

ENVIRONMENTAL PROVISIONS



Key Changes in Article 151.7:

- This article includes a new stormwater section that consolidates standards from across the current ordinance into one place
- These standards now reference the County's Stormwater Drainage Design Manual
- The standards are drafted in recognition of the ability to file a conceptual stormwater plan as part of an application for a preliminary plat
- The County may now require access/maintenance easements to stormwater facilities
- There are new maintenance guarantee requirements for stormwater management facilities and the replacement of required landscaping
- There are new guidelines for voluntary afforestation, or the re-establishment of forested areas in locations where the view of new development can be screened
- The standards include incentives for afforestation of land areas between new development and adjacent major roadways
- The standards allow an accelerated amount of credit towards landscaping requirements provided to retained existing trees
- There is greater clarity on required methods of tree protection during construction
- The standards now apply open space set-aside requirements for mixed-use and nonresidential forms of development (in addition to residential development)
- There are new distinctions between the types of open space to be provided, including passive (for rural areas), active for higher density residential uses, and urban (for urban areas like village centers)
- There are new incentives for the inclusion of sustainable development features that allow increased densities or deviations from certain other standards in return for development configurations that preserve the environment or make development more resilient

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ARTICLE 151.7 ENVIRONMENTAL PROVISIONS

7.1 STORMWATER MANAGEMENT¹⁹²

7.1.1 PURPOSE AND INTENT

These stormwater management standards are proposed to ensure new and existing development is configured to retain and slowly release stormwater to help avoid nuisance flooding on surrounding lands. These standards are intended to:

- A. Establish basic requirements for stormwater management for all uses across the County;
- B. Identify the types of development required to file a stormwater management plan to control stormwater in accordance with this section;
- C. Clarify the maintenance responsibilities for stormwater management devices;
- D. Recognize the County's Stormwater Drainage Design Manual as a resource for applicants subject to requirements to prepare stormwater management plans; and
- E. Ensure that deposition of soil or fill material on a lot does not create negative stormwater runoff impacts for adjacent lots.

7.1.2 APPLICABILITY

A. Stormwater Management Required

The stormwater management standards in this section shall apply to all the following forms of development:

- 1. New residential development (including subdivisions of land) that disturbs one acre of land area or more;
- 2. New non-residential and mixed-use development where 10,000 square feet of land area or more is disturbed; and
- 3. There is a grade differential of nine inches or more between adjacent lots either prior to or after grading or other construction activity, regardless of the size of the lot.

B. Land Disturbance

- 1. The standards pertaining to the land disturbance, including deposition of fill, in **Section <>, Standards for Land Disturbance**, shall apply to all new development in the County, including construction of single-family detached dwellings on individual lots.
- 2. The standards for land disturbance shall also apply to any land disturbing activities on an existing non-residential, mixed-use, or multi-family development site after **[insert the effective date of this Ordinance]**.

7.1.3 STORMWATER MANAGEMENT PLAN REQUIRED

- A. Stormwater management plans shall be prepared for all forms of development identified in **Section <>, Stormwater Management Required**.
- B. Stormwater management plans shall be prepared by a professional engineer or land surveyor licensed by the State of North Carolina with proven experience in stormwater drainage.
- C. Stormwater management plans shall be prepared in accordance with Section 6 of the County's Stormwater Drainage Design Manual.
- D. The stormwater management plan shall be reviewed by the County's designated engineer at the applicant's expense.
- E. The plan shall clearly indicate the steps that will be taken for restoring a stormwater management facility to design specifications if a failure occurs.
- F. Nothing shall limit the ability of an applicant for a preliminary plat to file a conceptual or preliminary stormwater management plan for consideration by the Planning Board and Board of Commissioners as part of the approval of a preliminary plat. However, a final stormwater plan, meeting all the standards in the Stormwater Drainage Design Manual, shall be approved by the County prior to the commencement of any construction activities associated with the preliminary plat.

7.1.4 STORMWATER MANAGEMENT STANDARDS

A. Compliance with Camden County Stormwater Drainage Design Manual

¹⁹² This is a new section described on Page 7-1 of the Evaluation Report. This section consolidates the provisions from Section 151.232(F), Drainage, as well as Sections 151.400 through 151.403 pertaining to stormwater management from the current ordinance. This section establishes the requirements to manage stormwater runoff, the minimum standards, and cross references the County's Stormwater Design Manual as the source for information about how best to configure stormwater management controls. In addition, this section includes new provisions pertaining to required maintenance of stormwater facilities, and new requirements for maintaining County access to such facilities (via an easement) to ensure the County may access and maintain these facilities in cases where owners do not.

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7.1 Stormwater Management^{191F}

7.1.4 Stormwater Management Standards

1. New development shall comply with the applicable portions of the Camden County Stormwater Drainage Design Manual in addition to the standards in this section.
2. In the event of conflict between the standards in the Camden County Stormwater Drainage Design Manual and the standards in this Ordinance, the standards in the Manual shall control.

B. Utilize Natural Drainage System¹⁹³

1. To the maximum extent practicable, all development shall conform to the natural contours of the land and natural and pre-existing man-made drainage ways shall remain undisturbed.
2. To the maximum extent practicable, lot boundaries shall be made to coincide with natural and pre-existing man-made drainage ways within subdivisions to avoid the creation of lots that can be built only by altering such drainage ways.

C. Disruption of Stormwater Flow Prohibited

All developments shall be constructed and maintained so that adjacent lands are not unreasonably burdened with surface waters as a result of such developments. More specifically:

1. No development may be constructed or maintained so that such development unreasonably impedes the natural flow of water from higher adjacent properties across such development, thereby unreasonably causing substantial damage to such higher adjacent properties; and
2. No development may be constructed or maintained so that surface waters from such development are unreasonably collected and channeled onto lower adjacent properties at such locations or at such volumes as to cause substantial damage to such lower adjacent properties.

D. Undue Retention of Stormwater Prohibited¹⁹⁴

All developments subject to these standards shall be provided with a drainage system that is adequate to prevent the undue retention of surface water on a development site. Surface water shall not be regarded as unduly retained if:

1. The retention results from a technique, practice or device deliberately installed as part of an approved sedimentation or stormwater management plan; or
2. The retention is not substantially different in location or degree than that experienced by the development site in its pre-development stage, unless such retention presents a danger to health or safety.

E. Stormwater Management Facility Performance

1. Stormwater management facilities shall include both a means of on-site temporary storage of stormwater as well as a system for the controlled release of collected stormwater run-off into off-site areas, including through ground absorption.
2. The total release rate of stored stormwater run-off on a site shall not exceed the rate of stormwater run-off that would result from the area in its pre-development state during a ten-year storm event. For the purposes of these stormwater management standards, a "pre-development state" is defined in the Camden County Stormwater Drainage Design Manual.
3. All free-flowing stormwater removal systems within a subdivision shall be designed to accommodate a 24-hour ten-year storm event, or the NCDOT road drainage specifications, whichever is greater.
4. Whenever practicable, the drainage system of a development shall connect to and not interfere with the drainage systems or drainage ways on surrounding developments or streets.
5. No stormwater run-off water may be channeled or directed into a sanitary sewer.
6. Downstream drainage impediments that restrict stormwater run-off flow to a point of making a proposed subdivision unable to comply with these standards shall be addressed by the subdivider through additional storage of excess stormwater on site, improving downstream flow with the consent of all property owners adjacent to the drainage way, or a combination of both.

F. Stormwater Management Along Streets

Use of drainage swales along streets, as opposed to traditional curb, gutter, and storm drains, is permissible in areas specified by the Camden County Stormwater Drainage Design Manual.

G. Requirements for New Swales and Ditches

1. All swales or ditches in a development's stormwater system shall be protected from erosion prior to issuance of a final plat or building permit (as appropriate).
2. Compliance with these standards shall be reached solely through the establishment of vegetative cover or installation of a stabilized vegetative mat. Immature or unestablished vegetation is insufficient for complying with the standards of this section.

