

ARTICLE 6: SUBDIVISIONS



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6: SUBDIVISIONS

6.1. INTRODUCTORY PROVISIONS

6.1.1. HOW TO USE THESE STANDARDS

- A. The standards in this section are applied to applications seeking to divide land into two or more lots. Some subdivisions of land are exempted from complying with these requirements (see [Section 6.1.4, Exemptions](#)), while others are subject to these standards.
- B. Any activity, whether associated with a subdivision or a site plan application, shall be subject to applicable infrastructure standards in this chapter.
- C. Any applicant considering a subdivision of land should first determine if the subdivision is subject to or exempt from these standards. All subdivisions subject to these standards shall comply with the provisions in [Section 6.12, Subdivision Standards](#), as well as any of the following applicable provisions.
- D. Subdivisions (and site plans) that incorporate or rely on public infrastructure shall be subject to the various infrastructure-related provisions in this chapter such as those in [Section 6.10, Streets](#), [Section 6.8, Sidewalks](#), [Section 6.14, Utilities and Infrastructure](#), and [Section 6.4, Greenways](#).
- E. Lots within a proposed subdivision (or individual structures proposed as part of a site plan) may not be conveyed or occupied until all required public infrastructure is installed and accepted by the Town or made subject to a performance guarantee posted by the applicant as a promise to complete all required public infrastructure in accordance with [Section 6.6, Performance Guarantees](#).
- F. Subdivisions (or individual developments established without a prior subdivision of land) that include land or infrastructure elements to be owned or operated in common by the owners of the development shall establish and operate an owner's association in accordance with the standards in [Section 6.5, Owners' Associations](#).
- G. Where permitted in accordance with this chapter and [Article 3: Districts](#), subdivisions may be configured as conservation subdivisions, which are intended to protect open space farmland, natural resources, and rural character in accordance with [Section 6.2, Conservation Subdivision](#).

6.1.2. PURPOSE AND INTENT

The purpose of this section is to establish standards for the subdivision of land and extension of public infrastructure in the Town's jurisdiction. More specifically, this section is intended to:

- A. Provide for the orderly growth and development of the Town;
- B. Maintain conditions essential to the public's health, safety, and welfare;
- C. Facilitate the further re-subdivision of larger tracts into smaller parcels of lands and individual lots, where appropriate;
- D. Coordinate the provision of streets within and contiguous to proposed subdivisions;
- E. Provide for the dedication or reservation of rights-of-way, and easements, in accordance with the Town's adopted policy guidance; and
- F. Ensure lots and public infrastructure are configured in ways that ensure public safety, easy maintenance, and good planning practice.

6.1.3. APPLICABILITY

Unless exempted in accordance with [Section 6.1.4, Exemptions](#), any division of land consistent with the definition of a subdivision in [Section 9.4, Definitions](#), that is located within the Town's jurisdiction shall comply with the requirements of this section.

6.1.4. EXEMPTIONS

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6.1. Introductory Provisions

The following divisions of land shall be exempt from these subdivision standards:

- A. Expedited subdivisions configured in accordance with Section 2.2.9, Expedited Subdivision;
- B. Subdivisions exempted in accordance with Section 160A-376 of the North Carolina General Statutes; and
- C. Court-ordered subdivisions that comply with Chapter 29 of the North Carolina General Statutes.

6.1.5. COMPLIANCE WITH OTHER STANDARDS

Subdivision subject to these standards in accordance with Section 6.1.3, Applicability, shall comply with the standards in this article as well as the applicable standards in:

- A. Article 3: Districts;
- B. Article 4: Uses; and
- C. Article 5: Development Standards.

6.1.6. APPROVAL OF SUBDIVISION PLATS REQUIRED

No subdivision of land within the Town's jurisdiction, as defined in Section 9.4, Definitions, shall occur, and no lot or parcel created by such division of land may be sold or developed unless the division complies with the standards of this chapter as well as the applicable standards in Section 2.2.14, Preliminary Plat, or Section 2.2.10, Final Plat, as appropriate.

6.1.7. RECORDATION OF SUBDIVISION PLATS REQUIRED

- A. Subdivisions of land subject to these standards shall be recorded in the office of the Wake County Register of Deeds following approval of the plat by the Town.
- B. The owner of land or an authorized agent shall sign a statement on the plat prior to recordation that states whether or not all the land shown on the plat is within the Town's jurisdiction.
- C. No subdivision plat of land within the Town's jurisdiction that is subject to these standards shall be filed or recorded until it has been approved by the Town in accordance with Section 2.2.14, Preliminary Plat, or Section 2.2.10, Final Plat, as appropriate.
- D. The Wake County Register of Deeds shall not file or record a subdivision plat for land located within the Town's jurisdiction without evidence that the division has been approved by the Town, or is not subject to this Ordinance.

6.1.8. ISSUANCE OF PERMITS FOLLOWING PLAT APPROVAL

No street shall be accepted and maintained by the Town, nor shall any water or sewer be extended or connected, nor shall any permit be issued for a building or other improvement, on land where a subdivision plat is required until the requirements set forth in this article have been complied with.

6.1.9. SUBDIVIDING IN VIOLATION

- A. Any owner of land (or their agent) who subdivides land in the Town's jurisdiction, or transfers or sells land by reference to, exhibition of, or any other use of a plat showing a subdivision of the land before the plat has been properly approved under this Ordinance and recorded in the office of the Register of Deeds for Wake County shall be guilty of a Class I misdemeanor in accordance with Section 160A-375 of the North Carolina General Statutes.
- B. The selling or transferring of land subject to these subdivision standards by any document other than a plat prepared subject to this Ordinance is a Class I misdemeanor in accordance with Section 160A-375 of the North Carolina General Statutes.
- C. The Town may enjoin any illegal subdivision, transfer, or sale of land by action for injunction in accordance with Article 8: Enforcement.

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6.2. Conservation Subdivision

6.2. CONSERVATION SUBDIVISION

6.2.1. PURPOSE AND INTENT

The purpose and intent of this section is to provide landowners in the rural and suburban portions of the Town a development option that provides additional development flexibility to build on smaller lots when additional open space set-asides are provided, and the development is designed and located in a way that protects rural character, agricultural activities, or natural and historic features on the site. This is done in order to:

- A. Conserve open land, including those areas containing productive agricultural soils, unique and sensitive natural features such as floodplains, wetlands, river and stream corridors, areas with mature deciduous trees, and watersheds;
- B. Promote existing rural character particularly in areas visible from major roadways in the Town;
- C. Retain and protect existing environmental, natural, and cultural resources;
- D. Create a linked network of open lands; and
- E. Provide reasonable economic use of the land.

6.2.2. APPLICABILITY

A. TYPE OF DEVELOPMENT

This conservation subdivision option shall be limited to development of single-family detached residential dwellings on individual lots in subdivisions of more than five lots. The conservation subdivision option shall not be available for any other form of development or use type.

B. WHERE ALLOWED

Single-family detached residential subdivisions of more than five lots in the R1, R2, and R4 districts may be developed as a conservation subdivision, in accordance with the standards in this section.

C. WHERE PROHIBITED

The conservation subdivision option is not available for use in the R6, RMF, OI, or other commercial districts.

6.2.3. PROCEDURE

Development utilizing the conservation subdivision option shall be approved as a preliminary plat in accordance with the procedures and standards in Section 2.2.14, Preliminary Plat, after approval of a conservation and development plan in accordance with this section.

A. CONSERVATION AND DEVELOPMENT PLAN

Prior to review of an application for preliminary plat for a conservation subdivision, an applicant shall have a conservation and development plan for the land reviewed and approved, or approved with conditions by the Planning Director in accordance with this section and the standards of Section 6.2.4, Conservation Subdivision Standards, and Section 6.2.5, Delineation of Conservation and Development Areas.

B. CONSERVATION AND DEVELOPMENT PLAN REQUIREMENTS

1. STEP 1—SITE ANALYSIS MAP

The applicant shall prepare a site analysis map that provides information about existing site conditions and context, and that analyzes existing conditions both on the land proposed for the development site and on land within 500 feet of the site, and submit the site analysis map to the Planning Director. It is the intent of this section that the information required to be presented in the site analysis map be produced primarily from existing sources, maps, in order to ensure the process is economical for the applicant.

2. STEP 2—SITE INSPECTION

After receipt of the site analysis map, the Planning Director shall schedule a site inspection of the land with the applicant. The applicant or the applicant's representative

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shall attend the site inspection with a Town staff member. The purpose of this site visit is to:

- a. Familiarize the staff with the existing site conditions and natural and historic features of the site;
- b. Identify potential site development issues, including the best location for the development to ensure its visibility from surrounding areas and major roadways is minimized; and
- c. Provide an opportunity to discuss site development concepts, including the general layout of conservation areas and potential locations for proposed structures, utilities, streets, and other development features. Comments made by the staff during the site inspection shall be interpreted as being only suggestive. No official decision on the conservation and development plan shall be made during the site inspection.

3. STEP 3—CONSERVATION AND DEVELOPMENT AREAS MAP

Based on the site analysis map and the information obtained during the site inspection, the applicant shall prepare a conservation and development areas map that depicts proposed primary conservation areas, secondary conservation areas, and development areas, in accordance with Section 6.2.5, Delineation of Conservation and Development Areas.

4. STEP 4—CONSERVATION AND DEVELOPMENT PLAN

Based on the site analysis map, the information obtained during the site inspection, and the conservation and development areas map, the applicant shall prepare and submit to the Planning Director a conservation and development plan. The conservation and development plan shall include the following:

- a. A site analysis map;
- b. A conservation and development areas map; and
- c. A preliminary site improvements plan, showing proposed site development, including utilities, streets, other development features, buffers (if applicable), and lot lines located in the proposed development area(s).

C. REVIEW OF CONSERVATION AND DEVELOPMENT PLAN

The Planning Director shall review the conservation and development plan in accordance with the procedures and requirements of Section 6.2.4, Conservation Subdivision Standards, and Section 6.2.5, Delineation of Conservation and Development Areas.

D. REVIEW AND APPROVAL OF CONSERVATION SUBDIVISION

Following review and approval or approval with conditions of the conservation and development plan by the Planning Director for a preliminary plat of the conservation subdivision shall be submitted and reviewed in accordance with Section 2.2.14, Preliminary Plat.

6.2.4. CONSERVATION SUBDIVISION STANDARDS

A conservation subdivision shall comply with the following standards:

A. LOCATION

Conservation subdivisions shall be configured to minimize their visibility from adjacent lands and major roadways.

B. MINIMUM PROJECT SIZE

Conservations subdivisions shall be at least 10 acres in area.

C. REQUIRED CONSERVATION AREA

1. The required conservation area shall occupy at least 50 percent of the total acreage of the conservation subdivision site, but nothing shall limit it from occupying more than 50 percent of a conservation subdivision site.
2. The conservation area shall be considered open space set-aside subject to the applicable standards in Section 5.7, Open Space.

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D. **MAXIMUM RESIDENTIAL DENSITY**

A conservation subdivision shall be limited to the maximum density for a conservation subdivision in the zoning district in which it is located. Nothing shall prevent a conservation subdivision from increasing the maximum allowable residential density in accordance with Section 5.12, Sustainability Incentives.

E. **DIMENSIONAL REQUIREMENTS**

Conservation subdivision lots shall comply with the dimensional standards for the zoning district where located. Conservation subdivisions in a PD district shall comply with the dimensional requirements specified in the PD Master Plan.

F. **SETBACKS**

1. Conservation subdivision lots shall comply with the setback requirements for the zoning district where located.
2. Conservation subdivision lots in the PD district shall comply with the setback requirements specified in the PD Master Plan.
3. Lots in a conservation subdivision shall comply with required setbacks from streets, wetlands/surface waters, or other protected natural areas.

G. **MAXIMUM LOT COVERAGE**

1. Conservation subdivision lots shall comply with the maximum lot coverage requirements for the zoning district where located.
2. Conservation subdivision lots in the PD district shall comply with the maximum lot coverage requirements specified in the PD Master Plan.

H. **ON-SITE WASTEWATER**

With approval from the appropriate county health department, individual septic systems and drain lines may be located within the conservation area, provided:

1. Easements shall be recorded showing the location of systems within conservation area;
2. Restrictive covenants shall provide for access, maintenance, and upkeep of systems located in the conservation area; and
3. All septic systems shall be operated in compliance with State and local regulations.

I. **GRADING**

In order to promote land development practices that maximize the preservation of natural vegetation, 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 conservation 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 any conservation subdivision shall not begin without having first obtained a building permit from the Town of Zebulon and shall be limited to those areas comprising the building footprint, driveway and a minimal area surrounding the building footprint to accommodate construction equipment.

6.2.5. **DELINEATION OF CONSERVATION AND DEVELOPMENT AREAS**

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6.2. Conservation Subdivision

The conservation area and development area on the conservation and development areas map shall comply with the following standards:

A. PRIMARY CONSERVATION AREAS

1. FEATURES TO BE PRESERVED

The following features shall be located and delineated on the conservation and development areas map, and shall be preserved in the following priority order as primary conservation areas:

- a. Areas with existing mature trees around the perimeter of the site;
- b. U.S. Army Corps of Engineers designated 404 wetlands;
- c. Riparian buffers and other lands within 50 feet of estuarine or other surface waters;
- d. Areas with impermeable soils; and
- e. Habitat utilized by endangered or threatened species or designated Natural Heritage Areas.

