

Chapter

4

Infrastructure and Subdivision

- 4.1 Purpose and Authority
- 4.2 General Requirements and Standards
- 4.3 Installation of Reference Points and Improvements

4.1 PURPOSE AND AUTHORITY

A. Purpose

The purpose of this Chapter is to establish procedures and standards for the development and/or subdivision of property within the Town of Elkin. This Ordinance will promote the orderly layout and circulation of vehicular traffic; provide suitable building sites which are readily accessible to emergency vehicles; ensure the proper installation of streets and utilities; promote the elimination of unsafe or unsanitary conditions arising from undue concentration of population; and help conserve and protect the physical and economic resources of the Town of Elkin.

B. Authority

The Town of Elkin is authorized to regulate subdivisions under the provisions of N.C.G.S. § 160D, Article 8.

C. Jurisdiction

These regulations contained within this Chapter shall govern all infrastructure and subdivisions of land within the jurisdictional limits of the Town of Elkin, North Carolina.

D. Applicability

This Chapter and the submission requirements contained in Chapter Nine of this Ordinance, are applicable to all divisions of a tract or parcel of land into two (2) or more lots, building sites, or other divisions when any one (1) or more of those divisions is created for the purpose of sale or building development (whether immediate or future). This Chapter is also applicable to all divisions of land involving the dedication of a new street or a change in existing streets. The following shall not be included within this definition nor be subject to the regulations herein:

1. The combination or recombination of portions of previously subdivided and recorded lots where the total number of lots

is not increased and the resultant lots are equal to or exceed the standards of the Town of Elkin as contained herein.

2. The division of land into parcels greater than ten (10) acres where no street right-of-way dedication is involved.
3. The public acquisition by purchase of strips of land for the widening or opening of streets or for public transportation system corridors.
4. The division of a tract in single ownership whose entire area is no greater than two (2) acres into not more than three (3) lots, where no street right-of-way dedication is involved and where the resultant lots are equal to or exceed the standards of the Town of Elkin, as contained herein.
5. The division of a tract into parcels in accordance with the terms of a probated will or in accordance with intestate succession under N.C.G.S. § 29.

4.2 GENERAL REQUIREMENTS AND STANDARDS

A. General Requirements

1. Zoning Laws

All subdivisions and lots created under this Ordinance must comply with all applicable local and state laws, including those contained within this Unified Development Ordinance.

2. Suitability of Land for Development

Land in the floodplain or subject to flooding shall be developed only in accordance with FEMA Guidelines and the requirements of the Flood Damage Prevention Ordinance as referenced in Chapter 5 of this Ordinance and contained in Chapter 151 of the Code of Ordinances of the Town of Elkin.

3. Conformity to Existing Maps or Plans

The location and width of all proposed roads shall be in conformance with official plans or maps of the Town of Elkin, Surry County, and North Carolina.

4. Continuation of Existing Roads

The proposed road layout shall be coordinated with the existing road system of the surrounding area and, where possible, existing principal roads shall be extended.

5. Access to the Proposed Subdivision

Every subdivision shall have permanent, direct, access to a Town or State road. Where it is necessary to cross private property in order to provide access, the subdivider shall provide documentation that a permanent right-of-way from the

road has been granted to the subdivision. The right-of-way shall be of sufficient width that it could be developed as a Town or State road. Full disclosure concerning rights-of-way shall be made on the final plat prior to recording.

6. Access to Adjacent Properties

All property and improvements proposed for development by the applicant shall be shown on the sketch plan. If the land contiguous to the proposed subdivision is vacant and within the same zoning district, the Zoning Administrator may require the applicant to show a plan for future road connections to the proposed subdivision. Rights-of-way must be designed to the standards of the Town or State, whichever is applicable. Such proposed streets and rights-of-way need not be cleared, graded, or improved until the property which they serve has been subdivided, except that rights-of-way or proposed streets which pass through the interior of a subdivision shall be kept in a presentable condition by the owner. If the proposed street or right-of-way is intended to be used for more than occasional access, the Planning Board may, at its option, reclassify the right-of-way as a platted subdivision street, and following such reclassification, it shall become subject to the street improvement requirements of this Ordinance.

Where street access to an adjoining property is required, proposed streets shall be extended by dedication to the boundary of such property and temporary turnarounds shall be provided. All proposed rights-of-way or future streets shall be clearly identified on the plat prior to recording.