H. Development Subject to CAMA Permit Requirements

¹⁹³ These standards carry forward the standards in Section 151.402, Stormwater Management, as well as the standards in Section 151.400, Drainage, from the current ordinance with additional new provisions.

¹⁹⁴ This section carries forward the standards in Section 151.401, Developments Must Drain Properly, from the current ordinance.

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7.1 Stormwater Management^{191F}

7.1.5 Maintenance Requirements^{194F}

Any development that requires a CAMA Major Development Permit or a sedimentation and erosion control plan shall be subject to the state stormwater runoff policies promulgated in 15 NCAC 2H Section 1000, unless exempted by those regulations.

I. Facility Location and Access

1. Stormwater management facilities shall, to the maximum extent practicable, be designed and configured to allow on-going maintenance of the facility, including periodic dredging, as appropriate.
2. Stormwater management facilities serving a subdivision shall be located on their own lot or on a lot in common ownership. In no instance shall a facility serving a subdivision be located upon building lot intended for private ownership. Nothing shall limit the placement of a stormwater run-off conveyance on a private lot provided it is also located within a stormwater easement that permits periodic inspection and maintenance.

J. Stormwater Easement May Be Required

1. Nothing shall prohibit the County from requiring establishment of a permanent access and maintenance easement in favor of the County from a public right-of-way or other acceptable form of ingress and egress to a stormwater management facility.
2. Such easement shall be the minimum size and configuration necessary to allow the County to maintain the stormwater management facility, as determined in the sole discretion of the County.
3. The County shall not be responsible for damage to landscaping, fencing, walls, or other features located within the easement that results from routine inspection and maintenance of the facility.

K. Certification Upon Installation

1. Following installation of a stormwater management facility, a professional engineer licensed by the State of North Carolina shall certify the installation was performed as designed and verified by an as-built survey.
2. A certificate of occupancy shall not be issued for any building within the permitted development until the stormwater management facility has been certified and the certification has been accepted by the County.

7.1.5 MAINTENANCE REQUIREMENTS¹⁹⁵

A. Maintenance Required

1. Stormwater management facilities established on private lands in accordance with these standards shall be regularly maintained to ensure it maintains the minimum level of required functionality in terms of stormwater run-off retention, release, and conveyance. Determination of an acceptable level of functionality shall rest solely with the County.
2. Guidelines on stormwater management facility maintenance are included in Division 12 of the County's Stormwater Drainage Design Manual. At a minimum, the facility shall be regularly maintained to ensure continued structural integrity, retention of stormwater run-off holding capacity, avoidance of sedimentation and soil subduction, as well as regular and on-going maintenance of vegetation and trash removal in accordance with the applicable nuisance provisions in the County Code of Ordinances.

B. Responsible Party

1. Maintenance responsibility for stormwater management facilities shall be upon the owner of the property where the facilities are located, or on an entity that has legally agreed to be responsible for their maintenance.
2. Nothing in these standards shall prohibit the transfer of maintenance responsibility for stormwater management facilities from a landowner to another entity, such as transfer from a developer to a homeowner's association.
3. The stormwater management plan prepared in accordance with **Section <>, Stormwater Management Plan Required**, shall specify the party responsible for stormwater management facility maintenance.
4. In the event a subdivision is established with an owner's association taking responsibility for maintenance of common features like stormwater management facilities, the documents establishing the association and its operating procedures shall specify the association's responsibility for stormwater management facility maintenance.

C. Vegetation

Vegetation shall not be established or allowed to mature in areas proximate to a stormwater management facility if the integrity of a stormwater management facility is diminished or threatened, or access to the facility is interrupted.

D. Annual Inspection Required¹⁹⁶

¹⁹⁵ These are new standards that build upon the very limited maintenance requirements described in the current ordinance. These standards include new requirements for development to configure stormwater management devices in such a way as to allow easy access to and maintenance of the device as well as the requirement for access easements in favor of the County to stormwater management devices serving subdivisions.

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7.1 Stormwater Management^{191F}

7.1.6 Maintenance Warranty Required

An annual inspection report on each stormwater management facility shall be performed by a knowledgeable expert and documented on forms provided by the County. Annual inspection reports shall be submitted to the County in accordance with the schedule outlined in the approved stormwater management plan. Failure to prepare an inspection report or falsification of report findings shall be a violation of this Ordinance subject to the standards and requirements in **Article 151.9 Enforcement**.

E. Inspection by County

Regardless of the timing or contents of an annual inspection report, the County may inspect stormwater management facilities located on private property. Inspection may include, but is not limited to: testing of structures, water, or vegetation as the County determines may be useful to determine the history or performance of the stormwater management facility.

7.1.6 MAINTENANCE WARRANTY REQUIRED

Final approval of all stormwater management facilities required by the County shall be conditioned on the posting of a maintenance warranty for the purpose of maintenance and repair of the facility, in accordance with the following:

A. Acceptable Form of Warranty

1. Prior to final inspection and certification of a stormwater management facility, the responsible party shall deposit either cash or an evergreen letter of credit with the County as a maintenance warranty that the stormwater management facility will be properly maintained.
2. All evergreen letters of credit shall be in a form readily convertible into cash at face value.
3. In the event of transfer of maintenance responsibility from one entity to another, maintenance warranties shall be transferred along with maintenance responsibility.

B. Amount of Warranty

1. The cash or evergreen letter of credit shall be in an amount equal to 15 percent of the total cost of the stormwater management facility or the estimated cost of maintaining it over a ten-year period, whichever is greater.
2. The estimated cost of maintaining the stormwater management facility shall be consistent with the approved plan provided to the County by the developer.

C. Default

1. Upon failure of the responsible party to properly maintain the stormwater management facility in accordance with these standards or the applicable stormwater management plan, the County shall obtain and use all or any portion of the maintenance warranty to conduct necessary maintenance. Such expenditure of funds shall only be made after exhausting all other reasonable remedies seeking the responsible party to comply with these maintenance requirements.
2. The County shall not return any of the unused deposited cash funds, which shall be retained for further maintenance.

D. Warranty not a Substitute for Maintenance

Posting of a maintenance warranty in accordance with this section shall not absolve a responsible party from maintaining a stormwater management facility in accordance with the standards in **Section <>, Maintenance Requirements**.

¹⁹⁶ This standard is typical in many communities with stormwater management standards, and is proposed for the County's consideration. It is not integral to the functionality of the standards, but may help address chronic inadequacies that result in nuisance flooding.

ARTICLE 151.7 ENVIRONMENTAL PROVISIONS

7.2 Standards for Land Disturbance^{196F}

7.2.5 Configuration Requirements for Fill

7.2 STANDARDS FOR LAND DISTURBANCE¹⁹⁷

7.2.1 APPLICABILITY

- A. The standards in this section shall apply to any land disturbing activity is proposed regardless of the size of disturbed area.
- B. A fill permit, issued in accordance with **Section <>, Fill Permit**, is required when filling/grading above any adjacent grade is proposed.

7.2.2 LIMITATIONS ON LAND DISTURBANCE

- A. Land disturbing activities are prohibited within ten feet of any lot line. The following activities are exempted from this requirement:
 - 1. Clearing or grubbing of vegetation;
 - 2. Soil disturbance associated with landscape plantings or gardens;
 - 3. Drainage and stormwater improvements;
 - 4. Placement of underground utilities; and
 - 5. Actions conducted pursuant to a County-approved stormwater management plan.
- B. Landscaping, fences, and privacy walls may be located within an area ten feet from a lot line, provided they do not impede the flow of stormwater run-off.
- C. Land disturbance within ten feet of lot lines adjacent to a street may be permitted for driveways, provided such disturbance is limited to culvert, drainage, and driveway improvements that comply with all provisions of this section.
- D. Stormwater retention or detention ponds shall not be located within ten feet of a lot line unless approved by the County.
- E. Land disturbing activities proposed within the SFHA shall be subject to the applicable standards in **Section <>, Special Flood Hazard Area (SFHA)**.

