

Article 9:
LANDSCAPE AND SCREENING REGULATIONS

Article 9:**Landscaping and Screening Regulations****A. Purpose and Intent:**

The purpose of this section is to establish general standards and processes by which the Smithfield Comprehensive Plan's goals and objectives for landscape architecture, urban and waterfront design, site buffering, and transitional screening will be implemented. Pursuant to the intent of preserving and promoting the health, safety and general welfare of the community, these regulations are promulgated in order to:

1. Facilitate the protection, replenishment and maintenance of the existing environment,
2. Conserve and protect sensitive environmental resources and open spaces,
3. Preserve and enhance the aesthetic character of the community,
4. Protect and improve the quality of natural waters and wetlands,
5. Enhance erosion and sediment control practices through the use of plant materials and ground cover,
6. Improve the physical relationship between adjacent properties via sensitive screening and buffering,
7. Reduce potential deleterious relationships between pedestrian and vehicular land use patterns,
8. Preserve, rehabilitate and maintain existing water courses and stream valleys in high quality condition,
9. Provide adequate tree canopy and vegetative cover and
10. Introduce complementary landscaping to supplement Chesapeake Bay regulations, Best Management Practices, and stormwater management requirements.

B. General Standards:

The following general standards shall apply to the planning, design, installation and maintenance of all landscape improvements, urban design improvements, screening and buffering measures, and related site development practices required by this section:

1. A landscape plan meeting the requirements of this article 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 this Article as well as generally accepted landscape design principles.
2. Landscape design plans shall seek to 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 Best Management Practices Handbook.
3. The 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 that the transplanting of trees and shrubs may be done in accordance with accepted horticultural and silvicultural 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 Chapter of the American Society of Landscape Architects.
4. 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 Article. In RPA buffer areas and areas outside the construction footprint, plant material shall be tended and maintained in a healthy growing condition and free from refuse and debris. Unhealthy, dying or dead plant materials shall be replaced during the next planting season. 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 this ordinance. 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 shall incorporate such requirements.
5. Landscape plans to accompany any site plan or plat shall be prepared by a qualified landscape designer, nurseryman, horticulturalist or a Certified Landscape Architect. Qualifications and/or certification shall be shown on the site plan or plat and must include the name, address and phone number of the person(s) that prepared the landscaping plan.

6. The landscaping and buffering standards hereinafter established provide minimum guidelines for landscape architecture of commercial, industrial, institutional and residential properties. Refer to Appendix C for graphic illustrations and design guidelines.
7. In addition to the provisions of this article, property which is situated within areas recognized by the Official Zoning Map as a HP-O, Historic Preservation Overlay District and/or a designated Chesapeake Bay Preservation Area shall be subject to additional regulations as provided for in the individual zoning districts, supplemental regulations and design guidelines related thereto.
8. Where areas to be preserved, as designated on an approved landscaping plan, are encroached, replacement of existing trees and other vegetation will be achieved at a ratio of three (3) planted trees to one (1) removed. Replacement trees shall be a minimum three and one-half (3.5) inches diameter breast height (DBH) at the time of planting.
(Ord. of 8-1-2000; Ord. of 9-5-2000)

C. Site Landscaping, Canopy and Tree Preservation Standards:

1. The applicant shall preserve and protect existing trees in the design and development of projects requiring Town subdivision and/or site plan approval and to replace those trees necessarily removed during such development.
2. The subdivision plat or site plan for any subdivision or site development activity shall 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 will be provided in accord with the following standards: (Refer to Appendix C for graphic illustrations of canopy coverage ratios for commercial, industrial and residential land uses.)
 - a. Business, Commercial and Industrial Development: Ten percent (10%) of the total site area shall be covered in tree canopy.
 - b. Residential Development (20 DU/AC and greater): Ten percent (10%) of the total site area shall be covered in tree canopy.
 - c. Residential Development (Greater than 10 DU/AC and less than 20 DU/AC): Fifteen percent (15%) of the total site area shall be covered in tree canopy.
 - d. Residential Development (10 DU/AC and less): Twenty percent (20%) of the total site area shall be covered in tree canopy.

