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# DEVELOPMENT & DESIGN STANDARDS

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# CONTENTS

- CHAPTER 4 DEVELOPMENT & DESIGN STANDARDS ..... 4-6**
  - 4.1 GENERAL PROVISIONS..... 4-6**
    - 4.1.1 PURPOSE .....4-6
    - 4.1.2 APPLICABILITY.....4-6
    - 4.1.3 ACCESS TO PROPERTY .....4-7
  - 4.2 BUILDING DESIGN ..... 4-7**
    - 4.2.1 PURPOSE .....4-7
    - 4.2.2 DESIGN PRINCIPLES.....4-7
    - 4.2.3 APPLICABILITY.....4-9
    - 4.2.4 BUILDING ORIENTATION.....4-10
    - 4.2.5 PEDESTRIAN ENTRY & ACCESS .....4-11
    - 4.2.6 BUILDING FRONTAGE TYPES .....4-12
    - 4.2.7 ROOFS.....4-15
    - 4.2.8 WALL PLANES .....4-15
    - 4.2.9 BUILDING COMPOSITION.....4-15
    - 4.2.10 SIGN BAND AREA .....4-16
    - 4.2.11 WINDOW OPENINGS.....4-16
    - 4.2.12 EXTERIOR MATERIALS .....4-17
    - 4.2.13 HIGH-VISIBILITY CORNER SITES .....4-18
    - 4.2.14 ROOF-MOUNTED UTILITY & SERVICE AREAS.....4-18
    - 4.2.15 AUTO-ORIENTED CANOPY STRUCTURES .....4-18
    - 4.2.16 OUTDOOR DISPLAY & STORAGE AREAS .....4-18

4.2.17 SOLAR ENERGY SYSTEMS .....4-19

**4.3 FIRE PROTECTION ..... 4-19**

4.3.1 PURPOSE .....4-19

4.3.2 APPLICABILITY.....4-20

4.3.3 PROHIBITED PARKING .....4-20

4.3.4 PERMITS REQUIRED .....4-20

**4.4 LANDSCAPING & SCREENING ..... 4-21**

4.4.1 PURPOSE .....4-21

4.4.2 APPLICABILITY.....4-22

4.4.3 LANDSCAPE PLAN .....4-22

4.4.4 GENERAL LANDSCAPING STANDARDS .....4-23

4.4.5 BUILDING FOUNDATION LANDSCAPING .....4-28

4.4.6 PARKING LOT LANDSCAPING.....4-30

4.4.7 TRANSITIONAL BUFFERS .....4-34

4.4.8 SCREENING OF SITE FEATURES.....4-42

4.4.9 LANDSCAPING MAINTENANCE.....4-44

**4.5 LIGHTING ..... 4-45**

4.5.1 PURPOSE .....4-45

4.5.2 APPLICABILITY.....4-45

4.5.3 EXEMPTIONS .....4-46

4.5.4 PROHIBITED EXTERIOR LIGHTING.....4-47

4.5.5 EXTERIOR LIGHTING DESIGN PRINCIPLES .....4-48

4.5.6 GENERAL STANDARDS FOR ALL EXTERIOR LIGHTING .....4-48

4.5.7 LIGHTING ZONES.....4-51

4.5.8 LIGHTING LEVELS.....4-52

4.5.9 LIMITS TO OFF-SITE IMPACTS.....4-52

4.5.10 ADDITIONAL LIGHTING STANDARDS FOR CERTAIN LAND USES 4-55

4.5.11 PERMANENT SIGN & BILLBOARD LIGHTING .....4-57

4.5.12 LANDSCAPE LIGHTING .....4-58

4.5.13 HOLIDAY/FESTIVE LIGHTING .....4-58

4.5.14 STREET LIGHTING .....4-59

4.5.15 EXTERIOR LIGHTING PLAN REQUIRED .....4-59

**4.6 PARKING & LOADING ..... 4-60**

4.6.1 PURPOSE .....4-60

4.6.2 APPLICABILITY.....4-61

4.6.3 PARKING PLAN REQUIRED .....4-62

4.6.4 PARKING RATIOS.....4-62

4.6.5 PARKING LOT IMPROVEMENT, DESIGN, AND LOCATIONAL REQUIREMENTS .....4-65

4.6.6 ELECTRIC VEHICLE CHARGING STATIONS.....4-70

4.6.7 ALTERNATIVE PARKING PLANS.....4-72

4.6.8 VEHICLE QUEUING .....4-75

4.6.9 BICYCLE PARKING .....4-78

4.6.10 OFF-STREET LOADING .....4-81

**4.7 SIGNS ..... 4-84**

4.7.1 PURPOSE .....4-84

4.7.2 APPLICABILITY.....4-85

4.7.3 CONTENT NEUTRALITY .....4-86

4.7.4 EXEMPT SIGNS.....4-86

4.7.5 PROHIBITED SIGNS .....4-87

4.7.6 GENERAL SIGN STANDARDS .....4-88

4.7.7 SIGNS DISTRICTS AND INTERPRETATION OF TABLES .....4-90

4.7.8 PERMANENT SIGNS .....4-92

4.7.9 INCIDENTAL SIGNS.....4-96

4.7.10 TEMPORARY SIGNS .....4-99

4.7.11 BILLBOARDS .....4-101

# CHAPTER 4 DEVELOPMENT & DESIGN STANDARDS

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## 4.1 GENERAL PROVISIONS

### 4.1.1 PURPOSE

This Chapter establishes development and building design standards that:

- A. Implement the Comprehensive Plan;
- B. Implement the purposes established for the UDO and its zoning districts; and
- C. Ensure development is consistent with best practices for public safety and community design.

### 4.1.2 APPLICABILITY

- A. **Generally.** This Chapter applies to:
  - 1. All zoning districts, and
  - 2. Unless otherwise provided, any application for:
    - (a) Zoning compliance;
    - (b) Rezoning to a conditional district; and
    - (c) A major subdivision.
- B. **Conditional Zoning Districts.**
  - 1. Any lot located within a conditional zoning district may be subject to additional regulations beyond those in this Chapter.
  - 2. The regulations applicable to a conditional zoning district may be more restrictive than those set out herein, but generally should meet the minimum requirements in this Chapter.

### 4.1.3 ACCESS TO PROPERTY<sup>1</sup>

A building, structure, or use of land shall be established only on a lot that abuts a public or private right-of-way to which the building, structure, or use of land has legal access.

## 4.2 BUILDING DESIGN<sup>2</sup>

### 4.2.1 PURPOSE

The purpose of the Building Design standards is to promote the improved appearance of buildings across the jurisdiction with desirable standards that achieve goals for aesthetic enhancement of Chatham County's many towns, rural villages, and rural crossroad communities.

### 4.2.2 DESIGN PRINCIPLES<sup>3</sup>

- A. **Findings.** The goal of the following design principles is to maintain distinct and cohesive patterns of development and promote context-sensitive design that reinforces the rural character and setting of Chatham County. The following design principles establish common qualities present in the buildings and settings throughout the County's traditional hamlets, villages, and crossroads communities, generally described as simplistic and utilitarian in their expression of form, design, material, and detail. The following design principles are derived from vernacular and serve as general guidelines for the design of new development and redevelopment throughout the County, but are not regulatory standards.
- B. **Maintaining Rural Character and Ambience of Chatham County.**
1. The countryside and small-town settings of Chatham County is paramount, with buildings relating to their topography and environs in a unified manner.

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<sup>1</sup> Carries forward a portion of ZO Section 8.4 *Access to Property*. Expands to include private right-of-way.

<sup>2</sup> Adds new architectural standards for non-residential, mixed use, and multi-family buildings in certain zoning districts and/or certain geographic areas. See discussion of proposed standards in the [Audit Report](#) (pp. 77-78).

<sup>3</sup> Adapted from *Chatham County Design Guidelines*, Draft dated July 1, 2022. Additional resources include "*The Architectural Heritage of Chatham County, North Carolina*" and "*A Guide to the Historic Architecture of Piedmont North Carolina*."

2. Ample space allows for protection of historic structures, scenic views, and unique natural features of a site, such as streams, wetlands, floodplains, rock outcroppings, steep slopes, and upland pools.
3. Civic and public life is reinforced through built form offering a variety of formal and informal areas for gathering, socializing, and promoting social cohesion.
4. Aesthetic design elements are compatible with the surrounding environment, with consideration given to local architectural traditions and vernacular forms evident in the aesthetic of the County's small towns and rural mills, barns, farm structures, covered porches, metal roofs, awnings, and windows.

**C. Conserving Natural Resources.**

1. Native trees of significant size and historical value are protected.
2. Areas of existing forest and native vegetation are retained and soil erosion reduced to maintain the site's natural ecosystem.
3. Tree stands, vegetated areas, and open space connect within and across sites and minimize fragmentation of wildlife habitat.
4. Plants that pollinate and produce edible fruit and nuts are planted to increase access to healthy food within the community.

**D. Resilient and Healthy Communities.**

1. Buildings define and relate to the street in a manner that is universally accessible to pedestrian travel and include varying facilities that appeal to a range of ages and abilities.
2. Building design balances access for varying mobility needs within and across sites, with provisions made for sidewalks, trails, greenways, and future or planned transportation alternatives, where applicable.
3. Sustainable and low-maintenance design practices are used to promote energy efficiency, water conservation, and renewable materials while maintaining a rural aesthetic.
4. Buildings and sites contain covered and well-shaded areas that reduce the effects of heat island and high temperatures.



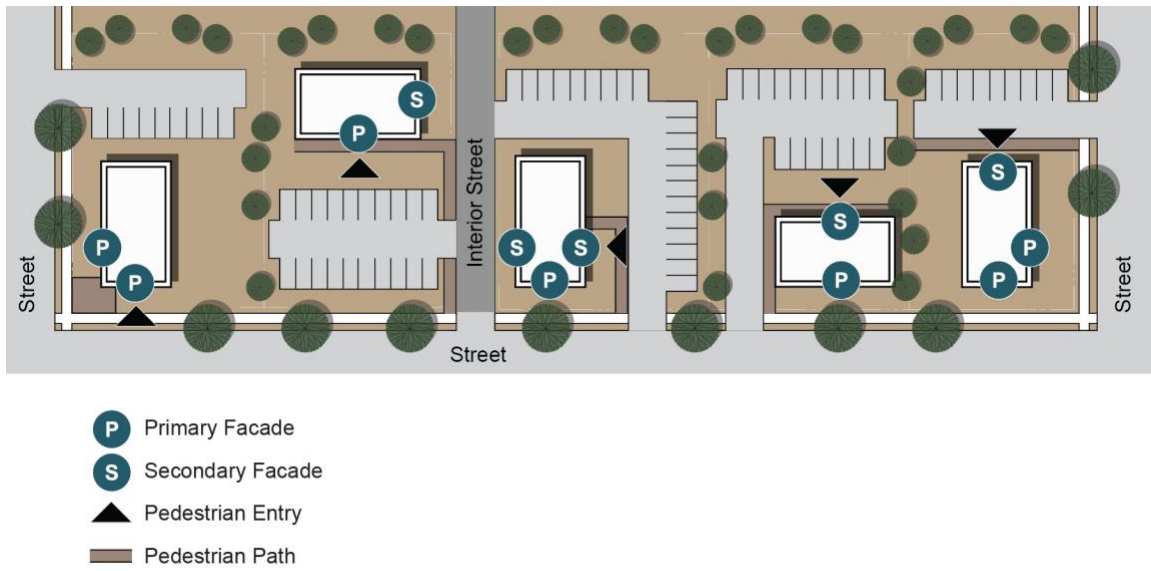
### 4.2.3 APPLICABILITY

- A. **General.** Section 4.2: *Building Design* applies to new construction on properties meeting one of the following conditions:
1. A Commercial or Mixed Use building within any Non-Residential Zoning District, except for those Zoning Districts listed below;
  2. A multi-family dwelling consisting of 5 or more units in any Zoning District; or
  3. A Commercial or Mixed Use building in areas designated as a “Center” on the County’s Future Land Use & Conservation Plan. Where a portion of a property is located within a “Center” designation, buildings within two hundred feet (200 ft.) of the predominant public right-of-way shall comply with this Section 4.2: *Building Design*.
- B. **Exemptions.**
1. Section 4.2: *Building Design* does not apply to the existing portion of the building where a building addition is planned and designed. Minor building additions less than or equal to 10% of the taxed value of the existing structure to be expanded are exempt from the building design standards of this Section. Major building additions greater than 10% of the taxed value of the existing structure to be expanded must comply with Section 4.2: *Building Design* where applicable.
  2. Section 4.2: *Building Design* does not apply to the following Zoning Districts.
    - (a) Agricultural District
    - (b) Light Industrial District
    - (c) Heavy Industrial District
  3. Section 4.2: *Building Design* does not apply to the following uses.
    - (a) Agriculture & Horticulture Uses;
    - (b) Government Uses, with the exception of the following uses which must adhere to this Chapter:
      - (1) Government Offices and Facilities; and
      - (2) Libraries

- (c) Heavy Commercial, Manufacturing, and Industrial Uses;
  - (d) Institutional and Civic Uses, with the exception of the following uses which must adhere to this Chapter:
    - (1) Day Care Centers; and
    - (2) Funeral Homes;
  - (e) Natural Resources Extraction Uses;
  - (f) Transportation, Warehousing, and Storage Uses;
  - (g) Residential Uses including uses with four or fewer dwelling units, family care homes, and cottage courts;
  - (h) Utility Uses; and
  - (i) Waste Management Uses.
- C. **Hierarchy of Standards.** The Form and Design Standards outlined in the following Zoning Districts supersede Section 4.2: *Building Design* where applicable.
- 1. NC, Neighborhood Center District; and
  - 2. AC, Activity Center District.
- D. **Timing of Review.** Compliance with the standards of this Section shall be evaluated during review of an application for a Zoning Compliance Permit.

#### 4.2.4 BUILDING ORIENTATION

- A. The Primary Façade of a building shall mean the front side of the building facing a street. On corner lots, the building shall have two Primary Facades, one for each street.
- B. The Secondary Façade of a building shall mean any side of the building with a Pedestrian Entry that is not the front or rear of the building facing either an interior street, parking area, or a publicly accessible open space.

**Figure 4.2.4 Building Orientation**

#### 4.2.5 PEDESTRIAN ENTRY & ACCESS

- A. The Pedestrian Entry shall be identifiable as the primary means of pedestrian or customer access to the Principal Use of the building. The Pedestrian Entry must be differentiated from the rest of the building using one of the building frontage types outlined in 4.2.6: Building Frontage Types.
- B. The Pedestrian Entry may be located on either the Primary Façade or Secondary Façade. Where the Pedestrian Entry is located on the Secondary Façade of the building, the Secondary Façade must adhere to the following standards:
  1. 4.2.7: Roofs;
  2. 4.2.8: Wall Planes; and
  3. 4.2.11: Window Openings.
- C. A minimum separation of eight feet (8') is required between the front façade of the building and all parking areas. This area may be used for pedestrian amenities or plantings but shall include a clear pathway in accordance with the Americans with Disabilities Act (ADA).
- D. Where sidewalks are present or planned along a public street, a pedestrian pathway shall be provided that connects the public sidewalk to the building's Pedestrian Entry. Pedestrian pathways must be integrated into the site

design and coordinated with parking lots, landscaping areas, and buffers and shall be designed so that pedestrians and vehicular conflicts are avoided.

#### **4.2.6 BUILDING FRONTAGE TYPES**

The following table of frontage types support pedestrian activity and safety and are required along Primary and Secondary Façades to enhance the Pedestrian Entry and access.

**Table 4.2.6-1: Building Frontage Types**

<b>Shopfront or Storefront</b>	<b>Arcade or Gallery</b>
<p>A frontage most often found on commercial retail, restaurant, and service uses that includes a substantial number of windows at the sidewalk level and typically accommodates design features such as lighting, awnings, and signs.</p>	<p>A frontage often found on street-oriented commercial retail that includes an attached colonnade and roof structure overlapping the pedestrian path.</p>





<b>Covered Entrance or Porte Cochère</b>	<b>Stoop</b>
<p>A roofed structure that integrates with and extends from a building’s front entrance over a driveway that offers shelter for individuals and can be designed to accommodate loading and unloading of vehicles.</p>	<p>A raised structure typically with a small landing and steps leading to the entry usually covered by a roof structure or overhang.</p>





<b>Commercial Stoop</b>	<b>Porch or Portico</b>
<p>A raised landing with a common area that connects multiple pedestrian entries and often contains either a staircase or ramp to transition from the landing to the ground or sidewalk.</p>	<p>A porch, often found on residential structures but can be adapted to commercial structures, consists of an adequate depth dimension for seating, and includes a roof structure supported by posts that attaches to the front façade of the building.</p>
	

<b>Commercial Terrace or Open Plaza</b>	<b>Forecourt</b>
<p>A frontage where the front entry of the building overlooks an open space designed with amenities for pedestrian use. These areas may be informal such as an outdoor patio or plaza space. The entry should include shade features such as a canopy or roof extension.</p>	<p>A frontage wherein a portion of the façade is setback at the entry far enough to accommodate an enclosed courtyard space for common entry into a lobby or foyer interior of the building, often with a central feature such as a tree or fountain.</p>
	

### 4.2.7 ROOFS<sup>4</sup>

Buildings shall avoid long, monotonous rooflines along Primary and Secondary Facades and have varied profiles using one or more of the following design strategies:

- A. Pitched gables or stepped parapets;
- B. A change in the pitch of roof or use of a secondary roof structure such as smaller roof sections covering porches, entryways, window openings, and similar areas; or
- C. Roof elaborations such as towers, cupolas, or dormers.

### 4.2.8 WALL PLANES

- A. Buildings are required to modulate or articulate wall planes along Primary and Secondary Façades to avoid long, monotonous expanses.
- B. Wall planes greater than 80 feet shall provide a break in the wall plane constituting one or more of the following design strategies:
  - 1. An offset or jog in the wall plane with a depth greater than or equal to one foot;
  - 2. A variation in use of exterior material or architectural features;
  - 3. A variation of roof form or pitch; or
  - 4. A change in height in the number of stories.

### 4.2.9 BUILDING COMPOSITION

Buildings must be composed of clearly articulated base, middle, and top sections.

- A. **Base.** The base of the building is articulated by distinguishable architectural features such as, but not limited to, a water table, knee wall, bulkhead, or trim work used to transition the wall plane to the ground plane. The base of multi-level buildings may distinguish the entire first level of the building as the base using a separate building material, building frontage type, or significant change in vertical proportion of window openings.

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<sup>4</sup> The graphics in this Section are placeholders. The consultant team will create new graphics if these standards remain in the draft.

- B. **Middle.** The middle portion of the building consists of the wall plane area between the base and the top portions of the building.
- C. **Top.** The top consists of the roof structure and architectural features that transition between the wall plane and the roof structure. For multi-level buildings, the upper-most level of the building may be considered part of the top using identifiable design elements, such as cornicing, clerestory windows, window treatments, variation in materials, or wall plane detailing.

**Figure 4.2.9: Building Composition**



#### 4.2.10 SIGN BAND AREA

Adequate space for sign bands and/or sign areas shall be integrated into the design of the Primary or Secondary Façades of all commercial and mixed-use buildings. Refer to Section 4.7: Signs for general sign standards and dimensions.

#### 4.2.11 WINDOW OPENINGS

Window Opening refers to the void of a wall plane, or the rough opening, where a window is to be placed, not to be construed with the individual components of a window such as glass panes or window frames.

- A. Window Openings shall emphasize vertical orientation so that the height dimension is greater than the width dimension.



- B. Square window openings are permitted where regularly spaced along the façade of the building and designed in a manner that is proportional in width to adjacent window openings along the facade.
- C. The following window applications are exempt from the above standards:
  - 1. Shopfront or display windows;
  - 2. Commercial storefront systems;
  - 3. Roof-mounted window applications;
  - 4. Clerestory windows;
  - 5. Accent windows; and
  - 6. Transom windows.

#### **4.2.12 EXTERIOR MATERIALS**

- A. Prohibited building materials include the following:
  - 1. Unfinished concrete masonry unit (CMU) block;
  - 2. Textured plywood; and
  - 3. Vinyl or plastic siding.
- B. The following materials are prohibited along the base of the building up to four feet, as measured from the top of sidewalk:
  - 1. Corrugated metal panels; and
  - 2. Exterior insulation and finish systems (E.I.F.S.).
- C. Exterior walls of multi-family buildings shall consist of a high-quality finish material using one or more of the following:
  - 1. Brick, stone, or similar material;
  - 2. Wood;
  - 3. Fiber Cement Siding; and
  - 4. Stucco.

### 4.2.13 HIGH-VISIBILITY CORNER SITES

- A. **Applicability.** This Section applies to properties at the intersection of major arterials and collector roads.
- B. **Building Presentation.** Buildings located on corner sites of major intersections shall include architectural features that accentuate the building corner, including any of the following design strategies:
1. A building entrance at the corner;
  2. Distinguishable massing elements such as towers or covered porches;  
or
  3. Emphasized roof features such as clock towers, cupolas, or clerestory windows.

### 4.2.14 ROOF-MOUNTED UTILITY & SERVICE AREAS

Roof-mounted mechanical and utility equipment shall be located furthest away from the Primary and Secondary Facades or otherwise screened from view by the roof structure or separate structure to have minimum visual impact as seen from the street.

### 4.2.15 AUTO-ORIENTED CANOPY STRUCTURES

Auto-Oriented Canopy Structures associated with fuel islands and drive-through facilities must not be located between the building and the public right-of-way, except where the following design provisions are made.

- A. Auto-oriented canopies and their components are designed to be architecturally integrated with the main building using like materials.
- B. Support columns are wrapped with a durable and high-quality finish brick, stone, or similar material.

### 4.2.16 OUTDOOR DISPLAY & STORAGE AREAS

- A. Outdoor display and storage areas must be indicated on a site plan at time of submittal in accordance with the standards described herein.
- B. Generally, Outdoor Display and Storage Areas must not:

1. Exceed 25% of the gross square footage of the Principal Use building footprint;
  2. Impede pedestrian circulation and shall remain clear of pedestrian sidewalks, crosswalks, and pathways.
  3. Be located in required parking areas, unless parking stalls are in excess of the minimum required number of parking stalls.
- C. Display Areas associated with commercial uses must be located immediately adjacent to the Pedestrian Entry and be limited to no more than one-half of the length of the applicable Primary or Secondary Façade.
- D. Outdoor Storage Areas must be fully enclosed.

#### 4.2.17 SOLAR ENERGY SYSTEMS

- A. A solar energy system (SES), in accordance with [Section 3.5.8: Solar Energy Systems, Level 1](#), is required for all buildings greater than 100,000 gross square feet<sup>5</sup> or property exceeding two acres of built-upon area.
- B. Solar energy systems are permitted as a roof-mounted, building-integrated, or as a ground-mounted solar energy system. Ground-mounted solar energy systems are permitted as canopies above surface parking areas or above ground cover vegetation. Ground cover must be a:
1. Perennial vegetation compatible with the SES system used; or
  2. Pollinator-friendly species; and
  3. Non-invasive and native or naturalized species.

## 4.3 FIRE PROTECTION

### 4.3.1 PURPOSE

The purpose of this Section is to provide fire protection standards that supplement, but do not replace or alter, those in Chatham County Code [Chapter 93: Fire Prevention and Protection](#).

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<sup>5</sup> According to a commercial real estate [survey](#) of big box retailers and another [article](#) by Environment America,, the average size of a Target is 130,000 sf; Wal-Mart is 180,000 sf; Costco is 145,300 sf; Home Depot is 104,000 sf.

### 4.3.2 APPLICABILITY

This Section applies to all new and existing development.

### 4.3.3 PROHIBITED PARKING

- A. As authorized in [§ 93.10: Removal of Obstructions; Prohibited Parking](#), the Fire Marshal may remove or tow any vehicle obstructing a fire hydrant, designated fire protection equipment, designated fire lane, or fire station.
- B. In addition, the Fire Marshal may enforce prohibitions against on-street parking on any streets not expressly designed and constructed to accommodate it, if the on-street parking obstructs access by fire apparatus.