7.2.3 LIMITATION ON THE LOCATION OF FILL

- A. Deposition of fill is not permitted within ten feet of any side or rear lot line under separate ownership. Deposition of fill may take place within ten feet of any lot line subject to an approved stormwater management plan (see **Section <>, Stormwater Management**).
- B. In no instance shall fill be deposited or shall land be graded on a lot in a manner that results in a finished grade that is higher than adjacent lots, except in the following cases:
 - 1. When Albemarle Regional Health Services (ARHS) determines that fill is necessary for a septic system to function properly. In these instances, the fill area shall be limited to the septic system and drainfield areas, and the maximum fill shall not exceed 24 inches.
 - 2. An additional 12 inches of fill above the septic system and drainfield fill may be allowed for the building pad, to ensure adequate flow from the building to the septic system.
 - 3. When fill is required to raise the lot elevation to the base flood elevation or regulatory flood protection elevation.
 - 4. When fill is essential to meet the required pad elevation as shown on an approved preliminary plat or grading plan.
- C. Fill shall not encroach on natural water courses, floodplains, or constructed channels in a manner that adversely affects water bodies or adjacent lands.

7.2.4 STORMWATER MANAGEMENT PLAN REQUIRED

If filling, deposition, or cutting away of soil takes place in such a manner that the established grade between adjacent lots differs by nine inches or more, then a stormwater management plan prepared in accordance with the standards in **Section <>, Stormwater Management**, shall be required.

7.2.5 CONFIGURATION REQUIREMENTS FOR FILL

- A. In cases where an approved stormwater management plan addresses land disturbance or fill activity, filling shall be configured in accordance with the approved stormwater management plan.
- B. The slope for fill shall not to exceed 3:1 (three feet horizontal run for every one foot vertical rise).
- C. The toe of the slope shall meet the ten foot setback requirement from all lot lines.

¹⁹⁷ This section replaces the standards from Section 151.404, Mandatory Standards for Land Disturbance Activities, from the current ordinance with minor revisions for clarity and ease of understanding.

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7.2 Standards for Land Disturbance 196F

7.2.5 Configuration Requirements for Fill

- D. A permanent ground cover, sufficient to prevent erosion, shall be established on all fill slopes as follows:
1. Prior to issuance of a certificate of occupancy for construction projects; or
 2. For projects where land disturbance activity has ceased for more than six months.
- E. Bulkheads or retaining walls shall not be allowed as a method to stabilize or contain fill, except bulkheads established for the purpose of shoreline protection and as otherwise permitted by the County. This shall not include retaining walls used to stabilize or contain existing natural grade when a driveway or walkway is cut into a lot at an elevation lower than existing natural grade.
- F. In the cases of natural grade differences greater than nine inches between adjoining lots of the same development, the County may require preparation of a stormwater management plan in accordance with **Section <>, Stormwater Management Plan Required**, in order to deviate from the fill requirements in this subsection. The stormwater management plan shall verify that the proposed development will not create flooding or nuisance conditions on the lower adjacent lots.
- G. Any lot subject to filling shall install erosion and sediment control measures configured in accordance with **Section <>, Sedimentation and Erosion Control**, to prevent sediment from leaving the site. The erosion and sediment control measures shall be implemented on the site prior to the commencement of land disturbing activities and shall be continuously maintained during the land disturbance phase of development.

ARTICLE 151.7 ENVIRONMENTAL PROVISIONS

7.4 Tree Protection^{198F}

7.4.3 Afforestation Guidelines^{199F}

7.3 SEDIMENTATION AND EROSION CONTROL¹⁹⁸

7.3.1 EROSION AND SEDIMENTATION CONTROL PLAN REQUIRED

Any development subject to zoning compliance permit, special use permit, or final plat that requires land disturbing activity shall require prior approval of an erosion and sedimentation control plan by the State Sedimentation Control Commission under Section 113A-57(4) of the North Carolina General Statutes, unless exempted by this section.

7.3.2 EXEMPTIONS

Section <>, Erosion and Sedimentation Control Plan Required, shall not apply in cases where the State Sedimentation Control Commission has certified to the County that:

- A. An erosion and sedimentation control plan has been submitted to and approved by the Commission; or
- B. The State Sedimentation Control Commission has examined the preliminary plans for the development and it reasonably appears that an erosion and sedimentation control plan can be approved upon submission by the developer of more detailed construction or design drawings. However, in this case, construction of the development may not begin (and no building permits may be issued) until the Commission approves the erosion and sedimentation control plan.

7.4 TREE PROTECTION¹⁹⁹

7.4.1 PURPOSE AND INTENT

The purpose of this section is to provide guidance for applicants who choose to retain existing trees during and after the development process as well as to encourage reforestation of cleared areas as a means of maintaining the community's rural character. These standards are further intended to:

- A. Promote sequestration of carbon dioxide through the retention of existing trees and establishment of new trees;
- B. Encourage the retention of existing trees during the development process through accelerated credit towards landscaping requirements;
- C. Encourage the planting of trees in cleared areas in order to create and maintain scenic views and rural vistas along major roadways; and
- D. Establish tree protection requirements for trees proposed for retention during the development process.

7.4.2 APPLICABILITY

Compliance with these provisions is voluntary except in cases where existing trees are retained for credit towards the landscaping requirements in Section <>, Landscaping. All trees to be retained during the construction process shall be protected by tree protection fencing in accordance with Section <>, Tree Protection Fencing.

7.4.3 AFFORESTATION GUIDELINES²⁰⁰

A. Purpose and Intent

These afforestation guidelines are proposed as a means of establishing new areas of tree canopy on non-forested lands in order to preserve and protect the County's rural character. These guidelines are further intended to:

- 1. Provide long-term screening of new development;
- 2. Restore wildlife habitat;
- 3. Limit soil erosion and degradation; and
- 4. Create or retain scenic views along major roadways.

B. Afforestation Defined

¹⁹⁸ This section carries forward current code section 151.403 with no substantive change.

¹⁹⁹ This is a new section proposed to replace the standards in Section 151.157, Retention and Protection of Large Trees, and Section 151.159, Protection of Trees During Construction, in the current ordinance. These new standards are voluntary and include more detailed purpose statements. There are new provisions encouraging afforestation (the re-establishment of trees in areas that have been cleared for several years, such as on former farmland), a new section providing increased credit toward the provision of required landscaping through the retention of existing trees, and standards for the protection of existing trees being retained for credit toward landscaping requirements during the construction process.

²⁰⁰ These are new provisions proposed for the County's consideration. They are proposed as guidelines for voluntary planting of trees between new developments like subdivisions (residential or commercial) or industrial parks and adjacent major roadways in order to screen these developments from view and maintain the rural appearance of the County, as seen from major roadways.

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7.4 Tree Protection 198F

7.4.3 Afforestation Guidelines 199F

“Afforestation”, as used in this section, is the planting of young trees in order to re-establish a tree canopy on non-forested land in ways that will eventually screen new development from view from adjacent roadways outside the development.

C. Provisions are Guidelines

Establishment on an afforestation area(s) in accordance with these guidelines is voluntary, but if a development does include afforestation activity, it shall take place in accordance with these provisions.

D. Credit Towards other Requirements

1. Afforested areas configured and maintained in accordance with these guidelines are credited towards the open space set-aside standards for passive open space set-aside in **Section <>, Open Space Set-Aside**, at an accelerated rate of two square feet of open space set-aside credit for every one square foot of land occupied by an afforested area.
2. Afforested areas may be credited towards up to 25 percent if the applicable canopy tree requirements for required landscape buffers in **Section <>, Perimeter Buffers**, provided the afforestation area is proximate to and parallel with the required perimeter buffer.
3. Afforested areas configured as a bio-retention area or stormwater detention basin and planted with trees capable of periodic inundation shall be credited towards the standards in **Section <>, Stormwater Management**.
4. Afforestation is intended as a tool to preserve rural character and is not appropriate in portions of the County where a more urban development character is desirable. As a result, credit towards other requirements for afforestation activities is not available in the VR, VC, and MX districts.

