

# CONSERVATION & OPEN SPACE

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# **CONTENTS**

CHAPTER 6 CONSERVATION & OPEN SPACE	6-4
6.1 OPEN SPACE	6-4
6.1.1 PURPOSE	6-4
6.1.2 APPLICABILITY	6-4
6.1.3 MINIMUM AMOUNT OF OPEN SPACE REQUIRED	6-5
6.1.4 TYPES OF OPEN SPACE	6-7
6.1.5 COMPOSITION OF OPEN SPACE	6-9
6.1.6 USES ALLOWED IN OPEN SPACE	6-13
6.1.7 SELECTION OF NATURAL AREA FOR PRESERVATION	6-15
6.1.8 LOCATION & DESIGN OF OPEN SPACE	6-16
6.1.9 OPEN SPACE PLAN REQUIRED	6-17
6.2 CEMETERY BUFFERS	6-19
6.2.1 PURPOSE	6-19
6.2.2 APPLICABILITY	6-19
6.2.3 CEMETERY BUFFER STANDARDS	6-19
6.3 TREE PROTECTION	6-21
6.3.1 FINDINGS AND PURPOSE	6-21
6.3.2 APPLICABILITY	6-22
6.3.3 TREE SAVE AREAS	6-23
6.3.4 REMOVAL OF TREES	6-26
6.3.5 APPLICATION REQUIREMENTS	6-28
6.3.6 TREE PROTECTION DURING CONSTRUCTION	6-29

	6.3.7 PLANT MATERIAL INSTALLATION	6-31
	6.3.8 USE OF TREE SAVE AREAS	6-31
	6.3.9 APPEALS	6-31
6.4	4 LONG-TERM PRESERVATION & MAINTENANCE	6-32
	6.4.1 PURPOSE	6-32
	6.4.2 APPLICABILITY	6-32
	6.4.3 GENERALLY	6-32
	6.4.4 PERMANENT PROTECTION REQUIRED	6-32
	6.4.5 MAINTENANCE STANDARDS	6-34
	6.4.6 FAILURE TO MAINTAIN CONSERVATION & OPEN SPACE	6-35

## CHAPTER 6 CONSERVATION & OPEN SPACE<sup>1</sup>

## **6.1 OPEN SPACE**

#### 6.1.1 PURPOSE

The purposes of these open space requirements are to:

- A. Preserve existing vegetation and important wildlife habitat;
- B. Provide recreational opportunities for residents;
- C. Enhance the aesthetic and environmental quality of development; and
- D. Connect neighborhoods, open space, and employment areas.

## **6.1.2 APPLICABILITY**

- A. Except as provided in 6.1.2B, below, this Section applies to:
  - 1. New major residential subdivisions;
  - 2. New apartment complexes; and
  - 3. New mixed use development.
- B. This Section does not apply to:
  - 1. Individual dwellings located on lots within residential subdivisions;
  - Non-residential development located on sites less than five acres in area; or
  - 3. Uses in the following use categories, as specified in 3.2: *Principal Use Tables*:
    - (a) Agriculture & Horticulture;
    - (b) Government;

<sup>&</sup>lt;sup>1</sup> See discussion of proposed changes in the <u>Audit Report</u> (pp. 25-28).

- (c) Heavy Commercial, Manufacturing, & Industrial;
- (d) Institutional & Civic;
- (e) Natural Resources Extraction;
- (f) Transportation, Warehousing, & Storage;
- (g) Utility; and
- (h) Waste Management.

## **6.1.3 MINIMUM AMOUNT OF OPEN SPACE REQUIRED**

- A. **Conventional Districts.** Table 6.1.3-1: *Minimum Amount of Open Space Required in Conventional Districts* specifies the total amount of open space required in each conventional zoning district, based on the type of subdivision or development.
- B. **Conditional Districts.** Table 6.1.3-2: *Minimum Amount of Open Space Required in Conditional Districts* specifies the amount of open space required in each conditional zoning district.
- C. **Legacy Districts.** Conventional and conditional legacy districts are subject to the open space requirements in Table 6.1.3-1: *Minimum Amount of Open Space Required in Conventional Districts* unless the associated rezoning ordinance specifies a different open space requirement.
- D. How to Calculate the Required Amount of Open Space. The minimum amount of required open space is calculated by multiplying the percentage specified in Table 6.1.3-1: Minimum Amount of Open Space Required in Conventional Districts or Table 6.1.3-2: Minimum Amount of Open Space Required in Conditional Districts by the total area of the site proposed for development.

Table 6.1.3-1: Minimum Amount of Open Space Required in Conventional Districts			
Subdivision/Development Type	Amount of Open Space Required (min)	Types of Open Space Allowed <sup>1</sup>	
<b>Major Subdivision</b>			
Agricultural	45% of site area	Agricultural Area Cultural Resource Protection Area LID Feature Natural Area	
Conservation	45% of site area	Cultural Resource Protection Area  LID Feature  Natural Area  Neighborhood Park  Pocket Park  Linear Park  Greenway  Square/Green	
Conventional	15% of site area	All types listed in Table 6.1.4-1, except Plazas	
Non-Residential	Non-Residential None n/a		
Townhouse	Townhouse 20% of site area All types listed in Table 6.1.4-1 except Plazas		
Apartment Complex			
New	New 20% of site area All types listed in Table 6.1.4-1, except Plazas		
Mixed Use Development			
New	New 15% of site area All types listed in Table 6.1.4-1		
Non-Residential Development			
New	10% of site area	All types listed in Table 6.1.4-1	
<b>Key:</b> min = minimum required   n/a = not applicable			

<sup>&</sup>lt;sup>1</sup> See Subsection 6.1.4: Types of Open Space for descriptions.

Table 6.1.3-2: Minimum Amount of Open Space Required in Conditional Districts			
Zoning District <sup>1</sup> Amount of Open Space Required (min)		Types of Open Space Allowed <sup>1</sup>	
CD-CR	25%	All types listed in Table 6.1.4-1, except plazas	
CD-CMU	CD-CMU 20% All types listed in Table 6.1.4-1		
CD-CN 15% All types listed in Table 6.1.4-1			
Key: min = minimum required			

1 See Section 2.3: Conditional Districts.

## 6.1.4 TYPES OF OPEN SPACE<sup>2</sup>

- A. Required open space must be comprised of at least two of the types of open space described in Table 6.1.4-1: *Types of Open Space*.<sup>3</sup>
- B. For further guidance on the design of regional parks, community parks, neighborhoods parks, pocket parks, and greenways, refer to the <u>Chatham</u> County Parks & Recreation Master Plan.
- C. Natural Area is required in all developments, except agricultural and conservation subdivisions (see 6.1.5A).
- D. Recreation Area is required in residential subdivisions (see 6.1.5A.3).
- E. Greenways and trails are required in certain instances (see 6.1.5E).

