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Chapter 7. Development Standards

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7.1. Parking

- A. **Purpose and Intent.** Vehicle accommodation areas such as parking lots, loading areas, and circulation drives are necessary elements in the urban environment. However, these areas are known to increase stormwater volume and velocity, increase the levels of surface pollutants, increase surface-level heat and glare, reduce the efficiency of the connecting street system, and increase the number of potential conflict points with the surrounding pedestrian network. This chapter regulates the construction, expansion, and renovation of vehicle accommodation areas in a manner that seeks to minimize and mitigate these known impacts.
- B. **Applicability.** The standards of this Section are applicable across all zoning districts, except as described in this section.
1. **Town Center (TC) District.**
 - a. Developments which do not involve an increase of more than twenty-five (25) percent in the building floor area are exempt from the standards of this Section;
 - b. Developments which involve only a change of use and which will not increase the number of parking spaces required under this chapter by more than ten (10) percent are exempt from the standards of this Section; and
 - c. Required loading areas must still be provided but may be designated on-street and/or within public alleys.
 2. **Central Business District.** For uses located within the Central Business District, compliance with parking requirements may be achieved by making payments in accordance with the Town of Knightdale Fee Schedule adopted by the Town Council to the Fund 70 Capital Reserve account. The payment shall be based upon a dollar amount per parking space, and all parking payment moneys shall be used to acquire, maintain, administer, and/or improve public parking.
- C. **Loading Areas.**
1. Off-street loading space available for the loading and unloading of vehicles shall be provided for all retail, wholesale and industrial uses, as well as for any expansion of such uses or change in use requiring the regular delivery or shipment of goods, merchandise or equipment to the site.

N. **Specific Bicycle Parking Design Standards.**

1. **Location.**

- a. Bicycle parking shall be made available within fifty (50) feet of a building’s main entrance(s).
- b. Where there is more than one (1) building on the site, or parking is shared with an adjacent site, bicycle parking must be distributed equally to serve all buildings and main entrances.

- 2. **Conversion from Motorized Spaces.** During the site plan approval process, the DRC may allow a new or a pre-existing development to convert up to five (5) percent of its motorized vehicle spaces to non-required additional bicycle parking, as long as the spaces are conveniently located near a building entrance or park and ride reserved spaces as detailed in 7.1(E). Converted parking spaces shall yield at least four (4) bicycle parking spaces per motorized vehicle space.

7.2. Driveways

A. **Number of Driveway Access Points.**

1. **Single-Family Residential Lots in General.**

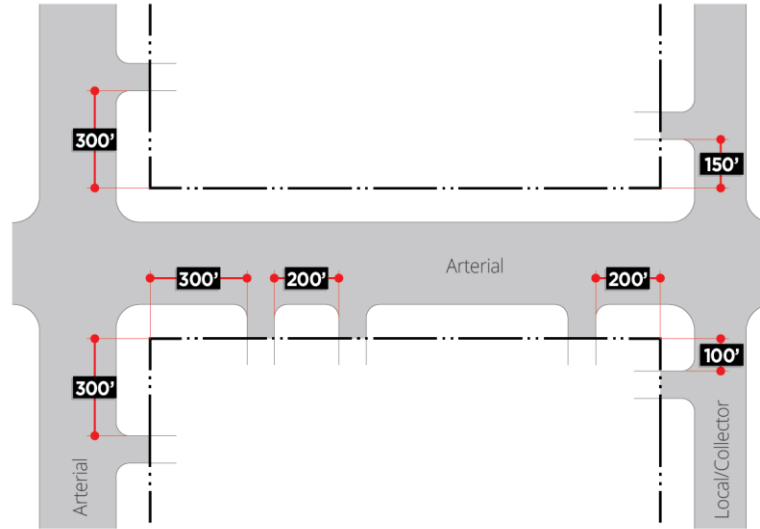
Parcel Frontage	Number of Access Points Allowed
<= 100 ft	1
> 100 ft	2

- 2. **Along Arterials and Collectors.** Developments should minimize or eliminate curb cuts along arterials and collectors. Single-family lots, attached or detached, shall not have access to a collector or arterial street, unless the collector is designed to the modified avenue section to include on-street parking on one side and a landscaped median divide. In this instance rear-loaded alley access is permitted on one side of the street section. Where possible, vehicular access drives should be shared with the adjacent properties and/or alleys should be utilized for access. All lots, parcels, or any other division of land adjacent to an arterial or collector may be allowed driveways or street connections in accordance with the following.

Parcel Frontage	Number of Access Points Allowed
< 500 ft	1
501 – 1200 ft	2
>1200 ft	3

B. **Location of Driveway Access Points.**

- 1. **In General.** Except for shared drives, all driveways shall be a minimum of ~~two~~ ~~three and a half (3½)~~ three and a half (3½) feet from the property line.
- 2. **Along Arterials.** Location guidelines for driveway access points along arterials are shown in the illustration below in relation to the direction of traffic flow. If access to a lot, parcel, or other lawful division of land is physically unobtainable under the provisions illustrated below, driveway access points shall be located the greatest distance possible from one another and from other streets.

Figure 7.1. Location of Driveway Access Points

- C. **Exemptions.** Public Safety Facilities are exempt from the location of driveway access points standard and width restrictions found in this section and the Knightdale Standard Specifications & Construction Details.

7.3. Sidewalks and Pedestrian Walkways

In order for walking to be a viable transportation choice for local trips, circulation routes must be safe, convenient, and highly connected. Pedestrian circulation and connectivity should primarily take place adjacent to planned streets within the right-of-way; however, a considerable amount of pedestrian activity also takes place on-site, where vehicle speeds are lower but the number of potential conflict points are higher. As such, the following standards shall be met when designing sidewalks and pedestrian walkways for all non-single family development:

- A. Sidewalks shall be provided along all sides of the lot that abut a public street, where the existing right-of-way permits.
- B. Existing development shall provide sidewalks along all sides of the lot that abut a public street, where the existing right-of-way permits, when substantial rehabilitation, as detailed in Section 11.2 (D)(2), is done to the existing building(s) or site.
- C. Pedestrian walkways at building foundations shall have a minimum width of ten (10) feet.
- D. Sidewalks and pedestrian walkways shall be constructed to have a minimum width equal to the width of existing or proposed abutting sidewalk or pedestrian walkway or of five (5) feet, whichever is greater. Sidepath and greenway widths shall be a minimum of ten (10) feet.
- E. All sidewalks and pedestrian walkways shall be designed to comply with the design standards outlined in Section 10.4.
- F. Pedestrian crossings shall be made safer for pedestrians whenever possible by shortening crosswalk distances with roadway designs including, but not limited to, curb extensions, reduced curb radii, and the elimination of free right-turn lanes. Traffic calming devices may only be installed according to the Town's "Traffic Calming Policy" as most recently adopted by the Town Council. Pedestrian crossings at mid-block or unsignalized locations shall be accompanied by Rectangular Rapid Flash Beacon (RRFP) signals. If a mid-block pedestrian crossing is not granted by NCDOT, the bicycle and pedestrian infrastructure shall be modified to account for a crossing at a bordering signalized intersection that is determined to be the most suitable by the entity or entities owning the intersection roadways.