E. Location

The objective of these afforestation guidelines is to provide the maximum amount of visual obstruction in areas where it will have the highest impact upon the greatest number of motorists, passengers, and bicyclists (see **Figure <>, Afforestation Location**). For this reason, afforestation areas may be divided up or located in several different areas around a development. The exact location(s) and size(s) of proposed afforestation areas should be determined with County staff prior to preparation of a site plan or subdivision plat.

FIGURE <>: AFFORESTATION LOCATION



F. Retention Required

In cases where credit towards other requirements in this Ordinance is granted for inclusion of afforested areas, the trees in the afforested areas shall be permanently retained and maintained in accordance with the standards in **Section <>, Maintenance**. In no instance shall trees in an afforested area become subject to a forestry management plan.

G. Configuration

Afforested areas shall be configured in accordance with the following (see **Figure <>, Afforestation Configuration**):

1. Mix of Species

- a. Trees proposed for planting in an afforestation area shall include both deciduous and evergreen species, in roughly equivalent proportions.

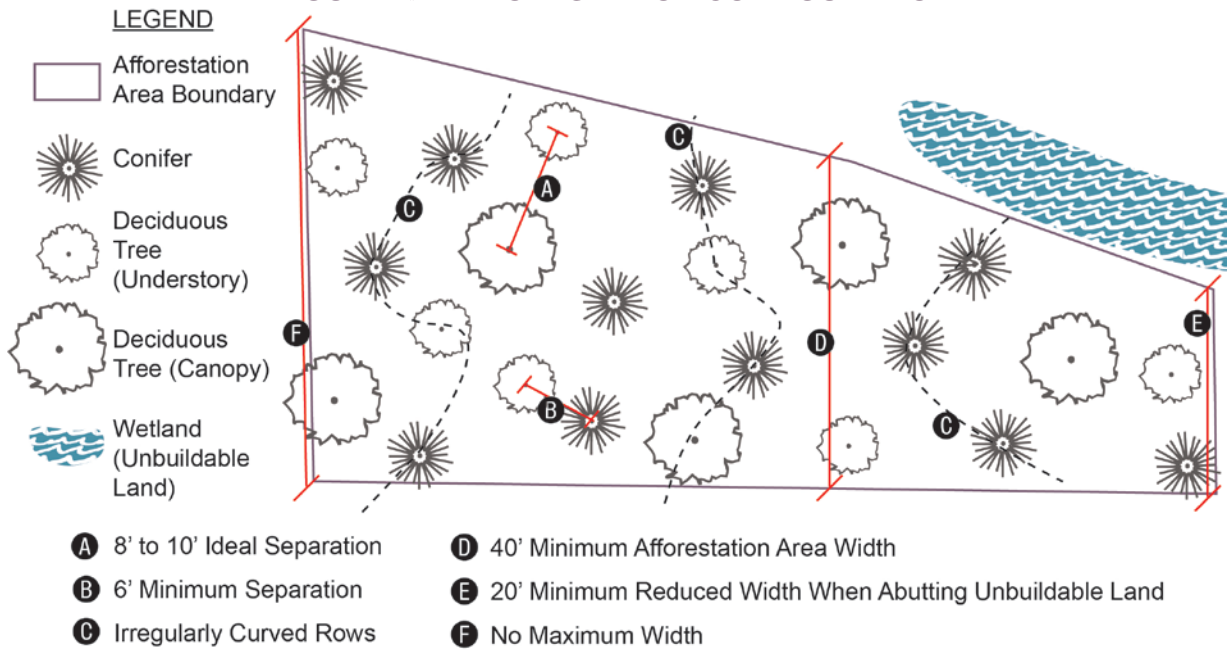
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7.4.3 Afforestation Guidelines 199F

- b. Trees shall be native or endemic to the County and should be of a variety that can expected to live at least 25 years under normal conditions.
 - c. Nuisance species, such as the Tree of Heaven, Mimosa, Bradford Pear, or Chinese Tallowtree, shall not be included in afforestation area plantings.
2. **Mix of Mature Heights**
Trees proposed for planting in an afforestation shall include both canopy trees with mature heights over 40 feet and understory trees with mature heights under 40 feet.
3. **Minimum Size of Trees at Time of Planting**
Trees proposed for planting in an afforestation areas shall be from containerized stock. Bare-root stock is not recommended, and use of seeds or cuttings is prohibited.
4. **Minimum Planting Density**
Afforestation areas shall maintain a minimum planting density or number of new trees of 400 to 500 trees per acre at the time of planting. Some of these trees may not survive to maturity.
5. **Spacing between Newly Planted Trees**
- a. Newly planted trees in an afforestation area being established shall be spaced approximately eight-to-ten feet from one another. In no instance shall spacing between trees be less than six feet.
 - b. Replacement trees being introduced into an established afforestation area are not subject to these spacing requirements.
6. **Arrangement**
Newly planted trees in an afforestation area being established shall be plated to follow the natural contours of the land in irregularly curved rows so as to maximum screening and avoid the appearance of being planted.
7. **Minimum Width**
- a. The minimum width of an afforestation area shall be 40 linear feet.
 - b. In cases where an afforestation area borders land that is unbuildable (such as open space set-aside, wetlands, floodplain, riparian buffers, etc.), the minimum width may be reduced by five feet for every ten feet of width in the adjacent unbuildable land. In no instance shall an afforestation area's width drop below 20 linear feet, regardless of the width of adjacent unbuildable land.
 - c. Nothing shall limit the maximum width of an afforestation area, provided the minimum planting density and maximum spacing requirements are maintained.

FIGURE <=>: AFFORESTATION CONFIGURATION



8. Maintenance

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7.4 Tree Protection^{198F}

7.4.5 Tree Protection Devices^{201F}

- a. Afforestation areas shall be subject to on-going maintenance as necessary, including the active control competing vegetation for at least three years following initial establishment and selective replanting of vegetation, as necessary in the opinion of the UDO Administrator, to maintain the ultimate screening function of the area.
- b. Nothing shall require an afforestation area to maintain the minimum planting density at the time of establishment. It is not uncommon for some trees in an afforestation to not reach maturity. Trees failing to reach maturity prior to death do not necessarily require replacement. Rather, the objective of these standards is to maintain the screening performance function of the afforestation area, which can be adequately accomplished with mature and maturing trees with maximum spacing that exceeds that required at the time of afforestation area establishment.
- c. Failure to maintain the desired screening function of an afforestation area after establishment shall be a violation of this Ordinance.

H. Timing

Afforestation areas shall be established prior to issuance of the first certificate of occupancy associated with the development, or development phase served by the afforestation area.

I. Removal after Establishment

Trees located in an afforestation area shall not be removed after planting except in cases of disease, damage, death, or removal as necessary to support robust growth in adjacent trees in accordance with best practices.

7.4.4 CREDIT FOR EXISTING VEGETATION²⁰¹

- A. Existing healthy, well-formed canopy and understory trees that are retained on site during and after development shall be credited toward the minimum landscaping requirements in **Section <>, Landscaping Requirements**, provided:
 1. The vegetation to be credited shall meet the minimum size standards for required landscaping;
 2. The vegetation to be credited conforms with all species requirements and does not include noxious weeds or other nuisance vegetation;
 3. The vegetation to be credited is protected before and during development in accordance with **Section <>, Tree Protection Devices**, prior to the start of any land-disturbing activities; and
 4. The location of the existing vegetation contributes to the screening or buffering functions of the landscaping.
- B. As an incentive for retention of existing trees, existing trees meeting the standards in (A) above that are retained during and after development shall be credited towards the minimum landscaping requirements in this Ordinance at a rate of 1.25 times the tree's actual caliper or diameter at breast height.