Table 6.1.4-1: Types of Open Space		
Type of Open Space	Description	Size
Natural Area	An area of land that retains or has reestablished much of its natural character, or that provides habitat for rare or endangered species of plants or animals, or that has biotic, geological, or other features of scientific or educational value.  Examples include woodlands, floodplains, and natural wetlands. If an area meeting these criteria does not exist on the site, a Natural Area may be an area set aside to allow a return to a more natural condition through active restoration or passive recovery. <sup>4</sup> . A natural area should have undisturbed or minimally disturbed vegetation. A natural area may contain trails to accommodate pedestrians and bicyclists if their construction does not harm the natural value of the natural area. A Natural Area typically does not contain structures or other improvements.	2,500 sf (min)
Cultural Resource Protection Area	An area of historical, cultural, or archaeological significance, including cemeteries.	No min

<sup>&</sup>lt;sup>2</sup> Several of these open space types align with the park classifications identified in the Chatham County *Parks & Recreation Master Plan* (2019). The proposed sizes for regional parks, community parks, neighborhood parks, and greenways are the same as the sizes specified in the Master Plan. Pocket parks has a smaller minimum size (1,000 sf vs. 0.5 acres) than specified in the Master Plan.

<sup>&</sup>lt;sup>3</sup> Note that in a residential subdivision, this will include only Natural Area and Recreation Area unless the developer provides more than two types of open space.

<sup>&</sup>lt;sup>4</sup> This portion of the description is proposed by Natural Heritage Program staff and is from the N.C. Nature Preserves Act (N.C.G.S. § 143B-135.254).

Table 6.1.4-1: Types of Open Space		
<b>Type of Open Space</b>	Description	Size
Transitional Buffers	Preserved or planted areas required by Subsection 4.4.7: Transitional Buffers that provide a transitional vegetative buffer between different land uses and along streets.	No min
Agricultural Area	An area actively used for farming. May include crop lands, orchards, grazing lands, and pastures. Often contains structures such as barns, stables, fences, and silos.	5 ac (min)
Low Impact Development (LID) Feature	Vegetated LID features, such as bioretention cells and stormwater wetlands, that are part of an approved stormwater management plan.	500 sf (min)
Equestrian Area	Areas reserved for the keeping and riding of equines. These areas may include pastureland or meadows, which may contain barns, stables, riding and show rings, and similar accessory structures, and wooded areas that include riding trails.	5 ac (min)
Regional Park	A large park that serves as a destination to all county residents as well as regional visitors.	50 ac (min)
Community Park	An open space available for civic and recreational purposes. Serves multiple neighborhoods or developments.	10 ac (min) to 30 ac (max)
Neighborhood Park	An open space available for civic purposes, unstructured recreation, and limited amounts of structured recreation. Typically serves a single neighborhood or development.	3 ac (min) to 10 ac (max)
Pocket Park	An open space available for informal activities in close proximity to dwellings and/or workplaces. Often contains benches or other seating areas.	1,000 sf (min) to 3 ac (max)
Linear Park	A linear open space available for civic purposes and unstructured recreation. Dwelling units and neighborhood amenity buildings typically front a linear park. Serves a single neighborhood or development.	20 ft (width)
Greenway	A linear open space that links multiple neighborhoods, developments, or open spaces. Greenways contain trails to accommodate pedestrians, bicyclists, and/or equestrians.	10 ft¹ width (min); 20 ft width (min) if greenway is intended for equestrian use

Table 6.1.4-1: Types of Open Space		
Type of Open Space	Description	Size
Recreation Area	An open space designed for specific recreational uses such as tennis courts, basketball courts, playfields, playgrounds, sauna and exercise rooms, and clubhouses. This specifically excludes swimming pools and golf courses. <sup>5</sup>	5,000 sf (min)
Square/Green	An open space available for civic purposes, unstructured recreation, and limited amounts of structured recreation. Typically serves a single neighborhood or development in a prominent location. Includes landscaped areas and lawns with or without trees and shrubs. May include limited hardscaping.	0.25 ac (min)
Plaza	A formal open space available for civic purposes or commercial activity. Located in commercial and mixed use areas, typically at the intersection of important streets or other significant locations.  Predominantly hardscaped.	0.5 ac (min)

Key: min = minimum required | max = maximum allowed | sf = square feet | ac = acres | ft = feet

## 6.1.5 COMPOSITION OF OPEN SPACE<sup>6</sup>

## A. Natural Area Required.

- 1. Generally.
  - (a) Except in conservation subdivisions and agricultural subdivisions, at least 50% of the open space required by 6.1.3: Minimum Amount of Open Space Required must be Natural Area, as described in Table 6.1.4-1: *Types of Open Space*.<sup>7</sup> If a development

<sup>&</sup>lt;sup>1</sup> The Zoning Administrator may allow a reduction in the minimum width to 8 ft in exceptionally constrained areas if the applicant clearly demonstrates a 10 ft wide path is infeasible given the topography, presence of a waterbody, or other natural site constraints.

<sup>&</sup>lt;sup>5</sup> This specifically excludes swimming pools and golf courses based on stakeholder input. See <u>Audit</u> Report, p. 27.

<sup>&</sup>lt;sup>6</sup> This Section would include requirements/standards for amenities located in conservation and open space areas.

<sup>&</sup>lt;sup>7</sup> This minimum percentage is included to prioritize the conservation of natural areas in new development. The County could consider also including a maximum amount of Natural Area. For example, "Natural Area must comprise at least 50% but not more than 75% of the required open space." Paragraph 6.1.4.A requires two types of open space, but theoretically a development (other than a residential subdivision, which requires Recreation Area in addition to Natural Area) could have a very small open space area and the rest Natural Area.

- site does not contain existing Natural Area, then the required minimum area may be set aside to allow a return to more natural condition through active restoration or passive recovery.
- (b) In a conservation subdivision, at least 80% of required open space must be Natural Area.8 [See 5.4.2.C: Open Space]
- (c) Natural Area is not required in an agricultural subdivision.
- 2. Selection of Natural Area. Natural Area shall be selected in accordance with 6.1.7: Selection of Natural Area for Preservation.
- 3. Protective Fencing Required. Prior to any clearing or grading of the development site, the developer shall install protective fencing around all Natural Area. Fencing shall be placed outside the root protection zone of any trees.<sup>9</sup>
- 4. Incentive for Wildlife Corridors. Where all Natural Area in a development is connected by a wildlife corridor<sup>10</sup> at least 50 feet in width and the wildlife corridor connects to a Natural Area on at least one adjacent lot, the total amount of open space required may be reduced by 5%.<sup>11</sup>
- 5. Incentive for Riparian Access. Where a trail is provided approximately parallel to a river or stream for at least 75% of its length within a development site, the total amount of open space required may be reduced by 5%.
- B. **Cultural Resource Protection Area.** If a Cultural Resource Protection Area exists on a proposed development site, whether or not the applicant intends to preserve it, it shall be identified on all development plans.

<sup>&</sup>lt;sup>8</sup> Carries forward the current percentage of Natural Space required in conservation subdivisions.

