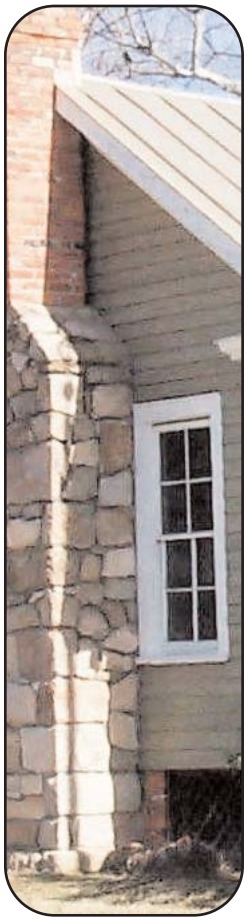
Unified Development Ordinance

Town of Wendell, NC
Adopted July 26, 2010



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TOWN OF WENDELL, NC
UNIFIED DEVELOPMENT ORDINANCE (UDO)
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Chapter 1. PURPOSE AND APPLICABILITY

1.1 Title

This Ordinance is officially titled as the "Unified Development Ordinance of the Town of Wendell, North Carolina," and shall be known as the "UDO."

1.2 Intent

The general purpose of this Ordinance shall be to facilitate a coordinated, balanced, sustainable, and harmonious development of the land within the corporate limits of the town and the town's extraterritorial jurisdiction. More specific goals of the UDO are: to ensure such development occurs in a manner that will best promote the health, safety, and general welfare of the people; to provide economy in the process of development; to make provisions for traffic circulation and connectivity; to provide services to ensure safety from fire, panic, and other hazards; to optimize natural resources such as light and air; to facilitate the provision of transportation, water, sewage, schools, parks, and other public requirements; to promote desirable living conditions and the sustained stability of neighborhoods; to protect property against blight and depreciation; and to conserve environmental resources.

In addition, this Ordinance seeks to implement the policy recommendations of the *Town Plan of Wendell* as adopted by the Wendell Board of Commissioners on April 23, 2007 as well any subsequent amendments to that plan. This document reflects the collective vision of the citizens of Wendell with respect to how they desire their town to look and grow, including:

- To preserve and protect the small town feel and historic character of the community;
- To protect and enhance the strengths of the downtown core:
- To increase downtown, in-town retail, dining, and residential options;
- To diversify and increase the per capita tax base;
- To promote Wendell's attractiveness to business and people of all walks of life;
- To provide for a range of housing opportunities;
- To increase community amenities, such as parks, schools, medical facilities, golf courses, and higher education opportunities;
- To ensure local and regional transportation interconnectivity and options while also maintaining and enhancing Wendell as a walkable community;
- To protect and preserve Wendell's natural resources and amenities;

- To ensure efficient provision of public services through strategic location of schools, utilities, and other public services.

Also, the UDO establishes procedures and standards for the development and subdivision of real property within the corporate limits and extraterritorial jurisdiction of the Town of Wendell, NC in order to:

- Promote orderly growth and development;
- Provide for suitable residential and nonresidential developments with adequate streets and utilities and appropriate building sites;
- Provide for distribution of population and traffic in a manner that shall avoid congestion and overcrowding;
- Provide for the coordination of streets within developments with existing or planned streets and with other public facilities;
- Provide for the dedication or reservation of rights-of-way or easements for streets and utility purposes;
- Provide for the dedication or reservation of adequate spaces for open space, public lands and buildings;
- Conserve and enhance environmental quality;
- Provide for the dedication or provision of facilities for adequate stormwater management drainage.

1.3 Authority

The zoning provisions in this UDO are enacted herein are under the authority of North Carolina General Statute §160A Article 19, which extends to cities the authority to enact regulations which promote the health, safety, and the general welfare of the community. It further authorizes cities to regulate and restrict the erection, construction, reconstruction, alteration, repair or use of buildings, structures, or land. This section authorizes the establishment of overlay districts in which additional regulations may be imposed upon properties that lie within the boundary of the district. The statutes also require that all such regulations shall be uniform for each use class or type of building throughout each district, but that the regulations in one district may differ from those in other districts.