Example: a proposed development is required to furnish a Type A buffer along one edge of the lot for a span of 500 linear feet. This equates to 15 canopy trees with an aggregate caliper inch requirement of 30 inches (two inches per tree x 15). This portion of the lot has three existing canopy trees each with a DBH of seven inches. This equates to a total of 21 inches of existing tree caliper. If these three trees were retained, they would be credited as 26.25 inches of tree caliper (21 x 1.25). In order to meet the minimum buffer requirement of 30 aggregate caliper inches, the applicant would be required to plant two additional canopy trees in addition to the tree retained existing trees.
- C. The land area located within the dripline of existing trees retained during and after construction may be credited towards the requirements in **Section <>, Open Space**.

7.4.5 TREE PROTECTION DEVICES²⁰²

A. Responsibility

During any development activity (including demolition activity) on a lot or site containing trees to be retained for credit towards the standards in **Section<>, Landscaping**, the landowner or developer shall be responsible for protecting existing or replacement trees in accordance with the standards in this section.

B. Protective Fencing and Signage

1. Protective Fencing

- a. Continuous fencing consisting of a bright orange plastic mesh at least four feet high shall be provided along the driplines of significant trees or trees to be retained for credit towards minimum landscaping requirements (see Figure <>, Tree Protection Fencing).

²⁰¹ This is a new section that encourages the retention of existing trees for use in meeting landscaping requirements through an accelerated rate of credit offered for existing vegetation over the planting of new vegetation. The basic premise of this approach is that mature existing vegetation provides a superior level of landscaping than that provided by new landscape plantings.

²⁰² This section replaces the standards in Section 151.159, Protection of Trees During Construction, in the current ordinance.

ARTICLE 151.7 ENVIRONMENTAL PROVISIONS

7.4 Tree Protection 198F

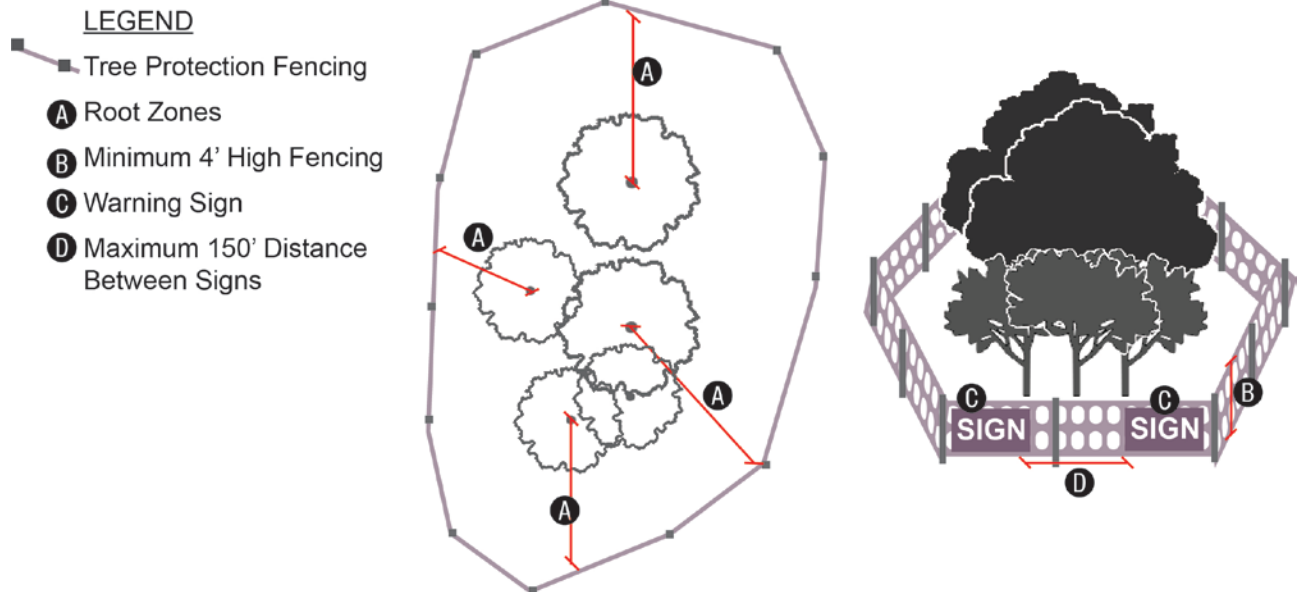
7.4.5 Tree Protection Devices 201F

- b. Retained trees that are inaccessible to development activities or separated from development activities by a distance of at least 300 linear feet are exempted from the requirement for tree protection fencing.
- c. Nothing shall prevent tree protection fencing and silt fencing from being consolidated.

2. **Warning Signage**

Warning signs shall be installed along any required tree protective fencing at points no more than 150 feet apart. The signs shall be clearly visible from all sides of the outside of the fenced-in area. The size of each sign must be a minimum of two feet by two feet. The sign message shall, in both English and Spanish, identify the fenced or marked area as a tree protection area and direct construction workers not to encroach into the area (e.g., "Tree Protection Area: Do Not Enter"). For the purposes of this Ordinance, these warning signs are considered government signs exempted from First Amendment protections regarding regulation of sign content.

FIGURE <>: TREE PROTECTION FENCING



C. **Duration of Protective Fencing and Signage**

Required protective fencing and signage shall be erected before any grading or other development activity begins and shall be maintained until issuance of a certificate of occupancy following completion of all development in the immediate area of the fencing or signage.

D. **Tree Protection Requirements**

- 1. No development activity—including grade changes, the operation or parking of heavy equipment, or the washing down of concrete or cement handling equipment, or the storage of fuel, chemicals, materials, supplies, or construction waste and debris—shall be allowed within areas surrounded by tree protection fencing.
- 2. No structures or hard surfaces shall be located within areas surrounded by tree protection fencing.
- 3. Retaining walls and drywells may be used to protect trees to be preserved from severe grade changes if venting adequate to allow air and water to reach tree roots is provided through any fill.

E. **Damage or Death of a Protected Tree**

If a violation of this section occurs and a protected tree is removed or dies within two years after a certificate of occupancy is granted for that portion of a development where the tree is or was located, then the permit recipient, or their successor, shall be required to replace the protected tree in accordance with the standards in [Section <>, Mitigation for Significant Tree Removal](#).

ARTICLE 151.7 ENVIRONMENTAL PROVISIONS

7.5 Open Space Set-Aside^{202F}

7.5.5 Open Space Set-Aside Distinguished

7.5 OPEN SPACE SET-ASIDE²⁰³

7.5.1 PURPOSE AND INTENT

The purpose of this section is to help ensure the rural character of the County is maintained in areas outside of designated village centers as well as ensuring village center areas have open space resources that encourage recreation and the gathering of residents and visitors. These standards are further intended to:

- A. Establish the standards under which residential, mixed-use, and nonresidential development shall set aside a portion of the development area as open space;
- B. Distinguish between the characteristics, requirements, and appropriate locations for open space set-asides (OSS), based on the zoning district designation; and
- C. Establish minimum ownership and maintenance standards for homeowner and property owner associations related to open space set-asides.

7.5.2 APPLICABILITY

A. Generally

1. Unless exempted in accordance with **Section <>, Exemptions**, the standards in this section shall apply to all new development and redevelopment in the County.
2. Redevelopment conducted after (*insert the effective date of this Ordinance*) shall comply with the standards in this section, to the maximum extent practicable, and shall provide its pro rata share of open space set-aside.

B. Conservation Subdivisions

Open space set-asides associated with a conservation subdivision shall be subject to the standards in **Section <>, Conservation Subdivision**, in addition to these standards. In the event of a conflict, the standards in **Section <>, Conservation Subdivision**, shall control.

C. Exemptions

The following forms of development shall be exempted from the standards in this section:

1. Development of an individual single-family dwelling (including manufactured homes) on lots platted prior to (*insert the effective date of this Ordinance*);
2. Subdivisions comprised solely of six or fewer lots where all lots intended for single-family detached residential dwellings; and
3. Development located within the CP, LI, and HI districts.