2. AMOUNT TO BE PRESERVED

All areas occupied by features comprising a primary conservation area shall be set aside and reserved for conservation purposes in accordance with the following standards:

a. PRIMARY CONSERVATION AREA IS LESS THAN MINIMUM REQUIRED

In cases where the geographic area occupied by all features comprising the primary conservation area is less than the minimum required conservation area, then all lands comprising the primary conservation area shall be set aside.

b. PRIMARY CONSERVATION AREA EXCEEDS THE MINIMUM REQUIRED

- i. In the event the geographic area of all features identified and prioritized as the primary conservation area results in a primary conservation area exceeding the conservation area requirement, priority for retention shall be given to the highest quality portion of the features to be conserved. (For example, conservation of the first type of prioritized features constitute 47 percent of a site, and the next prioritized feature consists of five percent and the minimum required conservation area is 50 percent of the site area, the applicant may identify which portions of the features exceeding the 50 percent conservation area requirement will be designated for conversion to development area).
- ii. Development on lands made available for conversion to development area shall be in accordance with the standards in this Ordinance.

3. ALLOWABLE USES

Uses located within a primary conservation area shall be limited to:

- a. Pervious pedestrian trails, walkways, and boardwalks;
- b. Above ground and below ground public utilities and associated easements, provided no feasible alternative exists;
- c. Street or driveway crossings, provided such crossings do not violate this Ordinance, or other State or federal laws;
- d. Stormwater management systems, where no practicable alternative exists; and
- e. Docks and other water-dependent features, as allowed in this Ordinance.

B. SECONDARY CONSERVATION AREAS

1. FEATURES TO BE PRESERVED

In addition to primary conservation areas, the conservation and development areas map shall also identify secondary conservation areas, which shall be preserved in the following priority order:

- a. Historic, archeological, and cultural resources;
- b. Prime agricultural lands, including existing pastures (whether in use or otherwise);
- c. Existing and mature woodland forests, natural fields, and meadows (especially those greater than five acres);

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- d. Scenic corridors and views; and
- e. Areas that could serve to extend existing greenways, trails, parks, or recreation areas.

2. AMOUNT TO BE PRESERVED

All areas occupied by features comprising a secondary conservation area shall be set aside and reserved as a part of the conservation area in accordance with the following standards:

a. PRIMARY CONSERVATION AREA OCCUPIES MORE THAN THAT REQUIRED

In the event that the geographic area set aside as the primary conservation area is more of the required conservation area, no additional lands occupied by secondary conservation features shall be required to be included in the conservation area.

b. PRIMARY CONSERVATION AREA OCCUPIES LESS THAN THAT REQUIRED

In the event the geographic area set aside as the primary conservation area is less than the required conservation area, then lands containing secondary conservation features shall also be set aside as part of the conservation area in priority order.

3. ALLOWABLE USES

Uses located within a secondary conservation area shall be limited to:

- a. All uses allowed in a primary conservation area;
- b. Uses allowed in the Agricultural Use classification in [Table 4.2.3, Principal Use Table](#);
- c. Individual water supply and septic systems;
- d. Stormwater management facilities;
- e. Required drainage or other utility easements; and
- f. Mitigation of development activities, including restoration of disturbed or degraded areas to enhance habitat and scenic value.

C. OWNERSHIP OF CONSERVATION AREAS

1. LANDOWNER OR ASSOCIATION

A conservation area shall be owned jointly or in common by the owners of the development or through a recognized homeowners' or property owners' association, which shall be established in accordance with [Section 6.5, Owners' Associations](#).

2. NONPROFIT ORGANIZATION

The landowners may decide to convey a conservation area to a nonprofit organization such as a land trust or land conservancy for management and maintenance if the Town is provided adequate assurance the area will be properly managed and maintained.

3. DEDICATED TO TOWN OR OTHER PUBLIC AGENCY

In some cases, certain lands designated as conservation areas, such as greenways, may be dedicated to the Town, a nonprofit organization, or other public agency during the development review process, at the landowner's discretion. If offered by the landowner, the Town Council shall determine whether that land is appropriate for dedication to the Town or other public agency.

4. DEVELOPMENT AREAS

After identifying the primary and secondary conservation areas, the development area shall be identified. It is the area within which development may occur, and shall include the area within the site where:

- a. Any clearing or grading activities will take place in accordance with Section 6.2.4.1.;
- b. Ingress and egress will be located;
- c. Individual or community wells and septic systems may be located (if not located within the secondary conservation area);
- d. Streets, utilities, and other similar structures will be located; and
- e. All allowable uses may be located.

6.2.6. EVALUATION CRITERIA FOR CONSERVATION SUBDIVISION LAYOUT

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6.2. Conservation Subdivision

Conservation subdivisions shall be configured to:

- A.** Protect and preserve all floodways and wetlands;
- B.** Preserve and maintain mature woodlands, existing fields, pastures, meadows and orchards and creates sufficient buffer areas to minimize conflicts between residential and other uses;
- C.** Locate development outside of prime agricultural soils, to the maximum extent practicable;
- D.** Ensure the appearance of development is minimized, to the maximum possible extent;
- E.** Design around existing hedgerows and tree lines between fields or meadows;
- F.** Leave scenic views and vistas unblocked or uninterrupted, particularly as seen from streets;
- G.** Avoid siting new construction on prominent rises or highly visible areas by taking advantage of lower topographic features;
- H.** Protect wildlife habitat areas of species listed as endangered, threatened or of special concern by NCDEQ;
- I.** Preserve sites of historic, archaeological, or cultural value (including spring houses, barn foundations, cellar holes, earthworks, burial grounds and similar features);
- J.** Include a pedestrian circulation system designed to assure that pedestrians can walk safely and easily on the site, between properties and activities or special features within the neighborhood open space system; and
- K.** Consolidate open space into areas that are contiguous, to the maximum extent practicable.

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6.3. Fee-in-Lieu

6.3. FEE-IN-LIEU

6.3.1. PURPOSE

The purpose for this section is to establish a procedure and standards for instances where an applicant and the Town agree that a payment-in-lieu of dedication or construction of infrastructure by the applicant is appropriate and in closer alignment with the Town's adopted policy guidance of capital improvement program.

6.3.2. PROCEDURE

A. REQUIRED BY TOWN

1. In cases where the Planning Director determines that installation of a required sidewalk, greenway, bikeway, or other roadway improvement could conflict with another Town, State, or federal infrastructure project that is planned or programmed to begin construction within five years, the applicant or developer shall be required to submit a fee in-lieu of the required infrastructure element(s).
2. Notification of the requirement for provision of a fee-in-lieu shall be in writing, and shall be delivered to the applicant or developer prior to the notice of decision on the associated application.
3. Upon receipt of notification, and applicant shall provide the required fee-in-lieu in accordance with Section 6.3.2.B.4, Acceptance Of Fee-In-Lieu.
4. In the event the conflict necessitating the fee-in-lieu is eliminated prior to final approval, the fee-in-lieu shall be refunded and the applicant or developer shall be required to dedicate the required land or perform the required installation. The developer or applicant may request the Town retain the funds in accordance with Section 6.3.2.B, Requested By Applicant.

B. REQUESTED BY APPLICANT

In cases where an applicant or developer desires to receive final approval of development under this Ordinance without providing land or infrastructure as required, the process for requesting such approval shall be in accordance with this section.

1. FILE REQUEST

- a. An applicant seeking the ability to provide a fee-in-lieu of making a required dedication or constructing required infrastructure shall file a written request with the Planning Director prior to the rendering of a decision on the associated application by the appropriate review authority (see Table 2.2, Application Review Procedures).
- b. The request shall include the reasons for the request, the rationale why a fee-in-lieu is in closer alignment with the Town's adopted policy guidance, and the estimated value of the land that would otherwise be dedicated or the estimated cost of completion of the infrastructure in question, based on current unit prices.

2. STAFF REVIEW

- a. Upon receipt of the request, the Planning Director shall review the information and notify the applicant if the information provided is sufficient.
- b. The Planning Director shall forward the request along with any supporting information provided by Town staff to the Technical Review Committee in the event the TRC wishes to consider the request.

3. DECISION BY PLANNING DIRECTOR

- a. The Planning Director shall decide the request in accordance with the Town's adopted policy guidance and Section 6.3.4, Review Standards for Fee-In-Lieu.
- b. The decision shall be to either accept the request for provision of fee-in-lieu as offered, accept a modified request for provision of fee-in-lieu, or deny the request for provision of fee-in-lieu.

4. ACCEPTANCE OF FEE-IN-LIEU

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6.3. Fee-in-Lieu

- a. In cases where a fee-in-lieu is required by the Town or a request for provision of a fee-in-lieu is accepted by the Planning Director, payment of a fee-in-lieu shall take place prior to the approval of a final plat or issuance of the final approval associated with the subdivision.
- b. All fees collected by the Town pursuant to this section shall be deposited in Town's revolving fund for purchase of recreation land, installation of vegetation, or installation of required infrastructure (whether streets, sidewalks, bikeways, or other infrastructure, as appropriate).
- c. Use of funds collected in accordance with this section shall only take place in the general vicinity of where funds are collected and may only be used for the purchase of in-kind lands or the same type of infrastructure in accordance with all applicable State and federal law.
- d. The Planning Director shall maintain records of the amounts collected, the timing, and the location, which shall be used by the Town as part of its capital facilities program.

6.3.3. AMOUNT

A. LAND

1. The fee-in-lieu shall be calculated based upon the total acreage of land required for dedication.
2. The land's assessed value (as determined by the Wake County Tax Assessor) following subdivision shall be used to arrive at the required payment-in-lieu amount.

B. INFRASTRUCTURE

1. The amount of fee-in-lieu shall be based on an estimate by a professional engineer licensed by the State of North Carolina.
2. The estimate shall include the cost of all materials and labor based on current unit prices.
3. Nothing shall prevent the Planning Director from acquiring an additional estimate for the same infrastructure from another professional engineer licensed by the State of North Carolina.
4. The Planning Director may select the estimate that will form the basis for the fee-in-lieu payment.

C. VEGETATION

In cases where a fee-in-lieu is proposed for the installation of vegetation, the fee amount shall be based upon the unit price of the vegetation along with all associated labor, transportation, and incidental costs such as ground cover, staking, and fertilizer, but not irrigation.

6.3.4. REVIEW STANDARDS FOR FEE-IN-LIEU

In determining whether to accept a request for payment of fee-in-lieu, the Planning Director may rely on any of the following review criteria.

A. PARK LAND

1. There is sufficient public park land in proximity to the proposed development based on a review of the Town's adopted policy guidance and information from Town staff;
2. Private common open space resources provided on the subject site will be available for public use and will mitigate park land needs created by the proposed development;
3. Collected funds could be utilized to further improve an existing park facility in a proximate location;
4. The topography or other natural conditions of the site do not provide adequate opportunities for on-site recreation and park areas;
5. The amount of park land to be dedicated is too small to provide adequate recreation and park opportunities or to be efficiently maintained;
6. The intended location of the park land is too far from existing recreation and park areas to be efficiently maintained; or

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6.3. Fee-in-Lieu

7. Adequate access is not available to the proposed park land.

B. GREENWAY LAND

1. The conditions on the land make installation or operation of a greenway segment impossible or cost prohibitive for the Town;
2. The potential for the connection of a proposed greenway segment to the Town's greenway network is unlikely within the foreseeable future, in the opinion of Town staff; or
3. There are suitable alternatives to a greenway segment, such as a multi-purpose trail, in close proximity to the proposed site.

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6.3. Fee-in-Lieu

C. STREETS

1. The proposed street alignment creates a unacceptable environmental impact; or
2. The proposed street is impossible or impractical to build based on topography, slope, soil conditions, or development patterns on adjacent lands.

D. SIDEWALKS

1. The potential for the connection of a proposed sidewalk segment to the Town's sidewalk network is unlikely within the foreseeable future, in the opinion of Town staff; or
2. There are suitable alternatives to a sidewalk, such as a greenway, in close proximity to the proposed site.

E. VEGETATION

1. The proposed location of vegetation will not support healthy vegetation due to shading or topographic conditions
2. The site where vegetation is proposed is incapable of supporting additional vegetation due to the presence of exiting vegetation, buildings, or impervious surfaces.

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6.4. Greenways

6.4. GREENWAYS

6.4.1. REQUIRED GREENWAY DEDICATION AND CONSTRUCTION

- A. Whenever a tract of land included within any proposed subdivision, site plan, or planned development master plan includes any part of a greenway designated in the Town's Greenway Plan or other adopted policy guidance, the greenway shall be platted and dedicated to the Town as a greenway easement.
- B. Greenways shall be constructed as part of the required infrastructure serving a site or a subdivision.

6.4.2. PAYMENT IN-LIEU OF PROVIDING GREENWAYS

Only proposed greenways that may cause conflicts with other Town, State, or federal infrastructure projects may be subject to the requirements for fee-in-lieu provision in accordance with Section 6.3, Fee-in-Lieu.