The subdivision provisions in this UDO are enacted herein are under the authority of G.S. §160A Article 19, Part 2 which provides for the coordination of streets within proposed subdivisions with existing or planned streets and with other public facilities; the dedication or reservation of recreation areas serving residents of the immediate neighborhood within the subdivision, or alternatively, for the provision of funds to be used to provide recreation opportunities serving residents of more than one

neighborhood; and for the distribution of population and traffic in a manner that will avoid congestion and overcrowding.

1.4 Jurisdiction

The provisions of the UDO shall apply within the corporate limits of the Town and within the extraterritorial jurisdiction established by ordinance, as provided under GS §160A-360, the jurisdiction being delineated on a map and approved by the Wake County Board of Commissioners. These regulations apply to the development and use of all land and structures within the corporate limits of the Town of Wendell, North Carolina, and within the extraterritorial jurisdiction exercised by ordinance and denoted on the Zoning Map as is on file at the Wendell Planning Department. This map and its boundaries shall be incorporated and made part of this Ordinance.

1.5 Compliance or Required Conformance to UDO Provisions

From and after the adoption of the UDO, no real property lying within the jurisdiction of the UDO shall be subdivided except in conformance with all applicable provisions of the UDO. In addition, after the effective date of the UDO, no plat for subdivision of land within the jurisdiction of the UDO shall be certified for recording by the Administrator, and the Clerk of Superior Court shall not order the recording of a plat until it has been submitted and approved in accordance with the provisions of the UDO.

Furthermore, no land or structure shall be used or occupied, and no structure or parts shall be constructed, erected, altered, or moved, unless in conformity with all of the regulations herein specified for the zoning district in which it is located. Every building erected, moved, or structurally altered shall be located on a lot conforming to the requirements of the district.

1.6 Relation to Prior Zoning and Subdivision Ordinances

A. Continuation of Provisions

To the extent that the provisions of this chapter are the same as the previously adopted provisions that they replace in the Town of Wendell's Zoning Ordinance and Subdivision Regulations, they shall be considered as continuation thereof and not as new enactment unless otherwise specifically provided.

B. Repeal of Existing Subdivision and Zoning Regulations

Upon adoption of the UDO, the town's existing development regulations shall be repealed. These regulations include the subdivision regulations entitled "Subdivision Regulations of the Code of Ordinances of the Town of Wendell, North Carolina" as adopted on September 9, 2002 and as subsequently amended and the zoning regulations entitled "Zoning Code of Ordinances of the Town of Wendell, North Carolina" as adopted on January 14, 1980 and as subsequently amended. The adoption of the UDO, however, shall not affect or prevent any pending or future prosecution of, or action to abate an existing violation of said regulations.

1.7 Conflict with Other Laws

It is not intended that this Ordinance repeal, supersede, annul, impair, or interfere with any existing easements, private agreements, vested rights or building permits previously adopted or issued pursuant to law and currently effective.

All existing lots of record, platted prior to the adoption of this ordinance and upon which no buildings have been erected, shall be grandfathered upon the date of adoption of this ordinance and shall not be subject to the new lot standards herein. However, buildings upon such lots shall be subject to standards in this Ordinance.

Furthermore, should the courts declare any section or provisions of this chapter invalid, such decision shall not affect the validity of the chapter as a whole or any part thereof, other than the part so declared to be invalid.

1.8 Official Zoning Map

The map entitled Zoning Map of The Town of Wendell, North Carolina, as adopted by the Wendell Board of Commissioners and certified by the Town Clerk establishes the official zoning districts and overlay districts.

A. The Town is divided into districts whose locations and boundaries are shown on the official zoning map for the town. The Official Zoning Map of the Unified Development Ordinance is hereby adopted by reference and declared to be a part of this Ordinance. It is attached and recorded in the minutes of the Town Board of Commissioners.