7. Large Tracts

Where land is subdivided into larger parcels than ordinary building lots, such parcels should be arranged to allow for the opening of future streets and logical, future subdivision.

8. Subdivision Name

The name of a subdivision shall not duplicate nor closely approximate the name of an existing subdivision within the Town or Surry County.

9. Street Names

Proposed streets which align with existing streets shall be given the same name. In assigning new names, duplication of existing names shall be avoided. Street names shall be subject to approval of the County Planning and Addressing Department.

10. Contour Map

If, in the opinion of the Planning Board, Town officials or agencies, the topographic or drainage characteristics of the land to be subdivided warrant special consideration, the subdivider shall submit to the Planning Board or Zoning Administrator, upon request, a contour map of the specified interval.

11. Landscaped Buffer Strip

A buffer strip of at least thirty (30) feet, in addition to the normal lot depth, must be provided adjacent to a railroad, a limited access highway, and a commercial or industrial development. Said strip shall be a part of the platted lots but shall have the following restriction lettered on the face of the plat: "This strip reserved for the planting of trees or shrubs by the owners; the building of structures hereon prohibited." Where a buffer yard is required by Chapter 6 or another provision within the Ordinance, the buffer providing the largest width and greatest opacity shall be provided.

12. Natural Features

In any subdivision, due consideration will be given to preserving natural features such as trees, ponds, streams, river, and lakes which provide benefit not only to the subdivision but to the Town as a whole. These natural features shall be protected and restricted from development through the use of buffers, easements, or deed restrictions.

13. Perimeter Buffer

A twenty- (20-) foot wide buffer shall be provided around the perimeter of any subdivision. The preliminary plat shall contain details of the width, proposed plant types (including use of existing vegetation) and number, and proposed locations. Plan notes shall contain information regarding the planting schedule, maintenance, ownership, and responsible party. Where a buffer yard is required by Chapter 6 or another provision within the Ordinance, the buffer providing the largest width and greatest opacity shall be provided.

14. Sedimentation Pollution Control

In order to prevent soil erosion and sediment pollution of streams, springs, flat water bodies, or other drainage networks, the subdivider shall comply with all requirements of the North Carolina Sedimentation Pollution Control Act of 1973; North Carolina Administrative Code Title 15A, Chapter 4: Sedimentation Control; and, any locally adopted sediment control ordinances during construction and for perpetuity.

15. Storm Water Drainage

The subdivider shall provide an adequate drainage system for the proper drainage of all surface water according to standards found in the North Carolina Department of Transportation (NCDOT) "Handbook for the Design of Highway Surface Drainage Structures."

16. Fire Hydrants

Fire hydrants shall be within five hundred (500) feet of any residence with a maximum of one thousand (1,000) feet between hydrants within the zoning jurisdiction where Town water is available. Where available, eight- (8-) inch lines will serve these hydrants. Six- (6-) inch water lines will be the minimum size permitted.

B. Design Standards for Streets

1. Types of Streets

a. Public Streets

All streets and related storm drainage facilities intended for public dedication shall be constructed to “North Carolina Division of Highways Minimum Construction Standards for Subdivision Roads.” The subdivider shall provide the Planning Board with acceptable assurances, such as performance guarantees and/or construction drawings, to indicate compliance with this provision. It will be subject to verification by agents of the Town or NCDOT prior to final plat approval.

b. Private Streets

Private streets may be constructed in subdivisions provided that the subdivider prepares and places on the public record a full disclosure statement in accordance with N.C.G.S. § 136-102.6, designates the street as “Private”, and further designates that neither the State nor the Town of Elkin has any responsibility for maintaining the street. Private streets shall be constructed to “North Carolina Division of Highways Minimum Construction Standards for Subdivision Roads,” including pavement installation and drainage facilities.

c. Alleys

Alleys shall be required to serve lots used for commercial and industrial purposes except that this requirement may be waived where another definite and assured provision is made for service access. Alleys shall not be allowed in residential blocks, unless approved by the Planning Board. All alleys shall have a turn-around with a diameter of not less than eighty (80) feet. All alleys shall have a compacted base of at least two (2) inches of crushed stone, gravel, or the equivalent.