6.4.3. GREENWAY CONFIGURATION

Greenways shall be configured in accordance with the Greenway Plan and the Standard Specifications Manual.

6.4.4. DENSITY CREDITS

Land that is dedicated in fee-simple interest to and accepted by the Town for the expressed purpose of establishing a public greenway shall be credited toward the donating parcel, lot, or tract area for the purpose of calculating the density of development and area coverage calculations though no longer part of the parcel.

6.4.5. OPEN SPACE SET-ASIDE CREDITS

Land area dedicated to the Town for use as a greenway shall be credited towards applicable active, passive, and urban open space set-aside requirements in Section 5.7, Open Space.

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6.5. Owners' Associations

6.5. OWNERS' ASSOCIATIONS

6.5.1. PURPOSE

The purpose of this section is to set out the requirements for establishment of a homeowners' or property owners' association (hereinafter "association") that shall be responsible for the long-term maintenance of common areas, common features, and private infrastructure in a subdivision.

6.5.2. APPLICABILITY

The standards in this section shall apply to subdivisions with open space set-aside(s), lands held under common ownership, or shared responsibility for common infrastructure where the subdivider or developer will not remain responsible for maintenance of any of the following lands or infrastructure:

- A. Stormwater control mechanisms;
- B. Private potable water systems;
- C. Private sewage system features (such as pump stations serving only the development where located);
- D. Cluster mailbox units;
- E. Commonly-held off-street parking facilities; and
- F. Open space set-asides.

6.5.3. CREATION REQUIRED

- A. In cases where a landowner or subdivider will not retain maintenance responsibility of all lands and site features in a development, a homeowners' or property owners' association shall be established in areas that have private open space set-asides or shared private infrastructure.
- B. Associations established in accordance with these provisions are required to accept ownership and maintenance responsibility of all open space set-aside(s), shared infrastructure, or common areas within a development.
- C. The association shall be in legal existence prior to the transfer of maintenance responsibility.

6.5.4. RESPONSIBILITIES OF ASSOCIATION

Upon transfer of maintenance responsibility, the association shall be responsible for:

- A. Liability insurance and payment of premiums for liability insurance and local taxes;
- B. Maintenance of all common elements including, but not limited to, private utilities, private drives, private sidewalks and trails, private streetlights, and private common recreation facilities shown on the preliminary and final plats;
- C. Maintenance of public streets until such time as the Town or NCDOT agrees to accept the responsibility for street maintenance; and
- D. Maintenance of a fund intended for the maintenance and repair of community facilities.

6.5.5. PROCEDURE FOR ASSOCIATION ESTABLISHMENT

- A. Documents for the creation of the association shall be submitted to the Town for review and approval prior to approval of the final plat (see [Section 2.2.10, Final Plat](#)). Documentation shall include, but not be limited to the information in [Section 6.5.6, Documentation Requirements](#).
- B. The association shall be established by the subdivider prior to transfer of maintenance responsibility.

6.5.6. DOCUMENTATION REQUIREMENTS

- A. The association documents submitted to the Town for review and approval shall include, but not be limited to, the following:
 - 1. A declaration of all restrictive covenants, if proposed;
 - 2. A declaration of all deed restrictions, if proposed;

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6.5. Owners' Associations

3. A declaration that the association is responsible for liability insurance and all applicable taxes;
 4. A declaration of common ownership and maintenance responsibilities of all on-site improvements not dedicated to a local or state agency, including but not limited to drainage systems, wastewater systems, open space set-aside areas, recreational facilities, and private infrastructure;
 5. A description of the structural organization and operating procedures of the association;
 6. Association by-laws;
 7. A legal description of all open space set-asides and other lands owned in common;
 8. Provisions establishing the legal authority of the association to maintain control over all common areas, common features, and private infrastructure in the subdivision, following transfer of control by the subdivider;
 9. Provisions authorizing the association to compel contributions from owners in the development to cover their proportionate share of maintenance costs associated with common areas, common features, and private infrastructure;
 10. Provisions authorizing the association to increase the amount of mandatory fees or assessments, when necessary, for the continued maintenance of common areas, common features, or private infrastructure;
 11. Provisions authorizing the association to convert any member's unpaid assessments into a lien on the real property; and
 12. Evidence related to the establishment of a fund to support the continued maintenance and upkeep of common areas, common features, and private infrastructure.
- B. Following approval of the required documentation by the Town, the subdivider shall record all required documentation with the Wake County Register of Deeds.

6.5.7. MEMBERSHIP REQUIREMENTS

- A. Following establishment of the association by the subdivider, membership in the association shall be automatic and mandatory for all purchasers of land within the subdivision and their successors in title.
- B. All members of an association shall be responsible for contributions to the association's reserve fund to cover their proportionate share of maintenance costs associated with common areas, common features, and private infrastructure.

6.5.8. TRANSFER OF MAINTENANCE RESPONSIBILITY

The subdivider shall be responsible for maintenance of all common areas, common features, and private infrastructure until maintenance responsibility is transferred to the association in accordance with the standards in this section.

6.5.9. FAILURE TO MAINTAIN IS A VIOLATION

Failure to maintain common areas, common features, or infrastructure is a violation of this Ordinance and is subject to the penalties and remedies in Article 8: Enforcement.

ARTICLE 6: SUBDIVISIONS

6.6. Performance Guarantees

6.6. PERFORMANCE GUARANTEES

6.6.1. PURPOSE AND INTENT

These standards create the additional flexibility necessary for development to be occupied or for lots in a subdivision to be conveyed prior to completion of all required infrastructure or site improvements, provided funds have been reserved for completion of these features. These provisions ensure that funds are available for the Town's use to complete required public infrastructure or private site features in the event an applicant or developer is unable to do so.

6.6.2. ELIGIBLE FACILITIES AND FEATURES

- A.** The following facilities and site features may be eligible for performance guarantees at the discretion of the Town:

1. PUBLIC FACILITIES

The following forms of public infrastructure may be completed subject to a performance guarantee:

- a.** Sidewalks;
- b.** Greenways;
- c.** Multi-use paths; or
- d.** The final lift of asphalt on a street.

2. PRIVATE SITE FEATURES

- a.** The following forms of private site features may be completed subject to a performance guarantee:

- i.** Required landscaping;
- ii.** Private stormwater management facilities; and
- iii.** Reforestation activity (see Section 5.9.4.B, Reforestation Standards).

- b.** All other required site features shall be completed prior to issuance of a certificate of occupancy for the development.

- B.** Performance guarantees shall be configured and managed in accordance with the standards in this section.

6.6.3. INELIGIBLE FACILITIES

The following infrastructure facilities are not eligible for performance guarantees, and shall be completed and dedicated to the Town prior to approval of the final plat:

- A.** Potable water;
- B.** Sanitary sewer;
- C.** Public stormwater management facilities;
- D.** Curb and gutter;
- E.** Street signs, traffic control signals, and
- F.** Street lights.

6.6.4. MAXIMUM TERM OF GUARANTEE

Performance guarantees associated with landscaping or reforestation shall have a maximum term of one year, otherwise there shall be no maximum term or expiration for other performance guarantees.

6.6.5. FORM OF GUARANTEE

- A.** The applicant shall determine the form(s) of the performance guarantee, which shall be provided in one or more of the following forms:

1. CASH OR IRREVOCABLE (EVERGREEN) LETTER OF CREDIT

- a.** The developer shall deposit cash or an irrevocable (or "evergreen") letter of credit, either with the Town or in escrow with a North Carolina financial institution.

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6.6. Performance Guarantees

- b. If cash or other instrument is deposited in escrow with a financial institution, an agreement between the financial institution and the developer shall be filed with the Town guaranteeing the following:
 - i. That the escrow account shall be held in trust until released by the Town and may not be used or pledged by the developer for any other matter during the term of the escrow; and
 - ii. That in case of a failure on the part of the developer to complete or repair the improvements, the financial institution shall, upon notification by the Town, immediately pay the funds deemed necessary by the Town to complete or repair the improvements up to the full balance of the escrow account, or deliver to the Town any other instruments fully endorsed or otherwise made payable in full to the Town.
 - iii. The financial institution holding the cash or other instrument shall indicate to the Town its notification requirements for release or payment of funds.

2. SURETY BOND

- a. The developer shall obtain a surety bond from a surety bonding company authorized to issue surety bonds in North Carolina.
- b. The bond shall be payable to the Town and shall be in an amount as required by this subsection.

3. OTHER GUARANTEE

The developer may provide another form of guarantee that provides equivalent security to a surety bond or letter of credit, as determined by the Town Attorney.

- B. The performance guarantee shall distinguish between the portion of the guarantee provided for public infrastructure improvements as well as the portion of the guarantee provided for private site improvements, if applicable.
- C. The performance guarantee shall be conditioned on the performance of all work necessary to complete the installation of the required improvements within the term of the guarantee.

6.6.6. ADMINISTRATION OF GUARANTEES

A. GUARANTEES ASSOCIATED WITH REFORESTATION OR LANDSCAPING

The Planning Director shall process, review, and decide performance guarantee requests associated with reforestation or landscaping.

B. GUARANTEES ASSOCIATED WITH PUBLIC INFRASTRUCTURE

The Town Engineer shall process, review, and decide performance guarantee requests associated with public infrastructure.

C. GUARANTEES ASSOCIATED WITH STORMWATER

The Stormwater Administrator shall process, review, and decide performance guarantee requests associated with stormwater-related provisions.

6.6.7. AMOUNT OF GUARANTEE

A. GENERALLY

Performance guarantees shall be in an amount equal to 125 percent of the estimated cost of completing the installation of the required improvements, including the costs of materials, labor, and project management.

B. ESTIMATED COSTS

Estimated costs of completing installation of required public improvements, landscaping or reforestation, or stormwater measures shall be itemized by improvement type and certified by the developer's licensed professional engineer that is consistent with the NCDOT Bid Tab Average for the year in which the guarantee is requested, and is subject to approval in accordance with Section 6.6.6, Administration of Guarantees.

C. RENEWAL

ARTICLE 6: SUBDIVISIONS

6.6. Performance Guarantees

If a performance guarantee is renewed, the appropriate Town official (see Section 6.6.6, Administration of Guarantees) may require the amount of the performance guarantee be updated to reflect changes in cost over time.

6.6.8. RELEASE OR REDUCTION OF GUARANTEE

A. RELEASE REQUESTED

The appropriate Town official (see Section 6.6.6, Administration of Guarantees) shall release or reduce a performance guarantee only after:

1. The owner or developer has submitted to the Town a written request for a release or reduction of the performance guarantee that includes certification by the owner's or developer's engineer or contractor, whichever is appropriate, that installation of the guaranteed improvements has been completed in accordance with approved plans and specifications, and as-builts (if applicable);
2. Town staff has performed an inspection of the improvements and certified in writing that installation of the guaranteed improvements is completed in accordance with approved plans and specifications; and
3. No release or reduction in performance guarantee amounts will be considered until more than 25 percent of the work is in place and approved.

B. ACCEPTANCE SHALL BE DOCUMENTED

The appropriate Town official (see Section 6.6.6, Administration of Guarantees) shall provide written notice of the Town's final acceptance of the improvements subject to performance guarantees.

6.6.9. IMPROPER RELEASE OF PERFORMANCE GUARANTEES

If the Town releases a performance guarantee through error, the error shall not release the developer from responsibility for the completion of all improvements in accordance with this Ordinance.

6.6.10. FORFEITURE OF GUARANTEE

A. NOTICE OF FAILURE TO INSTALL OR COMPLETE IMPROVEMENTS

If the owner or developer fails to complete installation of the guaranteed improvements within the term of the performance guarantee (as may be extended), the appropriate Town official (see Section 6.6.6, Administration of Guarantees) shall give the owner or developer 30 day's written notice of the scope and degree of the default, by certified mail.

B. TOWN COMPLETION OF IMPROVEMENTS

After the 30-day notice period expires, the Town may draw on the guarantee and use the funds to perform the work necessary to complete installation of the guaranteed improvements. After completing such work, the Town shall provide a complete accounting of the expenditures to the owner or developer. In the event of a default triggering the use of the performance guarantee, the Town shall return any of the unused deposited cash funds or other security.

6.6.11. AS-BUILT PLANS REQUIRED

A. PUBLIC IMPROVEMENTS

Upon completion of a public infrastructure project, the developer shall certify to the Town Engineer that the completed project has been constructed in accordance with the approved plans and shall submit actual "as built" plans for all public improvements after final construction is completed.

B. STORMWATER MANAGEMENT FACILITIES

Upon completion of a private stormwater management facility, the developer shall certify to the Stormwater Administrator that the completed project is in accordance with the approved plans and shall submit actual "as built" plans after final construction is completed. The plans shall show the final design specifications for all improvements and the field

ARTICLE 6: SUBDIVISIONS

6.6. Performance Guarantees

location, size, depth, and related measures, controls and devices, as installed. The designer shall certify, under seal, that the as-built design, measures, controls, and devices are in compliance with the approved plans and with the requirements of this Ordinance.

C. INSPECTION REQUIRED

A final inspection and approval by the appropriate Town official (see Section 6.6.6. Administration of Guarantees) shall occur before the release of the performance guarantee.