B. The map shall be identified by the signature of the Mayor, attested by the Town Clerk, and bearing the official seal of the town under the following words: "This is to certify that this is the Official Zoning Map of the Unified Development Ordinance for the Town of Wendell, North Carolina." The date of adopting shall also be shown.

C. Changes to Map:

1. If, in accordance with the provisions of this chapter, changes are made in the zoning district boundaries or other matter shown on the map, such changes shall be made together with an entry on the map as follows: "On (date) by official action of the Town Board the following changes were made in the Official Zoning Map: (brief description of nature of change)." The entry shall be signed by the Mayor and attested by the Town Clerk. No amendment to this chapter that involves matter portrayed on the map shall become effective until after such change and entry have been made on the map. Changes to the map may be tracked by staff using Geographic Information Systems (GIS) software.

2. The Town Board shall give official notice of the zoning change to the Zoning Administrator within 24 hours after passage of the change.

3. Regardless of all copies of the map that may exist, the Official Zoning Map, which shall be located at Town Hall, shall be the final authority as to the current zoning status of land, water areas, and buildings in the town.

D. In the event that the Official Zoning Map becomes damaged, destroyed, lost, or difficult to interpret, the Town Board may by ordinance adopt a new Official Zoning Map, which shall be the same in every detail as the map it supersedes. The new map shall bear the signatures of the current Mayor and Town Clerk and shall bear the seal of the Town under the following words: "This is to certify that this Official Zoning Map supersedes and replaces the Official Zoning Map adopted (date of adoption of Map replaced)." The date of adoption of the new Official Zoning Map shall also be shown.

E. The Administrator shall be responsible for the maintenance and revision of the Official Zoning Map. Upon notification by the Town Board that a zoning change has been made, the Administrator shall make the necessary changes on the Official Zoning Map within 24 hours of notification.

F. Map Interpretation: The following rules shall apply in the interpretation of district boundaries and the location of centers shown on the zoning map:

1. Unless otherwise specifically indicated, where district boundaries are indicated on the zoning map as approximately parallel to following the centerline of a street, highway, railroad right-of-way, utility easement, streambed, or riverbed, or such lines extended, then the lines shall be construed to be the district boundaries.

2. Boundaries indicated, as approximately following platted lot lines, shall be construed as following the lot lines.

3. Boundaries indicated, as approximately following the Town limits, shall be construed as following the Town limits.

4. If a district boundary divides a lot, the requirement for the district in which the greater portion of the lot lies shall be extended to the balance of the lot, provided that such extension shall not include any part of the lot which lies more than 50 feet beyond the district boundary, and further provided that the remaining parcel shall not be less than the minimum required for the district in which it is located.

5. Where any public street or alley is hereafter officially vacated or abandoned, the regulations applicable to parcels of abutting property shall apply to that portion of the street or alley thereto by virtue of the vacation or abandonment.

6. In case any further uncertainty exists, the Board of Adjustment shall interpret the intent of the map as to the location of the boundaries.

1.9 Conformance with Adopted Plans

All development plans shall be in conformance with all adopted plans (including comprehensive plans, transportation plans, small area plans, open space and greenway plans, or any other plan adopted by the Wendell Board of Commissioners).

A. The Town Plan of Wendell

The Town Plan of Wendell was adopted by the Town of Wendell on April 23, 2007 and sets forth growth policies for the following 20 years.

B. Adopted Small Area Plans

All development plans shall be consistent with any adopted small area plan. Small area plans may contain any of the following elements:

- Multi-Modal Circulation Network (pedestrian, bicycle, automobile, and public transit networks)
- Green Infrastructure Network (floodplains, wetlands, lakes, streams, parks, squares, and other public open spaces)
- Location of sites reserved for Civic & Institutional buildings and uses

- General Massing and Development Intensity Pattern
- Specific Design Guidelines (in addition to those contained in this Ordinance)

C. Variations to Adopted Plans

Specific alignments, locations, or areas of public facilities noted in any adopted plan may be varied on a site by site basis as requested by the developer by the Administrator provided the integrity of the proposed network and connections, location, or area shown in the plan are maintained.