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Chapter 9. Environmental Protection Standards

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9.5. Purpose and Intent	

9.1. The purpose of this Section is to protect, maintain, and enhance public health, safety, environment, and general welfare by establishing minimum requirements and procedures to control adverse effects of sediment and erosion control, grading, post-construction stormwater runoff, illicit discharges, and flood damage. Proper management of stormwater runoff will minimize damage to public and private property and infrastructure; safeguard the public health, safety, and general welfare; and protect water and aquatic life.

9.2. Neuse River Basin Riparian Buffers (NRBs)

- A. Both the corporate limits and the Extra Territorial Jurisdiction (ETJ) of the Town of Knightdale fall completely within the Neuse River basin and are therefore subject to the riparian buffer rules as governed by North Carolina Administrative Code (NCAC), Title 15A, Chapter 2, Sub-Chapter B as amended.
- B. NRBs are a form of open space, and as such, may only be retained in private ownership if the necessary conservation easements are recorded with the Wake County Register of Deeds in a form approved by the Town. Otherwise, NRBs shall be separately deeded to a homeowner’s association, a non-profit land trust or conservancy, Wake County, or the Town of Knightdale (upon approval by the Town Council).
- C. NRBs cannot be located on any single-family residential building lot (detached or attached) within a major subdivision as defined in Section 12.2 (F)(6). In general terms, NRBs in major subdivisions must be platted as separate lots where the responsibility of maintaining (in a natural state) said riparian buffers in perpetuity is typically designated to a homeowner’s association or non-profit land conservation agency. Lots that have received Construction Drawing approval (Section 12.3 (G)) prior to March 1, 2010 shall be exempt from this requirement.

Sediment and Erosion Control

- 9.3. A. **General Requirements.** All new development and redevelopment shall be required to take measures to minimize erosion during construction and after development. All new development and redevelopment shall comply with the provisions of the latest adopted amendment to Town of Knightdale Erosion and Sedimentation Control Ordinance. A land disturbance permit or exemption from the plan requirements of such regulations shall be submitted to the Stormwater Administrator prior to issuance of a construction improvement permit (CIP) for a subdivision, or part thereof. Furthermore, no infrastructure or individual lot grading shall commence prior to the completion or exemption from the requirements of the environmental survey as stated in Section 12.3 (B).
- B. **Residential Clearing and Grading.** In order to promote land development practices that minimize disturbance to vegetation and soils, limit alteration of the natural topography, minimize surface water and ground water runoff and diversion, minimize the need for additional storm drainage facilities, reduce sedimentation in surrounding waters and promote land development and site planning practices that are responsive to the town's scenic character without preventing the reasonable development of land; the initial clearing and grading of all residential major subdivisions shall be limited to dedicated public rights-of-way and easements for the installation of streets, utilities, and other infrastructure. All grading activities shall be done in accordance with all applicable federal, state and local laws, rules and regulations; including those pertaining to air and water pollution and noise control.
1. **Infrastructure.** Grading for infrastructure improvements (streets, sidewalks, curb, gutter, water, sewer, utilities, stormwater, spoil and borrow areas, etc.) shall be phased according to the Master Plan. Prior to proceeding to another phase, the developer shall stabilize the present phase with adequate ground cover sufficient to restrain erosion and have all infrastructure installed.
 2. **Lots.** Grading of individual lots within the major subdivision shall not begin without having first obtained a building permit from the Stormwater Administrator and shall be limited to those areas comprising the building footprint, driveway and a minimal area surrounding the building footprint to accommodate construction equipment.
 3. **Exemptions.** Exemptions to the requirements of Section 9.3 (B) are as follows:
 - a. Residential subdivisions with lots less than sixty (60) feet wide.
 - b. Grading and clearing in emergency situations involving immediate danger to life or property or substantial fire hazards.

Stormwater Management

A. General Provisions.

1. Findings.

9.4.

- a. It is hereby determined that:
 - i. Development and redevelopment alter the hydrologic response of local watersheds and increases stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, nonpoint and point source pollution, and sediment transport and deposition, as well as reducing groundwater recharge;
 - ii. These changes in stormwater runoff contribute to increased quantities of water-borne pollutants and alterations in hydrology that are harmful to public health and safety as well as to the natural environment; and
 - iii. These effects can be managed and minimized by applying proper design and well-planned controls to manage stormwater runoff from development and redevelopment sites.
- b. It is further determined that the Federal Water Pollution Control Act of 1972 (“Clean Water Act”) and federal Phase II Stormwater Rules promulgated under it, as well as rules of the North Carolina Environmental Management Commission promulgated in response to federal Phase II requirements, compel certain urbanized areas, including this jurisdiction, to adopt minimum stormwater controls such as those included in this Ordinance.
- c. Additionally, the North Carolina Environmental Management Commission has identified and has promulgated rules that have been amended and affirmed by the North Carolina General Assembly (Neuse River Nutrient Management Strategy) to reduce the average annual loads of nitrogen and phosphorus delivered to the Neuse River from all point and nonpoint sources of these nutrients located within its watershed, including stormwater from new development in this jurisdiction;
- d. Therefore, the Knightdale Town Council establishes this set of water quality and quantity regulations to meet the requirements of state and federal law regarding control of stormwater runoff and discharge for development and redevelopment.

2. Purpose.

- a. The purpose of this article is to protect, maintain and enhance the public health, safety, environment, and general welfare by establishing minimum requirements and procedures to control the adverse effects of: increased post-development stormwater runoff, nitrogen; phosphorus, and total suspended solids in stormwater runoff; nonpoint and point source pollution associated with new development and redevelopment; and illicit discharges into municipal stormwater systems. It has been determined that proper management of construction-related and post-development stormwater runoff will: minimize damage to public and private property and infrastructure; safeguard the public health, safety, and general welfare; and protect water and aquatic resources.
- b. This article seeks to meet its general purpose through the following specific objectives and means:
 - i. Establishing decision-making processes for development and redevelopment that protects the integrity of watersheds and preserves the health of water resources;
 - ii. Requiring that new development and redevelopment maintain the pre-development hydrologic response in their post-development state for the applicable design storm to

reduce flooding, streambank erosion, nonpoint and point source pollution, and increases in stream temperature, and to maintain the integrity of stream channels and aquatic habitats;

- iii. Establishing minimum post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;
 - iv. Establishing design and review criteria for the construction, function, and use of structural stormwater best management practices (BMPs) and Stormwater Control Devices (SCMs) that may be used to meet the minimum post-development stormwater management standards;
 - v. Encouraging the use of better management and site design practices, such as the use of vegetated conveyances for stormwater and the preservation of greenspace, riparian buffers, and other conservation areas to the maximum extent practicable;
 - vi. Establishing provisions for the long-term responsibility for and maintenance of structural and nonstructural stormwater BMPs and SCMs to ensure that they continue to function as designed, are maintained appropriately, and pose no threat to public safety;
 - vii. Establishing administrative procedures for the submission, review, approval, and disapproval of stormwater management plans, for the inspection of approved projects, and to assure appropriate long-term maintenance.
 - viii. Controlling illicit discharges into the municipal separate stormwater system.
3. **Authority.** The Knightdale Town Council is authorized to adopt this article pursuant to North Carolina law, including but not limited to Article 14, Section 5 of the Constitution of North Carolina; North Carolina General Statutes Chapter 143-214.7 and rules promulgated by the Environmental Management Commission thereunder; Chapter 143-215.6A; Session Laws 2009-216, 2009-484; Chapter 153A-454; Chapter 160A, § 174, 185, 459; NCAC 02B.0711; NCAC 02B.0731.
4. **Applicability and Jurisdiction.**
- a. **General.** Beginning with and subsequent to its effective date, this article shall be applicable to all development and redevelopment—including, but not limited to, applications for Site Plan Approval, Subdivision Approval, Construction Drawing Approval, and grading approval—unless exempt pursuant to this article.