### 4.3.4 PERMITS REQUIRED

In addition to any permit or approval required by this UDO, the activities described in this Subsection require issuance of a permit by the Fire Marshal prior to initiation of the activity.

- A. **Hazardous Materials.** The use, storage, handling, or processing of hazardous materials in conjunction with any use authorized in [Chapter 3: Use Regulations](#). [See [§ 93.05: Permits](#)]
- B. **Aboveground and Underground Tank Installation and Removal.** The installation or removal of any aboveground or underground tank used for the storage of volatile flammable or combustible liquids or any other hazardous material in conjunction with any use authorized in [Chapter 3: Use Regulations](#). [See [§ 93.07: Aboveground and Underground Tank Installation](#) and [§ 93.08: Tank Removal; Aboveground and Underground](#)]

## 4.4 LANDSCAPING & SCREENING<sup>6</sup>

### 4.4.1 PURPOSE<sup>7</sup>

The purpose and intent of these landscaping and screening standards are to:

- A. Improve the quality of the built and natural environments;
- B. Soften the visual impact of development;
- C. Minimize potential conflicts between incompatible abutting developments;
- D. Reduce soil erosion and increase infiltration in permeable land areas essential to stormwater management;
- E. Encourage the use of naturalistic landscaping designs that are visually compatible with the County's natural lands and habitats;
- F. Screen unsightly equipment or materials from the view of persons on public streets or adjoining properties and buffer them from uncomplementary land uses;
- G. Enhance the appearance of buildings, parking lots, and loading areas by requiring site-appropriate landscaping be incorporated into development; and
- H. Promote innovative and cost-conscious approaches to the design, installation, and maintenance of landscaping that encourages water and energy conservation.

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<sup>6</sup> The use of the term "screening" rather than "buffering" is intended to clearly distinguish these standards from riparian buffer requirements as well as convey the intent of these standards, which is to screen certain land uses from one another. See discussion of proposed changes in the [Audit Report](#) (pp. 73-76). This section is based on the regulations in the existing Chatham County Zoning Ordinance, in particular Section 12, Landscaping and Buffering Standards, and the landscaping provisions in the draft Chatham County Design Guidelines, revision 5, that was provided to the consultant team and prepared by the Chatham County Appearance Commission.

<sup>7</sup> This purpose statement is new.

### 4.4.2 APPLICABILITY<sup>8</sup>

- A. **General.** Unless exempted in accordance with Paragraph B, the standards in this Section apply to:
1. All new development; and
  2. Any individual expansion of a building, including outdoor patio and deck areas, existing prior to **<the effective date of this Ordinance>**, if the expansion increases the building's floor area by 25% or more in the IL or IH District or by 50% or more in all other districts, measured cumulatively over the last three years.
- B. **Exemptions.** The following development is exempt from the standards of this Section but is strongly encouraged to comply with the species requirements in 4.4.4B: *Species Diversity*.
1. Development of single-family detached dwellings or two-family dwellings on an individual lot;
  2. A change of use, unless the new use requires installation of a perimeter buffer in accordance with the standards in 4.4.7: Transitional Buffers.
- C. **Timing of Review.** Compliance with the standards of this Section shall be evaluated during review of an application for a Zoning Compliance Permit or Major Subdivision Preliminary Plat, as applicable.

### 4.4.3 LANDSCAPE PLAN<sup>9</sup>

A landscape plan is required to be submitted for all development subject to this Section. The purpose of the landscape plan is to demonstrate how landscaping will be retained and planted on a development site. The landscape plan shall:

- A. Identify all plant types to be used;
- B. Demonstrate compliance with all planting standards and specifications of this Section;

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<sup>8</sup> The applicability standards build on Section 12.6 of the Chatham County Zoning Ordinance. The exemptions are new.

<sup>9</sup> This adds new, basic requirements for a landscape plan. The plan intended to allow staff and other review bodies to evaluate a development project's compliance with the requirements of this section. Additional submission requirements will be included as an appendix for this section or maintained by staff separate from the Ordinance.

- C. Designate the location for each planting to be installed, and existing trees and vegetation to be preserved (see [6.4: Tree Protection](#));
- D. Provide information about the anticipated installation schedule;
- E. Provide information about plans for irrigation and maintenance of the landscaping; and
- F. Include other information requested by the Director.

#### 4.4.4 GENERAL LANDSCAPING STANDARDS<sup>10</sup>

The selection, installation, and maintenance of all plantings and other improvements required by this Section shall comply with the following standards.

##### A. **Plant Selection.**<sup>11</sup>

1. *Permitted Species.* All trees, shrubs, and other vegetative material used to comply with the standards in this Section shall be taken from the list of acceptable species in [Appendix A: Plant List](#). Invasive species identified in [Appendix B: Invasive Plant List](#) are prohibited and shall not be planted.
2. *Native Plant Requirement.* Plantings should primarily consist of species that are naturally occurring within the County. Except where otherwise permitted in this Section, no more than 25% of the plantings used to meet the standards of this Section shall consist of non-native species.<sup>12</sup>
3. *Edible Plantings.* The use of edible plants included in the list of permitted species is recommended.
4. *Drought-Resistant Plants.* The use of xeriscaping with native, drought-tolerant plants is encouraged to reduce dependency on irrigation.

##### B. **Species Diversity.** Landscaping that includes multiple species of vegetation supports a wider variety of wildlife and is more adaptable and resilient to

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<sup>10</sup> This builds on and reorganizes the general landscaping standards in the Revised Design Guidelines, largely Section 8.

<sup>11</sup> This builds on Section 8.2, Selection of Plants, from the Revised Guidelines, except where noted. As part of this project, there will be a list of permitted plants developed which will be maintained separate from the UDO.

<sup>12</sup> The general native plant requirement is new.

insect and disease pressure. Therefore, new shrub and tree plantings shall consist of different species in accordance with the following:<sup>13</sup>

1. *Trees.* When at least 20 but fewer than 40 trees are required to be planted on a site, at least two different species shall be utilized, in roughly equal proportions. When 40 or more trees are required to be placed on a site, at least three different species shall be utilized, in roughly equal proportions.
2. *Shrubs.* When at least 40 but fewer than 70 shrubs are required to be planted on a site, at least two different species shall be utilized, in roughly equal proportions. When 70 or more shrubs are required to be placed on a site, at least three different species shall be utilized, in roughly equal proportions.

C. **Minimum Plant Sizes at Installation.** Unless otherwise specifically stated in this Subsection or with respect to particular species or planting types, the minimum plant size of required landscaping at the time of installation shall comply with Table 4.4.4-1: *Minimum Planting Sizes and Planting Areas*.<sup>14</sup>

**Table 4.4.4-1: Minimum Planting Sizes and Planting Areas**

Plant Material Type	Minimum Caliper, Height, and Planting Areas <sup>1</sup>	
Tree more than 50 feet in height at maturity	2 in caliper, 16 ft height, 400 sf planting area	
Tree between 30 and 50 feet in height at maturity	Single stemmed tree	2 in caliper, 10 ft height 200 sf planting area
	Multiple-stemmed tree	1 in caliper each stem, 8 ft height 200 sf planting area
Tree less than 30 feet in height at maturity	Single stemmed tree	1.5 in caliper, 6 ft height 100 sf planting area
	Multiple-stemmed tree	0.5 in caliper each stem, 4 ft height 100 sf planting area
Shrubs	1.5 ft height (3 ft height when planted in perimeter buffer)	

<sup>13</sup> Species requirements are new and are intended to ensure that development include sets of plantings that are more resistant to disease and climate extremes. The Revised Design Guidelines include somewhat higher standards in certain circumstances; for example, in perimeter buffers, any one species is allowed to comprise only 25 percent of required trees or shrubs. At staff’s request, the species requirements have been generalized to apply outside of perimeter buffers, and have been modified to require only, at most, three different species of trees and three different species of shrubs.

<sup>14</sup> This is carried forward from Section 8.10, Plant Material and Installation Standards, and Section 5.4, Planting Area Minimums for Mature Tree Sizes, of the Revised Design Guidelines.



**Table 4.4.4-1: Minimum Planting Sizes and Planting Areas**

Plant Material Type	Minimum Caliper, Height, and Planting Areas <sup>1</sup>
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**Key:** in = inch | ft = feet | sf = square feet

<sup>1</sup> Planting areas may be reduced in size for trees planted near development where tree growth is supported by an underground pavement support system that provides adequate space for tree root development.

- D. **Installation Requirements.** Installation of trees and other plant material shall be in accordance with standards established by the American National Standards Institute (ANSI) and the following:
1. *Condition of Plantings.* All new plant material shall conform to the standards in the *American Standard for Nursery Stock* published by AmericanHort and shall be free of disease and insects, have good structure and branching form, be free from constricting ties, have a healthy root system without girdling roots, have a visible root collar at the time of planting, and be in vigorous health.<sup>15</sup>
  2. *Timing of Installation.* Preparation of planting beds and installation of plants shall not occur until all other site construction activity is finished. Frozen or saturated soils should not be worked, and plants should not be installed during periods of extreme drought and water restrictions. To improve survivability, trees shall be planted after October 1 and before March 31, and other vegetation shall be planted during the optimal planting season as determined by the Planning Director.<sup>16</sup>
  3. *Certificate of Occupancy.* All landscaping required by this Section shall be installed as set forth in the approved landscape plan before the County may issue a certificate of occupancy. If inclement weather or difficulties acquiring needed landscape materials delay the installation of landscape materials beyond the date specified in the landscape plan, the developer may make a written request to the Planning Director for an extension for completion. The request shall specifically state the reason for the delay as well as a proposed date for completion. The Planning Director may approve a revised date of completion for good

<sup>15</sup> This carries forward the subsection under “Plant Material” in Section 8.10, Plant Material and Installation Standards, of the Revised Design Guidelines. The *American Standard for Nursery Stock* is now published by AmericanHort.

<sup>16</sup> This carries forward standards in Section 8.10, Plant Material and Installation Standards, of the Revised Design Guidelines and adds a requirement that plantings be made during the “optimal planting season,” which is determined by the Planning Director to allow for flexibility in administrating this section over time, particularly as growing seasons change.

cause shown. Failure to complete the installation by the specified date shall constitute a violation of this Ordinance.<sup>17</sup>

4. *Tree Staking.* Staking trees is permitted. Conditions for which staking may be helpful include exposure to wind, trees planted on slopes, trees with large crowns in proportion to their roots, damage to the root ball during installation, or trees planted in areas where people may pull on them or use them for support. All ropes, wires, straps, or other material attached to the tree shall be secured in such a manner as to avoid injury to the trunk and be removed before trunk growth is restricted or damaged (not more than one year after plant installation). Any staking supports above ground shall be removed at the same time. Staking material below ground shall also be removed at the same time unless it is biodegradable, and removal would result in injury to the tree.<sup>18</sup>
5. *Tree Watering.* It is recommended that trees be irrigated using slow-release water bags for the first year after installation.<sup>19</sup>

E. **Soil Cover.** Areas where landscaping is required shall be covered as follows:<sup>20</sup>

1. The use of shrubs, grasses, perennials, groundcovers is preferred over mulch or turfgrass. The use of mulch is preferred over turfgrass, particularly in plant beds.
2. Groundcovers shall be regularly weeded until they are sufficiently established to provide natural weed control.
3. If used, turfgrass should be mowed at its highest setting, particularly during periods of drought.
4. All mulch should be comprised of an organic layer of wood chips, composted leaves, shredded bark, or pine straw and installed and maintained in a fine-textured organic layer that is between three and

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<sup>17</sup> This makes clear that landscaping must be installed before the development can be considered complete and a certificate of occupancy issued, consistent with Section 8.10, Plant Material and Installation Standards, of the Revised Design Guidelines, but allows for flexibility in appropriate circumstances such as inclement weather or, as is more common in recent years, supply chain disruptions.

<sup>18</sup> This carries forward standards in Section 8.10, Plant Material and Installation Standards, of the Revised Design Guidelines.

<sup>19</sup> This carries forward standards in Section 8.9, Water Conservation Standards, of the Revised Design Guidelines.

<sup>20</sup> This carries forward Section 8.4, Soil Cover, of the Revised Design Guidelines.

four inches in depth. Inorganic mulches such as gravel or river rock are not preferred, and the use of plastic as a soil cover is prohibited.

- F. **Credit for Existing Vegetation.** Existing vegetation in good health that meets all applicable standards in this Section may be used to satisfy any planting requirements, provided the vegetation is in fair or better condition and is protected before and during development in the same manner required for a protected tree in accordance with [6.4: Tree Protection](#).<sup>21</sup>
- G. **Irrigation.** As needed, the use of an irrigation system is recommended to ensure optimum moisture for healthy growth and survival of plantings. An irrigation system shall be planned, installed, and maintained in accordance with the following:<sup>22</sup>
1. *Location.* Irrigation systems shall be designed to limit watering of sidewalks, driveways, streets, and other pervious surfaces.
  2. *Timing and Scheduling.* Irrigation shall occur between 9 pm and 9 am to decrease water loss due to evaporation. Rain sensors shall be used to reduce unnecessary watering.
  3. *Zones.* Plants should be grouped in zones that have similar water requirements and irrigated by separate zone control.
  4. *Irrigation Types.* Drip irrigation shall be used in mulched plant beds or on steep slopes to reduce the washing away of mulch or excessive runoff. Overhead watering shall be limited to turfgrass, which shall not be watered daily except while establishing new turfgrass and for no more than three weeks.
  5. *Rainwater Reuse.* The reuse of rainwater for irrigation is recommended.
- H. **Sight Triangles.** Sight triangles shall be maintained free of obstructions, including trees, shrubs, other vegetation, fences, walls, and berms.<sup>23</sup>
- I. **Naturalistic Design.** To preserve the natural character of the County, all landscaping, but particularly landscaping within perimeter buffers and

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<sup>21</sup> Section 7.5 of the Revised Design Guidelines provides a credit for maintenance of existing trees that are located in a perimeter buffer. To support the county's goals of preserving existing vegetation, this standard has been broadened to apply to all landscaping on the site.

<sup>22</sup> This builds on the standards in Section 8.9, Water Conservation Standards, of the Revised Design Guidelines.

<sup>23</sup> This carries forward and broadens Section 8.6, Sight Triangles, of the Revised Design Guidelines, which only prohibits plant installation within sight triangles.

parking lot buffers, should use a “naturalistic” design that is consistent with the following principles:<sup>24</sup>

1. *Employ Rhythm.* A naturalistic landscape will have a rhythm that is present but not easily defined. In nature, trees are often found in clusters of the same species, and ground layer plants are often found in drifts or sweeps. Large swaths of the same-species plants enlarge a space visually, while their repeated patterns create rhythm and flow.
2. *Emphasize Vertical Lines.* While horizontal lines create stability, vertical lines help to break up the view and lead the eye around the landscape. Vertical lines also help unify a design and visually contain the exuberance of naturalistic plantings. Massed trees, architecture, or art can serve as outstanding vertical elements.
3. *Favor Asymmetry.* As found in nature, planting design should be asymmetric but balanced in terms of size, form, and texture.
4. *Limit Color Palette.* The color palette should be limited, to focus attention on building entrances, signs, or other areas that are to be noticed. In particular, an over-abundance of flowering species at any given time is not typically found in nature and is not recommended.
5. *Preserve Natural Forms.* Avoid using plants that require shearing or pruning to maintain a desired size or shape. All plants have a natural shape and form that improves over time if left alone. Allowing each plant to achieve its natural form will result in a natural-appearing landscape.

#### 4.4.5 BUILDING FOUNDATION LANDSCAPING<sup>25</sup>

- A. **Applicability.** The building foundation landscaping standards apply to new development that is any one of the following:
1. A commercial or mixed use building within any non-residential zoning district except for the AG, IL, and IH districts;

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<sup>24</sup> This carries forward the guidelines in Section 8.3, Naturalistic Landscape Design, of the Revised Design Guidelines and makes minor revisions for consistency and to provide direction for code users.

<sup>25</sup> These standards build on Section 8.8, Landscaping Around Buildings, in the Revised Design Guidelines. Section 8.8 requires landscaping “along sides of buildings where devoid of architectural interest.” That is a vague and hard-to-enforce standard. We have replaced it with a general planting requirement.

2. A multi-family dwelling consisting of five or more units in any zoning district; or
  3. A commercial or mixed use building in an area designated as a “Center” on the County’s Future Land Use & Conservation Plan. Where a portion of a property is located within a “Center” designation, buildings within 200 feet of the predominant public right-of-way must comply with this Section.
- B. **Standards.** All buildings facing public or private rights-of-way that are set back from lot lines shall contain foundation landscaping at least seven feet in width along the entire length of the building façade, excluding building entrances. The foundation landscaping shall consist of at least one small tree, installed on average every 20 feet, supplemented with shrubs. See Figure 4.4.5-1: *Building Foundation Landscaping Illustration*.

**Figure 4.4.5-1: Building Foundation Landscaping Illustration**



**Required plantings along building frontage:  
7' width, including trees and shrubs.**

- C. **Native Plant Requirements.** In the R-1, OI, NB, CB, RB, NC, and AC districts, at least 75% of the building foundation plantings shall consist of native plants or native cultivars. In all other districts, at least 50% of the building foundation plantings shall consist of native plants or native cultivars.<sup>26</sup>

<sup>26</sup> The requirements are carried forward from the Revised Design Guidelines but updated to provide greater specificity.

#### 4.4.6 PARKING LOT LANDSCAPING<sup>27</sup>

- A. **Purpose.** The purpose of this Subsection is to establish requirements for landscaping in and around parking lots to enhance their appearance, provide shade to reduce heat and glare, reduce stormwater runoff, and reduce off-site impacts from noise, vehicle headlights, and parking lot lighting.<sup>28</sup>
- B. **Applicability.** These standards apply to the following parking lots with six or more parking spaces:<sup>29</sup>
1. A new parking lot;
  2. The additional or expanded portion of an existing parking lot; and
  3. The existing portion of a parking lot that is used to park vehicles in a new building or an expanded building.
- C. **Species Requirements.** At least 50% of the plants used, excluding evergreen shrubs, shall be natives or native cultivars.<sup>30</sup>
- D. **Parking Lot Screening.** Except for areas that are required to be kept clear such as sight triangles and parking lot entrances and on the interior of a development site, screening in accordance with the Section 4.4.7: Transitional Buffers shall be installed and maintained around the perimeter of all parking lots, if applicable. If Section 4.4.7: Transitional Buffers does not apply, screening shall be provided that consists of one or more of the following:<sup>31</sup>
1. A landscape strip at least eight feet in width, with evergreen shrubs planted in a staggered fashion and separated by no more than six feet on center. Each evergreen shrub shall be at least two feet in height at installation with an expected height of three to five feet at maturity.
  2. A fence or wall at least four feet in height, with vegetative material that can be expected to screen 40% of the fence or wall within one year of installation planted on the side of the fence or wall opposite from the parking lot. The fence or wall may be made of masonry, wood, or other

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<sup>27</sup> This builds on Section 8.7, Landscaping of Parking Areas, in the Revised Design Guidelines, with revisions to improve the quality of parking lot interior and perimeter landscaping and for clarity. Footnotes contain additional details.

<sup>28</sup> The purpose statement is new.

<sup>29</sup> The applicability standards are new.

<sup>30</sup> Carried forward from Section 8.7.

<sup>31</sup> This requires the installation of screening around parking lots if the more extensive perimeter buffer requirements in Section 4.4.7 do not apply.

materials compatible with nearby buildings. Chain link fences are prohibited.<sup>32</sup>

3. An earthen berm at least four feet in height, with a maximum slope of 3:1 and a top width that measures at least one-half of the berm height. A berm shall be stabilized to prevent erosion.

E. **Interior Parking Lot Shading.** Parking lots shall be shaded with landscaping or solar canopies in accordance with the following:

1. *Shading Options.* Parking lots shall include shading provided by landscaping, by solar canopies, or by a combination of both, in accordance with the following:
  - (a) Interior landscaping in accordance with Section 4.4.6E.2: *Interior Landscaping*, that is applied to the entire interior of the parking lot.
  - (b) Solar canopies in accordance with Section 4.4.6E.5: *Solar Canopies*, that are applied to cover one-half (50%) of the interior of the parking lot.
  - (c) A combination of interior landscaping in accordance with Paragraph (a) above, and solar canopies in accordance with Paragraph (b) above, based on their proportion. For example, if 40% of the parking area is covered by solar canopies (80% of the solar canopy requirement), then the interior landscaping requirement shall be fulfilled over 20% of the parking lot (20% of the interior landscaping requirement).
2. *Interior Landscaping.*<sup>33</sup> The interior of a parking lot shall be landscaped with plantings within parking islands and additional plantings in accordance with the requirements in Section 4.4.6E.3: *Interior Landscaping Parking Islands and Plantings*, Section 4.4.6E.4: *Interior Landscaping Plantings*, and the following:
  - (a) Each parking space shall be within 60 feet of the trunk of a tree.
  - (b) All plantings shall be designed to minimize interference with lighting, and in no instance shall lighting be closer than 15 feet

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<sup>32</sup> Prohibition on chain-link fences is new.

<sup>33</sup> This builds on the current standards. The limit on contiguous spaces is intended to ensure adequate planting islands and shade trees throughout the parking lot.

from medium or large canopy trees, or eight feet from small, understory trees.