1.10 Interpretation

A. In interpreting and applying these regulations, the requirements contained herein are declared to be the minimum requirements necessary to carry out the purpose of these regulations and are adopted for the promotion of the public health, safety, and general welfare.

B. Except as hereinafter provided, these regulations shall not be deemed to interfere with, abrogate, annul, or otherwise affect in any manner whatsoever any easement, covenants, or other agreements between parties.

C. In any event, wherever the requirements of this chapter are in conflict with other requirements of lawfully adopted rules, regulations, ordinances, deed restrictions, or covenants, the most restrictive, or that imposing the highest standards, shall govern.

D. When any requirement of this Ordinance results in a fraction of a unit, a fraction of one-half or more shall be considered a whole unit and a fraction of less than one-half shall be disregarded. When the determination of the number of dwelling units permitted on a lot results in a fraction of a dwelling unit, a fraction of one-half or more shall be considered a dwelling unit and a fraction of less than one-half shall be disregarded.

1.11 Effective Date

These regulations shall become effective on July 27, 2010. Upon adoption, these regulations shall supersede, repeal, and replace the Wendell Zoning Ordinance, as amended, adopted on January 14, 1980 and the Wendell Subdivision Ordinance, as amended, adopted on September 9, 2002.

Many provisions herein are a restatement of previous provisions of the Wendell Zoning Ordinance or the Wendell Subdivision Ordinance and are hereby continued

without interruption. All other provisions of this Ordinance shall become effective July 27, 2010.

1.12 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 Chapter 18, unless the use, development, construction or other activity complies with the provisions of this Ordinance.

1.13 Validity

Should the courts declare any section or provisions of this UDO invalid, such decision shall not affect the validity of the UDO as a whole or any part thereof, other than the part so declared to be invalid.

Chapter 2. DISTRICT PROVISIONS

2.1 General Intent

The zoning districts for the Town of Wendell are ordered and classified according to the Rural-Urban Transect, the model from which the Town's Framework Plan was derived. The Framework Plan is a policy map intended to provide guidance to Wendell's leaders as they make decisions on where and how the community should grow.

The Transect is a method of classifying the natural and built environments as a continuum of six conditions, ranging from rural to urban. The value of the Transect is that it classifies development form with the appropriate land use and development context. For example, a rural street typically has no curbs or sidewalks and its buildings look like farmhouses or barns. An urban street, depending on the intensity of urbanism, may have curbs and gutters, regularly placed street trees, sidewalks, and building forms that include common walls, flat roofs, and cornices. Each Transect zoning category has detailed provisions for the mix of uses, building type, density, height, street design, the design of parks and open space, the mix of uses, building design, parking, streetscape and other aspects of the human environment.

T1 & T2: Natural & Rural Zones
The Transect begins with two zones that are rural in character: the Natural Zone (or T-1), which is made up of lands protected in perpetuity as natural, recreational or agricultural areas; and the Rural Zone (T-2), which includes areas of high agricultural, scenic, or environmental value that should be protected.

T3: Suburban Zone
The transition zone between countryside and town is called the Suburban Zone (T-3). The T-3 area consists primarily of single family homes. Although the T-3 area is primarily a residential zone, it may have other development types, such as schools and other civic uses.

T4: General Urban Zone
T-4 development is primarily residential, but more urban in character, having a higher density with a mix of housing types and a greater mix of uses, including neighborhood-serving commercial uses.

T5: Urban Center Zone
At the more urban end of the spectrum is the Urban Center Zone, or T-5. This can be a small neighborhood center or a larger Community/Town center, the latter serving more than one neighborhood.

T6: Urban Core Zone
The Urban Core or Downtown (T-6) serves not only adjacent neighborhoods, but the entire town and the region. It is typically the central business district where the greatest mix of uses occurs.