<sup>&</sup>lt;sup>9</sup> Carries forward SR 7.7.G(4) [Conservation Subdivisions].

<sup>&</sup>lt;sup>10</sup> The proposed definition of *wildlife corridor* is "an area of land in a relatively natural state that is unimpeded by significant development disturbance, including roads, such that a particular species can travel between core habitats along the corridor." This definition is from the North Carolina Wildlife Resources Commission's <u>Green Growth Toolbox</u>, Appendix D, page 125.

<sup>&</sup>lt;sup>11</sup> This is a simple technique to encourage habitat connectivity in Chatham County. In the future, the County could consider developing a plan for habitat connectivity and amending the UDO to require or incentivize the conservation of important wildlife corridors. See <u>A Landscape Plan for Wildlife Habitat Connectivity in the Eno River and New Hope Creek Watersheds, North Carolina</u> (available at <a href="https://connectedconservationnc.org">https://connectedconservationnc.org</a>), which includes a portion of northeastern Chatham County.

C. **Transitional Buffers.** Transitional buffers required by Subsection 4.4.7: Transitional Buffers may constitute up to 25% of required open space.

## D. Recreation Area Required for Residential Subdivisions.<sup>12</sup>

- 1. All residential subdivisions, except family subdivisions, must include at least 1,245 square feet of Recreation Area per lot.
- 2. The developer must dedicate and convey to the County the type of Recreation Area(s) most likely to be appropriate for the community consistent with the County's Parks and Recreation Master Plan. Each Recreation Area shall satisfy the standards set forth in the Master Plan as to size, shape, location, slope, access, and usefulness to the community.
- 3. The County is authorized to sell any land dedicated pursuant to this Paragraph, but the proceeds shall be used only for the acquisition or development of other public recreation facilities.
- 4. In lieu of dedicating Recreation Areas, the developer may pay a fee to the County. The fee is equivalent to the post-development tax value of the area of land required to be dedicated pursuant to 6.1.5D.1 and 6.1.5D.2, above. In order to serve the public recreation needs of more than one development or subdivision, the County shall establish recreation service districts and fees paid in lieu of dedication hereunder shall be expended for acquisition or development of recreation or park facilities or areas.
- 5. The County may require payment of the fee-in-lieu of dedication at the time of Final Plat approval upon finding that:
  - (a) The land required to be dedicated is not suitable for public recreation purposes; or
  - (b) The recreational needs of the proposed development can be met by other public recreational facilities planned or constructed by the County within the recreational service district where the proposed development is located. The County shall decide during the review and approval process which option is available.

## E. Greenways & Trails Required.

<sup>&</sup>lt;sup>12</sup> This Paragraph carries forward current SR Section 7.5: *Public Use and Service Areas*, Paragraph A(2): *Recreation Sites*, including the fee-in-lieu provisions.

- 1. When a proposed development site contains a greenway or trail depicted on the Proposed Trail Network map in the *Chatham County Parks & Recreation Master Plan*, the developer shall preserve the greenway or trail corridor through one of the following techniques:
  - (a) The developer shall reserve the entirety of the greenway or trail corridor within the development site in its current state, without any improvements;
  - (b) The developer shall dedicate the entirety of the greenway or trail corridor within the development site to Chatham County, if the Board of Commissioners accepts the dedication;
  - (c) The developer shall construct the greenway or trail and dedicate it to Chatham County, if the Board of Commissioners accepts the dedication; or
  - (d) The developer shall construct the greenway or trail and maintain it under private ownership. In this case, the greenway or trail may, but is not required to, be accessible to the general public.
- 2. Greenways and trails must be constructed in accordance with NCDOT Roadway Design Manual § 4.14.1.1: Shared Use Paths, Sidepaths, and Greenways, except when located within a Natural Area or Transitional Buffer. In such cases, trails must be constructed in accordance with 6.1.6: Uses Allowed in Open Space.

## F. Additional Areas Counted as Open Space.

- 1. Tree Save Areas. Tree save areas required by Subsection 6.3.3: Tree Save Areas count as required open space. Tree save areas are considered a Natural Area open space type.
- 2. Cemetery Buffers. Cemetery buffers required by Section 6.2: Cemetery Buffers count as required open space. Cemetery buffers are considered a Cultural Resource Protection Area open space type.
- 3. Riparian Buffers. Riparian buffers required by Chapter 8: Watershed Protection may constitute a maximum of 25% of required open space, even when they overlap other areas counted as open space such as floodplains. Riparian buffers are considered a Natural Area open space type.
- 4. Floodplains. Floodplains may constitute up to 25% of required open space. Floodplains are considered a Natural Area open space type.

- 5. Green Roofs. Green roofs may count as up to 5% of required open space, except in the CD-CR, CD-MU, and CD-CN Districts where they may count as up to 10% of required open space. Green roofs are considered an LID Feature open space type.
- 6. Human-Made Water Bodies. Human-made water bodies that are not part of a stormwater management facility may count as up to 25% of required open space if the water body includes one or more amenities such as a kayak dock or fishing pier. Human-made water bodies are considered a Pocket, Neighborhood, Community, or Regional Park, depending on size.
- G. **Areas Not Counted as Open Space.** The following areas do not count towards the minimum required open space:
  - 1. Natural water bodies;
  - 2. Stormwater management facilities, except vegetated LID features as allowed by Table 6.1.4-1: *Types of Open Space*.<sup>13</sup>
  - 3. Private lots, yards, balconies, and patios dedicated for use by a specific unit;
  - 4. Required building separation and setback areas;
  - 5. Rights-of-way and easements for above-ground electrical transmission lines, oil lines, or natural gas lines;14
  - 6. Public and private streets, parking areas, and driveways, unless they provide access only to required open space; and
  - 7. Designated outdoor storage areas.

#### 6.1.6 USES ALLOWED IN OPEN SPACE<sup>15</sup>

A. The following uses are allowed in all open space types, except Natural Area and Transitional Buffers:

<sup>&</sup>lt;sup>13</sup> The current conservation subdivision standards allow stormwater management facilities in open space (but not natural space) [SR 7.7.D(4)].

<sup>&</sup>lt;sup>14</sup> The County could consider allowing these areas to count as required open space in all or certain situations. For example, these areas could count as part of a Greenway open space type but not a Neighborhood Park.

<sup>&</sup>lt;sup>15</sup> This list is partially derived from the allowed uses of conservation space in conservation subdivisions (SR 7.7).