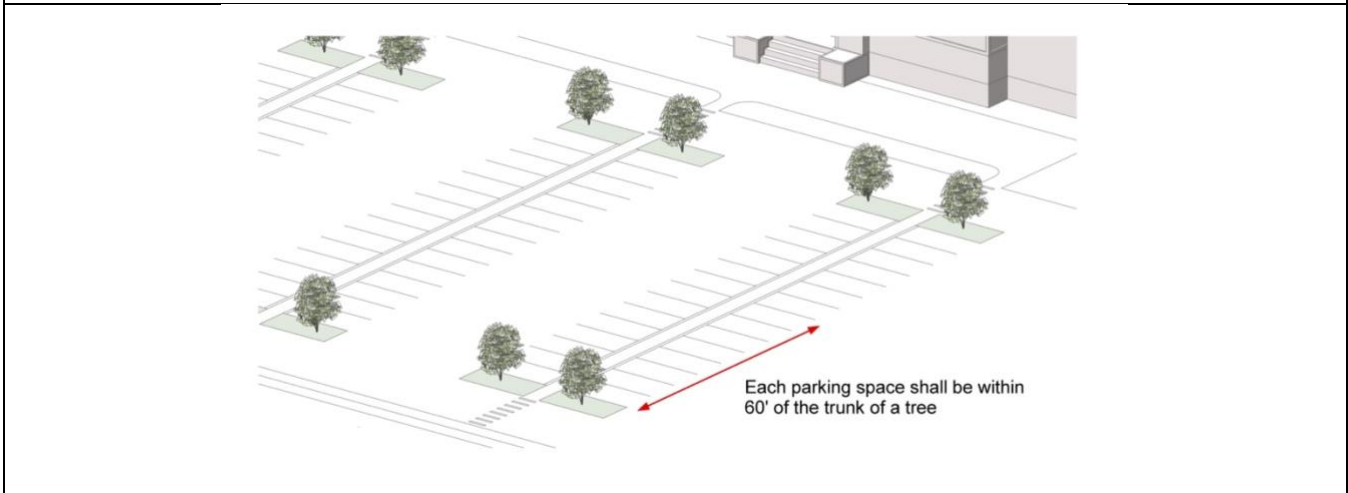
- (c) All interior landscaped areas of the parking lot not dedicated to trees or to preservation of existing vegetation, including parking islands, shall be landscaped with ornamental grasses, groundcovers, shrubs, or other appropriate means of soil cover.
3. *Landscaping of Parking Islands.* Parking islands shall be provided throughout a parking lot and located no more than 150 feet from another parking island and at the terminus of all rows of parking (see Figure 4.4.6-1: *Parking Island Placement in Parking Lots*). Each parking island shall:
- (a) Be at least 200 square feet in area;
  - (b) Contain at least 170 square feet of open planting area, except that if planting islands incorporate collection of stormwater runoff through vegetated swales, rain gardens, or similar features, the minimum planting area shall be 150 square feet;
  - (c) Contain at least one shade/canopy tree or two intermediate trees per 180 square feet of area, or fraction thereof;
  - (d) Contain stabilizing ground cover such as mulch in all areas that are not planted with trees or shrubs; and
  - (e) Place plant material in such a way that it accommodates a two-and-one-half foot bumper overhang of a vehicle over the face of the curb or, if used, wheel stops or other comparable devices (see Figure 4.4.6-2: *Landscaping Accommodation for Vehicle Overhang*).<sup>34</sup>

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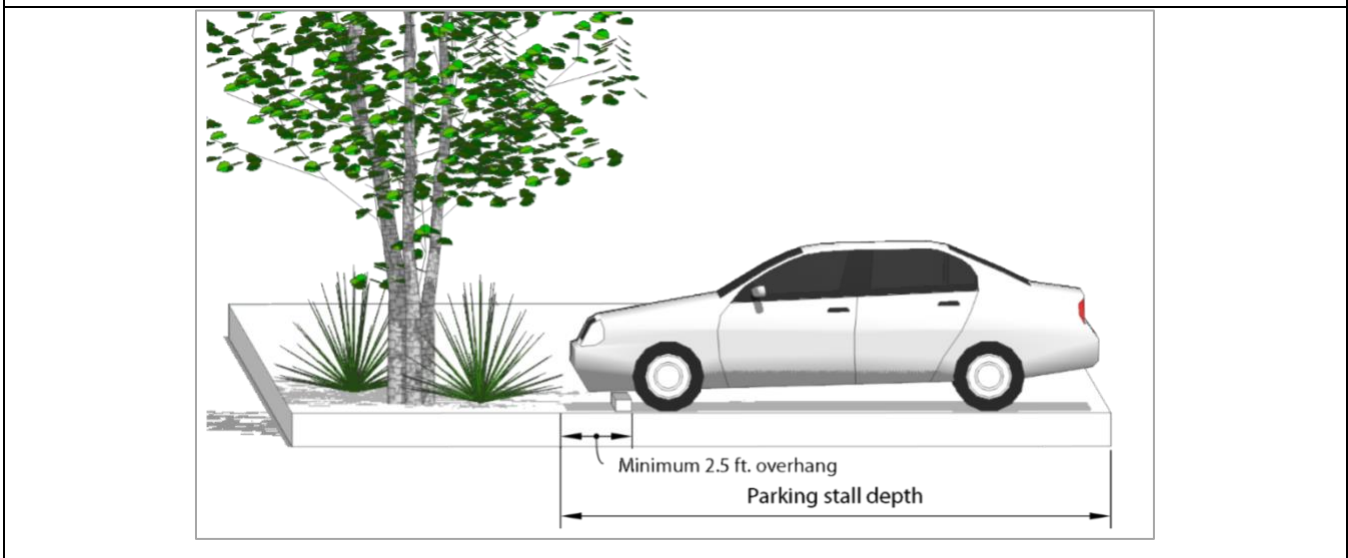
<sup>34</sup> Planting island standards are new and designed to ensure that trees and other vegetation have adequate room to survive and thrive.



**Figure 4.4.6-1: Parking Island Placement in Parking Lots**



**Figure 4.4.6-2: Landscaping Accommodation for Vehicle Overhang**



4. *Interior Landscaping Plantings.* In addition to the required tree planting, at least one shrub shall be provided for every 200 square feet of parking lot area, exclusive of perimeter plantings. The shrubs may be placed in the islands, or in other locations within the interior of the parking lot. Any shrub contained in a parking island shall not exceed 30 inches in height.
5. *Solar Canopies.* Solar canopies shall include a solar energy system that generates electricity and is connected to the site's electrical system.

- F. **Reservation for Vehicle Overhang.** To prevent vehicle intrusion into vegetated areas, parking lots shall either:<sup>35</sup>
1. Within parking spaces, include wheel stops or comparable devices to prevent vehicle overhang onto perimeter screening and parking lot islands and plantings; or
  2. Within perimeter screens or parking lot islands, arrange the placement of plant materials to accommodate a two-and-one-half foot bumper overhang of a vehicle over the face of the curb.

#### 4.4.7 TRANSITIONAL BUFFERS<sup>36</sup>

- A. **Purpose.** The purpose of this Subsection is to require the installation or preservation of buffers that provide a transitional vegetative buffer, to ensure a natural area of appropriate size and density of plantings is planted or preserved between adjacent sites to mitigate the impacts of incompatible uses, and to preserve and protect the natural character and ecology of the County.
- B. **Applicability.** There are three types of required transitional buffers:
1. **Development Boundary Setback.** A buffer is required in a development boundary setback. See 4.4.7G: *Required Development Boundary Setback Buffer Type*.<sup>37</sup>
  2. **Perimeter Buffer.** A buffer is required between certain adjoining uses or properties. See 4.4.7H: *Required Perimeter Buffer Type*.
  3. **Street Buffer.** A buffer is required between development and certain streets. See 4.4.7I: *Required Street Buffer Type*.
- C. **Buffer Options.** There are four types of transitional buffers that differ based on function and design.
1. Type A, B, and C buffers are described and illustrated in Table 4.4.7-1: *Buffer Options*, and the number and variety of plantings required per

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<sup>35</sup> Builds on existing standard in Section 8.7.

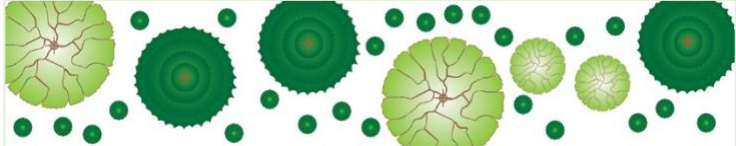


<sup>36</sup> This updates the buffer requirements in Section 7, Buffer and Screening Requirements, of the Revised Design Guidelines. It includes new types of buffers for the development boundary setback established in conditional zoning districts, and along major corridors.

<sup>37</sup> A development boundary setback is required in the CD-CR, CD-CMU, and CD-CN Districts.

100 feet of linear perimeter buffer is set forth in Table 4.4.7-2: *Buffer Width and Plantings*, based on the width of the buffer.

2. Type D buffers are described in Table 4.4.7-1 and 4.4.7D: *Type D Buffer Standards*.
3. Plantings within each Type A, B, and C buffer shall be arranged in accordance with the naturalistic design principles described in 4.4.4I: *Naturalistic Design*, and not simply planted in rigid and evenly spaced lines. All plantings shall be designed to accomplish their screening goal within three years of planting. The use of existing vegetation to meet the buffer requirements is encouraged.<sup>38</sup>

**Table 4.4.7-1: Buffer Options**

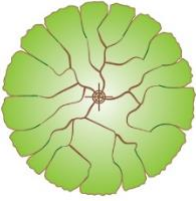




Buffer Type and Description	Illustration of Required Vegetation in Buffer Segment (20 feet width by 100 feet length) <sup>1</sup>
<b>Type A: Opaque</b>	
This buffer is a complete barrier that prevents visual contact between uses and creates a strong separation at any time of year.	
<b>Type B: Semi-Opaque</b>	
This buffer provides a moderate amount of screening that allows views into property from certain areas or during certain seasons.	
<b>Type C: Aesthetic</b>	
This buffer functions as an intermittent visual obstruction, creating the impression of separation without eliminating visual contact between uses.	
<b>Type D: Successional Growth</b>	

This variable width buffer uses existing natural vegetation to provide separation between uses and a visual screen between development and certain major streets.

<sup>1</sup> The illustrations in this column reflect the requirements in Table 4.4.7-2: *Buffer Width and Plantings*. The illustrations include the following plantings:

<sup>38</sup> This incorporates the screening types included in Section 7.5 of the Revised Guidelines. At staff's suggestion, the provision allowing a percentage of the buffer plantings to consist of exotic plants (Section 7.6) has not been carried forward; the standard list of permitted species applies.

**Table 4.4.7-1: Buffer Options**

Buffer Type and Description	Illustration of Required Vegetation in Buffer Segment (20 feet width by 100 feet length) <sup>1</sup>		
  <p data-bbox="175 550 430 577">Large Canopy Tree</p> <p data-bbox="483 550 690 577">Evergreen Tree</p>	 <p data-bbox="792 520 945 577">Understory Tree</p>	 <p data-bbox="1047 520 1193 577">Deciduous Shrub</p>	 <p data-bbox="1247 520 1472 577">Small Evergreen Shrub</p>

**Table 4.4.7-2: Buffer Width and Plantings**

Buffer Type	Buffer Width (feet)	Evergreen Tree	Large Canopy Tree	Understory Tree	Evergreen Shrub	Deciduous Shrubs
A	20	3	2	2	24	0
	30	5	3	3	36	0
	40	6	4	4	48	0
	50	8	5	5	60	0
	60	9	6	6	72	0
	80	12	8	8	96	0
B	20	2	1	2	11	5
	40	4	2	4	23	9
	60	6	3	6	34	14
C	20	0	1	2	4	4
D	50	<i>See 4.4.7D: Type D Buffer Standards</i>				

D. **Type D Buffer Standards.** Where permitted in *Table 4.4.7-2: Required Perimeter Buffer Type and Width*, a Type D buffer is recommended to be used adjacent to vacant land. A Type D buffer shall comply with the following standards:

1. The buffer shall be at least 50 feet wide.
2. The buffer shall provide at least a 60% visual screen.
3. Native plantings that are consistent with other vegetation in the area may be planted within the buffer. No invasive or non-native plants shall be planted.

4. The buffer shall be cleared of invasive species at least annually.
- E. **Permitted Reductions of Perimeter Buffer Width.** One of the following options may be used to reduce width of a required Type A, B, or C buffer:<sup>39</sup>
1. *Fence or Wall.* The buffer width may be reduced by five feet if a fence or wall is placed within the buffer and complies with the following:
    - (a) The fence or wall is at least six feet in height;
    - (b) A wall is built using one or more of brick, stone, or other masonry material, or a fence is built with wood or composite material; and
    - (c) All of the plantings required by Table 4.4.7-1: *Buffer Options* are located between the wall and the adjoining property.
  2. *Berm.* The buffer width may be reduced by five feet if a berm is placed within the buffer and the berm:
    - (a) Is at least four feet in height, with a maximum slope of 3:1 and a top width that measures at least one-half of the berm height; and
    - (b) Is landscaped so at least 75% of the raised area is planted with a combination of trees, shrubs, or groundcover, and the remainder of the berm is sodded.
  3. *Buffer on Abutting Property.* The Director may reduce the width or plantings required to be included in a transitional buffer by up to 50% if the abutting property contains a vegetated buffer that meets the intent of the required buffer type, or the abutting property is vacant and future development on the site could accommodate the maximum remaining required buffer width.
- F. **Native Plant Requirements.** Buffers may include non-native plants up to the limits in Table 4.4.7-3: *Maximum Percentage of Non-Native Plants Permitted in Perimeter Buffer*, based on the applicable zoning district.

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<sup>39</sup> This carries forward the option to provide a narrower buffer by including a wall or berm in Section 7.2 of the Revised Design Guidelines. The requirement for berm landscaping is new. Fences made of wood or composite material are also allowed to reduce the buffer, at CCAC's suggestion.

Table 4.4.7-3: Maximum Percentage of Non-Native Plants Permitted in Perimeter Buffer		
Buffer Type	R1, OI, NB, CB, RB, NC, and AC Zoning Districts	All Other Zoning Districts
A	50%	25%
B	25%	0%
C	25%	0%
D	0%	0%

- G. **Required Development Boundary Setback Buffer Type.** A development boundary setback shall include a Type D buffer.<sup>40</sup>
- H. **Required Perimeter Buffer Type.** The perimeter of property adjacent to another property shall contain a buffer type and width in accordance with Table 4.4.7-4: *Required Perimeter Buffer Type*, and the following.
  - 1. The designation of the required buffer type and width shall be based on the following:
    - (a) The proposed use of the development site and the use of the adjacent property, or, if the adjacent land is vacant, the zoning district classification of the adjacent land; and
    - (b) Whether the proposed development site is abutting the property or separated from the property by a street.
  - 2. For each cell in Table 4.4.7-2, there are two required buffer types and widths listed, separated by a vertical bar (|). The first value indicates the required buffer type and buffer width for abutting property not separated by a street. The second indicates the required buffer type and buffer width for abutting property that is separated by a street buffer.
  - 3. The required buffer width may be reduced in accordance with 4.4.7E: *Permitted Reductions of Perimeter Buffer Width*.
  - 4. For purposes of Table 4.4.7-4, principal uses and use categories have been consolidated into the following Use Groups:<sup>41</sup>

<sup>40</sup> This requires a buffer within the development boundary setback established in the conditional zoning districts. See [Section 2.3: Conditional Districts](#).

<sup>41</sup> This carries forward the intent of the buffer matrix in Section 7.4, Minimum Buffer Sizes and Types of Screens Required for Proposed Land Use Classes, in the Revised Design Guidelines, with updates to reflect the new set of uses and zoning districts. The current matrix bases buffer requirements on

- (a) **Use Group 1:** All Agriculture & Horticulture Uses; single-family detached dwellings; single-family attached dwellings (townhouses); two-family dwellings (duplex); and minor utilities.
  - (b) **Use Group 2:** All remaining Residential uses; solar energy systems (level 2 or 3, any size).
  - (c) **Use Group 3:** All Accommodations & Lodging uses; all Arts, Entertainment & Recreation uses; all Business, Professional, Scientific, & Technical uses; all Government uses; all Healthcare uses; all Institutional & Civic uses; all Mixed uses; all Retail, Service, and Food & Beverage uses; all Vehicle-Related uses; and self-service storage facilities;
  - (d) **Use Group 4:** All Heavy Commercial, Manufacturing, & Industrial uses; all Natural Resources Extraction uses; all remaining Transportation, Warehousing & Storage Uses; all remaining Utility Uses; and all Waste Management uses.
5. For example, a proposed use in Use Group 3 that is next to a property with a use in Use Group 4 or that is in the IL or IH districts is required to provide a Type B buffer at least 20 feet in width along the properties' shared lot line. If the abutting property is across the street, the proposed use is required to provide a Type C buffer at least 20 feet in width. If the adjacent land is vacant, the proposed use may provide a Type D buffer.

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land use classes. However, those land uses classes are not clearly or exhaustively defined in the current Zoning Ordinance, and this categorization system has not carried forward in the new UDO. In this UDO, land uses have been classified into four different groups of uses that have might have similar impacts on adjoining property, and that might be in need of buffers to mitigate impacts from uses in use groups. The four use groups primarily consist of all uses within certain principal use categories (see Section [3.2.4: Description of Principal Use Categories](#) for descriptions of each). However, in several cases individual uses have been taken from their categories and placed into other use groups. For example, the *self-service storage facilities* use has been placed in Use Group 3, while the remaining Transportation, Warehousing & Storage Principal Uses (which include uses such as *flammable liquids – bulk plants and storage*) have been placed in Use Group 4.



**Table 4.4.7-4: Required Perimeter Buffer Type and Width<sup>42</sup>**

Proposed Use <sup>1</sup>	Existing use, or zoning of vacant land (adjacent land   land across street)			
	Uses in Use Group 1 or vacant land in PP, AG, RA, R5, R2, R1	Uses in Use Group 2 or vacant land in RV, NB, CD-R	Uses in Use Group 3 or vacant land in OI, NC, AC, CB, RB, RHC, CD-CMU, CD-CN, B1	Uses in Use Group 4 or vacant land in IL, IH
Uses in Use Group 1	None   None	None   None	None   None	None   None
Uses in Use Group 2	A-20 ft   C-20 ft	None <sup>2</sup>   C-20 ft <sup>2</sup>	None   C-20 ft <sup>2</sup>	B-20 ft <sup>2</sup>   C-20 ft <sup>2</sup>
Uses in Use Group 3	A-20 ft   B-20 ft	B-20 ft <sup>2</sup>   C-20 ft <sup>2</sup>	None   C-20 ft <sup>2</sup>	B-20 ft <sup>2</sup>   C-20 ft <sup>2</sup>
Uses in Use Group 4	A-80 ft   A-60 ft	A-80 ft   A-60 ft	B-40 ft <sup>2</sup>   A-20 ft <sup>2</sup>	None   C-20 ft <sup>2</sup>

<sup>1</sup> Development proposed adjacent to vacant land in legacy conditional districts established in [Section 2.4: Legacy Districts](#) shall provide the buffer required by the corresponding conventional district. For example, a proposed use adjacent to vacant land in the CD-R5 district shall provide the buffer required for development adjacent to vacant land in the R5 district. If the vacant land is classified in a conditional district, the existing use (for purposes of determining the required buffer) shall be based on the use group of the most intense use permitted in the conditional district.

<sup>2</sup> A Type D buffer may be used in lieu of the specified buffer if the adjacent land is vacant.

- I. **Required Street Buffer Type.** The edges of property adjacent to the following segments of streets shall contain a Type A buffer at least 20 feet in width in accordance with Table 4.4.7-2: *Buffer Width and Plantings*. If a property is required to have a street buffer in accordance with this paragraph as well as a perimeter buffer in accordance with Paragraph H, only the wider required buffer is required.<sup>43</sup>
  1. *US 15-501.* US 15-501 between Smith Level Road and the Town of Pittsboro.
  2. *US 64.* The entirety of US 64 within the County.

<sup>42</sup> If adjacent land is vacant, the required buffer is determined by reference to the zoning district that applies to the land. Therefore, a use in Use Group 4 that is adjacent to vacant land in the R2 district would be required to provide a Type A buffer at least 80 feet in width.

<sup>43</sup> This is a new type of buffer that is required along the perimeter of property adjacent to certain major roadways in the County. This was requested by the public and staff to provide enhanced screening and preserve the County’s rural character along these major transportation corridors.



3. *US 421*. US 421 between Siler City and Lee County.
- J. **Development Within Required Buffer.** Development in a required buffer is limited in accordance with the following:<sup>44</sup>
1. *Utility Easements*. A required buffer may not contain a utility easement, including overhead power lines, unless the easement is located generally perpendicular to the buffer and is aligned with an allowed pedestrian or vehicular accessway through the buffer.
  2. *Impervious Surface*. Buildings, structures, mechanical equipment, and impervious surfaces are prohibited within a required buffer.
  3. *Sidewalks*.
    - (a) Sidewalks and greenway trails are permitted to cross through a required perimeter buffer if they cross at an angle as close to perpendicular as reasonably possible.
    - (b) Sidewalks and greenway trails are permitted within a required buffer along a street provided a vegetative buffer 15 feet in width is maintained between the street and the use, the amount of vegetation required within a Type A buffer is included within the 15-foot buffer, and the width of the buffer is increased by the width of the clearing required for the sidewalk and greenway trails.
    - (c) Sidewalks and greenway trails are permitted within a development boundary setback in accordance with the regulations of the applicable zoning district.
  4. *Access and Egress*. When a required buffer abuts a street, breaks are permitted for pedestrian and vehicular access, as appropriate. When a development includes a stub street for future connection to an adjacent lot, there may be a break in the required buffer for the width of the stub street.
  5. *Retaining Walls*. Retaining walls are permitted in a buffer. Retaining walls may be taller than three-and-a-half feet in height if the wall is designed to blend into the buffer through the use of vegetation that

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<sup>44</sup> Builds on the requirements in Section 7.2, Buffer Requirements, of the Revised Design Guidelines. The limitations on buildings and impervious surface are new.

screens the retaining wall from view, or the retaining wall is a vegetated living wall system.

#### 4.4.8 SCREENING OF SITE FEATURES<sup>45</sup>

- A. **Purpose.** The purpose of the screening standards is to conceal specific site features that might have negative visual or auditory impact from both on-site and off-site views.<sup>46</sup>
- B. **General Standards.** The site features to be screened shall be screened at all times, unless otherwise stated in this Subsection, regardless of adjacent development, or the types and amount of landscaping material required to be placed on the development site from other requirements. Breaks in the screen are permitted for pedestrian and vehicular access, as needed.
- C. **Screened Features.** The following site features shall be screened. These are minimum standards and, where possible, the site features shall be screened from public view by design sites to block these areas with buildings or other site features.
1. *Outdoor Storage Areas.* Outdoor areas being used for storage of hazardous materials, materials that could be windblown, or that require security protection shall be enclosed on all sides and at a height sufficient to screen the objects being screened, by a wall or opaque fence with access by an operable gate. A gate shall not swing onto any public right-of-way.
  2. *Ground-Mounted Electric Transformers.* Ground-mounted electrical transformers shall be screened with plantings. The plantings shall be installed on the two sides most visible from other properties, shall consist of evergreen shrubs, and shall be expected, within two years of planting, to reach a height equal to the electrical transformers and associated equipment and provide an approximately 80% visual screen.
  3. *Garbage and Recycling Containers, and Stored Construction Materials.* Garbage and recycling containers, stored construction materials, and similar items shall be screened with one or more of the following:

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<sup>45</sup> Builds on the standards for screening of site features in Section 7.7, Additional Screening Requirements, of the Revised Design Guidelines. Changes are noted in footnotes below.

<sup>46</sup> Purpose statement is new.

- (a) An opaque wall constructed of materials compatible with those used on the principal buildings on the site and that is of a height equal to or greater than the objects to be screened;<sup>47</sup>
  - (b) Vegetative material, consisting primarily of evergreen shrubs or small trees, that is a minimum of four feet in height when installed, and shall be expected, within two years to reach a height equal to or greater than the objects being screened and provide an approximately 95% visual screen;
  - (c) A fence or wall constructed of solid wood that provides an approximately 95% visual screen. The fence shall be at least one foot higher than the objects to be screened and extend down to within one foot of the ground. The fence or wall shall be landscaped with evergreen shrubs expected, within three years of erection of the structure, to screen from view at least 30% of the surface area of the fence or wall on the two sides most visible from other properties.
4. *Repair Work, Dismantling, or Servicing of Vehicles.* An area used for the repair, dismantling, or servicing of vehicles shall be screened by an opaque wall or fence that is at least eight feet in height. The fence or wall shall be landscaped with evergreen shrubs designed so that at least 35% of the surface area of the fence or wall is screened from view.
5. *Ground-Mounted Satellite Dish Antenna, at Least 25 Inches in Diameter.* A ground-mounted satellite dish antenna that is at least 25 inches in diameter shall be screened from view of public right-of-way, a residential use, or vacant land in a residential zoning district with a fence, wall, or vegetative screen that is at least the height of the satellite dish antenna and that provides an approximately 70% visual screen.
6. *Loading Areas.* A loading area accessed through overhead delivery doors that include exterior loading docks and steps shall be screened with one of the following, except that if the loading areas contains garbage and recycling containers or stored construction materials, it shall be screened in accordance with Section 4.4.8C.3: *Garbage and Recycling Containers, and Stored Construction Materials:*
- (a) An opaque wall or fence at least six feet in height. constructed of materials compatible with those used on the principal buildings

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<sup>47</sup> Height requirement is new, and “same architectural style” has been replaced with materials-based standards, as is used elsewhere in this draft and the Revised Design Guidelines.

on the site. The fence or wall shall be landscaped with low shrubs placed around the corners and 25 feet on center along the walls;  
or

- (b) Vegetative material, consisting primarily of evergreen shrubs or small trees, that is a minimum of four feet in height when installed, and expected to reach a height of six feet within two years, and provide an approximately 95% visual screen.