b. Exemptions.

i. Projects disturbing less than:

- a) one acre for single family and duplex residential property and recreational facilities; and
- ~~a)b)~~ one-half acre for commercial, industrial, institutional, multifamily residential, or local government land uses with the following exception: ~~p~~Projects below one half acre that would replace or expand existing structures on a parcel, resulting in a cumulative built-upon area for the parcel exceeding twenty-four percent, shall be subject to the provisions of this article.

ii. Development of an individual single-family or duplex residential lot that:

- a) Is not part of a larger common plan of development or sale where multiple separate and distinct development activities may be taking place at different times on different schedules but governed by a single development plan regardless of ownership of the parcels.

~~b) Does not result in greater than five percent built upon area on the lot;~~

~~ii. Single family detached, duplex, and manufactured home dwellings and recreational development and redevelopment that cumulatively disturbs less than one (1) acre and are not part of a larger common plan of development or sale are exempt from the provisions of this article, unless deemed otherwise by the Stormwater Administrator.~~

~~iii. Development and redevelopment that disturbs less than the above threshold, is not exempt if such activities are part of a larger common plan of development or sale and the larger common plan exceeds the relevant threshold, even though multiple, separate, or distinct activities take place at different times on different schedules.~~

~~iv.iii.~~ Development or redevelopment that is exempt from permit requirements of Section 404 of the federal Clean Water Act as specified in 40 CFR 232 (primarily, ongoing farming and forestry activities) is exempt from the provisions of this article.

~~v.iv.~~ Per the requirements of 15A NCAC 02B .0265, NCAC 02B .0711, NCAC 02B .0731 and the Town's Phase II Permit NCS000460, new development undertaken by a local government solely as a public road project shall be deemed compliant with the purposes of this article if it meets the riparian buffer protection requirements of The Neuse River Buffer Rules and nutrient loading targets of the Neuse Nutrient Management Strategy. For these public road projects, the following shall be done to the maximum extent practicable (MEP):

- a) Meet the Neuse Nitrogen Target Rates of 3.6 lb/acre/year by providing onsite SCM or permanent offsite nutrient credits.
- b) Minimize BUA;
- c) Divert runoff away from surface waters; and
- d) Implement BMPs and SCMs.

5. **No Development or Redevelopment until Compliance and Permit.** No development or redevelopment shall occur except in compliance with the provisions of this article or unless exempted. No development or redevelopment for which a permit is required pursuant to this article shall occur except in compliance with the provisions, conditions, and limitations of the permit.

6. **Map.**

- a. The provisions of this article shall apply within the areas designated on the map titled "Stormwater Map of Knightdale, North Carolina" ("the Stormwater Map"), which is adopted simultaneously herewith. The Stormwater Map and all explanatory matter contained thereon accompanies and is hereby made a part of this Ordinance.
- b. The Stormwater Map shall be kept on file by the Stormwater Administrator and shall be dated to take into account changes in the land area covered by this Ordinance and the geographic location of all engineered stormwater controls permitted under this article. In the event of a dispute, the applicability of this article to a particular area of land or BMP/SCM shall be determined by reference to the North Carolina Statutes, the North Carolina Administrative Code, and local zoning and jurisdictional boundary ordinances.

7. **Erosion and Sediment Control.** Follow Town of Knightdale Erosion and Sedimentation Control Ordinance.

8. **Design Manual.**

a. **Reference to Manual.**

- i. The Stormwater Administrator shall use the policy, criteria, and information, including technical specifications and standards in the North Carolina Department of Environment Natural Resources’ (NCDENR) most recent Stormwater Design Manual (hereinafter referred to simply as the Manual) as the basis for decisions about stormwater permits and about the design, implementation, and performance of structural and non-structural stormwater SCMs. The latest Manual information can be found here: [NC DEQ: Stormwater Design Manual](#).
- ii. The current Design Manual, includes a list of acceptable stormwater treatment practices, including specific design criteria for each stormwater practice. Stormwater treatment practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Neuse Rules, Phase II and other applicable stormwater laws.
- iii. In addition to the Design manual, the Town shall adopt its own “Stormwater Management Manual” to provide more specific information on its individual administrative standards and procedures. This manual will be kept on file by the Stormwater Administrator and be easily accessible to the public.

b. **Relationship of Manual to Other Laws and Regulations.** If the specifications or guidelines of the Design Manual are more restrictive or apply a higher standard than other laws or regulations, that fact shall not prevent application of the specifications or guidelines in the Design Manual.

c. **Changes to Standards and Specifications.** If the standards, specifications, guidelines, policies, criteria, or other information in the Design Manual are amended subsequent to the submittal of an application for approval pursuant to this article, but prior to approval, the new information shall control and shall be utilized in reviewing the application and in implementing this article with regard to the application.

d. **Amendments to Design Manual.**

- i. The Design Manual may be updated and expanded periodically based on advancements in technology and engineering, improved knowledge of local conditions, or local monitoring or maintenance experience.
- ii. Prior to amending or updating the Design Manual, proposed changes shall be generally publicized and made available for review, and an opportunity for comment by interested persons shall be provided.

e. **Stormwater Management Plan.**

- i. A stormwater management plan is required for all development and redevelopment unless exempt pursuant to the provisions of Section 9.4. Please refer to Section 12.3 (I)(5) for stormwater management plan requirements.

B. Administration and Procedures.

1. **Stormwater Administrator.**

- a. **Designation.** A Stormwater Administrator shall be designated by the town of Knightdale to administer and enforce this article.
- b. **Powers and Duties.** In addition to the powers and duties that may be conferred by other provisions of this Ordinance and other laws, the Stormwater Administrator shall have the following powers and duties under this article:

- i. To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to this article.
 - ii. To make determinations and render interpretations of this article. Any person may request an interpretation by submitting a written request to the Stormwater Administrator, who shall respond in writing within thirty (30) days. The Stormwater Administrator shall keep on file a record of all written interpretations of this article.
 - iii. To establish application requirements and schedules for submittal and review of applications and appeals, to review and make recommendations to other Town staff and Town boards on applications for development or redevelopment approvals.
 - iv. To enforce the provisions of this article in accordance with its enforcement provisions.
 - v. To maintain records, maps, forms, and other official materials as they relate to the adoption, amendment, enforcement, and administration of this article.
 - vi. To provide expertise and technical assistance to the Town, on request.
 - vii. To designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.
 - viii. To take any other action necessary to administer the provisions of this article.
2. **Review Procedures.**
- a. **Stormwater Management Permit Required; Must Apply for Permit.** A stormwater management permit is required for all development and redevelopment unless exempt pursuant to this article. A stormwater management permit may only be issued subsequent to a properly submitted and reviewed permit application, pursuant to this section.
 - b. **Effect of Permit.**
 - i. A stormwater management permit shall govern the design, installation, and construction of stormwater management and control practices on the site, including engineered stormwater controls and elements of site design for stormwater management other than engineered stormwater controls.
 - ii. The stormwater management permit is intended to provide a mechanism for the review, approval, and inspection of the approach to be used for the management and control of stormwater for the development or redevelopment site consistent with the requirements of this article, whether the approach consists of engineered stormwater controls or other techniques such as low-impact or low-density design. The permit does not continue in existence indefinitely after the completion of the project; rather, compliance after project construction is assured by the maintenance provisions of this article.
 - c. **Authority to File Applications.** All stormwater management permit applications required pursuant to this article shall be submitted to the Stormwater Administrator by the landowner or the landowner's duly authorized agent.
 - d. **Establishment of Application Requirements, Schedule, and Fees.**
 - i. **Application Contents and Form.** The Stormwater Administrator shall establish requirements for the content and form of all stormwater management permit applications and shall amend and update those requirements from time to time. At a minimum, the stormwater management permit application shall describe in detail how post-development stormwater

runoff will be controlled and managed, the design of all stormwater facilities and practices, and how the proposed project will meet the requirements of this article.

- ii. **Submission Schedule.** The Stormwater Administrator shall establish a submission schedule for stormwater management permit applications. The schedule shall establish deadlines by which complete applications must be submitted for the purpose of ensuring that there is adequate time to review applications, and that the various stages in the review process are accommodated.
 - iii. **Permit Review Fees.** The Town Council shall establish stormwater management permit review fees as well as policies regarding refund of any fees upon withdrawal of an application and may amend and update the fees and policies from time to time.
 - iv. **Stormwater Management Manual.** For stormwater management permit applications required under this Code, the Stormwater Administrator shall compile the application requirements, submission schedule, fee schedule, a copy of this article, and information on how and where to obtain the Design Manual in a Stormwater Management Manual, which shall be made available to the public.
- e. **Submittal of Complete Application.**
- i. Stormwater management permit applications shall be submitted to the Stormwater Administrator pursuant to the application submittal schedule, and in the form established by the Stormwater Administrator, along with the appropriate fee established pursuant to this section.
 - ii. A stormwater management permit application shall be considered as timely submitted only when it contains all elements of a complete application pursuant to this article, along with the appropriate fee. If the Stormwater Administrator finds that an application is incomplete, the applicant shall be notified of the deficient elements and shall be provided with an opportunity to submit a complete application. However, the submittal of an incomplete application shall not suffice to meet a deadline contained in the submission schedule established above.
- f. **Review.** Within the timeframe specified in the submission schedule after a complete stormwater management permit application is submitted, the Stormwater Administrator shall review the application and determine whether the application complies with the standards of this article.
- i. **Approval.** If the Stormwater Administrator finds that the Stormwater Management Permit application complies with the standards of this article and this Ordinance, the Stormwater Administrator shall approve the application. The Stormwater Administrator may impose conditions of approval as needed to ensure compliance with this article. The conditions shall be included as part of the approval.
- g. **Fails to Comply.** If the Stormwater Administrator finds that the stormwater management permit application fails to comply with the standards of this article, the Stormwater Administrator shall notify the applicant and shall indicate how the application fails to comply. The applicant shall have an opportunity to submit a revised application.
- h. **Revision and Subsequent Review.**
- i. A complete revised stormwater management permit application shall be reviewed by the Stormwater Administrator within the timeframe specified in the submission schedule after its resubmittal and shall be approved, approved with conditions, or disapproved.
 - ii. If a revised stormwater management permit application is not re-submitted within six months from the date the applicant was notified, the application shall be considered withdrawn, and a new submittal for the same or substantially the same project shall be

required along with the appropriate fee for a new submittal.

- iii. Two resubmittals of a revised stormwater management permit application may be submitted without payment of an additional permit review fee. Any resubmittal after the second resubmittal shall be accompanied by an additional permit review fee, as established pursuant to this Ordinance.

C. Applications for Approval.

1. Concept Plan and Consultation Meeting.

- a. **Consultation Meeting.** Before a stormwater management permit application is deemed complete, the Stormwater Administrator or developer may request a consultation on a concept plan for the post-construction stormwater management system to be utilized in the proposed development project. This consultation meeting should take place at the time of the preliminary plan of subdivision or other early step in the development process. The purpose of this meeting is to discuss the stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities, and potential approaches to stormwater management designs before formal site design engineering is commenced. Local watershed plans, the Comprehensive Plan, and other relevant resource protection plans should be consulted in the discussion of the concept plan.
- b. **Concept Plan Contents.** To accomplish this goal, the following information should be included in the concept plan, which should be submitted in advance of the meeting:
 - i. **Existing Conditions/Proposed Site Plans.** Existing conditions and proposed site layout sketch plans, which illustrate at a minimum:
 - a) Existing and proposed topography;
 - b) Perennial and intermittent streams;
 - c) Mapping of predominant soils from soil surveys (if available);
 - d) Stream and other buffers and features used in designing buffers and meeting any applicable buffer requirements;
 - e) Boundaries of existing predominant vegetation;
 - f) Proposed limits of clearing and grading; and
 - g) Location of existing and proposed roads, buildings, parking areas, and other impervious surfaces.
 - ii. **Natural Resources Inventory.** A written or graphic inventory of natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, geologic features, topography, wetlands, and native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas such as lakes, ponds, floodplains, stream buffers, and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.). Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for development and stormwater management.
 - iii. **Stormwater Management System Concept Plan.** A written or graphic concept plan of the proposed post-development stormwater management system including: preliminary selection and location of proposed engineered stormwater controls; low-impact design elements; location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of

site to upstream and downstream properties and drainages; and preliminary location of any proposed stream channel modifications, such as bridge or culvert crossings.

2. Stormwater Management Permit Application.

- a. The stormwater management permit application shall detail how post-development stormwater runoff will be controlled and managed and how the proposed project will meet the requirements of this article, including Section 9.4 (G), Standards. All such plans shall be prepared by a qualified licensed North Carolina Professional Engineer or registered surveyor, soil scientist, or landscape architect. The engineer, surveyor, soil scientist, or landscape architect shall perform services only in their area of competence and shall verify that the design of all stormwater management facilities and practices meets the submittal requirements for complete applications, that the designs and plans are sufficient to comply with applicable standards and policies found in the Design Manual, and that the designs and plans ensure compliance with this article.
- b. The submittal shall include all of the information required in the submittal checklist established by the Stormwater Administrator. Incomplete submittals shall be treated pursuant to Section 9.4 (B)(2)(e), Submittal of Complete Application.

3. Sedimentation & Erosion Control Plan Approval and Grading Permit. Within the corporate limits and extra territorial jurisdiction of the Town of Knightdale, the Stormwater Administrator is responsible for the administration and enforcement of the Town’s erosion control program, including approval, issuance of permits related to, and enforcement of erosion and sedimentation control plans. Prior to land disturbing activities, a Sedimentation & Erosion Control Plan Approval and a grading permit shall be obtained directly from the Town. Sedimentation & Erosion Control Plans shall be prepared in accordance with Section 9.4 (A)(7) of this ordinance.

