



**Agenda**  
**LDO Steering Committee**  
**Thursday, February 4, 2021**  
**12:00 PM**

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Item	Topic
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Join Zoom Meeting

<https://us02web.zoom.us/j/85344588991?pwd=K0pOcVBIOEJGSCtERHRFcks1UUx6Zz09>

Meeting ID: 853 4458 8991 Passcode: 067341

1. Call to order
2. Review Sections
  - a. Section 3 – Zoning Districts
  - b. Section 6 – Design and Development Standards
  - c. Section 8 – Traffic Impact
  - d. Section 9 – Subdivision Regulations
3. Next scheduled meeting date: February 18, 2021
4. Adjournment

The Town of Rolesville is committed to providing accessible facilities, programs and services for all people in compliance with the American with Disabilities Act. Should you need assistance or a particular accommodation for this meeting please contact the ADA Coordinator.



## Memorandum

**TO:** LDO Steering Committee  
**FROM:** Julie Spriggs, GISP, CFM, CZO, Planner II  
**DATE:** January 27, 2021  
**RE:** Item 2 Review of Sections

The working draft of the Land Development Ordinance (LDO) can be found online at <https://www.rolesvillenc.gov/planning/whats-new-plans-progress>.

The sections we will cover for January's meeting are Sections 3, 6, 8, and 9. As this is a large section to review, I have provided a PowerPoint slide deck to guide our discussion and review the materials before the meetings.

Section 3 introduces the new zoning district classifications. Charts are included to clarify the transition between existing classifications and new classifications.

Section 6 discusses the design and development standards. This committee has already reviewed portions of Section 6 in previous meetings.

Section 8 houses the standards for traffic impacts. This section is pulled from the current UDO as we have contracts with traffic consulting firms for our review.

Section 9 is primarily pulled from the current UDO and the newly revised state statutes of Chapters 160D and 47.

Our discussions will focus on the differences and significant changes between the current UDO and the proposed LDO. Please refer to the slide deck during your reviews to help guide you through the materials. The expectation is not for you to read every word of the proposed LDO sections. Expectations are as follows:

- ❖ Review the agenda, memo, slide deck, and accompany sections
- ❖ Sections to be discussed should be skimmed through with the four points in mind
  - Is the text easy to follow and understand?
  - Do the charts and graphics match the descriptions, and are they easy to understand what they represent?
  - Is there a topic you expected to see covered in this section that was missing?

- Is there a topic covered that would be better served from another section of the ordinance?
- ❖ Topics included in the slide deck should be read more carefully, with intent to discuss during the meeting

[Back to Agenda](#)

# Welcome

*Town of Rolesville  
LDO Steering Committee Meeting  
Thursday, February 4, 2021*





# AGENDA ITEM 3

Section 3 – Zoning Districts

Section 6 – Design and Development Standards

Section 8 – Traffic Impact

Section 9 – Subdivision Regulations



## SECTION 3 – ZONING DISTRICTS

- Section 3 establishes the Town's zoning districts
  - Zoning ensures and promotes coordinated, balanced, and harmonious growth that promotes health, safety, and general welfare for the town
  - Zoning Map will handle the reclassification/label changes from current district to proposed district



# SECTION 3 – ZONING DISTRICTS

**TABLE 3.1 .1. RESIDENTIAL DISTRICTS ESTABLISHED**

<b>RESIDENTIAL DISTRICT NAME</b>	<b>LDO ABBREVIATION</b>	<b>FORMER DISTRICT</b>
<b>RESIDENTIAL DISTRICTS</b>		
<b>Residential Low Density</b>	RLD	R-I
<b>Residential Medium Density</b>	RMD	R-II
<b>Residential High Density</b>	RHD	R-III
<b>Rural Manufactured Home District</b>	RMH	RuMH
<b>Urban Manufactured Home District</b>	UMH	UMH

## SECTION 3 – ZONING DISTRICTS

- Corner Lots
  - One front, two sides
    - Front 30', Side 12'
  - One front, one side, one corner side (side yard with additional setback) is current standard
    - Front 30', Side 12', Side with corner 22'
  - Provides additional protection for town, decreases usable lot for homeowner
- Lot Coverage
  - Not addressed in current code
    - Impervious surface restrictions



## SECTION 3 – ZONING DISTRICTS

- Cluster Developments
  - RLD increase Open Spce to 40%
  - RMD remove increase in density
  - RMD increase lot area minimum to 9,000 square feet

## SECTION 3 – ZONING DISTRICTS

**TABLE 3.1.2. NONRESIDENTIAL DISTRICTS ESTABLISHED**

<b>NONRESIDENTIAL DISTRICT NAME</b>	<b>LDO ABBREVIATION</b>	<b>FORMER DISTRICT</b>
<b>NONRESIDENTIAL DISTRICTS</b>		
<b>Neighborhood Commercial District</b>	NC	CO
<b>Commercial Highway District</b>	CH	CH
<b>Office and Professional District</b>	OP	O&P
<b>Business, Industrial, and Technology</b>	BIT	new
<b>Industrial District</b>	I	I

## SECTION 3 – ZONING DISTRICTS

- Lot Coverage
  - Floor Area Ratio (FAR)
    - Ratio of a building's total floor area to the size of the piece of land upon which it is built
- Parking
  - Front and sides, with buildings in center
  - Rear, with buildings on sides
- Height
  - Taller commercial buildings by right

## SECTION 3 – ZONING DISTRICTS

- Section 3.2 Conditional Zoning Districts
  - Uses additional conditions on the range of uses, intensities, and standards for specific developments
  - Will revise to include a list of how districts will appear on zoning map



# SECTION 3 – ZONING DISTRICTS

- Mixed-Use Districts
  - Town Center Mixed-Use
    - BOC passed TA 20-04 Town Center Zoning District January 5, 2021
    - Provisions carried over as adopted

## SECTION 3 – ZONING DISTRICTS

- Mixed-Use Districts
  - Corridor Mixed-Use
    - Similar to Town Center
      - Standards will be more strict than Town Center to protect surrounding properties
      - Single-Use Building size increase with master plan?
  - Suburban Mixed-Use
    - Similar to Corridor Mixed-Use
      - Standards will be more strict than Corridor Mixed-Use to protect surrounding properties
      - Single-Use Building size increase with master plan?



# SECTION 6 – DESIGN AND DEVELOPMENT STANDARDS

- Section 6 houses the rules of measurement and development standards
- Section 6.1 Determination of Standards
  - Move all definitions to definitions section?
  - Keep here for easy reference?
- Section 6.2 Signs
  - This section may require more time
  - May be amended after adoption
  - Painted Art and Murals added



## SECTION 6 – DESIGN AND DEVELOPMENT STANDARDS

- Section 6.3 Open Space, Buffering, Compatibility and Landscaping
  - Already reviewed by committee
- Section 6.4 Parking and Loading
  - This section may require more time
  - May be amended after adoption
  - Introduces minimums and maximums for standards
  - Simplifies groupings based on principal uses





## SECTION 6 – DESIGN AND DEVELOPMENT STANDARDS

- Sections 6.5 Fences, Walls, and Berms and 6.6 Lighting
  - Already reviewed by committee
- Section 6.6 Lighting
  - Already reviewed by committee
- Section 6.7 Complete Streets
  - Will work with Community Transportation Plan to ensure all standards across plans agree



# SECTION 6 – DESIGN AND DEVELOPMENT STANDARDS

- Section 6.8 Design Standards
  - Minimum requirements that ensure quality and appearance of new development
  - Aligns with text amendment for Town Center standards
  - Remove Single-family standards as they are voluntary and not enforceable? Provide “preferred standards” as voluntary guidelines?
  - Porch/Balconies encroachment into side yard? Reduce from 5 feet to 3 feet?

## SECTION 8 – TRAFFIC IMPACT

- Section 8 Traffic Impact
  - Ensures development and redevelopment does not adversely affect the capacity of streets and intersections
  - Required at time of application for
    - Zoning Map Amendments
    - Special Use Permits
    - Site Plans
    - Preliminary Subdivision Plat
  - Required when proposed to generate 100 or more added vehicle trips during peak hour traffic, or 1,000 or more added vehicle trips during a 24 hour period

## SECTION 9 – SUBDIVISION REGULATIONS

- Section 9.1 Introduction and Legal Provisions
  - Regulation of standards from State Statutes Chapter 160D and 47
  - Established Town's authority for review and approval process of divisions of land
- Section 9.2 Design Standards
  - Cul-de-sacs
    - New provision to limit use and encourage connectivity
  - Alleyways
    - New provision to provide where lots do not have driveway access

## SECTION 9 – SUBDIVISION REGULATIONS

- Section 9.2 Design Standards
  - Greenways/sidewalks
    - Will also be reviewed by Parks and Recreation Advisory Board and language will align with new plans
  - Flag Lots
    - Prohibits flag lots unless peculiar circumstances
  - 9.2.5 is missing and will renumber section
  - Water Towers moved to Utilities subsection
  - Stormwater
    - Waiting on new legislation from state
    - Inter-local Agreement with Wake County for review

# NEXT SCHEDULED MEETING – FEBRUARY 18, 2021



- Next scheduled meeting February 18, 2021 at Noon
  - We will review Articles/Sections
    - 1 - Introductions
    - 4 - Overlays
    - 7 – Special Standards and Specific Conditions
    - 10 - Nonconformities
    - 11 – General Definitions
- Additional comments can be sent to [julie.spriggs@Rolesville.nc.gov](mailto:julie.spriggs@Rolesville.nc.gov) or call at 919-554-6517
- Working Draft is posted online <https://www.rolesvillenc.gov/planning/whats-new-plans-progress>
- Thank you for your time and participation

### 3.1. GENERAL USE DISTRICTS

- A. **General Use Districts.** Table 3.1. General Use Districts Established, defines the general use zoning districts established by this LDO.

Table 3.1. General Use Districts Established

TABLE 3.1. GENERAL USE DISTRICTS ESTABLISHED	
GENERAL USE DISTRICT NAME	LDO ABBREVIATION
<b>RESIDENTIAL DISTRICTS</b>	
Residential Low Density	RLD
Residential Medium Density	RMD
Residential High Density	RHD
Rural Manufactured Home District	RMH
Urban Manufactured Home District	UMH
<b>NONRESIDENTIAL DISTRICTS</b>	
Neighborhood Commercial District	NC
Commercial Highway District	CH
Office and Professional District	O&P
Industrial Park	IP
Industrial	I

- B. **Classification of General Use Districts.** Land shall only be classified or reclassified into a zoning district per the requirements of a zoning map amendment. General use districts are grouped into Residential and Nonresidential districts.

C. **Organization of General Use Districts.**

1. Each district shall include a general purpose statement and contain subsections that define the regulations and standards.
2. Each district shall contain a summary table of development standards.
3. Permitted uses for each district are defined in Section 5 and the range of permitted uses for each district are defined in Section 5.5.

### 3.1.1. RESIDENTIAL DISTRICTS

A. **Intent.** The residential zoning districts established in this LDO are intended to implement the low density residential, medium density residential, and high density residential future land use classifications, as defined in the Rolesville Comprehensive Plan. The residential districts intend to provide a safe, healthy environment for the residents of Rolesville. Specifically, the residential districts are intended to:

1. Provide for a variety of residential housing choices with varied densities, types and designs;
2. Create neighborhoods and preserve existing character while allowing for new, compatible development; and
3. Provide for safe, appropriately located lands for residential development consistent with the Rolesville Comprehensive Plan.

B. **Residential Districts Established.** Table 3.1.1, Residential Districts Established, lists the residential zoning districts defined in this Section.

Table. 3.1.1. Residential Districts Established

TABLE 3.1.1. RESIDENTIAL DISTRICTS ESTABLISHED		
RESIDENTIAL DISTRICT NAME	LDO ABBREVIATION	FORMER DISTRICT
Residential Low Density	RLD	R-I
Residential Medium Density	RMD	R-II
Residential High Density	RHD	R-III
Rural Manufactured Home District	RMH	RMH
Urban Manufactured Home District	UMH	UMH

#### 3.1.1.1. Residential Low Density (RLD)

A. **District Intent.** The Residential Low Density (RLD) zoning district is established as a district in which the principal use of land is for single-family detached dwellings. The regulations of this district are intended to discourage any use which, because of its character, would be a nuisance to the development of residences and would be



detrimental to the quiet residential nature of areas included within this district. RLD implements the low density residential future land use at a density range of one (1) to two (2) dwelling units per acre.

- B. **Development Standards.** The RLD district shall conform to the standards defined in Table 3.1.1.1.1.
- C. **Cluster Development.** Cluster development within the RLD district may be permitted. A cluster development allows an applicant to qualify for reduced minimum lot sizes per Table 3.1.1.1. Cluster development may be approved administratively by the LDA.
  - 1. **Open Space within a Cluster Development.** Cluster Developments shall designate at least 25% of the site for contiguous open space (as defined in Section 6.3.1: Open Space). The locations of the open space shall be reviewed at the time of rezoning and be dependent upon the internal layout of the project and the adjacent uses. Where properties do not require rezoning, open spaces shall be reviewed as part of the subdivision preliminary plat. Internally located open space may be needed to compliment a conservation subdivision form, while perimeter open space may be needed to provide a transition and/or separation from an adjacent lower density residential or agricultural use. Open space areas within the perimeter of the subdivision may be used for the buffering requirements.
  - 2. **Buffering for a Cluster Development.** A Type 2 buffer shall be provided for cluster developments. The Type 2 buffer may be counted towards no more than 50% of the required open space percentage for a cluster development. These buffers may also allow pedestrian paths within the buffers. These buffers shall be platted as separate tracts to be owned and maintained by the Homeowner’s Association or similar entity.

Table 3.1.1.1. RLD Development Standards

STANDARDS	RLD REQUIREMENTS
Building Height (See Section 6.1)	Max: 35'
Density (See Section 6.1)	Max: 2 Dwelling Units Per Acre

Building Setbacks (See Section 6.1) (Min/Max)	Front	30'
	Side	12'
	Rear	25'
	Corner	22'
Lot (See Section 6.1)	Width (Min)	100'
	Coverage	N/A
	Area (Min)	20,000 Square Feet (By-Right) 15,000 Square Feet (Cluster Development)

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**3.1.1.2. Residential Medium Density (RMD)**

- A. **District Intent.** The Residential Medium Density (RMD) zoning district is established as a district in which the principal use of land is for residential purposes, including detached, attached and double family dwellings. The regulations of this district are intended to discourage any use which, because of its character, would be a nuisance to the development of residences and would be detrimental to the quiet residential nature of the areas included within this district. RMD implements the medium density residential future land use at a density range of three (3) to five (5) dwelling units per acre.
- B. **Development Standards.** The RMD district shall conform to the standards defined in Table 3.1.1.2.
- C. **Cluster Development.** Cluster development within the RMD district may be permitted. A cluster development allows an applicant to qualify for reduced minimum lot sizes per Table 3.1.1.2 and an increase in permitted density, from three (3) to a maximum five (5) dwelling units per acre. Cluster development may be approved administratively by the LDA.
1. **Open Space within a Cluster Development.** Cluster Developments shall designate at least 25% of the site for contiguous open space (as defined in Section 6.3.1: Open Space). The locations of the open space shall be reviewed at the time of rezoning and be dependent upon the internal layout of the project and the adjacent uses. Where properties do not require rezoning, open spaces shall be reviewed as part of the subdivision preliminary plat. Internally located open space may be needed to compliment a conservation subdivision form, while perimeter open space may be needed to provide a transition and/or separation from an adjacent lower density residential or agricultural use. Open space areas within the perimeter of the subdivision may be used for the buffering requirements.
  2. **Buffering for a Cluster Development.** A Type 2 buffer shall be provided for cluster developments. The Type 2 buffer may be counted towards no more than 50% of the required open space percentage for a cluster development. These buffers may also allow pedestrian paths within the buffers. These buffers shall be platted as separate tracts to be owned and maintained by the Homeowner's Association or similar entity.

Table 3.1.1.2. RMD Development Standards

STANDARDS		RMD REQUIREMENTS
Building Height (See Section 6.1)		Max: 35'
Density (See Section 6.1)		Max: 3 Dwelling Units Per Acre (By-Right) Max: 5 Dwelling Units Per Acre (Cluster Development)
Building Setbacks (See Section 6.1) (Min/Max)	Front	30'
	Side	12'
	Rear	25'
	Corner	22'
Lot (See Section 6.1)	Width (Min)	85' (Single Family Detached) 20' (Attached)
	Coverage	N/A
	Area (Min)	12,000 Square Feet (By-Right) 8,000 Square Feet (Cluster Development)

**3.1.1.3. Residential High Density (RHD)**

- A. **District Intent.** The Residential High Density (RHD) zoning district is established as a district in which the principal use of land is for residential purposes, including attached, double family, and multiple family dwellings. The regulations of this district are intended to discourage any use which, because of its character, would be a nuisance to the development of higher density residential structures. RHD implements the high density residential future land use at a density range of six (6) to twelve (12) dwelling units per acre.
- B. **Development Standards.** The RHD district shall conform to the standards defined in Table 3.1.1.3.

Table 3.1.1.3. RHD Development Standards

STANDARDS		RHD REQUIREMENTS		
Building Height (See Section 6.1)		Max: 35'		
Density (See Section 6.1)		Max: 6 Dwelling Units Per Acre (Single Family Detached) Max: 9 Dwelling Units Per Acre (Attached) Max: 12 Dwelling Units Per Acre (Multifamily)		
		Single Family Detached	Attached	Multifamily
Building Setbacks (See Section 6.1) (Min/Max)	Front	15'	15'	20'
	Side	10'	0' Internal 10' End Unit Minimum 30' between structures	15'
	Rear	15'		
	Corner	10'		
Lot (See Section 6.1)	Width (Min)	75' (Single Family Detached) 20' (Attached)		
	Coverage	N/A		

	Area (Min)	7,500 Square Feet (Single Family Detached) 5,000 Square Feet (Attached)
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**3.1.1.4. Rural Manufactured Home (RMH)**

- A. **District Intent.** The Rural Manufactured Home (RMH) zoning district is established as a zoning district that may allow for manufactured homes without access to public water and sewer. The RMH district may be in the form of a mobile home park. Density is limited by Future Land Use in the Comprehensive Plan.
- B. **Development Standards.** The RMH district shall conform to the standards defined in Table 3.1.1.4.

Table 3.1.1.4. RMH Development Standards

STANDARDS		RMH REQUIREMENTS
Building Height (See Section 6.1)		Max: 35'
Density (See Section 6.1)		Limited By Future Land Use
Building Setbacks (See Section 6.1) (Min/Max)	Front	30'
	Side	12'
	Rear	25'
	Corner	22'
Lot (See Section 6.1)	Width (Min)	85'
	Coverage	None
	Area	10,000 Square Feet With Access to Water/Sewer 30,000 Square Feet Without Access to Water/Sewer

- C. **Special Standards.** The RMH district may be in the form of a mobile home park. Due to their unique standards, the special standards below shall apply for all new mobile home park developments:
  - 1. **Design Standards.** Minimum lot size for each mobile home shall be determined by the Wake County Health Department after a field investigation. The lot shall be of such minimum size as is necessary for adequate protection of the water supply system and for proper functioning of the individual sewage disposal



system. In no case shall a lot with an approved water supply be less than 10,000 square feet.

- a. Each mobile home shall be located at least 25 feet from any other structure, other mobile home, property line, or plot line;
  - b. Each mobile home plot shall be provided parking spaces for at least two automobiles, covered with gravel or other suitable material, either on the lot or within 300 feet of the lot;
  - c. All streets roads, or drives located in the park must have a minimum right-of-way of 40 feet and must be covered with material deemed acceptable by the Town of Rolesville;
  - d. All mobile homes must have direct access through a driveway, private drive, or other public street to a public right-of-way;
  - e. All streets and private drives more than 250 feet in length must be lighted at night; and
  - f. All utility lines and wires shall be installed underground.
2. **Operating Requirements.** Each mobile home park shall operate in accordance with the rules and regulations of the Wake County Board of Health and the fire protection agency having jurisdiction of the park.

**3.1.1.5. Urban Manufactured Home (UMH)**

- A. **District Intent.** The Urban Manufactured Home (UMH) zoning district is established as a district appropriate for manufactured homes and manufactured home parks with access to public water and sewer and related parks and recreational facilities only. Density is limited by Future Land Use in the Comprehensive Plan.
- B. **Development Standards.** The UMH district shall conform to the standards defined in Table 3.1.1.5.

Table 3.1.1.5. UMH Development Standards

STANDARDS		UMH REQUIREMENTS
Building Height (See Section 6.1)		Max: 35'
Density (See Section 6.1)		Limited by Future Land Use
Building Setbacks (See Section 6.1) (Min)	Front	25'
	Side	20'
	Rear	20'
	Corner	20'
Lot (see Section 6.1)	Width (Min)	50'
	Coverage	None
	Area	7,260 square feet

- C. **Special Standards.** The UMH district may be in the form of a mobile home park. Due to their unique standards, the special standards below shall apply for all new mobile home park developments:
  - 1. **Design Standards.** Minimum lot size for each mobile home shall be determined by the Wake County Health Department after a field investigation. The lot shall be of such minimum size as is necessary for adequate protection of the water supply system and for proper functioning of the individual sewage disposal system. In no case shall a lot with an approved water supply be less than 10,000 square feet.
    - a. Each mobile home shall be located at least 25 feet from any other structure, other mobile home, property line, or plot line;

- b. Each mobile home plot shall be provided parking spaces for at least two automobiles, covered with gravel or other suitable material, either on the lot or within 300 feet of the lot;
  - c. All streets roads, or drives located in the park must have a minimum right-of-way of 40 feet and must be covered with material deemed acceptable by the Town of Rolesville;
  - d. All mobile homes must have direct access through a driveway, private drive, or other public street to a public right-of-way;
  - e. All streets and private drives more than 250 feet in length must be lighted at night; and
  - f. All utility lines and wires shall be installed underground.
2. **Operating Requirements.** Each mobile home park shall operate in accordance with the rules and regulations of the Wake County Board of Health and the fire protection agency having jurisdiction of the park.

### 3.1.2. NONRESIDENTIAL DISTRICTS

A. **Intent.** The nonresidential zoning districts established in this LDO are intended to implement the commercial, business park, industrial, school, and preserved open space future land use classifications, as defined in the Rolesville Comprehensive Plan. The nonresidential districts intend to provide lands within the Town for a range of civic, commercial, office and medical, infrastructure, and open space uses. Specifically, the nonresidential districts are intended to:

1. Provide for a variety of environments for various types of nonresidential uses and development;
2. Increase the Town's economic base and provide employment opportunities for the residents of the Town and surrounding communities; and
3. Provide for safe, appropriately located lands for nonresidential development consistent with the Rolesville: 2017 Comprehensive Plan which will minimize the impact of nonresidential development on residential districts.

B. **Nonresidential Districts Established.** Table 3.1.2, Nonresidential Districts Established, lists the nonresidential zoning districts defined in this Section.

Table. 3.1.2. Nonresidential Districts Established

TABLE 3.1.2. NONRESIDENTIAL DISTRICTS ESTABLISHED		
NONRESIDENTIAL DISTRICT NAME	LDO ABBREVIATION	FORMER DISTRICT
<b>NONRESIDENTIAL DISTRICTS</b>		
Neighborhood Commercial District	NC	CO
Commercial Highway District	CH	CH
Office and Professional District	O&P	O&P
Industrial District	I	I
Industrial Business Park	IBP	New

**3.1.2.1. Neighborhood Commercial (NC)**

- A. **District Intent.** The Neighborhood Commercial (NC) zoning district is established as a district in which the principal use of land is for commercial uses. The NC district allows for wide range of intensities of commercial uses. Regulations of this district are intended to minimize potential effects of commercial activity on residential districts. The NC district implements the commercial future land use classification.
- B. **Development Standards.** The NC district shall conform to the standards defined in Table 3.1.2.1.

Table 3.1.2.1. NC Development Standards

STANDARDS		NC REQUIREMENTS
Building Height (See Section 6.1)		Max: 35'
Building Setbacks (See Section 6.1) (Min)	Front	20'
	Side	15'
	Rear	35'
	Corner	25'
Lot (See Section 6.1)	Width (Min)	100'
	FAR/Coverage	
	Area	20,000 Square Feet

**C. Special Standards.**

- ~~1. **Retail Sales and Services Developments.** Any development in excess of 5,000 square feet shall ensure buildings are clustered toward the center or rear of the site with parking and landscaping on the front and outer edges. Except for automobile service stations and financial institutions, the practice of scattering isolated buildings and uses toward and around the edge of the site will not be permitted.~~

**3.1.2.2. Commercial Highway District (CH)**

- A. **District Intent.** The Commercial Highway (CH) zoning district is established as a commercial district in which the principal use of land is for those service and retail trade purposes, which will accommodate the needs of the motoring public, the reduction of highway congestion and hazards, and the minimization of blight. The CH district allows for wide range of intensities of commercial uses. Regulations of this district are intended to minimize congestion and potential effects of commercial activity on residential districts. The CH district implements the commercial future land use classification.
- B. **Development Standards.** The CH district shall conform to the standards defined in Table 3.1.2.2.

Table 3.1.2.2. CH Development Standards

STANDARDS		CH REQUIREMENTS
Building Height (See Section 6.1)		Max: 35 Feet (By Right) 60 Feet May Be Permitted By A Variance Maximum 60 Feet In Height With An Interior Sprinkler Or Fire Suppression System Is Required. If No Sprinkler Or Fire Suppression System Is Provided, The Building Shall Not Exceed 35 Feet in Height Building Heights Above 35 Feet Require Additional Compatibility Standards Per Section 6.3.3.
Building Setbacks (See Section 6.1) (Min)	Front	20'
	Side	15'
	Rear	35'
	Corner	25'
Lot (See Section 6.1)	Width (Min)	100'
	FAR/Coverage	
	Area	20,000 Square Feet

**C. Special Standards.**

1. Retail Sales and Services Developments. Any development in excess of 5,000 square feet shall ensure buildings are clustered toward the center or rear of the site with parking and landscaping on the front and outer edges. Except for

automobile service stations and financial institutions, the practice of scattering isolated buildings and uses toward and around the edge of the site will not be permitted.

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**3.1.2.3. Office and Professional District (O&P)**

- A. **District Intent.** The Office and Professional (O&P) zoning district is established to provide an area for office and medical uses and their necessary support functions, and other compatible uses. Conflicts with adjacent land uses are to be minimized. This district may serve as a transitional district between residential and commercial uses.
- B. **Development Standards.** The O&P district shall conform to the standards defined in Table 3.1.2.3.

Table 3.1.2.3. O&P Development Standards

STANDARDS		O&P REQUIREMENTS
Building Height (See Section 6.1)		Max: 35'
Building Setbacks (See Section 6.1) (Min)	Front	20'
	Side	15'
	Rear	35'
	Corner	25'
Lot (See Section 6.1)	Width (Min)	100'
	FAR/Coverage	
	Area	20,000 square feet



**3.1.2.4. Industrial (I)**

- A. **District Intent.** The Industrial (I) zoning district is established as a district in which the principal use of the land is for industries which can be operated in a relatively clean and quiet manner and which will not be a nuisance to adjacent residential or commercial districts. The I district implements the industrial future land use classification by allowing for industrial uses. More intense industrial uses shall require additional use standards as required in Section 5.1.6: Industrial Principal Uses.
- B. **Development Standards.** The I zoning district shall conform to the standards defined in Table 3.1.2.4.

Table 3.1.2.4. I Development Standards

STANDARDS		I REQUIREMENTS
Building Height (See Section 6.1)		Max: 45'
Building Setbacks (See Section 6.1) (Min)	Front	30'
	Side	15'
	Rear	35'
	Corner	25'
Lot (See Section 6.1)	Width (Min)	100'
	Coverage	
	Area	20,000 Square Feet

**3.1.2.5. Industrial Business Park (IBP)**

- A. **District Intent.** The Industrial Business Park (IBP) zoning district is established as a district in which the principal use of the land is for businesses and industries which can be operated in a compatible manner and which will not be a nuisance to adjacent residential or commercial districts. The IBP district implements the Business Park future land use in the Comprehensive Plan.
- B. **Development Standards.** The IBP zoning district shall conform to the standards defined in Table 3.1.2.5.

Table 3.1.2.5. I Development Standards

STANDARDS		IBP REQUIREMENTS
Building Height (See Section 6.1)		Max: 45'
Building Setbacks (See Section 6.1) (Min)	Front	30'
	Side	15'
	Rear	35'
	Corner	25'
Lot (See Section 6.1)	Width (Min)	100'
	Coverage	
	Area	20,000 Square Feet

### 3.2. CONDITIONAL ZONING DISTRICTS

A. **District Intent.** This Section establishes the option of conditional zoning within the Town. Conditional zoning, consistent with G.S. 160D-102, is defined as a legislative zoning map amendment with site-specific conditions incorporated into the zoning map amendment. Conditional zoning is an alternative to rezoning land to a general use district, which allows for certain uses and development that may be appropriate but also allows other uses and development that may have adverse impacts on public facilities or surrounding lands. Rezoning of land to a conditional zoning district allows a landowner to propose, and the Town to consider, additional conditions or restrictions on the range of allowable principal uses, use standards, intensities, development standards, and other standards in the parallel general use zoning district. This process allows the Town to tailor a zoning classification to accommodate desirable development while minimizing problems that may arise from development otherwise allowed by the general use zoning district.

B. **Standards.**

1. **Site Plan.** A site plan may be approved as part of a conditional zoning. If a site plan is incorporated as a condition in conditional zoning, it is part of that legislative decision. If it is required and approved as part of an administrative or quasi-judicial decision, it is a development approval.
2. **Conditions.** Conditions and site-specific standards imposed in a conditional district shall be limited to those that address the conformance of the development and use of the site to local government ordinances, plans adopted pursuant to G.S. 160D-703(b), or the impacts reasonably expected to be generated by the development or use of the site.
3. **Minor Modifications.** Modifications in conditional district standards that do not involve a change in uses permitted, or a decrease in the density of overall development, may be reviewed and approved administratively by the LDA.
4. **Multiple Parcels.** If multiple parcels of land are subject to a conditional zoning, the owners of individual parcels may apply for modification of the conditions so long as the modification would not result in other properties failing to meet the

terms of the conditions. Any modifications approved shall only be applicable to those properties who owners petition for the modification.

5. **Process.** Conditional districts shall follow the amendment process as outlined in a Zoning Map Amendment.

### 3.3. MIXED-USE DISTRICTS

#### 3.3.1. INTRODUCTORY PROVISIONS

- A. **Generally.** The Town of Rolesville recognizes the importance of compact, urban forms of development centered on a mix of uses, residential and non-residential, with specific design and development related standards. The Town’s adopted comprehensive plan identifies recommended “mixed-use” neighborhoods, each with its own representative and unique standards. The provisions established within this Section of the LDO shall apply to all parcels designated on the Zoning Map as a mixed-use district.
- B. **Compliance.** Compliance with this Section will occur over time, as redevelopment and new development occur. These regulations are for new development and redevelopment, including expansion of existing properties. Existing structures and uses are allowed to continue and normal repair and maintenance is required.
- C. **Standards.** The standards provided in this Section and in other Sections as referenced herein, are provided for the benefit within the public and private realm. Each implementing mixed-use district shall act as its own zoning district, with its own specific standards of development and permissible uses.
- D. **Applicability.** For the purpose of this Section, non-residential standards shall also include (apply to) multifamily developments. Graphic illustrations, illustrative intents, and simulated images used throughout graphically portray the regulatory standards and overall intents established within this LDO. These images are guidelines as opposed to regulatory standards. Where in conflict, numerical metrics shall take precedence over graphic metrics.
- E. **Density & Intensity.** Density and Intensity are defined per Section 6.1 of the LDO. All residential densities and non-residential intensities denoted in the adopted comprehensive plan are a guide and not guaranteed by right. The appropriate allocation

of one or both shall support a sustainable development using the town's applicable subdivision, zoning, and site plan review criteria and procedures.

- F. **Existing Development and Redevelopment.** Development existing prior to the adopted date of this LDO, as well as redevelopment of buildings established prior to the adopted date of this LDO, are required to be maintained. New development or redevelopment subject to site plan approval is required to comply with the standards of this Section.

### 3.3.2. MIXED-USE DISTRICT MAPS, DISTRICT DEVELOPMENT STANDARDS, AND PERMITTED PRINCIPAL USES.

- A. **District Development Standards Table.** District development standards are defined for each mixed-use district via a district development standards table and apply to all properties within the respective mixed-use district. Development standards will have specific measurement requirements that are specific to each mixed-use district. Standards are provided for:

1. Building height;
2. Density;
3. Building placement;
4. Lot configuration;
5. Frontage;
6. Landscaping; and
7. Building and site design

- B. **Measurement of Development Standards.** The measurement of development standards included within each district development standards table are defined in various Sections of this LDO. Each standard provides a reference to the applicable Section where measurements of the standard are provided.

- C. **Table of Permitted Uses.** The Permitted Principal Use Table, defined in Section 5.5., identifies which principal uses may be permitted in each zoning district of the Town. Each district has its own column on the corresponding table of permitted principal uses. Permitted principal uses are defined in Section 5.1.

### 3.3.3. TOWN CENTER DISTRICT (TC)

- A. **Standards.** District development standards are defined for the TC district via a district development standards table and apply to all properties within the TC district.
- B. **Measurement of Development Standards.** The measurement of development standards included within the TC district are defined in various Sections of this LDO. Each standard within the district development standards table provides a reference to the applicable Section where measurements of the standard are provided. Design alternatives may be requested, where permitted in this LDO. Design alternatives shall require a quasi-judicial evidentiary hearing by the Board of Commissioners.
- C. **Permitted Uses.** Uses permitted shall be as identified in Section 5.5: Permitted Principle Use Table.
- D. **TC District Development Table.** District development standards are defined for the TC district via Table 3.3.3: TC District Development Standards.
- E. **Timing of Development.** To ensure compliance with the intent and standards for a mix of uses within the TC District, a maximum 50 percent of the residential units may be permitted until at least 25 percent of the approved non-residential square footage is permitted (issue of a building permit). The remaining residential units may be permitted upon approval (permit) of at least 50 percent of approved non-residential square footage. The percentage may be modified as part of an approved development agreement.

Table 3.3.3. TC District Development Standards

STANDARDS		TC REQUIREMENTS
Building Height (See Section 6.1)		Max: 35 Feet (By Right) Five Stories Permitted By Design Alternative, Reviewed By Board of Commissioners Maximum 60 Feet In Height With An Interior Sprinkler Or Fire Suppression System Is Required. If No Sprinkler Or Fire Suppression System Is Provided, The Building Shall Not Exceed 35 Feet in Height Building Heights Above 35 Feet Require Additional Compatibility Standards Per Section 6.3.3.
Density		20 Units/Acre (Single-Use Residential Building) (No Density Standard For Upper Story Residential When Part Of A Mixed-Use Building, And/or Live-Work Unit)
Building Placement (See Section 6.1) (Min/Max)*1 *2 *3 *4 See also Street Walls	Front	0'/20'
	Side	0'/15'
	Rear	0'/45'
Lot (See Section 6.1)	Length (Min)	50'
	Width (Min)	25'
	Coverage (Max)	75%
Frontage (See Section 6.1)	% Requirement*5	50%
	Active Use Areas	Permitted; Maximum Length: 25' or 75% of Building Frontage (Whichever is Less) Maximum AUA Depth: 10'
	Encroachments	Maximum Length: 50% of Building Frontage Maximum Encroachment: 6' Minimum Clearance: 8'

ROLESVILLE LDO UPDATE

	(Upper Story Only; Only Where Clear Of Public Utilities)	Balconies, Awnings, And Porches Are Permitted Encroachments Encroachments Are Only Permitted With Written Authorization From the Town, NCDOT, and/or Any Other Appropriate Legal Entity Which May Have An Easement/Ownership Or Similar
	Entrances	Front (Primary Street-Facing); Corner Lots May Orient Entrances To The Corner Or Provide An Additional Entrance Oriented To The Secondary Street)
Landscaping and Open Space (See Section 6.3)		Property Perimeter, Parking Perimeter And Vehicle Use Areas And Service Areas; Foundation Plantings Permitted Open Space Types: Green, Commons, Square, Plaza
<b>Building and Site Design</b>		
Architectural Standards (See Section 6.8)		Blank Walls Not Permitted Facing Any Public Street Frontage Or Non Mixed-Use Zoning District
Maximum Single-Use/Building Size (Excluding Residential Only Structures)		35,000 Square Feet No Size Limits For Mixed-Use Buildings
Maximum Blank Wall (See Section 6.1)		Maximum 50 Square Feet Blank Wall Area Or 15% Of The Total Wall Area A Maximum 25' In Length Without A Compliant Design Feature
Minimum Transparency % (By Story) (See Section 6.1)		40% Transparency On First Story, 35% Transparency For Each Story Above
Drive-Through Locations		Side Or Rear Only; Not Adjacent To The Primary Street
Street Walls Required (See Section 6.1) *5		Drive-Throughs Parking Areas (Excluding On-Street Parking) Fronting Public Streets May Be Utilized To Meet The Building Frontage Requirements
Rooflines *6		Only Flat And Gable Roofs Are Permitted; Parapets May Extend 36" Above The Roofline; Mansard Roofs Are Prohibited



Table 3.3.3. Additional Standards:

\*1 = Subject to Compatibility/Perimeter Standards provided in Section 6.3.3.

\*2 = Measured from the edge of the public right-of-way or existing public sidewalk if not located within the right-of-way.

\*3 = Building placement dimensions may be varied administratively, by the Land Development Administrator. Where multiple buildings are proposed on the same lot or parcel, the building placement shall apply to the primary building as identified on the site plan and if mitigating techniques such as liner buildings, streetwalls or similar are provided.

\*4 = An administrative exception may be granted for side building placement that utilize fire-rated separation walls within 10 feet of side property lines, per compliance with 601 NCSBC-2018, Table 601 and Table 602.

\*5 = Streetwalls shall be constructed of brick, masonry, stone, wrought iron/aluminum, or other decorative material and shall be designed with the same building materials and architectural appearance as the primary structure. Wood, fencing, and chain link are prohibited materials for a streetwall. Streetwalls shall be a minimum of three (3) feet and a maximum of four (four) feet in height. Breaks in streetwalls are permitted to allow for pedestrian or vehicular access, recessed storefront entrance, plazas, or for tree protection. Street walls may be a maximum of 50 feet. Breaks must be provided through the use of columns or offsets, including landscaping/trees, of at least 10 feet in width, up to a maximum of 20 feet in width. On corner parcels, the corner of the building may be recessed from the front and side property lines on a diagonal. Streetwalls or combination of streetwalls and canopy trees with hedge not to exceed three (3) feet in height be substituted for a continuous streetwall. Streetwalls shall constitute at least two-thirds (2/3) of the frontage where a streetwall/tree/hedge design is used.

\*6 = Building rooflines that face a street shall not exceed a linear distance of 35 feet without the introduction of a physical articulation of no less than one (1) foot in the vertical direction.

### 3.3.4. CORRIDOR MIXED-USE DISTRICT (C-MU)

A. **Corridor Mixed-Use (C-MU).** The *Corridor Mixed-Use (C-MU)* zoning district intends to:

1. Implement the *Mixed Use Neighborhood* future land use classification in the Town's adopted Comprehensive Plan;
2. Allow for neighborhoods that are centered on a mixture of uses;
3. Create development that encourages active living;
4. Require development and redevelopment that allows for enhanced pedestrian activity; and
5. Regulate development per the standards defined for the district.

B. **Corridor Mixed-Use District Development Table.** The C-MU zoning district is regulated by specific development standards as defined in Table 3.3.4.

Table 3.3.4. C-MU District Development Standards

STANDARDS		C-MU REQUIREMENTS
Building Height (See Section 6.1)		<p>Max: 35 Feet (By Right)</p> <p>60 Feet May Be Permitted By A Variance If Building Is 100 Feet Or Greater From Boundary Of District</p> <p>Maximum 60 Feet In Height With An Interior Sprinkler Or Fire Suppression System Is Required. If No Sprinkler Or Fire Suppression System Is Provided, The Building Shall Not Exceed 35 Feet in Height</p> <p>Building Heights Above 35 Feet Require Additional Compatibility Standards Per Section 6.3.3.</p>
Density (See Section 6.1)		10 Units/Acre (By Right)
Building Placement (See Section 6.1) (Min/Max) *4	Front *1	15'/50'
	Side *2	5'/25'
	Rear *3	10'/50'
Lot (See Section 6.1)	Length (Min)	100'
	Width (Min)	50'
	Coverage (Max)	75%
Frontage (See Section 6.1)	% Requirement	75%
	Active Use Areas	<p>Permitted; Maximum Length: 25' or 75% of Building Frontage (Whichever is Less)</p> <p>Maximum AUA Depth: 10'</p>
	Encroachments (Upper Story Only; Only Where Clear Of Public Utilities)	<p>Maximum Length: 50% of Building Frontage</p> <p>Maximum Encroachment: 6'</p> <p>Minimum Clearance: 8'</p> <p>Balconies, Awnings, And Porches Are Permitted Encroachments</p>

		Encroachments Are Only Permitted With Written Authorization From the Town, NCDOT, and/or Any Other Appropriate Legal Entity Which May Have An Easement/Ownership Or Similar
	Entrances	Front (Primary Street-Facing); Corner Lots May Orient Entrances To The Corner Or Provide An Additional Entrance Oriented To The Secondary Street)
Landscaping and Open Space (See Section 6.3)		Property Perimeter, Parking Perimeter And Vehicle Use Areas And Service Areas; Foundation Plantings  Permitted Open Space Types: Green, Commons, Square, Plaza
<b>Building and Site Design</b>		
Architectural Standards (See Section 6.8)		Blank Walls Not Permitted Facing Any Public Street Frontage Or Non Mixed-Use Zoning District
Maximum Single-Use/Building Size (Excluding Residential Only Structures)		50,000 Square Feet  No Size Limits For Mixed-Use Buildings
Maximum Blank Wall (See Section 6.1)		Maximum 50 Square Feet Blank Wall Area Or 15% Of The Total Wall Area  A Maximum 25' In Length Without A Compliant Design Feature
Minimum Transparency % (By Story) (See Section 6.1)		40% Transparency On First Story, 35% Transparency For Each Story Above
Drive-Through Locations		Side Or Rear Only; Not Adjacent To The Primary Street
Street Walls Required (See Section 6.1) *5		Drive-Throughs  Parking Areas (Excluding On-Street Parking) Fronting Public Streets  May Be Utilized To Meet The Building Frontage Requirements
Rooflines *6		Only Flat And Gable Roofs Are Permitted; Parapets May Extend 36" Above The Roofline; Mansard Roofs Are Prohibited

Table 3.3.4. Notes:

\*1 Can be increased by a factor of 1.5 where an active use area is provided.

\*<sup>2</sup> 44' may be permitted to accommodate those lots without access to an alley or shared driveway in order to accommodate a driveway where rear serving parking or loading is provided.

\*<sup>3</sup> Except where served by rear parking, not to exceed 60'. Also accommodates required buffering.

\*<sup>4</sup> = Building placement dimensions may be varied administratively, by the Land Development Administrator. Where multiple buildings are proposed on the same lot or parcel, the building placement shall apply to the primary building as identified on the site plan and if mitigating techniques such as liner buildings, streetwalls or similar are provided.

\*<sup>5</sup> = Streetwalls shall be constructed of brick, masonry, stone, wrought iron/aluminum, or other decorative material and shall be designed with the same building materials and architectural appearance as the primary structure. Wood, fencing, and chain link are prohibited materials for a streetwall. Streetwalls shall be a minimum of three (3) feet and a maximum of four (four) feet in height. Breaks in streetwalls are permitted to allow for pedestrian or vehicular access, recessed storefront entrance, plazas, or for tree protection. Street walls may be a maximum of 50 feet. Breaks must be provided through the use of columns or offsets, including landscaping/trees, of at least 10 feet in width, up to a maximum of 20 feet in width. On corner parcels, the corner of the building may be recessed from the front and side property lines on a diagonal. Streetwalls or combination of streetwalls and canopy trees with hedge not to exceed three (3) feet in height be substituted for a continuous streetwall. Streetwalls shall constitute at least two-thirds (2/3) of the frontage where a streetwall/tree/hedge design is used.

\*<sup>6</sup> = Building rooflines that face a street shall not exceed a linear distance of 35 feet without the introduction of a physical articulation of no less than one (1) foot in the vertical direction.

