to site improvements and, upon inspection, shall be dedicated to the Town for ownership and maintenance. The developer shall be responsible for the coordination and construction of service laterals to connect into these systems

Where dictated by final design considerations, service easements may be located between the public rights of way and the individual building sites. Services shall be located in these "utility corridors" as may be required. All service connections shall be located underground and away from existing and proposed trees and special features. In all Transect Zones, exterior electric service conduits and connections shall be provided primarily along alleys and secondarily in designated locations along streets to provide accessible receptacles for use during public events and occasional street festivals. Where alleys are not feasible and equipment must be located along public thoroughfares, electric transformers and appurtenances shall be adequately screened by wood or masonry walls, landscaping, or other materials that are complementary with the adjacent building, or placed in underground vaults. In addition to Town ordinance requirements, the placement, design, and construction of all transformers will comply with any additional criteria as may be imposed by the Urban Design Review Committee. Transformers shall not be placed in highly visible locations.

Waste storage and pick-up facilities within Center and General Zone commercial and mixed-use sites shall be located in areas with minimum visibility from roadways and pedestrian circulation. When located on the building exterior, storage receptacles should be enclosed by masonry walls or other materials complementary with the adjacent building. The waste storage and pick-up area shall be located with other service and facilities, within alleys or in screened areas contiguous to Center and General Zone parking areas. At no time shall they be visible from the public thoroughfare. Residential sites shall be subject to Town regulations and the Urban Design Review Committee.

3. Construction Procedures

UNO will be developed over an extended period of time, and, from time to time, new construction will be underway adjacent to completed and occupied buildings. This section establishes minimum standards to limit the negative impact of new construction. Some of the standards may be in addition to those required by the Town of Orange. A demolition and construction phasing plan shall be reviewed and approved by the Urban Design Review Committee for each individual land use and development activity.

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3. Construction Procedures (continued)

Safe, clean vehicular, and unobstructed pedestrian access should be maintained in the vicinity of any construction site. Protected temporary walkways shall be constructed in high density construction areas. All construction parking and access shall be physically separated from permanent parking, employing temporary barriers. Construction parking in adjacent parking lots shall be coordinated with the Urban Design Review Committee. Where granted, construction parking shall be maintained in a neat, orderly, and dust-free condition. A maximum of two construction access points shall be permitted for each block or Transect Zone. Construction traffic should be minimized during peak traffic hours.

Within Center and General Zones, temporary construction fencing shall be a finish grade plywood or chain link fence eight (8) feet high. Where plywood is employed, a painted neutral color shall be required between the construction site and streets or completed buildings. All fences will be maintained by the contractor in good repair and repainted as necessary. A six-foot high chain link fence shall be installed around the remainder of the Center or General Zone construction site to control access and debris. These fences shall be removed and the affected area of the site restored at completion of construction.

Construction debris shall be concealed during construction in a visually screened locations. If a debris pit is used during construction, protective fencing will be required. Open burning of debris is not permitted. Central trash collection areas shall be emptied on a regular basis. Streets shall be washed and swept regularly to prevent mud or dust from spreading. No construction parking shall be permitted on public streets. Paper and other debris shall be picked up and removed on a frequent basis. After construction is completed, temporary barriers, surplus materials, and all trash, debris, and rubbish shall be removed from the site. All backfill shall be cleared of building material, stone, and rubbish.

Protective tree barriers (snow fencing) for existing trees shall be installed. Barriers shall be placed a minimum of ten (10) feet from the tree trunk, or at the drip line, whichever is greater. No trespassing shall be permitted within the tree barrier area by equipment, materials, or temporary structures. Provide drainage for vegetation masses at the base of fill slopes.

Temporary structures, portable offices, and other related facilities shall be painted in a single, neutral color maintained in good repair, and arranged in a compact and organized manner on the construction site. These facilities shall be situated so as to minimize unsightly appearance when seen from the road or adjacent properties. All temporary structures and portable facilities shall be removed within sixty (60) days from issuance of occupancy permit. As needed, the contractor shall provide shoring along adjacent driveway structures or landscaped areas.