#### 4.4.9 LANDSCAPING MAINTENANCE<sup>48</sup>

- A. **Applicability.** The owner of land subject to the requirements of this Subsection is responsible for the maintenance of required landscaping in a healthy and good condition.<sup>49</sup>
- B. **General Standards.** All landscaped areas shall be maintained in accordance with the approved landscape plan and shall present a healthy and orderly appearance, free from refuse and debris. Any plant life shown on an approved landscape plan shall be replaced if it dies, is in poor health, is seriously damaged, or is removed. All landscaping areas shall be maintained so as to prevent debris from washing onto streets and sidewalks. Removal of invasive species is permitted.
- C. **Maintenance of Perimeter Buffers.** Perimeter buffers shall be maintained at the level of effectiveness required by this Ordinance in perpetuity.<sup>50</sup>
- D. **Tree Trimming and Pruning.** All required plantings shall be allowed to reach their mature size. Trimming and pruning shall be performed in accordance with the standards in ANSI A300. Topping is not an acceptable pruning practice. The County may require the removal and replacement of any trees that have been topped or excessively trimmed.<sup>51</sup>
- E. **Removal of Invasive Species.** All invasive species may be controlled or eradicated. The use of environmentally friendly methods is recommended.<sup>52</sup>

<sup>48</sup> This includes general landscape maintenance requirements; portions have been carried forward from the Revised Design Guidelines as discussed below.

<sup>49</sup> This new section makes clear that the owner of property, not the original developer, is responsible for continued maintenance of site landscaping.

<sup>50</sup> From Section 7.2, Buffer Requirements, of the Revised Design Guidelines.

<sup>51</sup> From standards in Section 8.10, Plant Material and Installation Standards, of the Revised Design Guidelines.

<sup>52</sup> New.

## 4.5 LIGHTING<sup>53</sup>

### 4.5.1 PURPOSE<sup>54</sup>

This Chapter regulates lighting to:

- A. Ensure adequate safety, night vision, and comfort;
- B. Reduce light pollution;
- C. Ensure lighting does not create or cause excessive glare on adjacent properties and street rights-of-way;
- D. Provide a safe and secure nighttime environment;
- E. Provide safe access into buildings; and
- F. Enhance historic or notable features, buildings, or architectural elements.

### 4.5.2 APPLICABILITY<sup>55</sup>

- A. This Section applies to lighting for:
  1. Commercial, office, institutional, and industrial developments;

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<sup>53</sup> This Section carries forward and modernizes the exterior lighting standards in ZO Section 13: *Lighting*. Proposed is to eliminate the use of the Illuminating Engineering Society of North America (IESNA) Cutoff Classifications (ZO Section 13.2). Current best practices use the terms *fully shielded*, *partially shielded*, and *unshielded*. The [Pattern Outdoor Lighting Code](#) (July 2010), [Joint IDA-IES Model Lighting Ordinance](#) (2011), and [International Dark-Sky Association Outdoor Lighting Code Handbook](#) (2002) all use the *shielded* rather than *cutoff* terminology. Replaces the term *wattage* with *lumens*. *Watts* are a measure of power consumption, while *lumens* are a unit of measure used to quantify the amount of light produced by a lamp. Proposes to eliminate all uniformity requirements and all limitations on footcandles at the lot line in favor of the lighting levels specified in 4.5.8 and the BUG ratings in 4.5.9. Proposes to delete 4.5.9. ZO Section 13.4 *Light Measurement Technique* for consistency since it describes how to measure light levels. Proposes to relocate the nonconforming lighting provisions to [Chapter 14: Nonconformities](#). See discussion of proposed changes in the [Audit Report](#) (p. 79).

<sup>54</sup> Carries forward ZO Section 13.1 *Intent and Purpose (Lighting)*. Adds new purposes in 4.5.1.D, E, and F.

<sup>55</sup> This Subsection proposes to limit the current applicability of the exterior lighting standards as set forth in ZO Section 13.16 *Permitting and Approval Process*. Currently, the standards apply to all development, including detached single-family dwellings. Clarifies the standards apply for both new and existing development.

2. Multi-family dwellings containing five or more dwelling units;<sup>56</sup>
  3. Apartment complexes;
  4. Vehicular canopies; and
  5. Outdoor display areas.
- B. This Section applies to street lighting in major residential subdivisions, if provided. Other types of lighting in major residential subdivisions are not subject to this Section.
- C. This Section applies to new development and to new or replacement light fixtures installed on an existing developed property.
- D. This Section does not regulate lighting on the interior of a building except to prohibit it from being a nuisance, as defined in 4.5.4C: *Nuisance Lighting*.

### 4.5.3 EXEMPTIONS<sup>57</sup>

This Section does not apply to the following types of exterior lighting:

- A. Lighting used only under emergency conditions;
- B. Traffic control signals and devices;
- C. Lighting for single-family detached, single-family attached, and two-family dwellings;
- D. Lighting for multi-family dwellings with four or fewer dwelling units;<sup>58</sup>
- E. Lighting for family care homes;

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<sup>56</sup> [H488](#) added three- and four-family dwellings to the Residential Building Code. [160D-702\(b\)](#) prohibits the application of “building design elements” to dwellings subject to the Residential Code. However, it appears that exterior lighting is not considered a “building design element.” Nonetheless, proposed here is to only apply the exterior lighting regulations to multi-family dwellings with five or more dwelling units. The exterior lighting regulations apply to all apartment complexes, even if some of the individual buildings contain fewer than five dwelling units.

<sup>57</sup> New subsection that clarifies the types of lighting exempt from this Section. Proposed is to eliminate the exemption provided in current ZO Section 13.5.6 for “fixtures installed, owned, or leased by governmental or public agencies, or their agents, for the purpose of illuminating public streets.” Instead, [4.5.14: Street Lighting](#) proposes new standards.

<sup>58</sup> Exterior lighting for apartment complexes is not exempt.

- F. String lights used in outdoor areas of eating and drinking establishments, if the lights are turned off after the establishment's operating hours;
- G. Lighting associated with an approved temporary use;<sup>59</sup>
- H. Temporary lighting associated with a development site;
- I. Lighting for public monuments and statues;
- J. Lighting for outdoor sculptures and other types of public art, if it is not a nuisance as defined in 4.5.4C: *Nuisance Lighting*;
- K. Lighting of the United States of America and State of North Carolina flags and other flags or insignia of any governmental entity;<sup>60</sup>
- L. Underwater lighting in fountains, swimming pools, and other water features;
- M. Lighting required pursuant to state and federal laws (e.g., FAA); and<sup>61</sup>
- N. Lighting required by the Building Code.

#### 4.5.4 PROHIBITED EXTERIOR LIGHTING<sup>62</sup>

The following types of exterior lighting are prohibited:

- A. **Exterior Lighting Resembling Emergency Signals.** Exterior lighting that contains reflectors or glaring, strobe, or rotating lights, beacons, beams, or flashing illumination resembling an emergency signal.
- B. **Searchlights, Aerial Lasers, and Beacons.** Searchlights, aerial lasers, or any type of beacon used to attract attention to a property. This does not prohibit the use of a searchlight by authorized personnel for emergency purposes.
- C. **Nuisance Lighting.** Lighting that creates excessive glare or light trespass such that it has a significant and ongoing negative impact on nearby lots, buildings, streets, or sidewalks.

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<sup>59</sup> ZO Section 13.6.4.c currently exempts "[t]emporary lighting for special events of short duration. Typically, these are low wattage or low voltage applications for public festivals, celebrations, and the observance of holidays, carnivals, and celebrations. Portable (non-permanent) internally illuminated signs come under this classification and, as such, can be used for up to thirty (30) days only."

<sup>60</sup> Carries forward exemption provided in ZO Section 13.5.6.4.e.

<sup>61</sup> ZO Section 13.6.4.c currently exempts "[a]irport lighting controlled by the Federal Aviation Administration (FAA)."

<sup>62</sup> This Section is new.

### 4.5.5 EXTERIOR LIGHTING DESIGN PRINCIPLES<sup>63</sup>

#### A. **Generally.**

1. This Subsection establishes design principles that reflect the County's goals in regulating exterior lighting.
2. While these are not regulatory standards, the exterior lighting plan required by 4.5.15: Exterior Lighting Plan Required must demonstrate the general alignment of the lighting plan with the principles in this Subsection. To demonstrate this, the plan must include a narrative describing how it implements these design principles.

B. **Protection of Natural Areas.** Natural areas and natural features are protected from light spillage from off-site sources.

C. **Compatibility With Surrounding Uses.** Light sources are compatible with the light produced by surrounding uses and produce an unobtrusive degree of brightness in both illumination levels and color temperature.

D. **Enhancement of Public Spaces.** Foreground spaces, such as building entrances and plaza seating areas, use lighting that defines, highlights, or enhances the space without glare.

E. **Unobtrusive Lighting of Background Spaces.** Background spaces, such as parking lots and driveways, are illuminated as unobtrusively as possible to meet the functional needs of safe circulation and to protect people and property.

F. **Energy Efficiency.** The exterior lighting plan demonstrates consideration for reduced energy consumption through the selection of energy efficient fixtures.<sup>64</sup>

### 4.5.6 GENERAL STANDARDS FOR ALL EXTERIOR LIGHTING<sup>65</sup>

A. **Fully Shielded Fixtures.** Other than floodlights and flood lamps, all outdoor site area and parking lot lighting fixtures of more than 2,000 lumens must be

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<sup>63</sup> Paragraphs B, C, D, and E are from the Appearance Commission's draft revised *Chatham County Design Guidelines*.

<sup>64</sup> Carries forward ZO Section 13.5.1.

<sup>65</sup> Carries forward ZO Section 13.5 *General Standards for Outdoor Lighting* and ZO Sections 13.6.1, 13.6.2, 13.6.4.a, and 13.6.4.b [*Lighting in Outdoor Areas (Residential and Non-Residential)*]. Proposes to remove the provisions for lighting reduction since the NC Energy Conservation Code Section



fully shielded fixtures. All dusk-to-dawn open bottom security lights, regardless of lamp lumens, must be fully shielded.<sup>66</sup>

**B. Maximum Height.**

1. The mounting height of all exterior lighting, except building lighting, outdoor sports field lighting, and outdoor performance area lighting (see 4.5.10F: *Outdoor Sports Field/Outdoor Performance Area Lighting.*), shall not exceed 37 feet above finished grade.
2. Building lighting is limited to the height of the building on which it is located.<sup>67</sup>

**C. Type and Style of Light Fixtures.<sup>68</sup>**

1. The type and style of light fixtures shall be consistent with the style and character of architecture on the site.
2. Light poles, brackets, and fixtures shall be of a matte or low-gloss grey, black, dark earthen, or bronze finish.

**D. Lighting Color.<sup>69</sup>**

1. Blue light emissions can be harmful to flora and fauna, and can result in decreased nighttime visibility and increased skyglow.<sup>70</sup> In order to minimize blue light emission, warm spectrum amber lighting must be used rather than cool spectrum blue or white lighting, as specified in 4.5.6.D.2, below.
2. Except as provided in 4.5.6.D.3, below, the correlated color temperature of all exterior lighting must be 4,000 Kelvin (4000K) or lower, with tolerance within the ANSI standard C78.377 for LED sources.

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[C405.2.5: Exterior lighting controls](#) already requires dusk-to-dawn lighting or the use of a photosensor and time switch.

<sup>66</sup> The exception in ZO Section 13.6.4.a is proposed to be removed. Other exceptions in ZO Section 13.6.4.c, d, and e are proposed to be relocated to [4.5.3: Exemptions](#).

<sup>67</sup> This sentence is new and clarifies that building lighting is not subject to the height limits for other exterior lighting.

<sup>68</sup> Proposed new text from the Appearance Commission's draft revised *Chatham County Design Guidelines*.

<sup>69</sup> These provisions are new. The Appearance Commission's draft revised *Chatham County Design Guidelines* propose requiring all exterior lighting to be white or amber except the low-light output lighting described in [Paragraph D.3](#).

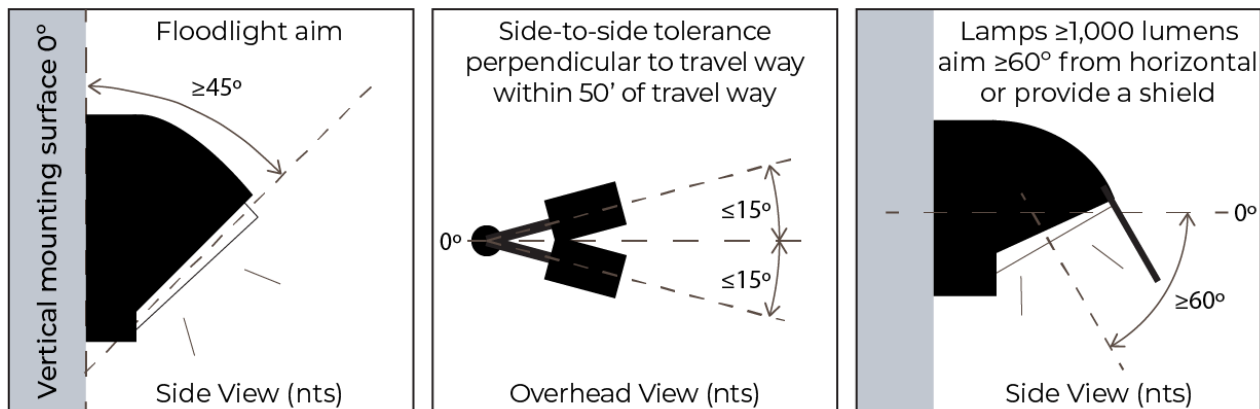
<sup>70</sup> International Dark-Sky Association, [Why Is Blue Light at Night Bad?](#), December 22, 2016.

3. Low-light output (800 lumens or lower) landscaping or other decorative lighting, sign lighting, and customer entrance or service area lights aiming down and installed under a canopy or similar roof structure are exempt from the lighting color requirement specified in 4.5.6.D.2, above.

**E. Floodlights.**

1. All floodlights shall be installed such that the fixture is aimed down at least 45 degrees from vertical, as illustrated in Figure 4.5.6-1: *Floodlight Orientation*.
2. Floodlights shall be positioned such that any such fixture located within 50 feet of a vehicular travel way is mounted and aimed perpendicular to the right-of-way, with a side-to-side horizontal aiming tolerance not to exceed 15 degrees from perpendicular to the travel way, as illustrated in Figure 4.5.6-1: *Floodlight Orientation*.
3. The Zoning Administrator may require shields to be installed on floodlights before, during, or after the installation when needed to further reduce lighting trespass, glare, and light pollution.
4. Floodlights shall not be aimed at residential property.
5. All flood lamps emitting 1,000 or more lumens shall be aimed at least 60 degrees down from horizontal or shielded such that the main beam from the light source is not visible from adjacent properties or the vehicular travel way.

**Figure 4.5.6-1: Floodlight Orientation<sup>71</sup>**



<sup>71</sup> These graphics will be updated.

- F. **Wall Pack Fixtures.** All wall pack fixtures shall be fully shielded.<sup>72</sup>
- G. **Additional Lighting Standards.** This Section specifies additional lighting standards (see 4.5.10) for the following land uses:
  - 1. Recreation camps and grounds;
  - 2. Surface parking lots;
  - 3. Vehicular canopies;
  - 4. Outdoor display areas;
  - 5. Buildings; and
  - 6. Outdoor sports fields and outdoor performance areas, including those located on public and private school grounds or on university campuses.

**4.5.7 LIGHTING ZONES**

**A. Generally.**

- 1. Subsections 4.5.8: Lighting Levels and 4.5.9: Limits to Off-Site Impacts regulate the amount of exterior lighting and off-site impacts by lighting zone.
- 2. Many zoning districts have common characteristics for the purposes of exterior lighting regulations, and this Subsection combines zoning districts into common lighting zones. Table 4.5.6-1: *Lighting Zones* designates the zoning districts included in each lighting zone.

Table 4.5.6-1: Lighting Zones	
Zoning District	Lighting Zone (LZ)
PP, AG, RA, R5, R2, RV	LZ-1
R1, OI, NB, CB, RB, RHC, IL, CD-CR, CD-MU, CD-CN	LZ-2
IH	LZ-3

**B. Description of Lighting Zones.**

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<sup>72</sup> ZO Section 13.5.5 currently requires wall pack fixtures to be *full cutoff fixtures*.

1. *Lighting Zone 1 (LZ-1)*. LZ-1 includes areas with low ambient lighting levels. These typically include developed areas in parks and conservation/recreation areas, agricultural areas, rural residential areas, and rural village centers.
2. *Lighting Zone 2 (LZ-2)*. LZ-2 includes areas with moderate ambient lighting levels. These typically include suburban residential areas, office parks, neighborhood business districts, mixed use areas, and light industrial uses with limited nighttime operations.
3. *Lighting Zone 3 (LZ-3)*. LZ-3 includes areas with moderately high lighting levels. These typically include heavy industrial uses with nighttime operations.

#### 4.5.8 LIGHTING LEVELS<sup>73</sup>

- A. Individual lighting power allowances for building exteriors are specified in the [North Carolina State Building Code: Energy Conservation Code \(ECC\)](#). The ECC includes allowances for building entrances and exits as well as uncovered parking areas, walkways, sales canopies, and outdoor sales areas.
- B. The ECC regulates exterior lighting by lighting zone, and generally describes the types of uses in each lighting zone. Subsection 4.5.6: General Standards for All Exterior Lighting establishes lighting zones specific to Chatham County, which are consistent with the lighting zones established in the ECC.

#### 4.5.9 LIMITS TO OFF-SITE IMPACTS<sup>74</sup>

- A. All luminaires shall be rated and installed according to Table 4.5.9-1: *Maximum Allowable Backlight, Uplight, and Glare (BUG) Ratings*. Components of BUG ratings are illustrated in Figure 4.5.9-1.

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<sup>73</sup> A best practice is to regulate the amount of lighting using a lumens per acre or lumens per square foot limit. Proposed here is to use the individual lighting power allowances for building exteriors specified in the North Carolina State Building Code: Energy Conservation Code ([Section C405.5](#)). These are de facto lumen per square foot or lumen per acre limits that serve as a basis to limit overlighting, especially in concert with the LZ-based scaled allowances. The watt per square foot limits in the Energy Conservation Code are periodically adjusted as lumen per watt efficacies increase due to technological advances.

<sup>74</sup> Proposed here is to limit off-site impacts of exterior lighting using Backlight, Uplight, and Glare (“BUG”) ratings, which is a best practice. BUG ratings are provided on the manufacturer’s spec sheet for the luminaire. As such, they are easily verifiable during site plan review. Using BUG ratings eliminates the need to regulate footcandles at the lot line. (Zoning Ordinance Section 13.5.2 states “Unless otherwise specified in the following subsections, the maximum light level is 0.5 maintained

- B. A luminaire may be used if it is rated for the lighting zone of the site or is lower in number for all ratings (B, U, and G). Luminaires equipped with adjustable mounting devices permitting alteration of the luminaire aiming in the field are prohibited. All parking lot luminaires must be aimed towards the interior of the parking lot.
- C. If a luminaire does not have a BUG rating, it must be fully-shielded (see Figure 4.5.9-2: *Examples of Fully-Shielded Luminaires*).

**Table 4.5.9-1: Maximum Allowable Backlight, Uplight, and Glare (BUG) Ratings**

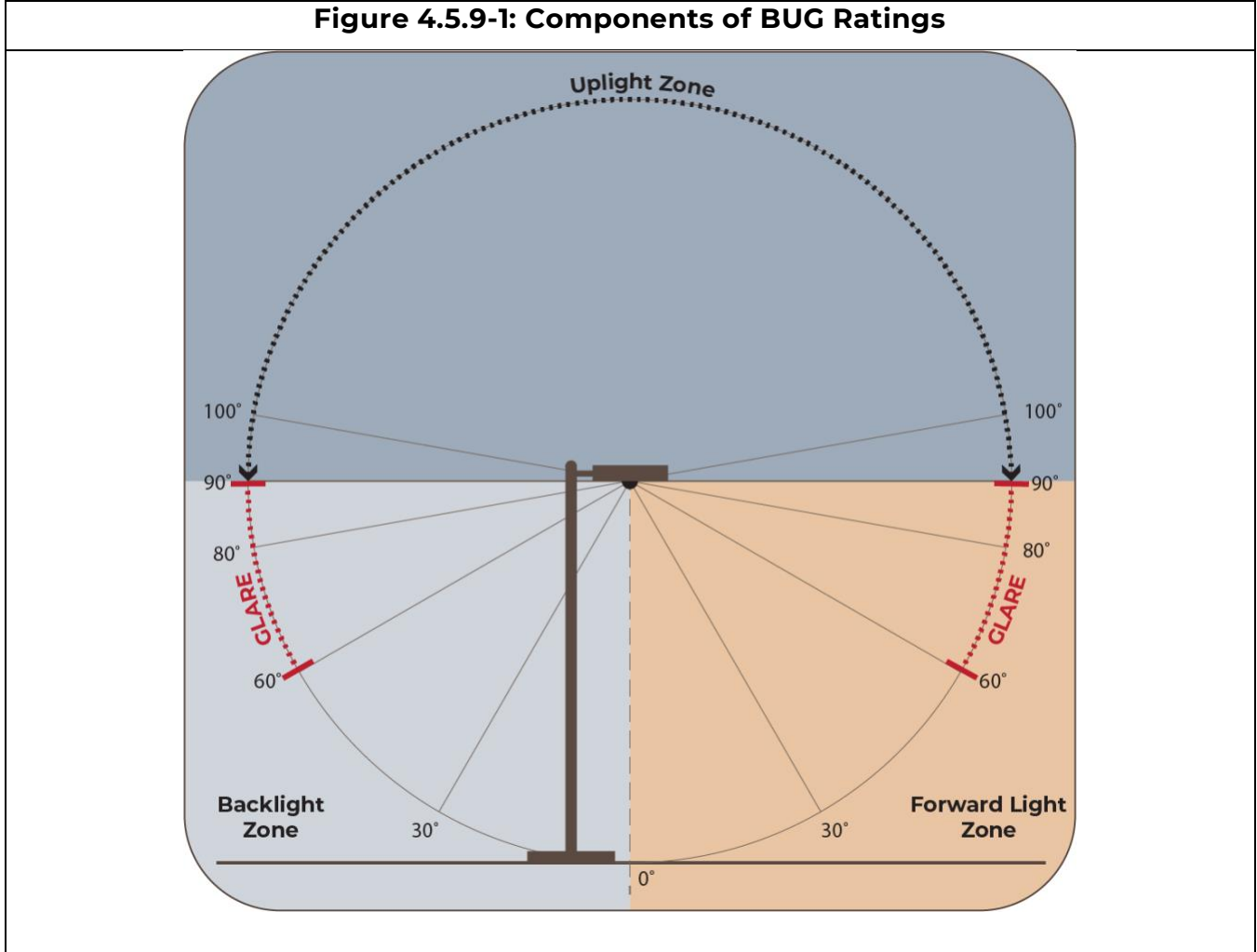
	Lighting Zone (LZ)		
	LZ-1	LZ-2	LZ-3
<b>Backlight Rating (max)</b>			
Luminaire located 2 or more mounting heights from lot line	B3	B4	B5
Luminaire located 1 to less than 2 mounting heights from lot line and ideally oriented <sup>1</sup>	B2	B3	B4
Luminaire located 0.5 to 1 mounting heights from lot line and ideally oriented <sup>1</sup>	B1	B2	B3
Luminaire located less than 0.5 mounting height to lot line and ideally oriented <sup>1</sup>	B0	B0	B1
<b>Uplight Rating (max)</b>			
All luminaires	U0	U0	U0
<b>Glare Rating (max)</b>			
Luminaire located 2 or more mounting heights from lot line	G1	G2	G3
Any luminaire not ideally oriented and located within 1 to less than 2 mounting heights to any lot line	G0	G1	G1
Any luminaire not ideally oriented and located within 0.5 to 1 mounting heights to any lot line	G0	G0	G1
Any luminaire not ideally oriented and located within less than 0.5 mounting heights to any lot line	G0	G0	G0

**Key:** max = maximum allowed | B = backlight | U = uplight | G = glare

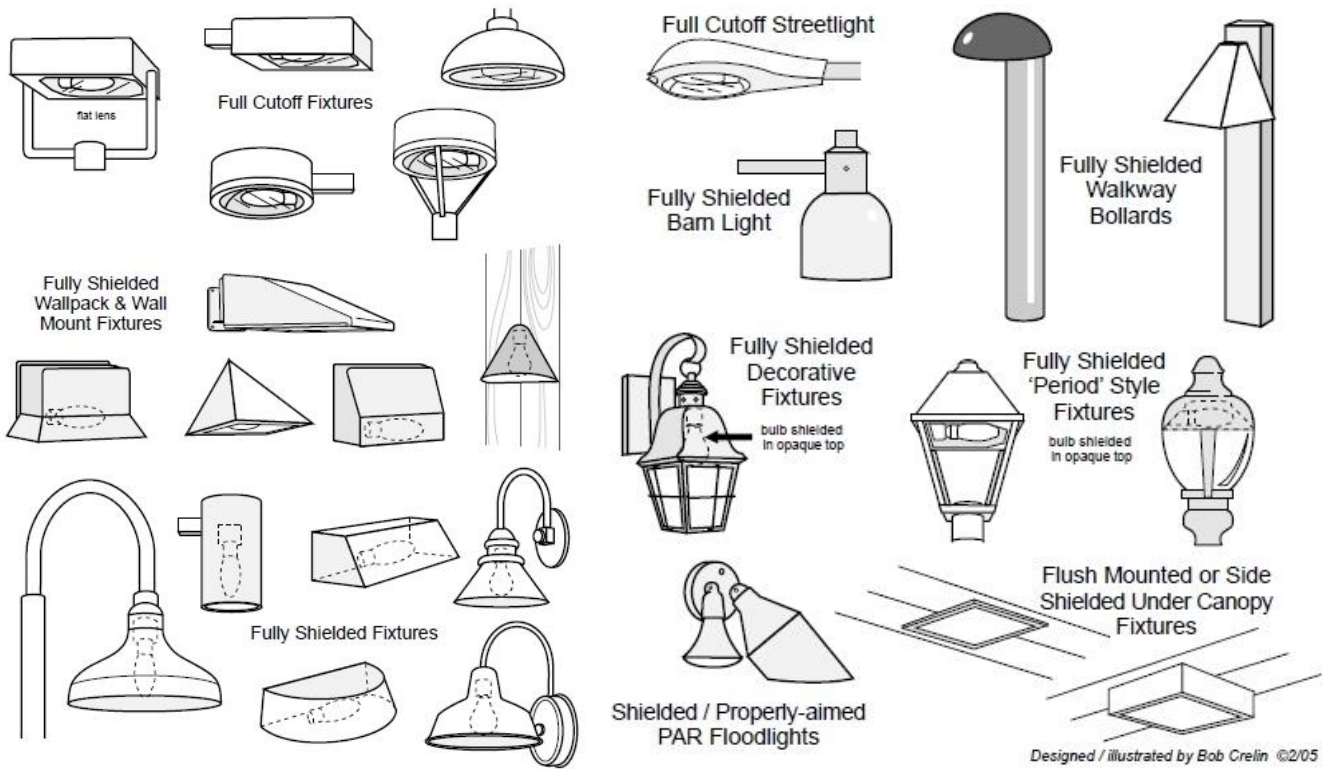
<sup>1</sup> To be considered “ideally oriented,” the luminaire must be mounted with the backlight portion of the light output oriented perpendicular and towards the lot line.

footcandles at any property line adjacent to a residential district, or on a lot occupied by a dwelling, congregate care structure, or congregate living structure, unless otherwise approved by the County.” This provision is proposed for removal in favor of the use of BUG ratings.)