### 3.3.5. SUBURBAN MIXED-USE (S-MU)

A. **Suburban Mixed-Use (S-MU).** The *Suburban Mixed-Use (S-MU)* zoning district intends to:

1. Implement the *Mixed Use Neighborhood* future land use classification in the Town's adopted Comprehensive Plan;
2. Allow for neighborhoods that are centered on a mixture of uses that include a limited commercial component;
3. Permit small-scale, neighborhood-oriented commercial uses that are compatible with nearby residential uses;
4. Allow for less intense uses through the Permitted Principal Use Table as defined in Section 5.5;
5. Regulate development per the standards defined for the district.

B. **Suburban Mixed-Use District Development Table.** The S-MU zoning district is regulated by specific development standards as defined in Table 3.3.5.

Table 3.3.5. S-MU District Development Standards

STANDARDS		S-MU REQUIREMENTS
Building Height (See Section 6.1)		<p>Max: 35 Feet (By Right)</p> <p>60 Feet May Be Permitted By A Variance If Building Is 100 Feet Or Greater From Boundary Of District</p> <p>Maximum 60 Feet In Height With An Interior Sprinkler Or Fire Suppression System Is Required. If No Sprinkler Or Fire Suppression System Is Provided, The Building Shall Not Exceed 35 Feet in Height</p> <p>Building Heights Above 35 Feet Require Additional Compatibility Standards Per Section 6.3.3.</p>
Density (See Section 6.1)		8 Units/Acre (By Right)
Building Placement (See Section 6.1) (min/max) *4	Front *1	15'/50'
	Side *2	5'/25'
	Rear *3	10'/50'
Lot (See Section 6.1)	Length (Min)	100'
	Width (Min)	50'
	Coverage (Max)	65%
Frontage (See Section 6.1)	% Requirement	75%
	Active Use Areas	<p>Outparcel buildings may be used to meet frontage requirements</p> <p>Permitted; Maximum Length: 25' or 75% of Building Frontage (Whichever is Less)</p> <p>Maximum AUA Depth: 10'</p>
	Encroachments	<p>Maximum Length: 50% of Building Frontage</p> <p>Maximum Encroachment: 6'</p> <p>Minimum Clearance: 8'</p>

ROLESVILLE LDO UPDATE

	(Upper Story Only; Only Where Clear Of Public Utilities)	Balconies, Awnings, And Porches Are Permitted Encroachments Encroachments Are Only Permitted With Written Authorization From the Town, NCDOT, and/or Any Other Appropriate Legal Entity Which May Have An Easement/Ownership Or Similar
	Entrances	Front (Primary Street-Facing); Corner Lots May Orient Entrances To The Corner Or Provide An Additional Entrance Oriented To The Secondary Street)
Landscaping and Open Space (See Section 6.3)		Property Perimeter, Parking Perimeter And Vehicle Use Areas And Service Areas; Foundation Plantings  Permitted Open Space Types: Green, Commons, Square, Plaza
<b>Building and Site Design</b>		
Architectural Standards (See Section 6.8)		Blank Walls Not Permitted Facing Any Public Street Frontage Or Non Mixed-Use Zoning District
Maximum Single-Use/Building Size (Excluding Residential Only Structures)		25,000 Square Feet  No Size Limits For Mixed-Use Buildings
Maximum Blank Wall (See Section 6.1)		Maximum 50 Square Feet Blank Wall Area Or 15% Of The Total Wall Area  A Maximum 25' In Length Without A Compliant Design Feature
Minimum Transparency % (By Story) (See Section 6.1)		40% Transparency On First Story, 35% Transparency For Each Story Above
Drive-Through Locations		Side Or Rear Only; Not Adjacent To The Primary Street
Street Walls Required (See Section 6.1) *5		Drive-Throughs  Parking Areas (Excluding On-Street Parking) Fronting Public Streets  May Be Utilized To Meet The Building Frontage Requirements
Rooflines *6		Only Flat And Gable Roofs Are Permitted; Parapets May Extend 36" Above The Roofline; Mansard Roofs Are Prohibited



Table 3.3.5. Notes:

\*<sup>1</sup> Can be increased by a factor of 1.0 where an active use area is provided.

\*<sup>2</sup> 44' may be permitted to accommodate those lots without access to an alley or shared driveway in order to accommodate a driveway where rear serving parking or loading is provided.

\*<sup>3</sup> Except where served by rear parking, not to exceed 60'. Also accommodates required buffering.

\*<sup>4</sup> = Building placement dimensions may be varied administratively, by the Land Development Administrator. Where multiple buildings are proposed on the same lot or parcel, the building placement shall apply to the primary building as identified on the site plan and if mitigating techniques such as liner buildings, streetwalls or similar are provided.

\*<sup>5</sup> = Streetwalls shall be constructed of brick, masonry, stone, wrought iron/aluminum, or other decorative material and shall be designed with the same building materials and architectural appearance as the primary structure. Wood, fencing, and chain link are prohibited materials for a streetwall. Streetwalls shall be a minimum of three (3) feet and a maximum of four (four) feet in height. Breaks in streetwalls are permitted to allow for pedestrian or vehicular access, recessed storefront entrance, plazas, or for tree protection. Street walls may be a maximum of 50 feet. Breaks must be provided through the use of columns or offsets, including landscaping/trees, of at least 10 feet in width, up to a maximum of 20 feet in width. On corner parcels, the corner of the building may be recessed from the front and side property lines on a diagonal. Streetwalls or combination of streetwalls and canopy trees with hedge not to exceed three (3) feet in height be substituted for a continuous streetwall. Streetwalls shall constitute at least two-thirds (2/3) of the frontage where a streetwall/tree/hedge design is used.

\*<sup>6</sup> = Building rooflines that face a street shall not exceed a linear distance of 35 feet without the introduction of a physical articulation of no less than one (1) foot in the vertical direction.

[Back to Agenda](#)

## 6. DESIGN AND DEVELOPMENT STANDARDS (GROUP 1 AND 2)

### 6.1. DETERMINATION OF STANDARDS (GROUP 1)

- A. **Purpose.** The purpose of this Section is to define the rules of measurement of the development standards used throughout this LDO. The development standards within each district shall be minimum or maximum limitations, as the case may be and shall apply uniformly to each structure, to each use, and to all land.
- B. **Generally - Rules of Measurement.**
1. **Straight Lines.** Unless otherwise stated in this LDO, any distances required in this LDO are to be measured as the length of an imaginary straight line joining two (2) points.
  2. **Rounding.** Any numerical calculation required by this LDO that results in the part of a whole number shall be rounded up to the next highest whole number, not down to the lower whole number.
  3. **Irregular Shapes.** If an irregular shape makes the calculation of a standard requirement of this LDO unclear, the Land Development Administrator shall determine the appropriate standard requirement.

#### 6.1.1. BUILDING HEIGHT

- A. **Generally.** *Building Height*, shall be defined as the vertical distance measured from the grade to the highest point of the coping of a flat roof; to the deck line of a mansard roof; or to the height level between the eaves and ridge of a gable, hip or gambrel roof. Building height is measured in feet.

6.1.2. DENSITY AND INTENSITY

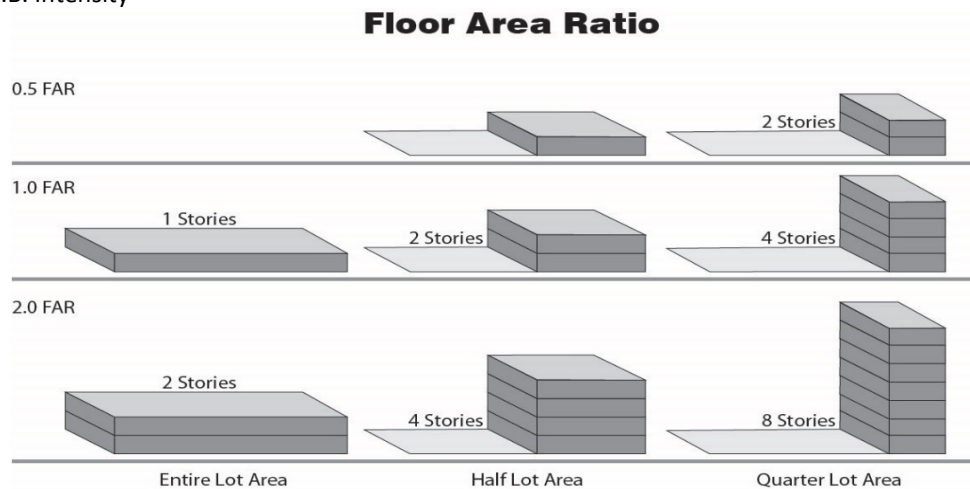
- A. **Density.** Residential development (density) is measured by dwelling units per gross acre (du/ac). The maximum density defined for a district shall constitute the maximum number of units allowed on property and shall be consistent with the Comprehensive Plan.

Figure 6.1.2.A Density



- B. **Intensity.** Intensity is measured by floor area ratio (FAR). FAR is the measurement of a building’s floor area in relation to the size of the lot which the building is located on (i.e. building square footage divided by lot square footage). All residential densities and non-residential intensities denoted in the adopted comprehensive plan are not guaranteed by right. The appropriate allocation of one or both shall support a sustainable development using the Town’s applicable subdivision, zoning, and site plan review criteria and procedure.

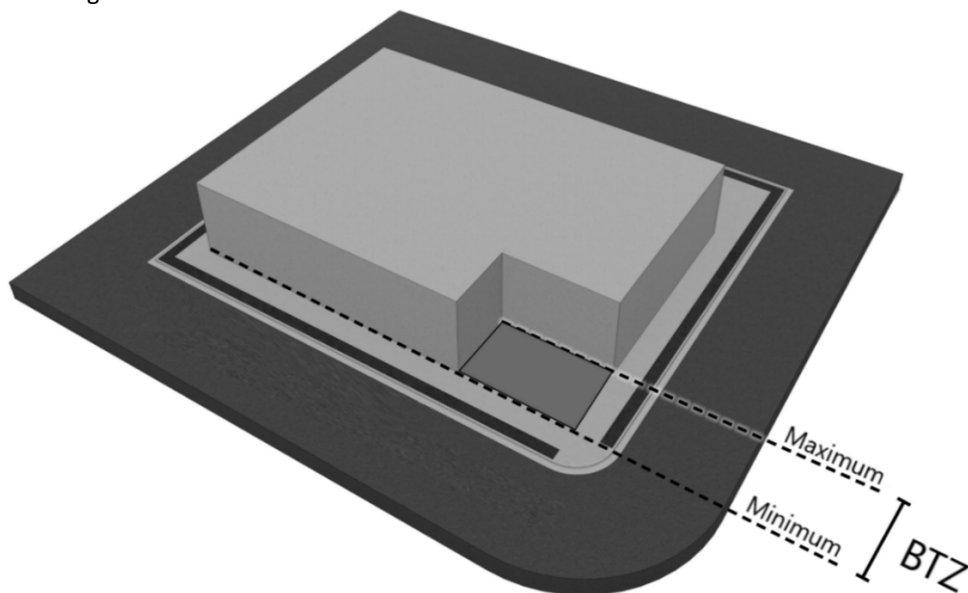
Figure 6.1.2.B. Intensity



### 6.1.3. BUILDING PLACEMENT

- A. **Building Placement.** *Building Placement* shall define the standards for building placement in the form of a *Build-To Zone (BTZ)*. The BTZ shall include a range of distances, expressed as a minimum and maximum setback, and as the range at which construction of a building façade is to occur on the lot, running parallel to the property line, ensuring a uniform façade along the street. The BTZ requirements shall include a front/street, side, and rear

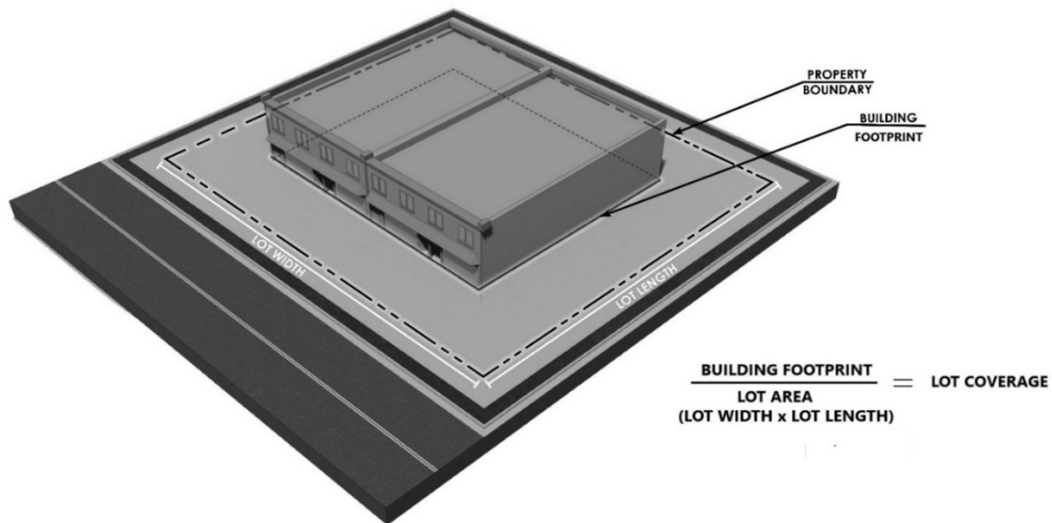
Figure 6.1.3. Building Placement



## 6.1.4. LOT

- A. **Generally.** *Lot*, defined in Section 6.1, but included here as reference, shall include the following terms defined:
1. **Lot.** Lots are parcels of land, either vacant or occupied intended as a unit for the purpose, whether immediate or for the future, of transfer of ownership or possession or for development.
  2. **Lot Area.** Minimum lot areas are exclusive of public rights-of-way or private streets. Lot area is calculated by multiplying lot width by lot length.
  3. **Lot Width.** Lot width is the distance between the side lot lines (generally running perpendicular to a street) measured at the primary street property line along a straight line or along the chord of the property line.
  4. **Lot Length.** Lot length is the distance between the front and rear property lines measured along a line midway between the side property lines.
  5. **Lot Coverage.** Lot coverage is guided by the minimum and maximum area of a lot that is permitted to be covered by roofed buildings or structures. Building coverage does not include paved areas such as parking lots, driveways, pedestrian walkways, or pools.

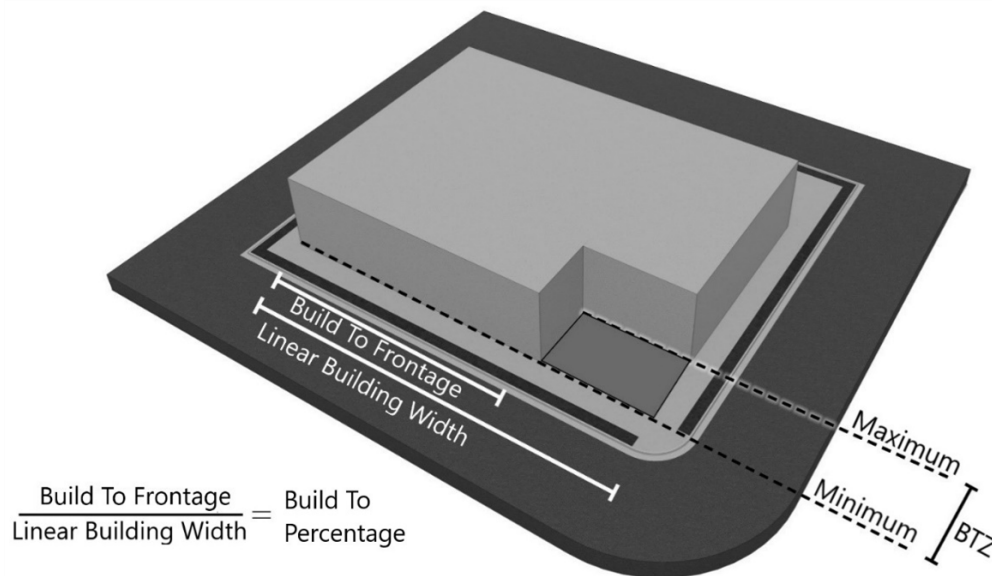
Figure 6.1.4. Lot



## 6.1.5. FRONTAGE/BUILD-TO PERCENTAGE

- A. **Frontage.** *Frontage*, also referred to as the *Build To Percentage (% Requirement)*, indicates the percentage of the width of the building in relationship to the width of the lot. Frontage dictates what percentage of the linear distance of the façade of a building must be located along the lot width.
- B. **Active Use Areas.** *Active Use Areas* refers to those areas along a frontage that may provide for active uses such as a forecourt, courtyards, outdoor dining, merchandise display, and shared gardens. Active use areas may be used to achieve frontage requirements.

Figure 6.1.5. Frontage



#### 6.1.6. SETBACKS

- A. **Generally.** Required *setbacks* shall be measured from the closest base of the wall of the structure to the lot line or nearest street right-of-way line. Allowable exceptions to setbacks shall not be utilized for measurement of setbacks. Setbacks shall be established at the time of approval of a Site Plan: Sec. 2.3.3.8 or Final Plat: Sec. 2.3.3.5. Setbacks so established shall continue to apply to the area within the Site Plan or Final Plat despite subsequent changes to the setback regulations.

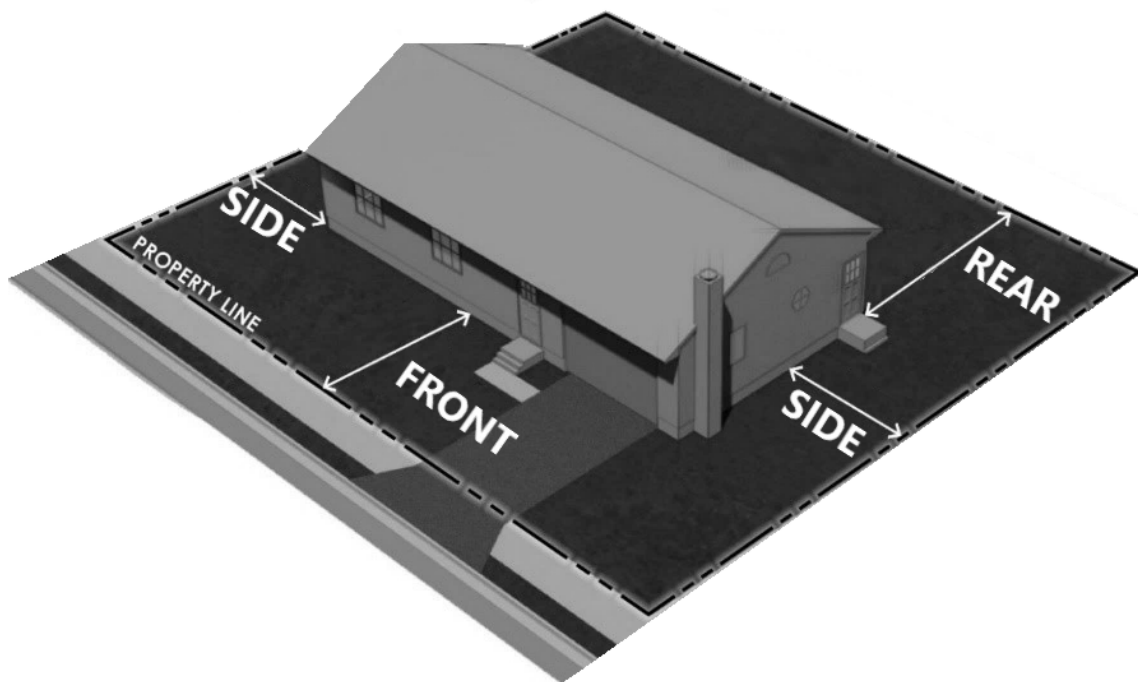
Setbacks are designated by a *front setback* requirement, *side setback* requirement, and a *rear setback* requirement.

1. **Front Setback:** A front setback extends across the full width of a site, the depth of which is the minimum horizontal distance between the front property line and a line parallel thereto on the site.
2. **Side Setback:** A side setback extends from the rear line of the required front setback, or the front property line of the site where no front setback is required, to the front line of the required rear setback, or the rear property line of the site where no rear setback is required, the width of which is the horizontal distance between the side property line and a line parallel thereto on the site, except that the corner side setback shall extend to the rear lot line.
3. **Rear Setback:** A rear setback extends across the full width of a site, the depth of which is the minimum horizontal distance between the rear property line and a line parallel thereto on the site, except that on a corner lot the rear setback shall extend only to the side setback abutting the street.

B. **Lots and Setbacks.** It is understood, for the purpose of calculating setback requirements, four configurations of lots exist: interior lots, corner lots, through lots, and irregular lots.

1. **Interior Lot.** A lot bounded by a street on only one side. For the purpose of setbacks and yards, the street yard shall be recognized as the primary (i.e. front) yard. An interior lot shall have one primary street yard, two side yards, and one rear yard. Orientation of the home, driveway and entrances shall be required respective of the primary street yard.

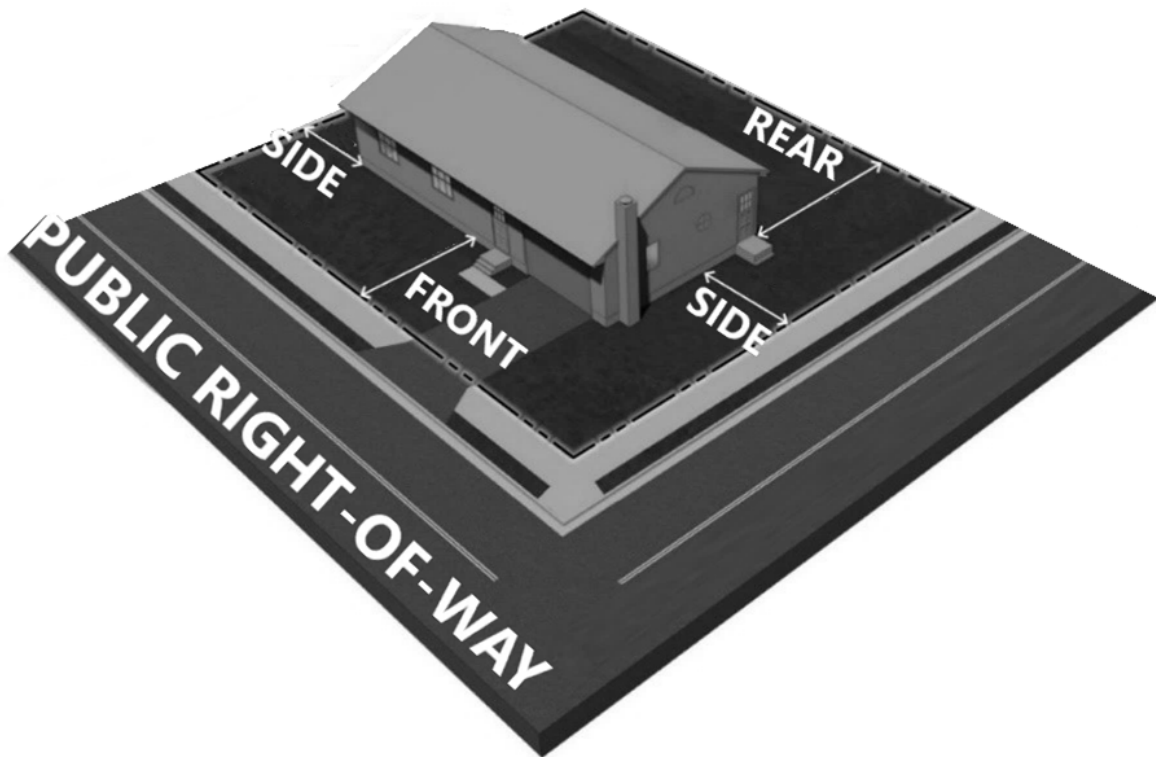
Figure 6.1.6.1. Interior Lot





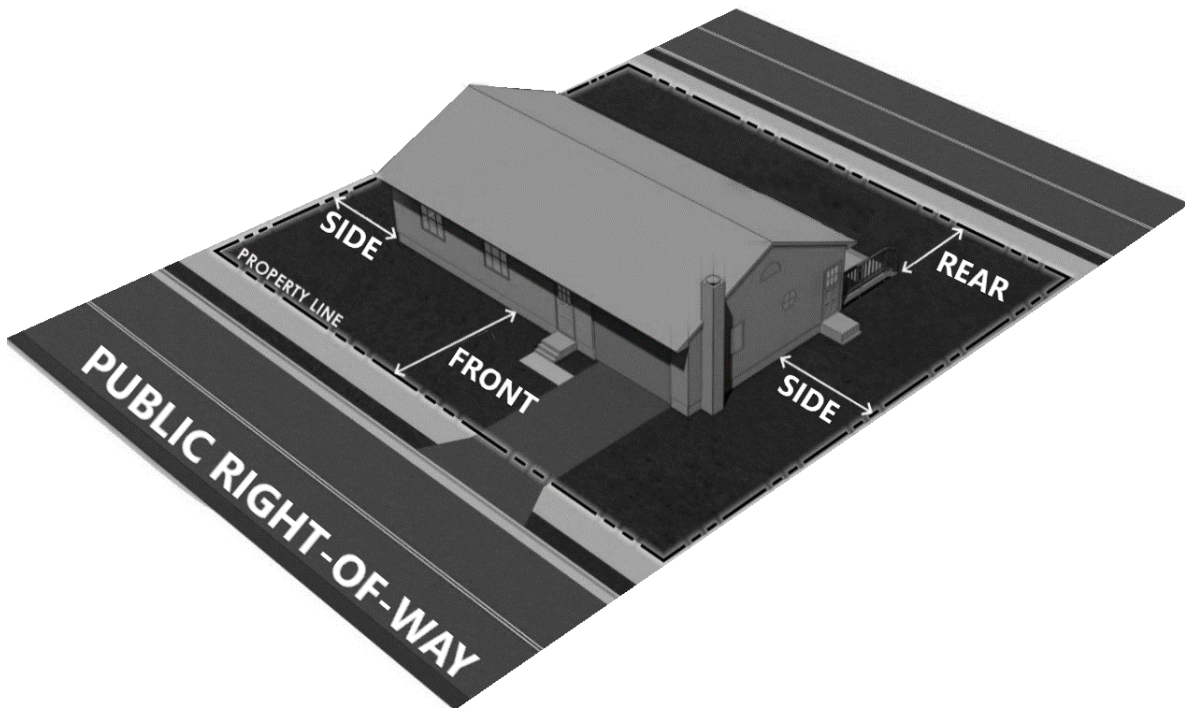
- Corner Lot.** A lot which abuts two or more streets, other than an alley or easement. Each corner lot shall be required, either on its final plat or zoning permit for a new home, to designate its front yard, which shall dictate its front setback requirement. No corner setback measurement is used in this LDO. Orientation of the home, driveways and entrances on the lot shall be required respective of the primary front yard, but side entrances may also be permitted. The front setback of a corner lot shall be measured from the designated front. The front shall be the side which has the main entrance to the home.

Figure 6.1.6.2. Corner Lot



- Through Lot.** A lot which has frontage on two parallel streets. Each through lot shall be required to designate its primary front yard, which shall dictate its front setback requirements. Orientation of the house, driveways and entrances on the lot shall be required in the front yard and may not be permitted on a side or rear yard.

Figure 6.1.6.3. Through Lot



- Irregular Lots.** A lot which is irregular, such as a cul-de-sac street design or non-rectangular lot, which may feature a radial front yard, shall measure its primary street setback at the point in which the side and front lot lines would have met without rounding.

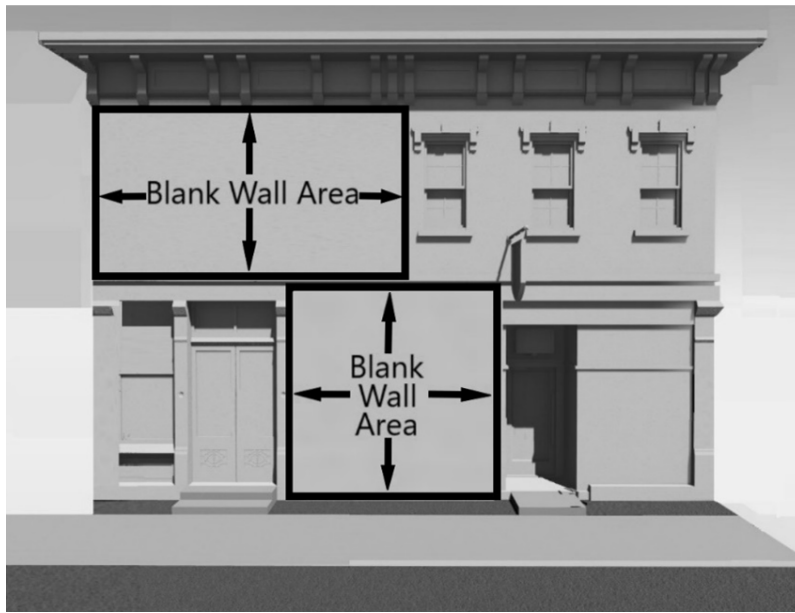
### C. Exemptions to Setbacks.

1. Mechanical, electrical, and plumbing equipment (including air-conditioning and pool equipment) are exempt from side and rear yard requirements but shall not be located any closer than three (3) feet from the property line.
2. Uncovered stairs, landings, terraces, porches, balconies, and fire escapes may project into any yard, but such projection may not exceed six (6) feet and such projection may not be closer than then ten feet to any lot line.
3. Architectural projections, such as chimneys, flues, sills, eaves, belt courses, and ornaments, may project into any required yard, but such projection shall not exceed three feet.

#### 6.1.7. BLANK WALL AREA

- A. **Generally.** Blank Wall Area shall refer to portions of an exterior façade that does not include windows, doors, columns, pilasters, architectural features greater than one (1) foot in-depth, or a substantial material change and is displayed. A different color or shade of paint shall not be considered a significant material change. Blank wall area applies in both a vertical and horizontal direction of the building façade and applies to ground floors and upper floors.

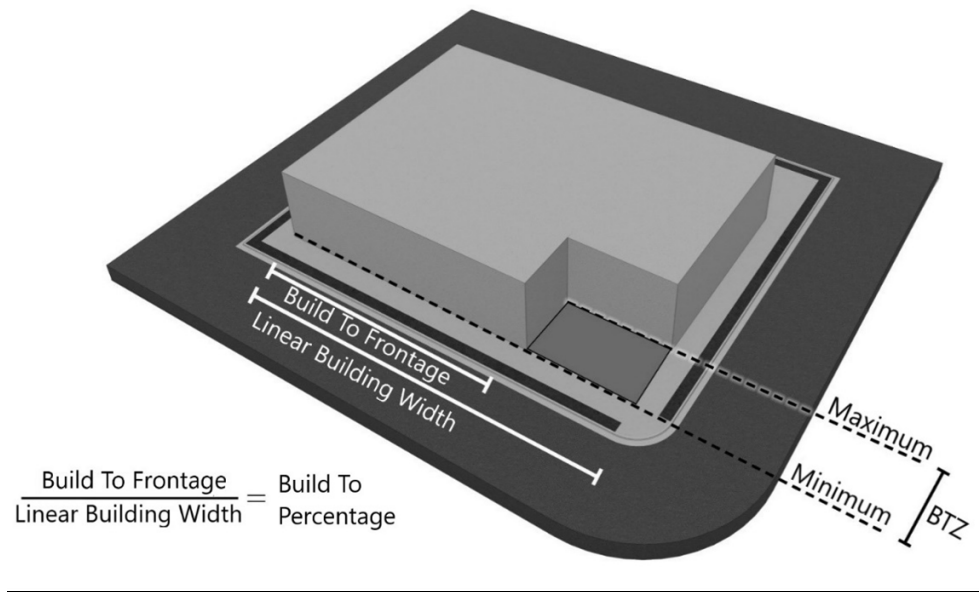
Figure 6.1.7. Blank Wall Area



### 6.1.8. FRONTAGE (BUILD TO PERCENTAGE)

- A. **Generally.** Frontage, also referred to as the Build To Percentage (% Requirement), indicates the percentage of the width of the building in relationship to the width of the lot. Frontage dictates what percentage of the linear distance of the façade of a building must be located along the lot width. Active use areas refer to those areas along a frontage that may provide for active uses such as a forecourt, courtyards, outdoor dining, merchandise display, and shared gardens. Active use areas may be used to achieve frontage requirements.

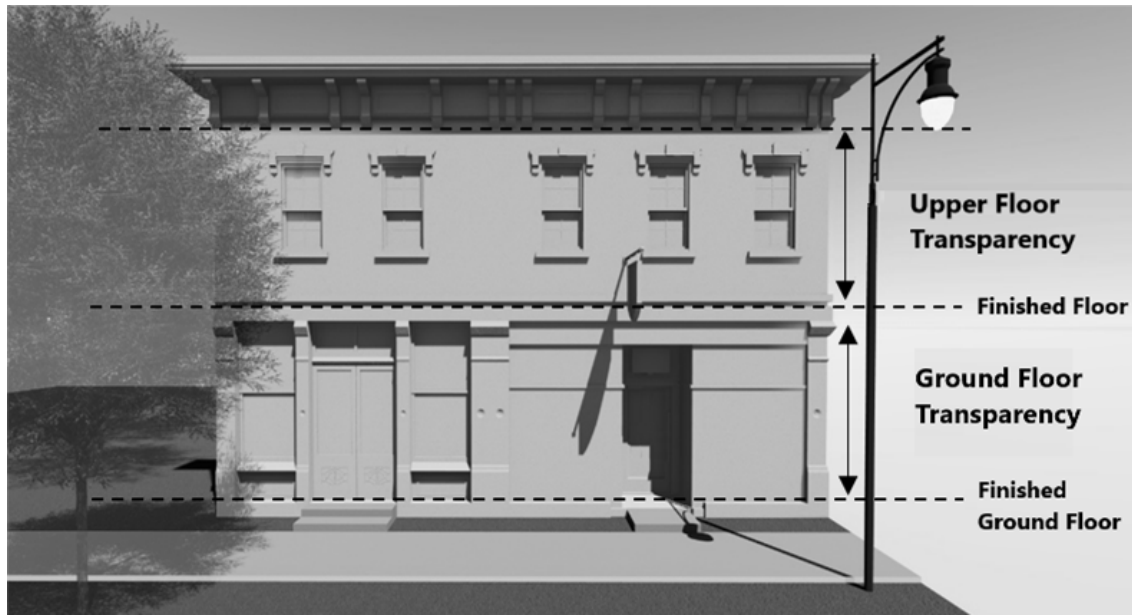
Figure 6.1.7. Frontage (Build To Percentage)



### 6.1.9. TRANSPARENCY AREA

- A. **Generally.** Transparency Area requirements promote visually appealing building facades. Transparency is the minimum percentage of windows and doors that must make up a ground floor (first story) or upper story façade. A minimum transparency percentage is required for each story of a structure.

Figure 6.1.9. Transparency Area



## 6.2. SIGNS (GROUP 1)

### 6.2.1. APPLICABILITY

A. **Purpose and Intent.** The provisions of this Section shall govern all signs within the Town and its ETJ. It is the purpose of this Section to promote the public health, safety and general welfare through reasonable, consistent, content-neutral, and non-discriminatory sign standards. No sign may be constructed, erected, altered, replaced, or modified except in accordance with the requirements of this LDO. The provisions of this Section are intended to support aesthetic improvement of the Town through diverse sign types and historic preservation, and to protect the general safety of pedestrians and motorists. No portion of this Section is intended to violate free speech rights. Any type of sign not expressly permitted or exempted in this LDO is prohibited.

This Section intends to:

1. Encourage effective use of signs as a means of communication for businesses, organizations and individuals in the Town;
2. Enhance property values and aesthetics of land and structures by promoting high quality designs; and
3. Minimize adverse effects of signs on nearby properties and rights-of-way.

B. **Applicability.** The provisions of this Section shall apply to signs erected, affixed, placed, painted or otherwise established after the effective date of this LDO, unless exempted in accordance with Section 6.2.3: Nonconforming Signs, 6.2.7: Prohibited Signs, or 6.2.8: Exempt Signs.

C. **Non-Commercial Copy Substitution.** Non-commercial copy may be substituted for commercial copy on any sign that is otherwise permitted in this Section.

### 6.2.2. GENERAL STANDARDS

A. **Location.** Types of signs authorized by this Section are permitted in zoning districts as provided in Section 6.2.6: Permitted Signs. A sign permit is required for each sign prior to construction, installation or display unless exempted by this Section.

B. **Design Standards.**

1. Signs shall be, or appear to be, constructed of stone, masonry, metal, ceramic,

glass, plastic, or wood and shall utilize similar architectural styles and treatments to the primary structure.

2. Fluorescent and/or iridescent colors are understood to be a potential safety risk for motorists and are prohibited.

C. **Landscaping.** Free-standing signs shall, to the extent practicable, be placed in a landscaped setting appropriate to the size and scale of the sign, and character of the site.

1. In no case shall the planted area be less than 50 square feet, unless restricted by the amount or size of land upon which the sign is situated that is owned or controlled by the applicant.
2. The planted landscape area shall contain materials such as, but not limited to: vegetative ground covers, perennials, shrubs, ornamental trees and mulch, but excluding paving and artificial plant materials.
3. A sketch plan of the landscaped area with the name, quantity and spacing of plants shall be presented to the Land Development Administrator as part of applying for sign permit.

D. **Intersection Visibility Triangle.**

1. No sign structure may obstruct any cross-visibility area or traffic control device.
2. In the intersection visibility triangle, no ground sign may exceed 30 inches in height above the established grade of the street property line, unless the sign is setback a minimum of five feet from the street right-of-way.

E. **Illumination.** Permanent signs may be illuminated by internal or external illumination and comply with the following standards:

1. **External Illumination.**

- a. Only stationary and shielded light sources directed solely onto the sign are permitted.
- b. External illumination shall not shine directly on rights-of-way or residential uses.
- c. Flashing and intermittent lights are prohibited. Window signs, interior

tube lighting along windows, or signs within an establishment below four (4) square feet are excluded from this requirement.

- d. Spotlights for grand openings or permitted temporary uses may be used upon approval by the LDA.

2. **Internal Illumination.**

- a. Only illumination with a designation of “white” or “daylite” shall be emitted.
- b. Poles and other supporting structures shall not be internally illuminated.

3. Notwithstanding the foregoing, outline or strip lighting and neon tube on the exterior of structures are not permitted.

4. Illumination in signs may not impair the vision of motor vehicle drivers.

F. **Changeable Copy.** Changeable copy on monument and wall signs is permitted per the following standards:

1. Up to 50% of the maximum area of the monument and wall signs may be used for changeable copy.
2. Video, animated, scrolling or moving changeable electronic variable messages are not permitted. This provision shall not restrict the copy from changing from one message to another.
3. Message must remain static for at least ~~60~~ 10 seconds.
4. Changeable copy signs are also understood to include prices of goods and services provided on premises.

G. **Construction.** All signs must be erected in compliance with building, electrical, and fire codes, and with the following requirements as applicable:

1. Supports and braces shall be designed as an integral part of the sign structure and be hidden from public view to the extent technically feasible.
2. Audio components are prohibited as part of any sign with the exception of drive-through menu signs.

H. **Maintenance.** All signs must be maintained to be safe and present a neat, clean appearance. Signs shall be maintained in their approved state.

I. **Total Number of Signs.** A total of three (3) signs may be permitted per business.

J. **Master Signage Plan.**



1. Master sign plans intend to allow an orderly process to provide for signs which are integrated and contextually designed to enhance the buildings and site which they occupy.
  2. Master sign plans are required for all multi-tenant complexes, in any district, excluding residential apartments.
  3. The master signage plan shall specify:
    - a. Number of signs;
    - b. General location of signs for freestanding signs and building signs;
    - c. Types of signs;
    - d. Material components of proposed sign structures and sign surfaces;
    - e. Height and size of signs using the standards defined in this Section;
    - f. Style and color of proposed signs, including illustrations of style and color pallet for all signs;
    - g. Accessory/ornamental structures or fences/walls in which a sign may be placed (if applicable); and
    - h. Typical landscaping for freestanding signs.
- K. **Public Rights-of-Way.** Signs are prohibited within any public right-of-way except where the North Carolina Department of Transportation or the Board of Commissioners has granted, in writing, such encroachment pursuant to its regular procedures for reviewing and approving encroachments within public rights-of-way. No signs, other than the exempted signs below, may be placed in the rights-of-way:
1. Regulatory signage erected by the Town of Rolesville;
  2. Traffic control signs;
  3. Signage erected by NCDOT; and
  4. At work signs or emergency signage erected by a governmental agency, utility or contractor performing permitted work.
- L. **Drive-Through Signs.** For each parcel with a lawful, permitted use that utilizes a drive-

through lane, a maximum three (3) drive-through menu signs shall be allowed for each drive-through lane.

1. Each allowed drive-through sign may be either a freestanding monument sign or an attached sign and shall not exceed forty (40) square feet in sign area and ten (10) feet in height.
2. Drive-through signs shall be in addition to the freestanding and attached signage otherwise allowed pursuant to the other provisions of this Section.
3. Drive-through signs shall require a permit.

M. **Audio.** Audio components or speakers are prohibited as part of any sign, except drive-through signs, consistent with Section 6.2.7: Prohibited Signs.

N. **Temporary Signs.** Temporary signs may be permitted in any district for a maximum 30 days. Temporary signs shall be limited to six (6) square feet.

O. **Free-Standing Signs.**

1. Free-standing signs shall be securely fastened to the ground so that there is virtually no danger that the sign may be moved by wind or other forces of nature and cause injury to persons or property.
2. All applications for a free-standing sign permit shall be accompanied by an engineer's sealed footing drawing and calculations testifying to the ability of the sign to withstand 100 mile-per-hour winds.
3. No freestanding sign (temporary or permanent) shall encroach into any right-of-way, except as permitted by an encroachment agreement or other license executed by the governmental authority having control of such right-of-way.
4. Applicants shall provide the Town with evidence of such encroachment agreement or license prior to issuance of any permit. Signs erected in violation of this section are subject to removal by the governmental authority having control of such right-of-way.
5. Poles and other supporting structures shall not be internally illuminated.
6. Free-standing signs shall include the street address number of the site.

P. **Painted Art and Murals.** Murals and painted art shall comply with the following

standards:

1. Painted art or printed murals are not considered signage so long it does not incorporate a tradename, trademark or name of the establishment in the art.
2. If painted art or printed murals contain tradenames, trademarks or the name of the establishment in the art, it shall be considered a sign and shall meet the standards of this Section and require a sign permit and/or site plan approval.
3. All painted art and murals, regardless of whether or not they are considered a sign, shall be regularly maintained, cleaned and refurbished so the art or mural remains visible and consistent with its approved design.

### 6.2.3. NONCONFORMING SIGNS

- A. **Nonconforming Signs.** Nonconforming signs may not be altered or moved except as otherwise permitted by this Section.
1. Normal maintenance of nonconforming signs, including repainting or replacing of the sign face shall not be considered an alteration.
  2. Changes to the sign structure shall constitute an alteration of the nonconforming sign.
  3. Any nonconforming sign structure which is moved or altered must be brought up to the standards of this Section.

### 6.2.4. ABANDONED AND UNSAFE SIGNS

- A. **Abandoned Signs.** A sign which is abandoned or which is not properly maintained, including cleaning and painting of painted surfaces and replacement of damaged parts, shall be removed after due notice is given.

### 6.2.5. CALCULATING SIGN AREA AND SIGN HEIGHT

- A. **Calculating Sign Area.** The area of a sign shall include all lettering, wording, designs and symbols, together with the background, whether open or enclosed, on which they are displayed. The supporting structure or bracing of a sign shall be omitted in measuring the area of the sign unless such structure or bracing is made part of the message or face of the sign. Calculating sign area shall comply with the following standards below:
1. Where a sign consists of individual letters, words or symbols attached to a

building, canopy, awning or wall and all such elements are located in the same plane, the sign area shall be the area of the smallest rectangle which completely encompasses all such letters, words or symbols and any accompanying background of a color different than the natural color of the wall. Where such sign includes multiple words, each word located in the same plane shall be computed separately.

2. Channel letter signs, mounted logos, and similar devices are treated differently than signs in cabinets. The wall area between multiple elements does not count as sign area.
3. The area for a sign with more than one face shall be computed by adding together the area of all sign faces, except where the angle at which the two sign faces are placed does not exceed 60 degrees.
4. It is presumed that where sign faces are placed less than 60 degrees apart, both faces are not readable from any one point.
5. The entire surface area of a multitenant sign that depicts the names of the individual tenants shall count toward the total aggregate area of the sign.