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6.7. Reservation of Public Lands

6.7. RESERVATION OF PUBLIC LANDS

6.7.1. RESERVATION OF SCHOOL SITES

- A.** If a proposed subdivision of 40 or more lots includes a school site that is designated in the Land Use Plan (in accordance with Section 153A-331 of the North Carolina General Statutes) or some other long range document adopted by the Board of Commissioners, the Town shall immediately notify the Wake County Board of Education.
- B.** If the Board of Education determines the school site does not need to be reserved, it shall not be required as part of the subdivision.
- C.** If the Board of Education determines the school site needs to be reserved to accommodate a new school, the subdivision shall not be approved without reservation of the school site. If the school site is reserved, the Board of Education must acquire the site within 18 months after the date the site is reserved, or the subdivider may treat the reservation as null and void as authorized by Section 153A-331 of the North Carolina General Statutes.

6.7.2. DEDICATION OF LAND FOR PUBLIC PARKS

Subdivisions of land for 30 or more single-family residential lots shall be required to dedicate a portion of land, or pay a fee-in-lieu thereof, for public parkland, in accordance with the standards of this section.

A. DEDICATION AMOUNT

- 1.** Single-family residential subdivisions of 30 or more lots shall dedicate 1,000 square feet of land per residential lot to the Town for its use in developing public parkland.
- 2.** No credit towards required parkland dedication is given for 404 wetlands or other lands mandated for preservation by federal or state requirements.
- 3.** No more than 25 percent of the total dedication requirement may be met through dedication of water areas.

B. PROCEDURE FOR DEDICATION OR PAYMENT

- 1.** The developer shall identify land proposed for dedication on the preliminary plat, or propose payment of an in-lieu fee as part of the application for approval of a preliminary plat.
- 2.** The Board of Commissioners shall review the proposed application and determine if it complies with the standards in Section 6.7.2.C, Nature of Area to be Dedicated, or Section 6.3, Fee-in-Lieu, as appropriate. The decision to accept dedication or payment-in-lieu is up to the sole discretion of the Board of Commissioners.
- 3.** Land shall be dedicated prior to recording the first final plat for the subdivision, or the payment-in-lieu shall be paid prior to recording the first final plat for the subdivision for which the payment-in-lieu is paid.

C. NATURE OF AREA TO BE DEDICATED

All lands proposed for dedication as recreation and park areas shall meet the following standards:

1. UNITY

The dedicated land shall be a single parcel of land, whether the subdivision is developed in phases or sections, except where it is determined by the BOC that multiple parcels would better serve Town residents.

2. USABILITY

Public parkland must be flat, well-drained, usable land for a park, as determined by the BOC. In cases where dedication includes an area of water, public access to all portions of a water feature shall be provided and maintained, regardless of water feature's size.

3. SHAPE

The dedicated land shall be of a shape that supports gathering and recreation activities.

4. LOCATION

ARTICLE 6: SUBDIVISIONS

6.7. Reservation of Public Lands

- a.** The dedicated parkland shall be located so it can reasonably serve the park needs of the residents of the subdivision and immediate area.
- b.** The BOC may require that the land dedicated be located on the periphery of the development in order to allow enlargement by combining the recreation and park area with adjacent development or park facilities, existing or planned.

5. ACCESS

- a.** All dwelling units in the subdivision and residents in the immediate area shall have access to and from the parkland provided by means of streets and public walkways or trails.
- b.** Rights-of-way for this access shall be shown on the preliminary and final plats.
- c.** All dedicated lands shall have access by way of a street. Such access can be provided when the dedicated land is adjacent to existing or proposed public parkland with street access.

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6.8. Sidewalks

6.8. SIDEWALKS

Sidewalks shall be configured in accordance with the following standards:

6.8.1. LOCATION

Sidewalks are required in accordance with the Town's Pedestrian Plan and the following standards:

A. BOTH SIDES OF THE STREET

1. Sidewalks shall be provided along both sides of all streets in the residential, mixed-use, and NC, GC, and HC districts.
2. Sidewalks shall be provided along both sides of all principal or minor arterial streets, regardless of the zoning district where located.

B. ONE SIDE OF THE STREET

1. Sidewalks, at a minimum, shall be required on one side of the street in the LI, IC, and HI districts.
2. When sidewalks are required on one side of the street, they shall generally be located on the side of the street to best continue existing sidewalk networks, if present.
3. On local streets within a conservation subdivision.
4. Where there is no clear preferable street side for the placement of a sidewalk, the sidewalk shall be placed on the street side where it is least likely to have a negative impact on stormwater management, in the opinion of the Planning Director.

C. NO SIDEWALKS REQUIRED

No sidewalks shall be required in the following locations:

1. In the R1 district;
2. Along alleys and accessways to individual lots not served by a street;
3. Where an existing or proposed all-weather surface trail or pedestrian pathway can provide an equivalent level of pedestrian circulation; and
4. In cases where environmental or topographic conditions make required sidewalk provision impossible, an alternative design shall be considered by the Planning Director.

6.8.2. CONFIGURATION

- A. Sidewalks shall be at least four feet in width and configured in accordance with the Town of Zebulon's specifications.
- B. Sidewalks and pedestrian pathways shall connect with existing or planned sidewalks at property boundaries.
- C. New nonresidential, mixed-use, and multi-family development shall provide at least one on-site improved connection between the development and the adjacent public sidewalk system (planned or existing).
- D. Whenever curb and gutter construction is used on public streets, wheelchair ramps for the disabled, configured in accordance with Town or NCDOT standards, as applicable, shall be provided at intersections and other major points of pedestrian flow in accordance with Section 136-44.14 of the North Carolina General Statutes.

6.8.3. CREDIT FOR TRAILS

Hard-surfaced, ADA-accessible trails within open space set-asides shall be credited towards these sidewalk requirements when trails connect developments or connect open space set-asides to schools, shopping areas, or other recreation areas.

6.8.4. PAYMENT IN-LIEU OF PROVIDING SIDEWALKS

Only those proposed sidewalks that may cause conflicts with other Town, State, or federal infrastructure projects may be subject to the requirements for fee-in-lieu provision in accordance with Section 6.3, Fee-in-Lieu.

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6.9. Soil Erosion & Sedimentation

6.9. SOIL EROSION & SEDIMENTATION

6.9.1. NATURAL DRAINAGE SYSTEM UTILIZED TO THE EXTENT FEASIBLE

- A. To the extent practicable, all development shall conform to the natural contours of the land and natural and preexisting human-made drainage ways shall remain undisturbed.
- B. To the extent practicable, lot boundaries shall be made to coincide with natural and preexisting human-made drainage ways within subdivisions to avoid creation of lots that can be built upon only by altering the drainage ways.

6.9.2. DEVELOPMENT MUST DRAIN PROPERLY

- A. All development shall be provided with a drainage system that is adequate to prevent the undue retention of surface water on the development site. Surface water shall not be regarded as unduly retained if:
 - 1. The retention results from a technique, practice or device deliberately installed as part of an approved sedimentation or storm water runoff control plan; or
 - 2. The retention is not substantially different in location or degree than that experienced by the development site in its pre-development stage, unless the retention presents a danger to health or safety.
- B. No surface water may be channeled or directed into a sanitary sewer.
- C. Whenever practicable, the drainage system of a development shall coordinate with and connect to the drainage systems or drainage ways on surrounding properties or streets.
- D. Use of drainage swales rather than curb and gutter and storm sewers in subdivisions is provided elsewhere. Private roads and access ways within unsubdivided developments shall utilize curb and gutter and storm drains to provide adequate drainage if the grade of the roads or access ways is too steep to provide drainage in another manner or if other sufficient reasons exist to require the construction.

6.9.3. EROSION AND SEDIMENTATION CONTROL PLAN REQUIRED

Any development subject to a site plan, preliminary plat, or final plat that requires land disturbing activity of one acre in area or more shall require prior approval of an erosion and sedimentation control plan by the Wake County Inspections Division in accordance with The Wake County Soil Erosion and Sedimentation Control Ordinance and Section 113A-57(4) of the North Carolina General Statutes.

6.9.4. EXEMPTIONS

Section 6.9.3, Erosion and Sedimentation Control Plan Required, shall not apply in cases where the Wake County Inspections Division or the State Sedimentation Control Commission has certified to the Town that:

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

6.9.5. TIMING OF REVIEW

An applicant for development subject to this section shall submit proof of an approved erosion and sedimentation control plan prior to issuance of a grading permit, building permit, or final plat, as appropriate.

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6.10. Streets

6.10. STREETS

6.10.1. COMPLIANCE WITH GUIDING DOCUMENTS

- A. All streets and street-related infrastructure in the Town's jurisdiction shall be installed and maintained in accordance with the Town's adopted policy guidance, including, but not limited to the following:
1. The Comprehensive Transportation Plan;
 2. The Functional Classification Map, as amended;
 3. The Town of Zebulon's Engineering Specifications and Standard Details Manual; and
 4. Any applicable North Carolina Department of Transportation requirements.
- B. All streets and rights-of-way shall be constructed in accordance with the standards established for the particular type of street in question by the Town of Zebulon, unless a higher or more restrictive standard is established by NCDOT, in which case the street shall meet that higher or more restrictive standard.

6.10.2. STREET CLASSIFICATION

- A. All streets dedicated to public use shall be classified in accordance with Table 6.10.2: Street Classification:

TABLE 6.10.2: STREET CLASSIFICATION	
STREET TYPE [1] [2]	DESCRIPTION
Interstate	Interstates are the highest classification of arterials streets and are designed and are constructed with mobility and long-distance travel in mind. Access is controlled, intersections are grade-separated, and roadways are designed for high-speed travel. Roadways in this functional classification category connect the Town to other destinations in the State and connect major activity centers in the Town to one another. Interstates carry the highest traffic volumes.
Principal Arterial	These streets provide a high degree of mobility both within the Town's urban areas as well as through neighboring rural areas. While principal arterials do provide direct access to adjacent land uses along their alignments, their primary function is to facilitate the movement of vehicles from one part of the Town's jurisdiction to another. Principal arterials are found in the most urban or intense parts of the Town and are generally not located within residential neighborhoods, office centers, or industrial parks. Vehicles move at moderate speeds and four-way intersections are often signal-controlled. These streets include at-grade intersections with other streets, but driveways to individual lots are kept to a minimum. The average number of vehicles trips can vary widely based on the urban or rural location of an arterial street.
Minor Arterial	Minor arterial streets connect principal arterial streets to one another and provide for vehicle trips of moderate length within geographic areas smaller than those served by principal arterials. Minor arterials help to distribute vehicle trips across the Town and provide much more direct access to individual lots and land uses via driveways. Normally, the spacing of arterial streets should not exceed one mile in fully developed areas.
Major Collector	Major collector streets gather traffic from local streets and funnel it to the arterial street network. They serve as traffic circulators as well as facilitators of direct vehicular access to individual land uses such as multi-family residential,

ARTICLE 6: SUBDIVISIONS

6.10. Streets

TABLE 6.10.2: STREET CLASSIFICATION

STREET TYPE [1] [2]	DESCRIPTION
	commercial, and industrial developments. Major collector streets may also serve larger single-family residential neighborhoods. Most vehicular trips on a major collector street are longer than three-quarters of a mile. Collector streets accommodate higher vehicle speeds than local streets and often have a blend of signalized and non-signalized intersections in addition to individual driveways for larger developments. In rural areas, major collectors often facilitate intra-county travel of distances shorter than those typical to an arterial street.
Minor Collector	Minor collectors also gather or collect traffic from local streets and connect it with the larger arterial street network. Most vehicular trips on minor collector streets are less than three-quarters of a mile. Typically, minor collector streets are shorter than major collectors, have fewer travel lanes, have a lower density of individual driveway access points, are designed for lower traffic speeds, and are spaced at greater intervals than major collectors. At the same time, the total lane mileage of minor collector streets in a community is greater than the total mileage of major collector streets.
Local	Local streets occupy the largest percentage of lane miles across all types of streets and primarily provide direct access to individual lots. Local streets are often configured to discourage through traffic, though local streets can also effectively disperse local traffic when configured as part of a highly connected network offering multiple routes.
Cul-de-Sac	A dead-end local street that terminates in a vehicular turnaround.
Alley	A secondary street that provides direct access to a limited number of individual lots or land uses. In most cases, access is provided to the side or rear of the lot served by the alley.
NOTES: [1] The classification shall be based upon the function of the street and projected volume of traffic to be carried by the street, stated in terms of the number of trips per day. [2] The types of streets and their general locations are depicted on the NC Capital Area Metropolitan Planning Organization's Functional Classification Map, as amended.	

- B.** New streets constructed in the Town's jurisdiction shall be designated in accordance with Table 6.10.2: Street Classification.
- C.** Whenever a street within a new development continues an existing street that formerly terminated outside the development or it is expected that a new street will be continued beyond the development at some future time, the classification of the street will be based upon the street in its entirety, both within and outside of the development.

6.10.3. STREET RIGHTS-OF-WAY

All new streets established in the Town's jurisdiction after November 1, 2019, shall include a minimum street right-of-way configured in accordance with the Town of Zebulon's Engineering Specifications and Standard Details Manual, and Table 6.10.3: Minimum Street Right-of-Way Requirements.