4. Preconstruction Activities.

- a. Prior to site work, submittals shall be presented to the town outlining all materials used for public infrastructure i.e., precast structures, conveyance piping etc.
- b. Once the submittals have been approved by the Stormwater Administrator, a pre-construction meeting shall be scheduled on site to review the stormwater management and erosion control plan.

5. As-Built Plans and Final Approval.

- a. Upon completion of a project, and before a Certificate of Compliance/Occupancy shall be granted, the applicant shall certify that the completed project is in accordance with the approved stormwater management plans and designs and shall submit actual “as built” plans for all stormwater management facilities or practices after final construction is completed.
- b. The plans shall show the final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. This shall also include any geotechnical surveys completed by an authorized representative, CCTV footage recorded, and Geographic Information System (GIS) files from all stormwater conveyances. The designer of the stormwater management measures and plans shall certify, under seal, that the as-built stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this article. A final inspection and approval by the Stormwater Administrator shall occur before the release of any performance securities.

6. Other Permits. No Certificate of Compliance/Occupancy shall be issued by the Town Inspections Department without final as-built plans and a final inspection and approval by the Stormwater Administrator, except where multiple units are served by the stormwater practice or facilities, in which case the Inspections Department may elect to withhold a percentage of permits or Certificates of Compliance/Occupancy until as-built plans are submitted and final inspection and approval has

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Chapter 12. Administrative Standards

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12.1. Administrative Agencies and Boards

- A. **Purpose and Intent.** For the efficient and effective administration of this Ordinance, the agents, boards, and committees described herein are established along with their respective rules, procedures, duties and responsibilities.
- B. **Land Use Administrator.** The authority to establish a Land Use Administrator for the Town of Knightdale is granted under the provisions of N.C.G.S.160D-402. The various provisions of this Ordinance shall be administered by the Knightdale Development Services Department under the primary direction of the Development Services Director. Administrative decisions may be appealed to the Board of Adjustment (see Section 12.1 (C)(2)). For the purposes of the administration of this Ordinance, the Development Services Director and subordinate staff are collectively referred to as the Land Use Administrator. In addition to any general actions necessary for the administration of the requirements of this Ordinance, the Land Use Administrator shall have the following specific duties and responsibilities.
1. **Record and File Management.** To maintain records in accordance with municipal records retention laws adopted by the General Assembly;
 2. **Planning Process Applications.** To establish application requirements and schedules for submittal and review of applications and appeals;
 3. **Plan Review.** To review and approve, approve with conditions, or disapprove plan applications submitted pursuant to this Ordinance;
 4. **Recommendations.** To review and make recommendations to the Town Council on applications involving legislative matters;
 5. **Professional Assistance.** To provide expertise and technical assistance to the Town Council, upon request;
 6. **Ordinance Interpretation.** To make determinations and render interpretations of this Ordinance;
 7. **Code Enforcement.** To enforce the provisions of this ordinance in accordance with Chapter 14 Violations and Penalties;
 8. **Board and Committee Staff.** To serve as staff to the boards and committees established herein; and
 9. **Delegation of Certain Duties.** To designate appropriate other person(s) who shall carry out the powers and duties of the Land Use Administrator.

- H. **Final Plat Requirements.** The final plat shall be prepared by a registered land surveyor, licensed to practice in the State of North Carolina, and shall constitute all portions of the site, which the subdivider proposes to record and develop at the time. Final Plats must be drawn to a scale of not more than 1 inch = 60 feet unless otherwise authorized by the Land Use Administrator, and shall meet the requirements of the Wake County Register of Deeds Office. The size and number of completed applications shall be set by the Land Use Administrator. In addition, a copy of all plan pages must be submitted at the same time using the open Portable Document Format (pdf) standard in a digital format.

No Final Plat shall be approved unless and until the subdivider has installed in the platted area all improvements required by this Ordinance and has submitted As-Built Drawings in accordance with Section 12.2 (C)(9) or has posted Improvement Guarantees in accordance with Chapter 10. Furthermore, submittal of any payment in lieu of dedicated recreational open space shall also be made prior to the approval of any Final Plat.

The Final Plat shall be drawn in black ink on mylar and shall contain the following:

1. **Title Block Information.** The name of the township in which the subdivision is located, the name of the subdivision, the name of the owner, the name, registration number, and seal of the registered surveyor under whose supervision the plat was prepared, the date of the plat, and the words "Final Plat."
2. **Boundary Survey.** The exact boundary of the tract of land being subdivided showing clearly the disposition of all portions of the tract. One corner of the tract shall be tied to the NAD83 State Plane Coordinate System.
3. **Scale & North Arrow.** Scale denoted both graphically and numerically with north arrow and declination.
4. **Vicinity Map.** A vicinity map showing the location of the subdivision with respect to adjacent streets and properties.
5. **Survey Points.** The accurate locations and descriptions of all monuments, markers, and control points
6. **Adequate Data & Dimensions.** Sufficient data to determine readily and reproduce accurately on the ground the location, bearing, and length of every street, alley line, lot line, building footprint, easement line, and setback line. All dimensions shall be measured to the nearest one-hundredth of a foot and all angles to the nearest second.
7. **Street and Lot Information.** The centerlines and names of all streets, alley lines, lot lines, lot and block numbers, lot addresses.
8. **Delineated Public Purpose Areas.** Easements, reservations, on-site demolition landfills, and areas dedicated to public purpose with notes stating their purposes.
9. **Utility Easements.** Underground and aerial utility easements shall be shown and indicated with dimensions and widths.
10. **Environmental Protection Boundaries.** The exact location of stream corridor buffer boundaries including all buffer zones as well as all buffer requirements and required tree cover areas must be specified on the record plat, on individual deeds, and in property association documents for land held in common.
11. **Residential Landscaping Notes.** All residential landscaping notes as required in Section 7.4(K).
12. **SCM Maintenance & Access Easement.** All Final Plats that include a SCM Maintenance and Access Easement shall be noted with the following statement:

"SCM Maintenance & Access Easement grants Town of Knightdale entry/access for inspections and should there be an issue, failure, emergency, etc. Otherwise, both the easement and SCM device are to be maintained by the owner/developer/HOA."

13. **Built Upon Area**~~UA~~ **Limits.** All Final Plats subject to BUA restrictions related to the Neuse Nutrient Management Strategy shall indicate maximum BUA limits for each lot.~~Maximum BUA limits shall be shown on each lot subject to BUA restrictions related to the Neuse Nutrient Management Strategy.~~

14. **Finished Floor Elevations.** Minimum floor finish elevations shall be shown for each lot which wholly or partly lies within any floodplain boundary. All lots subject to flooding shall be noted with the following statement:

"Any construction or use within the areas delineated as floodway are subject to the restrictions imposed by the Knightdale Flood Damage Prevention Ordinance."

15. **Certification Statements.**

a. **All Final Plats.**

a. **Certificate of Survey and Accuracy.** I, _____, certify that this map was (drawn by me)(drawn under my supervision) from (an actual survey made by me)(an actual survey under my supervision)(deed description recorded in Book____, Page____, Book____, Page____, etc)(other); that the error of closure as calculated by latitudes and departures is 1:____, that the boundaries not surveyed are shown as broken lines plotted from information found in Book____, Page____; that this map was prepared in accordance with G.S. 47- 30 as amended. Witness my hand and seal this ____ day of _____, A.D., _____ (year).