**Figure 4.5.9-1: Components of BUG Ratings**



**Figure 4.5.9-2: Examples of Fully-Shielded Luminaires**



**4.5.10 ADDITIONAL LIGHTING STANDARDS FOR CERTAIN LAND USES**

**A. Recreation Camps and Grounds.<sup>75</sup>**

1. Recreation camps and grounds are typically located in areas that are intrinsically dark landscapes at night, Such as state and national parks, conservation areas, natural recreation areas, and rural areas. Recreation camps and grounds are used for camping, stargazing, and other activities where a naturally dark environment is desired.
2. All recreation camps and grounds are subject to the following:
  - (a) Light reduction procedures shall begin at approximately 10:00 p.m. Only the limited use of essential safety and security lighting is allowed after this time.

<sup>75</sup> Carries forward ZO Section 13.9 *Natural Recreation Areas*. The applicability of the current regulation is unclear, so proposed is to apply this to recreation camps and grounds (a defined land use listed in the use table in Chapter 3). Revises to require lighting reduction procedures to begin at 10 p.m. rather than midnight.

- (b) All fixtures shall be fully shielded.
- B. **Security Lighting for Surface Parking Lots.**<sup>76</sup> All surface parking lots require the installation of security lighting.
- C. **Vehicular Canopy Lighting.**<sup>77</sup> Lighting under vehicular canopies shall be designed so as not to create glare off-site. Acceptable methods include one or both of the following:
1. Recessed fixture incorporating a lens cover that is either recessed or flush with the bottom surface (ceiling) of the vehicular canopy that provides a fully shielded light distribution; or
  2. Surface-mounted fixture incorporating a flat glass that provides a fully shielded light distribution.
- D. **Outdoor Display Area Lighting.**<sup>78</sup>
1. *Lighting for Vehicle Dealership Parking Lots.* All fixtures shall be fully shielded.
  2. *Lighting for All Other Outdoor Display Areas.* All fixtures shall be fully shielded. Alternatively, directional fixtures (such as floodlights) may be used if they are aimed in accordance with 4.5.6.D: *Floodlights*.
- E. **Building Lighting.**<sup>79</sup>
1. Lighting fixtures shall be selected, located, aimed, and shielded so that direct illumination is focused exclusively on the building façade, plantings, and other intended site features, and away from adjoining properties and vehicular travel ways.
  2. To the extent practical and where possible, lighting fixtures shall be directed downward rather than upward.
    - (a) When upward aiming is used, placement of low wattage fixtures with shields (as needed) close to the building to graze the façade

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<sup>76</sup> Carries forward ZO Section 13.6.3 *Security Lighting for Open Parking Facilities*. Eliminates maintained footcandle and uniformity requirements in favor of the lighting levels and BUG limits specified in 4.5.8 and 4.5.9.

<sup>77</sup> Carries forward ZO Section 13.7 *Lighting for Vehicular Canopies*.

<sup>78</sup> Carries forward ZO Section 13.10 *Lighting of Outdoor Display Areas*. Eliminates footcandle limitations in favor of the lighting levels specified in 4.5.8 and the BUG standards in 4.5.9. Removes 37 ft height limit since it is redundant to 4.5.10.B.

<sup>79</sup> Carries forward ZO Section 13.11 *Lighting of Buildings*.



is required to minimize reflected light from windows and other surfaces.

- (b) The Zoning Administrator<sup>80</sup> may waive this requirement in rare and unusual cases if it is demonstrated that the physical location of light fixtures close to the building to accomplish this design is not possible.

**F. Outdoor Sports Field/Outdoor Performance Area Lighting.<sup>81</sup>**

1. The mounting height of outdoor sports field and outdoor performance area lighting fixtures shall not exceed 80 feet from finished grade.
2. The hours of operation for the lighting system for any game or event shall not exceed one hour after the end of the event.
3. This Paragraph applies to all outdoor sports field and outdoor performance areas, including those located on public and private school grounds or on university campuses.

**4.5.11 PERMANENT SIGN & BILLBOARD LIGHTING<sup>82</sup>**

**A. External Lighting.**

1. External lighting fixtures illuminating signs and billboards shall be aimed and shielded so that direct illumination is focused exclusively on the sign.
2. Externally lighted signs shall be lighted from the top of the sign downward, except that signs less than seven feet (two meters) in height above grade may be illuminated by ground mounted uplighting not exceeding 1,600 lumens per sign face.

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<sup>80</sup> Changed from "Planning Department." The proposed definition of Planning Director is "the person or persons designated by the Chatham County Manager to administer and enforce this Ordinance, or the Zoning Administrator's designee."

<sup>81</sup> Carries forward ZO Section 13.8 *Outdoor Sports Field/Outdoor Performance Area Lighting*. Eliminates requirement for glare control package and limitation on foot candles "at any property line in a residential district or a lot occupied by a dwelling congregate care or congregate living structure" in favor of the BUG ratings in 4.5.9. Relocates nonconformity provisions to [Chapter 14: Nonconformities](#).

<sup>82</sup> Carries forward ZO Section 13.12 *Permanent Sign and Billboard Lighting*. Revises "100 lamp watts per sign face" to "1,600 lumens per sign face" and "2 watts per square foot of sign face" to "30 lumens per square foot of sign face." These standards may be relocated to and/or revised in conjunction with [Section 4.7: Signs](#).

3. The Zoning Administrator<sup>83</sup> may waive the requirement for top-down aiming in rare and unusual cases if it is demonstrated that the physical location of light fixtures for top down aiming is not possible.
  4. The BUG ratings specified in 4.5.9: Limits to Off-Site Impacts do not apply to luminaires used to illuminate signs.
- B. **Maximum Wattage.** The maximum lumens permitted to illuminate a sign are 30 lumens per square foot of sign face area.
- C. **Internally Illuminated Signs.** Internally illuminated signs are allowed, if the message or letters of such sign consist of non-reflective material. For additional guidance, see Section 4.7: Signs.

#### 4.5.12 LANDSCAPE LIGHTING<sup>84</sup>

Landscape lighting is allowed if:

- A. All landscape and residential façade lighting systems employ fully shielded luminaires not to exceed 450 lumens; and
- B. The luminaires are aimed such that the light source cannot be seen from any reasonable viewing point on an adjacent property.

#### 4.5.13 HOLIDAY/FESTIVE LIGHTING<sup>85</sup>

- A. Holiday/festive lighting is allowed if it complies with the definition in [Chapter 17: Definitions & Acronyms](#).
- B. Lamps below 100 lumens are exempt and have no restrictions on use.

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<sup>83</sup> Changed from “Planning Department.” The proposed definition of Zoning Administrator is “the person or persons designated by the Chatham County Manager to administer and enforce this Ordinance, or the Zoning Administrator’s designee.”

<sup>84</sup> Carries forward ZO Section 13.15 *Landscape Lighting*. Revises “40 lamp watts” to “450 lumens.”

<sup>85</sup> Carries forward ZO Section 13.13 *Holiday/Festive Lighting*.

#### 4.5.14 STREET LIGHTING<sup>86</sup>

This Subsection does not require street lighting in new developments. However, where provided, all fixtures installed for the purpose of illuminating public and private streets must:

- A. Be fully shielded;<sup>87</sup> and
- B. Comply with 4.5.6D: *Lighting Color*.<sup>88</sup>

#### 4.5.15 EXTERIOR LIGHTING PLAN REQUIRED<sup>89</sup>

A. **Applicability.**

- 1. A lighting plan is required for any work involving exterior lighting for all land uses subject to this Section.
- 2. The applicant shall submit the lighting plan with the Zoning Compliance Permit application or First Plat application, as applicable. The exterior lighting plan must be approved prior to the issuance of a building permit.

B. **Exterior Lighting Plan Contents.** The exterior lighting plan shall:

- 1. Be integrated with the landscape plan, if a landscape plan is required for the proposed development;
- 2. As specified in 4.5.5: Exterior Lighting Design Principles, demonstrate a consideration for reduced energy consumption through the selection of energy efficient fixtures;
- 3. Depict the arrangement of all exterior lighting, including the location and mounting height of each luminaire;

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<sup>86</sup> Proposed is to eliminate the exemption provided in current ZO Section 13.5.6 for “fixtures installed, owned, or leased by governmental or public agencies, or their agents, for the purpose of illuminating public streets.” Instead, this Subsection proposes new standards.

<sup>87</sup> Fully shielded fixtures are available through Duke Energy’s [outdoor lighting program](#).

<sup>88</sup> Most luminaires available through Duke Energy’s [outdoor lighting program have a color temperature of 3000K or 4000K](#).

<sup>89</sup> Carries forward portions of ZO Section 13.16 *Permitting and Approval Process*. Requires lighting plan for all uses subject to this Section. The current Zoning Ordinance does not require a lighting plan for commercial, office, institutional, and industrial projects with a gross floor area of 5,000 sf or less or multi-family dwellings with six or fewer units, unless requested by staff to verify compliance. Proposes to delete the first two paragraphs in Section 13.16 and reformats the remaining text.

4. Include a fixture schedule detailing the fixture type, lamp type and lumens, correlated color temperature, and BUG rating for each luminaire;
  5. Describe or depict the types of supports, poles, and raised foundations, if used; and
  6. Include the manufacturers' or electric utility catalog specification sheets and/or drawings and photometric data for each type of luminaire.
- C. The Zoning Administrator<sup>90</sup> may modify and/or waive any part(s) of the above referenced lighting plan contents if the applicant can otherwise demonstrate compliance with this Section. Note: An example of this provision might be where a contractor or utility repeatedly installs the same lighting equipment on different projects in the county. One submittal containing the specification sheets of a particular group of fixtures may be sufficient for the Planning Department to modify the project requirement and require that only the other provisions of this Section be met since the fixture specification provisions have already been met. This modification would conserve County personnel and lighting supplier/installer resources.

## 4.6 PARKING & LOADING<sup>91</sup>

### 4.6.1 PURPOSE<sup>92</sup>

The purpose of these off-street vehicular parking and loading standards is to ensure that development provides adequate facilities for off-street parking and loading. In particular, the intent of these standards is to:

<sup>90</sup> Changed from "Planning Department personnel." The proposed definition of Zoning Administrator is "the person or persons designated by the Chatham County Manager to administer and enforce this Ordinance, or the Zoning Administrator's designee."

<sup>91</sup> See discussion of proposed changes in the [Audit Report](#) (pp. 80-81). The following regulations in Section 14, Off Street Parking and Loading, of the Chatham County Zoning Ordinance have not been carried forward: 1) Subsection E. Day Time/Night Time Assignments. This provision allows for parking spaces to be counted towards the minimum requirements for multiple uses that do not take place at the same time (e.g., offices during the day, movie theater in the evening). However, given the substantial elimination of a minimum number of off-street parking requirements, this provision is not necessary, although landowners can continue to provide parking that serves multiple uses. 2) Subsection E. Lighting. These standards will be updated in **Error! Reference source not found.**  
**Error! Reference source not found.**

<sup>92</sup> The purpose statement is new.

- A. Ensure that off-street vehicular parking and loading facilities are well designed and meet the needs of their users and the county residents and businesses;
- B. Provide adequate access for fire, police, and emergency services;
- C. Provide adequate facilities for off-street loading in proportion to the varying demand of the zone districts and uses allowed by this Ordinance;
- D. Provide flexibility in how developments meet minimum off-street vehicular parking requirements;
- E. Minimize the amount of impervious surface devoted to off-street vehicular parking and loading;
- F. Accommodate future demand for electric vehicle parking; and
- G. Ensure that off-street vehicular parking and loading areas do not encroach on or interfere with the public use of streets and alleys by pedestrians, and that such parking and loading areas provide for safe crossings by pedestrians.

#### 4.6.2 APPLICABILITY<sup>93</sup>

- A. **New Development.** All new development shall provide off-street vehicular parking and loading areas and bicycle parking in accordance with the standards of this Section.
- B. **Addition or Expansion.** Except as provided in Section 4.6.2D: *Electric Vehicle Charging Stations*, additions to or expansion of existing development shall provide additional off-street vehicular parking and loading areas and bicycle parking for the additions or expansion in accordance with the standards of this Section, subject to the following:
  - 1. If an existing structure or use is expanded or enlarged in terms of the number of dwelling units, floor area, number of employees, or seating capacity, whichever the minimum parking standard for the structure is based on, any additional off-street parking and loading spaces that may be required shall be provided for the expanded or enlarged part of the structure or use.

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<sup>93</sup> This builds upon the general requirement in Section 14.1 of the Chatham County Zoning Ordinance and provides clarity about the extent to which compliance is required for additions or expansions to existing development.

2. If the expansion of a parking lot results in more than 200 parking spaces, the applicant shall comply with standards in 4.6.5J: *Large Parking Lots* to the maximum extent practicable.
- C. **Change of Use.** Except as provided in Section 4.6.2D: *Electric Vehicle Charging Stations*, change of use of an existing structure or land shall be accompanied by provision of any additional off-street vehicular parking and loading spaces and bicycle parking required for the new use by this Section.
- D. **Electric Vehicle Charging Stations.** All redevelopment, including expansion or enlargement of an existing structure or use, or a change of use, shall comply with the standards of Section 4.6.6: *Electric Vehicle Charging Stations*, with respect to the entire existing parking lot and any new parking area, to the maximum extent practicable.
- E. **Timing of Review.** Compliance with the standards of this Section shall be evaluated during review of an application for Zoning Compliance Permit.

#### 4.6.3 PARKING PLAN REQUIRED<sup>94</sup>

Applications for development subject to this Section that propose to provide 10 or more parking spaces shall include a parking plan. The plan shall accurately designate the number and location of required parking spaces, access aisles, and driveways, and the relation of the off-street vehicular parking facilities to the development they are designed to serve, including how the parking facilities coordinate with the vehicular, pedestrian, and bicycle circulation systems for the development, as appropriate.

#### 4.6.4 PARKING RATIOS<sup>95</sup>

- A. **Applicability.** Development subject to the requirements of this Section shall provide off-street vehicular parking in accordance with this Subsection.

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<sup>94</sup> This builds upon the certification requirement in Section 14.1.A of the Chatham County Zoning Ordinance.

<sup>95</sup> This section establishes the minimum off-street vehicular parking. This draft eliminates minimum off-street parking requirements for most non-residential uses. Many communities across the state and the nation have completely or substantially eliminated minimum parking requirements, instead relying on the marketplace to provide adequate parking to support the uses and tenants on the site. One of the key concerns about eliminating minimum parking requirements is that parking will “spill over” into neighborhoods, but there should not be a significant impact in the County given that commercial land uses are not connected to existing residential uses with sidewalks or other pedestrian amenities. However, we did receive comments about parking concerns regarding two types of uses. The first is residential uses, particularly, concerns about the lack of visitor parking due,

B. **Minimum Number of Off-Street Parking Spaces Required.** Development shall provide the minimum number of off-street vehicular parking spaces based on the principal use(s) involved in accordance with Section 4.6.4C: *Minimum Off-Street Parking Tables* and Table 4.6.4-1: *Minimum Off-Street Parking Requirements*, subject to reductions allowed in accordance with Section 4.6.7: *Alternative Parking Plans*. Uses not listed in Table 4.6.4-1 are not required to provide a minimum number of parking spaces.

C. **Minimum Off-Street Parking Tables.**<sup>96</sup>

Table 4.6.4-1: Minimum Off-Street Parking Requirements		
Land Use	Current Standards	Proposed Standards
<b>Accommodations &amp; Lodging Principal Uses</b>		
Bed & breakfast homes	n/a	1 per room
Bed & breakfast inns	n/a	1 plus 1 per room
Hotels, motels, and inns	1 per unit, plus 2 per 3 employees on normal shift	1 per room
<b>Institutional &amp; Civic Principal Uses</b>		
Day care centers or preschools for 15 or fewer people	6 children or fewer – 1 per teacher/staff, plus 1 car for drop-off-pickup	1 per 400 sf GFA plus 4 for drop-off/pickup

in many cases, to narrow streets which cannot accommodate vehicular parking and access by emergency vehicles. The second are day care uses, and this draft does include minimum parking requirements for day cares, as well as accommodations uses.

<sup>96</sup> The tables list the minimum off-street parking required for the uses in the UDO which are proposed to require a minimum amount of parking, similar to the list of minimum off-street parking requirements in Section 14.1C of the Chatham County Zoning Ordinance. The Table follows the same hierarchy and organization as the Principal Use Tables in [Sections 3.2.5 through 3.2.20](#) of the UDO. As suggested In the Code Audit, specific principal uses listed in the Principal Use Tables have a corresponding entry in the minimum off-street parking tables, which makes it easier for code users to understand the amount of parking required to be provided in the UDO, and will make it easier for staff to update the minimum parking standards as circumstances change.

To facilitate review of these requirements, the current minimum parking requirements are included in the middle column of each table. For uses that are new in the UDO (not included in the current ordinance), the current minimum off-street parking requirement is listed as new. For uses that are included in the current ordinance but for which there is no clear minimum parking requirement, the current requirement is listed as “n/a.” Where the former and new uses do not line up exactly, we have included the name of the relevant parking standard in brackets. For example, the current standard for apartment complexes is listed as “1.5 per du [Multi-family residences].” The “Current Standards” column is included in drafts to assist the reader and will not be part of the adopted version of the UDO.

**Table 4.6.4-1: Minimum Off-Street Parking Requirements**

Land Use	Current Standards	Proposed Standards
Day care centers or preschools for more than 15 people	More than 6 children – add stacking for greater of 4 cars for drop-off/pickup or 1 per 10 children	1 per 400 sf plus 4 for drop-off/pick-up plus 1 per every 10 children over 40.
<b>Mixed Principal Uses</b>		
Live-work unit	New use	1 per du
Mixed use building	n/a	1 per du
<b>Residential Principal Uses</b>		
Apartment Complex	1.5 per du [Multi-family residences]	2 per du, plus 1 visitor space per 6 du
Cottage courts	New use	See Section <a href="#">3.3.8: Cottage Courts</a>
Two-family dwellings (duplex)	2 per du	2 per du
Family Care Homes	1 per 2 du [congregate care]	1 per 2 du
Multi-family dwellings	1.5 per du	2 per du, plus 1 visitor space per 6 du
Single-family attached dwellings (townhouses)	2 per du	1 per du, plus 1 visitor space per 4 du
Single-family detached dwellings (including site built, modular, and manufactured)	2 per du	2 per du
<b>Utility Principal Uses</b>		
Solar energy systems, level 2 (less than ½ acre)	New use	1
Solar energy systems, level 2 or level 3 (10 acres or less)	New use	1
Solar energy systems, level 2 or level 3 (more than 10 acres)	New use	1
Concealed Wireless Facilities (> 60 feet and ≤ 150 feet or less in height)	n/a	1
Wireless Support Structures (> 60 feet and ≤ 199 feet in height)	n/a	1
Wireless Support Structures (> 199 feet and ≤ 400 feet in height)	n/a	1
<b>Vehicle-Related Principal Uses</b>		



**Table 4.6.4-1: Minimum Off-Street Parking Requirements**

Land Use	Current Standards	Proposed Standards
Automobile, automobile accessory, boat, trailer, and other utility vehicle sales and service	4 per service bay, plus 1 per wrecker or service vehicle   1 space per 400 sf of building area devoted to sales	4 per service bay, plus 1 per wrecker or service vehicle

D. **Unlisted Uses.** An applicant proposing to develop a principal use or use(s) that is not listed in Table 4.6.4-1 shall specify in the application materials the proposed amount of required off-street vehicular parking, using one of the three methods below. After receiving the application, the Director shall determine the amount of required off-street vehicular parking, if any, using the applicant’s methodology or one of the other methods listed below, and may require that the applicant prepare a parking demand study as described below:

1. Apply the minimum off-street parking space standard for the listed use that the Director deems most similar to the proposed use;
2. Establish the minimum off-street parking space standard by reference to standard parking resources published by the Institute for Transportation Engineers (ITE), Urban Land Institute (ULI), National Parking Association, or the American Planning Association (APA); or
3. Conduct a parking demand study to demonstrate the appropriate minimum off-street parking space standard. The study shall estimate parking demand based on the recommendations of the ITE, ULI, or another acceptable source of parking demand data. This demand study shall include relevant data collected from uses or a combinations of uses that are the same or comparable to the proposed use in terms of density, scale, bulk, area, type of activity, and location.

**4.6.5 PARKING LOT IMPROVEMENT, DESIGN, AND LOCATIONAL REQUIREMENTS<sup>97</sup>**

A. **Use of Parking or Loading Area.** Parking lots required by this Section shall be used solely for the parking of registered motorized vehicles in good operating condition. At all times, adequate parking shall be made available to accommodate the uses on the site. Required parking spaces and loading berths shall not be utilized for any activities other than parking or loading,

<sup>97</sup> As discussed in further detail in the footnotes below, this section builds on the design and locational requirements of Section 14.2 of the Chatham County Zoning Ordinance. Landscaping standards are included in 4.4.6: Parking Lot Landscaping.

including any accessory or temporary use identified in this Ordinance, unless otherwise authorized by this Ordinance.