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- e. Platted Residential Lots: Ten percent (10%) of the total lot area, or 3000 square feet, whichever is less.
 - f. Off-Site Planting Option: If the full canopy requirement cannot be met by on-site plantings, the requirement may be satisfied by off-site plantings at the discretion of the Planning Commission.
3. All landscape materials shall conform with the following minimum size or height (at date of planting) standards:
- a. Deciduous shade trees: 2" caliper
 - b. Street trees: 2" caliper
 - c. Ornamental and understory trees: 6' height
 - d. Coniferous trees: 6' height
 - e. Evergreen shrubs: 18" spread or height
 - f. Deciduous shrubs: 24" spread or height
4. "Tree canopy" or "tree cover" shall 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.
5. 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 shall be well branched and well formed, vigorous, healthy and free from disease, sun and wind damage and insect and shall have healthy and unbroken root systems.
6. Tree canopy requirements may be reduced on a case-by-case basis by waiver of the Planning Commission 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 above stipulated sizes may be modified based on specific property conditions and site design requirements.
7. The removal of any trees which exceed 6" caliper (dbh, breast height) shall be fully 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.

8. Existing trees, inclusive of wooded preserved areas, 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.
9. In cases where the application of the screening and/or parking lot landscape requirements cited hereinafter exceed the above minimum canopy requirements, the final placement, type, and quantity of landscape materials shall be determined as a part of the Town's site plan or subdivision plat review process, provided that nothing herein shall restrict the applicant from exceeding the minimum canopy requirements, if desired.
10. 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.
11. The applicant's landscape architect or qualified landscape designer shall consult with the Planning and Zoning Administrator during the preliminary plan phase to determine the most appropriate layout and coordinated landscape design concepts, tree placement and suitable species of trees and ground cover to be incorporated into the site plan.

D. Parking Lot Landscaping:

1. Parking lots and private access adjacent to lot lines:
 - a. Where a parking lot (or a private driveway providing access to a parking lot or building entry) abuts a property line not common with the right of way of a street, a landscaping strip of ten (10) feet in width shall be located between the parking lot and the abutting property line. Refer to Appendix C for graphic examples.
 - b. A minimum of one tree for each forty (40) feet of contiguous property line shall be planted in the landscaping strip. This planting shall be in addition to any planting within a required zoning district buffer yard and in addition to any planting within six (6) feet of a building or structure.
 - c. Where appropriate, shrubs and ground covers shall be provided within the landscaping strip to establish an enhanced low level visual buffer between the adjoining properties.

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- d. At maturity, these shrubs and other ground covers shall be three (3) to five (5) feet in height. Landscape plans are encouraged to incorporate earth berms, where appropriate, into the buffer strips.
 2. Parking lots and private access adjacent to public streets:
 - a. Where a parking lot (or a private driveway providing access to a parking lot or building entry) abuts a public right of way for a Town street, a landscaping strip of ten (10) feet in width (not including sidewalk) shall be located between the parking lot or private driveway and the right of way line.
 - b. A minimum of one tree for each forty (40) feet of property line common with the public right of way shall be planted in the landscaping strip. This planting shall be in addition to any planting within a required zoning district buffer yard and in addition to any planting within six (6) feet of a building or structure.
 - c. Where appropriate, shrubs and ground covers shall be provided within the landscaping strip to establish an enhanced low level visual buffer between the parking lot and the public right-of-way.
 - d. At maturity, these shrubs and other ground covers shall be a minimum of three (3) to five (5) feet in height. The landscape design for such shrubs and ground covers shall also serve to direct and control pedestrian access into parking lots.
 - e. Landscape plans are encouraged to incorporate earth berms, where appropriate, into the right of way landscaped buffer strips.
 3. All parking lots of twelve (12) or more spaces shall contain within the interior of the parking lot not less than one tree for every six (6) parking spaces or fraction thereof. Such trees shall be reasonably dispersed throughout interior of the parking lot in accord with good landscape and urban design practices. All plant materials shall be of a variety and size which can be used to meet the tree canopy cover requirements hereinabove outlined. Refer to Appendix C for graphic illustrations.
 4. Landscaping located within the interior of parking lots shall be contained within "planting islands" with raised medians. Planting islands which are located parallel to the long dimension of a parking spaces shall have a minimum width of ten (10) feet and shall be designed to permit vehicular doors to open fully without impacting plant materials. A median (or island) shall be constructed to separate no more than twelve (12) contiguous perpendicular spaces for single-loading bays and twenty-four (24) for double-loading bays. A planting island with raised median (with curb and gutter) shall be constructed to