Surveyor

Official Seal License or Registration Number

c. Certificate of Approval of the Design and Installation of Streets and Other Required Improvements. I hereby certify that all streets and other required improvements have been installed in an acceptable manner and according to the Town of Knightdale's *Standard Specifications and Details Manual* or that guarantees of the installation of the required improvements in an amount and manner satisfactory to the Town of Knightdale has been received.

Date Town Engineer, Town of Knightdale

d1. Certificate of Approval for Recording. I hereby certify that the subdivision plat shown hereon has been found to comply with the Unified Development Ordinance for the Town of Knightdale, North Carolina and that this plat has been approved by the Town of Knightdale for recording in the Office of the Register of Deeds of Wake County.

Date Land Use Administrator, Town of Knightdale

OR

(The following certificate shall appear on all plats which do not meet the definition of subdivision as defined in this Ordinance, but which need approval from the Town for recording at the Wake County Register of Deeds Office. This Certificate is to be used in lieu of d1. above.)

d2. Certificate of Approval for Recording. I hereby certify that the subdivision plat shown is exempt from the subdivision provisions of the Unified Development Ordinance for the Town of Knightdale, North Carolina, and is therefore exempt from its provisions. The plat has been found to comply with the zoning regulations of the Unified Development Ordinance for the Town of Knightdale, North Carolina, and has been approved by the Town of Knightdale for recording in the Office of the Register of Deeds of Wake County.

Date Land Use Administrator, Town of Knightdale

- d. **Open Space/Public Gathering Space Plans.** The location of proposed open space/public gathering space, dimensions of open space/public gathering space, details and specifications on how the open space/public gathering space is proposed to be improved, dimensions of open space/public gathering space, the overall capacity of open space/public gathering space, and any applied reductions due to public park distance.
 - e. **Utility Locations.** The location of all overhead and underground utilities, including utility easements
 - f. **Existing Conditions.** See Section 12.3(B) “Environmental Survey”
 - g. **Undisturbed Areas.** Identify existing plant materials and areas to be left in a natural state such as qualifying buffers and tree cover areas
 - h. **Tree Protection Devices.** Methods and details for protecting the critical root zone of existing plant materials during construction such as tree protections fences, etc.
 - i. **New Plant Material.** Locations, size, and labels for all proposed plants
 - j. **Plant List Table.** Plant lists with common name, botanical name, quantity, and spacing and size of all proposed landscape material at the time of planting
 - k. **Other Landscape Improvements.** Location and description of other landscape improvements, such as earth berms (with two-foot [2'] topography), walls, fences, screens, sculptures, fountains, lights, courtyards, walks or paved areas; and
 - l. **Planting Details.** Planting and installation details as necessary to ensure conformance with all required standards as referenced in Chapters 7 and 10.
2. **Lighting Plan.** Any person submitting an application that involves the installation of outdoor lighting fixtures shall submit evidence that the proposed work will comply with Section 7.7 in the form of a lighting plan sheet(s). The lighting plan sheet(s) shall at a minimum contain the following information.
- a. **Title Block.** Name of the project, name and address of owner, name and address of engineer, scale, date, legend, and north arrow
 - b. **Boundary Survey.** An accurate drawing of property boundaries
 - c. **Building & Vehicle Accommodation Area Locations.** A site plan drawn to scale showing the building(s), driveways, parking areas, required parking spaces and traffic patterns
 - d. **Landscaping Plan Elements.** The location of all undisturbed areas (Section 12.3 (I)(1)(g) new plant material Section 12.3 (I)(1)(i), and other landscape improvements (Section 12.3(I)(1)(k)).
 - e. **Exterior Lighting Fixtures.** Locations of all pole-mounted and building-mounted exterior lighting fixtures;
 - f. One (1) of the following:
 - i. **Footcandle Grid.** A numerical point-by-point FC grid (photometric report) maximum of 10 feet by 10 feet for small and medium-size projects (less than two [2] acres) and 25-foot by 25-foot grid for large projects that indicates the minimum, maximum, and average FC levels within the lighted area of the site and the average to minimum ratio* for the determination of uniformity;
 - OR
 - ii. **Isolux Diagram.** An isolux lighting plan is also permitted in fulfillment of this Section, provided that it indicated the FCs at grade by contour diagram or grid points that cover the site and indicates the minimum, maximum and average FCs as well as the average to minimum uniformity ratio*; and

** The minimum (lowest number) is usually at the outer edges of the illuminated area or between two fixtures. The average light level is determined by adding the FC values of all points in the grid and dividing by the total number of points. This information is usually calculated by a computer program and is available from the manufacturer of the specified fixture.*

- g. **Lighting Details.** Specifications that may include but are not limited to. manufacturers catalog cuts enlarged or reduced to the correct scale of the site plan, and drawings including sections where required; of the illuminating devices, lamps, supports, and other devices, including the IESNA cut-off classification of the fixture(s) used.
3. **Traffic Signs and Markings Plan.** A traffic signs and markings plan shall depict traffic sign and marking details of the proposed development and shall at a minimum contain the following information.
 - a. **Title Block.** Name of the project, name and address of owner, name and address of engineer, scale, date, legend, and north arrow
 - b. **Boundary Survey.** An accurate drawing of property boundaries
 - c. **Sign Location & Details.** Location of all traffic and directional signs within the public right-of-way as well as private parking lots and drives, including sign and pole materials, text and dimensions; an
 - d. **Pavement Marking Locations & Details.** Location of all pavement markings and striping within the public right-of-way as well as private parking lots and drives, including materials and dimensions.
 4. **Architectural Plans.** Architectural plans do not include full construction drawings and interior arrangements are not considered as part of this review. Architectural plans shall depict architectural details of the proposed development and shall at a minimum contain the following information
 - a. **Title Block.** Name of the project, name and address of owner, name and address of architect, scale, date, and legend
 - b. **Building Elevations.** At Master Plan - preliminary color renderings of building elevations plus typical cross-sections to clearly define the character of the project as required by the Land Use Administrator, and at Construction Drawings - final proposed elevations of all non-single-family
 - c. **Cross-Sections.** A cross-section elevation plan depicting all buildings, structures, monuments, and other significant natural and man-made features of the proposed development; an
 - d. **Materials Board.** An exterior building materials board.
 5. **Stormwater Management Plan.** Prior to the issuance of a CIP, a stormwater management plan for all development and redevelopment must be properly submitted and reviewed, pursuant to this Section, unless otherwise exempted according to Section (9.4(B)(2)).
 - a. **Purpose.** The stormwater management plan shall govern the design, installation, and construction of stormwater management and control practices on the site, including structural BMPs and elements of site design for stormwater management other than structural BMPs. The plan is intended to provide a mechanism for the review, approval, and inspection of the approach to be used for the management and control of stormwater for the development or redevelopment site consistent with the requirements of this ordinance, whether the approach consists of structural BMPs or other techniques such as low-impact or low-density design. Further, the plan is intended to demonstrate lot-to-lot drainage and stormwater management to ensure adequate drainage between and behind all residential and non-residential lots.