Figure 6.2.5.1. Sign Area

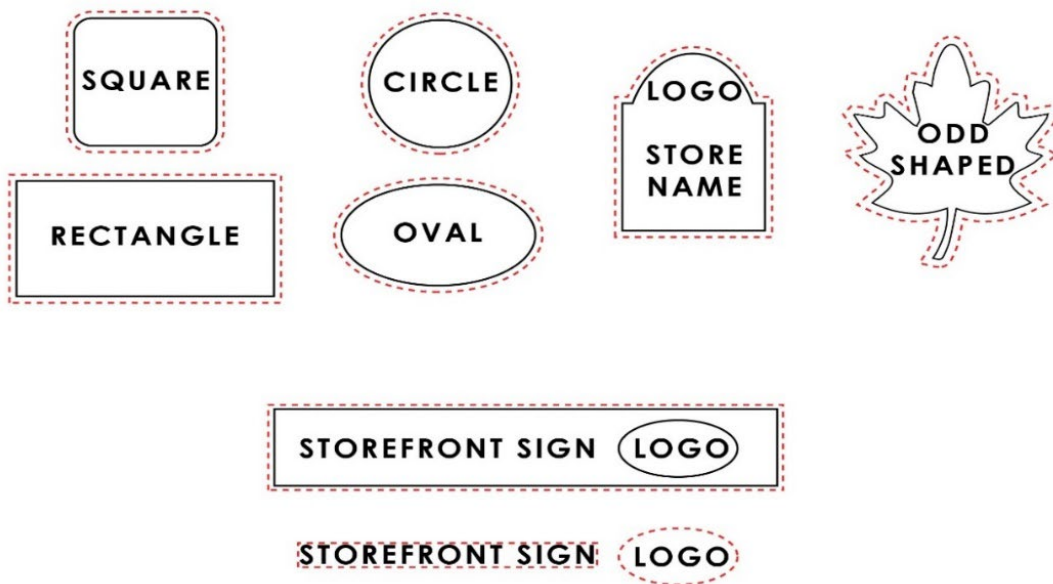
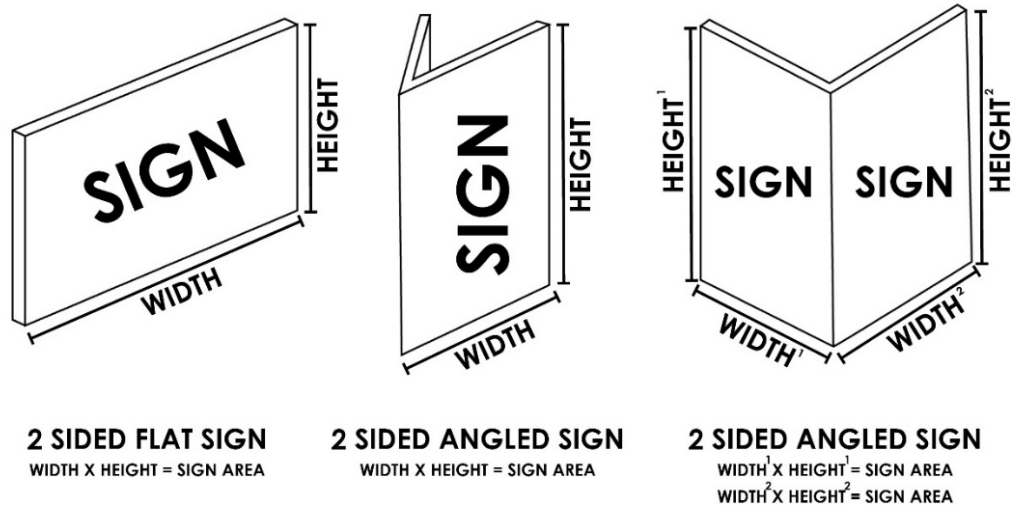


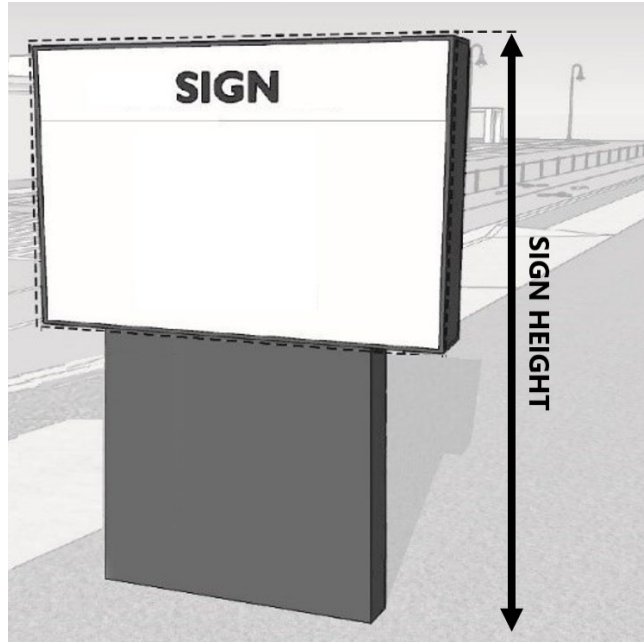
Figure 6.2.5.2. Multiple Faces On A Sign



**B. Sign Height and Clearance.**

1. Sign height shall be measured as the vertical distance from the base of a sign (or sign structure) to the highest point of the sign (or sign structure).
2. Sign clearance for signs attached to a structure shall be measured vertically from the sidewalk level to the lowest point of the sign.

Figure 6.2.5.3. Height



C. **Building Signs.** Building signs include wall, window, canopy/awning, and projecting/blade signs. For the purposes of this Section, the maximum area of all building signs (combined sign sizes/areas) shall not exceed the standards below. Additional specific provisions may be required for each sign type in Section 6.2.6: Permitted Signs.

1. **Residential Districts.** All permitted building signs in residential districts shall not exceed the standards below:
  - a. Building signs for permitted uses in residential districts shall not exceed 24 square feet in sign area.
  - b. No building sign may project more than 18 inches from the building wall.
  - c. No building sign may project above a roofline (except parapet walls).
  - d. A building sign may extend down from a roof or porch or walkway overhang not more than 18 inches provided that a minimum clearance of seven feet between the bottom of the sign and walking surface is maintained.
2. **Non-Residential Districts.** All permitted building signs in non-residential districts shall not exceed the standards in Table 6.2.5 and Section 6.2.6: Permitted Signs.

Table 6.2.5. Non-Residential Building Sign

Length of Building or Tenant Space (Requires Public Entrance)	Sign Area Per Building/Tenant Frontage
Up to 100 linear feet of building frontage (single use or multitenant)	2 SF/Linear Foot per tenant not to exceed 200 linear feet in total
101 to 200 more linear feet of building frontage (single use or multitenant)	1 SF/Linear Foot per tenant not to exceed 200 SF total
For freestanding single tenant buildings in excess of 50,000 square feet	1 SF/Linear Foot or 500 SF whichever is less

**D. Free-Standing Signs.**

**1. Residential Districts.**

- a. Free-standing signs shall be limited to 8 square feet on residential single-family lots and a maximum 32 square feet on all other lots.
- b. Free-standing signs shall be limited to a maximum of 4 feet in height.
- c. Community/subdivision signs are excluded from this standard and shall comply with the standards of Section 6.2.6.C.5: Community/Subdivision Signs.

**2. Non-Residential Districts**

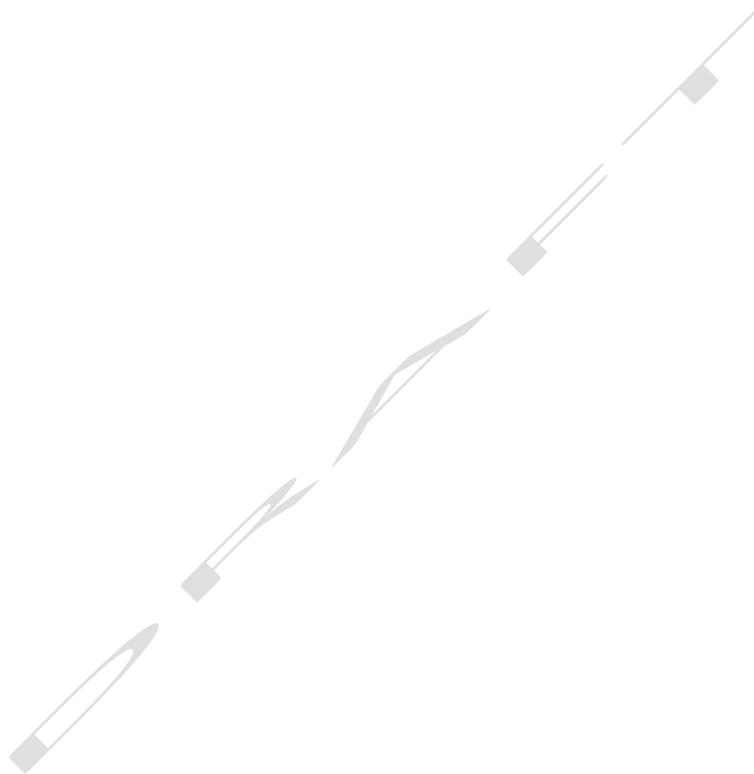
- a. Free-standing signs, including monument, community signs/subdivision, and pole signs shall be provided for, including calculations, as identified within each of the respective sign types in Section 6.2.6: Permitted Signs.
- b. Maximum Height. Free-standing signs shall be limited to a maximum as per the standards in Section 6.2.6: Permitted Signs.

**6.2.6. PERMITTED SIGNS**

- A. **Permitted Signs.** Signs subject to the standards of this Section may be permitted in districts per Table 6.2.6. Section 6.2.6.C defines each sign type and their respective

standards.

1. Sign type definitions include graphic illustrations for permitted signs. Description, locational standards, size standards, and any other requirements are provided for each sign type.
2. All permitted sign types require a permit unless expressly stated otherwise in these standards.





**B. Permitted Sign Types Table.**

Table 6.2.6. Permitted Sign Types in Traditional Districts

PERMITTED SIGN TYPES														
		RLD	RMD	RHD	RMH	UMH	NC	CH	O&P	IP	I	TC	C-MU	S-MU
<b>BUILDING SIGNS</b>														
WALL SIGNS		P	P	P	P	P	P	P	P	P	P	P	P	P
CANOPY/AWNING		P	P	P	P	P	P	X	X	X	X	P	P	P
PROJECTING/BLADE		P	P	P	P	P	P	X	P	P	X	P	P	P
<b>GROUND SIGNS</b>														
MONUMENT		P	P	P	P	P	P	P	P	P	P	P	P	P
COMMUNITY/SUBDIVISION		P	P	P	P	P	X	X	X	X	X	X	P	P
PYLON/FREESTANDING		P	P	P	P	P	P	P	P	P	P	X	X	X
<b>OTHER SIGNS</b>														
SIDEWALK		X	X	X	X	X	X	X	X	X	X	P	P	X
WINDOW		X	X	X	X	X	P	P	P	P	X	P	P	P
<b>NOTES</b>														
Multiple family developments may be permitted a wall sign and monument or community sign.														
Monument signs are limited to 12 square feet in area and four square feet in area in the TCT district. Wall signs are limited to 2 square feet.														

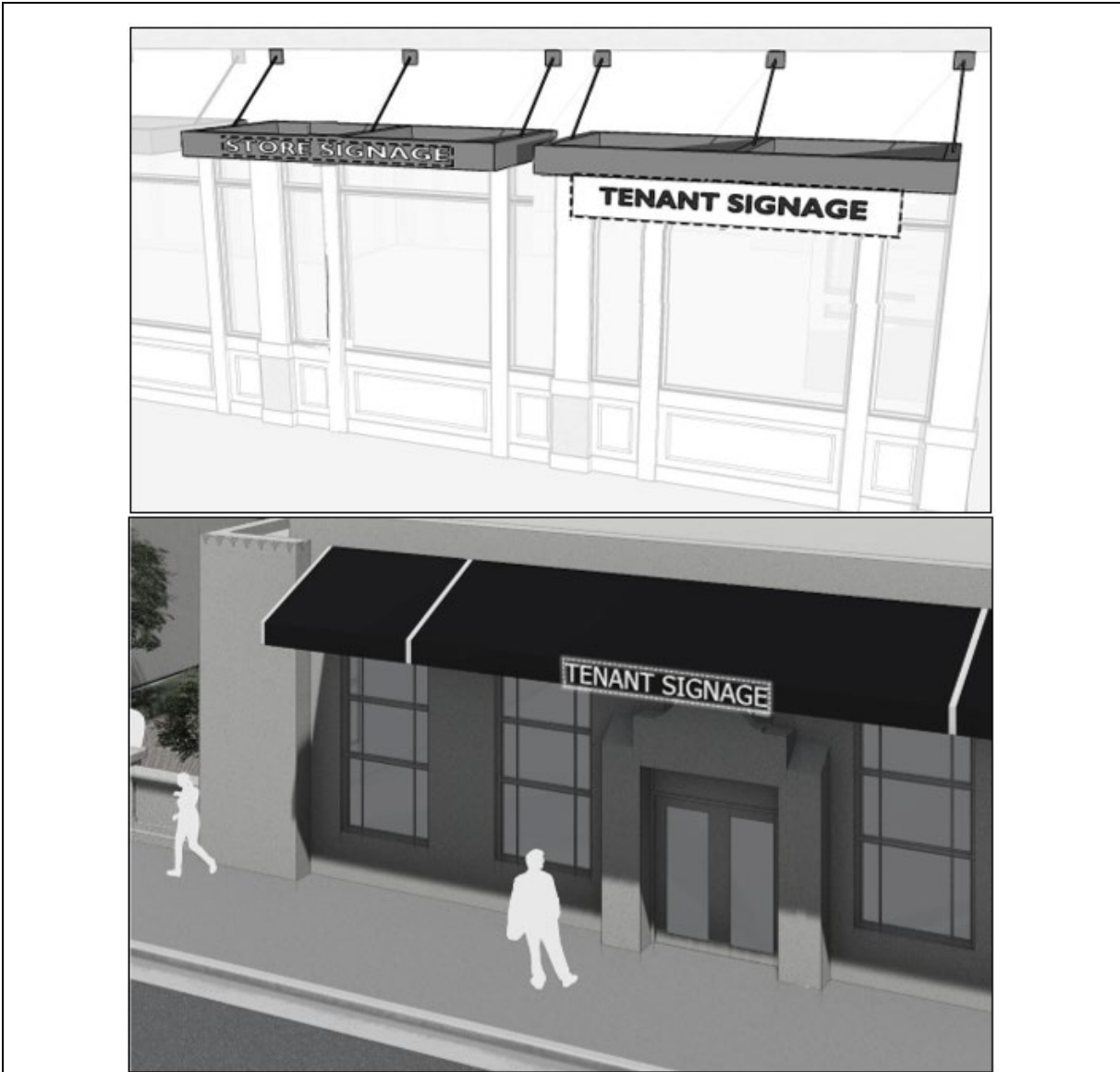
C. Permitted Sign Types.

1. Wall Sign



<p><b>Description</b></p>	<p>An on-premise sign attached directly to a building wall above the entrance, limited to one per façade, per building tenant. A wall sign may include murals conveying the name of a business or a commercial message. A sign permit is required.</p>
<p><b>Location</b></p>	<p>Directly above entrance, located on the supporting building wall.</p>
<p><b>Standards</b></p>	<p>A maximum 3 complimenting colors may be permitted per wall sign.</p> <p>May not extend above any parapet wall.</p> <p>May not project more than 18 inches from the building face.</p> <p>Wall signs shall be uniform vertical and horizontal positions on storefront.</p> <p>Sign materials shall be of similar style; compliment building façade material.</p>

2. Canopy/Awning Sign



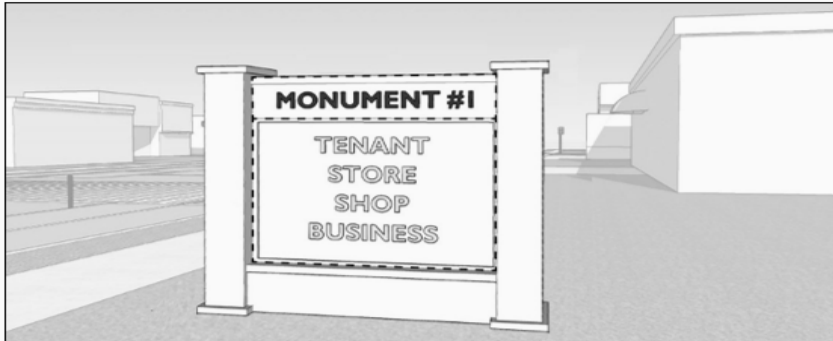
<p><b>Description</b></p>	<p>A canopy/awning attached to and extending from the building with attached signage. A sign permit is required.</p>
<p><b>Location</b></p>	<p>Canopy/awning signs shall have a minimum clearance of 10' from the surface below and a maximum height of 4' above the clearance.</p>
<p><b>Standards</b></p>	<p>Signs may not extend outside the overall length or width of a canopy/awning or extend above the height of the building wall to which the canopy/awning is attached.</p> <p>Sign materials shall be of similar style; compliment building façade material.</p> <p>Only awnings on the ground story may contain signs.</p>

3. Projecting/Blade Sign



<p><b>Description</b></p>	<p>A sign attached directly to a supporting building wall and intersecting the building wall at a right angle.</p> <p>A projecting sign typically extends more than one foot from the building wall. The sign may be flat or three dimensional. A sign permit is required.</p>
<p><b>Location</b></p>	<p>1 sign per tenant, maximum.</p>
<p><b>Standards</b></p>	<p>No projecting sign is allowed to extend above the roof line or the parapet wall.</p> <p>Buildings with 2 or more stories may not have a projecting sign located higher than the second story or 24', whichever is less.</p>

4. Monument Sign



<b>Description</b>	A freestanding ground sign with a supporting structure with columns on the ends of the sign. A sign permit is required.
<b>Size</b>	<p>Sign Width: Maximum 25', excluding support structures, columns or decorative features without a sign face.</p> <p>Sign Height: Maximum 12', including support structures, columns or other features including sign face. A development over 100,00 square feet may be permitted a maximum 15' in height sign as part of a site plan.</p> <p>Sign Area: For projects/developments up to 5.0 acre, a maximum 50 square feet (single tenant) and 100 square feet (multi-tenant). For Projects/developments 5.0 acres or greater, a maximum 100 square feet (single tenant) and 200 square feet (multi-tenant).</p>
<b>Location</b>	<p>Projects/developments up to 5.0 acres: 1 primary sign and 1 secondary sign.</p> <p>Projects/developments 5.0 acres or greater: 1 primary sign and 1 secondary sign per driveway/location from the public roadway, up to three (3) secondary signs maximum (total).</p> <p>All monument signs shall be located a minimum of 10' from the road/right-of-way and located outside of the visibility triangle.</p>

5. Community/Subdivision Sign



<b>Description</b>	A freestanding ground sign identifying entry to a mixed-use ditrict, neighborhood, or a residential subdivision. A sign permit is required.
<b>Size</b>	<p>Sign Width: Maximum 25', excluding support structures, columns or decorative features without a sign face.</p> <p>Sign Height: Maximum 10', including support structures, columns or other features including sign face.</p> <p>Sign Area: For projects/developments up to 5.0 acre, a maximum 50 square feet (single tenant) and 100 square feet (multi-tenant). For Projects/developments 5.0 acres or greater, a maximum 100 square feet (single tenant) and 200 square feet (multi-tenant).</p>
<b>Location</b>	<p>2 signs per entrance, maximum.</p> <p>Administrative approval for any ROW encroachment required by the owner of the right-of-way, consistent with Section 6.2.2.K.</p>
<b>Standards</b>	Identifying signs may be placed on a subdivision wall or fence provided that no part of the wall or fence exceeds 6' in height.

6. Pylon/Freestanding Sign



<b>Description</b>	A freestanding sign erected on a supporting base (pole), not attached, supported or suspended to or from any building or structure. A sign permit is required.
<b>Size</b>	Sign Area: Maximum 100 SF per side. Sign Height: Maximum 12'.
<b>Location</b>	1 sign per street frontage, 2 maximum.
<b>Standards</b>	All sign braces or uprights shall be self-supporting structures permanently attached to concrete foundations in or upon the ground.  No portion of a pylon sign shall encroach into a public right-of-way, drive aisle, parking space or walkway.

7. Sidewalk/A-Frame Sign



<b>Description</b>	A sidewalk sign (also commonly referred to as a sandwich board or A-Frame) allows for the display of a message on the sidewalk. Each business is limited to one sidewalk sign, located only in front of the entrance. A sign permit is not required.
<b>Size</b>	Sign Text Area: Maximum 8 SF per side Sign Width: Maximum 2’ Sign Height: Maximum 4’
<b>Location</b>	Each business is limited to one sidewalk sign, located only in front of the building entrance. A sidewalk sign may not be placed so as to obstruct the normal flow of pedestrian traffic.



8. Window Sign



<b>Description</b>	A sign attached flat, but parallel, to the inside of a window, or within 12" of the inside of the window. A sign permit is not required.for
<b>Size</b>	Sign Area: Maximum 30% of all windows may be covered by a window sign.
<b>Location</b>	Window signs may only be placed on first floor windows of buildings with street frontage.

### 6.2.7. PROHIBITED SIGNS

- A. **Types of Prohibited Signs.** The following signs and sign-types are prohibited within the Town and shall not be erected. Any lawfully existing permanent sign or sign-type that is among the prohibited signs and sign-types listed below shall be deemed a nonconforming sign subject to the provisions of Section 6.2.3: Nonconforming Signs.
1. Signs prohibited by Federal or State law.
  2. Signs that emit sound (except for drive-through signs), vapor, smoke, odor, particles or gaseous matter.
  3. Revolving signs, flashing signs, inflatable signs, and wind signs.
  4. Portable signs, except for human held signs which are exempt from this Section.
  5. Roof signs.
  6. Any sign located on real property without the permission of the property owner.
  7. Billboards or off-site advertising signs, defined as a sign on a lot without a building or structure on it. Existing billboard of off-site advertising signs are recognized as nonconforming.
  8. Signs within landscaped areas.
  9. Pole and/or pylon signs.
  10. Off-premise signs that advertises goods provided on a different lot, tract, or site from where the sign is located. This provision shall not apply to neighborhood/subdivision signs. Billboards and outdoor advertising are not permitted but may continue as a nonconforming use and in accordance with Sections 136-126 through 136-140.1 of the North Carolina General Statutes (Outdoor Advertising Control Act).

### 6.2.8. EXEMPT SIGNS

- A. **Types of Exempt Signs.** The following signs are permitted and may be erected in any zoning district, unless otherwise provided, without securing a permit, subject to meeting all requirements of this LDO:
1. Signs required by Federal, State, or local laws, ordinances, codes, or regulations.
  2. Street address signs.
  3. Professional nameplates not exceeding 6 square feet in area.
  4. Identification signs at the entrance of the property limited to three square feet in

area.

5. Signs inside a building or structure or located on property such that they are not visible from a public rights-of-way.
  6. On-site directional signs not exceeding 3 square feet in sign area and 3' in height.
  7. On-site parking space signs not exceeding one square foot of sign face per sign. One such sign shall be allowed for each parking space on the property.
  8. Government signs located in public right-of-way.
  9. Flagpoles and flags. Flagpoles shall not exceed 25 feet in height in residential districts, 35 feet in nonresidential districts.
  10. Attention flags. A maximum of one, 10 square feet flag, per 30' of frontage, shall be permitted on each parcel.
  11. Signage on fence wraps affixed to perimeter fencing at a construction site that are exempt pursuant to N.C.G.S. § 160D-907.
  12. Signs, lights, figurines, and decorations that are temporarily displayed for a maximum of 60 days at a time, 3 times a year. Maximum 4 square feet for any sign.
  13. Additional exemptions for residential uses:
    - a. Up to 12 square feet of signage placed in a window or in a yard.
    - b. In addition to signs permitted in a., an additional 12 square feet of signage may be placed in a window or in a yard:
      - i. Beginning 45 days before, and ending five days after, a Federal, State, or local government election;
      - ii. While the property where the sign is located is offered for sale or rent; or
      - iii. Beginning two days before, and ending one day after, an otherwise permitted garage or yard sale.
  14. Human held signs that do not obstruct the flow of vehicular or pedestrian traffic.
  15. Graphics and lettering painted on or attached to vending machines, gas pumps, mailboxes, ice containers, or similar dispensing devices.
- B. Standards for Exempt Signs.** Except for government signs, exempt signs may not be closer than five feet front the front lot line. No sign may be closer than five feet from any driveway, curb or edge of pavement. Signs which become visibly damaged must be removed.

## 6.3. OPEN SPACE, BUFFERING, COMPATIBILITY AND LANDSCAPING (GROUP 1)

### 6.3.1. OPEN SPACE

- A. **Purpose and Intent.** The purpose of this Section is to require open space that encourages preservation of natural features, adds to the visual character of a development, and provides active and passive recreational opportunities for residents and visitors alike. Open space is an asset to the community and it is the intent of this Section to:
1. Define standards in which new development shall dedicate a portion of area(s) as open space;
  2. Designate minimum open space requirements, open space size, open space types, and open space design standards;
  3. Define the minimum maintenance and ownership requirements for open spaces.
  4. Promote open space accessible to the public in new developments; and
  5. Expand development of greenways and connectivity between both built-up and fallow open spaces across Town.
- B. **Applicability.** All new development shall comply with the standards of this Section. The following shall also apply in instances of repairs, renovations or additions, or change in use. No permit for construction of any building, structure or use may be issued until open space has been provided in accordance with this LDO.
1. **Repair or Renovation.** A building may be repaired or renovated without requiring open space per the requirements of this LDO provided there is no increase in gross floor area.
  2. **Minor.** When a building or site is increased in gross floor area or improved site area by 10% or less, open space is required only for the additional floor area or improved site area. Improved site area shall include site improvements such as utility installations, landscape modifications, additional impervious surfaces (including parking), and/or construction of structures.

3. **Major.** When a building or site is increased in gross floor area or improved site area by greater than 10%, open space must be provided for the total of the entire property. Improved site area shall include site improvements such as utility installations, landscape modifications, additional impervious surfaces (including parking), and/or construction of structures.
4. **Change in Use.** A change in use shall not require compliance with this Section.

**C. Exemptions.**

1. **Single-Family.** Development or redevelopment of individual single-family dwellings not part of a subdivision approval is exempt from the standards of this Section.
2. **Town Center (TC) District.** Recognizing the importance of the continued development of the Town Center (TC) district, any development or redevelopment within the TC district which cannot meet the open space requirements of this Section due to size constraints (i.e. size of lot) or parcel configuration may request a design alternative, to be reviewed by the BOC, exempting the open space requirements of this Section.

**D. Minimum Open Space Required.** The minimum amount of open space required in a development shall be in accordance with this Section, however a development may provide more than the minimum required open space. Gross square footage of open space area shall be used in the calculation of open space percentage requirements. Vehicle use areas, streets, driveways, and sidewalks required per this LDO may not be used toward open space calculations unless explicitly stated in this Section.

1. **Residential Districts.** All new development subject to this Section within residential districts as defined in Section 3.1.1: Residential Districts, shall require minimum 10% open space, calculated from the total size of the development. The required 10% open space shall also comply with the following additional standards:
  - a. **Developments of 0-50 Acres.** For residential developments 0 to 50 acres in size, required open space shall include at least one small open space type and one medium open space type, as defined in this Section. If the

residential development is less than 10 acres in size it shall only require one small open space type.

- b. **Developments Greater Than 50 Acres.** For residential developments greater than 50 acres in size, required open space shall include at least one small or medium open space type and one large open space type, or shall include one small open space type and two medium open space types. At least 50% of dwelling units must be within ½ mile of a medium or large park.

2. **Mixed-Use Districts.** All new development subject to this Section within mixed-use districts as defined in Section 3.4: Mixed-Use Districts, shall require a minimum 15% open space, calculated from the total size of the development. The required 15% open space shall also comply with the following additional standards:

- a. **Less Than 25 Acres.** For mixed-use developments less than 25 acres, required open space shall include at least two small open space types.
- b. **25-50 Acres.** For mixed-use developments greater than 25 acres, but less than 50 acres in size, required open space shall include at least two small open space types and one medium open space type.
- c. **Greater Than 50 Acres.** For mixed-use developments greater than 50 acres in size, required open space shall include at least three small open space types and two medium open space types.

3. **Nonresidential Districts.** All new development subject to this Section, unless specifically exempted, within nonresidential districts as defined in Section 3.1.2: Nonresidential Districts, shall require a minimum 5% open space, calculated from the total size of the development. The required 5% open space shall also comply with the following additional standards:

- a. **Less Than 25 Acres.** For commercial developments less than 25 acres, required open space shall include at least one small open space type.

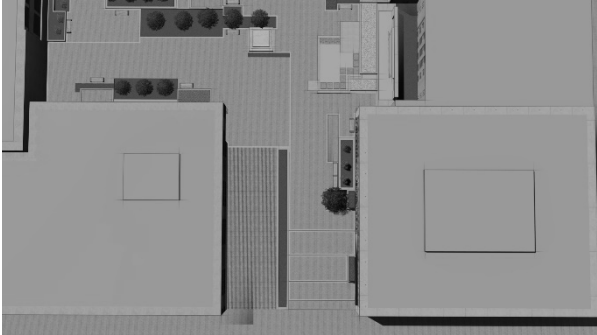
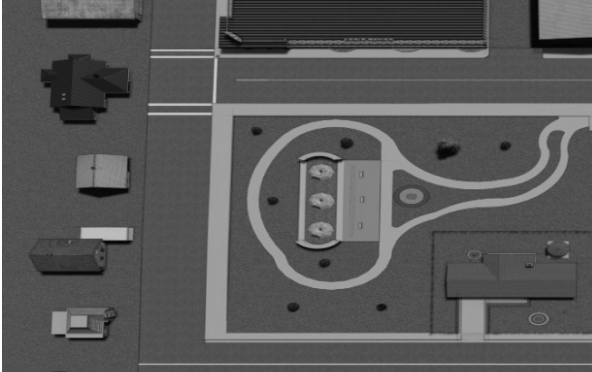
- b. **25-50 Acres.** For commercial developments greater than 25 acres, but less than 50 acres in size, required open space shall include at least one small open space type and one medium open space type.
  - c. **Industrial.** Developments within the Industrial zoning district shall not be required to provide open space.
- E. **Open Space Sizes.** Open space shall be categorized as small, medium, and/or large. Each open space size has a permitted range of acreage. The acreage calculation for each open space size is defined in Table 6.3.1.1.

Table 6.3.1.1. Open Space (Size/Acreage)

Open Space Size	Acreage (range)
Small	500 SF – 1.0 Acre
Medium	1.0 – 2.5 Acres
Large	2.5 Acres Or More

- F. **Open Space Types.** In addition to size categorization, open space shall be defined by type. Open space types may be considered more than a single open space size (i.e. an open space type may be considered both a small and medium open space size). Open space types are defined in Table 6.3.1.2.

Table 6.3.1.2. Open Space Types

Open Space Type	Illustrative/Example
<p><b>Plaza</b></p> <p><b>Description:</b> Plazas serve as a gathering place for civic, social, and commercial purposes. The Plaza may contain a greater amount of impervious coverage than any other open space type. Typically located in the front or sides of a building or group of buildings. Plazas shall be partially paved with brick, concrete, permeable pavers or similar material.</p> <p><b>Size:</b> Small or Medium</p> <p><b>Features:</b> Shade structures, seating/benches, tables, including gaming tables, fountains and public art.</p>	
<p><b>Pocket Park</b></p> <p><b>Description:</b> Pocket parks are primarily landscaped and may provide active or passive recreation. Provides gathering space within a one-quarter mile walking distance of a majority of residents.</p> <p><b>Size:</b> Small</p> <p><b>Features:</b> Shade structures, gazebo, seating areas, multi-purpose lawn space, dog park, playground/play space, trail; may also be formed around and include an environmental feature such as a stream, creek, or wetland.</p>	



## Amenity Center

### Description:

Amenity centers provide recreational opportunities and are typically included in residential developments.

### Size:

Small or Medium

### Features:

Pools, splash pads, outdoor seating, clubhouse, small scale recreational facilities such as pickleball, soccer, or shuffleboard, and lawn games.



## Green

### Description:

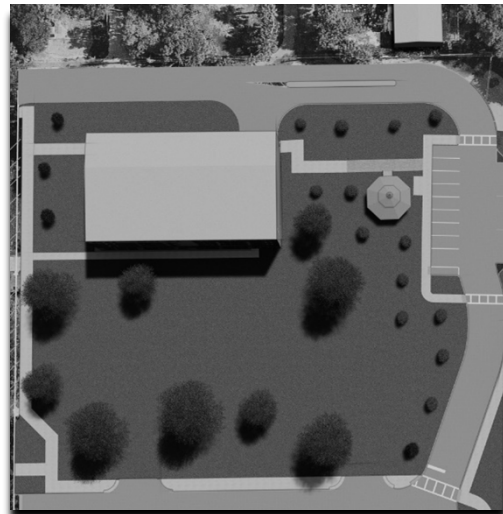
Greens provide more informal spaces supporting active or passive recreation for neighborhood residents within walking distance. Typically bounded by streets and/or the fronts of buildings.

### Size:

Small or Medium

### Features:

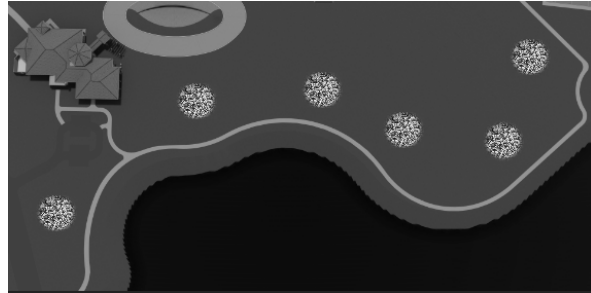
Shade structures, gazebo, seating areas, multi-purpose lawn space, playground/play space, limited/small scale recreational facilities.



### Linear Park/Greenway

**Description:**

Linear parks may also be referred to and used as a greenway. Generally provides more informal types of open space; however, may be formalized based on its function (i.e., multimodal trail/connectivity). Typically follows a natural feature including but not limited to a creek, stream, wetland system, or man-made feature natural feature; may also follow streets. Linear Parks may connect other open spaces, as well as neighborhoods.



**Size:**

Medium or Large

**Features:**

Walking trails, sidewalks, environmental features (wetlands, creeks, streams), shade structures, gazebo, seating areas, multi-purpose lawn space, playground/play space. Man-made lakes and stormwater features be included in this type; however, must be publicly accessible with a trail or sidewalk.

### Neighborhood Park

**Description:**

Neighborhood parks provide formal and/or informal active and passive recreational activities to residents and the community.

**Size:**

Medium or Large

**Features:**

Shade structures, gazebo, seating areas, multi-purpose/sports fields, pools, great lawn playground/play space, natural environments and plantings. Man-made lakes and stormwater features be included in this type; however, must be publicly accessible with a trail or sidewalk. At least 25% of the park area shall be dedicated to active recreation purposes such as playgrounds, tennis courts, pickleball, ball fields, or similar activities.



## Square

### Description:

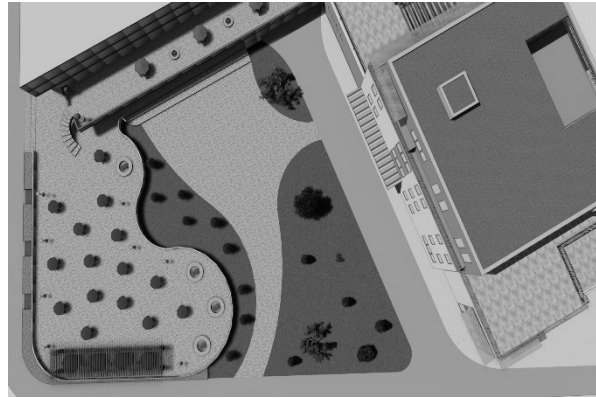
Squares are small to medium in scale; serve as a more formal open space for gathering for civic, social, and commercial purposes. Squares are bordered by vehicular right-of-way (public and/or private), which, together with building frontages, creates its definition and boundaries.

### Size:

Small or Medium

### Features:

Shade structures, gazebo, seating areas, multi-purpose lawn space, playground/play space, sidewalks, or other pedestrian facilities.



## Active Use Area

### Description:

Active use areas are a small open space. Active use areas are primarily intended to allow for pedestrian activity and provide attractive, safe and functional environments for the gathering of people, eating and drinking, and small scale outdoor uses in an urban environment. Active use areas may include outdoor dining, small outdoor music venues, or flexible urban space.

### Size:

Small

### Features:

Outdoor dining facilities, shade structures, seating areas, pedestrian facilities.



- G. **Open Space Design Standards.** The design and incorporation of open space in a development shall comply with the following standards:
1. **Evenly Distributed.** Open space shall be, to the maximum amount practicable with respect to environmental considerations and subdivision design, evenly distributed throughout the development.

2. **Consolidation.** Required open space requirements shall not be consolidated to meet the standards of this Section. It is the intent of this Section to require multiple open space types of varying sizes in each development where required.
3. **Distance.** No two open space types shall be adjacent or within 100 feet of each other. Active use areas are exempted from this standard.
4. **Accessible.** Open space shall be located and designed to be easily accessible for residents and/or users of the development. Open spaces shall make accommodations to provide universal designs that may be enjoyed by different target users and provide for ADA accessibility.
5. **Public Seating.** Public seating shall be required. Public seating shall be appropriate to the intended use of the park area (i.e. benches may be appropriate for active spaces; Adirondack chairs and landscape terraces may be appropriate for passive spaces).
6. **Receptacles.** Refuse and recycling receptacles are required at each entrance and gathering space.
7. **Stormwater.** A maximum 50% of total required passive open space may be stormwater facilities. Any stormwater facility used toward that requirement shall be publicly accessible through improved or primitive trail. For the purpose of this Section, improved and primitive trails are defined below:
  - a. **Improved Trail.** An improved trail shall be defined as a clearly marked, paved, impervious trail.
  - b. **Primitive Trail.** A primitive trail shall be defined as an unpaved, pervious trail that consists of mulch, crushed stone or similar material.
8. **Environmentally Sensitive/Unique Lands and Floodplains.** A maximum 20% of total required passive open space may be environmentally sensitive or unique lands such as wetlands, protected stream buffers, rock outcroppings, and floodplains.
9. **Ponds and Lakes.** A maximum of 5% of total required passive open space may be ponds and lakes not associated with stormwater retention if at least 25% of the shoreline is a public edge, and public access is provided that is equivalent to the access provided to private landowners around the lake.
10. **Parking.** A limited amount of parking spaces may count toward open space requirements as defined below.
  - a. **Small.** Small open spaces shall not count any parking as part of its open space calculation.

- b. **Medium.** Medium open spaces may count up to five (5) parking spaces as part of its open space calculation.
- c. **Large.** Large open spaces may count up to ten (10) parking spaces as part of its open space calculation.

11. **Multi-Phased Developments.** In multi-phased developments, open space shall be provided for each phase in an amount sufficient to satisfy the open space requirements for the subject phase of development and all preceding phases of development.

12. **Active and Passive Features.** A minimum of 50% of all required open space shall be dedicated and designed to allow for active recreation features. For example, a 50 acre residential development requires, at minimum, 5 acres of land dedicated to open space. Of that 5 acres, a minimum 50% (2.5 acres) shall be dedicated for active features. Active recreation and passive features are identified in Table 6.3.1.3.

- a. Active recreation is defined as recreational features, often requiring equipment and taking place at prescribed places, sites or fields, which allow for the active recreational needs of residents or users of the development which they serve.
- b. Passive recreation is defined as recreational features that do not require prepared facilities like sports fields or pavilions and require minimal disruption to a site. These include such activities as walking paths and other features defined in Table 6.3.1.3.

Table 6.3.1.3. Active and Passive Features

Active Features	Passive Features
Lawn Games and Concrete Gaming Tables	Walking Trails
Hard Courts (Pickleball, Tennis, Etc.)	Boardwalks
Playgrounds	Gardens
Swimming Pools and Splash Pads	Greens
Athletic Fields (Soccer, Baseball, Etc.)	Picnic Areas

Clubhouse, Pavilions, Amenity Centers	Lakes and Ponds
Exercise Facilities	Lawns and Natural Areas
Plazas	Greenways

H. **Ownership of Open Space.** Open space is intended to remain under private ownership while still being available for public use by residents and users of a development. Ownership of open space shall remain with the owner of the land unless one of the following circumstances exist:

1. **Homeowners Association (HOA)/Property Owners Association (POA).** Open space may be owned in common by the owners of a development through a recognized homeowners association (or similar ownership association).
2. **Nonprofit.** Open space may be conveyed to a nonprofit organization (i.e. a conservation ground, land trust, etc.) for management. The nonprofit shall be required to manage and maintain the open space.
3. **Dedication.** Open space may be dedicated to the Town during the review process if an agreement is made between the applicant and Town. The Town shall have final authority on which lands are dedicated to the Town.

I. **Maintenance of Open Space.** The owner of open space shall be required to maintain the open space. This shall include regular maintenance of vegetation as well as infrastructure components (stormwater facilities, paths, impervious surfaces, amenities, etc.). Failure to maintain the open space in the condition in which it was approved will result in code enforcement action and potential penalty by the Town.

J. **Greenways.** Consistent with the adopted 2017 Comprehensive Plan and Rolesville Parks and Recreation Master Plan, greenways are recreational and transportation corridors that connect people to the places they want to go and provide recreational and fitness opportunities. Greenways are understood to preserve and create open space, encourage physical fitness, provide alternative means of transportation, create opportunities for outdoor recreation, and provide connectivity between open spaces, schools, cultural sites, neighborhoods, and other commuter destinations. Where land is designated as part of the Town’s adopted greenway system, development shall comply with the Town’s adopted plans and include the creation of new greenway trails. New development may also provide additional greenways and/or connections to greenways in accordance with the standards of this Section.

1. **Greenway Dedication.**
  - a. Land that is dedicated in fee-simple interest for the purpose of a greenway shall be credited toward density calculations.
2. **Greenway Design.**
  - a. All greenways shall include a multi-use path of a minimum of 10 feet wide within a dedicated right-of-way or public easement of at least 50 feet. Greenways shall be wide enough to accommodate a variety of pedestrian mobility, including walkers, hikers, joggers, and bicyclists.
  - b. Greenway connectors shall be a minimum of 10 feet wide.
  - c. Where land is designated as part of the Town's adopted greenway system, a comprehensive greenway and trail plan demonstrating compliance with this Section shall be required.
3. **Topography.** Greenways and connectors should be designed to fit the contours of the land and should minimize removal of significant trees (see Section 6.3.4.5).
4. **Accessibility.** All greenways shall be designed to accommodate a variety of users including walkers, joggers, cyclists, and similar modes of pedestrian movement.
5. **Paving.** Greenways shall be improved trails of impervious materials.
6. **Public Access.** All greenways and greenway connectors shall be maintained for public access by the owner, whether by easement or by public dedication.
7. **Amenities.** For land designated as part of the adopted greenway/bikeway system, greenways shall provide basic amenities for all targeted users. Such greenways shall provide at least three (3) of the following: Drinking fountains, restrooms, trash receptacles, benches, bicycle racks, and shade structures. Way station facilities may also be considered for greenways. These facilities may also include small buildings/kiosks containing exhibits and/or minor food provisions. Land not designated as part of Town's adopted greenway/bikeway system is not required to meet this requirement.

8. **Open Space Considerations.** Land area dedicated as a greenway shall be credited towards applicable open space percentage requirements in this Section. Greenways are considered to be a passive feature.



## 6.3.2. BUFFERING

### 6.3.2.1. PERIMETER BUFFERS

- A. **Purpose and Intent.** This Section defines the minimum required perimeter buffering standards. These standards intend to minimize potential nuisances, such as noise, pollution, lights, and buildings or parking areas through physical and visual separation between land uses in separate zoning districts.
- B. **Applicability.** All new development shall comply with the standards of this Section. The following shall also apply in instances of repairs, renovations or additions. No permit for construction of any building, structure or use may be issued until buffering has been provided in accordance with this Land Development Ordinance (LDO).
1. **Repair or Renovation.** A building may be repaired or renovated without requiring buffering per the requirements of this LDO provided there is no increase in gross floor area.
  2. **Minor.** When a building or site is increased in gross floor area or improved site area by 10% or less, buffering is required only for the additional floor area or improved site area. Improved site area shall include site improvements such as utility installations, landscape modifications, additional impervious surfaces (including parking), and/or construction of structures.
  3. **Major.** When a building or site is increased in gross floor area or improved site area by greater than 10%, both the additional area and existing area must conform to the buffering standards in this LDO. Improved site area shall include site improvements such as utility installations, landscape modifications, additional impervious surfaces (including parking), and/or construction of structures.
  4. **Change in Use.** A change in use shall not require compliance with this Section, unless if the specific use has a use standard requiring a specific buffer.