The area designated for storage of equipment and materials shall be visually minimized from the streets and adjacent properties. Screened, off-site storage is encouraged. All temporary utilities on the construction site should be arranged in an unobtrusive alignment. Distribution to the various areas of construction shall be from an approved on-site location.

One (1) construction project identification sign is permitted per building site. The sign must be free standing and limited to an area of thirty-two (32) square feet and a maximum height of eight (8) feet. All fonts used must be white or light in color on a darker background. It should be limited to identifying the name of the proposed building, the character of the building(s), enterprise(s), or the purpose for which the building(s) is intended. In a subordinate manner, the sign may identify the architects, engineers, contractors, realtors, and other individuals or firms involved with the construction but shall not include any advertisement of any project. All temporary construction signs must be removed within fourteen (14) days following completion of construction and issuance of occupancy permit.

4. Erosion and Sediment Control

Methods erosion and sedimentation control shall be required during construction in compliance with applicable State and Town laws and regulations. The controls shall be an integral part of the construction operation and included in the project's contract documents. Both topsoil and fill material stockpiled on the site shall, within fourteen (14) days of disturbance, be seeded, mulched, or covered and appropriately graded to avoid erosion and blowing. Stockpiles shall be maintained and kept weed-free and dust shall be controlled. The following precautions should be taken during construction to minimize the causes of erosion and siltation:

- o Control dust on a daily basis.
- o To ensure the effectiveness of silt basins, they shall be installed at locations to intercept water before it enters catch basins or outfall structures. Silt basin cleaning may be required after each substantial rainfall.
- o Temporary berms, swales, silt traps, and other control mechanisms shall be removed and the underlying area shall be reshaped and planted to blend with the surrounding environment when the project has been completed.

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Appendix C: Outdoor Lighting Guidelines & Plan Requirements

Outdoor Lighting Guidelines and Standards

1. Application of Outdoor Lighting Regulations

Outdoor lighting regulations shall apply to each outdoor luminaire installed in UNO;

- A. Located within the public right of way and/or on property within a Block in any Transect Zone in UNO that is planned for non-residential use and which is equipped with a lamp which emits three thousand (3,000) or more initial lumens; or
- B. Located within the public right of way or on property within a Block in any Transect Zone in UNO that is planned for residential uses (including single family detached) and is equipped with a high intensity lamp, regardless of its maximum lumens.
- C. A site lighting plan shall be prepared and contain a lumen diagram, specifications for outdoor luminaire heights, luminaire design details, or other related information pertaining to luminaires and which fully demonstrates their compliance with the following regulations. The site lighting plan shall be provided with any site plan or plat within that impacts property within any Block in any Transect Zone in UNO.

2. Definitions for Lighting and Illumination

In addition to those definitions and regulations established in the Town of Orange zoning ordinance, the following definitions are incorporated into the UNO-FBC and shall apply in the implementation and enforcement of these outdoor lighting regulations by the Urban Design Review Committee for individual lots and properties within UNO.

- A. **Decorative luminaire with full cutoff optics:** The term “decorative luminaire with full cutoff optics” means an outdoor light fixture with manufacturer-provided or manufacturer-installed full cut-off optics designed for aesthetic appeal. This term shall not include a canopy or shoebox luminaire.
- B. **Full cutoff luminaire:** The term “full cutoff luminaire” means an outdoor light fixture shielded in such a manner that all light emitted by the fixture, either directly from the lamp or indirectly from the fixture, is projected below the horizontal plane.
- C. **High intensity discharge lamp:** The term “high intensity discharge lamp” means a mercury vapor, metal halide, high pressure sodium lamp, or low pressure sodium lamp.
- D. **Initial lumens:** The term “initial lumens” means the lumens emitted from a lamp, as specified by the manufacturer of the lamp.
- E. **Lamp:** The term “lamp” means the component of a luminaire that produces light. A lamp is also commonly referred to as a bulb.
- F. **Lumen:** The term “lumen” means a standard unit of measurement of luminous flux.
- G. **Luminaire:** The term “luminaire” means a complete lighting unit consisting of a lamp or lamps together with the components designed to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply. A luminaire is also commonly referred to as a fixture.
- H. **Outdoor luminaire:** The term “outdoor luminaire” means a luminaire which is permanently installed outdoors including, but not limited to, devices used to illuminate any site, structure, or sign, except that it does not include an internally illuminated sign.