ARTICLE 6: SUBDIVISIONS

6.10. Streets

TABLE 6.10.3: MINIMUM STREET RIGHT-OF-WAY REQUIREMENTS

STREET TYPE	MINIMUM RIGHT-OF-WAY (FEET) [1] [2]
Principal Arterial	80
Minor Arterial	70
Major Collector	60
Minor Collector	60
Local	50
Cul-de-Sac	50
Alley	20

NOTES:

[1] The street right-of-way shall include curb and gutter, sidewalks, multi-use paths, bicycle lanes (where indicated), and associated utility strips.

[2] Minimum rights-of-way may need to be wider to accommodate all forms of planned infrastructure in accordance with the Town's adopted policy guidance.

6.10.4. DEDICATION AND CONSTRUCTION

- A.** All lands associated with a street right-of-way shall be dedicated to the Town or the State as a part of the development process in accordance with Section 136-66.10 of the North Carolina General Statutes.
- B.** The subdivider or developer shall be responsible for the construction and installation of all streets and infrastructure in accordance with the applicable development approval, NCDOT standards, the standards in this Ordinance, and any applicable state or federal requirements.
- C.** No road construction or improvements shall commence until a plan showing the proposed roadway improvements is approved by the TRC in writing and a construction plan is approved by the Town Engineer.
- D.** All streets shall be improved to the full width, cross section, and profile, including paving, curb and gutter, and related improvements as specified in the development approval, this Ordinance, the Town's adopted policy guidance, State or federal law, and any other applicable provisions.
- E.** Land associated with a street right-of-way shall not be credited towards allowable residential density in accordance with Section 9.3.6, Residential Density.

6.10.5. PAYMENT IN-LIEU OF PROVIDING ROAD IMPROVEMENTS

Only those proposed streets, bikeways, or other road improvements that may cause conflicts with other Town, State, or federal infrastructure projects may be subject to the requirements for fee-in-lieu provision in accordance with Section 6.3, Fee-in-Lieu.

6.10.6. PRIVATE STREETS

A. NEW STREETS

All streets constructed, extended, or modified after January 1, 2020, shall be constructed, maintained, and operated in accordance with the standards for public streets. Private streets shall not be constructed as part of development within the Town's planning jurisdiction.

B. EXISTING STREETS

- 1.** Neither the Town of Zebulon or NCDOT shall be responsible for maintenance of private streets existing on or after January 1, 2020.
- 2.** Private streets may be marked with signage indicating where Town or State maintenance responsibility stops.

6.10.7. STREET DESIGN

ARTICLE 6: SUBDIVISIONS

6.10. Streets

A. GENERAL LAYOUT

1. The layout, arrangement, width, grade, character, and location of streets shall conform to the Town's adopted policy guidance, topographic conditions, natural features, and drainage systems.
2. When a development abuts or contains an existing or proposed interstate or arterial, the TRC may require frontage streets, reverse frontage with landscape plantings, or other treatment as may be necessary for adequate protection of residential properties and to ensure separation of through and local traffic.
3. Reserve strips or parcels controlling access to streets shall be prohibited, except where required as part of development on a double-frontage lot.

ARTICLE 6: SUBDIVISIONS

6.10. Streets

B. COMPLIANCE WITH ACCESS AND CIRCULATION STANDARDS

New streets and changes to existing streets located within a single lot or tract shall also be subject to the standards in Section 5.1, Access and Circulation.

C. COMPLIANCE WITH TRANSPORTATION IMPACT ANALYSIS FINDINGS

In cases where new development is subject to a requirement to prepare a transportation impact analysis in accordance with Section 6.13, Transportation Impact Analysis, all streets and street-related infrastructure shall comply with the findings of the analysis.

D. STREET INTERSECTIONS

Street intersections shall be configured in accordance with the following standards (see Figure 6.10.7.D: Street Intersections):

1. Not more than two streets shall intersect at any one point unless the Town or NCDOT certifies that such an intersection can be constructed with no extraordinary danger to public safety.
2. Streets shall intersect at right angles to the maximum extent practicable, and no two streets shall intersect at less than 60 degrees.
3. Whenever possible, proposed intersections along one side of a street shall coincide with existing or proposed intersections on the opposite side of the street.
4. Where a street center line offset (jog) occurs at an intersection, the distance between centerlines of the intersecting streets shall be not less than 125 feet.
5. Except when no other alternative is practicable or legally possible, no two streets may intersect with any other street on the same side at a distance of less than 200 feet measured from centerline to centerline of the intersecting street. When the intersected street is an arterial, the distance between intersecting streets shall be at least 1,000 feet, unless no other alternative is practicable.
6. Property lines at street intersections shall be shown as a chord connecting points not less than 15 feet back from the street intersection along each street right-of-way line. Longer setbacks for chord connections for property lines may be required by the TRC as needed for public safety.
7. In commercial developments the Town may assign traffic control to thru traffic within 500 feet of the point of access to the public right-of-way.
8. Alleys are required to provide a vehicular turn-around or connect to another street or alley.

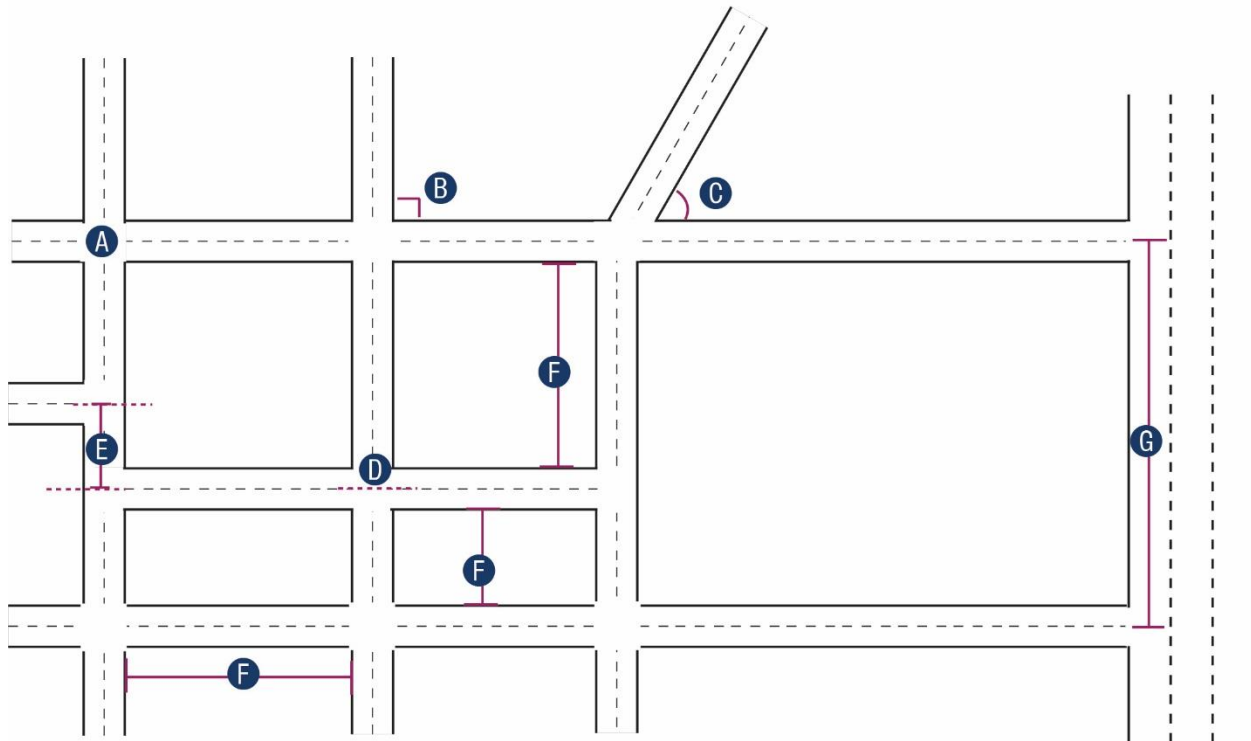
ARTICLE 6: SUBDIVISIONS

6.10. Streets

FIGURE 6.10.7.D: STREET INTERSECTIONS

LEGEND

- A** Two Streets Per Intersection
- B** Right Angles Preferred
- C** Minimum 60 Degree Angle
- D** Intersections on Both Sides of Street Coincide Where Possible
- E** Center Line Offset (Jog) Min. Distance 125'
- F** Minimum Distance Between Intersections 200'
- G** Minimum Distance Between Intersections With an Arterial 1,000'



E. BLOCK LENGTH AND WIDTH

1. BLOCK LENGTH

Except for arterial streets, or where otherwise required by the NCDOT, intersecting streets shall be laid out at such intervals that block lengths do not exceed 700 linear feet.

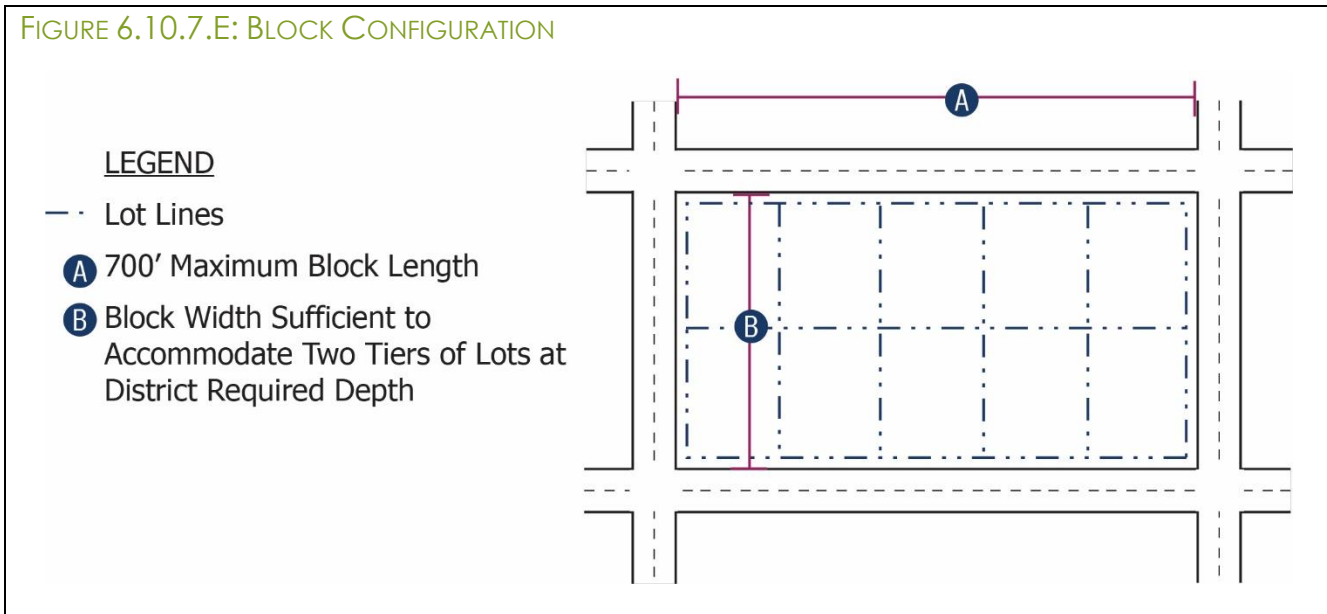
2. BLOCK WIDTH

- a. The width of the block shall normally be sufficient to allow two tiers of lots of appropriate depth.
- b. Blocks intended for business or industrial use shall be of such width as to be considered most suitable for their respective use, including adequate space for off-street parking and deliveries (see [Figure 6.10.7.E: Block Configuration](#)).

ARTICLE 6: SUBDIVISIONS

6.10. Streets

FIGURE 6.10.7.E: BLOCK CONFIGURATION



F. STREET GRADE

Street grades shall comply with the following standards:

1. Streets and their associated gutters shall maintain grade levels in accordance with the Town of Zebulon Standard Specifications.
2. Street and intersection approaches shall not have grades in excess of three percent for a distance of 100 feet from the intersection of center lines in all directions for all streets.
3. All changes in grades for local streets and collectors shall be connected by a vertical curve of a minimum length of 40 times the algebraic difference in the percents of grade ("K" value). Stop conditions shall have a minimum "K" value of 14 times the algebraic difference of the percents of grade. "K" values for arterials shall be per the AASHTO Geometric Design of Highways and Streets based on design speed.
4. The Town Engineer may consider deviations from these standards based on topographic conditions or public safety concerns.

G. STREET CURVES

Street curves shall maintain the minimum radii established in [Table 6.10.7.G: Minimum Curve Radii and Tangents](#):

TABLE 6.10.7.G: MINIMUM CURVE RADII AND TANGENTS		
STREET TYPE	MINIMUM RADII (FEET)	MINIMUM TANGENT DISTANCE BETWEEN REVERSE CURVES ON THE SAME STREET (FEET)
Principal and Minor Arterials	600	150
Major and Minor Collectors	400	100
Local Streets	150	0

H. STREET CONNECTIVITY

1. The arrangement of streets in a development shall provide for the alignment and continuation of existing or proposed streets into adjoining lands in those cases in which the adjoining lands are undeveloped and deemed appropriate by the Planning Director for future development or in which the adjoining lands are developed and include opportunities for such connections.