**C. Perimeter Buffer General Standards.**

1. A perimeter buffer (i.e. buffer) area is determined exclusive of any required setback, however perimeter buffers may be located in required setback. Buffer areas must be located within the outer perimeter of the lot, parallel to and extending to the lot line. Buffers are understood to be located and measured from the property line.
2. Perimeter buffer areas shall consist of a landscaped buffer intended to mitigate and screen the property from adjacent properties. No buildings, structures, principal or accessory uses are allowed in the buffer. Only the items identified in Section 6.3.2.D: Permitted Items Within Perimeter Buffers, are permitted within the buffer.
3. Perimeter buffers begin at the common property line, immediately abutting the adjacent property. Where there is a perimeter easement (such as a drainage or utility easement) that does not allow for the installation of the buffer, then the required buffer shall be placed as close to the property line, adjacent to the easement, as possible.

**D. Permitted Items Within Perimeter Buffers.** Required and additional plant materials, fences, walls and berms are permitted in a buffer.

1. **Plant Material.** Required plant material, including ground cover and lawn grasses, shall be planted within the buffer. Plant material may be planted parallel to the buffer perimeter or may be meandered for aesthetic purposes. Required plant material may not be clustered and shall be planted in accordance with this Section and Section 6.3.4: Landscaping Design Standards. Buffers may incorporate greater width and additional plant materials. Perimeter buffers types standards are defined in 6.3.2.E and illustrations of the buffer types are illustrated in Section 6.3.2.F.
2. **Fences and Walls.** Required fences and walls shall be installed in accordance with Section 6.5: Fences and Walls, and inside the buffer, not along outer perimeter and boundary line. Required plant material shall be installed in front of any required fence so the required plant material is completely visible from

the adjacent property or right-of-way and meet the standards of 6.3.2.D.1 above.

3. **Berms.** Berms shall be installed in accordance with Section 6.5: Fences and Walls, and the highest point of the berm shall exist in the middle of the required buffer. Any required fence or wall shall be installed at the highest point of the berm. Required plant material shall be installed in front of any required fence or wall, alongside the outer perimeter of the buffer, along the property line within the buffer and meet the standards defined in 6.3.2.D.1 above.

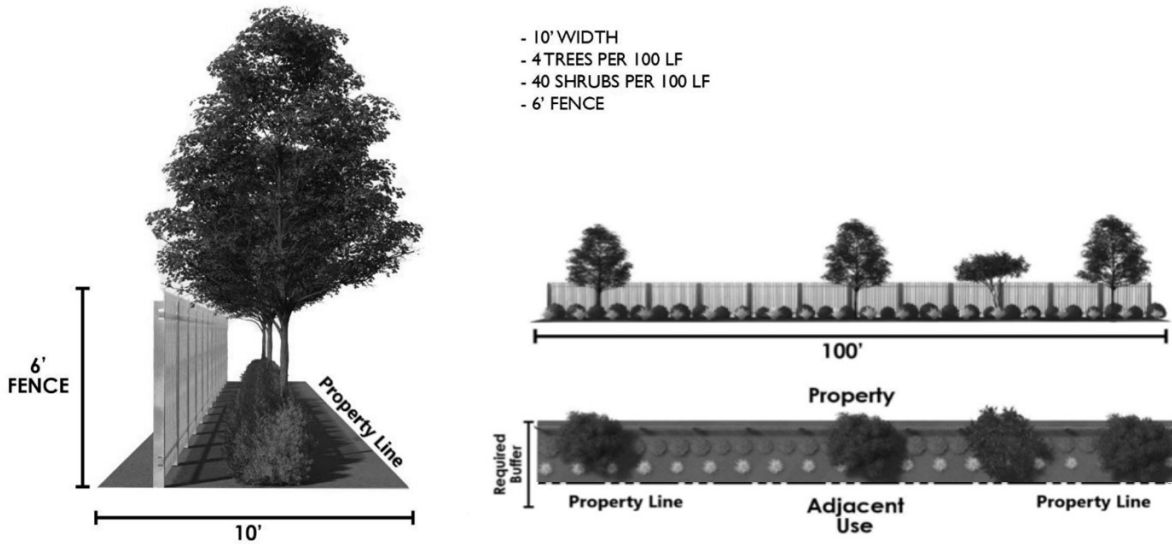
**E. Perimeter Buffer Types.** Table 6.3.2.1 provides four (4) different buffer types.

Table 6.3.2.1. Perimeter Buffer Types Table

	Type 1	Type 2	Type 3	Type 4
<b>Min. Width</b>	10'	15'	25'	50'
<b>Min. Canopy Trees</b>	3	3	4	8
<b>Min. Understory Trees</b>	1	1	2	4
<b>Min. Shrubs</b>	40	50	60	Hedge
<b>Min. Fence</b>	6'	6'	N/P	N/P
<b>Min. Wall</b>	N/R	N/R	6'	3'
<b>Min. Berm</b>	N/R	N/R	N/R	5'
<p><b>Note:</b>  <u>Measurements provided are per 100 linear feet.</u>  <b>Key:</b>                      N/R: Not Required                      N/P: Not Permitted                      Min: Minimum</p>				

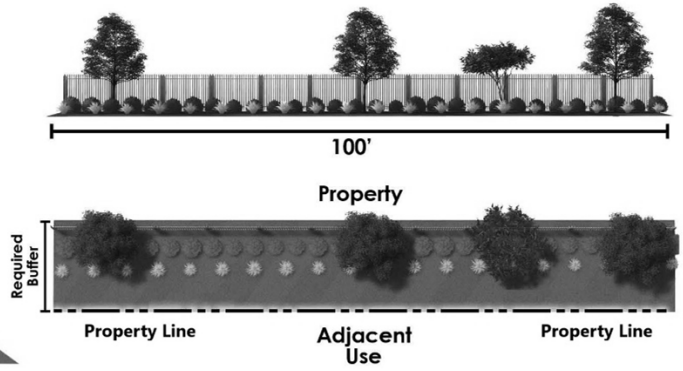
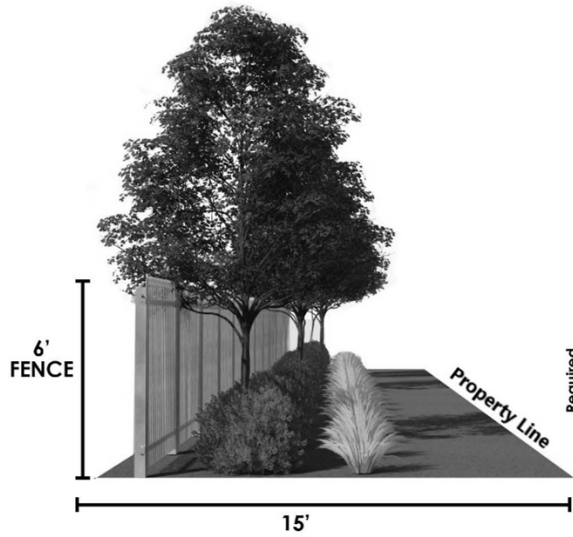
F. **Perimeter Buffer Types.** The following images show an example of buffer types defined in Table 6.3.2.1.

1. **Perimeter Buffer Type 1**



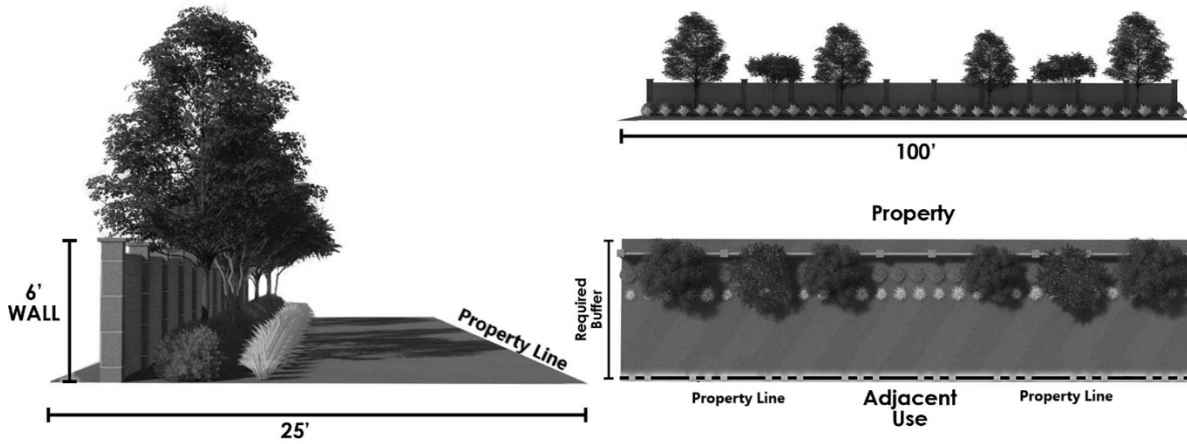
## 2. Perimeter Buffer Type 2

- 15' WIDTH
- 3 TREES PER 100 LF
- 1 UNDERSTORY TREE PER 100 LF
- 50 SHRUBS PER 100 LF
- 6' FENCE

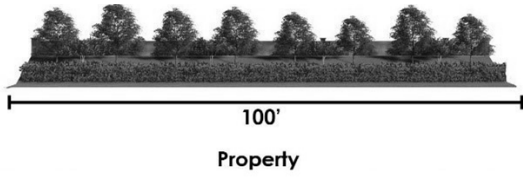


### 3. Perimeter Buffer Type 3

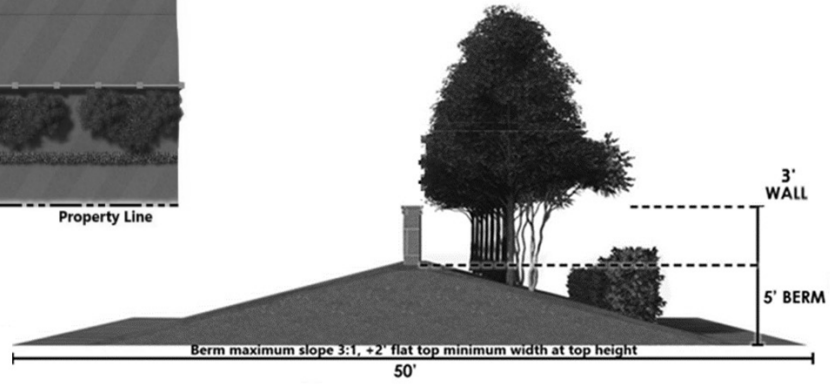
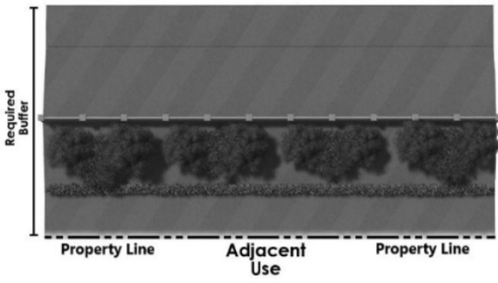
- 25' WIDTH
- 4 TREES PER 100 LF
- 2 UNDERSTORY TREE PER 100 LF
- 60 SHRUBS PER 100 LF
- 6' WALL



#### 4. Perimeter Buffer Type 4



- 50' WIDTH
- 8 TREES PER 100 LF
- 4 UNDERSTORY TREE PER 100 LF
- CONTINUOUS HEDGE
- 3' WALL
- 5' HIGH BERM



**G. Required Perimeter Buffer By District**

1. **Required Perimeter Buffer.** Table 6.3.2.2: Required Perimeter Buffer By District, shall control the required perimeter buffer type required between zoning districts. While Table 6.3.2.2 is intended to provide for buffers based on zoning district, the Land Development Administrator may take into consideration existing and proposed uses to achieve the intent of this Section.
2. **Determination of Required Perimeter Buffer.** To determine the perimeter buffer type required, identify the zoning district of the land in which a development is proposed. Using Table 6.3.2.2, the intersection of the row associated with the district of the proposed development and the column associated with the adjacent zoning district shows the buffer type required.
3. **Standards.** Buffer types required shall comply with the standards defined in Table 6.3.2.1: Perimeter Buffer Types Table.

Table 6.3.2.2. Required Perimeter Buffer By District

Zoning District of Adjacent Property	RLD	RMD	RHD	RMH	UMH	NC	CH	O&P	IP	—
RLD	1	2	3	3	3	3	3	3	3	4
RMD	2	1	3	3	3	3	3	3	3	4
RHD	3	3	2	3	3	2	2	2	3	4
RMH	3	3	3	1	1	3	3	3	3	4
UMH	3	3	3	1	1	3	3	3	3	4
NC	3	3	2	3	3	1	1	1	3	4
CH	3	3	2	3	3	1	1	1	3	4
O&P	3	3	2	3	3	1	1	1	3	4
IP	3	3	3	3	3	3	3	3	3	3
I	4	4	4	4	4	4	4	4	3	1

- H. **Mixed-Use Perimeter Buffers.** Mixed-use districts, as identified in Section 3.4: Mixed-Use Districts, shall comply with the standards in 6.3.3: Mixed-Use Perimeter Compatibility, for compatibility along perimeters of a mixed-use district.



### 6.3.2.2. STREET BUFFERS

**A. Purpose and Intent.** Street buffers are required to enhance development along the Town’s street rights-of-way and intend to:

1. Enhance pedestrian enjoyment of the Town and provide shade for streets and sidewalks;
2. Enhance the Town’s “sense of place”;
3. Enhance property values by enhancing the aesthetic character of the Town’s streets; and
4. Provide areas for vegetation and fauna.

**B. Applicability.** Any development that involves the construction of a new principal building or development along a street or right-of-way, except for exemptions listed in this Section, must include the installation of a street yard buffer.

**C. Exemptions.** Street buffers shall not be required along private drives, driveways, alleyways, or single lot infill within existing residential subdivisions.

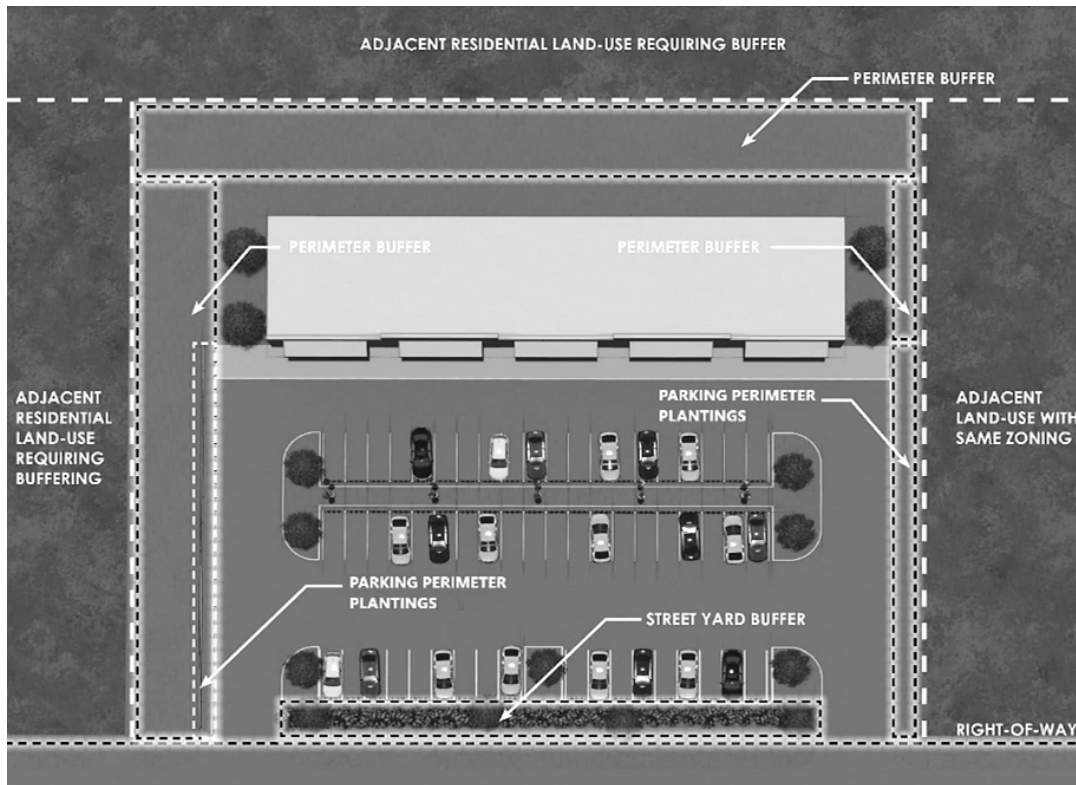
**D. Standards.** Street buffers are required on all thoroughfares as shown on the adopted land use plan and/or thoroughfare map. Street buffers are to remain undisturbed except where no existing vegetation is present. All uses which require site plan approval or subdivision plan approval shall preserve, install and maintain a planted street buffer along each thoroughfare it abuts which protects the existing vegetation and abuts the perimeter of the property. All street buffer plantings, including the installation of all plant materials, shall conform in accordance with the specifications of this Section. Street buffers along thoroughfares as shown on the adopted land use plan and/or thoroughfare map shall be in the form of Buffer Type 3, as defined in Section 6.3.2.1: Perimeter Buffers. All other roadways shall require a street buffer in the form of Buffer Type 1. Street buffers shall comply with the following additional standards:

1. A berm and wall is not required as part of a street yard buffer.
2. All required trees must be installed before the issuance of a certificate of occupancy. A temporary certificate of occupancy may be issued until the proper planting season is reached to complete required landscaping requirements.

3. Each large canopy tree in the street buffer shall be provided with at least 350 square feet of pervious ground area for root growth. Any planting area bounded by an impervious surface shall be at least ten feet wide.
4. Trees must be maintained in a healthy and growing condition until full maturity or replaced as necessary.
5. All slopes steeper than two to one shall be stabilized with permanent slope retention devices or a suitable combination of plantings and retention devices.

The width of the streetscape buffer shall be at least 30 feet, as measured from the right-of-way line but can be reduced to as little as ten feet by the Board of Commissioners in cases of hardship as provided in NC General Statutes.

Figure. 6.3.2.2. Buffer Demonstration Illustration



**E. Buffers Along Fully And Limited Controlled Access Highways.**

1. All properties adjacent to a fully controlled access highway or a limited access highway shall install and maintain a vegetated buffer along each controlled access highway, if any, which abuts the property. All buffer plantings shall perform in accordance with the specifications of this section. A 100 foot undisturbed buffer width is required along all fully and limited controlled access highways, measured from the ultimate right-of-way.

No development shall be allowed within required buffers; however, the Board of Commissioners may, permit the construction of a street, driveway, or utility easement in the buffer upon finding by the Town Board of Commissioners that such construction is necessary for safe ingress, egress, or utility service to the site. The nature and limits of such construction must be designated on an approved site plan, subdivision plan, or public street dedication map.

### 6.3.3. MIXED-USE PERIMETER COMPATIBILITY (GROUP 1)

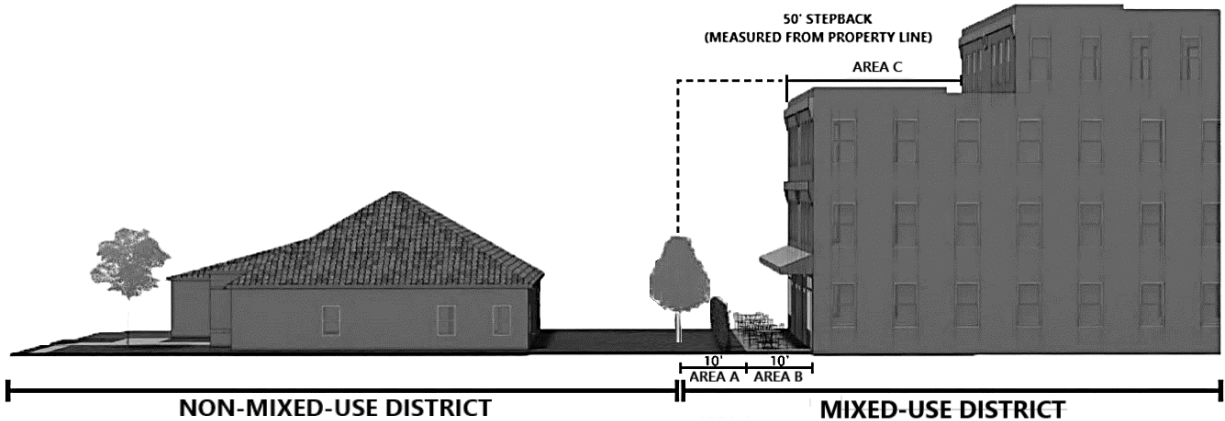
- A. **Compatibility Standards.** Recognizing that Mixed-Use Districts abut General Use Districts throughout the Town, it is the intent of this Section to promote compatibility between within and between these areas. These standards only apply when the Mixed-Use development's peripheral yard abuts the adjacent potentially incompatible use or district. Note: These standards apply to those uses and buildings located at the perimeter of the mixed-use district and not internal to the district. There are no additional buffering requirements if a public right-of-way of at least 50' in width separates the uses. This Section identifies "compatibility transition areas" which are intended to provide greater predictability by minimizing potential incompatibilities. The area of compatibility transition areas shall be provided within the Mixed-Use district. Furthermore, the standards in this Section may be modified based on the type of lot in which the standard is being applied (i.e., shallow lot) as defined in sub-Section D below.
- B. **Compatibility Transition Areas.** Figure 6.3.3.1 illustrate the locations of a respective Mixed-Use district "compatibility transition areas", and a general use district (note, the dimensions noted in these figures are for illustrative purposes only; the specific dimensions and requirements for each area are provided in the following Sections and may also vary if a property is defined as a "shallow" lot.

Compatibility Transition Area A = "Buffer"

Compatibility Transition Area B = "Use Restriction"

Compatibility Transition Area C = "Height and Form"

Fig. 6.3.3.1. Compatibility Transition Areas Graphic



### 1. Compatibility Transition Area A: Buffer

- a. **Intent.** Consists of a landscaped buffer intended to buffer and screen the general use district from the Mixed-Use district. No buildings, structures, principal or accessory uses are allowed in the buffer other than permitted in this subsection.
- b. **Location.** Begins at the common property line, immediately abutting the Mixed-Use district boundary line and the adjacent property.
- c. **Width.** Consists of a minimum ten (10) feet landscaped buffer, with one (1) canopy tree per thirty (30) linear feet of the boundary line.
- d. **Elements Permitted Within the Buffer**
  - i. Landscaping
  - ii. Open spaces (plazas, parks, commons)
  - iii. Swales, low-impact/bioretenion facilities.
- e. **Design and Installation**
  - i. Required landscaping in a buffer yard must meet the design and installation requirements of Section 6.3.1.

## 2. Compatibility Transition Area B: Use Restriction

- a. **Intent.** Compatibility Transition Area B shall be occupied by open areas and/or low intensity uses, such as surface parking, alleys, landscaping, active use areas, outdoor dining, and limited service-related structures. Primary uses and accessory uses shall not be permitted in Area B unless expressly permitted in this subsection.
- b. **Location.** Begins at the edge of the protective yard of Area A and extends towards Area C and / or the primary structure(s).
- c. **Width.** Shall be a minimum 10 feet in width.
- d. **Permitted Uses/Activities:**
  - i. Yard – One (1) tree every thirty (30) linear feet.
  - ii. Garden, park, open space.
  - iii. Outdoor dining.
  - iv. Enclosed lanai/porches.
  - v. Path, walkway, sidewalk. A multiuse recreational trail shall not be permitted.

## 3. Compatibility Transition Area C: Height and Form

- a. **Intent.** Compatibility Transition Area C is provided to mitigate potential visual nuisances that height may bring and is intended to restrict the height and form of development to decrease the potential impact of new mixed-use multi-story structures on non-mixed-use zoning districts. Transition Area C is achieved through a building stepback. The required building stepback shall apply to those portions of the building greater than the maximum by right height permitted in the district.
- b. **Location.** Begins at the edge of Area B and extends inward.
- c. **Width.** Measures, from the property line, a minimum of thirty (30) feet inward, subject to the widths of Area A and B

- C. **Form Standards.** The sides and rear facade of the building that faces the general use district shall meet the architectural requirements of Section 6.8: Non-Residential Design Standards, with respect to windows, architectural features, and transparency requirement.
- D. **Shallow Lots.** Recognizing that existing lots of record less than one-hundred (100) feet in depth may not be able to meet requirements of this Section, a variance may be requested for existing lots of record less than one-hundred (100) feet in depth, approved by the Board of Commissioners, to:
1. Reduce the widths of Compatibility Transition Area A, Area B, and Area C by fifty (50) percent; and/or
  2. Allow the combination of Area A and Area B to a total of ten (10) feet, provided a six (6) feet tall opaque masonry wall and required landscaping is provided.

#### 6.3.4. LANDSCAPING STANDARDS (GROUP 1)

##### 6.3.4.1. PURPOSE AND INTENT

A. **Purpose and Intent.** Landscaping standards defined in this Section intend to improve the appearance of the Town. This Section is intended to enhance, rather than inhibit economic development. The use of landscaped and maintained areas can reduce incompatibilities of adjacent land uses and promote and enhance community character.

The standards outlined in this Section are designed to:

1. Increase the compatibility of adjacent uses;
2. Reduce excessive heat, glare and accumulation of dust;
3. Lessen visual pollution;
4. Promote water conservation;
5. Allow for greater environmental stewardship of resources;
6. Ensure landscape yards and screening to reduce the negative impacts of noise, trash, odors, lack of privacy and visual appearances that occur in higher intensity land uses;
7. Safeguard the public health, safety, and welfare; and
8. Ensure the appearance of the Town contributes positively to its growth and economic prosperity.

B. **Applicability.** All new development shall comply with the standards of this Section. The following shall also apply in instances of repairs, renovations or additions. No permit for construction of any building, structure or use may be issued until buffering has been provided in accordance with this LDO.

5. **Repair or Renovation.** A building may be repaired or renovated without requiring buffering per the requirements of this LDO provided there is no increase in gross floor area.
6. **Minor.** When a building or site is increased in gross floor area or improved site area by ten (10) percent or less, buffering is required only for the additional floor



area or improved site area. Improved site area shall include site improvements such as utility installations, landscape modifications, additional impervious surfaces (including parking), and/or construction of structures.

7. **Major.** When a building or site is increased in gross floor area or improved site area by greater than ten (10) percent, both the additional area and existing area must conform to the buffering standards in this LDO. Improved site area shall include site improvements such as utility installations, landscape modifications, additional impervious surfaces (including parking), and/or construction of structures.
8. **Change in Use.** A change in use shall not require compliance with this Section, unless if the specific use has a use standard requiring a specific landscape buffer.

#### 6.3.4.2. LANDSCAPE PLAN AND REVIEW

A. **Landscape Plan.** All development applicable under this Section shall submit and receive approval of a landscape plan from the Planning Department, as required to be included in a site plan. Detail shall be provided on the plan showing the required landscaping within a 100 linear foot Section of any buffer. Species of trees and shrubs shall be chosen from the approved plant list, as defined in Section 6.3.4.7: Approved Plant List. Preservation of existing vegetation is encouraged and may be used to meet requirements of this Section. A landscape plan shall include the following:

1. Title of project;
2. Dimensions, scale and north arrow;
3. All required open space shown on the plan;
4. Indigenous or native vegetation;
5. All landscaped areas;
6. Identify all LDO required landscaping;
7. Vehicle use areas including parking, aisles and driveways;
8. Roadways and access points;
9. Plant spacing and native status;

10. Preservation plan;
  11. Overhead and underground utilities; and
  12. A tree and/or vegetative survey
- B. **Installation.** All landscaping shall be completed in accordance with approved site plan and the standards of this Section. Required landscaping shall also comply with the following standards:
1. A certificate of occupancy shall not be issued, until all required plant materials have been placed in accordance with the approved landscape plan and requirements of this Section.
  2. A temporary certificate of occupancy may be issued for a period of 30 to 180 days under circumstances that would affect the installation of required plant material, or until the proper planting season is reached, to complete the requirements of this Section.
    - a. In cases where a temporary certificate of occupancy is requested, the applicant shall furnish the following: A signed contract for the installation of all required landscape materials and a performance guarantee for the amount of the contract. Reasons to grant a temporary certificate of occupancy may include unavailability of plant species, unusual environmental conditions, or inappropriate planting season.
- C. **Inspections.** The Land Development Administrator shall inspect landscaping prior to the issuance of a certificate of occupancy (unless a temporary certificate of occupancy has been granted). An as-built plan shall be provided to the Town for landscaping improvements required per the site plan.
1. The Land Development Administrator shall inspect the site one year after the issuance of the certificate of occupancy to ensure compliance with the approved site plan.
- D. **Multi-Phase Development.** Multiple family, nonresidential, and mixed-use development that is planned and developed in phases shall install landscaping that is associated with the active phase or phases only, unless an alternative arrangement is otherwise agreed

to. An active phase of a development is the one that is subject to permitted and on-going development activity.

### 6.3.4.3. LANDSCAPING STANDARDS

#### A. General Standards.

1. **Plant Species.** All species of trees and shrubs used in required buffers shall be chosen from the approved plant list as defined in Section 6.3.4.7: Approved Plant List.
2. **Canopy Trees.** Canopy trees must be a minimum of eight (8) feet in height and two (2) inches in caliper at time of installation and reach an expected height of at least 30 feet. In lieu of any requirement for a canopy tree, two (2) understory trees may be planted.
3. **Understory Trees.** Understory trees must be a minimum of eight (8) feet in height and one (1) inch in caliper at time of installation.
4. **Shrubs.** Shrubs shall reach a minimum height of 30 inches and spread of 30 inches within three years of planting.
5. **Fences/Walls.** Fences and walls shall be constructed of high-quality materials including brick and stone, stucco over concrete masonry blocks, treated wood, wrought iron/aluminum, composite fencing, or PVC vinyl. The finished side of the fence shall face the adjoining property. Fences/walls shall be placed at the rear of a buffer so the adjoining property benefits from the view. No fence/wall shall exceed eight (8) feet in height unless explicitly permitted elsewhere in this LDO. All fences and walls shall comply with the standards of Section 6.5: Fences, Walls, and Berms
6. **Berms.** Berms shall be stabilized and have a slope not exceeding 3:1 (horizontal to vertical) and shall comply with the Standards of Section 6.5: Fences, Walls and Berms.
7. **Stabilization.** All required landscaping shall be stabilized and maintained with vegetative cover, mulch or other approved materials by the Land Development Administrator to prevent soil erosion. Vegetative cover shall be installed and utilized to minimize erosion on all slopes greater than 15 percent.

8. **Planters.** If a development provides planters, the following standards shall apply:

- a. Planters shall be a minimum height of 30 inches.
- b. Minimum height of plant material in the planter shall be six inches at time of planting.
- c. Planters shall be constructed of masonry, stone or treated lumber. Other materials may be approved by the Land Development Administrator.

**B. Maintenance Standards.** The owner of property shall be responsible for protecting and maintaining plant material. Maintenance of plant material shall also comply with the following:

1. All landscaping, including landscaping used for buffers and screening purposes, shall be designed and maintained according to sound landscape and horticultural practices, and all fences/walls shall be maintained in the condition in which they were originally approved.
2. All plant material shall be maintained in an attractive and healthy condition.
3. Dead or diseased plant material shall be removed and replaced.
4. The responsibility for maintenance of a required buffer shall remain with the owner of the property, or their grantee.
5. In instances where existing plant material has been disturbed or damaged, replacement of plant material shall comply with the below standards:
  - a. Any tree with a caliper of at least eight (8) inches shall be replaced with one (1) or more trees which have a caliper of at least two (2) and one-half (1/2) inches and a cumulative caliper equal to or greater than one half (1/2) of the original tree.

**C. Easements.** Nothing shall be planted or installed within an underground or overhead utility or drainage easement without Town approval and easement holder approval.

**D. Water Conservation.** Water conservation is recognized as an important component of landscaping standards, environmental stewardship, and promoting more sustainable development practices. The following water conservation standards shall apply:

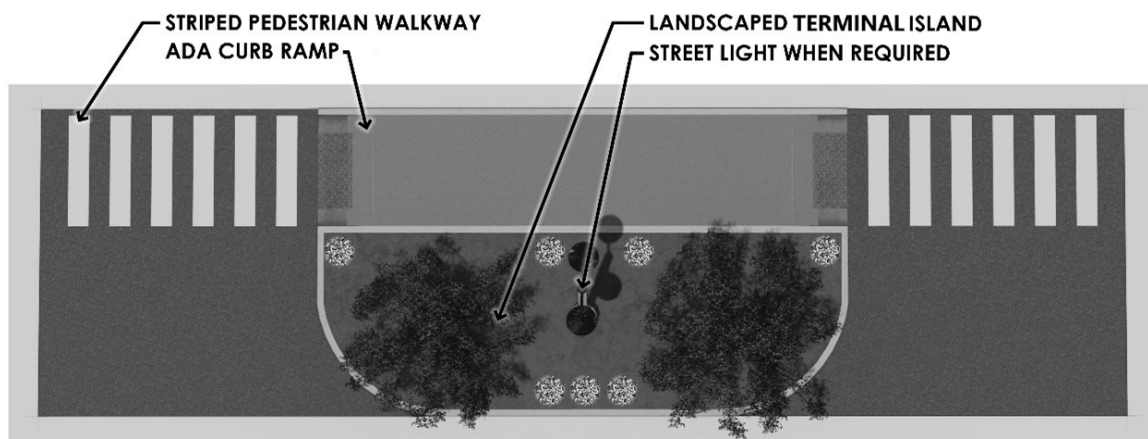
1. Where irrigation systems are used, such systems shall be water efficient and utilize WaterSense standards as administered by the United States Environmental Protection Agency (EPA). Irrigation systems shall be controlled with WaterSense approved irrigation controllers, meeting EPA criteria standards.
2. Irrigation systems shall be operated by an automatic irrigation controller and/or timer, and with a rain sensor.
3. All required irrigation systems must be designed to minimize the application of water to impervious areas.

#### 6.3.4.4. PARKING LANDSCAPING

- A. Applicability.** All parking lots serving multiple family, mixed-use, and nonresidential developments shall comply with this Section.
- B. Accessibility.** Nothing in this Section shall deny ADA accessibility within parking lots nor deny the placement of crosswalks and sidewalks through parking lots (including terminal islands, interior islands, and divider medians) required for pedestrian safety.
- C. Parking Terminal Islands Standards.** The following standard shall apply to all terminal islands within parking lots:
  1. Each row of parking spaces shall end with terminal islands to separate parking from adjacent drive lanes.
  2. Each terminal island shall measure at least eight (8) feet in width by eighteen (18) feet in length, measured from the inside of the curb.
  3. Within terminal islands, one (1) large or medium canopy tree shall be required for every 150 square feet (or fraction above one half thereof), with a minimum of one large or medium canopy tree required per terminal island. Two (2) understory trees may be used to meet the requirement of this subsection.
  4. Terminal islands shall be landscaped with shrubs, accent plants, ornamental grasses, and ground cover, excluding sod, which is planted to provide 100 percent coverage within two (2) years.

5. Landscaping in islands adjacent to parking spaces shall be set back a minimum of two (2) feet behind the back of the curb to provide for pedestrian access to parked vehicles.
6. Lighting may be installed in parking terminal islands.
7. Parking lots or portions of parking lots not visible from the streets excluding alleys, shall not be required to install terminal islands.

Figure 6.3.4.4.1. Terminal Island Landscaping Illustrative Example



**D. Parking Interior Islands Standards.** The following standard shall apply to all interior islands:

1. Each interior island shall measure at least eight (8) feet in width by eighteen (18) feet in length, measured from the inside of the curb.
2. The Land Development Administrator may reduce the required width by up to three (3) feet (minimum width five (5) feet) where existing site constraints (e.g. small site) make compliance impracticable or where such reduction will allow preservation of existing trees.

3. Interior islands less than five (5) feet in width, measured from the inside of the curb, shall not be credited towards interior landscaping. Within interior islands, one large or medium canopy tree shall be required for every 150 square feet (or fraction above one half thereof), with a minimum of one large or medium canopy tree required per interior island.
4. Landscaping in islands adjacent to parking spaces shall be set back a minimum of two (2) feet behind the back of the curb to provide for pedestrian access to parked vehicles.
5. Lighting may be installed in parking interior islands.

**E. Parking Divider Medians Standards.** The following standard shall apply to all divider medians:

1. Landscaped divider medians shall form a continuous landscaped strip between abutting rows of parking areas or access drives.
2. The minimum width of a divider median shall be a minimum seven (7) feet, measured from the inside of the curb.
3. One (1) large or medium canopy tree or two (2) small under-story trees shall be required for each 30 linear feet of divider median (or fraction above one half thereof).
4. Shrubs shall be planted in divider medians which separate parking areas from access drives to form a continuous hedge the full length of the divider median.
5. Pedestrian scale lighting must be provided within divider median(s).

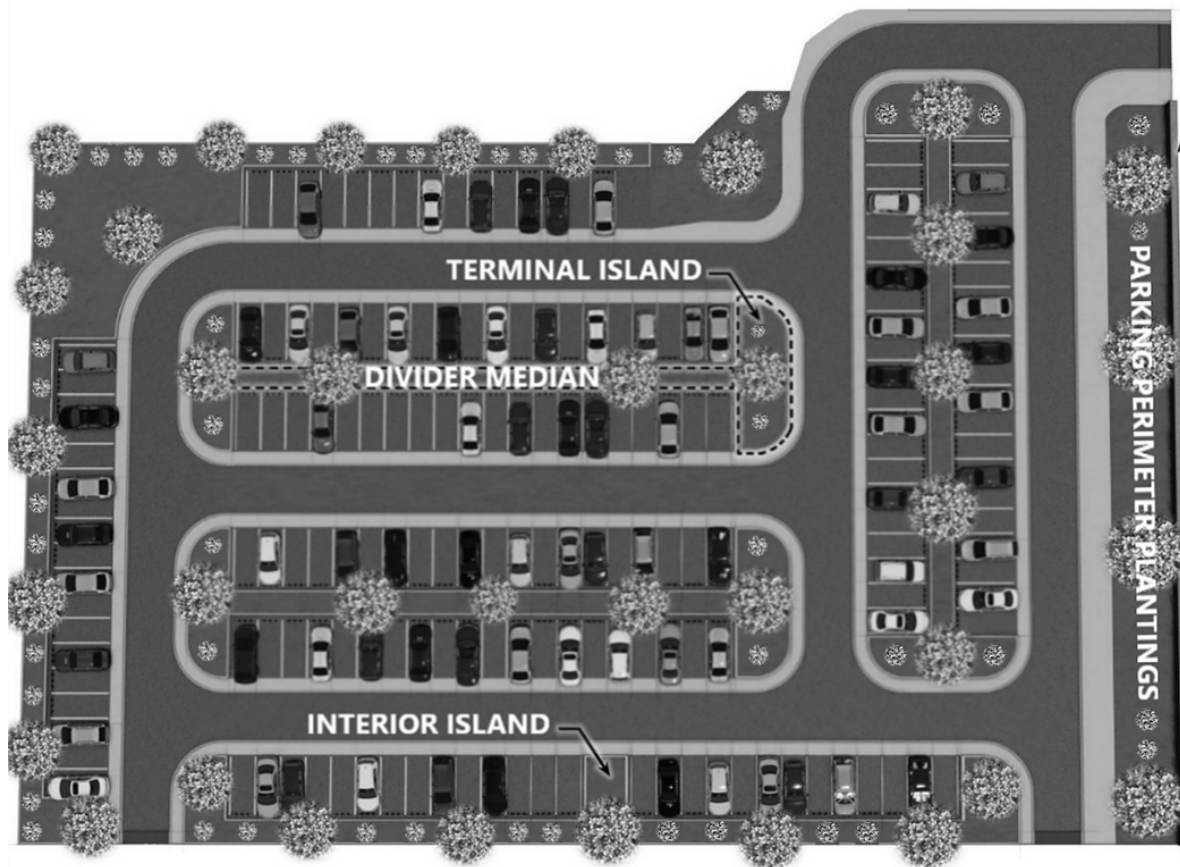
**F. Parking Perimeter Plantings.** Parking perimeter plantings shall be required to enhance the view of a parking lot from abutting streets and abutting properties. Parking perimeter plantings shall be provided on the perimeter of all parking lots. Parking perimeter plantings shall comply with the following standards:

1. Required plant material shall be placed adjacent to the perimeter of the parking lot.

2. Parking perimeter plantings shall consist of a single continuous row of shrubs planted no greater than three feet on-center and within five feet of the parking lot edge.
3. Shrubs used for parking perimeter planting shall be of a minimum height of 30 inches above grade within three years of planting. Shrubs may not exceed a height of four (4) feet and shall be pruned and maintained.
4. Where parking lots are adjacent on different lots, parking perimeter plantings or other forms of screening are not required along the common boundary between the two parking lots. This includes developments configured as a single, unified development.



Figure 6.3.4.4.2. Parking Landscaping Illustrative Example



#### 6.3.4.5. VEGETATION PRESERVATION

A. **Purpose and Intent.** As the Town of Rolesville continues to develop and grow, there is a need for the construction and renovation of buildings, roads, parking lots and other infrastructure. Vegetation preservation and tree protection regulations are necessary to protect desirable trees and plant material and is a vital part of sustainable, community growth.

1. This Section intends to limit excessive pruning or clear-cutting of existing trees, vegetation, and other landscaping.
2. This Section shall provide a uniform standard for the protection and replacement of trees on all property which require any type of development permit.

3. Existing trees and vegetation may be counted toward landscaping, buffering requirements and toward preservation standards as required in this LDO.

**B. Preservation Standards.**

1. Deciduous and evergreen trees shall be preserved to the greatest extent possible.
2. Trees at least twenty-five (25) inches diameter at breast height, within required buffering and landscaping areas shall be tagged prior to any site clearance and be preserved. At least ten (10) percent of all existing trees shall be preserved.
3. In any case where a deciduous and/or evergreen tree over twenty-five (25) inches diameter at breast height, is removed from the buffer, it shall be replaced with at least four (4) or more trees of similar species and size, the locations of which shall be determined by the Land Development Administrator.
4. Trees seventy-five (75) inches diameter at breast height, must be preserved and shall not be removed.
5. All existing vegetation which meets landscape buffer requirements shall be preserved on the site. Existing vegetation shall be clearly marked on landscape plans.
6. All vegetation and buffers that are to be preserved shall be enclosed with a sturdy and visible fence before grading begins for both site plans and subdivisions. This fence shall be located at a distance determined by the following formula: No less than one foot from the tree trunk for each one inch in tree diameter. For example, fencing is to be placed no less than ten feet from a ten (10) inch caliper tree.
7. All tree protection fencing must remain in place throughout the entire site development process until the time a certificate of occupancy is issued. In the case of subdivision development, tree protection fencing must remain in place until all units are completed (received certifications of occupancy) within any designated phase or plat.
8. The owner of the property shall be responsible for protecting and maintaining the plants in the designated preservation areas in a healthy, growing condition

and for keeping the area free of refuse and debris. The owner of the property shall be responsible for replacing the vegetation if they are destroyed or substantially damaged.

C. **Preservation Plan.** A preservation plan shall be required as part of any landscaping plan submitted to the Land Development Administrator and meet the following standards:

1. The plan must show there will be no disturbance within a critical root zone of trees, as defined in this LDO.
2. A critical root zone shall be protected from encroachment and damage.
  - a. The preferred method is to restrict access by installing a barrier to keep materials, people, or equipment out of the critical root zone, as required in the preservation standards above.
3. Barriers shall be accompanied by temporary signs labeling the critical root zone.
4. The critical root zone area shall remain free of all building materials and debris.
5. The plan shall demonstrate compliance with all vegetation preservation standards.

#### 6.3.4.6. SCREENING OF SERVICE AREAS AND OUTDOOR DISPLAY/STORAGE

A. **Service Areas To Be Screened.** Service areas and equipment shall be fully screened and out of view from adjacent properties and rights-of-way. Examples of these areas include, but is not limited to:

1. Open-air/outdoor storage;
2. Trash containment areas (i.e. refuse collection, trash containment devices, compactors, dumpsters);
3. Mechanical equipment (i.e. air conditioning units, rooftop mounted equipment);
4. Utility service areas;
5. Loading/unloading areas; and
6. Other similar service function areas

B. **General Screening Design Standards.** Screening shall comply with the following standards unless stated elsewhere in this Section:

1. Screening material and design shall be consistent with landscape plan.
2. Screening shall consist of, at minimum:
  - a. Landscaping the service area or equipment with a row of understory trees, shrubs, or berms which shall mature to the height necessary to fully screen the area or equipment;
  - b. Utilizing a wall or building wall projection, which complies with the standards of this LDO, which is consistent and compatible with the principal building in terms of texture, quality, material and color and which is the necessary height to fully screen the area or equipment; or
  - c. Fencing which complies with the standards of this LDO, which is consistent and compatible with the principal building and which is the necessary height to fully screen the area or equipment.