3. Standards for Lighting

The following standards are incorporated into the UNO-FBC and shall apply to each outdoor luminaire:

- A. Each outdoor luminaire shall be a full cutoff luminaire or a decorative luminaire with full cutoff optics.
- B. For any given outdoor luminaire subject to these regulations, lumens ratings shall be determined from information provided by the lamp manufacturer including, but not limited to, information on the lamp or on the lamp's packaging materials.

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3. Standards for Lighting (continued)

The following standards are incorporated into the UNO-FBC and shall apply to each outdoor luminaire:

- C. For any given outdoor luminaire subject to these outdoor lighting regulations, the following rated lamp wattages shall be deemed to emit three thousand (3,000) or more initial lumens unless the Urban Design Review Committee and the Town determines, based upon information provided by a lamp manufacturer, that the rated wattage of a lamp emits either more or less than the three thousand (3,000) initial lumens:
 - 1. Incandescent lamp: one hundred sixty (160) or more watts.
 - 2. Quartz halogen lamp: one hundred sixty (160) or more watts.
 - 3. Fluorescent lamp: thirty-five (35) or more watts.
 - 4. Mercury vapor lamp: seventy-five (75) or more watts.
 - 5. Metal halide lamp: forty (40) or more watts.
 - 6. High pressure sodium lamp: forty-five (45) or more watts.
 - 7. Low pressure sodium lamp: twenty-five (25) or more watts.
- D. If a luminaire is equipped with more than one lamp, the lumens of the lamp with the highest initial lumens shall determine the lumens emitted.
- E. Each parcel or lot shall comply with the following:
 - 1. The spillover of lighting from luminaires onto public roads and property in residential blocks within UNO shall not exceed one-half (0.5) foot-candles. A spillover shall be measured horizontally and vertically at the property line or edge of right of way or easement, whichever is closer to the light source.
 - 2. All outdoor lighting, regardless of the amount of lumens, shall be arranged to shield or reflect light away from adjoining residential districts and away from adjacent roads.
 - 3. Flashing lights, pulsating lights, and strobe lights are prohibited as well as any others as may be prohibited by the Town.
- F. The architectural design of each lighting standard, pole style and pole height shall be compatible with the architectural standards within a given neighborhood or area of UNO, as determined by review of the Lot Development & Landscape Plan by the Urban Design Review Committee.

4. Modification, Waivers and Variations

- A. A modification, waiver or variation from the standards as set forth in this section may be granted by the Urban Design Review Committee, as provided herein below.
- B. The Urban Design Review Committee may modify, waiver or vary the standard in a particular case, and may impose conditions on such a modification, waiver, or variation which it deems appropriate to further the purposes of these regulations under the following circumstances:
 - 1. Upon a determination that the strict application of the standard would not forward the objectives of this ordinance or otherwise serve the public interest.
 - 2. Upon a determination that the alternatives proposed by the owner or developer would satisfy the objectives of these regulations at least to an equivalent degree.
 - 3. Upon a determination that an outdoor luminaire, or system of outdoor luminaires, required for a baseball, softball, football or soccer field cannot reasonably comply with the standard and provide sufficient illumination of the field for its safe use, as determined by recommended practices adopted by the Illuminating Engineering Society of North America for that type of field and activity or other evidence if a recommended practice is not applicable.

5. Exemptions to Regulations

In the Urban Design Review Committee's review of outdoor lighting proposals, the following outdoor lighting and related acts shall be exempt from the requirements of these outdoor lighting regulations:

- A. Lighting which is not subject to state or federal law.
- B. Construction, agricultural use, emergency, seasonal and special events, or holiday decorative lighting for business establishments, provided that the lighting is temporary and is discontinued within seven (7) days upon completion of the project or holiday for which the lighting was provided.
- C. Lighting of the United States of America or Commonwealth of Virginia flags and other non-commercial flags expressing constitutionally protected speech.
- D. Security lighting controlled by sensors which provides illumination for fifteen (15) minutes or less.
- E. The replacement of a failed or damaged luminaire which is one of a matching group serving a common purpose.