- 1. Community gardens;
- 2. Public art;
- 3. Bicycle self-service repair stations;
- 4. Shared water, septic, and sewer infrastructure;
- 5. Easements for drainage, access to utilities, and underground utility lines, if the above-ground portion of the easement or right-of-way qualifies as one of the open space types specified in Table 6.1.4-1: *Types of Open Space*; and
- 6. Recreational trails for pedestrians, bicyclists, and equestrians but not motorized vehicles (e.g., golf carts, ATVs, e-bikes) if they are constructed in accordance with NCDOT Roadway Design Manual § 4.14.1.1: Shared Use Paths, Sidepaths, and Greenways.
- B. Pedestrian and bicycle trails are allowed in Natural Areas if:
  - 1. The trail surface is pervious, such as dirt or gravel;
  - 2. Only trees three inches in diameter at breast height (DBH) or less are removed, except where Natural Area is comprised of tree save area as allowed by 6.1.5F.1: *Tree Save Areas*. In these cases, trees shall not be removed; and
  - 3. Any vegetation removal is accomplished without the use of heavy equipment. Herbicides may be used to eradicate invasive plant species, as specified in 6.4.5.A: *Maintenance of Open Space*.
- C. Pedestrian and bicycle trails are allowed in Transitional Buffers if:
  - 1. The trail surface is pervious, such as dirt or gravel; and
  - 2. The trail is located generally parallel to and at least 20 feet from the buffered lot line.
- D. Designated trails and other facilities for motorized vehicles including golf carts, ATVs, and e-bikes are allowed in the following open space types:
  - 1. Regional Parks;
  - 2. Community Parks; and
  - 3. Recreation Areas.

## 6.1.7 SELECTION OF NATURAL AREA FOR PRESERVATION

## A. Ecological Evaluation Report Required.<sup>16</sup>

- 1. Applicants must prepare a report for the entire development site that identifies ecological natural communities and known locations of rare species for preservation as Natural Area. The report must evaluate and map any priority areas listed in 6.1.7B.2, below, that are present on the development site.
- 2. This requirement does not apply for conservation subdivisions, which have more detailed requirements for Natural Area selection (see the County's <u>Guidelines for Conservation Space Selection</u>).
- 3. The Administrative Manual includes an outline and template for the required Ecological Evaluation Report.

## B. **Preservation Priority.**<sup>17</sup>

- 1. Generally. Contiguity of Natural Areas is of most importance. Many isolated pockets of higher priority areas are less valuable than several higher priority areas all connected with lower priority areas.
- 2. *Priority Areas.* The following areas are listed in order of priority for preservation:
  - (a) Lands within and adjacent to State Natural Heritage Natural Areas (NHNAs) identified by the North Carolina Department of Natural and Cultural Resources Natural Heritage Program and Natural Heritage Element Occurrences;
  - (b) Riparian areas;
  - (c) Vulnerable habitats and unique natural features; and

<sup>&</sup>lt;sup>16</sup> Revises 1.2: *Natural Space* from the Chatham County Conservation Subdivision Guidelines for Conservation Space Selection to require an ecological evaluation prepared by the developer rather than a report prepared by the Natural Heritage Program (NHP) staff. County staff and the consultant team met with NHP staff; this Paragraph implements their recommendation.

<sup>&</sup>lt;sup>17</sup> This Paragraph largely replaces the priority areas listed in 1.2: *Natural Space* [Chatham County Conservation Subdivision Guidelines for Conservation Space Selection] with the priority areas listed in the <u>Big Woods Conservation Design Guide</u>, a component of *Plan Chatham*. It does continue to include upland pools and rock outcrops.

- (d) Priority Habitats defined by the N.C. Wildlife Resource Commission in the North Carolina Wildlife Action Plan, including early successional communities, upland pools, and rock outcrops;
  - (1) Upland Pools that may count as required Natural Area include natural depressions that seasonally retain water, either by direct precipitation or through intersection with the water table. Abandoned agricultural or other human-made depressions that do not display these characteristics do not count as required Natural Area.
  - (2) Rock outcrops that may count as required Natural Area include natural exposures of any kind of rock that are large enough to create an opening in the forest canopy or that support plant species specialized for growth on rock or that offer distinctive animal habitat elements such as den sites or sunning areas. Rocks deposited by past human activities do not count as required Natural Area.

#### **6.1.8 LOCATION & DESIGN OF OPEN SPACE**

- A. **Generally.** Open Space shall:
  - Be an integral part of the overall development design, with the specific layout of open space designed to be sensitive to the physical and design characteristics of the site;
  - Be connected with other open space both within the development and on abutting properties;
  - 3. Have direct access to the pedestrian network.
- B. **Connectivity Required.** To the maximum extent practicable, open space shall be organized to create integrated systems of open space that connect with the following types of land uses located within or adjacent to the development:
  - 1. Dedicated public park or greenway lands;
  - 2. Dedicated school sites;
  - Other dedicated open spaces;
  - 4. Open space located adjacent to the proposed development;
  - 5. Neighborhood shopping and activity centers; and

6. Adjacent employment centers.

## C. Accessibility Required.

- 1. Where provided, access to open space shall:
  - (a) Include a pedestrian connection, such as a trail or sidewalk, that is at least 10 feet in width:
  - (b) Be located where such access is visible to dwelling units and other buildings in the development;
  - (c) Not be isolated by walls, screening, landscaping, or any other kind of barrier that would prevent resident, occupant, or tenant surveillance of the open space; and
  - (d) Not be located on individual residential lots.
- 2. The decision-making body may require access to open space to be restricted if it would degrade, destroy, or adversely affect sensitive environmental or natural areas or areas with significant historic, cultural, or archaeological resources.

## **6.1.9 OPEN SPACE PLAN REQUIRED**

## A. When Required.

- 1. An applicant shall submit an Open Space Plan as a part of the application for a Zoning Compliance Permit, Conditional District Rezoning, or major residential subdivision, as applicable.
- 2. If the development is also subject to Section 6.3: Tree Protection, the applicant may combine into one document the Open Space Plan and the tree survey and plans required by 6.3.5: Application Requirements.

#### B. Contents of Plan.

- 1. An Open Space Plan shall:
  - (a) Identify conservation and open space areas:
  - (b) Designate the types of open space that will be provided;
  - (c) Include a written description of how the open space is interconnected, as required by 6.1.8B, and a justification for any areas where there is a lack of interconnectivity;

- (d) Specify the manner in which the conservation and open space will be owned, preserved, and maintained as required by 6.4: Long-Term Preservation & Maintenance; and
- (e) Include a statement acknowledging that conservation and open space will be maintained in accordance with 6.4: Long-Term Preservation & Maintenance.
- 2. The Open Space Plan must incorporate the findings of the ecological evaluation report required by 6.1.7: Selection of Natural Area for Preservation.
- C. **Changes to Open Space Plan.** Any changes to an approved Open Space Plan require review and action through the same process as the original Open Space Plan.

## 6.2 CEMETERY BUFFERS18

## 6.2.1 PURPOSE

The regulations in this Section are intended to preserve existing cemeteries in Chatham County and protect them from encroachment by new development.

#### **6.2.2 APPLICABILITY**

This Section applies to new developments, redevelopments, and lot subdivisions located on:

- A. A lot or development site that contains a cemetery, whether or not the cemetery is listed on the Chatham County Historical Association's <u>Cemetery Census</u>; and
- B. A lot located immediately adjacent to a lot outside the proposed development that contains a cemetery that is shown on Chatham County's online <u>Cemeteries & Historical Sites Map</u>. The standards in this Section apply when a lot line of the lot proposed for development or subdivision is located less than 30 feet from all headstones, grave markers, and known or obvious unmarked burial sites on an adjacent lot.