ARTICLE 6: SUBDIVISIONS

6.10. Streets

2. Street rights-of-way shall be extended to or along adjoining property boundaries such that a roadway connection or street stub shall be provided for development where practicable and feasible in each direction (north, south, east, and west) for development which abuts vacant lands.
3. Arterial and collector streets shall intersect with surrounding collector or arterial streets at safe and convenient locations, as determined by the NCDOT and Planning Director.
4. At all locations where streets terminate with no street connection, but a future connection is planned or accommodated, a sign shall be installed at the location with the words "FUTURE ROAD CONNECTION" to inform property owners.
5. The final plat shall identify all stub streets and include a notation that all street stubs are intended for connection with future streets on adjoining undeveloped or underdeveloped lands.
6. The use of residential strips of land in order to prevent the extension of proposed or existing streets or access thereto is prohibited.
7. Where access to a subdivision site is by a street that does not meet State standards, that street shall be improved by the developer in order to meet current State standards.

I. DEVELOPMENT ENTRY POINTS

1. Unless exempted in accordance with subsection (4) below, all subdivisions shall provide streets from the development to the street system outside the development in accordance with Table 6.10.7.I: Required Points of Access:

TABLE 6.10.7.I: REQUIRED POINTS OF ACCESS		
TYPE OF DEVELOPMENT	DEVELOPMENT SIZE	MINIMUM NUMBER OF VEHICULAR ACCESS POINTS [2]
Residential and Mixed-Use Development	50 or fewer lots	1
	51 to 200	2
	201 or more	2 + 1 per every additional 100 lots
Non-residential Development, other than Industrial	Less than 5 acres or fewer than 10 lots	1
	More than 5 acres	2
NOTES: [1] Points of access shall refer to streets, not driveways. [2] Additional vehicular access points may be required where determined necessary by the Town.		

2. Nothing in this section shall limit the total number of streets providing access to the street system outside a development, or exempt a development from meeting all applicable street connectivity standards.
3. Street stubs shall be credited as an access point when all ingress or egress to a development is only available from a single arterial or collector street.
4. Development shall be exempted from these standards if it is demonstrated the following conditions apply:
 - a. A transportation impact analysis allows a deviation;
 - b. No other street access points can be located due to existing lot configurations, absence of connecting streets, environmental, or topographic constraints;
 - c. NCDOT will not authorize the required number of entrances; or
 - d. Alternative access can be provided in a manner acceptable to the Town that is supported by a transportation impact analysis.

J. CUL-DE-SAC DESIGN

ARTICLE 6: SUBDIVISIONS

6.10. Streets

1. Cul-de-sac length that shall be in accordance with the standards in Table 6.10.7.J: Maximum Cul-de-Sac Length:

TABLE 6.10.7.J: MAXIMUM CUL-DE-SAC LENGTH	
ZONING DISTRICT	MAXIMUM CUL-DE-SAC LENGTH (LINEAR FEET) [1]
R1 & R2	1,000
R4	800
R6 & RMF	200
DTP	500
All Other Districts	800
NOTES: [1] In cases where a cul-de-sac street segment cross more than one zoning district, the more restrictive length standard shall apply.	

2. All permanent cul-de-sacs or other dead-end streets shall be provided at the closed end with a turn-around configured in accordance with the Town of Zebulon's specifications.
3. Dead-end streets intended to be continued at a later time shall be provided with a turn-around as required for a dead-end street when required by the Planning Director.
4. Only that portion to be required as right-of-way when the street is continued shall be dedicated and made a public street.

K. STREET KNUCKLES OR BULB-OUTS

If knuckles or bulb outs are provided as a part of new development, they shall comply with all applicable Town requirements.

L. HALF STREETS

Half streets along property lines shall be prohibited except that whenever a half street already exists adjacent to a tract to be subdivided, the other half of the street shall be platted within the tract to be subdivided.

6.10.8. STREET DRAINAGE

- A. All required drainage facilities shall be constructed prior to consideration of a final plat.
- B. Storm sewers, drains, and structures installed by the subdivider shall be installed of a size, type, and in locations as approved by the Planning Director or NCDOT, as appropriate.
- C. Street drainage facilities located outside the street right-of-way shall be maintained by the developer, the landowner, or an owners' association, and maintenance responsibility shall be noted on the final plat.
- D. The Town shall not be responsible for any private or commonly-held subdivision drainage infrastructure connected to publicly-maintained drainage facilities, streams, or other outlets having constant flow.

6.10.9. STREET SIGNS

- A. The Town shall install standard street signs as part of new development.
- B. In cases where decorative street signs are proposed, the developer or subdivider shall be responsible for the cost of the decorative street signs.
- C. Decorative street signs shall be approved as to form and content by the Town prior to installation.
- D. Street name signs shall conform to Town and NCDOT standards.
- E. At least two street name signs shall be placed at each four-way street intersection and at least one at each "T" intersection.
- F. Street signs shall be installed on the northwest and southeast corners of every four-way intersection.

ARTICLE 6: SUBDIVISIONS

6.10. Streets

- G. Signs shall be installed free of visual obstruction.

6.10.10. TRAFFIC CONTROL SIGNS AND SIGNALS

- A. If deemed necessary by the Town or by NCDOT, signals shall be installed by the developer at each street intersection within the subdivision and at each intersection of a subdivision street and a state-maintained road or access road.
- B. Signs and signals shall comply with NCDOT regulations with regards to size, shape, color, location and information contained thereon.
- C. At least two or more traffic-control signs shall be placed at each four-way street intersection and at least one at each "T" intersection.
- D. Signs and signals shall be installed free of visual obstruction.

6.10.11. STREET LIGHTS

- A. Streets and sidewalks shall be illuminated with street lights or pedestrian lighting for security and safety, in accordance with Town, utility company, and NCDOT standards.
- B. Areas adjacent to the vehicular entrances for non-residential, mixed-use, and multi-family residential developments containing more than four dwelling units shall be adequately lighted to ensure the safety of persons and the security of the buildings.
- C. Exterior lighting located outside of a street right-of-way shall be configured in accordance with the standards in Section 5.4, Exterior Lighting.
- D. Illumination requirements must be met prior to issuance of an occupancy permit.

6.10.12. VEHICULAR GATES

- A. Gates to private property shall conform to Town requirements for emergency access and be served by a vehicular turnaround.
- B. Proposed gates shall be reviewed and decided by the Planning Director.

6.10.13. BRIDGES

All bridges shall be designed by a professional engineer licensed by the State of North Carolina.

6.10.14. DAMS

- A. Public streets that traverse a dam shall be approved by the Planning Director and construction plans for the street shall be approved by the applicable state review agency.
- B. Maintenance of a dam structure shall be the responsibility of the developer or an owners' association.
- C. The party responsible for dam maintenance shall provide a performance guarantee for the dam's maintenance in perpetuity in accordance with the standards in Section 6.6, Performance Guarantees.

ARTICLE 6: SUBDIVISIONS

6.11. Stormwater

6.11. STORMWATER

6.11.1. GENERALLY

All developments shall be constructed and maintained so that adjacent properties are not unreasonable burdened with surface waters as a result of development.

6.11.2. HIGHER ADJACENT LANDS

No development shall be constructed or maintained in ways that unreasonably impedes the natural flow of water from higher adjacent lands across the development, thereby causing substantial damage to those higher adjacent properties.

6.11.3. LOWER ADJACENT LANDS

No development shall be constructed or maintained so that surface waters from the development are unreasonably collected and then channeled into lower adjacent properties at location or volumes so as to cause substantial damage to those lower adjacent properties.

ARTICLE 6: SUBDIVISIONS

6.12. Subdivision Standards

6.12. SUBDIVISION STANDARDS

6.12.1. SUBDIVISION NAME

Every subdivision shall be given a name that shall not duplicate or be similar to that of any other subdivision existing or previously planned within the Town's planning jurisdiction or Wake County.

6.12.2. REASONABLE RELATIONSHIP

All required improvements, easements, and rights-of-way (other than required reservations) shall substantially benefit the development or bear a reasonable relationship to the need for public facilities attributable to the new development.

6.12.3. LOT CONFIGURATION

A. DIMENSIONAL REQUIREMENTS

1. The size, width, depth, shape, orientation, and minimum setback lines of lots shall be as required for the zoning district where located in accordance with the standards in Article 3: Districts.
2. All lots created after January 1, 2020, shall have sufficient area, dimensions, and access to allow a principal building to be erected on it in compliance with the requirements of this Ordinance.
3. Lots intended for non-residential development shall be of an adequate size and shape to accommodate required off-street parking, loading, and on-site circulation features.

B. SIDE LOT LINES

Side lines of lots should be at or near right angles or radial to street lines.

C. FLAG LOTS

New flag lots may be established, subject to the following requirements:

1. No more than two flag lots may be created from a parent parcel after January 1, 2020.
2. New flag lots may only be established along existing streets.
3. The "pole," arm," or "pan handle" portion of a flag lot shall maintain a minimum width of at least 30 feet.
4. Use of a single driveway to serve an adjoining lot is encouraged. Wherever possible, the shared driveway shall be on the flag lot.
5. In no case shall flag lots be configured to have two "poles," "arms," or "pan handles" adjacent to one another.

D. DOUBLE-FRONTAGE LOTS

1. Double frontage (or "through" lots) shall be prohibited except where essential to provide separation of residential development from traffic arteries or to overcome specific challenges of topography and orientation.
2. In cases where a double frontage lot abuts an arterial or collector street, access to the lot shall be provided from the street with the lowest average daily trips. This requirement may be waived by the Planning Director in cases where compliance with this standard will likely result in dramatic increases in traffic within residential areas.
3. A double frontage lot shall include an easement of at least ten feet in width across the rear of the lot which shall prohibit access to the abutting street.

E. CORNER LOTS

Corner lots shall be of sufficient size to ensure development may be configured in accordance with the standards in Section 5.1.7, Sight Distance Triangles.

F. LOTS SERVED BY PRIVATE WATER OR WASTEWATER SYSTEMS

1. Wake County Environmental Health shall evaluate proposed or existing sewer facilities on lots ten acres or less that are not served by governmental water and/or sewerage systems in accordance with the following:

ARTICLE 6: SUBDIVISIONS

6.12. Subdivision Standards

- a. New subdivision lots without existing sewer systems shall be evaluated by current state and county health department regulations.
 - b. New subdivision lots with existing sewer systems shall be evaluated for visual malfunctioning by the appropriate county health department. Malfunctioning systems shall be repaired prior to subdivision plat approval. New property lines shall meet current minimum setback requirements or an easement for the sewer facilities must be shown on the plat.
 2. Lots that are located within 1,000 linear feet of an existing public potable water or public sanitary sewer line shall connect to these existing systems.
 - a. If the potable water system will not generate water pressure that is equal to the average of connected customers within a quarter-mile radius of the owner's point of connection (as determined by a licensed professional engineer), then connection to the water system is not required.
 - b. If the cost to connect to the sewer system is greater than the cost to install an on-site wastewater system (as determined by a licensed soil scientist, on-site wastewater contractor, or licensed plumbing contractor), then connection to sewer system is not required.

G. LOTS SERVED BY PRIVATE WATER OR WASTEWATER SYSTEMS IN WATERSHED AREAS

Lots in watershed areas that must have an individual (on site) water supply and sewage disposal system shall be evaluated by current State and county health department regulations and/or other requirements governing the protection of public water supplies.

H. DRAINAGE AND FLOOD PREVENTION

New subdivisions shall comply with the applicable requirements for drainage in Section 6.9, Soil Erosion & Sedimentation, stormwater management in Section 6.11, Stormwater, and flood prevention in Section 3.8.2, Flood Hazard Overlay (FHO) District.

6.12.4. ACCESS TO LOTS

- A. All lots subdivided after January 1, 2020, shall be provided with access to an existing street that has been accepted for maintenance by the State of North Carolina or the Town of Zebulon.
- B. Streets providing access to lots shall be constructed in conformance with the standards and specifications of the Town's construction standards and details and/or the North Carolina Department of Transportation and dedicated in accordance with this Ordinance.

6.12.5. MONUMENTS

Monuments shall be included as part of any subdivision, and shall be configured in accordance The Standards of Practice for Land Surveying in North Carolina, as adopted by the North Carolina State Board of Registration for Professional Engineers and Land Surveyors, and the following:

- A. Markers shall be set at all lot corners, points of curvature, points of tangency, and at all points with a change in bearings.
- B. The location and type of all markers used shall be indicated on the final plat.

6.12.6. EASEMENTS

Easements for drainage or utilities may be required where necessary, and shall be provided in accordance with the following:

A. LOCATIONS

1. Such easements shall be placed along side or rear property lines where practicable.
2. Easements shall center along or be adjacent to a common property line where practicable.
3. Redesign of the lot arrangements may be required to meet extreme conditions.

B. 2. UTILITIES

1. POWER OR COMMUNICATIONS

ARTICLE 6: SUBDIVISIONS

6.12. Subdivision Standards

Where alleys are not provided, easements (of not less than ten feet in width) shall be provided adjacent to public rights-of-way or in such other locations as may be directed by the Planning Department for poles, wires, or conduits for electrical utilities, natural gas service, or telephone services.