Uptown North Orange Form-Based Code (UNO-FBC)

Appendix D. Outdoor Signage Guidelines

The purpose of these signage guidelines and standards is to supplement those found in Section III.

The Signage Guidelines for the UNO shall encourage creativity in sign design, as exemplified by the one in the photograph on the left, but shall otherwise meet all Town requirements and ordinances unless specifically waived by action of the Planning Commission. The guidelines incorporate measures which have been organized and designed to achieve a coherent image within the community. For this reason, the signage regulations have been structured to provide a consistent image along the public streets particularly in the Center and General Zones, while providing more flexibility with building signage and within the pedestrian areas accessing commercial areas. Signage concepts and designs shall be submitted to both the town and the Urban Design Review Committee for approval prior to installation. All signs must conform to the signing provisions of the Town of Orange Zoning Ordinance in addition to the criteria in this section. UNO signage system has been divided into the following signage categories -- **Free Standing, Building Identity, Building Mounted Signs, and Small Regulatory Signs.**

Freestanding Signs

Because of frequency and exposure, this sign type is the most important of all recommended signage within the Village Center. While one free standing building identity sign is permitted for each detached commercial or mixed use building, careful design and placement practices should be employed in the use of any free standing signs within the mixed-use, retail and other commercial and civic spaces. Free standing signs are acceptable for commercial and residential uses in the Center and General Zones T5A, T5B and T4.

A standard, two-faced sign is recommended due to ease of visibility. This standard should be used as the only free standing building identity sign. Although the sign housing will be standardized, the graphic parameters will be designed to permit maximum design flexibility on the sign faces by the individual user. The services of a graphic designer are strongly recommended in laying out the sign face. All signs are located at approximately the same locations (to be set by developer) relative to the entrance drives. This consistent sign placement in conjunction with the standard sign housing creates a subtle but effective unified image of the entire site. Minimum clearance from the bottom of sign to the top of finish grade at sidewalks is 8'-0".

Building Identity Sign

One tenant directory sign may be used per building. This sign is to incorporate the standard type sign housing at the prescribed location. It should be designed from the same materials as the building identity sign to ensure compatibility. These signs shall be limited to identifying the name of the building and/or the individual enterprises located therein, trademark or identifying symbol or any combination thereof. These signs are not intended as vehicles for advertising. No other free standing signs, other than directional signs, will be permitted.

Uptown North Orange Form-Based Code (UNO-FBC)

Building Mounted Signs

In addition to the standards for single free standing signs and hung signs established in Section III, the following standards for building mounted signs affixed directly to building facades shall apply. Fundamental to Urban Design Review Committee approval is that the building mounted signs affixed directly to building facades within parking lots and along arterials are compatible with the architectural design of the building and surrounding context. In general, building mounted signs should not be visible from adjacent residential neighborhoods.

Building mounted signs may be located on the surface of building facades in accordance with the following specific guidelines:

- o Signs may be located in the horizontal base band of the building. This area is defined as extending from the ground level to the floor slab of the second level of the building, or an area not exceeding twenty (20) feet upward from the ground level, whichever is less. Only the building facade containing the major entrance to the building may be used for signing in the base band.
- o Signs may be located in the top horizontal band of a building. This area is defined as the top horizontal band containing the uppermost two occupied levels of the building. In the top band, unlike the base band, signs may be located on any of the building's facades, as long as the total permitted signage area is not exceeded. Only one (1) sign per facade is permitted in the top band.
- o No signs shall be located on a penthouse, structural extension, or other architectural accessory and/or decorative building feature.
- o No part of any sign shall extend above or beyond the perimeter of the building parapet or roof.
- o Maximum number of building mounted signs per building is four (4).

The total sign area for all building mounted signs cannot exceed one and one half (1-1/2) square feet of sign area for each of the first one hundred (100) linear feet of building frontage plus one square foot of sign area for each linear feet of building over one hundred (100) feet of frontage. The front façade that building side that is architecturally designed as the front of the building and which contains the main entrance for use by the general public. However, no one sign shall have a sign area in excess of thirty-six (36) square feet in the building base band and eighty (80) square feet in the building's top band.