## **6.2.3 CEMETERY BUFFER STANDARDS**

- A. **Subdivision Required.** A cemetery and its required buffer shall be located on their own separate lot(s) and shall not be located on any portion of a buildable lot.
- B. **Buffer Width.** An undisturbed buffer at least 30 feet in width is required around the perimeter of all cemeteries.
- C. Vegetation.

Chatham County Historical Association add them to its Cemetery Census.

<sup>&</sup>lt;sup>18</sup> This new buffer requirement is proposed pursuant to input from the Chatham County Historical Association (CCHA). The County could consider expanding this requirement to all historical, archaeological, and cultural resources that are (1) individually listed in or eligible for listing in the National Register of Historic Places; (2) contributing resources to listed or eligible historic districts; (3) contributing resources to individual historic properties such as structures or archaeological sites; or (4) designated by the BOC (or CCHA) as an historical, archaeological, or cultural resource.

<sup>19</sup> This ensures developers can easily determine whether a cemetery exists on an adjacent lot and encourages landowners with lots containing cemeteries not shown on the map to request the

- 1. Existing Vegetation Must Be Maintained. If vegetation exists within the buffer area, it shall be maintained generally in its natural state except as provided in 6.2.3C.3 and 6.2.3D, below. Existing vegetation may be supplemented with new plantings in accordance with 6.2.3C.2, below.
- 2. Planting Allowed. The lot owner may plant vegetation if it does not disturb known gravesites and the lot owner selects species from Appendix A: Plant List.
- 3. Invasive Species.
  - (a) Removal of invasive plant species (see Appendix B: *Invasive Plant List*) from a cemetery buffer is allowed.
  - (b) The use of heavy equipment for vegetation removal is prohibited.
  - (c) Herbicides may be used to eradicate invasive plant species if the removal uses best management practices. [See, for example, the North Carolina Forestry Best Management Practices Manual and the N.C. State Extension publication "Accomplishing Forest Stewardship with Hand-Applied Herbicides"] Alternative technologies, such as electric weed control, may be used as well.
- D. **Access.** The lot owner may provide an access trail through the cemetery buffer, if:
  - 1. Only trees three inches in diameter at breast height (DBH) or less are removed; and
  - 2. Any vegetation removal is accomplished without the use of heavy equipment or herbicides.
- E. **Site Plan Required.** A cemetery buffer must be shown on all site plans or plats associated with a proposed development. If the proposed development requires open space pursuant to Section 6.1: Open Space, the cemetery buffer also must be shown on the Open Space Plan required by 6.1.9.

## 6.3 TREE PROTECTION<sup>20</sup>

## 6.3.1 FINDINGS AND PURPOSE<sup>21</sup>

The purpose of this Section is to establish minimum protection standards to ensure tree canopy is preserved on development sites and remains undamaged during development. The County establishes these standards to preserve tree canopy in order to:

- A. Implement the County's Comprehensive Plan goals to conserve natural resources, preserve the rural character and lifestyle of Chatham County, and provide recreational opportunities and access to open space;
- B. Protect the County's diminishing tree canopy;
- C. Identify and preserve healthy tree canopies;
- D. Expand the tree canopy through the promotion of tree planting within all new developments or individual properties;
- E. Mitigate the adverse effects of the loss of trees in the County occurring as a result of residential, commercial, institutional, and industrial land development practices;
- F. Reduce the heat island effect of development through the shade provided by tree canopy;
- G. Improve surface drainage and aquifer recharge;

<sup>&</sup>lt;sup>20</sup> This new Section provides tree protection standards recommended by *Plan Chatham*, the Appearance Commission, the Tree Protection Working Group, and County staff. Key components include:

Conservation open space includes tree save areas and other sensitive areas (wetlands, streams, etc.).

<sup>•</sup> Tree save areas are required for major subdivisions and non-residential developments that require a stormwater plan, with exceptions for agriculture and forestry.

<sup>•</sup> Sites that do not have sufficient tree canopy to satisfy the tree save area percentage will be required to plant trees to satisfy the requirement. Sites that are not suitable for tree planting may provide alterative compliance.

<sup>•</sup> Preservation of specimen and heritage trees is not required in the proposed draft.

<sup>&</sup>lt;sup>21</sup> This new Subsection clearly identifies the findings and the governmental purposes of tree preservation regulations, including the findings of *Plan Chatham* and the § 6.1 of the Design Guidelines.

- H. Reduce and control storm water runoff to minimize soil erosion and pollution, while promoting soil stabilization and enrichment;
- I. Reduce net carbon emissions through the carbon sequestration provided by existing and new tree canopy;
- J. Minimize fragmentation of wildlife habitat by preserving connecting wildlife corridors and habitats;
- K. Preserve existing trees by requiring reasonable maintenance after planting; and
- L. Protect the rights of all citizens and property owners by ensuring that a reasonable and prudent policy of conservation and replenishment of tree canopy is applied during the process of land development.

#### 6.3.2 APPLICABILITY<sup>22</sup>

- A. **Generally.** This Section applies to the following land developments in unincorporated areas of Chatham County:
  - 1. Subdivisions that require major subdivision approval; and
  - 2. Any non-residential land development activity that requires approval of a stormwater plan.
- B. **Exceptions.** The following developments, land uses, and land disturbing activities are exempt from the applicability of this Section:
  - 1. Bona fide agricultural operations;
  - 2. Forestry activity on forestland that is taxed on the basis of its presentuse value as forestland under Article 12 of Chapter 105 of the NCGS; and
  - 3. Forestry activity that is conducted in accordance with a forest management plan that is prepared or approved by a forester registered in accordance with Chapter 89B of the NCGS.
- C. **Limitations.** Clearing trees through development activity that uses timber harvesting as a means to prepare a site for development to circumvent the

<sup>&</sup>lt;sup>22</sup> This Subsection provides for applicably to major subdivisions and non-residential development requiring a stormwater plan, with exceptions for agriculture and forestry. It carries forward delays of three or five years for forestry operations resulting in the removal of timber from a site in SR § 1.14G.

requirements of this Section is prohibited. The County will defer any development application:

- 1. For three years after the completion of a timber harvest if the harvest results in the removal of all or substantially all of the trees from the specific area proposed for development; or
- 2. For five years after the completion of a timber harvest if:
  - (a) The harvest results in the removal of all or substantially all of the trees from the specific area proposed for development; and
  - (b) The harvest was a willful violation of County regulations.
- D. **Tree Save Areas and Other Tree Requirements.** The areas preserved based on the requirements of this Section may also be used to satisfy other requirements for the provision of trees in this UDO, including:
  - Buffers. Retention of existing tree canopy in tree save areas (TSAs) may be used to satisfy perimeter buffers required by Section 4.4: Landscaping and Screening and riparian buffers required by Chapter 8: Watershed Protection;
  - 2. Open Space. Retention of existing tree canopy in TSAs may be used to satisfy the open space requirements as provided in Section 6.1: Open Space.
  - 3. Low Impact Development. Retention of existing tree canopy in TSAs may be used in areas designed for low impact development stormwater mitigation practices allowed pursuant to Chapter 9:

    Stormwater Management. However, the TSAs required by this Section will not be used for detention ponds and other traditional stormwater management practices.