7.5.3 HOW TO USE THESE STANDARDS

- A. Developments subject to these open space set-aside (OSS) standards shall provide the minimum amount of open space set-aside based on the zoning district where located. The physical amount of open space to be set aside is based on the percentage of total development size. These percentage requirements are found in the dimensional standards tables for the zoning districts in **Article 151.3: Zoning Districts**.
- B. The required amount of open space set-aside may be reduced based on the provision of afforestation areas, configuration of off-street parking areas in accordance with low-impact development principles, the provision of sustainable development features in accordance with **Section <>, Sustainable Development Incentive**, or other aspects of this Ordinance.
- C. Once the minimum amount of OSS to be provided is determined, the type of OSS, whether active, passive, or urban is determined based on **Table <>, Open Space Set-Aside Configuration**.
- D. Applicants should then consult the range of allowable and prohibited features in the type of OSS to be provided.

7.5.4 MINIMUM OPEN SPACE SET-ASIDE REQUIRED

The minimum required amount of open-space set-aside shall be in accordance with the dimensional standards for the zoning district where development is located. Article 151.3: Zoning Districts sets out the dimensional standards for each zoning district.

²⁰³ This section includes new private common open space standards described on Pages 84 and 85 of the Evaluation Report. These standards are proposed to replace the open space provisions in Section 151.195, Open Space through Section 151.197, Ownership and Maintenance of Required Open Space, from the current ordinance. While the concept of private common open space is retained in these proposed standards, these provisions focus more on context (whether rural, suburban, or urban) in terms of how the open space should function.. Generally speaking, these proposed standards remove active recreation requirements from open space in rural and suburban areas, and instead propose using open space in these areas for the preservation of rural character and for use in dealing with stormwater standards. On the other hand, open space in urban areas, like village centers, should be focused on providing places for people to gather. Higher density residential development like multi-family should focus on active recreation features.

ARTICLE 151.7 ENVIRONMENTAL PROVISIONS

7.5 Open Space Set-Aside 202F

7.5.5 Open Space Set-Aside Distinguished

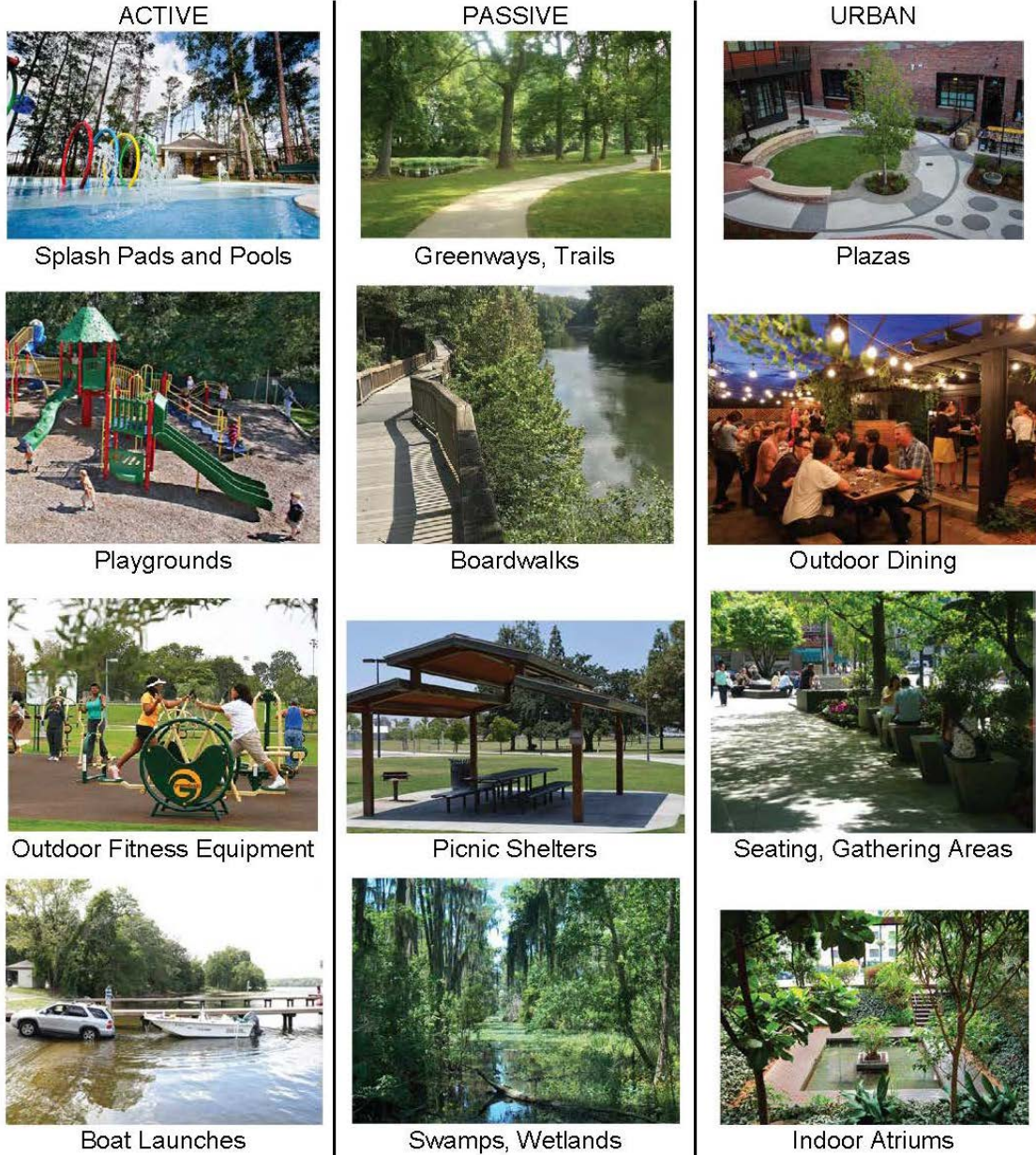
7.5.5 OPEN SPACE SET-ASIDE DISTINGUISHED

A. Types of Open Space Set-Aside

Open space set-aside may take any one of the following three forms, which are distinguished from one another based upon the types of facilities they contain, the general configuration of the land, or the kinds of function they serve (see Figure <>, Types of Open Space):

1. Active open space set-aside;
2. Passive open space set-aside; and
3. Urban open space set-aside.

FIGURE <>: TYPES OF OPEN SPACE



B. Where Credited

Development subject to these standards shall provide the required type of open space set-aside in accordance with Table <>, Open Space Set-Aside Configuration. Nothing shall limit the provision of a greater minimum percentage or other type of open space set-aside, provided the minimum requirements in this section are met.

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7.5 Open Space Set-Aside202F

7.5.6 Allowable Features in Open Space Set-Asides

TABLE <=>: OPEN SPACE SET-ASIDE CONFIGURATION			
ZONING DISTRICT	TYPES OF OPEN SPACE SET-ASIDE [1]		
	ACTIVE OSS (MINIMUM % OF TOTAL OSS PROVIDED)	PASSIVE OSS (MINIMUM % OF TOTAL OSS PROVIDED)	URBAN OSS (MINIMUM % OF TOTAL OSS PROVIDED)
RESIDENTIAL DISTRICTS			
WL	.	100	.
RR	.	100	.
SR	.	100	.
NR	75	25	.
VR	25	.	75
COMMERCIAL DISTRICTS			
CC	.	25	75
VC	.	.	100
HC	.	100 [2]	.
MC	.	100 [2]	.
MX	.	.	100
PLANNED DEVELOPMENT			
PD	Variable, based on Planned Development Master Plan		
<p>NOTES:</p> <p>[1] The amount of open space set-aside to be provided is established in the zoning district dimensional standards in Article 151.3: Zoning Districts.</p> <p>[2] Multi-family development in these districts shall configure at least 75 percent of the total OSS provided as active OSS.</p>			

7.5.6 ALLOWABLE FEATURES IN OPEN SPACE SET-ASIDES

A. Active Open Space Set-Aside

The following types of features are allowable in and credited towards active open space set-asides:

1. Swimming pools, splash pads, and areas devoted to water play for children;
2. Athletic fields and courts;
3. Boat launches and swimming platforms;
4. Club houses;
5. Playgrounds and play structures for children; and
6. Obstacle courses and exercise trails.