Except as qualified below, the area of a sign shall be computed as the entire area within a single continuous rectilinear perimeter of not more than eight (8) straight lines enclosing the extreme limits of writing, representation, emblems, or a figure of similar character together with all material, color, or lighting forming an integral part of the display or used to differentiate the sign from the background against which it is placed.

Uptown North Orange Form-Based Code (UNO-FBC)

Building Mounted Signs (continued)

The area of building-mounted signs composed of individual letters and/or symbols shall be computed in accordance with one of the following methods:

- o If the space between the proposed individual letters and/or symbols is less in dimension than the width of the largest unit, the computation shall be made in accordance with a strict application of the provisions above.
- o If the space between the proposed individual letters and/or symbols is greater than the width of the largest unit, the computation may be based on the total area within rectangular enclosures surrounding each individual unit.
- o Maximum lettering and image size is 24" on the building's base band. In the building's top band the maximum image or lettering height shall be no larger than 1/2" of the letter or logo height per one foot of building height measured from final grade to roof top.

Illuminated signs of the following characteristics are permitted:

- o Individual dimensional word or metal backlit ("halo-effect") letters. The illumination behind such letters should be white neon unless approved by the Design Review Committee.
- o Internally-illuminated channel letters with opaque metal sides and white translucent acrylic faces.

Non-illuminated signs of the following characteristics are permitted:

- o Individual dimensional letters or gold or silver leafed letters applied directly to glass or other signing surfaces with other colors to be approved by the Design Review Committee. Painted wood or painted metal is encouraged.
- o Letters formed from thin metal plate or similar materials and pin-mounted at a distance approximately 1 inch from the signing surface. The face of such signs should not extend more than three inches from the signing surface.
- o Boxed or cabinet-type signs will be permitted on the buildings base band only. This sign type must be totally recessed and the sign background must be opaque and darker than the image.
- o The following types of illumination are prohibited: (1) Any arrangement of exposed tubing or a series of lights in rows, strings, patterns affixed to any portion of a building or structure, 2) Any sign displaying flashing or intermittent lights, or lights of changing degrees of intensity of color or moving copy (exclusive of temporary Christmas and seasonal holiday lighting).
- o Signs shall be limited to identifying the name of the building and/or the individual enterprises located therein, trademark or identifying symbol or any combination thereof.
- o Signs in the top horizontal band shall be limited to the logo, logo type, or initials of the enterprise.

Uptown North Orange Form-Based Code (UNO-FBC)

Small Regulatory Signs

Small regulatory signs shall incorporate common design themes and complementary textures and colors throughout UNO, public parks, and open space areas. These signs are defined as the following:

- o Small signs displayed for the direction or convenience of the public, such as signs which direct traffic or identify the location of freight entrances, public and private parking areas, and access to park and open space areas. These signs should not exceed two (2) square feet in area.
- o Signs warning the public against trespassing, swimming, or the like. These signs should not exceed four (4) square feet in area and should be posted at eye level.
- o Small signs, above grade, which identify parking for the handicapped as required by the Town of Orange Zoning Ordinance. This sign type shall not exceed one and one half (1 1/2) square feet in area.

Gateway Improvements and Related Signs

"Gateway" landscape and hardscape improvements shall be installed on the Round Hill property at its (a) major entrance on Route 15 and (b) east entrance on Radney Road. Signage, landscape, hardscape, street pavements, pedestrian improvements, fencing, decorative lighting designs and plans for other related amenities shall be submitted with the final site plan for the project. The master plan for the "gateway" improvements, including specialty signage and sign standards, shall be reviewed and approved by the Urban Design Review Committee prior to its submission to the Town for approval with the final site plan. Signage details shall be consistent with those outlined within the UNO-FBC (this Appendix D and Section III.)