#### 6.3.3 TREE SAVE AREAS<sup>23</sup>

A. **Tree Save Areas.** This Section preserves existing tree canopy by requiring the identification and preservation of designated tree save areas (TSAs). A TSA is an area of existing or planned tree canopy that will not be disturbed during

<sup>&</sup>lt;sup>23</sup> This new Subsection identifies the percentage of canopy that must be preserved in each zoning district. The percentages are based on the proposed preservation areas in the Tree Protection Working Group's report. It requires planting of trees or other plants to meet the area requirement if trees are not present on the site. It also provides incentives for preferred tree save conditions, including Natural Heritage Natural Areas, established hardwoods, and riparian areas.

land development or construction. Trees survive the stress of construction best when they are left in stands or larger groupings. For that reason, it is recommended that the site be designed and developed so that TSAs, buffers, and other existing vegetated areas that are to remain undisturbed are contained in contiguous TSAs.

## B. Tree Save Area Required.

- 1. *In General.* If existing trees are present on a development site, the percentage of the total development site that must be preserved as TSA is the lesser of:
  - (a) The percentage of the site covered with existing tree canopy; or
  - (b) The percentage of the site area stated in Table 6.3.3-1: *Tree Preservation Standards by District*.

Table 6.3.3-1: Tree Preservation Standards by District		
Zoning District	Tree Save Requirement (min)	
PP	n/a	
R5	45%	
AG, RA, R2	35%	
RI	25%	
RV, OI, RHC	30%	
CD-CR, CD-CMU, CD-CN, NB, NC, AC, CB, RB, IL, IH	20%	

**Key:** min = minimum required | n/a = not applicable

- 2. Sites without Trees or with Less than Required Tree Save Area.
  - (a) If sufficient tree canopy does not exist on a development site to satisfy the TSA requirement, additional canopy trees listed in Appendix A: Plant List that comply with the standards provided in Subsection 4.4.4: General Landscaping Standards must be planted to meet the TSA requirement at the rate of 100 trees per acre.<sup>24</sup>

<sup>&</sup>lt;sup>24</sup> The planting rate of 100 trees per acre is the minimum recommended planting rate for hardwood trees planted from tree sleeves or using tree mats in the USDA's Natural Resource Conservation Service's North Carolina Conservation Practice Standard for Tree/Shrub Establishment (<a href="https://efotg.sc.egov.usda.gov/#/state/NC/documents/section=4&folder=-238">https://efotg.sc.egov.usda.gov/#/state/NC/documents/section=4&folder=-238</a>). The standard spacing the Practice Standards document recommends for most hardwood seedling planting is a 12' x 12'

- (b) If the naturally occurring site conditions are not suitable for the canopy trees listed in Appendix A: Plant List, the applicant may present a landscape plan prepared by a licensed landscape architect to provide alternative compliance with the TSA requirement with plantings suitable for the existing site conditions, such as meadow or aquatic plant communities.
  - (1) Site conditions that would support consideration of alternative compliance include:
    - i. Topography;
    - ii. Soil properties, such as depth and pH;
    - iii. Mesic or xeric conditions;
    - iv. Existing plant communities on the site; andUnique microclimate conditions.
  - (2) The proposal must describe the site conditions and the suitability of the proposed plantings over the listed canopy trees.
  - (3) The Zoning Administrator will review the application and allow alternative compliance if the site cannot reasonably support canopy trees without significant ongoing intervention and maintenance.
- C. **Method for Identification of Tree Save Areas.** The selection and measurement of existing tree canopy and proposed TSAs may be evaluated with a tree survey as provided in Subsection 6.3.5: *Application Requirements* or by using the most recent National Land Cover Database (NLCD); aerial or satellite imagery; or Light Detecting, Imaging, and Ranging (LIDAR).
- D. **Tree Save Area Dimensions.** Tree save areas must have a minimum width that is:
  - 1. 50 feet along a development site dimension that is 1,000 feet or more; or
  - 2. 5% of the site width in any dimension that is less than 1,000 feet.

that equates to 303 trees per acre. These recommended rates are generally for seedlings, so a lower rate is recommended for planting of more mature trees.

- E. **Incentives for Preferred Locations.** Sites with preferred preservation conditions qualify for an incentive that reduces the overall percentage of the site that must be preserved as tree save area. The maximum reduction of tree save area using more than one condition is 5% of the site.
  - 1. Natural Heritage Natural Areas. If the designated tree save area consist of a Registered Heritage Area identified by the North Carolina Department of Natural and Cultural Resources, the site qualifies for a reduction of the tree save area by 2.5% of the total site area. For the incentive to qualify, the site must remain in natural condition and retain the qualifying ecological features identified in the Natural Heritage Natural Area report, including any rare species or high quality natural communities previously identified and documented.
  - 2. Existing Hardwood Stands. If the designated tree save area consists of deciduous forest or mixed forest as shown in the most recent National Land Cover Database (NLCD), the site qualifies for a reduction of the tree save area by 2.5% of the total site area. The current conditions of the site must be verified to match the NLCD for the incentive to apply.
  - 3. Riparian Areas. If the designated tree save area is adjacent to a riparian buffer required by Chapter 8: Watershed Protection, the site qualifies for a reduction of the tree save area by 2.5% of the total site area.

## 6.3.4 REMOVAL OF TREES<sup>25</sup>

## A. Generally.

- 1. Existing trees necessary to fulfill the requirement for tree save area may not be removed from a parcel without prior approval by the Zoning Administrator pursuant to the provisions of this Section.
- 2. However, in an emergency situation due to storm damage or other natural disaster; or to alleviate an imminent hazard to the health, safety, and welfare of the citizens; or to repair property damage, prior approval for tree removal in a previously approved TSA is not required.
- B. **Mitigation Requirement for Removal of Trees from Tree Save Areas.** Land development activity that results in the removal of existing trees necessary to

<sup>&</sup>lt;sup>25</sup> This new Subsection provides the Zoning Administrator with authority to allow the removal of trees required for a TSA and requires on-site mitigation for removal of required trees.