2. POTABLE WATER

Easements of at least 20 feet in width, as centered on the pipe, shall be provided for public potable water supply systems in locations as may be directed by the Planning Department for water distribution lines, water meters, and access points.

3. SANITARY SEWER

Easements of at least 30 feet in width, as centered on the pipe, shall be provided for public sanitary sewer systems in locations as may be directed by the Planning Department for sewer collection lines and access points.

4. EASEMENT UPSIZING

The Planning Director may increase the easement widths for public water and sewer services based on the size of the line, the required depth of the line, or the need to remain clear of other utilities.

C. DRAINAGE

1. Provision of drainage facilities to maintain the established flow of off-site water through any property to be subdivided shall be the responsibility of the subdivider.
2. No subdivision shall block or obstruct the natural drainage of an adjoining area.
3. Easements, when required for drainage of the area to be subdivided, shall be of such width as is necessary to permit proper construction and maintenance of the drainage facilities required to drain the area properly.
4. Open channel drainage easements shall be of a minimum width of 10 feet.
5. Drainage easements containing piped stormwater facilities shall be at least 20 feet in width.
6. The Planning Director may require drainage easements up to 50 feet in width as necessary in the public interest.
7. Easements of greater width may be required along the lines of or across lots where necessary for storm drainage, channels, surface overflow or for the extension of main sewers or similar utilities and when necessary for adequate separation of specific utilities.
8. Existing natural drainage shall be retained or adequately relocated.

D. MAINTENANCE

1. All easements for drainage or utilities shall be cleared of undergrowth, trees, and other obstructions prior to approval of the final plat unless Planning Director certifies in writing that such clearance is unnecessary.
2. Clearance is not required for easements that are provided for possible future use.
3. Easements for stormwater management facilities and stormwater drainage systems located outside the street right-of-way shall be maintained by an owners' association, and maintenance responsibility for these features shall be indicated on the final plat.

E. IDENTIFICATION

All easements shall be granted in favor of the Town of Zebulon, the State of North Carolina, the appropriate utility provider, an owners' association, as appropriate, and shall be shown and clearly labeled on the final plat.

6.12.7. CLUSTER MAILBOXES

When cluster mailbox units are required by the US Postal Service, they shall be configured in accordance with the following:

- A. Cluster mailbox units shall be configured in accordance with all applicable USPS standards.
- B. Cluster mailbox units shall be served by a sidewalk connected to the larger pedestrian network in the development, or shall provide at least two designated parking spaces that provide safe and unobstructed access to the mailbox unit.

ARTICLE 6: SUBDIVISIONS

6.12. Subdivision Standards

- C. Cluster mailboxes shall be covered to protect pedestrians from inclement weather while accessing their individual mailbox.
- D. Cluster mailboxes shall be served by exterior illumination of at least 2 footcandles to ensure safety during night time hours.

6.12.8. BUILDING NUMBERS

Building numbers shall be assigned by the Town in accordance with the following standards:

- A. Road address numbers must be clearly displayed so that the location can be identified easily from the road.
- B. The official address number must be displayed on the front of a building or at the entrance to a building which is most clearly visible from the street or road during both day and night.
- C. If a building is more than 75 feet from any road, the address number shall be displayed at the end of the driveway or easement nearest the road which provides access to the building.
- D. Numerals indicating the address number of a single-family dwelling shall be at least four inches in height and shall be posted and maintained so as to be legible from the road.
- E. Numerals for multiple dwelling units and nonresidential buildings shall be at least six inches in height and shall be placed on the front of the building facing the road or on the end of the building nearest the road.
- F. Numerals must be of contrasting color to the background.
- G. Mobile home lots shall have sequential address numbers throughout the park. Each lot will have a separate address number assigned. The address number of each lot must be clearly displayed on the lot so as to be legible from the road rather than mounted on the mobile home unit.
- H. Owners or occupants of buildings already constructed which do not comply with this section will be notified and requested to meet these requirements within 60 days from the date of notification. If the owner or occupant fails to comply with this request within the specified period of time, the Planning Director may revoke any of the penalties or remedies available in this Ordinance.

ARTICLE 6: SUBDIVISIONS

6.13. Transportation Impact Analysis

6.13. TRANSPORTATION IMPACT ANALYSIS

6.13.1. INTRODUCTION

The Town of Zebulon requires that the traffic and circulation impacts of proposed development projects be analyzed. The traffic impacts of proposed developments are to be analyzed through the preparation of a traffic impact analysis (TIA) prepared in conformance with the Town of Zebulon requirements. The TIA must be prepared, signed and sealed by a traffic engineer or a civil engineer registered in the State of North Carolina, qualified to practice traffic engineering. This section identifies the required format and methodology that is generally required to be utilized in the study preparation, subject to the review and approval of the Town of Zebulon.

6.13.2. PURPOSE

The purpose of the TIA is to identify the impacts on capacity, level of service (LOS), and safety, which are likely to be created by a proposed development. A TIA report should identify the improvements needed to:

- A. Ensure safe ingress to and egress from a site;
- B. Maintain adequate street capacity on adjacent public streets;
- C. Ensure safe and reasonable traffic operating conditions on streets and at intersections in the vicinity of a proposed development;
- D. Avoid creation of or mitigate existing hazardous traffic conditions;
- E. Minimize the impact of nonresidential traffic on residential neighborhoods in the community; and
- F. Protect the substantial public investment in the existing street system.

6.13.3. APPLICABILITY

- A. A TIA shall be required for any new development projects utilizing a development plan, site plan, and preliminary plat that can be anticipated to generate at least 50 vehicle trips in either the a.m. or p.m. peak hour, or exceeding 150 average daily trips (as determined by Institute of Transportation Engineers Standards).
- B. Any redevelopment projects to an existing building that involve a rezoning of the property or a special use permit shall be required to provide a TIA if the projects are anticipated to generate at least 50 vehicle trips in either the a.m. or p.m. peak hour (as determined by Institute of Transportation Engineers Standards).
- C. A TIA shall be required for any new school development or school redevelopment projects utilizing a development plan, site plan, and preliminary plat that can be anticipated to generate at least 100 vehicle trips in either the a.m. or p.m. peak hour. Trip generation calculations shall be determined using the North Carolina Department of Transportation (NCDOT) Municipal and School Transportation Assistance (MSTA) Traffic Calculator. Final approval of such developments may require comments, recommendations, and approval from the NCDOT Division Office based on an analysis and evaluation of the capacity and efficiency of the anticipated development's roadway network. Any roadway modifications or improvements necessitated by the proposed development should be designed and constructed in conformance with the current NCDOT design and construction guidelines.
- D. Town staff reserves the right to require a TIA if operational or safety concerns exist. Some additional factors for determination may include any nonresidential use meeting one or more of the following:
 - 1. covering more than two (2) acres;
 - 2. including more than three (3) building lots;
 - 3. providing an assembly area for more than four hundred (400) persons;
 - 4. involving office or sales floor area over twenty thousand (20,000) square feet;
 - 5. within one hundred fifty (150) lineal feet of any intersection of two (2) designated Thoroughfares

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6. within five hundred (500) lineal feet of any public road intersection currently operating as a Level of Service D, E or F;
 7. and/or involving service or delivery vehicles in excess of one (1) ton.
- E. Whenever a TIA is required and meets the standards set forth in this section pursuant to division (A, B, C, or D above, the TIA report shall be incorporated and included as part of the Technical Review Committee (TRC) submittal packet.

6.13.4. PRE-APPLICATION CONFERENCE

The applicant shall schedule a pre-application meeting with the Planning Director to discuss procedures, standards, and regulations required for TIA submittal and approval.

6.13.5. MEMORANDUM OF UNDERSTANDING

The traffic engineer shall submit a memorandum of understanding (MOU) to the Planning Director to document the agreements made during the pre-application conference which discusses the criteria used in the analysis of the TIA. The MOU may be received by the town via email, fax, or mail. The traffic engineer shall not begin work on the TIA until the Town has approved the MOU.

6.13.6. PERIOD OF VALIDITY

A TIA report and traffic counts shall be valid for a specific site for no more than one year, so long as no significant modifications to the development proposed for the site that substantially increase the traffic impact are made.

6.13.7. TRAFFIC IMPACT ANALYSIS REPORT ELEMENTS

The TIA shall follow standard transportation engineering processes for determining trip generation and distribution including trip generation category, diversion assumptions, distribution assumptions, the adequacy of the road network to serve the proposed development, and whether off-site road dedication and improvements should be made to mitigate the effects of the development proposed in the application. The data and methods used in the TIA shall be based upon the latest editions of Institute of Transportation Engineers (ITE) manuals. A TIA shall address the factors listed below:

A. EXECUTIVE SUMMARY

At the beginning of the TIA, the executive summary shall summarize the analysis and conclusions and identify recommended transportation improvements.

B. SITE DESCRIPTION

The TIA shall contain reports, graphics, illustrations, narratives, and a site plan that describe the characteristics of the site and adjacent land uses as well as expected development in the vicinity that will influence future traffic conditions. A description of potential uses and traffic generation to be evaluated shall be provided. A description of the proposed development, including access plans, staging plans, and an indication of land use and intensity, shall be provided.

C. STUDY AREA

The study area shall include all proposed access points, all signalized intersections and all non-signalized intersections having side-street average daily traffic counts of 2,000 vehicles per day or more within one-half mile of the property lines on all streets adjoining the site in accordance with Table 6.13.7.C: Study Area Boundaries. If the estimated trip generation for the project is over 2,500 trips per day, then the study area shall include all proposed access points, all signalized intersections, and all non-signalized intersections having side-street average daily traffic counts of 2,000 vehicles per day or more within one mile of the property lines on all adjoining streets. The potential traffic from any approved project shall be considered in the study as determined by the Planning Director. The Planning Director has the right to add or subtract study area intersections based on specific study area characteristics, and local traffic patterns.

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TABLE 6.13.7.C: STUDY AREA BOUNDARIES

ELEMENT	< 2,500 TRIPS PER DAY	> 2,500 TRIPS PER DAY
All proposed access points	Yes	Yes
All signalized intersections within 1/2 mile	Yes	Yes
All signalized intersections more than 1/2 mile but within one mile of site	No	Yes
All non-signalized intersections within 1/2 mile of the site with at least 2,500 average daily trips	Yes	Yes
All non-signalized intersections more than 1/2 mile but within one mile of the site with at least 2,500 average daily trip	No	Yes

D. INTERSECTIONS SHALL BE ANALYZED UNDER FOUR SCENARIOS

1. Existing.
2. No-build: (existing + annual growth + approved developments).
3. Build: (existing + annual growth + approved developments + site traffic).
4. Build improved: (existing + annual growth + approved developments + site traffic + necessary improvements).
5. Scenario 4 may be eliminated if improvements are not necessary to satisfy any queuing problems or the LOS criteria listed herein. Overall LOS and delay must be provided for all signalized intersections and worst movement LOS and delay must be provided for all unsignalized intersections. Intersection analysis shall include queue analysis. The analysis year for all future scenarios is one year following the development's scheduled completion year (build + 1).

E. EXISTING TRAFFIC CONDITIONS

The TIA shall contain a summary of the data utilized in the study and an analysis of existing traffic conditions, including:

1. Traffic count and turning movement information, including the source of and date when traffic count information was collected;
2. Correction factors that were used to convert collected traffic data into representative design-hour traffic volumes;
3. Roadway characteristics, including the design configuration of existing or proposed roadways, existing traffic control measures (e.g., speed limits and traffic signals), and existing driveways and turning movement conflicts in the vicinity of the site; and
4. Identification of the existing level of service for roadways and intersections without project development traffic using accepted methods of evaluation. Level of service should be calculated for the weekday peak hour and, in the case of uses generating high levels of weekend traffic, the Saturday peak hour.

F. LEVEL OF SERVICE

For corridors, including mainline, merging areas, and ramp junctions, a LOS C shall be maintained on any expressway, freeway, or arterial, and an LOS D on any other designated nonlocal street on the thoroughfare plan. At all intersections, an LOS C shall be maintained on any arterial or higher-order street and an LOS D on any other nonresidential street. Where the existing level of service is below these standards, the traffic impact analysis report shall identify those improvements or transportation demand management techniques needed to maintain the existing level of service, and what additional improvements would be needed to raise the level of service to the standards indicated.

G. NUMBER OF ACCESS POINTS

The number of access points provided shall be the minimum needed to provide adequate access capacity for the site. Evidence of LOS D operations for individual public street

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movements at access locations is a primary indication of the need for additional access points. However, the spacing and geometric design of all access points shall be consistent with the access management criteria of the ordinance.

H. TRAFFIC FLOW AND PROGRESSION

The location of new traffic signals or proposed changes to cycle lengths or timing patterns of existing signals to meet level of service standards shall not interfere with the goal of achieving adequate traffic progression on major public streets in the vicinity of the development.

I. VEHICLE STORAGE

The capacity of storage bays and auxiliary lanes for turning traffic shall be adequate to ensure that turning traffic will not interfere with through traffic flows on any public street.