C. **Outdoor Display and Storage.** It is the intent of this Section to ensure open-air storage areas, including outdoor display and storage, located within 100 feet of a property line, shall be screened. Outdoor display and outdoor storage shall have specific standards below:

1. **Outdoor Display.** Outdoor display shall be defined for the purpose of this subsection as the outdoor display of products available for sale, including soft drink dispensing machines, propane gas storage racks, ice machines, kiosks, outdoor merchandise, and the like. Approved temporary uses are not considered outdoor display for the purpose of this Section. Outdoor display shall comply with the standards below:
  - a. Outdoor display shall be removed and placed in a fully enclosed structure at the end of every business day. Due to their commercial and pedestrian oriented nature, propane storage racks, soft drink dispensing machines, ice storage bins, may remain outside overnight.

- b. Outdoor display shall not extend more than eight (8) feet. No more than 25 percent of the horizontal length of the façade shall have outdoor display items.
  - c. Outdoor display areas shall not inhibit pedestrian travel paths (i.e. sidewalks) and ADA accessibility shall be maintained.
- 2. Outdoor Storage.** Outdoor storage shall be defined as either limited outdoor storage or intense outdoor storage. For the purpose of this subsection, outdoor storage is defined as the outdoor storage of materials, goods, and merchandise.
- a. **Limited Outdoor Storage.** Limited outdoor storage includes outdoor storage of merchandise which cannot easily be taken in and out of an enclosed structure as the end of the day, including items such as garden supplies, plants, sporting goods, overnight outdoor storage of vehicles awaiting repair, and storage of fleet vehicles, such as delivery vehicles. Limited outdoor storage is only permitted in the commercial or industrial districts and shall comply with the following standards:
    - i. Limited outdoor storage is limited to eight (8) feet in height and must be fully screened from the view of any public right-of-way, parking areas and adjacent properties. Fences, hedges, and plant material may be used to screen the limited outdoor storage.
  - b. **Intense Outdoor Storage.** Intense outdoor storage includes outdoor storage of raw, unfinished goods and materials, often associated with the manufacturing of another good. Common intense outdoor storage items include steel, salvage material, recycle materials, lumber, contractor equipment, and other raw material. Intense outdoor storage is only permitted in industrial districts and shall comply with the following standards:
    - i. Intense storage shall be located at least twenty (20) feet from any public right-of-way
    - ii. Intense outdoor storage is limited to eight (8) feet in height and must be fully screened from the view of any public right-of-way,

parking areas and adjacent properties. An eight (8) foot fence is required around the perimeter of the outdoor storage area.

**D. Trash Containment Areas.** All trash containment devices (i.e. dumpsters, refuse collection, etc.) shall have additional standards. Trash containment areas shall meet the following standards:

1. Trash containment areas shall be located and designed to not be visible from the view of adjacent streets and properties;
2. Trash containment devices may not be located in any front or street yard;
3. All trash containment areas shall be enclosed;
4. The enclosure shall be at least as high as the highest point of the trash containment device or compactor;
5. The enclosure shall be made of a material that is opaque; and
6. All trash containment devices shall be placed on a dedicated concrete pad.

**E. Mechanical Equipment.**

1. Rooftop mounted equipment shall be fully screened from view from a ground level view of an adjacent property line or middle of a right-of-way.
2. Any new buildings shall require a parapet wall or architectural element that screens roof mounted equipment or provide an opaque screen around the rooftop mounted equipment.
3. Roof-mounted sustainable energy systems (i.e. solar panels) are exempt from screening requirements.

**F. Utility Service Areas.** Utility service areas located outside the public right-of-way must be screened from public view. Screening shall consist of landscaping, fence or wall meeting the design requirements of this Section. Screening is not required for utility service areas that are related to emergency services (i.e. fire hydrants).

**6.3.4.7. LANDSCAPE/PLANTING GUIDELINES.**

- A. **Intent.** It is the intent of this Section to ensure that the planting and preservation of all plant materials and plant areas are maintained per the requirements of this Section. Locations, quantities, and species are to be provided by a licensed landscape architect and are subject to approval by Town Staff prior to the commencement of site work.
- B. **Plant Palette.** All plants shall be of native and locally adaptive species (zone 7 according to the USDA Plant Hardiness Zone Map). Town staff may be able to deny or recommend the use of different species if there is little plant diversity or plant species which are known to have common diseases or branching and/or root structures which do not fit within the specified plant location.
- C. **Plant Diversity.** All developments shall provide a diverse plant palette to promote diverse habitats, fungus and disease control, as well as enhance the town's natural aesthetic. In developments with multiple roadway alignments, tree species should vary from street to street.
- D. **Planting Season.** It is recommended that all plant material be planted within the fall and/or spring growing seasons. If schedule or weather does not allow for the installation of the plant material within these windows, a temporary certificate of occupancy may be granted.
- E. **Planting within Easements.** The planting of trees is not allowed within any easement unless otherwise permitted by the Town and easement holder. Shrubs may be planted within Town owned easements but shall be placed at the property's owner liability.
- F. **Plant Material.** In no case shall a plant species which has been identified as invasive by the *North Carolina Forest Service* be included. For recommended plant species, refer to the *North Carolina Department of Transportation's* list of acceptable plant species as well as the *North Carolina State University Extension Plant Toolbox*.

Table 6.3.4.7. Plant Typologies and General Descriptions

Type	Size / Spread	Other / Notes
<b>Canopy (Large Shade) Trees</b>		
Deciduous Canopy (≥ 35' height; ≥ 30' spread)	3" caliper 12' min. height	Installed along sidewalks in tree lawn / tree pit, parking lots, buffers and may be installed as a building / accent tree
Evergreen Canopy (≥ 18' height; ≥ 25' spread)	3" caliper 12' min. height	Installed along sidewalks in tree lawn / tree pit, parking lots, buffers and may be installed as a building / accent tree
<i>*all multi-stem trees shall have at least 3 stalks with a minimum caliper of 2.5"</i>		
<b>Understory (Small/Medium) Trees</b>		
Deciduous Understory/ Ornamental (≥ 15' height; ≥ 15' spread)	2" caliper 8' min. height	Installed along sidewalks May be installed as screening or accent. May be used to replace canopy tree where overhead utilities are present.
Evergreen (≥ 18' height; ≥ 15' spread)	2" caliper 8' min. height	Planted as a buffer between uses or used as screening or accent.
<i>*all multi-stem trees shall have at least 3 stalks with a minimum caliper of 1.5"</i>		
<b>Shrubs</b>		
Evergreen Shrubs	24" height minimum (unless otherwise required)	
Deciduous / Ornamental Shrubs	18" height minimum (unless otherwise required)	
Perennials	2 gal minimum	
Ornamental Grasses	2 gal minimum	
Ground Cover	1 gal minimum	



## 6.4. PARKING AND LOADING (GROUP 1)

### 6.4.1 PURPOSE

- A. **Purpose and Intent.** The purpose of this Section is to regulate parking and loading facilities within the Town. The Town, through this Section, shall ensure that adequate parking and loading facilities are provided to accommodate a variety of uses in all zoning districts. This Section and the standards contained herein intend to:
1. Provide for adequate parking, loading and unloading, and safe movement of vehicles and pedestrians through off-street parking areas;
  2. Recognize the varying parking and loading demands of permitted uses and to provide a flexible range of adequate parking and loading, receptive to market demand, that will avoid excessive paved surfaces within the Town;
  3. Allow for alternative parking provisions in recognized circumstances;
  4. Reduce the aesthetic impacts of parking areas;
  5. Provide for compatibility between uses; and
  6. Provide for high quality, safe designs that will add to the aesthetic wellbeing of the Town.

### 6.4.2. APPLICABILITY

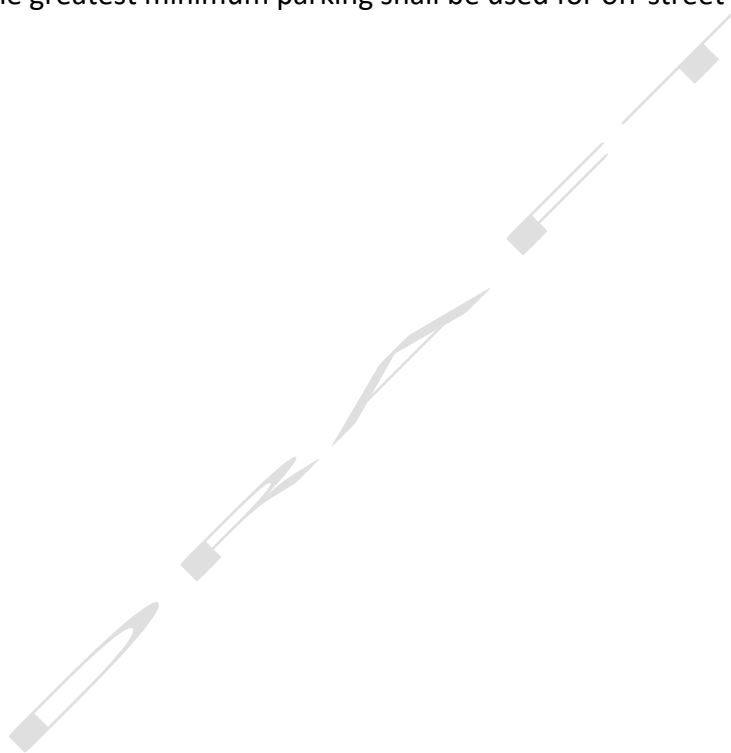
- A. **Applicability.** Parking must be provided in accordance with the standards of this Section and LDO where otherwise noted. Parking shall be maintained, and no permit for construction or addition may be permitted, until the parking requirements of this LDO have been met. All new development shall be subject to the standards of this Section. In the event of a conflict between this Section and other portions of the LDO, the stricter of the standards shall apply.
- B. **Renovations and Repairs.** A building or site may be renovated, repaired, or updated without providing additional parking, providing there is no increase in gross floor area.
- C. **Expansions.** If there is an increase in gross floor area, the required number of parking spaces shall be provided per this Section.

- D. **Change In Use.** A change in use within a building shall meet the parking requirements for that new use. If the parking requirements of this Section cannot be met for the new use, the Land Development Administrator shall make a determination as to whether or not the current parking can sustain the new proposed use. Minimum considerations in the Land Development Administrator's determination shall include quantity, location, arrangement, ingress and egress, and dimensions of parking and loading facilities.

#### 6.4.3. OFF-STREET PARKING REQUIREMENTS

- A. **Off-Street Parking.** Off-Street parking spaces shall be provided in accordance with Table 6.4.3.G: Off-Street Parking Requirements Table. Where a use is not specifically listed, the Land Development Administrator is responsible for determining the most similar use, using type of use, number of employees, gross floor area, and anticipated parking demand as basis for their determination.
1. **Exceptions.** Due to their unique nature, Mixed-Use Districts will have alternative off-street parking requirements as defined in 6.4.3.H: Mixed-Use District Parking.
- B. **Minimum and Maximum Parking Requirements.** Off-street parking requirements are provided (expressed by) the "minimum" and "maximum" standards to meet the parking needs generated by the various uses permitted. This minimum and maximum provides a range of adequate parking spaces that is responsive to the market conditions, parking demands, and individual project needs. However, consistent with Section 6.4.3.J: Alternative Parking Plan (APP), an Alternative Parking Plan may be submitted for review and consideration by the Land Development Administrator.
- C. **Required Off-Street Parking.** Required off-street parking is defined in Table 6.4.3.G. For example, under the "Minimum Required" column, "1.0/Dwelling Unit" shall be understood to mean at minimum one parking space per dwelling unit is required. Under the "Maximum Allowed" column, "2.0/Dwelling Unit" shall be understood to mean two parking spaces per dwelling unit are allowed as a maximum.

- D. **Standard Unit.** Parking standards shall be set to 1,000 SF (square feet) of the gross floor area of a use, unless otherwise noted in the table. Floor area shall mean the gross floor area as defined in Section 11: Definition of Terms.
- E. **Fractional Measurements.** When units or measurements determining the number of required off-street parking spaces result in the requirement of a fractional space, then such fraction equal to or greater than one-half shall require a full off-street parking space.
- F. **Multiple Uses.** If there exists more than one principal use, the proposed use that requires the greatest minimum parking shall be used for off-street parking calculation.



**G. Off-Street Parking Requirements Table**

Table 6.4.3.G. Rolesville Off-Street Parking Requirements

<b>ROLESVILLE OFF-STREET PARKING REQUIREMENTS</b>			
<b>PRINCIPAL USES</b>	<b>MINIMUM REQUIRED</b>	<b>MAXIMUM ALLOWED</b>	<b>ADDITIONAL NOTES</b>
<b>RESIDENTIAL USES</b>			
Dwelling, Single Family, Attached	2.0/Dwelling Unit Plus 0.25 Guest Spaces/Dwelling Unit	No Maximum	Exclusive of garage, which shall not be included in minimum and maximum.
Dwelling, Multiple Family	1.5/Dwelling Unit Plus 0.10 Guest Spaces/Dwelling Unit	2.5/Dwelling Unit	Maximum 10% additional guest parking of total parking count may be permitted.
Dwelling, Upperstory Unit	1.0/Dwelling Unit	2.0/Dwelling Unit	
Live-Work Unit	0.75 /Dwelling Unit	1.75/Dwelling Unit	
Residential Care (ALF, ILF, CCF)	0.25/Bed	1.0/Bed	
<b>CIVIC USES</b>			
Assembly	4.0/1,000 SF	10.0/1,000 SF	
Day Care	2.5/1,000 SF	5.0/1,000 SF	
Government Office	2.5/1,000 SF	5.0/1,000 SF	
Parks/Public Recreation Facilities	3 Per Gross Acre Plus 1 Per 1,000 SF of Gross Floor Area of Buildings	No Maximum	
Schools (K-12)	3.5/Classroom	7.5/Classroom	
<b>COMMERCIAL USES</b>			
Bank	2.5/1,000 SF	6.0/1,000 SF	
Eating Establishment	2.5/1,000 SF	10.0/1,000 SF	Outdoor seating shall be included in square footage.

PRINCIPAL USES	MINIMUM REQUIRED	MAXIMUM ALLOWED	ADDITIONAL NOTES
<b>COMMERCIAL USES (CONT)</b>			
Lodging	0.5/Room	2.5/Room	
Recreation, Indoor	4.0/1,000 SF	10.0/1,000 SF	
Recreation, Outdoor	5 Per Gross Acre Plus 1 Per 1,000 SF of Gross Floor Area of Buildings	10 Per Gross Acre Plus 1 Per 1,000 SF of Gross Floor Area of Buildings	
Retail Sales and Services	2.5/1,000 SF	7.5/1,000 SF	Shopping centers will be based on an aggregate of square feet, not uses, to determine required parking.
Vehicle, Rental and Sales	1.0/1,000 SF of Gross Floor Area of Buildings Plus 1 Per 10,000 SF of Outdoor Display Area	3.0/1,000 SF of Gross Floor Area of Buildings Plus 1 Per 10,000 SF of Outdoor Display Area	
<b>OFFICE AND MEDICAL</b>			
Hospital	2.0/Hospital Bed	5.0/Hospital Bed	
Medical Facility	2.0/1,000 SF	5.0/1,000 SF	
Professional Office	2.0/1,000 SF	5.0/1,000 SF	
<b>INDUSTRIAL USES</b>			
Industrial, Light	0.5/1,000 SF	2.0/1,000 SF	
Warehousing	0.5/1,000 SF	2.0/1,000 SF	
Wholesale Trade	0.5/1,000 SF	2.0/1,000 SF	

H. **Mixed-Use Districts.** Due to their nature, proximity to alternative transportation options including transit, and presence of on-street parking, development within Mixed-Use districts, per Section 3.4: Mixed-Use Districts, typically demand less parking. These districts allow for lower off-street parking requirements as follows. Where standards elsewhere in the LDO conflict with this subsection, the standards of this subsection shall apply, except for TC district parking standards, which are defined in Section 6.4.3.I: TC District Parking.

1. **Shared Parking.** Shared parking is required in all mixed-use districts and the standards in Section 6.4.3.I: Shared Parking, shall apply.
2. **On-Street Parking.** Up to ten (10) percent of the required off-street parking may be provided through on-street parking. On-street parking shall be located within 1,000 feet walking distance of the building along an improved path, sidewalk or similar constructed facility, and may be counted toward a project’s required off-street parking requirements.
3. **Parking Structures.** Parking structures may be permitted dependent upon the requirement provided in each Mixed-Use District Development Standards Table, as defined in Section 3.4: Mixed-Use Districts.

I. **TC District Parking.**

1. The following shall be the allowable range of off-street parking spaces provided for uses within the Town Center District. The following standards shall be applied to uses, as illustrated on a concept plan, site plan or similar document.

USES	NUMBER OF REQUIRED OFF-STREET PARKING SPACES	
	MINIMUM REQUIRED	MAXIMUM ALLOWED
MIXED-USE RESIDENTIAL	Two spaces per dwelling unit <sup>*1</sup>	Three spaces per dwelling unit
MIXED-USE NONRESIDENTIAL	Three spaces for each 1,000 square feet of gross floor area	Five spaces for each 1,000 square feet of gross floor area

Notes: \*1: Includes guest parking

2. It is understood that due to its nature, the TC district shall allow for lower off-street parking requirements than traditional zoning districts. Parking within this district may allow for on-street parking, parking structures, and alternative parking plans. The numbers above assume a mixed-use development. For developments not of a mixed-use nature that exclusively have single-use buildings, the standard parking rates per Section 10.1.10 shall apply. The following standards for mixed-use development shall apply:
  - a. **On-Street Parking.** Up to five (5) percent of the required off-street parking may be provided through on-street parking. On-street parking shall be located within five-hundred (500) feet walking distance of the building for which it is used, along an improved path, sidewalk, or similar constructed facility, and is permitted to be counted toward the required off-street parking requirements.
  - b. **Parking Structures.** Parking structures may be permitted as part of a site plan. Parking structures shall utilize the same elements as those found within the principal building. Such elements shall not exceed fifty (50) percent of the façade, to allow for increased light and ventilation. Glazing standards are not required.
  - c. **Shared Parking.** The following shared parking standards shall be required in the TC district. Shared parking shall reduce the overall required minimum off-street parking by fifteen (15) percent. An applicant shall submit a shared parking analysis to the Board of Commissioners as a means of reducing the total number of required off-street parking spaces required. Shared parking analysis, at minimum, shall include and comply with the following:
    - i. Identification of proposed uses within the development.
    - ii. Calculation of the fifteen (15) percent shared parking reduction which will be applied, per proposed use.
    - iii. Proposed uses served by the shared parking arrangement shall have different peak parking demands or otherwise operate in a manner that the uses sharing parking have access to the required minimum number of off-street parking spaces when in operation. Narrative and calculations shall be prepared by a Professional Engineer or Certified Land Use Planner and provided as part of the

shared parking analysis, explaining the merit of the shared parking arrangement.

- d. ~~Alternative Parking Plan (APP). An applicant may propose an alternative parking plan (APP) if off-street parking requirements cannot be met, consistent with Section 6.4.3.K: Alternative Parking Plan. 2.1.1. The Board of Commissioners shall accept an APP in place of the parking requirements for a proposed use, only if the below requirements are met:~~

- ~~i. A parking study must be submitted that is prepared by a registered Professional Engineer or Certified Land Use Planner.~~
- ~~ii. The study must include the size, type, and proposed use(s) of the development; anticipated peak parking; anticipated normal parking amounts; and a narrative and data as to why the parking requirements of the proposed development are unique in nature.~~
- ~~iii. An APP shall be granted only where the narrative and data provided by the registered Professional Engineer or Certified Land Use Planner clarify the need for the APP, the context of the APP, consequences of the APP, and that the APP will not constitute a public nuisance or detriment to the Town, including but not limited to parking in non-designated areas, blocking of traffic, restriction of access (both vehicular and pedestrian), and public safety.~~

- J. **Shared Parking.** The following shared parking standards shall be required in all mixed-use districts (except the TC district, which has its own specific standards defined in Section 6.4.3.I) and may be permitted in all other districts. Shared parking shall reduce the overall required minimum off-street parking by fifteen (15) percent. An applicant shall submit a shared parking analysis to the Land Development Administrator as a means of reducing the total number of required off-street parking spaces required. Shared parking analysis, at minimum, shall include and comply with the following:

1. Identification of proposed uses within the development.
2. Calculation of the fifteen (15) percent shared parking reduction which will be applied, per proposed use.
3. Proposed uses served by the shared parking arrangement shall have different peak parking demands or otherwise operate in a manner that the uses sharing



parking have access to the required minimum number of off-street parking spaces when in operation. Narrative and calculations shall be provided as part of the shared parking analysis explaining the merit of the shared parking arrangement.

4. Cross access agreements (i.e. legal instruments), if required, for the principal property and adjacent properties to ensure shared parking can function shall be provided to the Land Development Administrator.
  5. Shared parking arrangements shall be a formal legal instrument and be provided to the Land Development Administrator. If a shared parking arrangement ceases, parking for the uses shall be recognized as a nonconformity and are subject to Section 10: Nonconformities unless brought into compliance with the standards of this Section.
- K. **Alternative Parking Plan (APP).** To approve an alternative parking plan, the BOC must first find that the proposed APP accomplishes the purposes of this Section equally well or better than would a plan which complies with the standards of this Section. In reviewing the request for an APP in order to determine whether it accomplishes the purposes of this Section, as required above, the BOC shall take into account the proposed use(s), amount of square footage (size), the availability of nearby on-street parking or public parking (if any), the availability of shared parking with abutting, adjacent or surrounding land uses (if any), or any other factors that may be unique to the applicant's development request. The BOC shall not approve the APP unless:
1. A parking study is submitted that is prepared by a registered Professional Engineer or Certified Land Use Planner in the State of North Carolina;
  2. The study must include the size, type, and proposed use(s) of the development; anticipated peak parking; anticipated normal parking amounts; and a narrative and data as to why the parking requirements of the LDO do not accurately reflect the needs of the proposed development;
  3. The APP may include provisions for off-site parking if the number of off-street parking spaces required cannot reasonably be provided on the same lot where the principal use is located;

4. The APP does not detract from continuity, connectivity and convenient proximity for pedestrians between or among existing or future uses in the vicinity;
  5. The APP minimizes the visual and aesthetic impact along the public street by placing parking areas to the rear or along the side of buildings, to the maximum extent feasible;
  6. The APP minimizes the visual and aesthetic impact on the surrounding neighborhood;
  7. The APP creates no physical impact on any facilities serving alternative modes of transportation;
  8. The APP creates no detrimental impact on natural areas or features; and
  9. The APP maintains accessible parking ratios.
- L. **Off-Site Parking.** Required off-street parking spaces may be located on a separate lot or parcel from which the principal use is located (i.e. “off-site”), only if the off-site parking complies with the following standards:
1. Off-site parking shall be under the same ownership as the principal use, or otherwise leased by a lease of no less than the term of lease for the principal use.
  2. All necessary legal instruments shall be executed and recorded and copies provided to the Land Development Administrator. Renewal agreements shall continue to be provided to the Land Development Administrator.
  3. Off-Site Parking shall be located within 750 feet of the nearest lot line of the principal use.
  4. A sidewalk, paved pedestrian walkway, or crosswalk shall be provided to the off-site parking area from the principal use.

#### 6.4.4. PARKING DESIGN STANDARDS

##### A. General Design Standards.

1. **Parking Plans.** A Parking Plan shall be required for all development and redevelopment, with the exception of single-family residential uses. Parking Plans shall include:
  - a. Access points;
  - b. Internal circulation (including drive aisles);
  - c. Landscaping;
  - d. Pedestrian connections;
  - e. Angle of parking; and
  - f. Dimensions of parking spaces.
2. **Arrangement.** Off-street parking shall be arranged so that vehicles may be parked/unparked without moving other vehicles. Parking structures shall be permitted to be designed to allow tandem parking and/or valet services.
3. **Encroachment.** No parking space shall be designed to encroach, hinder or otherwise block a public or private right-of-way, alley, or sidewalk. Parking spaces may be allowed in a setback or build-to-zone.
4. **Overhang.** Where parking spaces are located such that the parked vehicle will overhang a sidewalk, a minimum clear width shall be provided equal to the minimum sidewalk width required.
5. **Driveways.** Driveways, aisles, and joint access easements shall not be used for parking vehicles except for single family and two-family residential.
6. **Wheel Stops.** Wheel stops shall only be prefabricated, concrete or recycled plastic product manufactured specifically for this use. No other materials shall be permitted. Parking spaces shall have curbs or motor vehicle stops or similar

devices to prevent vehicles from overhanging on, or into, adjacent property, or from encroaching into required landscaped areas.

7. **Landscaped Parking Islands.** Parking areas shall be visually and functionally segmented using landscaped islands and canopy trees and meet the requirements of Section 6.3.4: Landscaping Design Standards.
8. **Drainage.** Parking lots shall not drain onto or across public sidewalks, or into adjacent property except into a natural watercourse or a drainage easement. In already developed areas where this condition would be impossible to meet, the Land Development Administrator may exempt the developer from this requirement, provided that adequate provision is made for drainage.
9. **Access and Maneuvering.** Parking areas shall be arranged for convenient access, maneuvering and safety of pedestrians and vehicles. Parking areas shall be arranged so that no vehicle shall be required to back up from such facilities directly onto designated arterial or collector streets. Parking areas shall be designed, maintained and regulated so that no parking or maneuvering incidental to parking shall be on any public street, sidewalk, or alley.
10. **Marking of Spaces.** All off-street parking area spaces shall be marked.

#### B. Paving.

1. **Applicability.** Paving shall be required, per the standards of this Section, for:
  - a. All new parking, loading, and driveway areas serving new construction, including expansions to existing uses;
  - b. All parking, loading, and driveway areas, existing and new, serving any use expanded in lot coverage/square footage by more than 20% after the effective date of this ordinance; and
  - c. All existing parking, loading, and driveway areas serving a use discontinued for a period of 180 days or longer.
2. **All Principal Uses (Except Single-Family Residential).** All parking, loading, and driveway areas shall be paved and maintained with asphalt or concrete.

3. **Vehicles, Boats, Manufactured Home, and Equipment Sales, Service, and Leasing Sites, Storage and Display.** All storage and/or display areas shall be paved with asphalt or concrete. Storage and/or display areas shall not be permitted on grass or unpaved areas.

**C. Dimensional Standards.**

1. **Parking Spaces.** Parking space sizes shall comply with the below requirements:
  - a. Parallel Parking Space: 20' x 9'
  - b. Angle Parking Space: 19' x 8.5'
  - c. 90 Degree Parking Space: 19' x 9'
2. **Aisle Widths.** Aisle widths shall comply with the minimum standards below.

Parking Angle Degree	One-Way Traffic	Two-Way Traffic
0-15	12	24
16-37	11	24
37-38	13	24
58-74	18	24
75-90	24	24

**6.4.5. LOADING AREAS**

- A. **Purpose.** This Section identifies the standards for loading areas. If a development requires goods or equipment be routinely delivered to or shipped from that development, a sufficient off-street loading area must be provided to accommodate the delivery or shipment operations in a safe and convenient manner.
- B. **Loading Areas Design Standards.** Loading areas shall be designed to comply with the following standards:
  1. Vehicle shall be able to maneuver safely and conveniently to and from a public right-of-way.

2. Vehicles can complete the loading and unloading operations without obstructing or interfering with any public right-of-way or any parking space or drive aisle.
3. Loading areas shall be located outside of a public right-of-way when practicable and be indicated through marking.
4. The size of loading areas shall be based upon the needs of the use in a building. The minimum size of a loading area shall be the same size as the minimum parking space. For uses that require commercial delivery trucks or semi-trailers, loading areas shall be made to accommodate the typical commercial delivery vehicle.
5. Loading areas that serve commercial delivery trucks, semi-trailers and similar vehicles shall be designed to include screen walls, landscaping, or other treatments to limit visibility of the loading area.
6. No area allocated to loading and unloading may be used to satisfy the area requirements for off-street parking, nor shall any portion of any off-street parking area be used to satisfy the area requirements for loading and unloading facilities.

**C. Required Loading Spaces.**

Use(s)	Minimum Number of Loading Spaces Required
Commercial	1 space per 20,000 SF of gross floor area
Industrial	1 space per 10,000 SF of gross floor area
Office and Medical	1 space per 50,000 SF of gross floor area
Multiple Family	1 space per development to allow for move-in and move-out of residents
Mixed-Use Development	1 space per 30,000 SF of gross floor area

- D. **Compliance.** For lots with existing structures predating the effective date of this LDO, and for a change in use that does not involve any enlargement of a structure, the loading area requirements of this Section need only comply with this Section to the extent practicable.

#### 6.4.6. STACKING

- A. **Stacking Standards.** If a structure or use provides for the off-loading of passengers or involves a drive-through (i.e. allows for a use without exiting the vehicle), stacking spaces shall be provided for and marked on the site. The following standards shall apply for stacking space:
1. A stacking space shall be a minimum of ten (10) feet by twenty (20) feet.
  2. Stacking spaces shall not obstruct, endanger, or interfere with on-site or off-site access, maneuvering, or traffic patterns.
  3. For drive-through restaurant uses, a minimum of four (4) stacking spaces are required.
  4. All other uses which provides for off-loading of passengers, or involves a drive-through, shall provide a minimum of two (2) stacking spaces.

#### 6.4.7. BICYCLE PARKING

- A. **Bicycle Parking Requirements.** Bicycle parking shall be provided for all new civic, commercial, office and medical, and multiple family uses and shall meet the following standards:
1. Bicycle parking shall be located no further than fifty (50) feet from a pedestrian entrance. Bicycle parking shall be publicly accessible and located in a visible and convenient area.
  2. Bicycle racks shall be permanently fixed to a paved surface.
  3. Bicycle racks shall be consistent in style and material of the overall project design.
  4. Spacing and layout of bicycle racks shall provide maneuverable access.
  5. Bicycle parking and/or racks shall be able to accommodate cable locks and "U" locks commonly used by bicyclists.
  6. All new civic, commercial, and office and medical uses shall require a minimum of one (1) bicycle parking space per 5,000 SF of gross floor area, up to a maximum of twenty (20) required spaces.
  7. All new multiple family uses shall require a minimum of one (1) bicycle parking space for every five (5) dwelling units, up to a maximum of thirty (30) required spaces.

## 6.5. FENCES, WALLS, AND BERMS (GROUP 1)

- A. **Purpose and Intent.** The purpose of this Section is to establish standards for construction or replacement of all fences, walls, and berms within the Town on individual lots or developments. The standards of this Section protect public safety while promoting aesthetic quality. The intent of this Section is to:
1. Ensure the safe and aesthetically pleasing construction of fences, walls, and berms.
  2. Provide for public safety, security, and privacy; and
  3. Allow for high quality designs for fences, walls, and berms used as transitions between public and private spaces.
- B. **Applicability.** The standards of this Section shall apply to all construction or replacement of fences, walls, and berms. Reviews of fences, walls, and berms are required per 6.5.D: Review.
- C. **Exemptions.** The following are exempt from the standards of this Section:
1. Internal garden areas in residential districts;
  2. Bona fide farm purposes and agriculture activities, as set forth in G.S. 160D-903 and where permitted by the LDO;
  3. Fences for active construction sites, where a permit has been issued by the Town;
  4. Silt fencing used during construction;
  5. Fencing used for tree protection; and
  6. Fences required around swimming pools by the North Carolina Building Code.
- D. **Review.**
1. Review of all fences, walls, and berms applicable under this Section shall be reviewed during the site plan process for any new development or building.

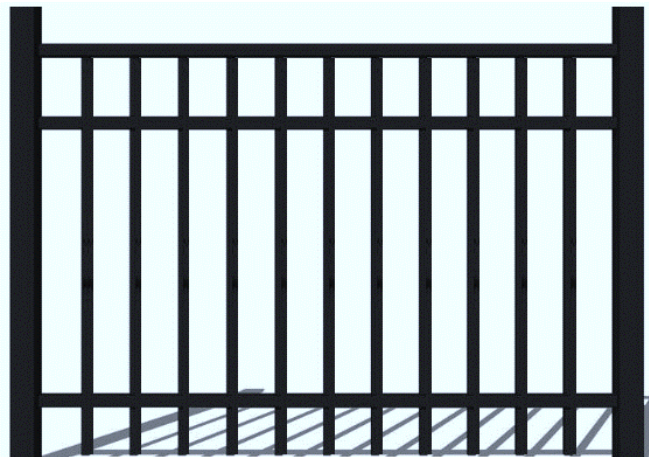


2. Review is not required for individual single-family or two-family dwellings for fences, walls, and berms. Review for fences, walls and berms for subdivisions however shall be required.

#### E. General Standards.

1. **Materials.** Fences and walls shall be constructed of high-quality materials including brick and stone, stucco over concrete masonry blocks, treated wood, wrought iron/aluminum, composite fencing, or PVC vinyl. All other materials are prohibited.

Figure 6.5.1. Wrought Iron/Aluminum Material (Illustrative Example)



2. **Design.**
  - a. All fence support structures must be located on the inside of the fence covering material.
  - b. All fences and walls shall be installed with the finished side facing towards the exterior or adjoining properties and rights-of-way.
  - c. All fences and walls shall be constructed in accordance with the North Carolina Building Code.
3. **Maintenance.** Fences, walls, and berms shall be maintained in the state in which they were approved. Any missing or deteriorated portions shall be replaced or

repaired as necessary. No fence, wall, or berm shall pose a threat to people or property due to neglect or lack of repair.

4. **Height.** Height shall be measured from the finished grade for all fences, walls and berms.
  - a. The maximum height of a fence or wall shall be eight (8) feet in nonresidential zoning districts. Exceptions may be granted for unique uses such as sports venues, utilities, or where required for the safety of pedestrians or motorists.
  - b. The maximum height of a fence or wall within required rear and side setbacks shall be six (6) feet in residential zoning districts. Fences and berms are not permitted in front setbacks unless a subdivision fence or wall is permitted in a site plan for a subdivision.
  - c. Subdivision walls along the perimeter of residential development are permitted to be a maximum of eight (8) feet in height and shall have a minimum setback of eight (8) feet.
  - d. Height requirements for berms are defined in Section 6.5.F: Specific Berm Standards.
  - e. An additional maximum one (1) foot of height may be permitted for decorative details including posts, columns, light fixtures and the like.
5. **Colors.** Bright colors, including orange, yellow, and red, are not permitted for permanent fences or walls.
6. **Location.**
  - a. No fence, wall, or berm may encroach into a public right-of-way or inhibit motorist visibility or site triangle.
  - b. Fences, walls, and berms shall not block any required ingress or egress point.
  - c. Fences, walls, and berms shall not inhibit access to fire hydrants.
  - d. Fences, walls, and berms may encroach into required setbacks.

- e. Fences, walls, and berms may encroach into town owned easements. Encroachments shall be parallel to the easement. The landowner shall remain liable for any repair or replacement to the fence, wall or berm if damage occurs while performing activities in the easement.
7. **Setbacks.** Fences, walls (excluding a subdivision wall), and berms, are exempt from setback requirements. However, a berm may not be constructed so that any portion of berms slopes extends over the property line.
8. **Drainage.** Fences, walls, and berms shall not alter, impede, or affect the natural flow of water in any stream, drainage swale, or easement.
9. **Landscaping.**
- a. For any fence or wall above four feet in height, the property owner (or HOA or similar group) shall landscape the area between the street side of the wall or fence and the right-of-way line if within five (5) feet of the right-of-way line. Landscaping shall comply with Section 6.3.4: Landscaping Standards.
  - b. For any subdivision perimeter wall, required landscaping shall include sufficient quantities, types, heights and densities of materials to provide at least 50 percent opacity within five years of planting, and shall be maintained at 50 percent or greater opacity thereafter. All other fences and walls shall utilize shrubs, plant material and ornamental grasses to be planted and maintained.
  - c. Required landscape buffers shall be planted within sixty days of the completion of the wall.
  - d. Maintenance of the landscaping shall be the responsibility of the owner, HOA, or similar group.

**F. Prohibited Fence and Wall Items.**

- 1. **Electric Fences.** Electric fences are only permitted in conjunction with bona fide agricultural activities as set forth in G.S. 160D-903 and where permitted by the LDO, unless stated otherwise in this LDO.

- a. Warning signs shall be required on all-electric fences and meet all safety and emergency services requirements.
  - b. Underground electric fences that are used in conjunction with electric transponder collars for pets may be permitted in all districts.
2. **Barbed Wire Fences.** Barbed wire fences are only permitted in conjunction with bona fide agricultural activities as set forth in G.S. 160D-903 and where permitted by the LDO or may be approved as part of a site plan permit if deemed necessary to protect the public health and safety in association with utility structures, landfills, airports, law enforcement, or similar civil uses.
  3. **Tarps and Silt Fencing.** Tarps and silt fencing utilized during construction shall not be permitted (i.e. shall be removed) after completion of construction.
  4. **Smooth-Face Concrete.** Smooth-face concrete, which has not been stucco treated, shall not be permitted for any fence or wall.

G. **Specific Berm Standards.** Berms shall conform to the following standards:

1. **Berms In Required Setbacks.** Berms may be located in required setbacks or easements; however, the landowner shall remain liable for any repair or replacement to the berm if damage occurs while performing activities in the easement.
2. **Grading of Berms.** Berms shall not exceed a grade of one (1) foot of rise in three (3) feet of length.
3. **Landscaping.** Berms, which may also feature walls as permitted in Section 6.3.4: Landscaping Standards, of this LDO, shall be landscaped and meet all landscape requirements.
4. **Height.** Berms shall not exceed a total of eight (8) feet above the toe of the berm.
5. **Flat Top.** Berms shall have a minimum two (2) foot flat top width at the top of the berm height.

6. **Drainage.** Berms shall not drain onto neighboring yards and cause undue pooling of water. Runoff shall be directed into appropriate drainage easements or facilities.
7. **Fences and Walls On Berms.** Fences and walls that comply with the standards of this Section may be permitted on top of a berm and comply with the following standards:
  - a. In designs where a fence or wall is located on top of a berm, the maximum fence or wall height permitted shall include the height of the berm, as measured from the toe of the slope of the berm.

#### 6.5.2. Berm (Illustrative Example)



## 6.6. LIGHTING

- A. **Purpose and Intent.** The purpose of this Section is to regulate the intensity of exterior lighting for all types of buildings, individual lots and developments. This Section intends to provide standards to prevent light from excessively illuminating other properties and street rights-of-way, minimize glare, reduce light pollution, protect the night skies, and to minimize other adverse impacts from light intensity.
- B. **Applicability.** All new development shall comply with the standards of this Section. The following shall also apply in instances of repairs, renovations or additions:
1. **Minor.** When a site area is improved by 10% or less, lighting subject to the standards of this Section is required only for the additional improved site area.
  2. **Major.** When a site area is improved by greater than 10%, both the additional area and existing area must conform to the lighting standards in this LDO.
- C. **Nonconforming Lighting.** Lighting that does not comply with the standards of this Section that was permitted before the adoption date of this LDO shall be considered nonconforming. Any modifications or replacement of such lighting shall conform to this LDO, subject to 6.6.B.
- D. **Exemptions.** The following are exempt from the standards of this Section:
1. Residential lighting that is not part of a site plan or subdivision plan, for single-family (detached and attached), two-family dwellings, or multiple family dwellings such as apartments or condos;
  2. Security lighting required for public spaces consistent with *Crime Prevention Through Environmental Design* (CPTED) or similar safety requirements;
  3. Lighting for permitted temporary uses, including grand openings, special events and celebrations;
  4. Holiday displays;
  5. FAA-required lighting on buildings and telecommunication towers;
  6. Public street lighting;
  7. Temporary lighting for construction work and/or emergency personnel;

8. Lighting for flags; and
9. Underwater lighting used for swimming pools and/or fountains.

**E. Prohibited Lighting.**

1. **Awning/Canopy Lighting.** Awnings and canopies used for building accents, such as over doors and windows, shall not be internally lit, i.e., from underneath or behind the awnings and canopies. Gas stations are exempt from this standard (see Section 6.6.M: Gas Station Lighting).
2. **Flashing Lights.** Lights that flash, move, rotate, blink, flicker, vary in intensity, or color, or use intermittent electrical pulses are prohibited. Such techniques used for signs internal to a building, behind windows is exempt.
3. **Floodlights.** Floodlights, spotlights, or any other similar lighting shall not be used to illuminate buildings or other site features unless approved as an integral architectural element on the site plan or as a permitted temporary use (such as spotlights for grand openings or celebrations).
4. **Tube Lighting.** Tube lighting in the form of neon or rope lighting is prohibited on building exteriors and along façade trims where it defines a window, door, or elevation. The utilization of tube lighting behind windows is exempt.
5. **Traffic Control.** Lighting that is similar or can be confused as being a traffic control device.

**F. Review and Lighting Plan.** All development subject to the standards of this Section shall require a lighting plan. Plans shall be reviewed for compliance during the site plan and/or subdivision process. Before a certificate of occupancy is issued, the applicant shall supply the Town with a final letter of certification from the lighting engineer and/or manufacturer verifying that all site lighting is installed according to Town standards, the approved plans, and any applicable conditions. Lighting plans, at minimum, shall comply with the following:

1. **Licensed Engineer.**
  - a. The plan must be prepared by a licensed engineer;
  - b. Shall be signed and sealed; and

- c. Shall be of an engineered scale that is easily legible.
2. **Plan Requirements.** To facilitate dark-sky provisions, appropriate source light shielding is required in order to minimize glare and protect dark skies, while facilitating better vision at night. A lighting plan must show:
- a. All proposed and existing buildings on the site;
  - b. Pedestrian and vehicular areas;
  - c. Other above-ground improvements;
  - d. The horizontal location of all proposed and existing outdoor lighting fixtures, including pole and wall-mounted fixtures;
  - e. Mounting heights of each fixture;
  - f. Overall height of each pole above grade;
  - g. Fixture details;
  - h. Location of externally illuminated signs and associated fixtures; and
  - i. The location of all architectural and landscape lighting fixtures.

3. **Illumination Values.**

- a. Lighting plans shall be specified and calculated in maintained footcandles (FC), unless specified otherwise in this Section. Measurements of light levels shall be taken at finished grade with an accurate and calibrated light meter.
- b. The plan must include a footcandle plan that provides typical footcandle contours and a point photometric grid that indicates footcandle levels measured at grade across the site. Maximum, average and minimum site foot-candles, uniformity ratio (average and minimum), and depreciation factors also are required. The plan must show initial horizontal illuminance values in foot-candles for the area to be illuminated.
- c. These values must be calculated at grade and include contributions



- from all onsite fixtures.
- d. The plan must plot foot-candles of illumination at ground level to the nearest tenth of a foot-candle, and at horizontal grid intervals of no more than ten feet.
  - e. The plan shall show illumination level at the lot line (or perimeter of a development, if applicable) to ensure maximum illumination levels are not exceeded.
4. The manufacturer's cut sheets (specifications) for each proposed fixture must be submitted.
  5. A lighting fixture schedule that presents the following information:
    - a. Fixture type, including the manufacturer's product identification catalog number.
    - b. Fixture mounting height.