- fulfill the requirement for tree save area requires the planting of additional canopy trees listed in Appendix A: *Plant List* at the rate of 100 trees per acre.
- C. **Penalty.** If existing trees necessary to fulfill the requirement for tree save area are removed without administrative approval and mitigation as set out in this Subsection, any new development will be prohibited as provided in Subsection 6.3.2C. Other penalties may also apply as provided in Chapter 15: Enforcement.
- D. **Administrative Approval.** For land development sites with a smaller area of existing tree canopy than this Section requires for TSAs or sites where the applicant proposes to remove trees required to meet the tree save area requirement, the Zoning Administrator may approve requests to remove trees from required TSAs on development sites under limited circumstances, based on, but not limited to, the following factors:
  - The location of the existing trees to be used in a tree save area on the property prevent the development of the site based on locations for connections to existing roads, trails, or utilities;
  - The location of the existing trees to be used in a tree save area on the property would cause detriment to public well-being in regard to sight visibility onto existing streets or hinder widening and enhancement plans for existing streets;
  - 3. The location of the existing trees to be used in a tree save area on the property would cause detriment to public well-being in regard to the placement of proposed utilities on the site;
  - 4. The location of the existing trees to be used in a tree save area on the property would cause detriment to public well-being in regard to drainage and stormwater measures;
  - 5. The location of the existing trees to be used in a tree save area on the property conflict with necessary elements of the site design that unreasonably impede or diminish the objectives of the development or prevent the provision of necessary features;
  - 6. A certified arborist or licensed landscape architect indicates in writing that the tree is diseased, or the soil and climate are not suitable for proper growth and health of the tree, or the tree is prone to cause property damage or personal injury; or

## 6.3.5 APPLICATION REQUIREMENTS<sup>26</sup>

## A. Tree Surveys.

- When Required. If tree save areas are required for a development, a tree survey to identify and verify the existing tree canopy on the development site and proposed locations for TSAs must be provided with:
  - (a) The subdivision concept plat for major subdivisions;
  - (b) The first plat for major subdivisions; and
  - (c) The stormwater plan for all non-residential developments.
- 2. Standards. A tree survey and inventory is a to-scale map or a site plan prepared by a licensed engineer, landscape architect, surveyor, or a certified arborist that includes the following information:
  - (a) Delineation of areas with existing tree canopy;
  - (b) Delineation of proposed TSAs;
  - (c) Calculations of the percentage of the site containing existing tree canopy and with the proposed TSAs; and
  - (d) Identification of trees 12 inches or more in DBH, including size, species, and condition.
- 3. Review by County. Upon receipt of a tree survey that has not already been approved, the County will review the survey for compliance with the requirements of this Section within 30 calendar days of receipt. If the submitted survey does not meet the area preservation requirements of this Section, staff will ask the applicant for additional information or a revised plan.
- B. **Landscape Plans.** For any development project that requires planting of trees or other plant material to satisfy the TSA requirement, the applicant must submit a landscape plan as provided in Subsection 4.4.3: Landscape Plan.
- C. Tree Protection Plans.

<sup>&</sup>lt;sup>26</sup> This new Subsection provides for tree surveys, landscape plans, and tree protection plans.

- 1. When Required. If TSAs are required for a development, the applicant must provide a Tree Protection Plan that complies with this Section with applications for:
  - (a) Construction plan review for major subdivisions; and
  - (b) The stormwater plan for all non-residential developments.
- 2. Standards. A Tree Protection Plan (TPP) is a plan of the same scale as, and superimposed on, a site plan or preliminary plat that indicates the root protection zone of all trees to be protected or preserved on a development site.
  - (a) A TPP must locate and identify by species and size the trees on the margin of the designated TSA that is to be protected during land disturbance activities. Trees that are in the interior of TSAs and those on areas of the site outside a TSA do not have to be located or identified on the TPP.
  - (b) The TPP must provide a root protection zone protecting all trees of 12 inches DBH or more that are within 60 feet of the margins of all TSAs. The critical root zone must measure a 1.25 foot radius from the trunk of all trees along the margin of the TSA for each inch DBH.
  - (c) The TPP must describe the management plan for tree, vegetation, and soil protection measures that will be used before, during, and after all construction activities to promote the survival or retention of the trees in the TSA.
- 3. Review by County. Upon receipt of a TPP that has not already been approved, the County will review the plan for compliance with the requirements of this Section and best management practices for tree protection within 15 working days of receipt. If the submitted TPP does not meet the technical requirements of this Section, staff will ask the applicant for additional information or a revised plan.

## 6.3.6 TREE PROTECTION DURING CONSTRUCTION<sup>27</sup>

## A. Tree Protection Fencing.

<sup>&</sup>lt;sup>27</sup> This new Subsection codifies the tree protection strategies in the Design Guidelines § 6: *Tree Protection During Construction* and adds a requirement for signage on the required fencing.

- 1. Fencing Required. Before any land disturbance and during the entire duration of construction activity on the site, the root protection zone for tree save areas as shown on the tree protection plan shall be surrounded by approved tree protection fencing fabric or rigid fencing.
- 2. Maintenance of Fencing. Tree protection fencing shall be maintained until a final certificate of occupancy has been issued. Failure to do so will result in a stop-work order until the fencing has been appropriately installed or remedied.
- 3. Signs Required. Warning signs must be installed on the protective fence, spaced a minimum of one every 300 linear feet. The signs must contain the following or similar text in both English and Spanish: "TREE PROTECTION ZONE: KEEP OUT."
- B. **Prohibited Activities Within the Root Protection Zone.** During the entire construction period, there shall be no soil disturbance, compaction, or changes to the existing grade within the root protection zone. Prohibited activities in these areas include the following:
  - 1. Stockpiling of construction materials;
  - 2. Parking of vehicles or storage of equipment;
  - 3. Portable buildings or portable toilets;
  - 4. Ropes, signs, wires, unprotected electrical installation, or other device or material may not be secured or fastened around or through a tree;
  - 5. Bore sampling;
  - 6. Toxic chemicals, gas, oil, salt brine, or other injurious substances may not be stored or allowed to seep, drain, or empty into a root protection zone; and
  - 7. Silt from stormwater runoff may not be allowed to run onto root protection zones. Silt protection fencing or a drainage swale shall be installed on the uphill side of all root protection zone areas.

## 6.3.7 PLANT MATERIAL INSTALLATION<sup>28</sup>

For any development project that requires planting of trees or other plant material to satisfy the requirement of this Section, the applicant must comply with the standards provided in Subsection 4.4.4: General Landscaping Standards.

## 6.3.8 USE OF TREE SAVE AREAS<sup>29</sup>

- A. **Trails.** Tree save areas may include pedestrian and bicycle trails if:
  - 1. Trees are not removed;
  - 2. The trail surface is pervious, such as dirt or gravel; and
  - 3. Trail placement is coordinated with the County so that the effective tree save area required is maintained.
- B. **Structures.** Structures are prohibited within the root protection zone provided in 6.3.5C: *Tree Protection Plans*. A building restriction must be noted on the recorded plat for the subdivision.