J. INTERNAL CIRCULATION

On-site vehicle circulation and parking patterns shall be designed so as not to interfere with the flow of traffic on any public street and shall accommodate all anticipated types of site traffic.

K. SAFETY

Access points shall be designed to provide for adequate sight distance and appropriate facilities to accommodate acceleration and deceleration of site traffic. Where traffic from the proposed development will impact any location with an incidence of high accident frequency (defined as one of the five to ten highest accident locations in the area), the accident history should be evaluated and a determination made that the proposed site access or additional site traffic will not further aggravate the situation.

L. HORIZON YEAR(S) AND BACKGROUND TRAFFIC GROWTH

The TIA shall identify the horizon year(s) that were analyzed in the study, the background traffic growth factors for each horizon year, and the method and assumptions used to develop the background traffic growth. Background growth rates should be developed using historical traffic counts and/or population and employment growth in the area, with a maximum of 6% per year. Unless otherwise approved by the Planning Director, the impact of development shall be analyzed for the build out year plus one year into the future after the development is completed.

M. TIME PERIODS TO BE ANALYZED

For each defined horizon year, specific time periods are to be analyzed. For most land uses, this time period will be the average peak hour a.m. and p.m. However, certain uses (e.g., major retail centers, schools, or recreational uses) will have characteristic peak hours different than that found for adjacent streets, and these unique peak hours may need to be analyzed to determine factors, such as proper site access and turn lane storage requirements.

N. TRIP GENERATION, REDUCTION, AND DISTRIBUTION

The TIA shall summarize the projected peak hour and average daily trip generation for the proposed development and illustrate the projected trip distribution of trips to and from the site, and should identify the basis of the trip generation, reduction, and distribution factors used in the study. Trip distribution assumptions should be based on existing traffic patterns and employment and population centers in the area.

O. TRAFFIC ASSIGNMENT

The TIA shall identify projected design-hour traffic volumes for roadway segments, intersections, or driveways in the study area, with and without the proposed development, for the horizon year(s) of the study.

P. IMPACT ANALYSIS

Q. THE TIA SHALL ADDRESS THE IMPACT OF TRAFFIC VOLUMES OF THE PROJECTED HORIZON YEAR(S) RELATIVE TO EACH OF THE APPLICABLE TRAFFIC SERVICE

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STANDARDS AND SHALL IDENTIFY THE METHODOLOGY UTILIZED TO EVALUATE THE IMPACT. THE WEEKDAY A.M. AND P.M. PEAK HOUR IMPACT SHALL BE EVALUATED AS WELL AS THE SATURDAY PEAK HOUR FOR THOSE USES EXHIBITING HIGH LEVELS OF WEEKEND TRAFFIC GENERATION. MITIGATION/ALTERNATIVES

In situations where the traffic levels of service standards are exceeded, the traffic impact report shall evaluate each of the following alternatives for achieving the traffic service standards by:

1. Identifying where additional rights-of-way are needed to implement mitigation strategies; and
2. Identifying suggested phasing of improvements where needed to maintain compliance with traffic service standards.

R. RECOMMENDATIONS

The TIA shall clearly state the mitigation measures recommended by the analysis and shall summarize how the recommended mitigations are roughly proportional to the identified impacts. The recommended street and highway mitigation measures shall be shown on a drawing that depicts existing and recommended improvements.

S. OTHER

Other items may be required at the discretion of the Town Manager, Planning Director, or Public Works Director depending upon the type and scale of the project. These may include, but are not limited to: queue length analysis, pedestrian counts, accident data, traffic speeds, stopping sight distances, and signal warrant analyses.

6.13.8. SAFETY AND OPERATIONAL ANALYSIS

The TIA shall examine existing roadway conditions to determine if safety and/or operational improvements are necessary due to increase in traffic from the project or cumulative projects. The types of improvements to be identified may include, but are not limited to:

- A. Need for turning lanes;
- B. Intersections needing sight distance studies;
- C. Parking restrictions;
- D. Measures to reduce cut-through project traffic in adjacent residential areas;
- E. Potential impacts to adjacent schools;
- F. Queue lengths and impacts to adjacent intersections;
- G. Need for signal interconnect systems.

6.13.9. DEFERRAL OF OBLIGATION

Upon request of the applicant or property owner to the hearing body, the obligation to dedicate or improve thoroughfare rights-of-way or to make intersection improvements imposed on an application may be deferred to a later stage of the development process. As a condition of deferring the obligation to dedicate rights-of-way for or to improve thoroughfares, which deferral shall be in the sole discretion of the town, the town shall require the developer to execute a subdivision or site development improvement agreement specifying the amount and timing of the rights-of-way dedication or improvements to thoroughfares, including the posting or depositing of a bond, letter of credit, or other fiscal surety, in a form and under terms acceptable to the town, in advance of approval of the development application.

6.13.10. WAIVER

- A. The Board of Commissioners is empowered to hear and decide waiver exemptions from the terms of this section. A request for a waiver shall be heard at a quasi-judicial hearing. All appropriate fees shall be paid at the time of application for a waiver.
- B. The Board of Commissioners may waive the requirements for a TIA if a previously prepared traffic study or transportation plan, not older than ten years clearly shows that no capacity or safety issues exist that might be compounded as a result of the proposed development,

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and thereby, no adverse impacts of unsafe or hazardous conditions would be created on the transportation system.

- C.** Developments in the central business districts that are not required to provide on-site or off-street parking are exempt from the requirements of this section.
- D.** After completion of the TIA, the Board of Commissioners may waive suggested improvements upon determining the spirit and intent of this section will still be met through alternative standards.

6.13.11. FORMAT AND SUBMITTAL OF REPORT

- A.** Five copies of the final printed report must be bound and submitted to the Planning Department.
- B.** The report should contain discussion of all of the major facets of the study including background data, traffic data collected, trip generation, trip distribution and assignment, analysis of conditions with and without the proposed project, recommended mitigation measures, and appendices with pertinent data.
- C.** Renderings of the proposed development are recommended for inclusion in the report.
- D.** If necessary, copies relating to projects impacting state roads should be submitted to the North Carolina Department of Transportation (NCDOT) District Office as well as the NCDOT Traffic Engineering Branch.
- E.** The report must be signed and sealed by a traffic engineer registered in the State of North Carolina on the cover or table of contents page.
- F.** The report shall include a graphic map with aerial photo of the studied intersections with labels showing the different LOS scenarios listed in subsection D above and a list of recommended improvements.

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6.14. Utilities and Infrastructure

6.14. UTILITIES AND INFRASTRUCTURE

6.14.1. UTILITY OWNERSHIP AND EASEMENT RIGHTS

In any case in which a developer installs or causes the installation of water, sewer, electrical power, telephone or cable television facilities and intends that the facilities shall be owned, operated or maintained by a public utility or any entity other than the developer, the developer shall transfer to the utility or entity the necessary ownership or easement rights to enable the utility or entity to operate and maintain the facilities.

6.14.2. LOTS SERVED BY GOVERNMENTALLY OWNED WATER OR SEWER LINES

- A. Whenever it is legally possible and practicable in terms of topography to connect a lot with a Town water or sewer line by running a connection line not more than 200 feet from the lot to the line, then no use requiring water or sewage disposal service may be made of the lot unless connection is made to the line.
- B. Connection to the water or sewer is not legally possible if, in order to make connection with the line by a connecting line that does not exceed 200 feet in length, it is necessary to run the connecting line over property not owned by the owner of the property to be served by the connection and, after diligent effort, the easement necessary to run the connecting line cannot reasonably be obtained.
- C. For purposes of this article, a lot is served by a Town-owned water or sewer line if connection is required by this section, with the exception of:
 - a. If the potable water system will not generate water pressure that is equal to the average of connected customers within a quarter-mile radius of the owner's point of connection (as determined by a licensed professional engineer), then connection to the water system is not required.
 - b. If the cost to connect to the sewer system is greater than the cost to install an on-site wastewater system (as determined by a licensed soil scientist, on-site wastewater contractor, or licensed plumbing contractor), then connection to sewer system is not required.

6.14.3. SEWAGE DISPOSAL FACILITIES REQUIRED.

- A. Every principal use and every lot within a subdivision shall be served by a sewage disposal system that is adequate to accommodate the reasonable needs of the use or subdivision lot and that complies with all applicable health regulations.
- B. Primary responsibility for determining whether a proposed development will comply with these standards typically lies with a county or state agency rather than the Town, and the developer must comply with the detailed standards and specifications of another agency.
- C. Whenever applicable the developer must present the Planning Director with certification from the appropriate agency which regulate the type of sewage disposal facility being proposed that the facility complies with all standards and requirements. If a permit is required, the developer must present the Planning Director with a copy of the permit as well as any detailed drawings which were required prior to its issuance.

6.14.4. WATER SUPPLY SYSTEM REQUIRED

- A. Every principal use and every lot within a subdivision shall be served by a water supply system that is adequate to accommodate the reasonable needs of the use or subdivision lot and that complies with all applicable health regulations.
- B. Primary responsibility for determining whether a proposed development will comply with these standards typically lies with a county or state agency rather than the Town, and the developer must comply with the detailed standards and specifications of such other agency.
- C. Whenever applicable the developer must present the Planning Director with certification from the appropriate agency which regulate the type of sewage disposal facility being proposed that the facility complies with all standards and requirements. If a permit is

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required, the developer must present the Planning Director with a copy of the permit as well as any detailed drawings which were required prior to its issuance.

6.14.5. ELECTRIC POWER

- A. Every principal use and every lot within a subdivision shall have available to it a source of electric power adequate to accommodate the reasonable needs of the use and every lot within the subdivision. Compliance with this requirement shall be determined as follows:
- B. If the use is not a subdivision and is located on a lot that is served by an existing power line and the use can be served by a simple connection to the power line, then no further certification is needed; and
- C. If the use is a subdivision or is not located on a lot served by an existing power line or a substantial internal distribution system will be necessary, then the electric utility service provider must review the proposed plans and certify to the Town that it can provide service that is adequate to meet the needs of the proposed use and every lot within the proposed subdivision.

6.14.6. TELEPHONE SERVICE

- A. Every principal use and every lot within a subdivision shall have available to it a telephone service cable adequate to accommodate the reasonable needs of the use and every lot within the subdivision. Compliance with this requirement shall be determined as follows:
- B. If the use is not a subdivision and is located on a lot that is served by an existing telephone line and the use can be served by a simple connection to the power line, then no further certification is needed; and
- C. If the use is a subdivision or is not located on a lot served by an existing telephone line or a substantial internal distribution system will be necessary, then the telephone utility company provider must review the proposed plans and certify to the town that it can provide service that is adequate to meet the needs of the proposed use and every lot within the proposed subdivision.

6.14.7. UNDERGROUND UTILITIES

- A. All electric power lines, not to include transformers or enclosures containing electrical equipment including, but not limited to, switches, meter or capacitors which may be pad mounted, telephone, gas distribution and cable television lines in subdivisions constructed after the effective date of this chapter shall be placed underground in accordance with the specifications and policies of the respective utility service and subject to approval by the town.
- B. Whenever an unsubdivided development is hereafter constructed on a lot that is undeveloped on the effective date of this Ordinance, then all electric power, telephone, gas distribution and cable television lines installed to serve the development that are located on the development site outside of a previously existing public street right-of-way shall be placed underground in accordance with the specifications and policies of the respective utility companies and subject to approval by the town.

6.14.8. UTILITIES TO BE CONSISTENT WITH INTERNAL AND EXTERNAL DEVELOPMENT

- A. Whenever it can reasonably be anticipated that utility facilities constructed in one development will be extended to serve other adjacent or nearby developments, the utility facilities shall be located and constructed so that extensions can be made conveniently and without undue burden or expense or unnecessary duplication of service.
- B. All utility facilities shall be constructed in such a manner as to minimize interference with pedestrian or vehicular traffic and to facilitate maintenance without undue damage to improvements or facilities located within the development.

6.14.9. AS-BUILT DRAWINGS REQUIRED

- A. Whenever a developer installs or causes to be installed any utility line in any public right-of-way, the developer shall, as soon as practicable after installation is complete, and before

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acceptance of any water or sewer line, furnish the city with a copy of a drawing that shows the exact location of the utility lines.

- B.** The drawings must be verified as accurate by the utility service provider. Compliance with this requirement shall be a condition of the continued validity of the permit authorizing the development.

6.14.10. FIRE HYDRANTS

A. WATER SYSTEM

1. Every development that is served by a public water system shall include a system of fire hydrants sufficient to provide adequate fire protection for the buildings located or intended to be located within the development.
2. Refer to the City of Raleigh Public Utilities Department current handbook for all water design standards.

B. SPRINKLERS

1. Where automatic sprinkler systems are used, a fire department connection, five-inch storz with 30-degree elbow, shall be provided on the building or at a location approved by the local fire code official.
2. Where a single riser serves more than one occupancy, or building tenant, an approved indicating shut off valve must be provided for each occupancy and supervised in accordance with the current North Carolina Fire Prevention Code.
3. Where automatic sprinkler systems are used, a Fire Department connection shall be provided on the building. The Fire Department connection shall be located within 100 feet of a hydrant.