B. Passive Open Space Set-Aside

The following types of features are allowable in and credited towards passive open space set-asides:

1. Walking, bicycling, and equestrian trails;
2. Boardwalks;
3. Gardens and greenway trails;
4. Benches and seating areas;
5. Tables, shelters, grills, and related picnicking facilities;
6. Lawn areas and community greens;
7. Lakes, ponds, wetlands (including CAMA wetlands), swamps, canals, and streams;
8. Stormwater management facilities, configured as site amenities that include pedestrian access, gentle slopes of three-to-one (3:1) or less, and pedestrian elements such as paths, benches, and similar aspects to and around the facility;
9. Piers and docks for fishing or viewing wildlife; and
10. Undisturbed land.

C. Urban Open Space Set-Aside

The following types of features are allowable in active open space set-asides:

1. Plazas and courtyards;

ARTICLE 151.7 ENVIRONMENTAL PROVISIONS

7.5 Open Space Set-Aside^{202F}

7.5.10 Maintenance of Open Space Set-Asides

2. Roof gardens;
3. Indoor atriums open to the public;
4. Outdoor dining areas;
5. Fountains; and
6. Areas devoted to public gathering.

D. Within Conservation Subdivisions

Open space set-asides within conservation subdivisions may include any of the features allowed in active, passive, or urban open space set-aside areas in addition to farm fields, forestry lands, or lands used for agricultural purposes.

E. Unlisted Features

Unlisted features may be credited towards one or more different types of open space set-aside as determined by the UDO Administrator in accordance with [Section <>, Interpretation](#).

F. Features Not Credited Towards Open Space Set-Aside

The following areas shall not be included in or credited towards open space set-aside requirements:

1. Private yards not subject to an open space or conservation easement;
2. Public street rights-of-way or private street easements;
3. Open parking areas and driveways for dwellings or other uses;
4. Land covered by structures not designated for active recreational uses;
5. On-site wastewater treatment facilities, including septic tank drain fields; and
6. Designated outdoor storage areas.

7.5.7 FEATURES CREDITED TOWARDS PASSIVE OSS REQUIREMENTS

The following site features shall be credited towards passive open space set-aside requirements:

- A. Required landscaping areas;
- B. Afforestation areas;
- C. Farmland compatibility buffers;
- D. Tree protection areas;
- E. CAMA wetlands and U.S. Army Corps of Engineers designated 404 wetlands;
- F. Riparian buffer areas;
- G. Natural heritage areas; and
- H. Land area occupied by stormwater management facilities, including retention ponds, fully vegetated detention basins, and other bio-retention devices, provided these facilities are treated as a site amenity that includes pedestrian access, gentle slopes of three-to-one (3:1) or less, and pedestrian elements such as paths, benches, and similar aspects to and around the facility.

7.5.8 DESIGN STANDARDS FOR ACTIVE OSS AREAS

Active open space set-asides shall meet the following design standards:

- A. Active OSS areas shall be located so as to be readily accessible and useable by residents and users of the development. Where possible, a portion of the open space set-aside should provide focal points for the development.
- B. Where the development site is adjacent to existing or planned trails, parks, or other public open area land, the open space set-aside shall, to the maximum extent practicable, be located to adjoin, extend, and enlarge the trail, park, or other open area.
- C. Lands set aside as active open space set-aside shall be compact and contiguous unless the land is used as a continuation of an existing trail, or specific natural or topographic features require a different configuration.

7.5.9 OWNERSHIP OF OPEN SPACE SET-ASIDES

Open space set-asides are intended to remain under private ownership while being available for use to residents and visitors in the development where located. Ownership of open space set-aside shall remain with the owner of the land, except in the following circumstances.

A. Homeowners or Property Owners Association

All open space set-aside areas may be owned jointly or in common by the owners of the development through a recognized homeowners or property owners association, which shall be established in accordance with [Section <>, Homeowners or Property Owners Association Requirements](#).

B. Nonprofit Organization

The landowners may decide to convey an open space set-aside to a nonprofit organization such as a land trust or land conservancy for management and maintenance if the County is provided adequate assurance the set-aside will be properly managed and maintained.

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7.5 Open Space Set-Aside202F

7.5.11 Provision in Multi-Phase Developments

C. Dedicated to County or Other Public Agency

In some cases, certain lands designated as open space set-asides, such as wildlife habitat, athletic fields, or urban features may be dedicated to the County or other public agency during the development review process. The Board of Commissioners shall determine which lands and under what conditions open space set-asides may be dedicated to the County or other public agency.

7.5.10 MAINTENANCE OF OPEN SPACE SET-ASIDES

- A. The owner of the land shall be responsible for maintenance of all open space set-aside areas (including land, vegetation, private infrastructure, and other features) in accordance with this Ordinance and any conditions of approval associated with the development.
- B. Failure to maintain open space set-aside areas is a violation of this Ordinance subject to the remedies and penalties in **Article 151.9: Enforcement**.

7.5.11 PROVISION IN MULTI-PHASE DEVELOPMENTS

- A. Multi-phase development shall preserve open space set-asides in phases, so that the first phase of development does not contain 100 percent of the open space set-aside required for the entire development, but does contain, at a minimum, its pro rata share of the total amount of required open space set-aside.
- B. Open space set-asides shall be apportioned among phases such that the total amount of open space set-aside in a phase and any previously approved phases meets the open space set-aside standard as applied to the total area of the phase and previously approved phases.

ARTICLE 151.7 ENVIRONMENTAL PROVISIONS

7.6 Sustainable Development Incentives^{203F}

7.6.5 Procedure

7.6 SUSTAINABLE DEVELOPMENT INCENTIVES²⁰⁴

7.6.1 PURPOSE AND INTENT

This section sets out the following sustainable development incentives in an effort to encourage sustainable development practices as a means of addressing climate change and the need for more resilient development practices, the protection of natural resources, and to ensure a high quality of life for future County residents.

7.6.2 HOW TO USE THESE INCENTIVES

These sustainable development incentives reward applicants and forms of development that are configured in ways that conserve resources or are better able to withstand damaging weather events. Rewards take the form of increased maximum residential densities, increased maximum building heights, or reductions from other kinds of development standards such as required parking or maximum sign face area.

- A. Applicants seeking to take advantage of these sustainable development incentives should first understand the type of incentives available in accordance with **Section <>, Type of Incentives**.
- B. Once the preferred type of incentive(s) is determined, an applicant should review **Section <>, Procedure**, in order to determine the minimum number and type(s) of sustainable development practices required to take advantage of the desired incentive(s).
- C. Each type of incentive requires provision of one or more types of sustainable development practice from each of two different schedules (Schedule A and Schedule B).
- D. The sustainable development practices are listed, by schedule type, in **Table <>, Menu of Sustainable Development Practices**.
- E. The types of sustainable development practices to be provided are at the applicant's discretion, but the minimum number of practices from each schedule must be provided. Nothing shall limit a review authority from including a condition of approval that specifies the use of one or more particular types of sustainable development practice should an applicant decide to pursue a sustainable development incentive.
- F. Site plans, subdivision plats, and other application materials shall identify the type(s) of incentives sought and the sustainable development practices provided.

7.6.3 APPLICABILITY

The incentives included in this section are available to new development in the residential, commercial, industrial, and planned development districts.