#### **6.3.9 APPEALS**<sup>30</sup>

- A. **Right to Appeal.** The applicant may seek review of administrative decisions under this Section as follows:
  - 1. For subdivision applications, appeal is to the Planning Board as provided in Section 12.11: Appeals of Administrative Decisions; and
  - 2. For non-residential applications, appeal is to the Board of Adjustment as provided in Section 12.11: *Appeals of Administrative Decisions*.
- B. **Standard for Appeal.** The decision-making body will review an administrative decision based on the standards set out in this Section.

<sup>&</sup>lt;sup>28</sup> This new Subsection references Section 4.4: Landscaping & Screening for planting standards.

<sup>&</sup>lt;sup>29</sup> This new Subsection requires ownership of TSAs by the HOA for subdivisions. TSAs are to be left undisturbed except for minimal maintenance (removal of invasive plants).

<sup>&</sup>lt;sup>30</sup> This new Subsection provides for appeals to the Planning Board for decisions on subdivisions and the Board of Adjustment for other applications.

## 6.4 LONG-TERM PRESERVATION & MAINTENANCE

#### 6.4.1 PURPOSE

This Section sets forth long-term preservation and maintenance requirements to ensure conservation and open space is protected in perpetuity and adequately maintained for its intended purpose.

#### 6.4.2 APPLICABILITY

This Section applies to all of the following, collectively referred to as "conservation and open space":

- A. Open space preserved in accordance with Section 6.1: Open Space;
- B. Cemetery buffers established in accordance with Section 6.2: Cemetery Buffers; and
- C. Trees save areas established in accordance with Section 6.3: Tree Protection.

## **6.4.3 GENERALLY**

Land designated as conservation or open space to meet the requirements of this Chapter shall:

- A. Be platted as a lot;
- B. Remain as conservation or open space in perpetuity; and
- C. Be maintained so that its use and enjoyment as conservation or open space is not diminished or destroyed.

## **6.4.4 PERMANENT PROTECTION REQUIRED**

- A. Conservation and open space shall be permanently protected through deed restrictions, covenants, easements, or other legal instruments to:
  - 1. Ensure the conservation and open space is used for its intended purpose; and
  - 2. Provide for the continued and effective management, operation, and maintenance of the conservation and open space.

- B. The legal instrument shall include:31
  - A statement allocating maintenance responsibilities and establishing guidelines for the upkeep of the conservation and open space and all associated facilities;
  - 2. Cost estimates for all maintenance, operation, and insurance needs for the conservation and open space, as well as a plan that outlines the means by which funds will be obtained for such expenses; and
  - 3. Establishment of criteria for enforcement of the plan.
- C. Conservation and open space may be owned, preserved, and maintained by any of the following mechanisms or combinations thereof:
  - 1. Common ownership of the conservation and open space by a property owners' association that assumes full responsibility for its management and maintenance:
  - 2. Conveyance of the conservation and open space to a third-party organization, such as a land trust or civic organization, that is capable of and willing to accept responsibility for managing and maintaining the conservation and open space for its intended purpose.
    - (a) The organization shall be bona fide and in perpetual existence; and
    - (b) The conveyance instrument shall contain an appropriate provision for retransfer in the event the organization becomes unable to carry out its functions;
  - 3. Upon request of the applicant, dedication to a public agency that is capable of and willing to accept responsibility for managing and maintaining the conservation and open space for its intended purpose; or
  - 4. Private ownership, if the owner is capable of and willing to place a permanent deed restriction on the property and accept responsibility for managing and maintaining the conservation and open space for its intended purpose.

<sup>&</sup>lt;sup>31</sup> Carries forward SR 7.7.G: *Management of Conservation Space* [Conservation Subdivisions], but eliminates the requirement for a separate "Conservation Space Management Plan."

#### **6.4.5 MAINTENANCE STANDARDS**

## A. Maintenance of Open Space.

- 1. Natural Areas shall remain undisturbed, except that:
  - (a) Pedestrian and bicycle trails may be installed as allowed by 6.1.6: Uses Allowed in Open Space.
  - (b) Invasive plant species may be removed without County approval. The use of heavy equipment is prohibited. Herbicides may be used to eradicate invasive plant species if the removal uses best management practices. [See, for example, the North Carolina Forestry Best Management Practices Manual and the N.C. State Extension publication "Accomplishing Forest Stewardship with Hand-Applied Herbicides"] Alternative technologies, such as electric weed control, may be used as well;<sup>32</sup>
  - (c) Natural water courses may be maintained as free flowing, and removal of debris may be permitted as necessary; and
  - (d) Stream channels shall be maintained so as not to alter floodplain levels, nor violate U.S. Army Corps of Engineers or N.C. Department of Environmental Quality requirements.
- 2. All other open space shall be:
  - (a) Maintained free from hazards, nuisances, and unhealthy conditions; and
  - (b) Maintained using standard landscaping practices, including regular mowing, trimming, weeding, and cleaning to ensure neatness. The use of pesticides and herbicides is prohibited.<sup>33</sup> Hardscaped areas shall be maintained in good repair.

<sup>&</sup>lt;sup>32</sup> Alternatively, the UDO could be more permissive and allow removal of dead, dying, or diseased trees and plant materials, as well as brush.

<sup>&</sup>lt;sup>33</sup> Alternatively, the UDO could allow pesticide and herbicide use in accordance with Best Management Practices. This implements a recommendation in the Audit Report (p. 26)—
"Stakeholders also suggest the County consider limiting or prohibiting the use of herbicides and pesticides in conservation and open space or incentivizing the use of best practices if herbicides and pesticides are used in conservation and open space."

B. **Maintenance of Cemetery Buffers.** Cemetery buffers must be maintained in a natural state and left undisturbed, except as provided in 6.2.3: Cemetery Buffer Standards.

#### C. Maintenance of Tree Save Areas.

- 1. Generally. Tree save areas must be maintained in a natural state and left undisturbed. The cutting or removal of trees or other vegetation, dead or alive, or the disturbance of other natural resources is prohibited except for:
  - (a) Removal of hazards to visitors;
  - (b) Control of disease that would damage the existing trees and other plants;
  - (c) Removal of non-native plant species;
  - (d) Reduction of fire fuel load after severe storm damage;
  - (e) Trail clearance or maintenance; and
  - (f) Maintenance or restoration of natural communities or rare species populations in the TSA.
- 2. Removal of Non-Native Species. Invasive plant species may be removed from a tree save area without County approval. The use of heavy equipment is prohibited. Herbicides may be used as specified in 6.4.5A.1(a), above.
- 3. Maintenance of New Plantings. All new plant material installed to satisfy the requirements of Section 6.3: Tree Protection must be maintained as provided in Subsection 4.4.9: Landscaping Maintenance.

## 6.4.6 FAILURE TO MAINTAIN CONSERVATION & OPEN SPACE

- A. In the event any owner of conservation or open space fails to maintain it, the County, in accordance with the approved Open Space Plan or Tree Protection Plan, as applicable, and following reasonable notice and demand that the owner correct any deficiency of maintenance, may enter the conservation or open space to conduct maintenance activities.
- B. The cost of the maintenance will be charged to the person or entity with the primary responsibility for maintenance of the open space.