- terminate the end of any perpendicular parking bay and to provide adequate separation from an adjacent to a private driveway or travelway.
5. Landscaped "planting islands" (located such that parking spaces are on opposing sides of the planting island) shall be developed in parking lots meeting the following criteria:
 - a. The total size of the parking lot exceeds one hundred fifty (150) total parking spaces,
 - b. Parking lot layout incorporates three or more double-loaded or single-loaded parking bays which are contiguous and parallel to each other, and the requirements of Paragraph 4 above.
 - c. Planting islands which are designed to be perpendicular to the parking bay shall be constructed for every other parking bay.
 - d. Planting islands shall have a minimum width of six (6) feet to allow for bumper overhang and shall otherwise provide adequate width for the growth and maintenance of the intended landscape materials to be planted therein.
 6. The primary landscaping materials used in parking lots shall be trees which provide shade or are capable of providing shade at maturity. Shrubs and other live planting material must be used to complement the primary, tree landscaping, but shall not be the sole contribution to the landscaping.
 7. The landscaping shall be dispersed throughout the parking lot, with interior dimensions of any planting area (i.e. interior parking median) sufficient to protect and maintain all landscaping materials planted therein. See illustrative example in Appendix C.
 8. The type and method of parking lot landscape irrigation shall be fully described in the site plan if any type and method is to be included in the design.
 9. The applicant's landscape architect or landscape designer and project engineer shall consult with the Planning and Zoning Administrator during the sketch plan and preliminary plat phase to determine the most appropriate parking lot layout and coordinated landscape design concepts, tree placement, and suitable species of trees and ground cover to be used in parking lots.
 10. The landscape provisions of this article are not intended to apply to off-street parking spaces or private driveway access to such off-street parking spaces for individual single family residential dwellings.

E. Transitional Screening and Buffer Yards:

1. Transitional screening and buffer yards shall be required between properties as designated by the Zoning Map for different land use categories. Screening and buffer yard requirements shall be imposed on the property of the more intensive zoning category. Buffer landscape yard geometry, plant types, plant quantities and related landscaping requirements between different land use categories shall be based on the screening and buffer yard standards in Appendix C of this ordinance.
2. Transitional screening shall be provided at the outer boundaries of a lot, except in locations where driveways, parking lots, utility easements and/or other openings are required. Where transitional screening and landscape buffer yards are required, evergreen trees and deciduous trees of size, type and canopy as approved by the Planning Commission, shall be employed for screening purposes.
3. Understory and shrubs, in the recommended size and quantities described in the graphic design standards in the appendix, may be incorporated into the buffer yard at the option of the applicant. Landscape plans are encouraged to incorporate earth berms, where physiographically feasible, and other creative landscape features into transitional screening and buffer yard designs. See illustrative examples in Appendix C for recommended landscape materials and placement.
4. Buffer yards and transitional screening may not be used for the storage of materials, buildings, parking or loading areas for motor vehicles or equipment or signs. Sidewalks and pedestrian trails may be incorporated into buffer yards.
5. All outdoor storage and loading areas shall be screened from all public streets and adjacent residential properties. An opaque screen with a minimum height of six (6) feet of landscape materials, architectural walls, opaque fencing or other opaque material shall be used.
6. Transitional screening may be waived or otherwise modified by the Planning Commission for any public use or utility when it can be demonstrated that such use has been specifically designed to minimize adverse impacts on adjacent properties.
7. 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.