2. Connectivity, Stub Streets, and Cul-de-sacs

a. General

Streets shall be designed and located in proper relation to existing and proposed streets, to the topography, to such natural features as streams and tree growth, to public safety and convenience, and to the proposed land to be served by such streets. All proposed streets shall provide for the appropriate projection of principal streets in surrounding areas and provide reasonable access for surrounding acreage or tracts. Requirements may vary at the discretion of the Zoning Administrator where compliance is determined not feasible because of topography, the existence of environmentally sensitive lands, the need to preserve cultural resources, and/or other similar considerations.

b. Streets to be Interconnected

All streets shall be designed to form part of an interconnected street pattern. Streets must connect with adjacent street networks to the extent possible. Street designs will be assessed, in terms of meeting this interconnectivity standard, on their ability to: permit multiple routes between origin/destination point; diffuse traffic; and shorten walking distance.

c. Cul-de-Sacs

Permanent dead-end streets or cul-de-sacs shall be no longer than four hundred (400) feet. In general, streets with one (1) end permanently closed shall be avoided unless the design of the subdivision and the existing or proposed street system in the surrounding area clearly indicates that a through street is not essential or feasible at the location of the proposed cul-de-sac.

d. Stub Street Details

Stub streets and streets intended for extension during future phases shall be designed and constructed to the property line or as close to the line, vertically and horizontally, as practical. It shall be the responsibility of the second development to construct the connection to an existing stub street. Stub streets shall not exceed one hundred fifty (150) feet in length without a paved turnaround (permanent or temporary). A clearly visible street sign shall be erected at the end of the stub street stating that the street is planned to connect to a future street.

e. Future Street Connection Signage

All dead-end streets and stub streets that have the potential to connect to adjacent property or with nearby streets must be signed with the following language: "This cul-de-sac is temporary. The street will be extended when the adjacent property develops."

f. Subdivision Access Points

Subdivisions shall maintain external access points through street connections to existing roads and/or stubs to future development at the rate of at least one (1) external access point for every sixty (60) single family lots.

g. Connection to Street Stubs Required

New developments shall connect to any existing street stubs from adjacent properties.

3. Other Street Improvements

In addition, street improvements shall be installed in the following situations:

- a. Any existing street segment that has not been accepted for maintenance by

either the Town or the North Carolina Department of Transportation, and that is to serve as the required frontage for one (1) or more lots created pursuant to this ordinance, shall be improved and dedicated to the public or shall be improved and maintained privately. Such street segment shall be directly connected to the existing public street system by way of at least one (1) public street accepted for maintenance by either the Town or the North Carolina Department of Transportation. No subdivision shall be permitted on any street that is an “island” not connected directly to the public street system.

- b.** All developments that adjoin existing streets maintained by either the Town or the North Carolina Department of Transportation shall dedicate additional street right-of-way necessary to meet the minimum width requirements for the type of classification of the adjoining street. When any part of the development is on both sides of an existing Street, the entire minimum right-of-way shall be provided. When the development is located on only one (1) side of an existing street, one-half (0.5) of the minimum right-of-way, measured from the centerline of the existing street, shall be provided.
- c.** The Town Commissioners may require pavement and widening or pavement, widening, curb, and gutter for turning lanes along any existing or proposed street that forms a significant entrance to a proposed development where in the opinion of the Board such improvements are necessary in order to provide for safe vehicular movement into and out of the proposed subdivision.
- d.** Where streets are dedicated to the public, but not accepted into a municipality or the State system, a statement explaining the status of the street shall be included with the final plat. Furthermore, a legally binding private street maintenance agreement shall be filed at the Register of Deeds which shall reference a fund established by the developer for the property owners of the subdivision for maintenance of the private street. Such streets may be gated, provided the Technical Review Committee determines access will be easily available to fire, police, emergency, trash, and other essential services.

C. Utilities, Street Lights and Storm Drainage within Rights-of-Way

1. Utilities

- a.** Every principal use, building or lot within a subdivision shall be served by public water and public sewer, electric, cable/telephone systems (plus gas if appropriate) that is sufficient to accommodate the reasonable needs of the use, building or lot. In cases where public water or sewer cannot be provided, private septic and private wells may be installed in accordance with Subsection G, below.
- b.** All electric power lines (not including transformers or enclosures containing pad-mounted electrical equipment), gas distribution lines, and cable/telephone 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. All underground utilities shall be constructed to minimize interference with pedestrian and

vehicular traffic and to facilitate maintenance without damage to other elements of public and utility infrastructure. Wherever possible, underground utilities should be coordinated and installed in a joint utilities common trench each with appropriate utility approved separation.