- B. **Design.** Parking lots, drive aisles, pedestrian walks, landscaping, and open space shall be designed as integral parts of an overall development plan and shall be properly related to existing and proposed buildings. All off-street parking and loading spaces shall provide curbs, wheel stops, or similar devices that prevent vehicles from overhanging on or into public right-of-way, walkways, adjacent land, or required landscaping areas.<sup>98</sup>
- C. **Landscaping.** Landscaping on the perimeter and Interior of a parking lot shall be provided in accordance with Section 4.4.6: *Parking Lot Landscaping*.
- D. **Lighting.** Accessways, walkways, and parking areas, if lighted, shall be lighted in accordance with Section 4.5: Lighting.
- E. **Location and Arrangement.**
1. Required off-street parking shall be provided on the same parcel as the principal structure or use, unless an alternative arrangement is approved in accordance with Section 4.6.7: Alternative Parking Plans.
  2. A parking lot designed or provided for more than six cars shall not be located in the required front yard of land in the R5, R2, R1, OI, NC, AC, and IL districts.<sup>99</sup>
  3. Except for off-street parking lots accommodating four or fewer vehicles, or for single-family detached, single-family attached, or duplex dwellings, parking lots shall be arranged so an automobile may be parked or un-parked without moving another and so that no vehicle is required or encouraged to back out from the lot directly onto the street.<sup>100</sup>
  4. Each off-street parking space shall open directly onto an aisle or paved driveway and not onto a public street. Each parking space shall have vehicular access to a public street through a parking lot meeting the requirements of this Subsection or through one or more driveways, provided any necessary access easements are obtained. Parking spaces

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<sup>98</sup> These standards are new.

<sup>99</sup> Carries forward from Section 14.2 of the Chatham County Zoning Ordinance which applied to development in the R5, R2, R1, O&I, and IL districts.

<sup>100</sup> Builds on the requirement for access by “forward motion” in Section 14.2 of the Chatham County Zoning Ordinance, with an exception for smaller residential development.

and driveways shall be arranged so that ingress and egress to a public street is by forward motion of the vehicle only.

5. Parking lots shall be designed to provide emergency vehicle access in accordance with applicable County and state regulations.

F. **Accessible Parking.** Parking spaces shall be located and designated as accessible to persons with disabilities in accordance with the standards in the Building Code.<sup>101</sup>

G. **Surfacing.**<sup>102</sup>

1. **General Requirements.** Except as provided in Paragraph 3 below or otherwise provided by state law, parking lots and loading areas serving sites that accommodate more than six vehicles shall be surfaced as follows:
  - (a) The surfacing shall be asphalt, concrete, brick, stone, pavers, or an equivalent hard, dustless, and bonded surface material. The use of cool pavements that are lighter in color or contain lighter-colored surface treatments, as well as surfacing that includes recycled materials (e.g., glass, rubber, used asphalt, brick, block, and concrete), is encouraged. These surfaces shall be maintained in a smooth, well-graded, clean, orderly, and dust-free condition.
  - (b) The use of pervious or semi-pervious parking lot surfacing materials, including but not limited to pervious asphalt and concrete, open joint pavers, and reinforced grass/gravel/shell grids, is encouraged and may be approved for parking lots and loading areas, if such surfacing is subject to an on-going maintenance program (e.g., sweeping, annual vacuuming). Any pervious or semi-pervious surfacing used for aisles within or

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<sup>101</sup> New standard.

<sup>102</sup> This is a new general standard for parking lot surfacing. It incorporates suggestions from the Code Audit (page 78) to encourage pavement surfacing and covers that may reduce the heat island effect and does explicitly allow the use of pervious pavement. Maintenance requirements are included because pervious pavement loses its ability to handle stormwater runoff without regular care. The requirements are calibrated to apply only to uses that require six or more parking spaces to minimize requirements for excess paving for very small uses. To reduce the amount of impervious surface, so-called "overflow" parking is allowed to be made of grass or gravel provided the applicant demonstrates the parking will not be used on a daily basis, and it is kept well maintained. It also incorporates a reference to N.C. Session Law 2023-108, which preempts certain local regulations governing pavement design for new driveways and parking lots, subject to disclosure requirements to purchasers if the pavement does not comply with the local minimum standards. See [N.C.G.S. § 160D-804\(j\)](#).

driveways to parking and loading areas shall be certified as capable of accommodating anticipated traffic loading stresses and maintenance impacts.

2. **Overflow Parking Surfacing.** The Director may approve the use of nonreinforced grass, gravel, or other natural, permeable materials for parking lots designated as overflow parking in accordance with the following:
  - (a) The overflow parking is not expected to be used every day, based on the parking demand for the principal use or uses on the site. The applicant may establish the minimum off-street parking demand by reference to parking resources published by the Institute for Transportation Engineers (ITE), Urban Land Institute (ULI), National Parking Association (NPA), or the American Planning Association (APA); or through a parking demand study.
  - (b) The proposed surface can accommodate the stresses of the anticipated parking demand and remain in good condition and not develop features such as ditches and muddy areas;
  - (c) The applicant will maintain the overflow parking in a good condition and, if not, will cease use of the overflow parking spaces.
- H. **Markings.** Each required off-street vehicular parking lot and space, and each off-street loading area and berth, shall be identified by surface markings that are arranged to provide for orderly and safe loading, unloading, parking, and storage of vehicles. Such markings—including striping, directional arrows, lettering on signs and in handicapped-designated areas, and labeling of the pavement—shall be maintained so as to be readily visible at all times.
- I. **Dimensional Standards.** Standard vehicle parking spaces and aisles shall comply with the minimum dimensional standards established in Table 4.6.5-1: *Minimum Dimensional Standards for Parking*. The dimensional standards are illustrated in Figure 4.6.5-1: *Measurement of Parking Space and Aisle Dimensions*.<sup>103</sup>

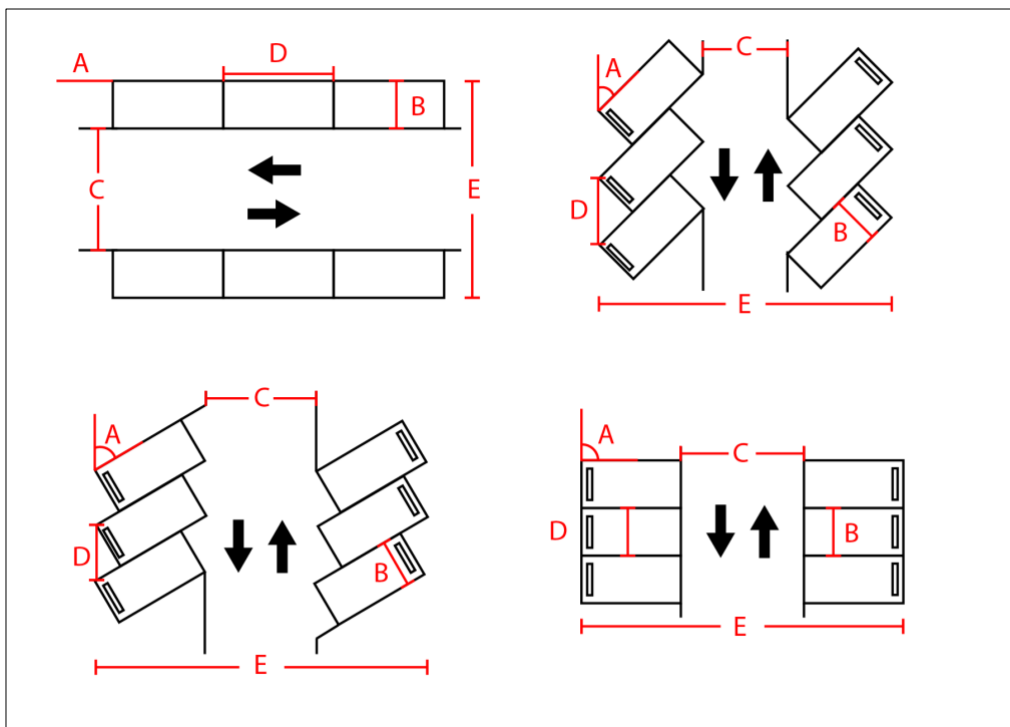
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<sup>103</sup> These are new dimensional standards. If the County has technical standards that work well, these standards can be removed.

**Table 4.6.5-1: Minimum Dimensional Standards for Parking**

Parking Angle (Degree)	Stall Width (ft)	Aisle Width (ft) Two Way / One Way	Stall Length along Curb (ft)	Double Row + Aisle, Curb to Curb (ft) Two Way / One Way
A	B	C	D	E
0	8	22 / 11	22	38 / 27
45	9	24 / 12 [1]	13	56 / 44
60	9	24 / 15 [1]	10	60 / 51
90	9	24 / 22 [1]	9	64 / 62

**Figure 4.6.5-1: Measurement of Parking Space and Aisle Dimensions**



- J. **Large Parking Lots.** Parking lots containing 200 or more spaces, whether developed at one time or in phases, shall provide improved pedestrian access in accordance with the following standards:<sup>104</sup>
1. One minimum five-foot-wide pathway providing access from the parking lot to an entrance to the use served by the parking is required at least every six parallel parking rows (every three double-row parking bays) or every 200 feet, whichever is the lesser dimension;

<sup>104</sup> These are new standards to require that larger parking lots, such as for “big box” retail stores, include enhanced pedestrian facilities and landscaping.

2. A landscaping strip shall be provided along at least one side of each pathway and shall be planted with shade trees at least 1.5 inches in caliper and six feet in height at time of planting, spaced at a maximum average distance of 40 feet on center, measured linearly along the pathway from perpendicular lines extending to the center of the tree;
3. For parking areas serving uses in the Retail, Service, and Food & Beverage Uses category (see [Section 3.2: Principal Use Tables](#)), pathways shall be at the same grade as the abutting parking surface, or shall provide access points for persons pushing shopping carts spaced a minimum of one every 75 feet along each side of the pathway;
4. Pathways shall be aligned with and perpendicular to the primary entrance into the building served by the parking lot, to the maximum extent practicable; and
5. Pathways shall be paved with asphalt, cement, brick, or other comparable material, and shall be distinguished by contrasting color or materials when crossing drive aisles.

#### 4.6.6 ELECTRIC VEHICLE CHARGING STATIONS

Parking lots shall include a minimum number of electric vehicle (EV) parking spaces in accordance with the following:<sup>105</sup>

- A. **Applicability.** These EV parking standards apply to all nonresidential and multifamily uses that are required to provide or that propose to provide at least 50 off-street parking spaces in accordance with this Section and apply to both new development and to expanded parts of existing parking lots.
- B. **Minimum Number of Electric Vehicle Parking Spaces.** Parking lots subject to this Section shall meet both electric vehicle charging requirements established in Table 4.6.6-1: *Electric Vehicle Charging Requirements*, rounded up to the nearest whole number, based on the principal use of the site, in accordance with the following.

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<sup>105</sup> These are new standards requiring the Installation of electric vehicle parking facilities. There are two types of EV facilities required in parking lots required to provide at least 50 parking spaces. First, a certain percentage of parking spaces (six percent in multifamily residential uses, three percent all other uses) are required to be served by an Electric Vehicle Charging Point with a dedicated access cord. These are parking spaces where vehicles can drive up and plug in. Second, additional parking spaces (25 percent in multifamily residential uses, 15 percent all other uses) are required to be served by underground conduit that is adequate to support the installation of Electric Vehicle Charging Points In the future.

1. *Electric Vehicle (EV) Charging Points.* The percentage of parking spaces identified in the second column of Table 4.6.6-1 shall be served by a Level 2 or 3 EV Charging Point, and each such parking space shall have access to a dedicated charging cable. Any parking spaces served by a Level 2 or 3 EV Charging Point in excess of the requirement shall be credited towards the use’s required number of EV Ready parking spaces.
2. *Electric Vehicle (EV) Ready Parking Spaces.* The percentage of parking spaces identified in the third column of Table 4.6.6-1 shall be served by conduit that is adequate to accommodate the electrical and other needs of EV Charging Points that can be installed to serve those parking spaces in the future, or by a Level 2 or 3 Electric Vehicle Charging Point.

<b>Table 4.6.6-1: Electric Vehicle Charging Requirements</b>		
<b>Use</b>	<b>Percentage of Spaces with EV Charging Points</b>	<b>Percentage of Spaces EV Ready</b>
Apartment Complex or Multi-family dwelling	5	25
All other uses	3	15

**C. Additional Standards.**

1. Spaces served by EV Charging Points shall be reserved for parking and charging of electric vehicles only. Each space served by an EV Charging Point shall be posted with signage indicating the space is for parking only by electric vehicles only while the vehicles are being charged.
2. At least one parking space served by an EV Charging Point shall be adjacent to a parking space designated as accessible. The EV Charging Point shall be operable by disabled persons from the adjacent accessible parking space.
3. Time limits may be placed on the number of hours that an electric vehicle is allowed to charge or park.
4. Parking spaces served by EV Charging Points may be restricted for use by residents, employees, or visitors of a site, either through signage or by placing the charging points behind a gate or other means of access control.
5. Signage shall be provided to indicate that parking spaces served by EV Charging Points are reserved for the use of electric vehicles.



#### 4.6.7 ALTERNATIVE PARKING PLANS<sup>106</sup>

- A. **General.** The Director may authorize modifications to the minimum off-street vehicular parking standards established in this Ordinance in accordance with this Subsection.
- B. **Parking Study.** An applicant may request up to a 60% reduction in the minimum off-street vehicular parking required In 4.6.4C: *Minimum Off-Street Parking Tables* through submission of a parking demand study that:<sup>107</sup>
1. Uses professionally accepted methods of transportation engineering and off-street vehicular parking demand which are prepared and sealed by a registered professional engineer or landscape architect; and
  2. Demonstrates that the required parking ratios do not accurately apply to the specific development proposal or that other options to satisfy the parking demand are available.
- C. **Off-Site Parking.** An applicant may request to provide up to 40% of off-street vehicular parking in accordance with the following standards:<sup>108</sup>
1. *Location.* All off-site vehicular parking spaces shall be located within a maximum walking distance of the primary pedestrian entrances, measured by the actual distance to walk from the shared parking area to the primary pedestrian entrance(s) using a route that complies with Paragraph 2 below. The maximum walking distance from off-site parking shall be 800 feet to a residential use, and 1,200 feet to all other uses.
  2. *Access and Signage.* Adequate and safe pedestrian access shall be provided by a paved pedestrian path protected by a landscape buffer or a curb separation and elevation from the street grade. The pedestrian

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<sup>106</sup> This consolidates and updates the remote parking requirements in Section 4.6.8G, Remote Parking, and also allows an applicant to apply for a modification of minimum off-street parking requirements where they can demonstrate the proposed use will not provide the parking demand anticipated by the minimum requirements in this Ordinance.

<sup>107</sup> This is new and allows an applicant to apply reduce the amount of off-street parking a development is required to provide through submission of a parking demand study which shows the Ordinance's requirements are too high.

<sup>108</sup> This builds on the remote parking requirements in Section 14.2G of the Chatham County Zoning Ordinance, adding a requirement for a good pedestrian connection between the use and the parking, additional details about the type of agreement between the use generating parking demand and the site providing off-street parking, and requires that accessible parking be provided on the site. It does not carry forward the current standard that allows certain uses to park off-site in particular zoning districts.



access shall not cross an arterial street unless pedestrian access across it is provided by appropriate traffic controls (such as a signalized crosswalk) or a grade-separated and lighted pedestrian route (such as a bridge or tunnel). Signs complying with the standards in Section 4.7: *Signs* shall be provided to direct the public to the shared parking spaces.

3. *Adequate Number of Spaces.* If the off-site parking is shared with other uses, the alternative parking plan shall include justification of the adequacy of shared parking among the proposed uses based on factors such as different demand during different times of day (e.g., business hours vs. evening) or days of the week (e.g., weekday vs. weekend).
4. *Accessible Parking.* Accessible parking must be provided in accordance with 4.6.5F: *Accessible Parking*. Accessible parking spaces shall not be provided off-site.
5. *Agreement Required.* To ensure that any off-site parking permitted to satisfy minimum parking requirements remains available to the applicant's development, a written off-site parking agreement is required if land containing the off-site parking area is not on the same parcel as the land containing the principal use served or if multiple uses are sharing parking.
  - (a) Written agreements for off-site parking shall:
    - (1) Be signed and binding on the owners of land containing the off-site parking area, as well as all owners or long-term lessees of lands containing the uses proposed to share off-street parking spaces;
    - (2) If the agreement is for exclusive use of off-site parking by a single use, provide the owner of the served use the right to use the off-site parking area and shall specify that the parking spaces are for the exclusive use of the served use, including any customers and employees;
    - (3) If the agreement is for use of shared parking by multiple users, provide all parties the right to joint use of the shared parking area and shall ensure that as long as the off-site parking is needed to comply with this Section, land containing either the off-site parking area or the served use will not be transferred except in conjunction with the transfer of land containing the other;

- (4) Have a minimum duration of 15 years; and
  - (5) Be approved by the County attorney.
- (b) An attested copy of an approved and executed agreement shall be recorded with the County Register of Deeds before a building permit or a zoning compliance permit, if a building permit is not required, for any use to be served by the off-site parking area may be issued.
  - (c) The agreement shall be considered a restriction running with the land and shall bind the heirs, successors, and assigns of the landowner.
  - (d) A violation of the agreement shall constitute a violation of this Ordinance and shall be subject to enforcement accordingly.
  - (e) No use served by the off-site parking may be continued if the off-site parking becomes unavailable to the use permanently or for longer than 30 days, unless substitute off-street parking spaces are provided in accordance with this Ordinance.
6. *Unavailability of Shared Parking.* If shared parking is no longer available due to the expiration or termination of a shared parking agreement, the Director may require the owner of the use requiring parking to comply with the terms of this Section, including requiring that the applicant enter into a new shared parking agreement or otherwise provide additional off-street vehicular parking for the development.
- D. **On-Street Parking.** An applicant may propose to substitute all or some of the visitor parking spaces required for residential development with on-street vehicular parking in accordance with the following:<sup>109</sup>
1. The Director determines that the street has adequate width to accommodate on-street parking;
  2. The street where on-street parking is proposed is adjacent to the use;

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<sup>109</sup> This is a new standard. It is included to provide an opportunity for development that is required to provide off-street parking (such as the residential development required to provide guest parking) to provide on-street parking if certain standards are met, and the road has adequate width to support on-street parking.

3. Pedestrian access is provided by an accessible pedestrianway from the parking space to the primary entrance(s) of the development;
4. The on-street vehicular parking space is not reserved for people with disabilities;
5. The on-street vehicular parking space remains open for use by the general public, and no sign or markings are used to claim the use of the space is exclusive to the applicant's tenants, customers, or clients; and
6. The distance between the on-street vehicular parking space and one of the primary entrances to the development does not exceed 400 feet, measured along the shortest pedestrian route.

#### 4.6.8 VEHICLE QUEUING<sup>110</sup>

- A. **Drive-throughs and Similar Facilities.** Uses with drive-through facilities and other auto-oriented uses where vehicles queue up to access a service facility shall provide at least the minimum number of spaces established in Table 4.6.8-1: *Minimum Queuing Spaces for Drive-Through and Similar Facilities*. See Figure 4.6.8-1: *Drive-Through Stacking Spaces Configuration*.
- B. **Queuing Space Standards.** All required queuing spaces shall:
  1. Be a minimum of 10 feet wide and 20 feet long;
  2. Be contiguous, end-to-end;
  3. Not impede onsite or offsite vehicular traffic movements or movements into or out of off-street parking spaces;
  4. Not impede onsite or offsite bicycle or pedestrian traffic movements; and
  5. Be separated from access aisles and other vehicular surface areas by raised medians, if necessary for traffic movement and safety.

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<sup>110</sup> These are new standards to ensure sites have adequate space to accommodate the vehicle queuing caused by drive-throughs and vehicles accessing sites to park. Similar standards are included for certain uses in the minimum off-street parking table in Section 14.3 of the Chatham County Zoning Ordinance.

**Table 4.6.8-1: Minimum Queuing Spaces for Drive-Through and Similar Facilities**

Use or Activity	Minimum Number of Queuing Spaces <sup>1</sup>	Measured from
Gas station	1	Each end of outermost gas pump island
Day care centers	6	Primary location for child pick-up and drop-off
Banks and financial institutions, or Automated Teller Machine (ATM) as an accessory use	3 per lane	Teller window or ATM machine
Food and Beverage Services use, with drive-through	6 per lane <sup>2</sup>	Pickup window
Other Commercial uses with a drive-through	3 per lane	Pickup windows
Hospital	3	Building entrance
Inpatient care facilities, nursing homes and convalescent homes	3	Building entrance
Car Wash, automatic	4 per bay	Bay entrance
Car Wash, self-service	2 per bay	Bay entrance
Vehicle-related use with oil change/lubrication service	1 per bay or 3 per bay <sup>3</sup>	Bay entrance
School, public and private, Kindergarten – 12th grade	Determined by Director <sup>4</sup>	
Other	Determined by Director <sup>5</sup>	

<sup>1</sup> If a single queue splits into multiple pickup areas (for example, a drive-through restaurant queue that splits into two order boards and pick-up windows), the total number of queuing spaces required shall equal the minimum required for each lane multiplied by the number of “measured from” destinations (in this example, the drive-through restaurant would require a total of 12 stacking spaces).

<sup>2</sup> The Director may require additional queuing spaces upon determining that there is a reasonable possibility that the listed minimum number will result in queuing that will interfere with pedestrian or vehicular traffic on adjacent streets or with internal circulation on the development site. The determination may be based on drive-through queuing at similar establishments in other locations in the County or in other jurisdictions.

<sup>3</sup> At least three queuing spaces shall be provided per bay, except that only one stacking space per bay is required if the use provides nearby areas for vehicles to wait that do not interfere with vehicular or pedestrian circulation on the site.

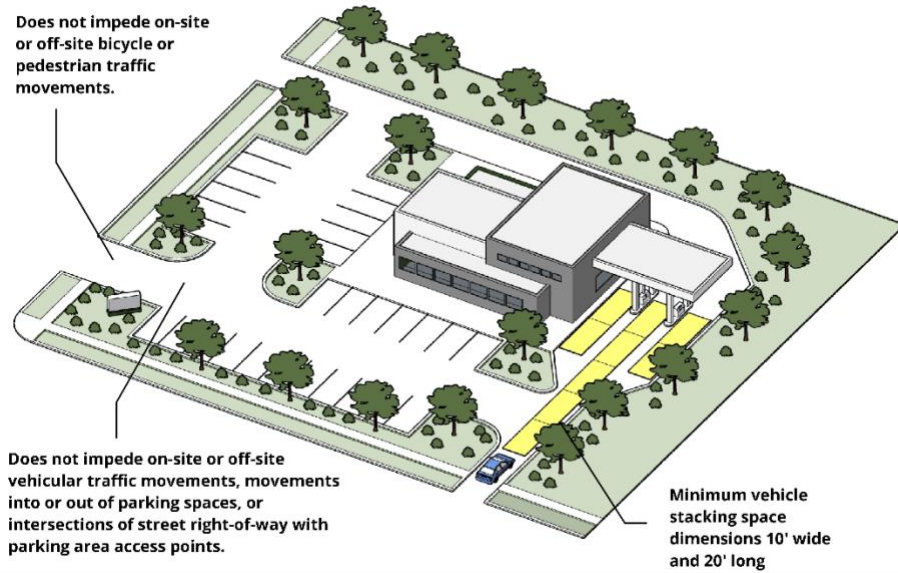
<sup>4</sup> Number of queuing spaces determined by Director based on a parking demand study prepared by the applicant which evaluates, among other factors, the percentage of student population expected to be of driving age, the percentage of students expected to be driven and dropped off at school, and whether school bus service will be provided.