- b. **Preparer.** A qualified registered North Carolina professional engineer, surveyor or landscape architect shall prepare the stormwater management plan. The engineer, surveyor, or landscape architect shall perform service only in their area of competence, and shall verify that the design of all stormwater management facilities and practices meets the submittal requirements for complete plans, that the designs and plans are sufficient to comply with applicable standards and policies found in the Manual, and that the designs and plans ensure compliance with this ordinance
- c. **Authority to File Stormwater Management Plans.** All stormwater management plans required pursuant to the Knightdale UDO shall be submitted to the Stormwater Administrator by the landowner or the landowner's duly authorized agent.
- d. **Establishment of Plan Requirements and Fees.**
 - i. **Plan Contents and Form.** The Stormwater Administrator shall establish requirements for the content and form of all stormwater management plans and shall amend and update those requirements from time to time. At a minimum, the stormwater management plan shall describe in detail how post-development stormwater runoff will be controlled and managed, the design of all storm water facilities and practices, individual lot to lot drainage, and how the proposed project will meet the requirements of this ordinance, including Section 9.4(E), Development Standards. Incomplete submittals shall be treated pursuant to Section 121.2(C)(2) Completeness Review.
 - ii. **Approval.** If the Stormwater Administrator finds that the stormwater management plan complies with the standards of this ordinance, the Stormwater Administrator shall approve the plan. The Stormwater Administrator may impose conditions of approval as needed to ensure compliance with this ordinance. The conditions shall be included as part of the approval.
 - iii. **Fails to Comply.** If the Stormwater Administrator finds that the stormwater management plan fails to comply with the standards of this ordinance, the Stormwater Administrator shall notify the applicant and shall indicate how the plan fails to comply. The applicant shall have an opportunity to submit a revised application.
 - iv. **Revision and Subsequent Review.** A complete revised stormwater management plan shall be reviewed by the Stormwater Administrator after its re-submittal and shall be approved, approved with conditions or disapproved. Any re-submittal shall be made in accordance with the adopted Fee Schedule.
 - iv-v. **Offsite Nutrient Credits.** Pursuant to ~~S~~ection 9.4-(G)(6), documentation and proof of purchase for offset credit options is required prior to construction.

J. **Transportation Impact Analysis (TIA).** A Transportation Impact Analysis (TIA) is required for any proposed Zoning Map Amendment (Section 12.2 (F)(3)) or Master Plan submittal (Section 12.3(F)) if the nature of the proposed re-zoning or development is such that the number of trips it can be expected to generate equals or exceed 150 new peak hour trips. Trips are those occurring on peak days on the adjacent roadway(s).

1. **Preparer.** A traffic-engineering consultant licensed as a professional engineer shall prepare the TIA.
2. **Procedure.**
 - a. **TIA Scoping Meeting.** The applicant shall arrange for a TIA Scoping Meeting to discuss the project with the Town, NCDOT and the developer's traffic-engineering consultant. The applicant shall supply the following information for consideration and discussion at the TIA Scoping Meeting in a draft Memorandum of Understanding (MOU):
 - i. description of project
 - ii. site location map including entrance location(s),

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- L. **Animated Sign.** See “Sign, Animated.”
- M. **Arm.** A mounting device which projects from a wall and attaches to a sign.
- N. **Arterial.** Those streets which generally serve through traffic and are designated on the current edition of the officially adopted Arterial Plan (Appendix A: Street Network Plan).
- O. **Arterial Plan.** A plan, adopted by the Town Council, for the development of existing and proposed major streets that will adequately serve the future travel needs of an area in an efficient and cost-effective manner.
- P. **Automated Teller Machines (ATM).** Computerized, self-service machines used by banking customers for financial institutions, including deposits, withdrawals, and fund transfers, without face-to-face contact with financial institution personnel. These machines may be located at or within banks, or in other locations.
- Q. **Auto Parts Sales 3.1C(4)a.** Establishments selling new, used, or rebuilt automotive parts and accessories. Examples include parts and supply stores, automotive stereo stores, speed shops, truck cap stores, and tires and tube shops. (LBCS F2115)
- R. **Awning Sign.** See “Sign, Awning.”

“B” Definitions

15.4.

- A. **BUG (Backlight, Uplight, and Glare) Rating.** A luminaire classification system that classifies backlight (B), uplight (U), and glare (G) ratings to evaluate luminaire optical performance related to light trespass, sky glow, and high angle brightness control.
- B. **Ballast.** A device used with an electric-discharge lamp to obtain the necessary circuit conditions (voltage, current, and waveform) for starting and operating.
- C. **Banks, Credit Unions, Financial Services 3.1C(3)c.** Establishments that engage in financial transactions that create, liquidate, or change ownership of financial services. Banks, credit unions, and savings institutions may perform central banking functions, accept deposits, and lend funds from these deposits. In addition to banks and credit unions, financial services institutions may include credit agencies, trust companies, holding companies, lending and thrift institutions, securities/commodity contract brokers and dealers, security and commodity exchanges, vehicle finance (equity) leasing agencies, and investment companies. (LBCS F2200 and F2210)
- D. **Banner.** See “Sign, Banner.”
- E. **Bar/Tavern 3.1C(4)b.** A business where alcoholic beverages are sold for on-site consumption, which are not part of a larger restaurant. Includes bars, taverns, pubs, and similar establishments where any food service is subordinate to the sale of alcoholic beverages. May also not more than three (3) non-server based, non-internet connected sweepstakes center games. (LBCS F2540)
- F. **Base Flood.** The flood having a one percent (1%) chance of being equaled or exceeded in any given year.

- G. **Base Flood Elevation (BFE).** A determination of the water surface elevations of the base flood based on current conditions hydrology as published in the FIS. When the BFE has not been provided in a Special Flood Hazard Area, it may be obtained from engineering studies available from a Federal or State source using FEMA-approved engineering methodologies. This elevation, when combined with the freeboard, established the Regulatory Flood Protection Elevation in Special Flood Hazard Areas.
- H. **Bay Window.** A window assembly whose maximum horizontal projection is not more than two (2) feet from the plane of an exterior wall and is elevated above the floor level of the home.
- I. **Bed and Breakfast Inn 3.1C(2)a.** Establishments primarily engaged in providing short-term lodging in facilities known as bed-and-breakfast inns. These establishments provide short-term lodging in private homes or small buildings converted for this purpose. Bed-and-breakfast inns are characterized by highly personalized service and the inclusion of a full breakfast in a room rate. (LBCS F1310)
- J. **Berm.** A mound of earthen material where the slope, height, and width do not exceed the standards established by this Ordinance, the purpose of which is to divert the flow of runoff water and/or to act as a visual and sound buffer to nearby properties.
- K. **Best Management Practices (BMP).** In a stormwater management program, a structural or nonstructural management-based practice used singularly or in combination to reduce non-point source inputs to receiving waters in order to achieve water quality protection goals.
- L. **Bicycle Facilities.** A general term denoting improvements and provisions made to accommodate or encourage bicycling, including parking, bicycle lanes, and shared roadways.
- M. **Billboard.** A common term for certain types of off-premise signs. Also, sometimes referred to as an “outdoor advertising sign.”
- N. **Block Face.** One side of a street between two consecutive intersections, having at least one principal building on a lot facing the street. For a corner lot having frontage along more than one street, the block face shall consist of that side of the block that has the more numerous parcels or lots fronting the street. An “opposite block face” is the block face across the street from a given block face.
- O. **Board of Adjustment.** The Board of Adjustment is a five (5) member appointed body responsible for the decision making for appeals of administrative decisions and requests for Variance.
- P. **Buffer Yard.** A landscaped area intended to give spatial separation between incompatible land uses.
- Q. **Building.** Any structure having a roof supported by columns or by walls, and intended for shelter, housing, or enclosure of persons, animals, or property. The connection of two buildings by means of an open porch, breezeway, passageway, carport, or other such open structure, with or without a roof, shall not be deemed to make them one (1) building.
- R. **Building, Accessory.** A roofed structure supported by columns or walls; built, erected, and framed of component structural parts; designed for the housing, shelter, enclosure and/or support of persons, animals, or property of any kind; and subordinate in height and bulk to the principal building located on the same lot.
- S. **Building, Principal.** A building in which the principal use of the associated lot, on which said building is situated, is conducted.