Uptown North Orange Form-Based Code (UNO-FBC)

Commercial/Retail & Mixed Use Areas: Late 20th & Early 21st c. "New urbanism" (w/two story minimum buildings)



Bethesda Row, MD



King Farm, Rockville, MD



Kentlands, Gaithersburg, MD



Washingtonian Place, Gaithersburg



Brookville, Birmingham, AL



Kentlands, Gaithersburg, MD

Commercial/Retail & Mixed Use Areas: Pre-WWII "Urbanism" (w/one story minimum buildings)-In Virginia



Town of Orange



Hilton Village, Newport News



Appomattox



Gordonsville



Amelia Court House



Belmont, Charlottesville

Uptown North Orange Form-Based Code (UNO-FBC)

Commercial/Retail & Mixed Use Areas: Pre-WWII "Urbanism" (w/two story minimum buildings)-In Virginia



Scottsville, Albemarle County



Charlottesville



Culpeper



Staunton, The Wharf



Old Town Alexandria



Roanoke

Commercial/Retail & Mixed Use Areas: Pre-WWII "Urbanism" (w/two story minimum buildings)-Outside Virginia



Palmer Square, Princeton, NJ



Plymouth, MA



Cohasset, MA



Newburyport, MA



Gettysburg, PA



Westchester, PA

Uptown North Orange Form-Based Code (UNO-FBC)

Parking Types:



Small Parking Lot- Concord, MA



Interior Lot & Mews, Princeton, NJ



Angled Parking- Pearl River, NY



Tuck-Under off Alley- Seaside, FL



Parking Lot-Barracks Rd. Charlottesville, VA



Parallel Parking- Westchester, PA

Non-Pedestrian Oriented Buildings & Environments:



Dark Glass & Monolithic



No Transparency & Monolithic



No Sidewalks & Multiple Curb Cuts



No Transparency or Human Scale



Acres of Parking w/no Trees or Paths



Front Loaded 2-car garage, Anywhere

Uptown North Orange Form-Based Code (UNO-FBC)

Front Setbacks: 20' plus to 30' plus-Charlottesville, VA



E. High St. 32' Front Setback w/ 7'-0" encroachment



E, High St. 25' Front Setback w/ 7'-0" encroachment



E. High St. 20'-4" Front Setback w/ Full width patio



E. High St. 24' Front SB w/ 7'-0" encroachment



E. High St. 20'-4" Front SB w/ 6'-8" encroachment



E. High St. 30' Front SB w/ 7'-0" encroachment

Front Setbacks: 15' plus to 20' maximum-Charlottesville VA



E. High St. 18'-4" Front SB w/ 5'-0" encroachment



Altamont St. Front SB w/ 7'-0" encroachment



2nd/Hedge St. 17' Front SB w/ 11'-4" encroachment



W. High St. 20' Front SB w/ 8'-0" encroachment



2nd/Hedge St. 17' Front SB w/ 11'-4" encroachment

Uptown North Orange Form-Based Code (UNO-FBC)

Front Setbacks: 5' to 10' to 15' maximum-Charlottesville VA



2nd St. NE -14' Front SB



2nd St. NE-10' Front SB w/ 8'-0" encroachment



1st St. N.E.-10'-4" Front SB w/ 6'-6" encroachment



1st St. 14' Front SB w/ 6'-8" encroachment



W. High St. 14'-6" Front SB w/ 9'-16" encroachment



E. High St. 7'-6" Front SB (9'-8" strip/ 6' sidewalk)

Side Setbacks: Charlottesville VA



2nd St. NE /High St.- 8'-0" Side SB



2nd St. NE-0' Side SB



1st St. N.E.-7'-0" Side SB



1st St. w/ shared driveway



2nd/Hedge St 8'8" Side Setback w/6' encroachment



2nd/Hedge St. 5'-5" Side SB

Uptown North Orange Form-Based Code (UNO-FBC)

Public Frontages: Charlottesville



W. High St. 9'-0" Planting Strip w/ 6'-0" sidewalk



Altamont St. 4'-0" Planting Strip w/3'-0" sidewalk



E. High St. 9'-0" Planting Strip w/ 6'-0" sidewalk



E. High St. 7'-0" Planting Strip w/ 6'-0" sidewalk



E. High St. 7'-0" Planting Strip w/ 5'-6" sidewalk



E. High St. 9'-8" Planting Strip w/ 6'-0" sidewalk

Commercial/Mixed Use Areas: Pre-WWII & 21st c. "Urbanism" (w/two and one & one-half story buildings)-East Coast



Concord, MA



Hilton Village, Newport News



Scottsville, VA



Concord, MA



King Farm, Rockville, MD



Palmer Square, Princeton, NJ