**Table 4.6.8-1: Minimum Queuing Spaces for Drive-Through and Similar Facilities**

Use or Activity	Minimum Number of Queuing Spaces <sup>1</sup>	Measured from
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<sup>5</sup> Determined by Director based on standards for comparable uses, or based on a parking demand study.

**Figure 4.6.8-1: Drive-Through Stacking Spaces Configuration**



C. **Parking Lot Entrances.** Parking lots for all uses other than attached residential dwellings or dwellings with fewer than five units in a single building shall be designed to provide queuing lanes measured between the edge of the street right-of-way and the first entrance into the parking area, in accordance with Table 4.6.8-1: *Minimum Queuing Distance for Parking Lot Entrance*, measured from the intersection of the driveway with the street right-of-way, along the center line of the queueing lane, to its intersection with the centerline of the first entrance into a parking lot or other intersecting driveway. See Figure 4.6.8-2: *Queuing Distance for Parking Lot Entrance*.

**Table 4.6.8-1: Minimum Queuing Distance for Parking Lot Entrance**

Number of Parking Spaces in Lot	Minimum Distance of Queueing Lane
Up to 49	40 ft
50 - 250	60 ft
250 - 500	100 ft

Table 4.6.8-1: Minimum Queuing Distance for Parking Lot Entrance	
Number of Parking Spaces in Lot	Minimum Distance of Queueing Lane
500 or more	100 ft + 15 ft for every additional 50 spaces above 500

**Figure 4.6.8-2: Queuing Distance for Parking Lot Entrance**



**4.6.9 BICYCLE PARKING<sup>111</sup>**

- A. **Minimum Required Bicycle Parking.** Development shall provide the minimum number of bicycle parking spaces based on the principal use(s) involved and the applicable zoning district in accordance with Table 4.6.9-1: *Minimum Bicycle Parking Requirements*, rounded up to the nearest whole number, subject to reductions allowed in accordance with Paragraph B below. Uses not listed in Table 4.6.9-1 are not required to provide a minimum number of parking spaces.<sup>112</sup>

<sup>111</sup> These are new standards for bicycle parking. Bicycle parking standards vary significantly by community.

<sup>112</sup> These establish minimum bicycle parking requirements for different uses where the provision of bicycle parking would be useful, such as offices, community centers, and multifamily dwellings. While some of the areas in the County are rural and may not currently support bicycling, by including these standards, uses will be required to provide bicycle parking which is relatively inexpensive, especially compared to vehicular parking, and which, over time, may aid in the development of more multimodal connections throughout the county and to areas within the county’s municipalities.

<b>Table 4.6.9-1: Minimum Bicycle Parking Requirements</b>		
<b>Land Use</b>	<b>R-1, OI, NB, CB, RB, NC, and AC Zoning Districts</b>	<b>All Other Zoning Districts</b>
<b>Accommodations &amp; Lodging Principal Uses</b>		
Hotels, motels, and inns	1 per 25 rooms	n/a
<b>Arts, Entertainment, &amp; Recreation Principal Uses</b>		
Assembly halls, coliseums, gymnasiums, and similar structures	1 per 2,000 sf GFA	1 per 6,000 sf GFA
Parks and recreation areas	1 per 4,000 sf activity area	n/a
<b>Business, Professional, Scientific, &amp; Technical Principal Uses</b>		
Banks and financial institutions	1 per 2,000 sf GFA	1 per 6,000 sf GFA
Business & facilities support services	1 per 2,000 sf GFA	1 per 6,000 sf GFA
Communications & information	1 per 2,000 sf GFA	1 per 6,000 sf GFA
Professional offices, unless otherwise listed	1 per 2,000 sf GFA	1 per 6,000 sf GFA
Research and development facilities	1 per 2,000 sf GFA	1 per 6,000 sf GFA
<b>Government Principal Uses</b>		
Government offices and facilities	1 per 2,000 sf GFA	1 per 6,000 sf GFA
Libraries	1 per 2,000 sf GFA	1 per 6,000 sf GFA
Post offices	1 per 2,000 sf GFA	1 per 6,000 sf GFA
<b>Healthcare Principal Uses</b>		
Medical offices and clinics (more than 10,000 sf)	1 per 2,000 sf GFA	1 per 6,000 sf GFA
Medical offices and clinics (10,000 sf or less)	1 per 2,000 sf GFA	1 per 6,000 sf GFA
<b>Institutional &amp; Civic Principal Uses</b>		
Schools, public and private	1 per 15 students design capacity	1 per 35 students design capacity
<b>Mixed Principal Uses</b>		
Mixed use building	1 per 10 du, plus 1 per 2,000 sf GFA of nonresidential uses	1 per 25 du, plus 1 per 4,000 sf GFA of nonresidential uses
<b>Residential Principal Uses</b>		
Apartment Complex	1 per 10 du	1 per 25 du



Table 4.6.9-1: Minimum Bicycle Parking Requirements		
Land Use	R-1, OI, NB, CB, RB, NC, and AC Zoning Districts	All Other Zoning Districts
Multi-family dwellings	1 per 10 du	1 per 25 du
Retail, Service, and Food & Beverage Principal Uses		
Corner stores	1	n/a
Eating and drinking establishments	1 per 2,000 sf GFA	1 per 6,000 sf GFA
Retail, Service, and Food & Beverage Principal Uses with More than 40,000 Square Feet of Gross Floor Area in a Single Development	1 per 4,000 sf GFA	1 per 8,000 sf GFA
Transportation, Warehousing, & Storage Principal Uses		
Bus and rail passenger stations	2 per bus loading berth, 10 per rail passenger loading area	2 per bus loading berth, 10 per rail passenger loading area

- B. **Alternative Bicycle Parking Plans.**<sup>113</sup> The Director may authorize a reduction in the number of bicycle parking spaces required by Table 4.6.9-1: *Minimum Bicycle Parking Requirements* by up to 75% if the applicant submits an alternative bicycle parking plan that demonstrates the demand and need for bicycle parking on the site is less than required by this Section because of the site’s location, design, lack of current or planned safe bicycling facilities, or other factors.
- C. **Bicycle Parking Standards.**<sup>114</sup> All bicycle parking spaces installed in the County shall comply with the following standards:
  1. Bicycle racks shall be high-quality, inverted “U”-type construction. Alternative high-quality bicycle parking racks that support the bicycle at two points of contact to the bicycle wheels and frame may be approved by the Director. Adequate on-site lighting shall be provided near the bicycle parking spaces to illuminate them if they are accessible to bicyclists after sunset.
  2. A bicycle rack shall be located on a paved or similar hard, all-weather surface with a slope no greater than three percent.

<sup>113</sup> This allows the Director to reduce the amount of bicycle parking required to be provided (but not eliminate it)

<sup>114</sup> These are basic standards.



3. A bicycle rack shall be located at least three feet from a vertical surface, such as another bicycle rack, the side of a building, a tree, fence, or wall, and shall be configured with adequate clear space to permit a bicycle to be rolled up to the rack and secured without requiring the bicycle to avoid obstructions or enter into a driveway or other vehicular access area.
4. If internal to a building, the rooms in which bicycles are stored shall be lockable and contain systems for locking to allow for at least two points of contact to the bicycle wheels and frame.
5. If serving a building with one use, all bicycle parking spaces shall be located within 75 feet of a public entrance to the building for which the space is required, measured along the most direct pedestrian access route.
6. If located in an area serving multiple uses, all bicycle parking spaces shall be located within 150 feet of a public entrance to the building or buildings for which the space is required, measured along the most direct pedestrian access route.

#### 4.6.10 OFF-STREET LOADING<sup>115</sup>

- A. **General.** All new development involving the routine vehicular delivery or shipping of goods, supplies, or equipment to or from the development shall provide a sufficient number of off-street loading berths to accommodate the delivery and shipping operations of the development's uses in a safe and convenient manner.
- B. **Minimum Number of Off-Street Loading Berths.** Development shall provide a minimum number of loading berths based on the principal use(s) on the site in accordance with Table 4.6.10-1: *Minimum Number of Off-Street Loading Berths*. For proposed uses not listed in Table 4.6.10-1, the Director shall establish a minimum number of loading berths based on the use most similar to the proposed use.

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<sup>115</sup> This substantially revises the existing off-street loading standards with more precise loading berth requirements and additional design requirements.

**Table 4.6.10-1: Minimum Number of Off-Street Loading Berths**

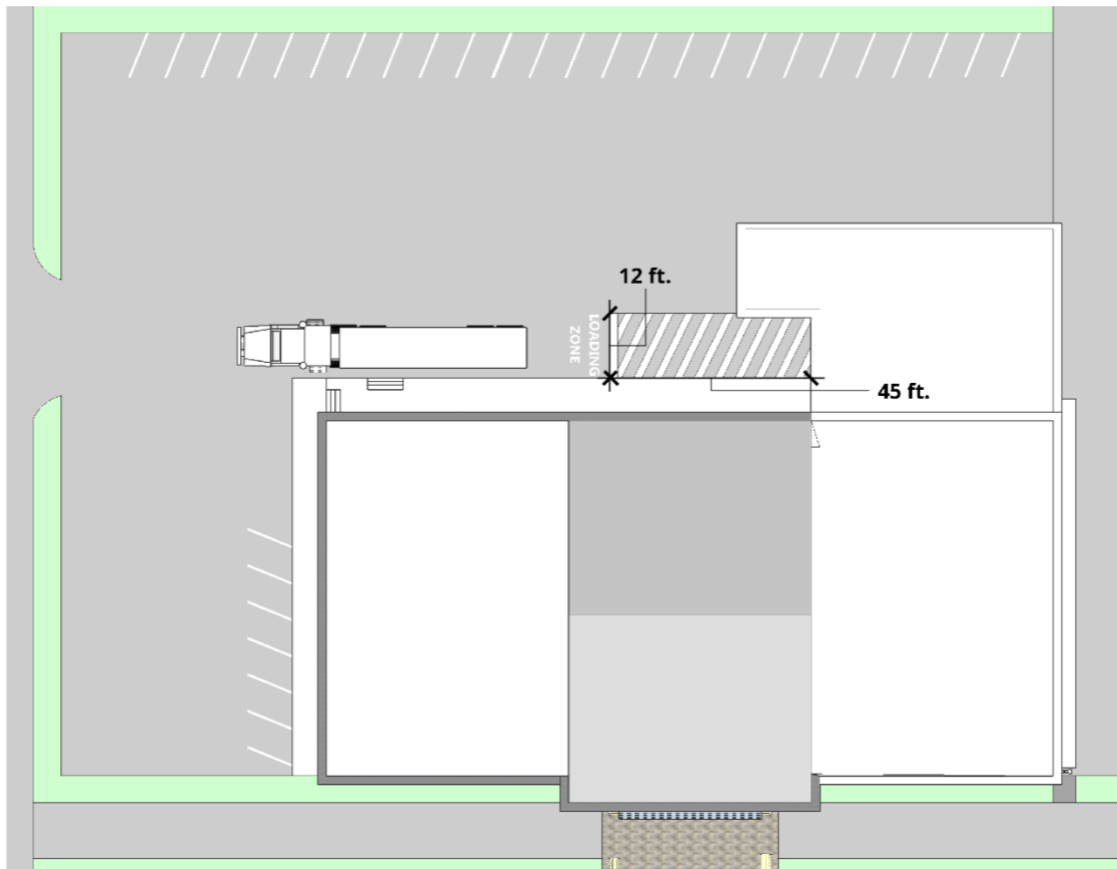
<b>Principal Use</b>	<b>Size</b>	<b>Minimum Number of Loading Berths</b>
Residential uses	Between 100 and 300 dwelling units	1
	Each additional 200 dwelling units	add 1
Hospital; Medical office and clinic; Congregate care facilities; Inpatient care facilities, nursing homes and convalescent homes; Hotel, motel & inn; Retail, Service, and Food and Beverage uses	At least 10,000 and up to 100,000 sf	1
	Each additional 100,000 sf	add 1
Hotel, motel & inn; Retail, Service, and Food and Beverage uses	At least 5,000 but less than 20,000 sf	1
	At least 20,000 but less than 120,000 sf	2
	Each additional 80,000 sf	add 1
Wholesaling, warehousing, flex space, and distribution, and Meat processing and packing	Less than 15,000 sf	1
	At least 15,000 but less than 50,000 sf	2
	At least 50,000 sf	3
	Each additional 50,000 sf	add 1
Heavy Commercial, Manufacturing, & Industrial uses, and Waste Management uses	Less than 50,000 sf	2
	At least 50,000 but less than 150,000 sf	4
	At least 150,000 but less than 250,000 sf	5
	At least 250,000 but less than 500,000 sf	6
	Each additional 100,000 sf	add 1

- C. **Dimensional Standards for Off-Street Loading Berths.** Each loading berth shall be of sufficient size to accommodate the types of vehicles likely to use the loading area (see Figure 4.6.10-1: *Loading Berth Location and Arrangement*).
1. The minimum loading berth size that presumptively satisfies loading berth needs is least 12 feet wide and 45 feet long in Heavy Commercial, Manufacturing, & Industrial uses; Waste Management uses; Wholesaling, warehousing, flex space, and distribution; and Meat processing and packing.
  2. For all other uses, a berth as short as 33 feet may be allowed.

3. The Director may require a larger loading berth or allow a smaller loading berth on determining that the characteristics of the particular development warrant such increase or reduction and the general standard is met.

D. **Location and Arrangement of Loading Areas.**

1. Loading areas should be located to the rear of the building housing the use they serve, to the maximum extent practicable. It is preferred that loading areas be recessed into the mass of the building to reduce their visual impact, or that their visual impact on the landscape be mitigated through the use of features such as building offsets, screen walls, berms, and other design techniques.
2. Each loading berth shall be located adjacent to the building's loading doors, in an area that promotes its practical use, and be accessible from the interior of the building it serves.
3. Each loading berth shall be directly accessible from a street or alley without crossing or entering any other required off-street loading space.
4. Each loading berth shall be arranged so that all vehicle maneuvers for loading and unloading occur entirely within the property lines of the site and do not obstruct or interfere with use of any parking space, parking lot aisle, or public right-of-way (see Figure 4.6.10-1: *Loading Berth Location and Arrangement*).
5. Each loading berth shall be screened from view from the right of way in accordance with 4.4.8: *Screening of Site Features*.

**Figure 4.6.10-1: Loading Berth Location and Arrangement**

## 4.7 SIGNS<sup>116</sup>

### 4.7.1 PURPOSE<sup>117</sup>

The purpose of this Section is to:

<sup>116</sup> This Section comprehensively revises the sign regulations to ensure they align with best practices, changes in land development policy, and current case law. It combines the Chatham County Off-Premise Signs Ordinance (OPSO), ZO § 13.12: *Permanent Sign and Billboard Lighting*, and ZO § 15: *Regulations Governing Signs*. It updates the entire code using content-neutral principles. Generally, the draft seeks to maintain current standards while ensuring content neutrality. The most important change proposed in the draft is to declare that billboards are nonconforming but allow their continued use, maintenance, and relocation for highway construction.

<sup>117</sup> This Subsection significantly expands on the purposes of sign regulations included in the OPSO Article II: *Purpose & Scope*.

- A. Provide standards and conditions for signs and to regulate the erection and placement of signs in Chatham County;
- B. Preserve and enhance the natural scenic beauty or aesthetic features of natural areas visible from highways, streets, and adjacent areas;
- C. Preserve the scenic and aesthetic character of Chatham County in order to protect and promote the tourist industry and the quality of life of the County's residents and visitors;
- D. Discourage signs that contribute to the visual clutter of the streetscape;
- E. Ensure the safety of motorists, pedestrians, and cyclists in the community by:
  - 1. Preventing or limiting unreasonable distraction of motor vehicle operators;
  - 2. Preventing the obstruction of the vision of motor vehicle operators;
  - 3. Discouraging signs that cause traffic hazards or interfere with ingress/egress; and
  - 4. Preventing confusion with regard to traffic lights, signs, or signals;
- F. Protect citizens' state and federal constitutional rights to free speech by:
  - 1. Providing ample opportunities for expression through signs;
  - 2. Avoiding the regulation of a sign's content or communication; and
  - 3. Providing clear standards for approval of signs; and
- G. Implement the goals and policies of the Comprehensive Plan.

#### 4.7.2 APPLICABILITY<sup>118</sup>

- A. **Generally.** This Section applies to all signs erected, affixed, placed, painted, or otherwise established within the jurisdiction of Chatham County, North Carolina. A person may not erect, move, alter, display, or maintain any sign that this Section prohibits. Any sign or type of sign not expressly allowed by this Section is prohibited.

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<sup>118</sup> The new applicability Subsection combines and expands on OSPO Article II: *Purpose & Scope*; OSPO Article IV: *Legal Status Provisions*; OSPO § 101.01.A.; and ZO § 15.12: *Permit Required*.

- B. **Permit Required.** Except as otherwise provided in this Section, it is unlawful to erect, move, alter, display, or maintain any sign regulated in this Section without first obtaining a sign permit. Failure to secure a sign permit when one is required is a violation of this Code.
- C. **Compliance with Codes.** All signs shall comply with applicable provisions of the State Building Code. A sign that operates through the use of electrical service shall be subject to all necessary approvals and permits.
- D. **Exemption for Maintenance.** A sign permit is not required for the ordinary maintenance of signs, so long as the maintenance does not change the dimensions, method of lighting, or other features of the sign, such as the addition of an electronic message center.
- E. **Conflict with Other Laws.**
  - 1. Whenever the provisions of this Section conflict with another provision in this Code, the more restrictive provision applies.
  - 2. This Section does not prohibit signs required by local, state, or federal law and does not authorize signs prohibited by state or federal law. Whenever the provisions of this Section conflict with any generally applicable federal or state regulation, the federal or state regulation applies.

### 4.7.3 CONTENT NEUTRALITY<sup>119</sup>

The content of a sign's message is not intended to be regulated under this Section. However, location-based standards such as off-premises regulations do apply.

### 4.7.4 EXEMPT SIGNS<sup>120</sup>

The following signs are exempt from the permitting requirements of these regulations but are subject to the maintenance requirements of these regulations:

- A. Governmental signs;
- B. Traffic control devices;

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<sup>119</sup> This new Subsection provides a rule of interpretation to be content neutral.

<sup>120</sup> This Subsection combines OPSO § 102:00 *Signs Exempt from Regulations* and ZO § 15.5: *Signs Permitted in Any Zoning District* and eliminates content-based distinctions in the current exemptions.

- C. Signs on a vehicle or trailer that is not parked for a long period of time and is not driven in a manner that indicates that a principal use of the vehicle or trailer is for displaying the sign;
- D. Signs required by law, statute, or ordinance;
- E. Flags, not exceeding three per parcel on poles no taller than 30 feet;
- F. Integral decorative or architectural features of buildings that do not include copy, characters, text, icons, pictograms, and logos; and
- G. Signs that are not visible from any parcel other than the parcel on which the sign is located.

#### 4.7.5 PROHIBITED SIGNS<sup>121</sup>

The following signs or sign features are not allowed:

- A. Any non-governmental sign that resembles a traffic control device;
- B. Signs, whether temporary or permanent, within any street or highway right-of-way, except for signs placed or allowed by the government agency that controls the right-of-way;
- C. Any sign that obstructs ingress or egress, creates an unsafe distraction for motorists, or obstructs the view of motorists entering a public road or highway;
- D. Abandoned signs
- E. Signs on roadside appurtenances, including benches, bus stop shelters, planters, utility poles, trees, parking meter poles, and refuse containers;
- F. Any sign that obscures a traffic control device;
- G. Any sign that obstructs any door, fire escape, stairway, ladder or opening that provides ingress or egress for any building as required by the applicable building code;
- H. Any sign or signs that cumulatively cover more than 50% of any window or glass door;

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<sup>121</sup> This Subsection combines ZO § 15.4: *Prohibited Signs* and OPSO § 103.00: *Signs Prohibited*. It removes the prohibition of a sign as a principal use to allow billboards to be controlled by the same section as other signs.

- I. Any portable sign that does not meet the standards of Subsection 4.7.10: *Temporary Signs*;
- J. Any sign on a vehicle or trailer that is parked in a location visible from a public street for more than three consecutive days and is driven in a manner that indicates that a principal use of the vehicle or trailer is for displaying the sign;
- K. Any sign that violates any provision of any State law;
- L. Animated and flashing signs, except for traffic control devices. Provided, however, electronic message centers (EMCs) that comply with the standards of 4.7.6D are not considered to be flashing or animated signs;
- M. Signs painted, pasted, stapled, taped, or otherwise affixed to trees, utility poles, State-owned signposts, or public road right-of-way control fencing;
- N. Signs erected in or over the public right-of-way, except as permitted by the County or North Carolina Department of Transportation;
- O. Signs set in motion by wind, water, motor drive, or otherwise; however, devices driven by the wind that do not include a sign are allowed;
- P. Signs, banners, streamers, or pennants tied or consecutively strung together; and
- Q. Any sign with a sign area over 200 square feet.

#### 4.7.6 GENERAL SIGN STANDARDS<sup>122</sup>

- A. **Sign Area.** The area of a sign is the area of the smallest rectangle that encompasses all lettering, wording, or symbols, together with any background on which the sign copy is located and any internally illuminated panels.
- B. **Lighting**
  - 1. *External Illumination.*

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<sup>122</sup> This new Subsection includes current generally applicable standards relating to design guidelines, sign area, lighting, and substitution from ZO § 13.12: *Permanent Sign and Billboard Lighting* and OPSO §105.00: *Noncommercial Messages*. New standards are included for readerboards and digital signs.



- (a) External luminaires illuminating signs and billboards must be aimed and shielded so that the light source is focused exclusively on the sign.
  - (b) The maximum watts permitted to illuminate a sign are determined by multiplying the sign face area by 30 lumens per square foot, except that signs less than seven feet in height above grade may be illuminated by a light source not exceeding 1,600 lumens per sign face.
2. *Internal Illumination.* Internally illuminated signs are allowed, if the message or letters on the sign face consist of non-reflective material.

**C. Readerboards.**

1. *Definition.* A readerboard is a sign or part of a sign on which the copy or symbols change manually through placement of letters or symbols on a panel mounted in or on a track system.
2. *Allowance.* The tables for each sign type in this Section state whether readerboards are allowed in the district and the maximum percentage of the sign area used for readerboard.

**D. Electronic Message Centers (EMCs).**

1. *Definition.* An EMC is a sign or part of a sign capable of displaying words, symbols, figures, or images, changeable electronically or mechanically by remote or automatic means. Examples of an EMC include digital displays using light emitting diodes (LED) and tri-vision mechanically changeable signs.
2. *Allowance.* The tables for each sign type in this Section state whether EMCs are allowed in the district and the maximum percentage of the sign area used for EMCs.
3. *Standards.*
  - (a) The message on EMCs must remain fixed for a minimum of four seconds.
  - (b) EMCs may not use features that simulate motion, such as dissolve, flash, fade, travel, scroll, animation, and video displays.
  - (c) EMCs may not exceed 750 candelas per square meter ( $\text{cd}/\text{m}^2$ ) between sunset and sunrise.

- (d) EMCs may not create a glare or other condition that impairs the vision of drivers or obstructs or interferes with a driver's view of surrounding traffic situations and must automatically adjust or dim due to changes in ambient light, such as inclement weather and time of day.
- (e) EMCs must contain a malfunction display lock that will freeze the sign in one position or shut the sign down if a malfunction occurs.

E. **Substitution Allowed.** Any sign allowed under this Section may contain, in lieu of any commercial message, any non-commercial message. Any sign allowed with a non-commercial message may contain any other non-commercial message.

### 4.7.7 SIGNS DISTRICTS AND INTERPRETATION OF TABLES<sup>123</sup>

#### A. Sign Districts.

1. *Generally.* This Section regulates sign characteristics by district. Since many County zoning districts have common characteristics for the purposes of sign regulations, this Section combines the County's zoning districts into common sign districts. Table 4.7.6-1: *Sign Districts* designates the zoning districts included in each sign district.
2. *Legacy Districts.* Signs on parcels located in legacy districts as provided in Section 2.4: Legacy Districts may display signs under the ordinance in effect at the time of the initial approval of the sign.