8. Transitional screening requirements may be modified by the Planning and Zoning Administrator in cases where it can be clearly demonstrated by the applicant that either (a) the alternative landscape design minimizes any adverse impact through a combination of architectural and landscaping techniques or (b) where the topography of the property is such that transitional screening would not be effective and other methods of screening provide equal and adequate design responses.
9. The applicant's certified landscape architect or qualified landscape designer shall consult with the Planning and Zoning Administrator during the sketch plan and preliminary plat phase to determine the most appropriate buffer and screening design concepts, tree placement and suitable species of trees to be used for screening purposes.
10. Additional buffer requirements for major Town entrance streets and highways:
 - (a). In order to maintain and preserve the small town atmosphere of Smithfield and the desired landscape character for the major streets and highways, a minimum buffer yard measuring forty (40) feet in width shall be preserved on properties contiguous to the public right of way of all major arterial roads into the Town.
 - (b). The streets and highways designated for additional buffer requirements are:
 - (1). Bennis Church Boulevard (Route 10),
 - (2). Route 10 Bypass,
 - (3). Battery Park Road (Route 704) and
 - (4). Courthouse Highway (Route 258).
 - (c). The buffer requirement for the major streets and highways leading into the Town shall be in addition to any other buffer yard requirements for the subject property.
 - (d). The buffer yard shall be left in an undisturbed state unless otherwise approved for modifications or recommended by the Planning Commission for improvement and enhancement. If improvements and enhancements are to be made within the buffer yard, new landscape materials and grading activities shall be designed to preserve and enhance the natural character of the buffer yard and its existing mature vegetation. Limited clearing of underbrush and removal of volunteer vegetative undergrowth is encouraged within the buffer yard to ensure that existing, mature vegetation can prosper.
 - (e). Supplemental plantings and ground cover within the major street and highway buffer yard may be required, subject to landscape plan review.

- (f). Subject to site plan review by the Planning Commission, commercial and industrial properties fronting on the major entranceways to the Town shall be permitted to establish limited sight lines which allow indirect views of building but which shield the views of parking areas to the extent possible.

F. Subdivision Landscaping and Street Tree Requirements:

1. A street tree landscape plan shall be submitted with all residential subdivision plats and other development plans involving the construction, extension or widening of private or public streets.
2. The street tree landscape plan for residential subdivisions shall provide for the placement of street trees outside of and contiguous to the public right-of-way. A minimum of one street tree on each side of a given street shall be established for each forty (40) feet of right of way length.
3. Within residential subdivisions, the street tree landscape plan shall provide an integrated program of street tree plantings, residential subdivision lot landscaping, and tree preservation for all lots located within the subdivision.
4. Street trees shall be counted towards the landscape canopy requirement.
5. No street trees 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.
6. The applicant's landscape architect or qualified landscape designer shall consult with the Planning and Zoning Administrator during the sketch plan and preliminary plat phase to determine the most appropriate species of street trees as well as suitable landscape design and placement concepts for use in a given subdivision or street development program. A list of candidate landscape materials and varieties for differing functions and applications is provided in the appendix of this ordinance.

G. Bonds and Maintenance:

1. No landscape plan required by this ordinance shall be approved until the applicant has posted a bond acceptable to the Town conditioned upon satisfactory installation of the landscaping proposed in the landscape plan. The bondable sum shall be established by

the Planning and Zoning Administrator upon receipt of the applicant's certified estimate of costs for the proposed landscape improvements.