7.6.4 TYPE OF INCENTIVES

- A. Development integrating sustainable development practices in accordance with this section shall be eligible for one or more of the following incentives:
 1. A density bonus of up to one additional dwelling unit per acre beyond the maximum allowed in the base zoning district, based on the land's designation in the 2035 Comprehensive Plan;
 2. An increase in the maximum allowable building height by up to one story or ten feet beyond the maximum allowed in the base zoning district, with approval of the Fire Marshal;
 3. A modification to the off-street parking requirements resulting in a reduction from the minimum requirements by 15 percent without an alternative parking plan;
 4. An increase in the maximum allowable sign area or maximum height for wall or freestanding signs by 10 percent; or
 5. A reduction in the amount of required open space set-aside by 10 percent.
- B. Development may include a sufficient number of sustainable development practices to take advantage of more than one type of incentive, but in no instance shall the amount of an incentive be increased or decreased (as appropriate) beyond the maximum listed in this subsection.

7.6.5 PROCEDURE

- A. Development seeking to use incentives shall include a written request with the development application that demonstrates how compliance with the standards will be achieved.

²⁰⁴ This is a new section that sets out a series of incentives and sustainable development practices that can be voluntarily included in development by an applicant. While not described in the Evaluation Report, these standards are proposed as a means for the County to help encourage more sustainable and resilient development through the use of incentives rather than mandates. One element of these provisions to consider is that they do allow development to exceed the maximum residential densities or building heights in Article 151.3: Zoning Districts.

ARTICLE 151.7 ENVIRONMENTAL PROVISIONS

7.6 Sustainable Development Incentives 203F

7.6.6 Menu of Sustainable Development Practices

- B. Review for compliance with this section and granting of requests in accordance with this section shall occur during review of a site plan, subdivision, planned development master plan, special use permit, or zoning compliance permit, as appropriate.
- C. Approval of use of a particular incentive shall be based on the number of sustainable development practices provided, in accordance with Table <>, Sustainable Development Practice Incentives, and Table <>, Menu of Sustainable Development Practices. To obtain the right to a particular incentive, development shall provide the minimum number associated of sustainable development practices from both schedule A and schedule B in the table below.

TABLE <>: SUSTAINABLE DEVELOPMENT PRACTICE INCENTIVES		
TYPE OF INCENTIVE	MINIMUM NUMBER OF SUSTAINABLE DEVELOPMENT PRACTICES PROVIDED	
	FROM SCHEDULE A	FROM SCHEDULE B
A density bonus of up to one additional dwelling unit per acre beyond the maximum allowed in the base zoning district	2	4
An increase in the maximum allowable height by up to one story or ten feet beyond the maximum allowed in the base zoning district	2	3
A reduction from the minimum parking space requirements by 15 percent, or an increase to the maximum allowable number of parking spaces provided by 15 percent	2	2
An increase in the maximum allowable sign area or maximum height for wall or freestanding signs by 10 percent	1	3
A reduction in the amount of required open space set-aside by 10 percent	1	2

7.6.6 MENU OF SUSTAINABLE DEVELOPMENT PRACTICES

One or more of the sustainable development practices in Table <>, Menu of Sustainable Development Practices, may be offered by an applicant for proposed development in accordance with Table <>, Sustainable Development Practice Incentives.

TABLE <>: MENU OF SUSTAINABLE DEVELOPMENT PRACTICES		
SCHEDULE	TYPE OF PRACTICE	DOCUMENTATION OF COMPLIANCE
ENERGY CONSERVATION		
A	Inclusion of solar photovoltaic panels or small wind energy facilities	Indication on site plan
A	Use of central air conditioners that are Energy Star qualified	Provision of manufacturer's certification statement
A	Use of only solar or tankless water heating systems throughout the structure	Inclusion on construction drawings
A	Use of a white roof or roofing materials with minimum reflectivity rating of 60 percent or more	Provision of materials sample and manufacturer's certification statement (statement not required for white roofs)
B	Provision of skylights in an amount necessary to ensure natural lighting is provided to at least 15 percent of the habitable rooms in the structure	Indication on site plans
B	Roof eaves or overhangs of three feet or more on southern or western elevations	Indication on site plans
B	Structure design that can accommodate the installation and operation of solar photovoltaic panels or solar thermal heating devices (including	Inclusion on construction drawings

ARTICLE 151.7 ENVIRONMENTAL PROVISIONS

7.6 Sustainable Development Incentives 203F

7.6.7 Failure to Install or Maintain Sustainable Development Practices

TABLE <>: MENU OF SUSTAINABLE DEVELOPMENT PRACTICES		
SCHEDULE	TYPE OF PRACTICE	DOCUMENTATION OF COMPLIANCE
	appropriate wiring and water transport systems)	
B	Inclusion of shade features (e.g., awnings, louvers, shutters, etc.) to shade all windows and doors on the southern building facade	Indication on site plan
B	Configuration of new buildings with one axis at least 1.5 times longer than the other, and the long axis oriented in an east-west configuration for solar access	Indication on site plan
LEED CERTIFICATION		
AAA [2]	Construction of the principal structure to meet or exceed LEED Platinum certification standards	Provision of Green Building Certification Institute's verification of project compliance (may be provided within one year following occupancy)
AA [2]	Construction of the principal structure to meet or exceed LEED Gold certification standards	
BBB	Construction of the principal structure to meet or exceed LEED Silver certification standards	
BB	Construction of the principal structure to meet or exceed LEED Bronze certification standards	
WATER CONSERVATION AND QUALITY PROTECTION		
AA [1]	Configuration of the principal structure's roof so that at least 50 percent of the roof is a "green" roof intended to capture and hold rain water	Indication on site plan
A	Inclusion of rain water capture and re-use devices such as cisterns, rain filters, and underground storage basins with a minimum storage capacity of 500 gallons	Inclusion on construction drawings
A	Provision of rain gardens or other appropriate stormwater infiltration system(s) of at least 500 square feet in area	Indication on site plan
A	Provision of open space set-asides at a rate 200 percent or more beyond the minimum required	
B	Provision of rain gardens or other appropriate stormwater infiltration BMP systems of at least 100 square feet in area	
B	Removal of all lawn or turf in favor of living ground cover or mulch	
B	Use of xeriscape landscaping techniques without irrigation	
B	Provision of 150-foot undisturbed buffers adjacent to/surrounding all wetlands or surface waters	
B	Use of permeable surfacing on 50 percent or more of the vehicular use area	
BUILDING CONFIGURATION		
AA [1]	Compliance with the multi-family residential design standards in Section <>, Multi-family Residential Design Standards , for single-family attached development	Indication on site plan & signature on statement of consent
AA [1]	Compliance with the single-family residential design guidelines in Section <>, Multi-family Residential Design Standards , for single-family detached, single-family attached, or duplex development	
A	Construction of principle structure in accordance with Barrier Free Design Standards (ANSI A1171.1)	Inclusion on construction drawings
A	Construction of the principal structure to a design wind speed standard of 150 mph	Signed attestation from a qualified NC licensed engineer
A	Inclusion of underground parking or parking structures sufficient to accommodate 51 percent or more of the off-street parking requirements	Indication on site plan
B	Provision of on-site transit facilities (e.g., designated park-and-ride parking spaces, bus shelters, or similar features)	
B	Inclusion of showering and dressing facilities in nonresidential developments for employees using alternative forms of transportation	Inclusion on construction drawings
B	Provision of at least one enclosed recycling station per building suitable for storage and collection of recyclable generated on-site	Indication on site plan
NOTES:		
[1] Credited as provision of three schedule "A" features		

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7.6 Sustainable Development Incentives203F

7.6.7 Failure to Install or Maintain Sustainable Development Practices

TABLE <>: MENU OF SUSTAINABLE DEVELOPMENT PRACTICES		
SCHEDULE	TYPE OF PRACTICE	DOCUMENTATION OF COMPLIANCE
[2]	Credited as provision of two schedule "A" features	

7.6.7 FAILURE TO INSTALL OR MAINTAIN SUSTAINABLE DEVELOPMENT PRACTICES

The failure to install or maintain approved sustainable development practices is a violation of this Ordinance, shall render the subject development nonconforming, and may result in revocation of the authorization for use of sustainable development practice incentives.