- T. **Building Coverage.** The amount of land covered or permitted to be covered by a building(s), usually measured in percentage of a lot (or percentage of a yard in the case of accessory buildings).
- U. **~~Built Upon Area (BUA).~~** Impervious surface and partially impervious surface to the extent that the partially impervious surface does not allow water to infiltrate through the surface and into the subsoil. "Built-upon area" does not include a slatted deck; the water area of a swimming pool; a surface of number 57 stone, as designated by the American Society for Testing and Materials, laid at least four inches thick over a geotextile fabric; a trail as defined in NCGS 143B-135.94 that is either unpaved or paved as long as the pavement is porous with a hydraulic conductivity greater than 0.001 centimeters per second (1.41 inches per hour); or landscaping material, including, but not limited to, gravel, mulch, sand, and vegetation, placed on areas that receive pedestrian or bicycle traffic or on portions of driveways and parking areas that will not be compacted by the weight of a vehicle, such as the area between sections of pavement that support the weight of a vehicle.
- V. **Built Upon Area, Cumulative.** All “Regulated BUA” plus any proposed net increase in BUA on a project site at the time of a development application.
- W. **Built Upon Area, Existing.** BUA existing prior to ~~Neuse Management Strategy Rule -NMS rule~~ or most recent amendment. Determination of Existing BUA status will be tied to the date of the most recent amendment of the Rule. That is, when the Rule is amended, the “BUA clock” is set or reset based on the effective date of the applicable local ordinance implementing the amended Rule. Whatever BUA is present at that time becomes “Existing BUA.”;
- ~~T.X.~~ **Built Upon Area, Regulated.** All BUA in existence at the time of a development application, that was installed after the Rule went into effect through local ordinance, that was not vested at that time, and thus is subject to consideration under the Rule. Regulated BUA will have stormwater treatment already provided, will have been addressed by nutrient offsets, or will have been part of a development that did not exceed the Rule’s nutrient loading rate targets or 24% BUA threshold (i.e. ≤24%).
- ~~T.Y.~~ **Business Support Services 3.1C(3)d.** These establishments provide any of the following, document preparation, telephone answering, telemarketing, mailing (except direct mail advertising), court reporting, and steno typing. They may operate copy centers, which provide photocopying, duplicating, blueprinting, or other copying services besides printing. They may provide a range of support activities, including mailing services, document copying, facsimiles, word processing, on-site PC rental, and office product sales. (LBCS 2424)

15.5.

“C” Definitions

- A. **Caliper.** The trunk diameter for nursery-grown trees measured at a height of six (6) inches above the ground for all trees up to and including a reading of four (4) inches in diameter, and at 12 inches above the ground for those trees larger than four (4) inches in diameter.
- B. **Campground 3.1C(7)a.** Establishments, including parks, that may accommodate campers and other individuals along with their equipment, including tents, tent trailers, travel trailers, and recreational vehicles (RVs). Includes facilities and services such as cabins, washrooms, food services, recreational facilities, and equipment, and organized recreational activities. (LBCS F5400)
- C. **Campus Entrance Sign.** See “Sign, Neighborhood/Campus Entrance.”

- D. **Candela.** The metric unit luminous intensity (that is, power emitted by a light source in a particular direction, with wavelengths weighted by the luminosity function, a standardized model of the sensitivity of the human eye).
- E. **Cemetery 3.1C(7)b.** A parcel of land used for the internment of the dead in the ground or in mausoleums. (LBCS S4700)
- F. **Certificate of Occupancy.** A certificate issued by the Land Use Administrator certifying that all structures, their land uses, and land restrictions conform with all the requirements of the Knightdale UDO. This certificate is issued prior to occupying any structure or commencing a use for which a building permit is issued.
- G. **Change of Use.**
1. A new, different, or additional use of a structure or land which required or requires a certificate of occupancy.
 2. Change of Use includes without limitation any new, different, or additional use within the list of permitted uses for the underlying property, any purported use outside the list of permitted uses.
 3. When any prior use of a structure or land has ceased for a period greater than 180 days.

The Land Use Administrator may grant a 180-day extension to part (3) if the property and/or building owner provides sufficient evidence of actively recruiting a use that would not constitute a change of use under either part (1) or (2) above. Thereafter, if any prior use of the structure or land has ceased for a period greater than 360 days, any subsequent use shall be considered a change of use.

Multi-tenant structures shall not be considered a change of use when individual uses change unless the essential character (more than 50% of structure’s square footage) of the activity conducted in the entire structure (e.g. shopping center, professional service office building) has changed as defined in part (1), (2) or (3) above.

- H. **Chicken Coop.** A single accessory building for the housing of female chickens consisting of a hen house for sleeping and the laying of eggs in conjunction with an open-air pen or run.
- I. **Child/Adult Day Care Home 3.1C(3)e.** Supervision or care provided on a regular basis as an accessory use within a principal residential dwelling unit, by a resident of the dwelling, for five (5) or fewer children/adults who are not related by blood or marriage to, and who are not the legal wards or foster children of, the supervising adult.
- J. **Child/Adult Day Care Center 3.1C(3)f.** An individual, agency, or organization providing supervision or care on a regular basis for children/adults who are not related by blood or marriage to, and who are not the legal wards or foster children of, the supervising adults; designed and approved to accommodate six (6) or more children/adults at a time; not an accessory to residential use.
- K. **Collector.** Those streets which generally provide access into or out of a neighborhood, commercial or industrial area and are designated on the current edition of the officially adopted Collector Plan (Appendix B). Emphasizing balance between mobility and access, a collector is designed to better accommodate bicycle and pedestrian activity while still serving the needs of the motoring public.
- L. **Collector Plan.** A plan, adopted by the Town Council, for the development of existing and proposed collectors that will adequately serve the future travel needs of a neighborhood, commercial or industrial area in an efficient and cost-effective manner.
- M. **Colleges/Universities 3.1C(7)c.** These establishments furnish academic or technical courses and grant degrees, certificates, or diplomas at the associate, baccalaureate, or graduate levels. They include junior colleges, colleges, universities, and professional schools. (LBCS F6130)
- N. **Common Plan of Development.** A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one common plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot.
- N.O. **Community Service Organization 3.1C(3)g.** A public or quasi-public establishment providing social and/or rehabilitation services, serving persons with social or personal problems requiring special services, the handicapped, and the otherwise disadvantaged such as counseling centers, welfare offices, job counseling, and training centers, vocational rehabilitation agencies, and