2. At the discretion of the Planning and Zoning Administrator, the bond (or a portion thereof) for landscaping may be held in force for a period of not longer than eighteen (18) months from date of planting of materials, provided that landscape materials have been specified, planted and maintained pursuant to the requirements of this Article. During the period, plant materials shall be tended and maintained in a healthy growing condition and replaced if necessary.
3. Street trees shall be bonded along with other public improvements proposed for any Town residential subdivision, provided that single family residential subdivisions with fewer than five (5) lots shall be exempt from bonding requirements.
4. Upon written notice by the Planning and Zoning Administrator, the subdivider or developer shall repair or replace any landscape materials, seeding and ground cover, screening, fencing, fine grading and earthscaping, or other landscape elements which do not meet the requirements and intent of this Article within thirty (30) days of notification.
5. No Certificate of Occupancy shall be issued until required landscaping is completed in accordance with the approved landscape plan or as otherwise conditioned by the Planning and Zoning Administrator.

H. Landscape Plan Requirements

1. The landscape plan drawn on a site plan base map to the same scale as the accompanying site plan and/or subdivision plat.
2. Refer to the Town's Design and Construction Standards Manual and Appendix C of this ordinance for additional information related to landscape materials, installation standards, and design details.
3. The landscape plan shall include:
 - a. A tree survey depicting the location, size, description and number of existing trees with 6" or greater caliper. The tree survey shall include all trees which are proposed to be removed during the site development or subdivision process. This shall include the identification, classification and location of any diseased trees which should be removed during site development.

- b. Location, type, size, height, number and botanical name and construction details for proposed landscaping materials. Information is to be provided in graphic and tabular format.
- c. Canopy dimensions (at 20 year maturity), location, size or caliper (at time of planting), area of canopy coverage, description and the botanical name of proposed trees, landscape materials, ground covers and planting beds. A table shall address the calculations for open space, tree canopy, and number of plants (both required and provided).
- d. Planting specifications and installation details for proposed landscaping materials, including a schedule of recommended planting timeframes for specific plant materials and ground covers.
- e. Location, size, and botanical name of all existing landscape materials to be retained during the site development process as well as appropriate landscape protection measures to be implemented during the site construction process.
- f. Location, size and other related design details for all hardscape improvements, signage, recreational improvements and open space areas, fences, retaining walls, barriers and other elements related to transitional buffer yards.
- g. Designation of required setbacks, yards and screening areas.
- h. Location of other man-made site features, parking lots, hardscape improvements, overhead structures and underground utilities to ensure that landscape materials will not be in conflict with the placement and operation of these improvements.
- i. Limits of grading and site disturbing activities.
- j. Acreage of disturbed areas, computed by planimetric methods, to the nearest 0.1 acre.
- k. Acreage and location of proposed open spaces and recreation areas, computed to the nearest 0.1 acres.
- l. Acreage and location of total site tree cover of the projected ten year site landscape maturity timeframe, computed to the nearest 0.05 acres.
- m. Location, size and construction details for site lighting, special hardscape and landscape features, irrigation systems and exterior site furnishings.

- n. Methods and specifications for tree protection during clearing, grading, and all construction phases.
- o. Landscape preservation and maintenance program shall be provided, including recommended pruning techniques and fertilization applications and schedules.
- p. Landscape treatment of stormwater management improvements, Best Management Practices structures, and erosion and sediment controls.
- q. Any required RPA buffer area shall be clearly delineated and any plant material to be added to establish or supplement the buffer area shall be shown on the landscaping plan. Within the buffer area, trees to be removed for sight lines, vistas, access paths, and best management practices shall be shown on the plan. Vegetation to replace any existing trees within the buffer area shall also be shown on the landscaping plan.
- r. Trees to be removed for shoreline stabilization projects and any replacement vegetation shall be shown on the landscaping plan.
- s. The plan shall depict grade changes or other work adjacent to trees which will affect them adversely. Specifications shall be provided as to how grade, drainage, and aeration would be maintained around trees to be preserved.
(Ord. of 8-1-2000)