#### **G. General Design Standards.**

1. All lighting fixtures shall be constructed and designed to prevent light from emitting upwards toward the dark night sky.
2. All fixtures, except for streetlighting fixtures, including security lighting, must be cutoff fixtures. Cutoff fixtures shall project all its light in a downward motion.
3. Canopy lighting fixtures shall be designed to be completely recessed within the canopy.
4. All fixtures must be incorporated into the building or site as an integrated design element through the use of common or complementary style, material, and color.
5. Interior fixtures used to light the interior of parking garages must be shielded to prevent light spilling from the garage.
6. Light fixtures on the top deck of a parking garage may not exceed 15 feet in height and must be shielded to prevent light spilling from the boundary of the garage deck. Rooftop lighting of parking garages must be setback a minimum 15

- feet from the perimeter of the rooftop parking structure.
7. Lighting for permitted rooftop uses (such as a restaurant or lounge) shall be pedestrian in scale and not exceed 12 feet in height (this does not include any FAA mandated lighting). Rooftop lighting fixtures used for permitted rooftop uses shall be located toward the center of the rooftop, away from its edges and not face outward. Safety lighting may be utilized along walls or rails. All lighting shall be designed to effectively eliminate glare, shielded to prevent light spilling over the side of the building, and shall be turned off when the rooftop area is not in use.
  8. Walkways, bikeways, parks and trail lighting, and pedestrian facilities such as building connections shall be lit at a maximum 0.2 FC.
  9. Wall packs on buildings may be used at entrances to a building or to light potentially unsafe areas. They should not be intended to draw attention to the building or provide general building or site lighting. Wall packs shall be fully shielded, cutoff type fixtures with concealed light sources. The lighting must be directed downward.
  10. Loading/unloading docks shall only be illuminated by fixtures which feature full cutoff design and shall be affixed to an outside building wall or pole.
  11. All outdoor lighting fixtures not mounted on buildings (i.e. ground based) shall be located a minimum of 10 feet from a property line or right-of-way line and should be no closer than 2 feet from any required perimeter or streetscape buffer. Undergrounding service is encouraged.
  12. Light fixtures shall not exceed 30 feet in height in vehicle use areas (such as rights-of-way and parking areas). Additional standards for parking areas are defined in Section 6.6.J.
  13. Light fixtures shall be 12-15 feet in height in nonvehicular pedestrian areas (such as sidewalks).
  14. An illustrative example of permitted light fixture heights is provided in Figure 6.6.1

Figure 6.6.1. Lighting Fixture Height Illustrative Example



#### H. Lighting Intensity Standards.

1. Table 6.6: Specific Lighting Standards, defines specific standards for lighting intensity based upon the use involved.
2. The table is organized by uses and permitted maximum values are presented in allowable foot-candles (FC). Maximum illumination is required to be maintained (measured horizontally) at grade and is to be averaged throughout the site to avoid hot spots and ensure illumination values at the edge of the development area.
3. Illumination shall not exceed the maximum illumination permitted at the edge of any lot line (i.e. property line), unless permitted elsewhere in this LDO.
4. Where a single development occupies multiple lots, the maximum illumination shall be required around the perimeter of the development.

Table 6.6. Specific Lighting Standards

Use	Maximum Illumination at Property Line
Multiple Family Residential	1.5 FC
Mixed-Use Developments	2.5 FC
Civic Uses (See Permitted Principal Use Table)	6.0 FC
Commercial Uses (See Permitted Principal Use Table)	5.0 FC
Office Uses (See Permitted Principal Use Table)	5.0 FC
Industrial Uses (See Permitted Principal Use Table)	2.0 FC
Infrastructure Uses (See Permitted Principal Use Table)	2.0 FC
Residential Sidewalks	0.3 FC
Non-Residential Sidewalks	0.8 FC
Vehicle Use Areas	1.0 FC
Primary Entrances	5.0 FC at entrance
Secondary Entrances	1.0 FC at entrance
Loading Docks	15.0 FC at loading dock
Storage Areas (Active)	5.0 FC
Storage Areas (Inactive)	1.0 FC

- I. **External Building Lighting Standards.** External building lighting shall comply with the following standards:
1. Fixtures that decoratively light a building or wall may not light above the parapet of the building or the top of the wall.
  2. Landscape and decorative lights are hereby made exempt from this subsection.
  3. Floodlights, spotlights, or any other similar lighting shall not be used to illuminate buildings or other site features unless approved as an integral

architectural element on the development plan.

4. On-site lighting may be used to accent architectural elements but not used to illuminate entire portions of building(s) or sign(s).
  5. Where accent lighting is used, the maximum illumination on any vertical surface or angular roof surface shall not exceed 5.0 FC.
  6. Building façade and accent lighting will not be approved unless the light fixtures are carefully selected, located, aimed, and shielded so that light is directed only onto the building façade and spillover light is negligible.
- J. **Parking Area Lighting Standards.** Lighting is required within parking areas. The height of light fixtures within a parking area shall comply with the following standards:
1. Parking area lighting fixtures shall be required to stagger the heights of light fixtures so that the tallest fixtures are in the center of the parking lot, and the lowest heights are at the perimeter of the parking lot.
  2. Light fixtures height shall not exceed 30 feet within the center of a parking area and shall decrease height to 12 to 15 feet at the boundary of the parking area.
  3. To avoid conflict in layout, parking lot lighting must be coordinated with parking area landscaping.
  4. Lighting design shall be coordinated with the landscape plan to ensure that vegetation growth will not substantially impair the intended illumination.

Figure 6.6.2 Parking Area Lighting Standards Illustrative Example



- K. **Sign Lighting Standards.** All external lighting for signs shall be designed and located to assure there is no spillover light. Sign lighting, including ground mounted stop lights, shall not exceed 5.0 FC. Signs shall be in compliance with Section 6.2: Signs.
- L. **Athletic Field Lighting Standards.** Lighting for athletic fields may be in excess of permitted fixture heights and illumination levels. Recreation lighting levels established by *Illuminating Engineering Society of North America (IESNA)* are to be used as the standard for all athletic field lighting. Higher lighting levels for tournament or high league play are sometimes required and must be approved by the Land Development Administrator or their designee. All sports fields, areas, or courts must meet the following minimum standards:
1. Fixtures must be fitted with manufacturer's glare control package.
  2. Lighting shall be turned off no later than one hour after any event ends.
  3. Fixtures must be designed with a sharp cutoff and aimed so that their beams fall within the primary playing area and the immediate surroundings, so that off-site direct illumination is significantly restricted.
  4. Sports fields may have lighting fixtures a maximum 80 feet in height.
  5. Spillover levels at the field property lines shall not exceed 0.3 foot-candles.
- M. **Gas Station Lighting.**
1. All light fixtures for gas stations that are mounted on the lower surface of canopies must be fully shielded in and of themselves (canopy edges do not qualify as shielding).
  2. Light fixtures mounted on canopies shall be recessed so that lens cover is recessed or flush with the bottom surface (ceiling) of the canopy or shielded by the fixture or the edge of the canopy so that light is restrained to seventy degrees (70°) or less from vertical.
  3. Lighting levels shall be no greater than 12.0 FC at the edge of the canopy.
  4. Areas outside service station pump island canopy shall be illuminated so that the maximum horizontal luminance at grade level is no more than 10.0 FC.

## 6.7. COMPLETE STREETS (GROUP 2)

A. **Purpose and Intent.** This Section's purpose is to adopt, by reference, the policies contained within the 2017 Comprehensive Plan and the Town's adopted Community Transportation Plan (CTP). This Section intends to require redevelopment of existing rights-of-way to institute complete streets and multimodal opportunities when required per the policies of the Comprehensive Plan and Community Transportation Plan. More specifically, this Section intends to:

1. Allow for context sensitive system of complete streets in the Town;
2. Emphasize the user, whether vehicular, bicyclist, or pedestrian, and provide for equal opportunities of travel on complete streets; and
3. Combine the development standards of this LDO and the policies of the CTP to allow for multimodal facilities that enhance community activities, commercial development, mixture of land uses, higher development densities, and designs that encourage active transportation.

B. **Land Use Context Areas.** The Rolesville Community Transportation Plan lays the groundwork for more detailed policies and programs related to Rolesville's multimodal transportation network. The Future Land Use Map expresses the Town's intent for how it will use land resources in the future. Out of the ten (10) identified *Character Areas* (i.e. *Land Use Designations*) within the Future Land Use Map of the Comprehensive Plan, the CTP defines six (6) *Context Areas*:

1. Town Core
2. Mixed Use
3. Employment Center
4. Residential
5. Rural Crossroads
6. Open Space

C. **Relationship to Zoning Districts.**

1. The land use context areas defined in the CTP may be applied to development within the zoning districts defined in Section 3: Zoning Districts, of this LDO. The zoning districts defined in this LDO implement the various defined character areas on the Town’s Future Land Use Map.
2. For reference, Table 6.7 below enumerates which zoning districts correspond with the land use context areas.
3. Context areas may apply to multiple and overlapping zoning districts.

Table 6.7. Relationship to Zoning

Context Area	Land Use Designation (FLUM)	Zoning District
Town Core	Town Center, Commercial, Industrial	TC, NC, CH, O&P, I
Mixed Use	Mixed Use Neighborhood, High Density Neighborhood	TC, C-MU, S-MU
Employment Center	Business Park	TC, NC, CH, O&P, I, IP
Residential	Low Density Residential, Medium Density Residential	RWD, RLD, RMD, RHD, UMH, RMH
Rural Crossroads	Commercial	NC
Open Space	Preserved Open Space	RLD

D. **Facility Recommendations.** Consistent with the adopted CTP, Figure 2: Context Areas and Thoroughfare Recommendations, investment in development of roadways should implement the recommended street facility recommendations. It is understood that the Town’s emphasis on a multimodal transportation network requires a design typology based upon the character areas (i.e. land use designations) from the Future Land Use Map and the zoning districts with implement those character areas. The recommended street facilities are codified within this LDO by adoption of the CTP.

E. **Street Sections.** Consistent with the CTP and the North Carolina Department of Transportation (NCDOT) adopted Highway Typical Sections, all facility recommendations shall be built to the standards defined in the “Typical Highway Cross Sections For Use In



SPOT On!ine” document. The document contains different highway typical cross sections, providing a standardized set of design standards for roadway facilities.

## 6.8. DESIGN STANDARDS (GROUP 2)

### 6.8.1 PURPOSE, INTENT AND APPLICABILITY

- A. **Purpose and Intent.** The purpose and intent of this Section is to provide minimum requirements for the design and configuration of single family (detached and attached) and duplex, multifamily, and industrial buildings and developments. These standards are intended to provide the Town's expectations for the quality and appearance of new development through the use of architectural designs, building features, exterior materials and colors, desirable design elements, and detailing. All provided figures, images, and rendered photographs are for illustrative purposes only; the text, dimensions and/or standards shall apply in all cases where there is a conflict.
- B. **Applicability.** All new development shall comply with the standards of this Section. Development existing prior to the adopted date of this LDO, as well as redevelopment of buildings established prior to the adopted date of this LDO, are encouraged but not required to comply with these standards. The following standards shall apply in instances of repairs, renovations and/or additions:
1. A building may be repaired or renovated without complying with the requirements of this Section, provided there is no increase in gross floor area.
  2. When a building or site is increased in gross floor area or improved site area by greater than 25%, both the additional area and existing area must conform to the standards of this Section. Notwithstanding any standards of this Section to the contrary, any additions to a building which is constructed in compliance with the standards of this Section may continue the design of the existing building, including building materials, colors, textures, architecture, roofs, façades, and other detailing.
- C. **Exemptions.** The standards of this Section shall not apply to the following:
1. New non-residential buildings less than 5,000 square feet.
  2. Development located in the Industrial zoning district (see Section 6.8.5: Industrial Design Standards).

3. Conversion of a building from one permitted principal use to another permitted principal use.
- D. **Mixed-Use Zoning Districts.** Mixed-Use zoning district standards, as defined in Section 3.4: Mixed-Use Zoning Districts, may have unique and/or stricter design standards and requirements. Where a conflict arises in design or architectural standards, the stricter provision shall apply.
- E. **Review.** All building and development subject to the standards of this Section shall be reviewed for compliance during the site plan process, as defined in Section 2.3.2.10: Site Plan. Artistic renderings and/or elevation drawings shall be provided to ensure compliance.

#### 6.8.2 NONRESIDENTIAL BUILDING DESIGN STANDARDS

- A. **Purpose.** The standards of this Section establish criteria related to the appearance of buildings within the Town. Buildings are an integral component of development form and set mass, scale and help define patterns of development. The standards of this Section shall require applicable buildings to utilize high quality visual design elements and prohibit monotonous visual design. To further the welfare of the Town, and the economic development interests of all residents and businesses, building design standards shall:
1. Limit undesirable design elements;
  2. Require design elements intended to provide high quality building design; and
  3. Promote and enhance pedestrian scale.
- B. **Applicability.** Building design standards required per this Section shall be required on all walls of a building that face a public street or right-of-way (including highways) and/or are adjacent to residentially zoned properties.
- C. **Prohibited Building Design Elements.** Building design elements which do not meet the purpose and intent of the section consist of the following design elements:
1. Large, monotonous, unarticulated blank wall surfaces (i.e. blank wall areas);
  2. Exposed and untreated, unarticulated walls;

3. Mirror window glazing;
4. False fronts;
5. False entrances;
6. Faux windows;
7. Mansard roofs;
8. Franchise architecture designs which do not meet the standards of this Section;
9. Lack of architectural features; and
10. Lack of change in materials

D. **Standards.** All buildings shall comply with the following standards:

1. **Facades.** Building facades shall be designed with a consistent architectural style, detail, and trim. All sides of a building shall require architectural detailing and windows that complement the primary façade. Facades shall comply with the following standards:
  - a. **Vertical Mass.** The vertical mass of multistory buildings shall be visually broken at each story with architectural detail and articulation of at least one (1) foot in the vertical direction. Illustrated as “A” in Figure. 6.8.1.
  - b. **Roof Lines.** To limit box-like building forms, roofs shall include differing planes, pitches, forms, heights, or materials that are distinct from one another. Roof lines shall not exceed a linear distance of 100 feet without the introduction of a physical articulation. Illustrated as “B” in Figure 6.8.1.
  - c. **Horizontal Mass.** Building facades shall not exceed a linear distance of 35 feet without the introduction of a physical articulation no less than one (1) foot wide and extending in a horizontal direction along the façade. Illustrated as “C” in Figure 6.8.1.
  - d. **Wall Offsets.** Facades of 60 or greater feet in width shall incorporate wall offsets of at least one (1) foot of depth a minimum of every 40 feet. Illustrated as “D” in Figure 6.8.1.

- e. **Repeating Design Patterns.** Facades greater than 100 feet in length shall require a repeating, consistent pattern of change in color, texture, and material.

Figure 6.8.1. Building Facades



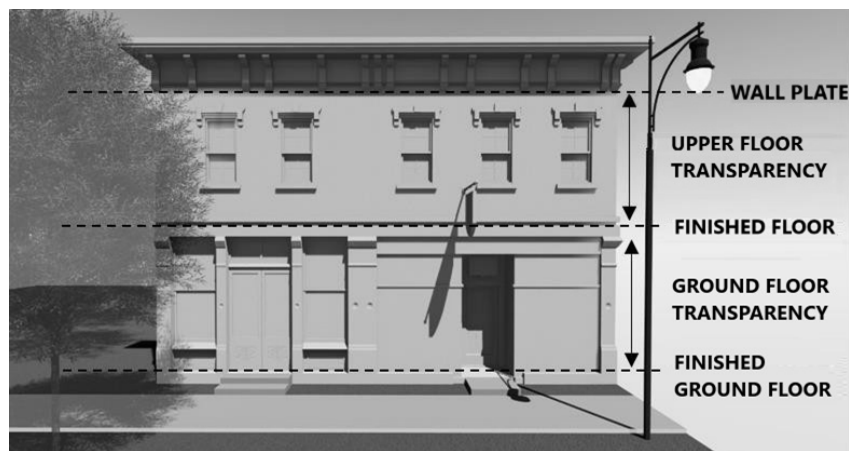
A-D	Façade Standards Illustrated
A	Vertical Mass
B	Roof Lines
C	Horizontal Mass
D	Wall Offsets

2. **Transparency.** Building shall be designed to have a minimum transparency, through the use of windows and doors, on ground and upper floors as illustrated in Figure 6.8.2. Transparency applies to all sides of a buildings facing a public and/or private street. Transparency shall not be required for service areas, loading/unloading areas, or those areas not visible from the public and/or private street.
  - a. **Ground Floor Transparency.** Ground floor transparency shall be calculated based on the total façade area located between the finished ground floor level and beginning of the upper floor. All ground floor

transparency shall be a minimum 30%, unless stated otherwise in this LDO.

- b. **Upper Floor Transparency.** Upper floor transparency is calculated based on total façade area located between the surface of any floor to the surface of the floor above it. If there is no floor above, then the measurement shall be taken from the surface of the floor to the top of the wall plate. All upper floor transparency shall be a minimum 20%, unless stated otherwise in this LDO.

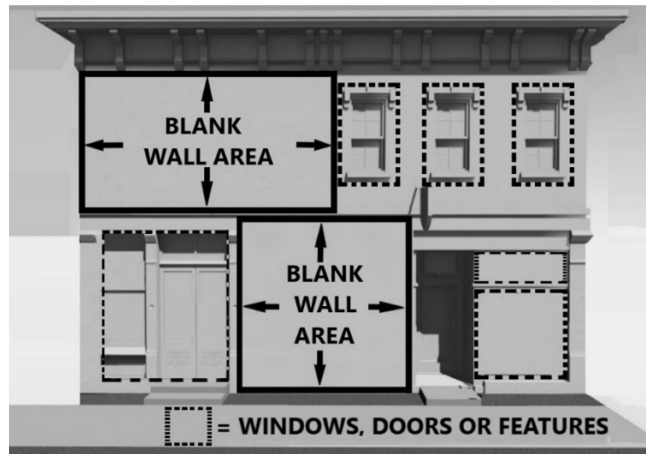
Figure 6.8.2. Transparency



3. **Building Blank Wall Area.** Buildings shall limit blank wall area. Blank wall areas are portions of an exterior façade that does not include windows, doors, columns, pilasters, architectural features greater than one (1) foot in depth, or a substantial material change. Blank wall area shall be limited and comply with the following standards:
  - a. Paint is not considered a substantial material change.
  - b. Blank wall area applies in both a vertical and horizontal direction and applies to ground floors and upper floors.
  - c. The maximum continuous blank wall area for any building shall be a maximum 50 square feet without a break by windows, doors, architectural features greater than one (1) foot in depth, or a substantial material change, unless explicitly stated elsewhere in this LDO.
  - d. When necessary to meet Fire Code requirements, blank wall area requirements may be waived by the Land Development Administrator.

- e. Except as otherwise regulated, the maximum permitted blank wall length for the rear of buildings shall be 100 feet, or 25% of the building length, whichever is less. Alternatively, where the facade faces adjacent residential uses or the Rolesville Expressway Bypass, an earthen berm shall be installed. The berm shall be no less than 6 feet in height, containing at a minimum a double row of evergreen or deciduous trees, planted at intervals of 15 feet on center. This alternative is not intended for installation along frontage roads.

Figure 6.8.3. Blank Wall Area



4. **Materials and Colors.** Buildings shall have consistent materials and colors and comply with the following standards:
- a. **Materials.**
    - i. Building materials shall be similar to materials used within the development and may only consist of brick, stone, stucco, synthetic stucco, fiber cement, treated wood, or similar materials.
    - ii. Dissimilar materials may be permitted if an applicant can provide a narrative and illustrations explaining how other characteristics of design, such as scale, detailing, color, and/or texture will be utilized to ensure enough similarities exist within the existing development.
    - iii. If two or more materials are actively utilized on a building's design, the heavier material shall be located below the lighter material (i.e. stone material shall be placed below stucco).

material), along corners, at storefront divisions, or utilized as a material change to limit blank walls.

- iv. Vinyl siding, smooth untreated concrete block, metal siding, and plastic materials are prohibited building materials.

Figure 6.8.4. Materials



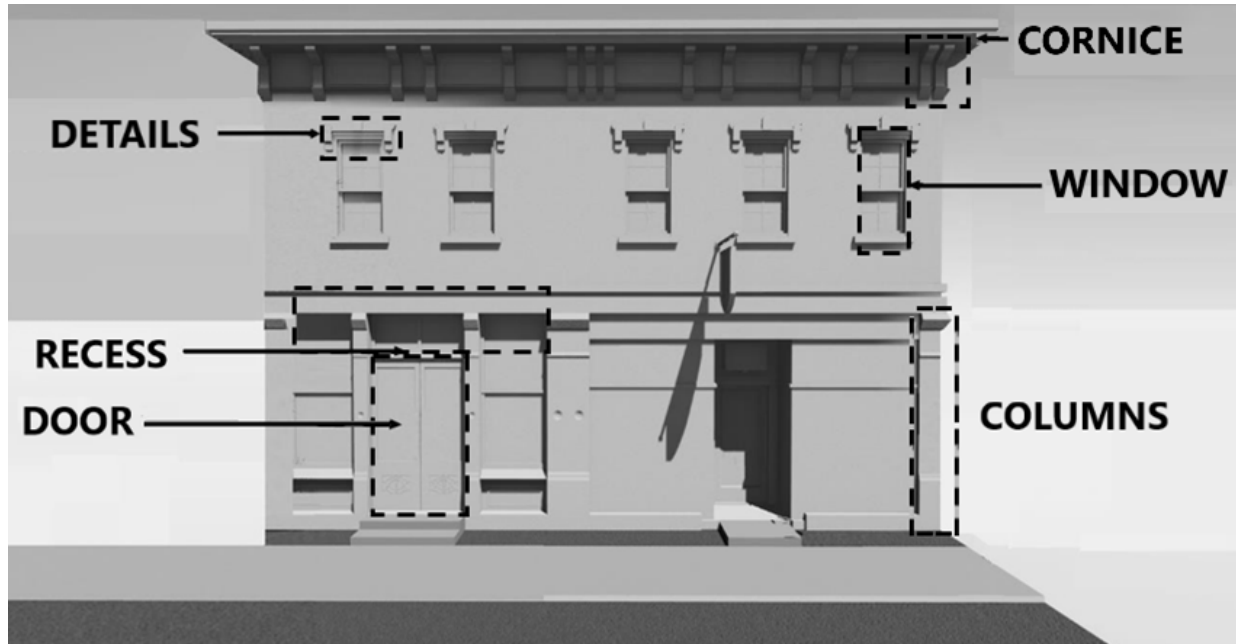
5. **Colors.** Building colors shall help unify buildings within a development and be similar. Building colors shall comply with the following standards:
  - a. Primary colors shall be low reflectance earth tones, muted, subtle or neutral colors.
  - b. Bright, neon colors shall be prohibited.
  - c. Accent colors and colors on details and trims may be of brighter hue and variation than façade colors.
  - d. Exterior color schemes that attract undue attention, or that cause the building to appear as a sign or advertisement, are not permitted.
  - e. Color should be integral to the materials; where painted or applied finishes occur, the use of complementing hues is required.
  - f. Traditional and standard franchise colors shall also comply with this Section.
6. **Minimum Design Items.** To ensure visually interesting buildings of high-quality visual design, a minimum of four (4) design items shall be utilized in building



design. The following design items may be chosen to fulfill the minimum requirement:

- a. A change in plane, such as a projection or recess which shall be a minimum of six (6) inches
- b. Design features such as columns, arches, planters, dormers, gables, bay windows, voids, etc.;
- c. Architectural details including cornices or similar details with relief elements;
- d. Awnings, arcades, porches, stoops or balconies and similar weather/sun cover features over public entrances;
- e. Complementary change in material or texture;
- f. Complementary change in color;
- g. Doors and windows with distinct ornamental details that are regularly spaced and similar-shaped with details, hoods or trim.
- h. Structural architectural details that are integrated into the overall design of the building, such as ironwork;
- i. Parapet height transitions, vertical pilasters and other similar treatments to soften scale of a building;
- j. Differing building setbacks or projections to help vary the plane of a building; and
- k. Active use areas which promote outdoor dining, pedestrian gathering, and similar functions.

Figure 6.8.5. Minimum Design Items



7. **Roof Design Standards.** Building rooflines that face a street or public right-of-way shall not exceed a linear distance of 100 feet without the introduction of a physical articulation of no less than one (1) foot in the vertical direction, gable, or building projection.
  - a. **Rooftop Equipment.** Publicly visible mechanical equipment or stacks shall be colored to match the roofing material and screened from public view.
  - b. **Parapets.** Parapets may extend 36" above the roof line. Mansard are prohibited.
  - c. **Roof Treatments.** Roofs shall have architecturally significant roof treatments including, but not limited to, cornices, brackets, roof overhangs, and textured materials. Compatible color materials are required.
8. **Other Building Standards.**
  - a. **Building Address.** Every building subject to the standards of this Section shall include a building street address at the primary building entrance.
  - b. **Individual Storefronts.** If a building contains several storefronts, each individual storefront shall be unified in design elements, including

materials, colors, window and door placement, and signage. Materials and colors may however be utilized to separate storefronts so long a unified design is maintained.

- c. Accessory buildings shall include designs similar and consistent to the principal structure, including exterior materials, colors, and roof form.

### **6.8.3 NONRESIDENTIAL SITE DESIGN STANDARDS**

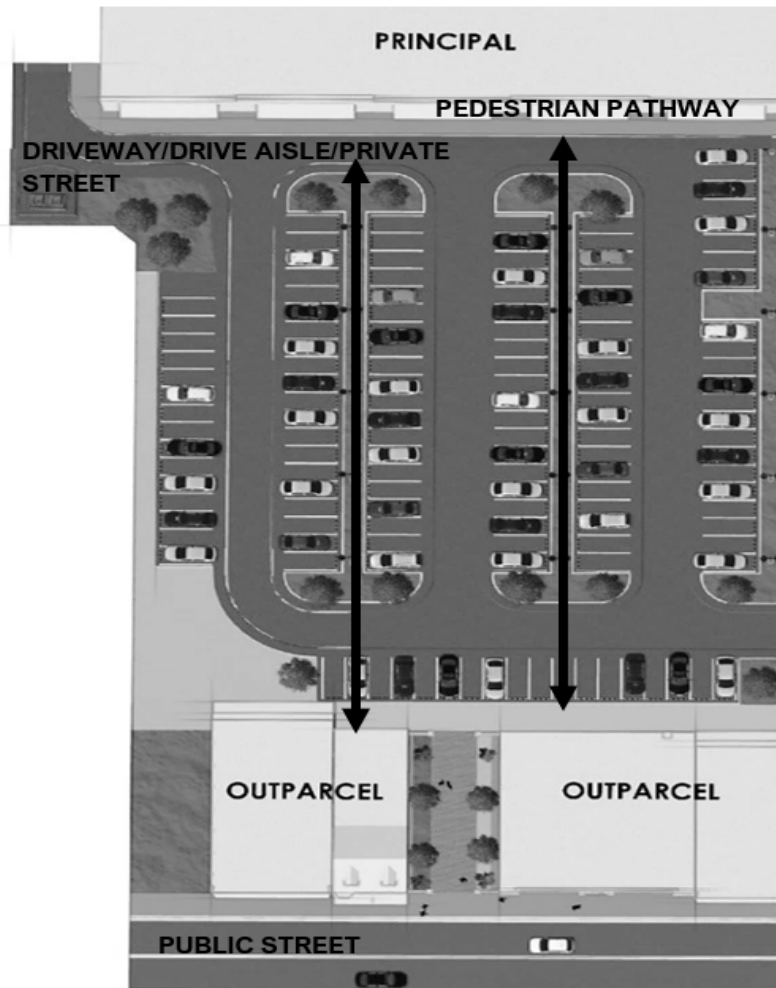
#### **A. Parking Location.**

1. Location of parking areas shall be configured to limit parking in the front.

#### **B. Outparcels Buildings.**

1. Outparcel buildings shall include a consistent level of architectural detail on all sides of the building and consist of similar exterior materials and compatible colors of the primary building in the development.
2. Spaces between buildings on outparcels or pad sites shall include enhanced pedestrian features or amenities such as plazas, paver walkways, seating areas, and gathering places in addition to off-street parking spaces.
3. Outparcel buildings, to the maximum extent practicable, shall be clustered along the street in order to define street edges, entry points and promote a pedestrian scale.
4. If a parking lot separates the principal building from an outparcel building, a pedestrian path/sidewalk shall be provided connecting the two through a direct link as illustrated in Figure 6.8.6.
5. Outparcel buildings shall be placed as close to rights-of-way as possible and limit surface parking between the building and street.

Figure 6.8.6. Outparcel Buildings



### C. Multi-Building Developments.

1. Buildings that abut streets shall be oriented parallel to the street. Buildings shall not be oriented at an angle to the street.
2. Sites comprised of multiple buildings shall be configured such that no more than 60% of the provided off-street parking shall be located between a building's primary building façade and the street it faces, unless the principal building(s) and/or parking lots are screened from view by outparcel development as regulated by 6.8.3.B.
3. Buildings within multiple-building developments shall be clustered to maximize open space opportunities.

4. Developments with multiple buildings shall break up the development area into a series of distinguishable smaller blocks which include on-site streets, vehicle accessways, pedestrian walkways and features, and provide interior circulation.

Figure 6.8.7. Outparcels and Multi-Building Development



D. **Internal Connections.** Within developments including the construction of new streets, an interconnected network of streets shall be provided. Streets shall connect to adjacent existing streets outside of the development.

E. **Accessory Facilities.**

1. Uses, structures, and mechanical equipment that are accessory to the principal building (i.e. loading and unloading areas, trash collection areas, maintenance and storage, and mechanical equipment areas) shall be incorporated into the overall design, architecture, and landscape of the development.
2. Colors and materials used in accessory uses and structures shall be consistent with the principal structure

3. Visual impacts of these areas shall be fully contained and out of view from streets and public rights-of-way.
- F. **Architectural Styles.** In developments with multiple buildings, a consistent level of architectural style shall be maintained. Where dissimilar architectural styles are required, building designs shall be made more consistent through the use of consistent architectural features, similar scale and proportions, and consistent location of signage.
- G. **Daylight Plane.** Buildings shall be oriented or designed to minimize shadows falling on public or semi-public open spaces and gathering areas.

#### 6.8.4 NONRESIDENTIAL PEDESTRIAN CONSIDERATION

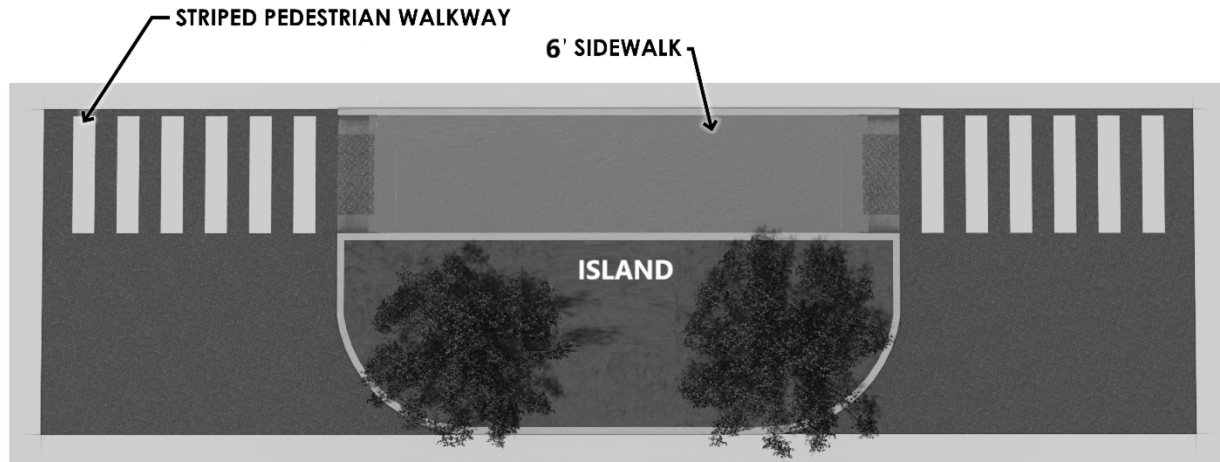
- A. **Purpose.** The purpose of this Section is to ensure the design of buildings and sites support a safe and attractive pedestrian environment. Pedestrian considerations shall clearly be provided for in all site plans.
- B. **Pedestrian Consideration Standards.**
1. **Entrances.** The following requirements for building entrances shall be required:
    - a. A primary facade and primary building entry shall face a street or public right-of-way. Secondary entrances are encouraged along local streets, parking lots, plazas and adjacent buildings. Vehicular openings, such as those for garages, shall not constitute a public entrance.
    - b. Every entrance for a building shall require two of the following elements: Awning or covered entry way of at least three feet in overhang length, variation in building height, arches, columns, and/or architectural details.
    - c. Each principal building on a site should have a clearly defined, highly visible customer entrance featuring no less than two of the following: canopies or porticos, arcades, arches, wing walls, and/or planters.
    - d. Weather protection for pedestrians shall be provided along building frontages abutting a public sidewalk. These may include items such as awnings, canopies, galleries, and arcades.
  2. **Pedestrian Amenities.** All non-residential development shall provide at least four(4) pedestrian amenities. Pedestrian amenities shall be constructed of

materials similar to the principal building materials and shall have direct access to public sidewalk network. Pedestrian amenities may include, but are not limited to:

- a. Patio seating;
  - b. Active use areas;
  - c. Café style tables and seating
  - d. Pedestrian features such as a fountain, water features or clock towers;
  - e. Pedestrian plaza with benches;
  - f. Decorative planters and large potted plants;
  - g. Public art installments such as statutes or monuments;
  - h. Enhanced paving areas and colored pavers;
  - i. Pocket parks or gardens; and
  - j. Focal feature.
3. **Pedestrian Access and Flow.** A continuous, internal pedestrian walkway system shall be provided from a perimeter public sidewalk or right-of-way to the principal customer entrance of all principal buildings on the site. Pedestrian walkways shall feature landscaping, benches, enhanced pavers, seating areas and similar materials/facilities for a minimum 50% of the length of the walkway.
  4. **Sidewalks.** Sidewalks shall be at least 6 feet in width and shall be provided in the following locations:
    - a. Along any street-facing side(s) of any lot that abuts a public street;
    - b. Along the full length of the building(s) along any façade(s) featuring a customer entrance, and
    - c. Along any façade(s) abutting public parking areas.
  5. **Pedestrian Crossings.** Street crossings shall be required whenever a walkway intersects a vehicular area; and/or a pedestrian walkway intersects a vehicular area within a development or along its frontage. Crossings dedicated for pedestrians within vehicle use areas shall be marked in accordance with state and federal law and designed to draw special attention to alert vehicles to its location through:
    - a. Physical articulations such as bump-outs;
    - b. Signage;
    - c. Change in materials;

- d. Colored paint;
- e. Grade change; and/or
- f. A combination of these elements.

Figure 6.8.8. Pedestrian Crossing



#### 6. Landscaping.

- a. A minimum of one foundation planting bed shall be provided for every 250 feet of pedestrian walkway.
  - b. Planting beds shall be spaced at regular intervals and located between curbs and buildings.
  - c. A minimum of one tree and ground covering or mulch shall be installed in each planting bed.
  - d. Such beds shall have at least 300 square feet of area.
7. **Surfaces.** All internal pedestrian walkways shall be distinguishable from driving surfaces through the use of special pavers, bricks, or scored concrete to enhance pedestrian safety and the attractiveness of the walkways.

### 6.8.5 SINGLE FAMILY DESIGN GUIDELINES

- A. **Intent and Applicability.** The standards of this Section are additional design standards for single family (detached and attached) and duplexes intended to supplement the required zoning district development standards and specific use standards defined in



this LDO. The standards in this Section are only required when applicable proposed development voluntary consents through a submitted consent statement. These design guidelines intend to:

1. Ensure that single family and duplex homes feature high quality design;
2. Maintain consistent materials and architectural elements; and
3. Provide variability in home design to avoid repeated and monotonous developments where dwellings appear identical or very similar.

#### B. Exemptions.

1. Single family and duplexes approved prior to the adoption date of this LDO;
2. Single family and duplex not within a subdivision; and
3. Single family and duplex developments which do not voluntarily consent to the standards of this Section.

#### C. Design Guidelines Consent.

1. **Voluntary Consent.** In compliance with 160D-702(b), regulations relating to building design elements may not be applied to any structures subject to regulation under the North Carolina Residential code for One and Two-Family dwellings unless voluntarily consented to by the owners of all the property to which those regulations may be applied as part of and in the course of the process of seeking and obtaining a zoning amendment or a zoning, subdivision, or development approval.
2. **Consent Statement.** If an applicant chooses to comply with the guidelines of this Section, the applicant shall include the following note on any required application/permit and on the final plat:

“The development depicted herein is subject to the Town of Rolesville Single family and Duplex Design Guidelines. I voluntarily consent to the application of these guidelines for all development herein, the acceptance of which shall run with the land regardless of changes in ownership. I recognize that failure to comply with the applicable guidelines following approval is a violation of the Town of Rolesville Land Development Ordinance.”

D. **Facades.** Facades of single family and duplex structures subject to this Section shall comply with the following standards:

1. All front, side and rear facades of the building shall incorporate architectural details, windows and doors (where applicable) that are consistent with the front façade and architectural design or elements.
2. Blank walls shall not be permitted for facades facing a street. Blank walls shall be understood to refer to portions of an exterior façade that does not include windows, doors, columns, pilasters, architectural features greater than one (1) foot in depth, or a substantial material change.
3. Street-facing building facades shall be articulated with wall offsets, in the form of recesses or projections from the primary façade plane, of at least two feet for every 35 linear feet of facade frontage.

E. **Material Changes.**

1. When two or more materials are used on a façade, any change in material shall occur along horizontal lines where the two materials meet.
2. Materials may be used as accents along components of a façade, including around windows and doors.

F. **Prohibited Materials.** The following materials are prohibited to be utilized for single family and duplex buildings:

1. Textured plywood;
2. Vinyl (except where used as an accent material, up to 5% maximum of the facade);
3. Smooth-faced concrete block; and
4. Pre-fabricated steel/metal panels (except where used as an accent material, up to 5% maximum of the facade)

G. **Architectural Variability.** The standards below are intended to prevent and avoid repeated and monotonous developments where dwellings appear identical or very similar. A row (i.e. three (3) or more dwellings in a row, including attached townhomes)

of identical or near-identical buildings along a block shall be prohibited by this Section. Buildings shall have varied and distinctly different façades within any phase of development. Single family dwellings and duplexes may qualify as distinctly different if two (2) of the following standards are met:

1. Variation of color and not a variation of huge shall be required and may count toward meeting the requirement of distinctly different facades;
  2. Variation in exterior materials and utilization of materials on facades may count toward meeting the requirement of distinctly different facades;
  3. Variation of habitable space within a dwelling by 500 square feet or more;
  4. Change in roof materials; and/or
  5. Variation in number of building stories.
- H. **Setbacks.** Where a recessed garage or rear access garage is provided, the front yard setback may be reduced to no less than 10 feet.
- I. **Street-Facing Garages.** Garages which face a street shall require at least two (2) of the following design components:
1. Transparent or opaque windows built into the garage;
  2. Decorative hinges;
  3. Columns, pilasters, posts or vertical design features;
  4. High quality materials other than vinyl or aluminum; and/or
  5. Overhangs, eaves, awning or similar design element that projects at least twelve (12) inches beyond the façade above the garage door

#### 6.8.6. MULTIFAMILY DESIGN STANDARDS

- A. **Intent and Applicability.** Multifamily design standards are additional standards intended to supplement the required zoning district development standards and specific use standards defined in this LDO. These design standards shall be required for all new multifamily buildings (including triplexes and quadplexes) and/or developments. Single family uses, including townhouses or attached single family, are exempt from these

standards.

**B. Standards.** Multifamily design standards shall:

1. Promote and enhance pedestrian scale;
2. Feature appropriate levels of building articulation, transparency and design elements, per the standards of this Section;
3. Limit undesirable design elements and promote desirable design elements, as defined in this LDO;
4. Screen loading and delivery areas and mechanical use areas, including roof top equipment; and
5. Position primary entrance of a building toward a street.

**C. Prohibited Design Elements.** Design elements which do not promote high quality development or redevelopment, and of which should avoid facing public streets and civic space areas, are not allowed and shall include the following prohibited design elements:

1. Large, monotonous, unarticulated blank wall surfaces;
2. Exposed and untreated block walls;
3. False fronts;
4. Lack of architectural features; and
5. Lack of change in materials

**D. Required Design Elements.** Design elements that promote a high-quality development or redevelopment include the following required design elements which shall be included for all multifamily buildings subject to this Section:

1. Consistent architectural style, detail and trim;
2. Facades which break down large elements of mass and scale where appropriate;
3. Architectural details and articulation;
4. Material changes reflective of function and appropriately placed;

5. Canopies, porches, stoops, roof overhangs;
6. Shade and weather protection for ground floor entrances;
7. Design elements such as cornice lines, columns, arches; and
8. Various fenestration and transparency elements

**E. Building Orientation and Placement.**

1. Multifamily buildings which abut streets shall be required to be oriented parallel to the street.
2. Multifamily buildings shall not be oriented at an angle to the street.
3. Developments with several multifamily buildings shall cluster buildings along streets or internal rights-of-way to allow for enhanced open space and recreation areas within the area of the development.
4. Developments with several multifamily buildings shall ensure no more than 60% of the off-street parking area for the entire property is located between the front facade within the front yard of the principal building(s) and the primary abutting street unless the principal building(s) and/or parking lots are screened from view by outparcel development.

**F. Building Facades.** Building form design shall take into account mass, scale and articulation. Building facades shall be designed with a consistent architectural style, detail, and trim features. Facades which face a street, shall provide at minimum four (4) of the following elements:

1. A change in plane, such as an offset, reveal or projecting rib. Such plane projections or recesses shall have a width of no less than six (6) inches (columns, planters, arches, voids, etc.);
2. Architectural details such as raised bands and cornices;
3. Integrated planters that utilize landscaped areas for decorative details;
4. Awnings and or arcade;
5. Covered porches, terraces, lanais or balconies intended for private use by

residents of the multifamily structure;

6. Shutters;
7. Pillars or posts;
8. Bay windows;
9. Roof eaves of at least three (3) inch wide trim
10. Complementary change in color; and/or
11. Complementary change in material/texture.

G. **Transparency.** Building facades shall be designed to have a minimum transparency, through the use of windows and doors, on ground floor and upper floors. Transparency standards shall apply to all sides of a buildings facing a public and/or private street. Transparency shall not be required for service areas, loading/unloading areas, or those areas not visible from the public and/or private street. The minimum transparency for multifamily buildings is 30%, unless stated otherwise in this LDO.

H. **Blank Wall/Articulation Standards.** Blank wall area is understood to be an undesirable design feature and shall be limited as follows. Blank wall area standards shall apply to the front and sides of buildings or any portion of a building fronting a residential area or public or private street, and shall comply with the standards below:

1. *Blank wall area* shall be understood to refer to portions of an exterior façade that does not include windows, doors, columns, pilasters, architectural features greater than one (1) foot in depth, or a substantial material change.
2. Paint shall not be considered a substantial material change.
3. Blank wall area applies in both a vertical and horizontal direction of the building façade and applies to ground floors and upper floors.
4. The maximum continuous blank wall area shall be a maximum 35 square feet without a break by windows, doors, architectural features greater than one (1) foot in depth, or a substantial material change.
5. Except as otherwise regulated, the maximum permitted blank wall length for the rear of buildings shall be 100 feet, or 25% of the building length, whichever

is less.

- I. **Entrances.** The entrances of a residence along the front façade of a multifamily building are the most highly designed side of a building. A primary facade and main building entry shall face the right-of-way, and additional entrances are encouraged facing local streets, parking lots, plazas and adjacent buildings. Buildings adjacent to public rights-of-way shall have at least one entrance providing access to the right-of-way. This entrance shall remain in operation and not be closed off to residents. Separate entrances to upperstory units shall be prohibited from being visible street rights-of-way. All multifamily development and redevelopment shall provide no less than four (4) of the following items for building entrances:
  1. A change in plane indicating a building entrance;
  2. Building wall projection;
  3. Recess of entry at least three (3) feet;
  4. Architectural features and fenestration;
  5. Variety in color, material, texture orienting pedestrians to the building entrance;
  6. Ornamental doors;
  7. Covered entries including awnings, arcade or eave;
  8. Windows;
  9. Porches;
  10. Arches, columns, stoops, cornices.
- J. **Porches/Balconies.**
  1. Porches, including covered porches, stoops, awnings, and bay windows and wings may only extend into the front yard up to five (5) feet. Encroachments may be permitted up to 50% of the total length of the respective façade.
  2. Balconies shall project or recess a minimum of two (2) feet from the façade.
- K. **Accessory Structures.** All accessory structures for multifamily buildings and/or developments shall comply with the following standards:

1. Garages, carports, or covered parking areas shall be provided from local streets or alleys. Entrances to parking garages are exempt from this standard and may be accessed from street rights-of-way, alleys or internal courtyards or accesses.
2. Accessory structures shall have similar exterior materials, colors and roof forms as the principal structure.