**Table 4.7.6-1: Sign Districts**

Abbreviation	Sign District	Zoning Districts
AOS	Agriculture and Open Space	PP, Parks & Protected Lands District AG, Agricultural District RA, Agricultural Residential District
RES	Residential	R5, Conservation Residential District R2, Rural Residential District R1, Suburban Residential District CD-CR, Compact Residential Conditional District
LC	Low Intensity Commercial	RV, Rural Village District OI, Office and Institutional Districts NC, Neighborhood Center District
GC	General Commercial	NB, Neighborhood Business District

<sup>123</sup> This new Subsection explains the proposed sign districts and the organization of the tables.

**Table 4.7.6-1: Sign Districts**

Abbreviation	Sign District	Zoning Districts
		CB, Community Business District RB, Regional Business District AC, Activity Center District RHC, RURAL HIGHWAY COMMERCIAL DISTRICT CD-CN, Compact Non-Residential Conditional District CD-CMU, Compact Mixed Use Conditional District
IND	Industrial	IL, Light Industrial District IH, Heavy Industrial District

B. **Interpretation of Tables.** This Section presents the allowed specifications for signs in a series of tables. The tables include the allowance standards described in Table 4.7.6-2: *Interpretation of Tables*.

**Table 4.7.6-2: Interpretation of Tables**

Standard in Tables	Description of Standard
Allowed	States whether the sign type is allowed in the sign district.
Permit Required	States whether this Section requires a permit for the sign type and sign district.
Number	The maximum number signs allowed sign on a platted parcel for the sign district.
Sign Area Allowance	The maximum area allowed for a sign in the sign district, in square feet.
Height	The maximum height allowed for sign for the sign district, in linear feet.
Illumination	States whether and what type of illumination is allowed for the sign type and district.
Readerboard	States whether a readerboard is allowed for the sign type and district and the percentage of sign area allowed for this feature.
EMC	States whether electronic message centers are allowed for the sign type and district, and the percentage of sign area allowed for this feature.

**4.7.8 PERMANENT SIGNS<sup>124</sup>**

**Table 4.7.8-1: Permanent Sign Allowances**

Standard	Sign District				
	AOS	RES	LC	GC	IND
Allowed	Yes	Yes	Yes	Yes	Yes
Permit Required	Yes	Yes	Yes	Yes	Yes
Number (max)	N/A	N/A	N/A	N/A	N/A
Sign Area Allowance (max)	1 sf per 1 ft of frontage	1 sf per 1 ft of frontage	1.5 sf per 1 ft of frontage	2 sf per 1 ft of frontage	2 sf per 1 ft of frontage
<b>Freestanding</b>					
Sign Area (max)	½ of allowance not to exceed 50 sf	½ of allowance not to exceed 32 sf for Nonresidential use 4 sf for residential use	½ of allowance not to exceed 50 sf	2/3 of allowance not to exceed 150 sf	200 sf
Sign Height (max)	8 ft	8 ft	10 ft	30 ft	30 ft
Illumination	Yes	Yes	Yes	Yes	Yes
Readerboard	No	25% Nonresidential use only	25%	50%	50%
EMC	No	No	No	25%	No
Residential Development Sign	No	Yes	No	No	No
<b>Attached</b>					
Sign Area (max)	32 sf	32 sf for Nonresidential use 4 sf for residential use	50 sf	150 sf	200 sf
Sign Height (max)	N/A	N/A	N/A	N/A	30 ft above grade
Illumination	Yes	Yes	Yes	Yes	Yes

<sup>124</sup> This Subsection carries forward the sign standards for the districts controlled by §§ 15.6 thru 15.9 and adds new standards for Agriculture and Open Space and Residential Districts. It also adds design standards from Section 9.1 of the Chatham County Design Guidelines. It adds a new framework for freestanding and attached signs in multi-tenant developments that allows a larger freestanding sign and limits attached signs to tenants with a separate public entrance.

Table 4.7.8-1: Permanent Sign Allowances					
Standard	Sign District				
	AOS	RES	LC	GC	IND
Readerboard	No	25% Nonresidential use only	25%	50%	50%
EMC	No	No	No	No	No

**Key:** max = maximum allowed | sf = square feet | ft = feet

- A. **Definition.** A permanent sign is a sign that is permanently mounted to the ground, on a building, or structure that cannot be readily relocated or removed from a site. Examples of permanent signs include freestanding signs, attached signs, residential development signs, and incidental signs.
- B. **Allowance.** There is no limit on the number of permanent on-premises signs allowed on a parcel, but the signs on the parcel shall not exceed the cumulative area limit.
- C. **Sign Area.**
  - 1. *Cumulative Area.* Table 4.7.8-1: *Permanent Sign Allowances* provides the maximum cumulative area for all freestanding and attached signs for each parcel, expressed generally as a ratio of sign area in square feet for each linear foot of frontage on a private- or public-maintained street.
  - 2. *Parcels with Multiple Frontages.* Double frontage or corner parcels are allowed additional sign area computed at half the rate in Table 4.7.8-1: *Permanent Sign Allowances* for the additional street frontage.
- D. **Freestanding Signs.**
  - 1. *Definition.* A freestanding sign is a permanent on-premises sign supported by its own structure apart from a building or structure and secured in the ground.
  - 2. *Area.* Table 4.7.8-1: *Permanent Sign Allowances* provides the maximum area for freestanding signs as a ratio of the cumulative sign area and as an absolute maximum regardless of the size of the parcel.
  - 3. *Height.* The maximum height of a freestanding sign is measured in linear feet above the ground at its base.
  - 4. *Multi-Tenant Developments.*

- (a) Multi-tenant developments qualify for a 25% increase in the district allowance for sign area and height based on the larger number of users for a shared freestanding sign.
- (b) Each tenant may not display a separate freestanding sign.

**E. Attached Signs.**

1. *Definition.* An attached sign is an on-premises sign that is permanently affixed to a building or structure. Types of attached signs include wall signs, projecting signs, awning and canopy signs, window signs, and freestanding canopy signs.
2. *Height.* If Table 4.7.8-1: *Permanent Sign Allowances* provides a height limit for attached signs, the limit is the height above the average finished grade of the parcel on which the structure to which the sign is attached is located.
3. *Roof Signs.* Attached signs may be located on a roof but shall not extend above the top of the roof line or parapet wall that forms the background of the sign.
4. *Design Standards.*
  - (a) Attached signs must be confined to signage areas and must not interfere with door and window openings, conceal architectural details, or obscure the composition of the facade.
  - (b) The Primary attached signs in developments with more than one user must be located at the same height to create a uniform sign band.
5. *Multi-Tenant Developments.*
  - (a) Tenants in multi-tenant developments with a separate public entrance may each display the allowed wall signs on any wall where a public entrance is located.
  - (b) Multi-tenant developments with common entrances may display the number and size of attached signs as provided this Subsection for the entire development. Individual tenants in multi-tenant buildings with common entrances may not display a separate attached sign.

F. **Residential Development Signs.**<sup>125</sup>

**Table 4.7.8-2: Allowances for Residential Development Signs**

Standard	Sign District
	RES
Allowed	Yes
Permit Required	Yes
Number (max)	1 double-sided sign or 2 single-sided signs per entry drive
Sign Area (max)	32 sf
Height (max)	8 ft
Illumination	Indirect
Readerboard	No
EMC	No

**Key:** max = maximum allowed | sf = square feet | ft = feet

1. *Definition.* A residential development sign is a freestanding sign located near the entrance drive or road to a residential development. An example of a typical residential development sign is one that identifies the name of the development or phase of development, sometimes incorporating architectural or landscape features. The example is provided to clarify the regulations and does not limit the content of residential development signs. The County will not review the content of residential development signs.
2. *Sign Allowances.* All uses must comply with the residential development sign allowances listed in Table 4.7.8-2.
3. *Number.* Residential developments may have a maximum of two one-sided or one two-sided freestanding signs per entry drive with vehicle access to the subdivision or development.
4. *Design Standards.* Where entry drives include or incorporate decorative features, such as walls, gates, fences, or similar decorative features flanking the entrance drive, signs attached to a wall or other appropriate feature are allowed.
5. *Location.*

<sup>125</sup> The Paragraph provides a content-neutral update for the subdivision identification signs in Paragraph 15.5.8 with the same area allowance.

- (a) Residential development signs may only be located near the entrance drive or road to a residential development with more than 8 parcels or group developments with more than 8 dwelling units.
- (b) A residential development sign may not be located on a parcel with a residential use.

**4.7.9 INCIDENTAL SIGNS<sup>126</sup>**

<b>Table 4.7.9-1: Incidental Sign Allowances</b>					
<b>Standard</b>	<b>Sign District</b>				
	<b>AOS</b>	<b>RES</b>	<b>LC</b>	<b>GC</b>	<b>IND</b>
<b>Perimeter Signs</b>					
Allowed	Yes	Yes	Yes	Yes	Yes
Permit required	No	No	No	No	No
Setback (min)	N/A	N/A	N/A	N/A	N/A
Number (max per entrance/exit)	2	1	2	2	2
Sign Area (max)	4 sf	2 sf	4 sf	4 sf	4 sf
Sign Height (max)	4 ft	3 ft	4 ft	4 ft	4 ft
Letter Height (max)	3 in	3 in	3 in	4 in	4 in
Illumination	No	No	Yes	Yes	Yes
Readerboard	No	No	No	No	No
EMC	No	No	No	No	No
<b>Small Interior Signs</b>					
Allowed	Yes	Yes	Yes	Yes	Yes
Permit required	No	No	No	No	No
Setback (min)	10 ft	10 ft	10 ft	10 ft	10 ft
Number (max)	Up to 20 per acre	4 per parcel	Up to 20 per acre	Up to 30 per acre	Up to 30 per acre
Sign Area (max)	4 sf	4 sf	4 sf	6 sf	6 sf
Letter Height (max)	3 in	3 in	3 in	4 in	4 in
Sign Height (max)	3 ft	3 ft	3 ft	4 ft	4 ft

<sup>126</sup> This new Subsection includes standards for incidental on-premises signs and provides standards by district for number, area, and location for these signs. A general allowance is given for these signs without regard to their content. This Section replaces current standards for signs like directional signs, directory signs, and drive-thru menu boards.



**Table 4.7.9-1: Incidental Sign Allowances**

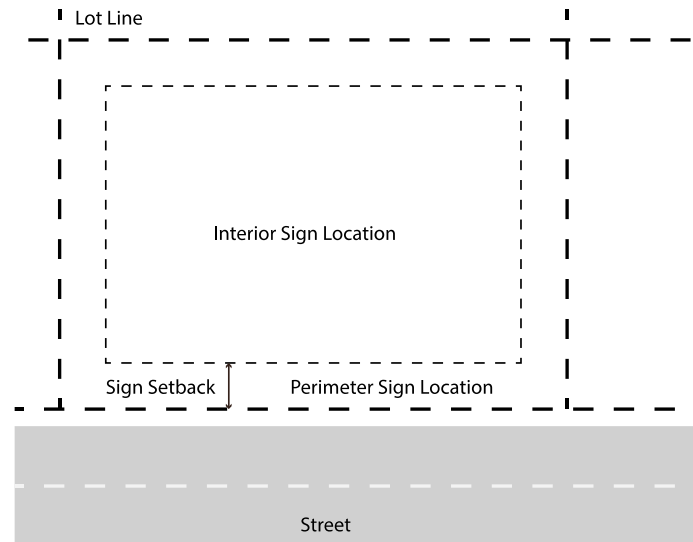
Standard	Sign District				
	AOS	RES	LC	GC	IND
Illumination	Yes	Yes	Yes	Yes	Yes
Readerboard	No	No	No	No	No
EMC	No	No	No	No	No
<b>Large Interior Signs</b>					
Allowed	No	No	Yes	Yes	Yes
Permit required	N/A	N/A	No	No	No
Setback (min)	N/A	N/A	30 ft	30 ft	30 ft
Number	N/A	N/A	1	2	1
Area	N/A	N/A	32 sf	64 sf	32 sf
Sign Height (max)	N/A	N/A	7 ft	8 ft	8 ft
Letter Height (max)	N/A	N/A	3 in	4 in	4 in
Illumination	N/A	N/A	Yes	Yes	Yes
Readerboard	N/A	N/A	No	No	No
EMC	N/A	N/A	No	Yes	No

**Key:** N/A = not applicable | min = minimum required | max = maximum allowed | sf = square feet | ft = feet | in = inches

- A. **Definition.** An incidental sign is a small, permanent, on-premises sign that is freestanding or attached to a building that is in addition to the primary sign types for the property, such as attached signs and freestanding signs, and that has a height and scale that is subordinate to the primary sign types allowed for the property. Examples of typical incidental signs include house numbers, occupant directories, directional signs, flags, and parking signs. The list of examples is provided to clarify the regulations and does not limit the content of incidental signs. The County will not review the content of incidental signs.
- B. **Sign Allowances.** All uses must comply with the incidental sign allowances listed in Table 4.7.9-1.
- C. **Sign Setback.**
  - 1. *Generally.* This Subsection regulates the location and size of incidental signs based on a sign setback that varies by district and incidental sign type. Figure 4.7.9-1: *Illustration of Incidental Sign Setback* depicts the setback and placement of incidental signs.

2. *Measurement.* The sign setback is the setback from any property line and regulates the location and size of incidental signs. Table 4.7.9-1. defines the applicable setback for each sign type and district.

**Figure 4.7.9-1: Illustration of Incidental Sign Setback**



- D. **Perimeter Incidental Signs.** Perimeter incidental signs are smaller signs allowed between the property line and the applicable sign setback. Examples of typical perimeter incidental signs include directional and entry/exit signs. The list of examples is provided to clarify the regulations and does not limit the content of incidental signs. The County will not review the content of incidental signs.
  1. Table 4.7.9-1. defines the maximum number of perimeter incidental signs per entrance to a public or private street.
  2. Perimeter signs are only allowed within 15 feet of a driveway entrance to a public or private street.
- E. **Interior Incidental Signs.**
  1. *Generally.* Interior incidental signs are only allowed within a platted parcel and are not allowed within the applicable sign setback. There are two types of interior signs: small and large interior incidental signs.
  2. *Small Interior Incidental Signs.*
    - (a) Table 4.7.9-1. defines the maximum allowances for small interior incidental signs based on the number of signs per acre.

- (b) Examples of typical small interior incidental signs include house numbers, directional signs, and parking signs. The list of examples is provided to clarify the regulations and does not limit the content of small interior incidental signs. The County will not review the content of small interior incidental signs.

3. *Large Interior Incidental Signs.*

- (a) Table 4.7.9-1. defines the allowances for large interior incidental signs based on the number of signs per development.
- (b) Large interior incidental signs with readerboards or electronic message center features are only allowed if oriented so they are not viewable from any public right-of-way.
- (c) Examples of typical large interior incidental signs include occupant directories, drive-thru menus, and information kiosks. The list of examples is provided to clarify the regulations and does not limit the content of large interior incidental signs. The County will not review the content of large interior incidental signs.

F. **Character Height.** Where applicable, Table 4.7.9-1 provides a maximum character height for copy. All copy, characters, text, icons, pictograms, logos, and images must comply with the character height limit.

**4.7.10 TEMPORARY SIGNS<sup>127</sup>**

Table 4.7.10-1: Temporary Sign Allowances					
Standard	Sign District				
	AOS	RES	LC	GC	IND
Allowed	Yes	Yes	Yes	Yes	Yes
Permit required	No	No	No	No	No
Number (max)	6	6	6	6	6

<sup>127</sup> This Subsection significantly updates the standards of §§ ZO 15.5: *Signs Permitted in Any Zoning District*, 15.10: *Temporary Signs*; 15.11: *Off-Premise Directional Signs*; OPSO 102.00.G: *Temporary Signs & -H: Off-Premise Directional Signs.*; and ZO 13.64.c. (illuminated portable signs for special events). The Subsection replaces many content-based signs (off-premises directional signs, real estate signs, political signs, notice signs, special event signs, banner signs, construction signs, and farm stand signs) with content-neutral standards that vary by zoning district for the number of signs, area, and duration of display. Each parcel is allowed one temporary sign indefinitely (to allow for signs like real estate and construction signs) and a 90-day time limit applies to all other temporary signs. Generally, the Current standard of 32 sq. ft. is carried forward for temporary signs.

Table 4.7.10-1: Temporary Sign Allowances					
Standard	Sign District				
	AOS	RES	LC	GC	IND
Sign Area (max)	32 sf	8 sf	32 sf	32 sf	32 sf
Sign Height (max)	8 ft	6 ft	8 ft	8 ft	8 ft
Illumination	No	No	Yes	Yes	Yes
Readerboard	No	No	No	No	No
EMC	No	No	No	No	No

Key: max = maximum allowed | sf = square feet | ft = feet

- A. **Definition.** A temporary sign is a sign constructed of cloth, canvas, light fabric, cardboard, wood, wallboard, metal, or other light materials, with or without frames, that is not permanently mounted to the ground, on a building, or structure, and displayed for a limited time only. Temporary signs include banners, feather signs, stake signs, and post signs. Examples of common temporary signs include political signs, public demonstration signs, yard sale signs, grand opening signs, contractor signs, real estate signs, and signs that announce a special event. The list of examples does not limit the content of temporary signs. The County will not review the content of temporary signs.
- B. **Prohibited Temporary Sign Types.** Subsection 4.7.5: *Prohibited Signs* prohibits the use of several common temporary sign types, including pennants and wind signs.
- C. **Sign Allowances.** All uses must comply with the temporary sign allowances listed in Table 4.7.10-1.
  - 1. *Number.* Table 4.7.10-1: *Temporary Sign Allowances* defines the maximum limit for temporary signs per parcel.
  - 2. *Duration for Display.*
    - (a) One temporary sign on each parcel may be displayed without any time limitation.
    - (b) The duration of display for all other temporary signs is 90 days or less per calendar year, measured cumulatively per sign.
  - 3. *Owner Consent Required.* The person erecting or placing a temporary sign on a parcel must obtain the consent of the property owner before placing a sign on that person’s parcel.

4. *Public Land and Right-of-Way.* A temporary sign installed or placed on public land or right-of-way, except those installed or placed in compliance with this Section and state law, or under an encroachment agreement with the North Carolina Department of Transportation (NCDOT) or the County, shall be deemed to be abandoned to the public and shall be subject to removal and disposal by the County.

#### 4.7.11 BILLBOARDS<sup>128</sup>

- A. **Definition.** A billboard is a permanent, freestanding, off-premises sign or sign structure upon which copy is placed on a poster or panel and mounted on a pole or metal structure, including the following typical configurations:
  1. Wood posts or pole supports with dimensional lumber as the secondary support (A-frame) with a wood or metal catwalk and a single display panel;
  2. A steel A-frame constructed with angle iron or steel supports with metal framing, catwalk, and a single display panel;
  3. A multi-mast structure constructed with steel poles, I-beam or equivalent as primary support, with a catwalk, and a single display panel; or
  4. A monopole structure constructed with tubular steel support, tubular steel framing, metal catwalk, and a single display panel with a concrete foundation.
- B. **Billboards Declared Nonconforming.**
  1. All legally established billboards existing within the jurisdiction of Chatham County on the effective date of this UDO are declared to be nonconforming billboards and are subject to the requirements of this Subsection 4.7.11.

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<sup>128</sup> This Subsection significantly modifies the current Off-Premise Sign Ordinance. Based on staff input, the draft declares billboards to be nonconforming. New billboards cannot be constructed, but existing billboards can be maintained, repaired, and relocated for road widening and other public necessities. A relocated billboard must follow the location standards of current OPSO § 104.00: *Regulation of Off-Premise Advertising Signs*. Existing billboards must be maintained as provided in current OPSO § 106.00: *Maintenance*.

2. Nonconforming billboards are not required to be removed, except under the provisions for termination of nonconforming billboards in Paragraph G, below.
  3. New billboards may not be erected in the County, except as provided for relocated billboards allowed in this Subsection.
- C. **EMC Use Prohibited.** Billboards may not use electronic message center features or any other animation or motion.
- D. **Continuation of Use.** Continued use and maintenance of a nonconforming billboard is allowed at its current location if:
1. It is not enlarged;
  2. It is not relocated without proper permits; and
  3. It is maintained in a good working condition as follows:
    - (a) A billboard shall not have more than 20% of its surface area covered with disfigured, cracked, ripped, or peeling paint or poster paper for a period of more than 30 successive days;
    - (b) A billboard shall not have bent or broken sign facing, broken supports, loose appendages or struts, or be allowed to stand more than 15 degrees away from the perpendicular for a period of more than thirty 30 successive days;
    - (c) A billboard shall not have weeds, vines, landscaping, or other vegetation growing upon and obscuring the view from the street or highway from which it is to be viewed for a period of more than 30 successive days; and
    - (d) Directly or indirectly illuminated billboards require changing of burned out bulbs and are not allowed with only partial illumination for a period of more than 30 successive days.
- E. **Repair and Reconstruction of Nonconforming Billboards.**
1. Nonconforming billboards may be repaired and reconstructed by the owner so long as the square footage of its sign area does not increase. Reconstruction includes changing an existing billboard to a new monopole structure.

Methods of lighting and electronic message centers not included in the existing billboard being repaired or reconstructed may not be added in the repair or reconstruction of a nonconforming billboard.

**F. Relocation of Nonconforming Billboards.**

1. *Generally.* When a nonconforming billboard requires removal for opening, widening, extending, or improving streets or sidewalks, or for establishing, extending, enlarging, or improving any of the public enterprises listed in [N.C.G.S. § 160A-311](#), relocation to a comparable location is allowed as provided in this Paragraph.
2. *Location.* Relocated billboards are allowed on parcels adjacent to U.S. Highway 64 west of Pittsboro and U.S. Highway 421.
3. *Size.*
  - (a) Each sign face of a relocated billboard shall not exceed 200 square feet.
  - (b) A maximum of two faces per relocated billboard is allowed, positioned either back to back or V-shaped, such that only one face is allowed per side. Both sides of a double-faced or V-shaped billboard must be the same size.
4. *Height.*
  - (a) A relocated billboard shall not exceed 25 feet in height.
  - (b) The height is measured from the elevation at the edge of the nearest roadway on a sight line perpendicular to the roadway from the relocated billboard location. If the relocated billboard is at an intersection of roadways, the roadway with the highest traffic count will be the measuring point.
5. *Spacing.*
  - (a) The relocated billboard must be located at least one mile away from any existing billboard on either side of the same street, road, or highway.
  - (b) A relocated billboard shall not be located within 1,000 feet of a school, residential structure, a church or place of worship, public park, or cemetery.

- (c) A relocated billboard shall not be located within 250 feet of any bridge or the intersection of two or more streets, roads, or highways.
6. *Setbacks.* The following minimum setback distances apply to relocated billboards:
- (a) Ten feet from any road right-of-way;
  - (b) Twenty feet from the edge of the travel way of a road if no right-of-way exists;
  - (c) Twenty-five feet from other property lines; and
  - (d) Outside all sight visibility triangles.
- G. **Termination of Nonconforming Billboards.** Nonconforming billboards shall be removed without the payment of monetary compensation to the owners of the nonconforming billboard when:
- 1. The County and the owner of the nonconforming billboard enter into a relocation agreement pursuant to NCGS 160D-912(g);
  - 2. The County and the owner of the nonconforming billboard enter into an agreement pursuant to NCGS 160D-912(k);
  - 3. The billboard is determined to be a public nuisance or detrimental to the health or safety of the populace;
  - 4. The removal is required for opening, widening, extending, or improving any of the public enterprises listed in G.S. 160A-311, and the County allows the nonconforming billboard to be relocated to a comparable location; or
  - 5. The billboard is subject to removal pursuant to statutes, ordinances, or regulations generally applicable to the demolition or removal of damaged structures.