- c. Whenever it can reasonably be anticipated that underground utilities constructed in one (1) development will be extended to serve other adjacent or nearby developments, the utilities shall be located and constructed so that extensions can be made conveniently and economically without duplication of service lines.
- d. These requirements also apply to any and all unsubdivided developments constructed after the effective date of this Chapter.

2. Street Lights

- a. The developer shall provide, as a minimum standard, street lighting on all streets within the subdivisions in accordance with outdoor lighting product specifications.
- b. Consideration should be made to place all lighting at all intersections and other high pedestrian use areas.
- c. Lighting should be planned to ensure adequate illumination for safety of both pedestrians and the automobiles.
- d. Where sidewalks exist on one (1) side of the street only, street lighting will be placed on that side to ensure adequate illumination for the pedestrian.
- e. Additional lighting on a street with existing lighting should be similar in style and illumination to the existing lighting.

3. Storm Drainage

- a. A developer shall provide an adequate drainage system, including necessary open ditches, pipes, culverts, drop inlets, bridges, fill-in lots, etc., for the proper drainage of all surface water, according to the provisions of this section of this ordinance. The developer shall provide the storm water system necessary to carry the water in a manner approved by the Zoning Administrator and meet the requirement of the Watershed Overlay regulations identified in Chapter 5.
- b. All storm drainage shall be designed to accommodate the following design storm frequency:
 - (1) Storm Sewer Collection: 10-year storm
 - (2) Ditch Cross Drainage: 25-year storm
 - (3) Catch Basins: 2-year storm

- c. Stormwater best management practices and low impact development techniques are encouraged in the design of all subdivisions and developments. See the “North Carolina Department of Environmental Quality: Stormwater Design Manual” and the “North Carolina Cooperative Extension: Low Impact Development Guidebook” for practices and techniques.

D. Design Standards for Sidewalks

Sidewalks shall be required, on both sides of all new and existing streets, for all new developments or redevelopments where the improvements are greater than fifty percent (50%) of the current value. Where development is only on one (1) side of the street, sidewalks shall only be required along the site frontage.

1. Minimum Width

The minimum width for sidewalks shall be five (5) feet, except that sidewalk in front of DMX or RF buildings where eating or drinking establishments shall be located, sidewalk widths shall be a minimum of twelve (12) feet to allow for outdoor cafe seating. Where cafe seating is provided, a minimum of six (6) feet of horizontal clearance for pedestrians is required. Residential sidewalks shall be a minimum of five (5) feet in width. Sidewalks serving both mixed-use and commercial areas shall be a minimum of eight (8) feet in width.

2. Planting Strip

Sidewalks should not be constructed without an adequate planting strip unless on-street parking protects pedestrians. The planting strip shall be a minimum width of six (6) feet unless otherwise specified herein. The width of the planting strip and location of the sidewalk in relation to the street may be adjusted as necessary to allow for the preservation of mature trees.

3. Street Trees

Sidewalks shall be designed with street trees planted in accordance with the requirements of Section 6.8.D.

4. Interior Sidewalks

Multi-family and conditional zoning district developments shall provide sidewalks for interior movement of pedestrians and for interior to connect to public sidewalk system.

5. Sidewalk Materials

Sidewalks in the public right of way shall be concrete. Sidewalks on private property may consist of pavers, or similar material.

6. Pedestrian Crosswalks

Where deemed necessary by the Zoning Administrator, a pedestrian crosswalk of at least ten (10) feet in width shall be required to provide access to a park, greenway, stream, river, lake, school, civic building, or similar feature.

7. ADA Compliance

All sidewalks and crosswalks must be ADA compliant.

8. Exemption

Sidewalks are exempt within residential subdivisions in which all single family lots are one (1) acre or greater.

E. Design Standards for Blocks

The maximum and minimum length and width of blocks shall be as follows:

1. Length

Block lengths shall not exceed eight hundred (800) feet nor be less than four hundred (400) feet. Cul-de-sacs shall not exceed four hundred (400) feet.

2. Width

Interior blocks shall have sufficient width to allow two (2) tiers of lots.

3. Pedestrian Crossing

Where appropriate and when crossing an arterial street, a pedestrian crosswalk of a least ten (10) feet in width may be required.

F. Design Standards for Lots

All lots shall be designed to meet the design and dimensional standards of the underlying zoning district as outlined in Chapter 3 of this Unified Development Ordinance.