#### L. **Miscellaneous Requirements.**

1. All utility equipment (including meters and conduits) attached to a building shall be painted to match the primary surface color of the wall on which it is attached, painted to match accent colors used on the façade, or be blocked from view (where practicable) through the use of landscaping or screens.
2. Downspouts shall be painted to match the primary surface color of the wall on which it is attached, be painted to match accent colors used on the façade, or be constructed of materials that complement the architectural style of the structure.
3. Refuse collection areas shall be distributed evenly throughout multiple building multifamily developments.
4. Roofing materials should complement the color and texture of the building façade.

### 6.8.7. INDUSTRIAL DESIGN STANDARDS

A. **Design Standards.** Due to the nature of industrial uses, limited design standards are required for buildings housing industrial uses. The following design standards are required for buildings used for industrial uses, as defined in this LDO:

1. **Industrial Building Facades.** Industrial building facades shall:
  - a. Include windows and pedestrian features such as roof overhangs over identifiable public entrances to the building.
  - b. Include well defined public utilizing projections, overhangs or canopies, and similar design elements.
  - c. Be faced in a compatible and consistent manner for all elevations



facing a street right-of-way or where visible from an existing right-of-way.

2. **Blank Wall Length.** Maximum permitted blank wall length for industrial buildings shall be 100 feet, or 25% of the building length, whichever is greater. Blank wall lengths greater than 100 feet or 25% of the building length, whichever grater, shall require the introduction of physical articulations or material change.
3. **Lighting.** Industrial use buildings and required parking areas shall not exceed a maximum 30' fixture height and 0.5 foot-candle intensity at the perimeter boundary.
4. **Equipment and Loading Areas.** Equipment and loading areas shall comply with the following standards:
  - a. All building roofs are to be uncluttered.
  - b. Cooling towers, HVAC and ventilation fans, mechanical units, etc., shall be either screened using a pitched roof façade, or parapets or constructed adjacent to the building and properly screened from view by either landscaping or the use of similar building materials.
  - c. Ground-mounted equipment and mechanical equipment visible from a public right-of-way shall be screened from view by an opaque wall, landscaping, or combination thereof.
  - d. Except where regulated otherwise, walls and landscaping shall have a minimum opacity of 85% and shall be the height of the equipment or facility plus 6 inches.
  - e. Where the configuration of the building or site makes it impractical to locate the loading areas in the rear of the building, front or side loading areas may be proposed with additional screening or landscape requirements.
5. **Parking.** Parking for industrial use buildings be located on the sides or rear of buildings.

6. **Foundation Plantings.** Foundation plantings shall be provided per the standards below:
- a. Foundation plantings shall be required along a minimum of 50% of the building facing a public or private street right-of-way.
  - b. Service and loading areas shall be excluded from these calculations.
  - c. The average width of the foundation planting bed must be a minimum of 3 feet.
  - d. Plantings shall consist of evergreen and deciduous ornamental shrubs. Shrubs shall be planted at a minimum size of 24 inches at time of installation.

Figure 6.8.9. Industrial Use Foundation Plantings



7. **Prohibited Elements.** The following design elements are prohibited:
- a. Reflective surfaces;
  - b. Exposed and untreated block walls; and
  - c. Barbed wire and chain link fencing, unless required by law for security or

safety purposes.

[Back to Agenda](#)

## 8. TRAFFIC IMPACT (GROUP 2)

A. **Purpose and Intent.** The purpose of this Section is to ensure that new development and redevelopment does not adversely affect the capacity of streets and intersections to safely and efficiently accommodate vehicular traffic. The intent of this section is to provide the information necessary to allow the Town to assess the adequacy of available capacity to meet existing, projected and proposed demand at adopted levels of service.

More specifically, this Section intends to:

1. Provide a standard set of analytic tools and format that shall be used to identify a development's expected traffic impact on the road system;
2. Identify traffic problems associated with access to and from a development site; and
3. Require Traffic Impact Analysis (TIA) for to develop improvements or site design modifications needed to solve potential adverse traffic impacts and access problems.

B. **Traffic Impact Analysis (TIA) Defined.** A TIA shall include information to:

1. Evaluate impacts of site-generated traffic on intersections and streets within an impacted area;
2. Evaluate impacts to site access points under projected traffic loads;
3. Ensure site accesses meet professional and accepted engineering design standards;
4. Evaluate site-generated traffic impacts on traffic flow on public streets within the designated impact area;
5. Evaluate the potential for impact on residential streets in the designated impact area; and
6. Identify transportation infrastructure needs and any costs created by the development and any necessary cost sharing for the improvements.

C. **Applicability.** A TIA is required prior to approval of any zoning map amendment (Rezoning), special use permit, site plan and/or preliminary plat that exceeds the following thresholds in one or more development applications submitted for a parcel or parcels under common ownership:

1. The proposed development, or phases of development, or contiguous tracts under the same ownership, would accommodate or could be expected to generate 100 or more added vehicle trips to or from the site during the peak traffic hour (based on the proposed development or the adjacent roads and intersections); or
2. The proposed development, or phases of development, or contiguous tracts under the same ownership, would accommodate or could be expected to generate 1,000 or more added vehicle trips to or from the site during a 24-hour period (based on the proposed development or the adjacent roads and intersections).
3. In calculating the number of added vehicle trips expected to be generated, trip generation rates must be obtained from the most recent editions of Trip Generation and Trip Generation Handbook, published by the Institute of Transportation Engineers (ITE). Only "new" vehicle trips will be counted; no pass-by or internal trip capture will be used in calculating "added vehicle trips."
4. The Land Development Administrator (LDA) may waive the requirement for a TIA upon determining that a TIA is not necessary to determine needed road improvements, that adequate capacity exists to serve the proposed development, and that no unsafe or hazardous conditions will be created by the development as proposed. This decision shall be documented with specific reasoning provided by the LDA.

D. **Preparation of TIA.**

1. The cost of the TIA shall be the responsibility of the applicant of the development. The applicant shall utilize the services of an on-call consultant, hired or retained by the Town, to perform the required TIA.

2. All costs of the TIA by the on-call consultant shall be the responsibility of the applicant, not the Town. The required TIA shall be sealed by a licensed professional engineer.

**E. Level of Service.**

1. The traffic impact analysis must demonstrate that the proposed development would not cause build-out-year, peak-hour levels of service on any arterial or collector road or intersection within the study area to fall below Level of Service (LOS) "D," as defined by the latest edition of the highway capacity manual, or, where the existing level of service is already LOS "E" that the proposed development would not cause the LOS to fall to the next lower letter grade.
2. If the road segment or intersection is already LOS "F," the traffic impact analysis must demonstrate that the proposed development, with any proposed improvements, would not cause build-out year peak-hour operation to degrade more than five percent of the total delay on any intersection approach.
3. The spacing of access points within a proposed development shall comply with all applicable Town, state and American Association of State Highway and Transportation Officials (AASHTO) standards (where applicable).
4. Access points shall provide for adequate sight distance for the safety of vehicles and pedestrians. To the extent that application proposes specific access points, the analysis must also demonstrate that the proposed development would avoid unsafe conditions on adjacent roads. This requirement applies to signalized and unsignalized intersections.
5. On-site Internal circulation shall not interfere with the flow of traffic on any public street.
6. Failure to meet these standards may serve as a basis for denying the application, or for conditioning approval of the application or application on provision of improvements or other mitigation measures needed to correct

deficiencies due to the proposed development's impacts. This shall be determined or agreed upon by the Town Board of Commissioners.

- F. **Study Area.** The TIA shall address the proposed development's traffic impacts on:
1. Roads and intersections within the development site, as designated by Town staff or the TIA preparing consultant;
  2. Road segments and intersections abutting the development site, as designated by Town staff or the TIA preparing consultant; and
  3. Off-site road segments and intersections where traffic from the proposed development is expected to account for at least ten (10) percent of the road's or intersection approach leg's average daily traffic.
- G. **Required Traffic Impact Analysis Contents.** A TIA shall be based on peak hour traffic and trips and contain all the information below:
1. A description of the project and site, including charts, graphics, and narrative. The description of the project and site shall include access plans, phasing plans, land uses, and intensity of uses;
  2. Characteristics of the site and adjacent land uses and expected development in the study area;
  3. The location and characteristics (functional classification, number of lanes, speed limit, signalization) of roads and intersections in the study area and existing traffic volumes and conditions (including level of service) of those roads and intersections;
  4. A description of the location and traffic-related characteristic (land use, intensity, expected date of full build-out and occupancy, vehicular access points and characteristics, etc.) of the proposed development and other developments in the study area that are under construction, approved or pending approval, as well as roadway and other transportation facilities and improvements in the impact area that are under construction, programmed or planned;
  5. Projections of future background traffic (existing traffic volumes forecasted to buildout year levels based on agreed upon traffic growth rate) plus traffic

- generated by other development in the study area that is under construction, approved, or pending approval, future site traffic and total future traffic (the sum of future background traffic and future site traffic);
6. Future background and site traffic projections must be made for the peak hours (as identified by Town planning staff or review consultant) of the adjacent road segments and intersections and for the development's expected full build-out and occupancy date, and must include trip generation, trip distribution (using preapproved distribution by Town planning staff or review consultant), and traffic assignment estimates;
  7. Analyses of the proposed development's incremental impacts on:
    - a. Road capacity during peak hours at all site access points and at road segments and intersections in the study area (including determination of the level of service for the road segments and intersections, queuing vs. existing/proposed storage);
    - b. The need for signalization of intersections in the study area; and
    - c. Existing or potential high accident areas (as references in the adopted transportation plan or determined by Town planning staff.
  8. A qualitative analysis/review of sight distance at access points, when required by planning staff or the review consultant;
  9. A description of the location, nature, and extent of site access and transportation improvements and other measures recommended to mitigate any failure to meet traffic operation standards due to the proposed development's traffic impacts, including the expected effectiveness of each mitigation measure in addressing deficiencies, the feasibility of implementing the measures, suggested allocation of responsibility for funding and implementing the measures, the measures' relationship to planned public transportation improvements, and a suggested time schedule for the implementation of the measures;



10. Résumés of the preparers of the analysis, demonstrating specific education, training, and professional experience in traffic-related analyses and, if the analysis involves roadway or traffic signal design or traffic engineering;
11. Identification of all assumptions and data sources used in its projections, analyses, and recommendations; and
12. If the TIA accompanies a rezoning application, its description of the proposed development must indicate the full range of land uses and development intensities allowed by the proposed zoning and identification of the allowable land use/intensity that can be expected to have the greatest traffic impact on peak hour traffic on adjacent roads and intersections. This highest impact land use/intensity will constitute the "proposed development" for which traffic projections are made and traffic impacts are analyzed.

#### H. Mitigation Alternatives.

1. In situations where the LOS standards are projected to be exceeded for the buildout year for residential and the 10-year projection for commercial and mixed-use developments, the analysis shall evaluate each of the following alternatives for achieving the traffic service standards:
  - a. Identify additional right-of-way and street improvements needed to implement mitigation strategies;
  - b. Identify suggested phasing of development and transportation improvements where needed to maintain compliance with LOS standards;
  - c. For developments impacting constrained facilities, identify access, pedestrian, transit or other improvements required to mitigate the impacts of the proposed development on the constrained facility; and
  - d. In the event that the proposed mitigation is not permitted by NCDOT, the development shall provide the most effective mitigation to improve LOS allowed by NCDOT.

[Back to Agenda](#)

## 9. SUBDIVISION REGULATIONS (GROUP 2 AND 3)

### 9.1 INTRODUCTORY AND LEGAL PROVISIONS

#### 9.1.1 AUTHORITY AND APPLICABILITY

- A. **Authority.** This Section is adopted under the authority of G.S. 160 D, Article 8, Subdivision Regulation. The purpose of this Section is to promote functional, safe and aesthetically pleasing subdivision and development of property and to establish procedures and standards for the development and subdivision of land within the territorial jurisdiction of the Town of Rolesville. It is further designed to provide for the:
1. Orderly growth and development of the Town of Rolesville;
  2. Coordination of streets and highways within proposed subdivisions with existing or planned streets and highways and with other public facilities;
  3. Dedication or reservation of recreation areas serving residents of the immediate neighborhood within the subdivision and of rights-of-way or easements for street and utility purposes;
  4. Distribution of population and traffic in a manner that will avoid congestion and overcrowding and will create conditions essential to public health, safety, and the general welfare; and
  5. This Section is designed to further facilitate adequate provision of water, sewerage, parks, schools, and playgrounds, and also to facilitate the further resubdivision of larger tracts into smaller parcels of land.
- B. **Applicability.** For the purpose of this Section, consistent with G.S. 160D-802, subdivision regulations shall be applicable to all divisions of a tract or parcel of land into two or more lots, building sites, or other divisions, in any zoning district, when any one or more of those divisions is created for the purpose of sale or building development (whether immediate or future) and shall include 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 authorized by this Section:

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 Rolesville LDO.
2. The division of land into parcels greater than ten 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 acres into not more than three 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 Rolesville LDO.
5. The division of a tract into parcels in accordance with the terms of a probated will or in accordance with interstate succession under Chapter 29 of the General Statutes.

### 9.1.2 JURISDICTION

- A. The regulations contained in this Section, as provided in G.S. 160D-200; -202; -903 shall govern each subdivision of land within the corporate limits of the Town as now or hereafter established and each subdivision of land situated within the extraterritorial jurisdiction of the Town, as shown on the official extraterritorial boundary map.

### 9.1.3 SUBDIVISION TYPES

#### 9.1.3.1. Major and Minor Subdivision.

- A. **Major Subdivision.** All subdivisions shall be considered major subdivisions except those defined as minor subdivisions in this Section.
- B. **Minor Subdivision.** A minor subdivision is defined as one involving no new public or private streets or roads, or right-of-way dedication, no easements, no utility extension, where the entire tract to be subdivided is five acres or less in size, and where four or fewer lots result after the subdivision is completed.

**9.1.3.2. Conservation Subdivision Option**

- A. **Purpose and Intent.** The purpose and intent of a conservation subdivision is to provide a development option for land in the rural and suburban portions of the Town that provides development flexibility to build on smaller lots when open space exceeds the minimums of Section 6.3.1: Open Space. Conservation subdivisions shall:
1. Provide a residential development pattern that permits flexibility of design in order to promote environmentally sensitive and efficient uses of the land;
  2. Preserve in perpetuity unique or sensitive natural resources such as groundwater, floodplains, wetlands, streams, steep slopes, woodlands, and wildlife habitat; preserve important historical and archaeological sites;
  3. Permit clustering of houses and structures on less environmentally sensitive soils which will reduce the amount of infrastructure, including paved surfaces and utility easements, necessary for residential development; reduce erosion and sedimentation by minimizing land disturbance and removal of vegetation in residential development;
  4. Promote interconnected greenways and corridors throughout the community; promote contiguous greenspace with adjacent jurisdictions;
  5. Encourage interaction in the community by clustering houses and orienting them closer to the street, providing public gathering places and encouraging the use of parks and community facilities as focal points in the neighborhood;
  6. Encourage street designs that reduce traffic speeds and reliance on main arteries; promote construction of convenient landscaped walking trails and bike paths both within the subdivision and connected to neighboring communities, businesses, and facilities to reduce reliance on automobiles;
  7. Conserve scenic views and reduce perceived density by maximizing the number of houses with direct access to and views of open space; and
  8. Protect prime agricultural land and preserve farming as an economic activity.
- B. **Applicability.** Conservation subdivisions shall be limited to development of single family detached residential dwellings on individual lots. Conservation subdivisions shall not be

available for any other form of development or dwelling type. Single family detached residential subdivisions of more than five lots in the LDR and MDR zoning districts may be developed as a conservation subdivision, in accordance with the standards of this Section. Conservation subdivisions shall not be permitted in any other zoning districts.

- C. **Ownership of Development Site.** The tract of land to be subdivided may be held in single and separate ownership or multiple ownership. If held in multiple ownership, however, the site shall be developed according to a single plan with common authority and common responsibility.
- D. **Housing Density Determination.** The maximum number of lots in the Conservation Subdivision shall be determined by either of the following two methods, at the discretion of the applicant:
1. **Calculation:** The maximum number of lots is determined by dividing the area of the tract of land by the minimum lot size specified in the underlying zoning. In making this calculation, the following shall not be included in the total area of the parcel:
    - a. Slopes more than 25 percent of at least 5,000 square feet contiguous area;
    - b. The 100-year floodplain;
    - c. Bodies of open water more than 5,000 square feet contiguous area; and
    - d. Wetlands that meet the definition of the Army Corps of Engineers pursuant to the Clean Water Act.
  2. **Yield Plan:** The maximum number of lots is based on a conventional subdivision design plan, prepared by the applicant, in which the tract of land is subdivided in a manner intended to yield the highest number of lots possible. The plan does not have to meet formal requirements for a site design plan, but the design must be capable of being constructed given site features and all applicable regulations.
- E. **Minimum Lot Sizes.** The minimum lot size may be reduced by no more than 50 percent of the lot size currently required in the applicable underlying zoning district.

1. All lots must still meet all applicable Wake County Health Department requirements.
  2. Building setbacks shall be proportionally reduced from underlying zoning district standards in accordance with individual lot area.
  3. The building envelop with setbacks for each house is to be identified don the final plat of each phase prepared for development.
- F. **Site Analysis Required as part of Sketch Plan.** As part of the sketch plan submitted, applicants shall prepare a site analysis. The purpose of this site analysis is to ensure that the important site features have been adequately identified prior to the creation of the site design and that the proposed Protected Open Space will meet the requirements of this article. The preliminary site plan shall include the following features:
1. Existing property boundaries;
  2. Proposed lot layouts for the conservation subdivision;
  3. All streams, rivers, lakes, wetlands and other hydrologic features, including all FEMA-designated floodplains and floodways;
  4. Areas subject to the Town of Rolesville riparian buffer requirements;
  5. Topographic contours of no less than five-foot intervals;
  6. All Primary and Secondary Conservation Areas labeled by type
  7. General vegetation characteristics, especially lowland and upland hardwood stands;
  8. General soil types;
  9. The planned location of Protected Open Space;
  10. Existing roads and structures;
  11. Potential connections with existing greenspace and trails;
  12. All necessary land area calculations measured in acres and/or square feet to ensure the compliance with all sections of this ordinance.

- G. **Protected Open Space Management Plan Required.** A Protected Open Space management plan, as described below shall be prepared and submitted prior to the issuance of final subdivision plat approval.
- H. **Instrument of Permanent Protection Required.** An instrument of permanent protection, such as a conservation easement or permanent restrictive covenant and as described in below shall be placed on the Protected Open Space concurrent with the issuance of final subdivision plat approval.
- I. **Other Requirements.** The Applicant shall adhere to all other applicable requirements in the unified development ordinance.
- J. **Protected Open Space - Standards to Determine Protected Open Space**
1. The minimum Protected Open Space shall comprise at least 40 percent of the gross tract area.
  2. The following are considered Primary Conservation Areas and are required to be included within the Protected Open Space unless the Applicant demonstrates that this provision would constitute an unusual hardship and be counter to the purposes of this article:
    - a. The 100-year floodplain.
    - b. Riparian zones as specified in Section 6.1 of the unified development ordinance.
    - c. Slopes of greater than 25 percent with at least 5,000 square feet contiguous area.
    - d. Wetlands that meet the definition used by the Army Corps of Engineers pursuant to the Clean Water Act.
    - e. Sites identified in the Wake County Natural Heritage Inventory and any updates.
    - f. Other populations of endangered or threatened species, or habitat for such species.
    - g. Archaeological sites, cemeteries and burial grounds.

3. The following are considered Secondary Conservation Areas and should be included within the Protected Open Space to the maximum extent feasible.
  - a. Important historical sites, where previously designated or eligible for the National Register of Historic Places.
  - b. Historic sites and structures identified in the most current inventory conducted by the Wake County Historic Preservation Commission.
  - c. Existing healthy, native forests of at least one-acre contiguous area.
  - d. Individual existing healthy trees greater than 12 inches caliper, as measured four feet above the average adjacent grade.
  - e. Other significant natural features and scenic viewsheds such as ridgelines, peaks, and rock outcroppings, particularly those that can be seen from public roads.
  - f. Prime agricultural lands of at least five acres contiguous area.
  - g. Existing trails that connect the tract to neighboring areas.
4. Above-ground utility rights-of-way and areas of impervious surface less than 513 square feet (three parking spaces) may be included within the Protected Open Space but cannot be counted towards the 40 percent minimum area requirement (exception: historic structures and existing trails may be counted).
5. At least 25 percent of the Protected Open Space shall consist of land that is suitable for building.
6. At least 75 percent of the Protected Open Space shall be in a contiguous tract. The Protected Open Space shall adjoin any neighboring areas of Protected Open Space, other protected areas, and non-protected natural areas that would be candidates for inclusion as part of a future area of Protected Open Space.
7. For projects, less than 50 acres, only two separate areas will be used to calculate the required Protected Open Space. For projects greater than 50 acres, only three areas will be used to calculate the required Protected Open Space.



8. The Protected Open Space shall be directly accessible to the largest practicable number of lots within the subdivision. Non-adjoining lots shall be provided with safe, convenient access to the Protected Open Space.

**K. Permitted Uses of Protected Open Space**

1. Uses of Protected Open Space may include the following:
  - a. Conservation of natural, archeological or historic resources;
  - b. Meadows, woodlands, wetlands, wildlife corridors, game preserves, or similar conservation-oriented areas;
  - c. Walking or bicycle trails, provided they are constructed of porous paving materials;
  - d. Passive recreation areas, such as open fields;
  - e. Active recreation areas provided that they are limited to no more than ten percent of the total Protected Open Space and are not located within Primary Conservation Areas. Active recreation areas may include impervious surfaces. Active recreation areas in excess of this limit must be located outside of the Protected Open Space.
  - f. Agriculture, horticulture, silviculture or pasture use, provided that all applicable best management practices are used to minimize environmental impacts, and such activities are not conducted within Primary Conservation Areas;
  - g. Landscaped stormwater management facilities, community wastewater disposal systems, and individual wastewater disposal systems located on soils particularly suited to such uses. Such facilities shall be located outside of Primary Conservation Areas;
  - h. Easements for drainage, access, and underground utility lines;
  - i. Above-ground utility structures and areas of impervious surface less than 513 square feet (three parking spaces), provided they are not located in Primary Conservation Areas;

- j. Other conservation-oriented uses are compatible with the purposes of this ordinance.

#### L. **Prohibited uses of Protected Open Space**

1. Golf courses;
2. Roads, parking lots and impervious surfaces, except as specifically authorized in the previous sections;
3. Agricultural and forestry activities not conducted according to accepted Best Management Practices;
4. Impoundments;
5. Other activities as determined by the Applicant and recorded on the legal instrument providing for permanent protection.

#### M. **Ownership and Management of Protected Open Space**

1. **Ownership of Protected Open Space.** A homeowners association representing residents of the conservation subdivision shall own the Protected Open Space. Membership in the association shall be mandatory and automatic for all homeowners of the subdivision and their successors. The Homeowners' Association shall have lien authority to ensure the collection of dues from all members. The responsibility for maintaining the Protected Open Space and any facilities located thereon shall be borne by the Homeowner's Association.
2. Prior to final plat approval, the Board of Commissioners shall have the final right to decide if the active recreation area will become part of the Town of Rolesville's Parks and Recreation system.
3. **Management Plan.** The applicant shall submit a Plan for Management of Protected Open Space and Common Facilities ("Plan") that:
  - a. Allocates responsibility and guidelines for the maintenance and operation of the Protected Open Space and any facilities located

thereon, including provisions for ongoing maintenance and long-term capital improvements;

- b. Estimates the costs and staffing requirements needed for maintenance and operation of, and insurance for, the Protected Open Space and outlines the means by which such funding will be obtained or provided;
  - c. Provides that any changes to the Plan be approved by the Board of Commissioners; and
  - d. Provides for enforcement of the Plan.
4. In the event the party responsible for maintenance of the Protected Open Space fails to maintain all or any portion in reasonable order and condition, the Town of Rolesville may assume responsibility for its maintenance and may enter the premises and take corrective action, including the provision of extended maintenance. The costs of such maintenance may be charged to the Homeowner's Association, or to the individual property owners that make up the Homeowner's Association, and may include administrative costs and penalties. Such costs shall become a lien on all subdivision properties.

**N. Legal Instrument for Permanent Protection.** The Protected Open Space shall be protected in perpetuity by a binding legal instrument that is recorded simultaneously with the final subdivision plat. The instrument shall be one of the following:

1. A permanent conservation easement in favor of either:
  - a. A land trust or similar conservation-oriented non-profit organization with legal authority to accept such easements. The organization shall be bona fide and in perpetual existence, and the conveyance instruments shall contain an appropriate provision for retransfer in the event the organization becomes unable to carry out its functions; or
  - b. A governmental entity with interest in pursuing goals compatible with the purposes of this ordinance. If the entity accepting the easement is not the Town of Rolesville, then a third right of enforcement favoring the Town of Rolesville shall be included in the easement.

2. A Permanent restrictive covenant for conservation purposes in favor of another governmental entity, if approved by the Town of Rolesville.
3. An equivalent legal tool that provides permanent protection, if approved by the Town of Rolesville.
4. The instrument for permanent protection shall include clear restrictions on the use of the Protected Open Space. These restrictions shall include all restrictions contained in this article, as well as any further restrictions the Applicant chooses to place on the use of the Protected Open Space.

#### **9.1.4 PLAT RECORDATION**

- A. After the effective date of this LDO, no subdivision plat of land with the Town of Rolesville's jurisdiction shall be filed or recorded until it has been submitted to and approved by the Board of Commissioners of the Town of Rolesville and until this approval is entered in writing on the face of the plat by the Mayor and attested by the Town Clerk.
- B. The Register of Deeds shall not file or record a plat of a subdivision of land located within the territorial jurisdiction of the Town that has not been approved in accordance with these provisions. The Clerk of Superior Court shall not order or direct the recording of a plat if the recording would be in conflict with this Section.
- C. Pursuant to G.S. 160D-806, the approval of a plat shall not be deemed to constitute or effect the acceptance by the Town of Rolesville of the dedication of any street or other ground, public utility line, or other public facility shown on the plat.
  1. The Board of Commissioners of the Town of Rolesville may, by resolution, accept any dedication made to the public of lands or facilities for streets, parks, public utility lines, or other public purposes, when the lands or facilities are located within its subdivision regulation jurisdiction.
  2. Acceptance of dedication of lands or facilities located within the subdivision regulation jurisdiction but outside the corporate limits of the Town of Rolesville shall not place on the Town any duty to open, operate, repair, or maintain any street, utility line, or other land or facility, and the Town of Rolesville shall in no

event be held to answer in any civil action or proceeding for failure to open, repair or maintain any street located outside its corporate limits.

#### 9.1.5 STREETS AND SERVICES

- A. No street shall be maintained by the Town nor street dedication accepted for ownership and maintenance in any subdivision for which a plat is required to be approved unless and until such final plat has been approved by the Town of Rolesville. Water, sewer, electric or other public services shall not be extended to or connected with, any subdivision for which a plat is required to be approved unless and until the requirements set forth in this Section have been met.

#### 9.1.6 SCHOOL SITES

- A. **Reservation of School Site.** Consistent with G.S. 160D-804(f), if the adopted Comprehensive Plan specifies a specific location and size of a school site to be reserved, the Board of Commissioners of the Town of Rolesville shall immediately notify the Board of Education whenever a sketch plan for a subdivision is submitted which includes all or part of a school site to be reserved.
- B. **Determination.** The Board of Education shall promptly decide whether the site shall be reserved. If the Board of Education does not wish to reserve the site, it shall so notify the Board of Commissioners of the Town of Rolesville. If the Board does wish to reserve the site, the subdivision shall not be approved without such reservation.
- C. **Timing.** The Board of Education shall then have 18 months beginning on the date of final approval of the subdivision within which to acquire the site by purchase or by initiating condemnation proceedings. If the Board of Education has not purchased or begun proceedings to condemn the site within 18 months, the subdivider may treat the land as freed of the reservation.

#### 9.1.7 CONFORMANCE WITH TOWN PLANS

- A. All subdivisions shall comply with the principles, goals and/or objectives of the Rolesville Comprehensive Plan and all other officially adopted plans and policies of the Town.
1. Where a proposed subdivision includes any part of a thoroughfare or collector street which has been designated as such upon the officially adopted transportation plan of the Town, such part of such thoroughfare or collector

street shall be platted by the subdivider in the location shown on the plan and at the width specified in this LDO. Traffic impact studies are required per the standards of Section 8: Impact Study.

#### **9.1.8 VARIANCES**

- A. Variances to the standards defined in this Section may be authorized by the Board of Commissioners because of the following:
  - 1. Severe topographical or other conditions peculiar to the site; or
  - 2. When strict adherence to the provisions of this LDO would cause an unnecessary hardship.
- B. The variance(s) granted by the Board of Commissioners of the Town of Rolesville shall only be to the extent that is absolutely necessary and not to an extent which would violate the intent of this ordinance. Variances shall require an evidentiary hearing under quasi-judicial procedures.

#### **9.1.9 PENALTIES FOR VIOLATION**

- A. After the effective date of this ordinance, any person who, being the owner or agent of the owner of any land located within the territorial jurisdiction of this LDO, thereafter subdivides their land in violation of this ordinance 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 the terms of this ordinance and recorded in the Office of the Wake County Register of Deeds, shall be guilty of a misdemeanor.
- B. The description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring land shall not exempt the transaction from this penalty.
- C. The Town, through its attorney or other official designated by the Board of Commissioners of the Town of Rolesville, may enjoin illegal subdivision, transfer or sale of land by action for injunction. Further, violators of this ordinance shall be subject, upon conviction, to fine and/or imprisonment as provided by G.S. 14-4.
- D. Each day's continuing violation of this ordinance shall be a separate and distinct offense.

- E. This Section may be enforced by appropriate equitable remedies issuing from a court of competent jurisdiction.
- F. Nothing in this Section shall be construed to limit the use of remedies available to the Town. The Town may seek to enforce this ordinance by using any one, all, or a combination of remedies.

#### **9.1.10 FEES AS PRESCRIBED**

- A. Fees for the inspection of required improvements shall be charged according to a schedule adopted by the Board of Commissioners of the Town of Rolesville.

#### **9.1.11 ABROGATION**

- A. It is not intended that this LDO repeal, abrogate, annul, impair, or interfere with existing easements, covenants, deed restrictions, agreements, rules, regulations, or permits previously adopted or issued pursuant to law. However, where this LDO imposes greater restrictions, the provisions of this LDO shall govern.
- B. Wherever the requirements of this LDO are at variance with other requirements of lawfully adopted rules, regulations, ordinances, deed restrictions, or covenants, the most restrictive, or that imposing the highest standards, shall govern.

#### **9.1.12 PROCEDURE FOR REVIEW AND APPROVAL OF SUBDIVISION PLATS**

- A. Pursuant to G.S. 160D-804, a final plat shall be prepared, approved, and recorded pursuant to the provisions of this LDO whenever any subdivision of land takes place.
- B. Pursuant to G.S. 160D-803, no final plat of a subdivision within the jurisdiction of the Town of Rolesville shall be recorded by the Register of Deeds of Wake County until it has been approved by the Board of Commissioners of the Town of Rolesville as provided herein. To secure such approval of a final plat, the subdivider shall follow the procedures established in this Section.
- C. The review and approval procedures for Preliminary and Final Plats are defined in Section 2 of this LDO and corresponding administrative manual.

**9.1.13. RECOMBINATION OF LAND**

- A. Any plat or any part of any plat may be vacated by the owner at any time before the sale of any lot in the subdivision by a written instrument to which a copy of such plat shall be attached, declaring the same to be vacated.
- B. Such an instrument shall be approved by the same agencies as approved the final plat. The governing body may reject any such instrument which abridges or destroys any public rights in any of its public uses, improvements, street or alleys.
- C. Such an instrument shall be executed, acknowledged or approved and recorded and filed in the same manner as a final plat; and being duly recorded or filed shall operate to destroy the force and effect of the recording of the plat so vacated, and to divest all public rights in the streets, alleys, and public grounds, and all dedications laid out or described in such plat.
- D. When lots have been sold, the plat may be vacated by all owners of the lots in such plat joining in the execution of such writing.

**9.1.14. REQUIRED NOTES ON FINAL PLATS**

- A. **Minor Subdivision Final Plats.** The following signed certificate shall appear on all five copies of a minor subdivision final plat.

- 1. **Certificate of Ownership and Dedication.**

*I hereby certify that I am the owner of the property shown and describe hereon, which is located in the subdivision jurisdiction of the Town of Rolesville and that I hereby adopt this plan of subdivision with my free consent and establish minimum building setback lines as noted.*

\_\_\_\_\_  
Owner

\_\_\_\_\_  
Date

- 2. **Certificate of Survey and Accuracy.**



*In accordance with G.S. § 47-30, there shall appear on each plat a certificate by the person under whose supervision such survey or such plat was made, stating the origin of the information shown on the plat, including recorded deed and plat references shown thereon. The ratio of precision as calculated by latitudes and departures before any adjustments must be shown. Any lines on the plat that were not actually surveyed must be clearly indicated and a statement included revealing the source of information. The execution of such certificate shall be acknowledged before any officer authorized to take acknowledgments by the registered land surveyor preparing the plat. All plats to be recorded shall be probated as required by law for the registration of deeds.*

*Where a plat consists of more than one sheet, only the first sheet must contain the certification and all subsequent sheets must be signed and sealed.*

*The certificate required above shall include the source of information for the survey and data indicating the accuracy of closure of the plat before adjustments and shall be in substantially the following form:*

*"I \_\_\_\_\_, certify that this plat was drawn under my supervision from (an actual survey made under my supervision)(deed description recorded in Book \_\_\_, Page \_\_\_, etc.) (other); that the boundaries not surveyed are shown as broken lines platted from information found in Book \_\_\_, Page \_\_\_; that this plat was prepared in accordance with G.S. 47-30 as amended. Witness my original signature, registration number and seal this \_\_\_\_\_ day \_\_\_\_\_ of \_\_\_\_\_, 20\_\_.*

\_\_\_\_\_  
*Surveyor*

*Seal or Stamp*

\_\_\_\_\_  
*Registration Number"*

*The certificate of the Notary shall read as follows:*

*"North Carolina, \_\_\_\_\_ County.*

*I, \_\_\_\_\_, a Notary Public of the County and State aforesaid, certify that \_\_\_\_\_, a registered land surveyor, personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this day of \_\_\_\_\_, 20\_\_.*

\_\_\_\_\_  
*Notary Public*

*Seal or Stamp*

*My commission expires \_\_\_\_\_"*

**B. Major Subdivision Final Plats.** The following signed certificate shall appear on all five copies of a major subdivision final plat.

**1. Certificate of Ownership and Dedication.** *I hereby certify that I am the owner of the property shown and described hereon, which is located in the subdivision jurisdiction of the Town of Rolesville and that I hereby adopt this plan of subdivision with my free consent, establish minimum building setback lines, and dedicate all streets, alleys, walks, parks, and other sites and easements to public or private use as noted. Furthermore, I hereby dedicate all sanitary sewer, storm sewer and water lines to the Town of Rolesville.*

\_\_\_\_\_  
*Date*                      *Owner(s)"*

**2. Certificate of Survey and Accuracy.** *In accordance with G.S. § 47-30, there shall appear on each plat a certificate by the person under whose supervision such survey or such plat was made, stating the origin of the information shown on the plat, including a recorded deed and plat references shown thereon. The ratio of precision as calculated by latitudes and departures before any adjustments must be shown. Any lines on the plat that were not actually surveyed must be clearly indicated and a statement included revealing the source of information. The execution of such certificate shall be acknowledged before any officer authorized to take acknowledgments by the registered land surveyor preparing the plat. All plats to be recorded shall be probated as required by law or the registration of*

*deeds. Where a plat consists of more than one sheet, only the first sheet must contain the certification and all subsequent sheets must be signed and sealed.*

*The certificate required above shall include the source of information for the survey and data indicating the accuracy of closure of the plat before adjustments and shall be in substantially the following form:*

*"I \_\_\_\_\_, certify that this plat was drawn under my supervision from (an actual survey made under my supervision)(deed description recorded in Book \_\_\_\_, Page \_\_\_\_, etc.)*

*(other); that the boundaries not surveyed are shown as broken lines platted from information found in Book \_\_\_\_, Page \_\_\_\_; that this plat was prepared in accordance with G.S. 47-30 as amended. Witness my original signature, registration number and seal this day \_\_\_\_\_ of \_\_\_\_\_, 20\_\_\_\_.*

\_\_\_\_\_  
*Surveyor*

*Seal or Stamp*

\_\_\_\_\_  
*Registration Number"*

*The certificate of the Notary shall read as follows:*

*"North Carolina, \_\_\_\_\_ County.*

*I, \_\_\_\_\_, a Notary Public of the County and State aforesaid, certify that \_\_\_\_\_, a registered land surveyor, personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this day of \_\_\_\_\_, 20\_\_\_\_.*

\_\_\_\_\_  
*Notary Public*

*Seal or Stamp*

*My commission expires \_\_\_\_\_"*

3. **Certificate of Approval of the Design and Installation of Streets, Utilities and Other Required Improvements.** "I \_\_\_\_\_ hereby certify that all streets, utilities and other required improvements have been installed in a acceptable manner and according to Town specifications and standards in the Subdivision or that guarantees of the installation of the required improvements in an amount and manner satisfactory to the Town of Rolesville has been received and that the filing fees for this plat, in the amount of \$\_\_\_ has been paid.

\_\_\_\_\_

Date

\_\_\_\_\_

Subdivision Administrator"

## 9.2 DESIGN STANDARDS

### 9.2.1 STREETS AND SIDEWALKS

**A. Generally.** All streets and related infrastructure in the Town's jurisdiction shall be built and maintained in accordance with the principles, goals and/or objectives of the Rolesville Comprehensive Plan, Community Transportation Plan, other officially adopted plans and policies of the Town, and any applicable North Carolina Department of Transportation (NCDOT) requirements. All streets and rights-of-way shall be constructed in accordance to the standards below, unless a more restrictive standard is required by NCDOT, in which the street shall meet the more restrictive standard.

1. All subdivision lots shall abut at least 20 feet on a public street.
2. All public streets shall be dedicated to the Town of Rolesville, the State of North Carolina or the public as determined appropriate by the Board of Commissioners of the Town of Rolesville.
3. Public streets not dedicated to the Town which are eligible for acceptance into the State Highway System shall be constructed to the standards necessary to be put on the State Highway System or the standards in this ordinance, whichever is stricter, in regard to each particular item and shall be put on such system.
4. Streets not dedicated to the Town which are not eligible to be put on the State Highway System because there are too few lots or residences shall, nevertheless,

be dedicated to the public and shall be in accordance with the standards in this ordinance or the standards necessary to be put on the State Highway System, whichever is stricter in regard to each particular item, so as to be eligible to be put on the system at a later date.

5. A written maintenance agreement with provisions for maintenance of the street until it is put on the State System shall be included with the final plat.

**B. Street Design Standards.** The design of all streets and roads within the jurisdiction of this LDO shall be in accordance with the accepted policies of NCDOT, Division of Highways, as taken or modified from the American Association of State Highway Officials (AASHO) manuals. The standards of the NCDOT, Subdivision Roads Minimum Construction Standards, as amended, shall apply for any items not included in this ordinance, or where stricter than this ordinance. The provision of street rights-of-way shall conform to and meet the requirements of the thoroughfare plan of the Town of Rolesville as approved by the Planning Board and adopted by the Board of Commissioners of the Town of Rolesville and the North Carolina Board of Transportation. The urban planning area shall consist of that area within the urban planning boundary as depicted on the mutually adopted Rolesville thoroughfare plan.

The rural planning area shall be that area outside the urban planning boundary.

1. **Street Types Classifications.** Street types shall be consistent with provided definitions in the Town Thoroughfare Plan, Community Transportation Plan, and the below summaries:

STREET TYPE	DEFINITION
FREEWAY	Highest classification of arterial streets, designed for mobility and long-distance travel. Access is controlled and roadways are designed for high-speed travel.
ARTERIAL	A federal and/or state highway designed primarily for the movement of large volumes of vehicular traffic through an urban area and neighboring rural areas.

MINOR ARTERIAL	Minor arterials connected arterials streets to one another and help distribute vehicle trips throughout the Town.
MAJOR COLLECTOR	A public way designed primarily to connect residential streets with arterial streets
MINOR COLLECTOR	A public street used primarily for providing direct access to abutting properties, further defined below
LOCAL STREET	The largest percentage of lane miles across street types, local streets provide access to individual lots.

2. **Required Right-of-Way Widths.** Right-of-way widths shall not be less than the standards of this Section, except in those cases where right-of-way requirements have been specifically set out in the Thoroughfare Plan.
  - a. Subdivisions along existing streets which contain inadequate right-of-way width shall provide additional right-of-way to meet the minimum widths defined in this Section. The entire required right-of-way shall be provided where any part of a new subdivision is on both sides of an existing street, and one-half the required right-of-way measured from the centerline of the existing street shall be provided where a new subdivision is located only on one side of an existing street.

PLANNING AREA	STREET TYPE	MIN. ROW WIDTH (FEET)
RURAL	FREEWAY	350
RURAL	ARTERIAL	200
RURAL	MINOR ARTERIAL	100
RURAL	MAJOR COLLECTOR	100
RURAL	MINOR COLLECTOR	100

RURAL	LOCAL ROAD	60*
URBAN	MAJOR THOROUGHFARE	90
URBAN	MINOR THOROUGHFARE	70
URBAN	LOCAL STREET	60*
URBAN	CUL-DE-SAC	VARIABLE**

NOTES:

\*The desirable minimum right-of-way is established as 60 feet. If curb and gutter is provided, 50 feet of right-of-way is adequate on local residential streets.

\*\*The subdivider will only be required to dedicate a maximum of 100 feet of right-of-way. In case where over 100 feet of right-of-way is desired, the subdivider will be required only to reserve the amount in excess of 100 feet. In all cases in which right-of-way is sought for an access controlled facility, the subdivider will only be required to make a reservation.

3. **Street Widths.** Minimum street right-of-way widths shall be determined on the basis of the street classification shown on the Town Thoroughfare Plan and/or Community Transportation Plan, where such plans do not apply, according to the type of the street as illustrated on the plat. Minimum pavement width shall be measured from back of curb to back of curb. Width of local roads and streets shall be as follows:

a. **Local Residential.**

- i. **Curb and Gutter Section:** 26 feet to face of curb.
- ii. **Shoulder Section:** 20 feet to edge of pavement, four-foot shoulders.

b. **Residential Collector.**

- i. **Curb and Gutter Section:** 34 feet to face of curb.

ii. **Shoulder Section:** 20 feet to edge of pavement, six-foot shoulders.

4. **Geometric Characteristics.** The standards outlined below shall apply to all subdivision streets proposed for addition to the State Highway System (or Municipal Street System). In cases where a subdivision is sought adjacent to a proposed thoroughfare corridor, the requirements of dedication and reservation discussed under Right-of-Way shall apply.

a. **Design Speeds.** The design speeds for subdivision-type streets shall be as below:

	Desirable	Minimum	
		Level	Rolling
<b>Rural</b>			
Minor Collector Roads	60	50	40
Local Road (Including Residential Collectors and Local Residential)	50	50*	40*
<b>Urban</b>			
Major Thoroughfares other than Freeway or Expressway	60	50	50
Minor Thoroughfares	60	50	50
Minor Thoroughfares	60	50	40
Local Streets	40	40**	30**
*The desirable minimum right-of-way is established as 60 feet. If curb and gutter is provided, 50 feet of right-of-way is adequate on local residential streets.			



\*\*The right-of-way dimension will depend on radius for vehicular turnaround. Distance from edge of pavement of turnaround to right-of-way should not be less than distance from edge of pavement to right-of-way on street approaching turnaround.

- b. **Maximum and Minimum Grades.** The maximum grades in percent shall be as below:

Design Speed	Level	Rolling
60	3	4
50	4	5
40	5	6
30		9
20		

**Additional Standards:**

Based on projected annual average daily traffic of 400—750. In cases where road will serve a very limited area and small number of dwelling units, minimum design speeds can be reduced further, but in no case, below 25.

A minimum grade for curbed streets normally should not be less than 0.5 percent, a grade of 0.35 percent may be allowed where there is a high type pavement accurately crowned and in areas where special drainage conditions may control.

Grades for 100 feet each way from intersections should not exceed five percent.

For streets and road with projected annual average daily traffic less than 250, short grades less than 500 feet long, may be 150 percent greater.

- c. **Minimum Site Distance.** In the interest of public safety, no less than the minimum sight distance applicable shall be provided in every instance. Vertical curves than connect each change in grade shall be provided and calculated using the following parameters. (General practice calls for

vertical curves to be multiples of 50 feet. Calculated lengths shall be rounded up in each case):

<b>Design Speed, MPH</b>	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>
Min. Stopping Distance, Ft.	150	200	275	350	475
Des. Stopping Distance, Ft.	150	200	300	450	650
<b>Minimum K* Value For:</b>					
a. Min. Crest Vert. Curve	16	28	55	85	160
Des. Crest Vert. Curve	16	28	65	145	300
b. Min. SAG Vert. Curve	24	35	55	75	105
Des. SAG Vert Curve	24	35	60	100	155
<b>Passing Sight Distance</b>					
Min. Passing Distance, Ft. (2 lane)		1100	1500	1800	2100
Min. K* Value for Crest		365	686	985	1340
Vertical Curve					

**Additional Notes:**

K\* is a coefficient by which the algebraic difference in grade may be multiplied to determine the length in feet of the vertical curve which will provide minimum sight distance.

Sight distance provided for stopped vehicles at intersections should be in accordance with, "A Policy on Geometric Design of Rural Highways", and the UDO for the Town of Rolesville.

- d. **Maximum Degree of Curve.** The following table shows the maximum degree of curve and related maximum superelevation for design speeds. The maximum rate of roadway superelevation (e) for rural roads with no curb and gutter is .08. The maximum rate of superelevation for urban streets with curb and gutter is .06 with .04 being desirable.

Design Speed MPH	Maximum e*	Rounded (Feet)	Rounded (Degrees)
20	.04	125	45.0
30	.04	300	19.0
40	.04	5600	10.0
50	.04	925	6.0
60	.04	1410	4.0
20	.06	115	50.0
30	.06	275	21.0
40	.06	510	11.5
50	.06	830	7.0
60	.06	1260	4.5
20	.08	110	53.5
30	.08	250	23.0
40	.08	460	12.5
50	.08	760	7.5
60	.08	1140	5.0
<p>Note:</p> <p>* = rate of roadway superelevation, foot per foot.</p>			

5. **Intersection Design.** Intersections shall be designed with the following standards:
- a. Streets shall intersect as nearly as possible at right angles. No street shall intersect any other street at an angle of less than 60 degrees.
  - b. Property lines at intersections should be set so that the distance from the edge of pavement, of the street turnout, to the property line will be at least as great as the distance from the edge of pavement to the property line along the intersecting streets. This property line can be established as a radius or as a sight triangle. Greater offsets from the edge of pavement to the property lines will be required, if necessary, to provide sight distance for the vehicle on the side street.
  - c. Offset intersections are to be avoided unless exception is granted by the DOT. Intersections which cannot be aligned should be separated by a minimum length of 200 feet between survey center lines.
  - d. Intersections with arterial, collectors and thoroughfares shall be at least 1,000 feet from center line to center line, or more if required by the North Carolina Department of Transportation.
  - e. Where two public streets cross or where a private street meets a public roadway and signalization is not warranted, a stop bar and stop sign shall be used on the minor street approaches.
  - f. The requirements for installation of a stop bar shall be subject to the Manual on Uniform Traffic Control Devices. Stop bars shall be a 12 to 24 inches wide and must be located four feet behind a crosswalk, if present.
  - g. A pavement marking and signage plan showing description and placement of traffic signs, pavement markings, and specialty sights shall be submitted with all roadway and subdivision plans as a requirement of the Developer and shall be done prior to final acceptance of the roadway by the Town.
6. **Cul-De-Sacs.** Cul-de-sacs shall be avoided unless the design of the subdivision and street system in the surrounding area is so that a street is not essential in

the location of the proposed cul-de-sac, or where environmental factors including streams, floodplains, and wetlands would be substantially disturbed by making road connections. Cul-de-sacs shall be designed with the following standards:

- a. Permanent deadened streets should not exceed 500 feet in length unless necessitated by topography or property accessibility and in no case shall be permitted to be over 900 feet.
  - b. Measurement shall be from the point where the center line of the deadened street intersects with the center of a through street to the center of the turnaround of the cul-de-sac. where one cul-de-sac intersects with another cul-de-sac, the end of each cul-de-sac shall be no more than 500 to 900 feet from a through street, measured as stated above.
  - c. The distance from the edge of pavement on the vehicular turnaround to the right-of-way line shall not be less than the distance from the edge of pavement to right-of-way line on the street approaching the turnaround.
  - d. Cul-de-sacs should not be used to avoid connection with an existing street or to avoid the extension of an important street, unless exception is granted by the Board of Commissioners of the Town of Rolesville.
7. **Alleys.** Alleys may be utilized for both nonresidential and residential developments. Alleys shall be designed with the following standards:
- a. **Nonresidential Alley Design.**
    - i. Alleys shall be required to serve lots used for commercial and industrial (i.e. nonresidential) purposes except that this requirement may be waived where other definite and assured provision is made for service access.
    - ii. The width of an alley shall be at least 20 feet.
    - iii. Deadened alleys shall be avoided where possible, but unavoidable, shall be provided with adequate turnaround

facilities at the deadened as may be approved by the Board of Commissioners of the Town of Rolesville.

- iv. Sharp changes in alignment and grade shall be avoided.
- v. All alleys shall be designed in accordance with N.C. Department of Transportation Standards.

**b. Residential.** Alleys may be appropriate in residential developments to provide rear access to houses.

- i. Where lots front arterials, collectors, thoroughfares, or freeways without driveway access, then a public alley is required.
- ii. Parking for visitors shall be served by an alternate adjacent street or parking area.

**8. Street Names and Signs.** Street names shall comply with the following standards:

- a. Street names shall be coordinated with the Town Planning Department and Wake County.
- b. Proposed streets which are obviously in alignment with existing streets shall be given the same name.
- c. In assigning new names, duplication of existing names shall be avoided and in no case shall the proposed name be phonetically similar to existing names in the county irrespective of the use of a suffix such as street, road, drive, place, court, etc.
- d. Street names shall be subject to the approval of the Board of Commissioners of the Town of Rolesville.
- e. Street name signs shall be required. The subdivider shall provide and erect street name signs to Town standards at all intersections with the subdivision.

**9. Permits for Connection to State Roads.** An approved permit is required for connection to any existing state system road. This permit is required prior to any

construction on the street or road. The application is available at the office of the nearest district engineer of the NCDOT.

10. **Wheelchair Ramps.** In accordance with Chapter 136, Article 2A, Section 135-44-14, all street curbs in North Carolina being constructed or reconstructed for maintenance procedures, traffic operations, repairs, correction of utilities, or altered for any reason after September 1, 1973, shall provide wheelchair ramps for the physically handicapped at all intersections where both curb and gutter and sidewalks are provided and at other major points of pedestrian flow.
11. **Bridges.** The clear roadway widths for new and reconstructed bridges serving two-lane, two-way traffic shall be as follows:
  - a. **Shoulder Section Approach**
    - i. Under 800 ADT Design Year Minimum 28 feet width face-to-face of parapets or rails or pavement width plus ten feet, whichever is greater.
    - ii. 800—2,000 ADT Design Year Minimum 34 feet width face-to-face of parapets or rails or pavement width plus 12 feet, whichever is greater.
    - iii. Over 2,000 ADT Design Year Minimum 40 feet. Desirable 44 feet width face-to-face of parapets or rails.
  - b. **Curbs and Gutters Approach.**
    - i. Under 800 ADT Design Year. Minimum 24 feet face-to-face of curbs.
    - ii. Over 800 ADT Design Year. Width of approach pavement measured face-to-face of curbs. Where curb and gutter sections are used on roadway approaches, curbs on bridges shall match the curbs on approaches in height, in width of face-to-face of curbs, and in crown drop. The distance from face of curb to face of parapet or rail shall be one foot six inches minimum, or greater if sidewalks are required.

- iii. The clear roadway widths for new and reconstructed bridges having four (4) or more lanes serving undivided two-way traffic shall ensure that any shoulder section approach has a width of approach pavement plus width of usable shoulders on the approach left and right, a minimum eight (8) feet; des. ten (10) feet. Any curb and gutter approach shall have a width of approach pavement measured face-to-face of curbs.

12. **Curb and Gutter.** Curb and gutter shall be provided in all subdivisions except in watershed districts.

- a. Curb and gutter shall meet the specifications in Section I.C. of the NCDOT Subdivision Roads Minimum Construction Standards, as amended.
- b. Unless otherwise specified by the Rolesville Board of Commissioners, curb and gutter shall be provided along the entire length of each street in the subdivision.
- c. The Board of Commissioners of the Town of Rolesville may make an exception this policy in areas having very low traffic volume.

13. **Street Drainage, No Curb and Gutter.** Where the installation of curb and gutter is not required, the Town of Rolesville shall review all drainage prior to acceptance of any facility on the Town system.

- a. The storm drainage system shall be designed to meet NCDOT standards.
- b. All driveway drainage pipes shall be constructed to meet a ten-year storm and shall be at least 15 inches in diameter constructed of reinforced concrete.

14. **Subdivision Street Disclosure Statement.** All streets shown on the final plat shall be designated in accordance with G.S. § 136-102.6 and designation as public shall be conclusively presumed an offer of dedication to the public. Where streets are dedicated to the public but not accepted into a municipal or the State system, before lots are sold, a statement explaining the status of the street shall be included with the final plat.



15. **Half-Streets.** The dedication of half streets of less than 60 feet at the perimeter of a new subdivision shall be prohibited. If circumstances render this impracticable, adequate provision for the concurrent dedication of the remaining half of the street shall be furnished by the subdivider. Where there exists a half-street in an adjoining subdivision, the remaining half shall be provided by the proposed subdivision.
- a. In circumstances where more than 60 feet of right-of-way is required, a partial width right-of-way, not less than 60 feet in width, may be dedicated when adjoining undeveloped property is owned or controlled by the subdivider.
  - b. The width of the partial dedication shall be as such as to permit the installation of such facilities as may be necessary to serve abutting lots.
  - c. When the adjoining property is subdivided, the remainder of the full required right-of-way shall be dedicated.
16. **Marginal Access Streets.** Where a tract of land to be subdivided adjoins a principal arterial street, the subdivider may be required to provide a marginal access street parallel to the arterial street or reverse frontage on a minor street for the lots to be developed adjacent to the arterial. Where reverse frontage is established, private driveways shall be prevented from having direct access to the principal arterial.
17. **Nonresidential Streets.** The subdivider of a nonresidential subdivision shall provide streets in accordance with F-4 of the North Carolina Roads, Minimum Construction Standards, May 1, 1983; and the standards in this ordinance, whichever are stricter in regard to each particular item.
18. **Utility Poles.** Poles for overhead utilities should be located clear of roadway shoulders, a minimum of a least 30 feet from the edge of pavement on major thoroughfares. On streets with curb and gutter, utility poles should be set back a minimum distance of six feet from the face of curb.

**C. Sidewalks.** Sidewalks shall be required for all major subdivisions, as defined by Section 9.1.3: Subdivision Types, on at least one side of all internal public streets. Sidewalks shall comply with the following standards:

1. Sidewalks shall be provided along all lots in major and minor subdivisions fronting existing public streets.
2. Sidewalks shall meet the applicable requirements of the American With Disabilities Act.
3. Sidewalks shall be constructed to a minimum width of five feet and shall consist of a minimum thickness of four inches of concrete.
4. All sidewalks shall be placed in the right-of-way.
5. Sidewalks shall consist of a minimum of six inches of concrete at driveway crossings.
6. All sidewalks must be handicapped accessible from street intersections.
7. Where topographical circumstances make the installation of any sidewalk unfeasible, the Board of Commissioners may waive these provisions.
8. Internal sidewalks shall be provided in all developments regardless of zoning district.
9. Sidewalks shall be required to connect to existing or planned sidewalks at property boundaries.
10. In low-lying areas, the Land Development Administrator may require that the developer construct a boardwalk.

**D. 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 centered on rear or side lot lines and shall be at least 20 feet wide for water and sanitary sewer lines and as required by the companies involved, for telephone, gas and power lines. The Board of Commissioners of the Town of Rolesville will determine whether one easement is sufficient or whether several easement are necessary to accommodate the various facilities and the subdivider shall provide the required easements. Where a subdivision is traversed by a stream or drainage way, an easement shall be

provided conforming with the lines of such stream and of sufficient width as will be adequate for the purpose.

**E. Interconnectivity of Streets.**

1. **Conformance with Plans.** The subdivision's street system shall conform to the Rolesville Community Transportation Plan and Thoroughfare Plan.
  - a. In areas where there are no thoroughfares or collector streets, streets shall be designed and located in proper relation to existing and proposed streets.
  - b. Residential collector and local streets shall be laid out in such a way that their use by through traffic will be discouraged.
  - c. Streets shall be designed or walkways dedicated to assure convenient access to parks, playgrounds, schools, or other places of public assembly.
  - d. All proposed street designs shall provide for the appropriate projection of principal streets in surrounding areas to permit reasonable access for surrounding properties, both for current use and future subdivision.

**9.2.2 BLOCKS**

- A. **Generally.** Blocks shall be designed with consideration given to the type of land use proposed within the block. The following additional factors shall be given consideration for block design:
  1. LDO requirements;
  2. Vehicular demands;
  3. Pedestrian circulation;
  4. Control and safety of street traffic;
  5. Topographical limitations; and
  6. Convenient access to water areas
- B. **Length.** Blocks shall not be less than 400 feet or more than 1,200 feet.

- C. **Width.** Residential blocks shall have sufficient width to allow for 2 tiers of lots of appropriate depth, except where single tier lots are required to separate residential development from vehicular traffic or another type of use.
- D. **Crosswalks.** A pedestrian crosswalk not less than 15 feet in width may be required near the center and entirely across any for the following instances and comply with the below standards:
1. Residential block 900 feet or more in length within residential zoning districts;
  2. Where deemed essential to provide adequate access to schools, shopping centers, churches, transportation facilities or recreational facilities.
  3. Crosswalks shall be constructed of permanent materials such as those generally used for sidewalks, including concrete, brick, asphalt and similar wear-resistant and weather resistant surfacing.
  4. Crosswalks shall be marked in accordance with the standard “Manual on Uniform Traffic Control Devices” as provided by the Federal Highway Administration.

### 9.2.3. LOTS

- A. **Standards.** Lots shall conform to the zoning district standards set forth in Section 3: Zoning Districts, of this LDO. Conformance to zoning requirements means, among other things, that the smallest lot in the subdivision must meet all dimensional requirements of the LDO. It is not sufficient merely for the average lot to meet zoning requirements. Lots shall meet the following standards:
1. Lots shall meet any applicable Wake County Health Department Regulations.
  2. Double frontage lots should be avoided wherever possible.
  3. Side lot lines shall be substantially at right angles to or radial to street lines.
  4. Where public water and/or sewer is not offered, lots shall comply with the standards of the Wake County Environmental Services Department and the Town of Rolesville LDO.

- B. **Setbacks.** Minimum building setback lines shall conform to the requirements of Section 3: Zoning Districts. Lots shall be designed to provide yards as required in connection with building sites by the terms of the LDO.
- C. **Compliance with Development Standards.** The subdivider shall refer to the various development standards of the LDO and shall apply them in the layout of subdivisions to avoid creating irregular lots that make compliance with development standards difficult or impracticable.
- D. **Access.** Every lot shall provide access to and abut a public street or right-of-way. Easements that cross more than one lot of record are not permitted.
- E. **Flag Lots.**
1. The LDO prohibits the creation of flag lots in subdivisions except in the following circumstances:
    - a. To reasonably utilize irregularly shaped land;
    - b. To reasonably utilize land with unusual topography rendering a majority of the lot unbuildable;
    - c. To reasonably utilize land with limited sites suitable for septic tank requirements; and/or
    - d. To provide for the protection of significant natural resources.
  2. Flag lots shall not be permitted if it increases the number of access points onto a major thoroughfare.
  3. In no instance may a subdivision approved after the effective date of this LDO be resubdivided to create flag lots.
  4. Use of a single driveway easement, to serve adjoining flag lots is permitted and encouraged to reduce access points on public streets.

#### 9.2.4 EASEMENTS

- A. **Utility Easements.** Easements for underground or above ground utilities shall be provided, where necessary, across lots or centered on rear or side lot lines and shall be

at least 20 feet wide for water and sanitary sewer lines and as required by the companies involved, for telephone, gas and power lines.

1. The Board of Commissioners of the Town of Rolesville (BOC) will determine whether one easement is sufficient or whether several easements are necessary to accommodate the various facilities and the subdivider shall provide the required easements.
  2. Easements may also be upsized by the BOC based upon the size of lines, projected demand of facility, or need to remain clear of other utilities and easements.
- B. **Drainage Easements.** Where a subdivision is traversed by a stream or drainage way, an easement shall be provided conforming with the lines of such stream and of sufficient width as will be adequate for the purpose.
- C. **Drainageway Buffer Easements.** In watershed overlays, drainage way buffers shall be provided as required by the LDO and shall be recorded as easements.

#### 9.2.6. UTILITIES

- A. **Residential.** Residentially zoned lots shall comply with the following standards:
1. **New Construction.** Within the Town of Rolesville's jurisdiction, every residentially zoned lot being improved with a new dwelling that is within the distance defined in Table 9.2.6 shall be required to connect, at the expense of the owner or developer, to that public water or sewer system.
    - a. The distance shall be measured from the closest property line of the development to the nearest existing water or sewer line.
    - b. All water and sewer lines throughout each subdivision shall be placed within rights-of-way and/or existing easements except for each line serving the interior of individual lots.
    - c. Residential properties developed for one single family dwelling need not connect to public utilities if they are replacing an existing single family home with another single family dwelling or if the owner is adding onto an existing single family dwelling.

Table 9.2.6.

Number of Lots	Distance From System
1 Lot	300 Feet
2 to 4 Lots	1,000 Feet
<5 Lots (Major Subdivision)	5,280 Feet

**2. Lots with Existing Well and/or Septic System.**

- a. All individual lots which have failing ground absorption wastewater treatment and dispersal systems shall, upon notice from the Wake County Authorized Agent, connect to the Town of Rolesville wastewater collection system when it is determined that 300 feet or less of sewer line is required for the connection.
- b. The property owner shall be required to connect to the wastewater collection system within 90 days of the notice, unless a variance is granted by Wake County.
- c. When a facility is required to be connected to the Town of Rolesville's wastewater collection system, and the septic and/or pump tank is not being utilized as part of that connection, the septic and/or pump tank shall be properly abandoned.
- d. All individual lots which have failing well systems shall connect to the Town of Rolesville water utility system when it is determined that 300 feet or less of water line is required for the connection.
- e. When a facility is required to be connected to the Town of Rolesville's water utility, the failing well shall be properly abandoned.

**B. Community and Individual Water and Sewer.** For all community and individual water and/or sewer systems, including individual wells or septic systems in subdivisions or developments outside of the 5,280 foot distance of existing water and/or sewer systems, the materials, design, and installation shall be subject to approval by the Division of Water Quality at the N.C. Department of Environmental Quality (NC DEQ), or the Wake County Health Department.

- C. **Water and Sewer Utility Extensions.** Extensions of any water or sanitary sewer mains are to be made to the furthest property line of the tract where necessary to serve adjoining property owners with utilities along natural drainage patterns. In all instances, plans shall show the total area in acres draining to the uppermost bounds of the tract on any established watercourse. Additional extensions may be required if the Town of Rolesville or the Town of Raleigh Public Utilities Department determines adjacent property can be served from extensions to the proposed site.
- D. **Nonresidential Properties.** To provide for sufficient water and wastewater service for businesses of Rolesville, and to provide for the town's long term capacity for future utility customers, all applicants for nonresidential zoning permits shall be required to provide anticipated peak water and wastewater usage to the Land Development Administrator. Nonresidential zoned lots shall comply with the following standards:
1. **Specifications.** All construction of water and/or sewer lines shall be done in conformity with the Town of Raleigh specifications for utility construction.
  2. **Minimum Standards.** All nonresidential developments shall have capacity, at minimum, for 25,000 gallons of water and wastewater per day.
    - a. Uses that have utility requirements in excess of the minimum standards shall be considered special uses and require a special use permit.
    - b. In considering the application for a special use permit, the Planning Board and the Rolesville Board of Commissioners shall review the application in accordance with the conditions for a special use permit. In addition, the board shall consider total gallons required, potential for expansion of proposed use, and limitation this approval will put on future residential and other nonresidential growth.
    - c. The Special Use permit once issued, shall become invalid unless substantial development of the proposed use has been commenced within six months of date of issue, or if any work authorized by it is suspended or abandoned for any reason for a period in excess of one year.



3. **Conveyance.** Upon completion and approval of all water and/or sewer improvements to, into, and within the subdivision or development, the water and sewer improvements shall be conveyed, together with access easements for maintenance, to the City of Raleigh. The City of Raleigh shall maintain said lines as same shall be part of its water and/or sewer system.
- E. Water Towers.** Water storage towers and tanks not located on a roof shall comply with the following standards:
1. Maximum height of 200 feet, measured from the average natural ground elevation.
  2. The structure shall be located a minimum distance of 50 percent of its height from the nearest property line of a lot containing a residential use, as measured from the closest point of any portion of the storage tank.
  3. A minimum 40-foot natural protective buffer is provided adjacent to any lot line of a dwelling, congregate care or congregate living structure or adjacent to the lot line of any vacant lot zoned for residential use. A minimum 15-foot natural protective buffer is required for general office, commercial and industrial zoned districts.
  4. The entire area of the water tower, including the water tank overhang, tower base supports, electrical power panels and above ground control valves must be surrounded by a security fence or wall of at least eight feet in height.
  5. Except for fence and wall entrances, all fences and walls shall be screened with plant materials so that no more than two-thirds of the surface of the wall or fence is visible within three years after erection of the wall or fence. Existing vegetation may be used for the screening, along with new plantings.

## 9.2.7. STORMWATER MANAGEMENT

### 9.2.7.1. GENERAL PROVISIONS

- A. **Title.** This Section shall be officially known as "The Post-Construction Stormwater Ordinance." It is referred to within this Section herein as "this ordinance."
- B. **Authority.** The Town Board is authorized to adopt this ordinance pursuant to North Carolina law, including but not limited to Article 14, Section 5 of the Constitution of North Carolina; the Charter of the Town of Rolesville; North Carolina General Statutes 143-214.7 and rules promulgated by the Environmental Management Commission thereunder; Session Law 2004-163; Chapter 160A, §§ 174, and 185.

C. **Findings.** It is hereby determined that Development and Redevelopment alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, nonpoint and point source pollution, and sediment transport and deposition, as well as reducing groundwater recharge. These effects can be managed and minimized by applying proper design and well-planned controls to manage stormwater runoff from Development sites. Further, the Federal Water Pollution Control Act of 1972 ("Clean Water Act") and federal Phase II Stormwater Rules promulgated under it compel the Town to adopt minimum stormwater controls such as those included in this ordinance. Therefore, the Town establishes this set of water quality and quantity regulations to meet the requirements of state and federal law regarding control of stormwater runoff and discharge.

D. **Purpose.**

1. General. The purpose of this ordinance is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-Development stormwater runoff and nonpoint and point source pollution associated with new Development and Redevelopment as well as illicit discharges into municipal stormwater systems.
2. Specific. This ordinance seeks to meet its general purpose through the following specific objectives and means:
  - a. Requiring that new Development and Redevelopment maintain the pre-Development hydrologic response in their post-Development state as nearly as practicable for the applicable design storm to reduce flooding, streambank erosion, nonpoint and point source pollution;
  - b. Establishing minimum post-Development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;
  - c. Encouraging the use of better management and site design practices, such as the use of vegetated conveyances for stormwater and the preservation of greenspace, riparian buffers and other conservation areas to the maximum extent practicable;

- d. Establishing provisions for the long-term responsibility for and maintenance of Structural and nonstructural Stormwater Best Management Practices (BMPs) to ensure that they continue to function as designed, are maintained appropriately, and pose no threat to public safety;
- e. Establishing administrative procedures for the submission, review, approval and disapproval of stormwater management plans, for the inspection of approved projects, and to assure appropriate long-term maintenance.
- f. Managing flooding and downstream impacts with an awareness of impending regional growth.

#### E. **Applicability and Jurisdiction.**

1. **General.** Beginning with and subsequent to its effective date, this ordinance shall be applicable to all Development and Redevelopment, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt pursuant to subsection (2) of this Section, Exemptions.
2. **Exemptions.** Development that cumulatively disturbs less than 20,000 square feet and is not part of a larger common plan of Development or Sale is exempt from the provisions of this ordinance. This exemption does not relieve any Development from Neuse Buffer Rules or other applicable federal, state or local laws. Redevelopment that cumulatively disturbs less than 20,000 square feet and is not part of a Larger Common Plan of Development or Sale is exempt from the provisions of this ordinance. This exemption does not relieve any Development from Neuse Buffer Rules or other applicable federal, state or local laws. Development and Redevelopment that disturb less than 20,000 square feet are not exempt if such activities are part of a larger common plan of or sale, even though multiple, separate or distinct activities take place at different times on different schedules. Activities that are exempt from permit requirements of Section 404 of the federal Clean Water Act as specified in 40 CFR 232 (primarily, ongoing farming and forestry activities) are exempt from the provisions of this ordinance.

3. **No Development or Redevelopment Until Compliance and Permit.** No Development or Redevelopment shall occur except in compliance with the provisions of this ordinance or unless exempted. No Development for which a permit is required pursuant to this ordinance shall occur except in compliance with the provisions, conditions, and limitations of the permit.
4. **Map.** The provisions of this ordinance shall apply within the areas designated as the municipal incorporated area and extraterritorial jurisdiction on the town's Official Zoning Map, which is adopted simultaneously herewith. The Zoning Map shall be kept on file by the Town and shall be amended from time to time to include changes in the land area covered by this ordinance. In the event of a dispute, the applicability of this ordinance to a particular area of land or BMP shall be determined by reference to the North Carolina Statutes, the North Carolina Administrative Code, and local zoning and jurisdictional boundary ordinances.

#### F. Interpretation.

1. **References to Statutes, Regulations and Documents.** Whenever reference is made to a resolution, ordinance, statute, regulation, manual (including the North Carolina Stormwater Best Management Practices Manual, hereinafter "the Design Manual"), or document, it shall be construed as a reference to the most recent edition of such that has been finalized and published with due provision for notice and comment, unless otherwise specifically stated. See Section 3.8 of the Town of Rolesville Land Development Ordinance.

#### G. North Carolina Stormwater Best Management Practices Design Manual.

1. **Reference to Design Manual.** The Stormwater Administrator or his or her designee shall use the policy, criteria, and information, including technical specifications and standards, in the Design Manual as the basis for decisions about stormwater permits and about the design, implementation and performance of Structural and non-structural stormwater BMPs. The Design Manual includes a list of acceptable stormwater treatment practices, including specific design criteria for each stormwater practice. Stormwater treatment practices that are designed, constructed, and maintained in accordance with

these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Phase II laws.

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

#### H. **Relationship to Other Laws, Regulations and Private Agreements.**

1. **Conflict of Laws.** This ordinance is not intended to modify or repeal any other ordinance, rule, regulation or other provision of law. The requirements of this ordinance are in addition to the requirements of any other ordinance, rule, regulation or other provision of law. Where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or imposes higher protective standards shall control.
  2. **Private Agreements.** This ordinance is not intended to revoke or repeal any easement, covenant, or other private agreement. However, where the regulations of this ordinance are more restrictive or impose higher standards or requirements than such an easement, covenant, or other private agreement, the requirements of this ordinance shall govern. Nothing in this ordinance shall modify or repeal any private covenant or deed restriction, but such covenant or restriction shall not legitimize any failure to comply with this ordinance. In no case shall the Town be obligated to enforce the provisions of any easements, covenants, or agreements between private parties.
- I. **Severability.** If the provisions of any Section, subsection, paragraph, subdivision or clause of this ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any Section, subsection, paragraph, subdivision or clause of this ordinance.
- J. **Effective Date and Transitional Provisions.**
1. **Effective Date.** This Ordinance shall take effect on August 3, 2009.

2. **Final Approvals, Complete Applications.** All Development and Redevelopment projects for which complete and full applications were submitted and accepted as complete by the Town prior to the effective date of this ordinance and which remain valid, unexpired, unrevoked and not otherwise terminated at the time of Development or Redevelopment shall be exempt from complying with all provisions of this ordinance dealing with the control and/or management of post-construction runoff, but shall be required to comply with all other applicable provisions. A phased Development plan shall be deemed approved prior to the effective date of this ordinance if it has been approved by all necessary government units, it remains valid, unexpired, unrevoked and not otherwise terminated, and it shows:
  - a. For the initial or first phase of Development: the type and intensity of use for a specific parcel or parcels. This shall include, at a minimum, the boundaries of the project and a subdivision plan that has been approved.
  - b. For any subsequent phase of Development: sufficient detail showing that implementation of the requirements of this ordinance to that phase of Development would require a material change in that phase of the plan.
3. **Violations Continue.** Any violation of provisions existing on the effective date of this ordinance shall continue to be a violation under this ordinance and be subject to penalties and enforcement under this ordinance unless the use, Development, construction, or other activity complies with the provisions of this ordinance.

#### 9.2.7.2 STORMWATER DEFINITIONS

When used in this Ordinance, the following words and terms shall have the meaning set forth in this section, unless other provisions of this Ordinance specifically indicate otherwise.

*Built-upon Area (BUA).* That portion of a Development project that is covered by impervious or partially impervious surface including, but not limited to, buildings, pavement and gravel areas such as roads, parking lots, and paths; and recreation facilities such as tennis courts. "Built-upon Area" does not include a wooden slatted deck, the water area of a swimming pool, or Permeable Pavement that meets the standards outlined in the North Carolina Division of Water Quality Stormwater Best Management Practices Manual.

*Density.* The calculation of the total Impervious Area of a project divided by the total project area. Surface water bodies shall be included in calculations of project Density.

*Department.* The North Carolina Department of Environment and Natural Resources.

*Design Manual.* The North Carolina Department of Environment and Natural Resources, Division of Water Quality Stormwater Best Management Practices Manual approved for use in Phase II jurisdictions by the Department for the proper implementation of the requirements of the federal Phase II stormwater program. All references herein to the Design Manual are to the latest published edition or revision.

*Development.* Any land-disturbing activity that increases the amount of built-upon area or that otherwise decreases the infiltration of precipitation into the soil.

*Division.* The Division of Water Quality in the North Carolina Department of Environment and Natural Resources.

*Flood Protection Zone.* The FEMA 100-year floodplain as identified on the current Flood Insurance Rate Map (FIRM) published by FEMA.

*High-Density Project.* A project is a High-Density Project if it has more than 24 percent Built-upon Area (BUA) based on total project acreage for all residential and non-residential Development. Any project that exceeds the low-Density threshold for Built-upon Area.

*Impervious Area.* Impervious Areas are those surfaces which prevent the infiltration of or impede the rate of infiltration of stormwater into the soil as compared with the natural conditions prior to Development. Common Impervious Areas include, but are not limited to, compacted surfaces used for pedestrian and vehicular travel or parking and other surfaces which prevent or impede the natural infiltration of stormwater runoff that existed prior to Development.

*Larger Common Plan of Development or Sale.* Any area where multiple separate and distinct construction or land-disturbing activities will occur under one plan. A plan is any announcement or piece of documentation (including but not limited to a sign, public notice or hearing, sales pitch, advertisement, loan application, drawing, permit application, zoning request, subdivision application or computer design) or physical demarcation (including but not limited to boundary signs, lot stakes, or surveyor markings) indicating that construction activities may occur on a specific plot.

*Low-Density Project.* A project is a Low-Density Project if it has more than 15 percent Built-upon Area (BUA) and no more than 24 percent Built-upon Area (BUA) based on total project acreage for all residential and non-residential Development.

A project with an overall Density at or below the relevant low-Density threshold, but containing areas with a Density greater than the overall project Density, may be considered Low Density as long as the project meets or exceeds the post-construction model practices for Low-Density Projects and locates the higher Density in upland areas and away from surface waters and drainageways to the maximum extent practicable.

*Non-structural BMP.* A practice that is intended to reduce the impacts of stormwater runoff by minimizing pollution at the source and that is not a physical device constructed to control or treat stormwater runoff. Examples of Non-Structural BMPs include reducing Impervious Areas, making use of existing natural features and systems, reforestation, and cluster Development.

*One-year, 24-hour Storm.* The surface runoff resulting from a 24-hour rainfall of an intensity expected to be equaled or exceeded, on average, once in 12 months and with a duration of 24 hours.

*Owner.* The legal or beneficial Owner of land, including but not limited to a mortgagee or vendee in possession, receiver, executor, trustee, or long-term or commercial lessee, or any other person or entity holding proprietary rights in the property or having legal power of management and control of the property. "Owner" shall include long-term commercial tenants; management entities, such as those charged with or engaged in the management of properties for profit; and every person or entity having joint ownership of the property.

*Perennial or Intermittent Surface Waters.* A Perennial or Intermittent Surface Water shall be deemed present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture (USDA) or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). An exception to this requirement shall be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using Division-approved methodology.

*Permeable Pavement.* An alternative to conventional concrete and asphalt paving materials that allows for infiltration of storm water into a storage area, with void spaces that provide temporary storage.

*Redevelopment.* Any Development on previously-developed land, other than a rebuilding activity that results in no net increase in Built-upon Area and provides equal or greater stormwater control than the previous Development.

*Riparian Buffer Zone.* Any area extending 50 feet landward of all Perennial and Intermittent Surface Waters.

*Stormwater Administrator.* The official assigned by the Town Manager, including the official's duly authorized agent or delegate, charged with the administration and enforcement of this



ordinance, which includes but is not limited to the responsibility to make decisions about stormwater permits, the design, implementation and performance of structural and Non-structural BMPs; to make determinations and render interpretations of this ordinance; to establish application requirements and schedules; to enforce the provisions of this ordinance, and to designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.

*Stormwater Management Practice.* Any practice designed to reduce the impacts of stormwater runoff, including both Structural and Non-structural BMPs.

*Structural BMP.* A physical device designed to trap, settle out, or filter pollutants from stormwater runoff; to alter or reduce stormwater runoff velocity, amount, timing, or other characteristics; to approximate the pre-Development hydrology on a developed site; or to achieve any combination of these goals. Structural BMP includes physical practices such as constructed wetlands, vegetative practices, filter strips, grassed swales, and other methods installed or created on real property.

*Substantial Progress.* For the purposes of determining whether sufficient progress has been made on an approved plan, one or more of the following construction activities toward the completion of a site or subdivision plan shall occur: obtaining a grading permit and conducting grading activity; or installation and approval of on-site infrastructure; or obtaining a building permit for the construction and approval of a building foundation. "Substantial Progress" for purposes of determining whether an approved plan is null and void is not necessarily the same as "substantial expenditures" used for determining vested rights pursuant to applicable law.

*Two-year, 24-hour Storm.* The surface runoff resulting from a 24-hour rainfall of an intensity expected to be equaled or exceeded, on average, once in two years and with a duration of 24 hours.

*Ten-year, 24-hour Storm.* The surface runoff resulting from a 24-hour rainfall of an intensity expected to be equaled or exceeded, on average, once in ten years and with a duration of 24 hours.

*Ultra Low-Density Project.* A project is an Ultra Low-Density Project if it has 15 percent or less Built-upon Area (BUA) based on total project acreage for all residential and non-residential Development. A project with an overall Density at or below the relevant ultra low-Density threshold, but containing areas with a Density greater than the overall project Density, may be considered ultra low-Density as long as the project meets or exceeds the post-construction model practices for Ultra Low-Density Projects and locates the higher Density in upland areas and away from surface waters and drainageways to the maximum extent practicable.

### 9.2.7.3 ADMINISTRATION AND PROCEDURES

#### A. Review and Decision-Making Entities

##### 1. Stormwater Administrator (As Designated By Land Development Administrator)

- a. **Designation** A Stormwater Administrator shall be designated by the Town Board to administer and enforce this ordinance.
- b. **Powers and Duties** In addition to the powers and duties that may be conferred by other provisions of the Code of the Town of Rolesville and other laws, the Stormwater Administrator shall have the following powers and duties under this ordinance:
  - i. To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to this ordinance.
  - ii. To make determinations and render interpretations of this ordinance.
  - iii. To enforce the provisions of this ordinance in accordance with its enforcement provisions.
  - iv. To maintain records, maps, forms and other official materials as they relate to the adoption, amendment, enforcement, and administration of this ordinance.
  - v. To designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.
  - vi. To take any other action necessary to administer the provisions of this ordinance.

#### B. Review Procedures

1. **Permit Required; Must Apply for Permit.** A stormwater permit is required for all Development and Redevelopment unless exempt pursuant to this ordinance. A permit may only be issued subsequent to a properly submitted and reviewed permit application, pursuant to this section.

2. **Effect of Permit.** A stormwater permit shall govern the design, installation, and construction of stormwater management and control practices on the site, including Structural BMPs and elements of site design for stormwater management other than Structural BMPs. The permit is intended to provide a mechanism for the review, approval, and inspection of the approach to be used for the management and control of stormwater for the Development or Redevelopment site consistent with the requirements of this ordinance, whether the approach consists of Structural BMPs or other techniques such as low-impact or low-Density design. The permit does not continue in existence indefinitely after the completion of the project; rather, compliance after project construction is assured by the maintenance provisions of this ordinance.
3. **Authority to File Applications.** All applications required pursuant to this Code shall be submitted to the Stormwater Administrator by the Owner or the Owner's duly authorized agent.
4. **Establishment of Application Requirements, Schedule, and Fees**
  - a. **Application Contents and Form** The Stormwater Administrator shall establish requirements for the content and form of all applications and shall amend and update those requirements from time to time. At a minimum, the stormwater permit application shall describe in detail how post-Development stormwater runoff will be controlled and managed, the design of all stormwater facilities and practices, and how the proposed project will meet the requirements of this ordinance.
  - b. **Submission Schedule** The Stormwater Administrator shall establish a submission schedule for applications. The schedule shall establish deadlines by which complete applications must be submitted for the purpose of ensuring that there is adequate time to review applications, and that the various stages in the review process are accommodated.
  - c. **Permit Review Fees** Permit review fees as well as policies regarding refund of any fees upon withdrawal of an application shall be established and may be amended and updated from time to time.

- d. **Administrative Manual** For applications required under this Code, the Stormwater Administrator shall compile the requirements and information on how and where to obtain the Design Manual in an Administrative Manual, which shall be made available to the public.
5. **Submittal of Complete Application.** Applications shall be submitted to the Stormwater Administrator pursuant to the application submittal schedule in the form established by the Stormwater Administrator, along with the appropriate fee established pursuant to this section. An application shall be considered a complete submittal only when it contains all elements of a complete application pursuant to this ordinance and the Wake County Erosion and Sedimentation Control regulations, if applicable, along with the appropriate fee. If the Stormwater Administrator finds that an application is incomplete, the applicant shall be notified of the deficient elements and shall be provided with an opportunity to submit a complete application. However, the submittal of an incomplete application shall not suffice to meet a deadline contained in the submission schedule established above.
6. **Review.** Within 30 working days after a complete application is submitted, the Stormwater Administrator shall review the application and determine whether the application complies with the standards of this ordinance.
  - a. **Approval** If the Stormwater Administrator finds that the application complies with the standards of this ordinance and the Wake County Erosion and Sedimentation Control regulations, if applicable, the Stormwater Administrator shall approve the application. The Stormwater Administrator may impose conditions of approval as needed to ensure compliance with this ordinance. The conditions shall be included as part of the approval.
  - b. **Fails to Comply** If the Stormwater Administrator finds that the application fails to comply with the standards of this ordinance and the Wake County Erosion and Sedimentation Control regulations, if applicable, the Stormwater Administrator shall notify the applicant and shall indicate how the application fails to comply. The applicant shall have an opportunity to submit a revised application.

- c. **Revision and Subsequent Review** A complete revised application shall be reviewed by the Stormwater Administrator within 15 working days after its re-submittal and shall be approved, approved with conditions or disapproved. If a revised application is not re-submitted within six months from the date the applicant was notified, the application shall be considered withdrawn, and a new submittal for the same or substantially the same project shall be required along with the appropriate fee for a new submittal.

### C. Applications for Approval

1. **Concept Plan and Consultation Meeting** Before a stormwater management permit application is deemed complete, the Stormwater Administrator or developer may request a consultation on a concept plan for the post-construction stormwater management system to be utilized in the proposed Development. This consultation meeting should take place at the time of the preliminary plan of subdivision or other early step in the Development process. The purpose of this meeting is to discuss the post-construction stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities and potential approaches to stormwater management designs before formal site design engineering is commenced. Local watershed plans, the Zebulon and Rolesville Open Space and Greenway Master Plan, the Framework Plan (as described in the Town of Rolesville Comprehensive Plan), and other relevant resource protection plans should be consulted in the discussion of the concept plan. To accomplish this goal, the following information should be included in the concept plan, which should be submitted in advance of the meeting:

- a. **Existing Conditions / Proposed Site Plans** Existing conditions and proposed site layout sketch plans, which illustrate at a minimum: existing and proposed topography; Perennial and Intermittent streams; mapping of predominant soils from soil surveys (if available); boundaries of existing predominant vegetation; proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.

- b. **Natural Resources Inventory** A written and graphic inventory of natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, geologic features, topography, wetlands, and native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas such as lakes, ponds, floodplains, stream buffers, Flood Protection Zones, and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.). Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for Development and stormwater management.
- c. **Stormwater Management System Concept Plan** A written and graphic concept plan of the proposed post-Development stormwater management system including: preliminary selection and location of proposed structural stormwater controls; low-impact design elements; location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and downstream properties and drainages; and preliminary location of any proposed stream channel modifications, such as bridge or culvert crossings.

## 2. Stormwater Management Permit Application

- a. **Purpose.** The stormwater management permit application shall detail how post-Development stormwater runoff will be controlled and managed and how the proposed project will meet the requirements of this ordinance, including Section 3, Standards.
- b. **Downstream Impact Analysis.** As part of the permit application, all Development and Redevelopment shall perform a Downstream Impact Analysis as specified in Section 4.B.1.
- c. **Plan Certification.** All such plans shall be prepared by a qualified registered North Carolina professional engineer, surveyor, soil scientist or

landscape architect, and the engineer, surveyor, soil scientist or landscape architect shall perform services only in their area(s) of competence, and shall verify that the design of all stormwater management facilities and practices meets the submittal requirements for complete applications, that the designs and plans are sufficient to comply with applicable standards and policies found in the Design Manual, and that the designs and plans ensure compliance with this ordinance. The submittal shall include all of the information required in the submittal checklist established by the Stormwater Administrator.

#### D. Approvals

1. **Effect of Approval.** Approval authorizes the applicant to go forward with only the specific plans and activities authorized in the permit. The approval shall not be construed to exempt the applicant from obtaining other applicable approvals from local, state, and federal authorities.
2. **Time Limit/Expiration.** An approved plan shall become null and void if the applicant fails to make Substantial Progress on the site within one year after the date of approval. The Stormwater Administrator may grant a single, one-year extension of this time limit, for good cause shown, upon receiving a written request from the applicant before the expiration of the approved plan. In granting an extension, the Stormwater Administrator may require compliance with standards adopted since the original application was submitted unless there has been substantial reliance on the original permit and the change in standards would infringe the applicant's vested rights.

#### E. Appeals

1. **Right of Appeal.** Any aggrieved person affected by any decision, order, requirement, or determination relating to the interpretation or application of this ordinance made by the Stormwater Administrator, may file an appeal to the town's designated Appeal Board within 30 days.
2. **Filing of Appeal and Procedures.** Appeals shall be taken within the specified time period by filing a notice of appeal and specifying the grounds for appeal on forms provided by the town. The Stormwater Administrator shall transmit to the town's

designated Appeal Board all documents constituting the record on which the decision appealed from was taken. The hearing conducted by the town's designated Appeal Board shall be conducted in the nature of a quasi-judicial proceeding with all findings of fact supported by competent, material evidence.

3. **Review by Superior Court.** Every decision of the town's designated Appeal Board shall be subject to Superior Court review by proceedings in the nature of certiorari. Petition for review by the Superior Court shall be filed with the Clerk of Superior Court within 30 days after the latter of the following:
  - a. The decision of the town's designated Appeal Board is filed; or
  - b. A written copy of the decision is delivered to every aggrieved party who has filed a written request for such copy with the (Chair or Secretary of the board that will hear appeals) at the time of its hearing of the case.

9.2.7.4. Standards

9.2.7.5 Completion of Improvements and Maintenance

9.2.7.6 Enforcement and Violations

9.2.7.7 Illicit Discharges

[Back to Agenda](#)