1. Orientation of Lot Lines. Side lines of individual lots shall be substantially at right angles or radial to street lines.

2. Frontage. All lots shall front onto a public or private street or a public open space. Except for individual townhouse units which may have eighteen (18) feet of frontage, no lot shall be provided with less than twenty (20) feet of frontage.

G. Water and Sewerage Systems

1. Each lot in all subdivisions within the corporate limits of the Town of Elkin shall provide at the subdivider's expense, an extension of the municipal water and sanitary sewer systems of the Yadkin Valley Sewer Authority.

2. Each subdivision in the extraterritorial area of the Town of Elkin shall meet the requirements of the North Carolina Division of Health Services and the Surry County Board of Health. The subdivider shall state on the final plat that each lot shall have a water supply and sewage disposal system meeting these requirements.

H. Design Standards for Easements

Easements shall be provided as follows.

1. Utility Easements

Easements for underground or above ground utilities shall be provided where necessary across lots or preferably centered on rear or side lot lines and shall be at least ten (10) feet in width.

2. Drainage Easements

Where a subdivision is traversed by a stream or drainage way, an easement shall be provided conforming to the lines of such stream and of sufficient width as to accommodate floodways, any State required buffers etc. as determined by official flood insurance maps or other ordinance, plan, or statute (see Chapter 5 for Environmental Regulations).

3. Landscape Easement

A landscape easement of at least fifteen (15) feet in width shall be required adjacent to a major street or a commercial or industrial development. This strip shall be in addition to the normally required lot dimensions, shall be part of the platted plot, and shall be reserved for the planting of trees and shrubs by the owner, the developer, or the Town. Where a conflict with a required buffer exists either by this Chapter or Chapter 6 of this Ordinance, this easement shall be widened to accommodate the required buffer.

4.3 INSTALLATION OF REFERENCE POINTS AND IMPROVEMENTS

A. Permanent Reference Points

Prior to the approval of the final plat permanent reference points shall have been placed in accordance with the following requirements:

1. Subdivision Corner Tie

At least one (1) corner of the subdivision shall be designated by course and distance (tie) from a readily discernible reference marker. If a corner is within two thousand (2,000) feet of a U.S. Coast and Geodetic Station of the North Carolina Grid System coordinated monument, or such other coordinated system, then this corner shall be marked with a monument so designated by computed X and Y coordinates which shall appear on the map with a statement identifying this station or monument and to an

accuracy of 1: 100,000. When such monument or station is not available, the tie shall be made to some pertinent and readily recognizable landmark or identifiable point, physical object, or structure.

2. Monuments

With each block of a subdivision at least two (2) monuments designated as control corners shall be installed. The Surveyor shall employ additional monuments when necessary. Monuments shall be constructed of concrete and shall be at least four (4) inches in diameter or square and not less than three (3) feet in length. Each monument shall have imbedded in its top or attached by a suitable means a metal plate of non-corrosive materials and marked plainly with the point, the surveyor's registration number, the month, and the year it was installed, and the word 'Monument' or 'Control Comer'. A monument shall be set at least thirty (30) inches in the ground with at least six (6) inches exposed above the ground unless this requirement is impractical because of vehicular traffic or other factors.

3. Property Markers

A steel/iron pipe or equivalent not less than three-fourths (3/4) inches in diameter and at least thirty (30) inches in length shall be set at all corners, except those located by monuments. A marker shall also be set at a point of curve, point of tangency, point of intersection, property comer or reference point unless a monument has already been placed at said points. Additional markers shall be placed at other points of importance.

B. Installation of Streets and Storm Drainage Facilities

All streets and storm drainage facilities intended for public dedication shall be constructed to "North Carolina Division of Highways Minimum Construction Standards for Subdivision Roads" and the "Handbook for the Design of Highway Surface Drainage Structures." The subdivider shall provide acceptable assurance of compliance with this provision. This will be subject to verification by Zoning Administrator or their designated representatives.

Private streets (streets which are not dedicated to public use) shall be constructed to "North Carolina Division of Highways Minimum Construction Standards for Subdivision Roads", including pavement installation, drainage, and stormwater provisions.

C. Installation of Water and Sewage Systems

Private and public water and sewage systems shall meet the requirements of the North Carolina Division of Health Services and the Surry County Board of Health. Where county or Town Public water and or Yadkin Valley Sewer Authority sewer systems are reasonably accessible, the subdivider shall connect with the public system and shall provide connections to each lot.