Special Districts: The Special Districts make allowance for specialized activities and development types, such as big box retail, institutional campuses, and industrial zones. The zoning districts for the Town of Wendell have been ordered along the Rural-Urban Transect, providing for appropriate development standards along the continuum (rather than a one-size-fits all approach) as well as a simplified tool for users of this Ordinance to facilitate appropriate forms of development.

The graphic on this page shows the defining features of various types of developments along the Rural-Urban Transect spectrum.

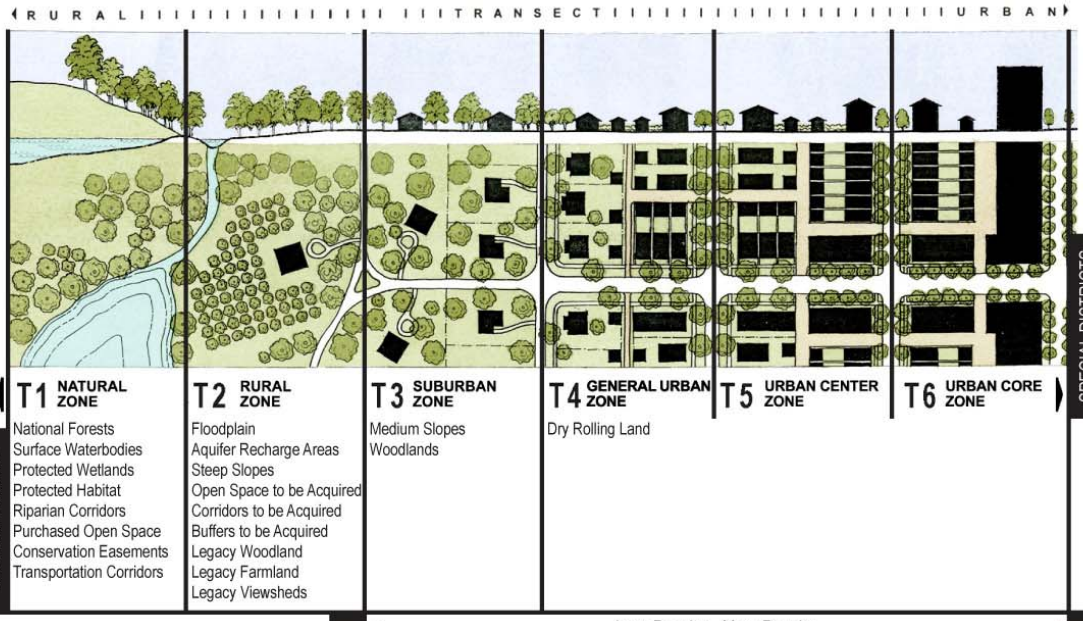


Image and table by Duany-Plater Zyberk and Company

HUMAN HABITAT		
	Less Density	More Density
	Primarily Residential	Primarily Mixed-Use
	Smaller Buildings	Larger Buildings
	More Greenspace	More Hardscape
	Detached Buildings	Attached Buildings
	Rotated Frontages	Aligned Frontages
	Yards & Porches	Stoops & Shopfronts
	Deep Setbacks	Shallow Setbacks
	Articulated Massing	Simple Massing
	Wooden Buildings	Masonry Buildings
	Generally Pitched Roofs	Generally Flat Roofs
	Small Yard Signs	Building Mounted Signage
	Livestock	Domestic Animals
	Roads & Lanes	Streets & Alleys
	Narrow Paths	Wide Sidewalks
	High L.O.S. Standards	Low L.O.S. Standards
	Opportunistic Parking	Dedicated Parking
	Larger Curb Radii	Smaller Curb Radii
	Open Swales	Raised Curbs
	Starlight	Street Lighting
	Mixed Tree Clusters	Aligned Street Trees
	Local Gathering Places	Regional Institutions
	Parks & Greens	Plazas & Squares

PRIVATE

PUBLIC

CIVIC

A. Establishment of Base Districts

In accordance with North Carolina General Statute 160A-382 that sets forth the establishment of zoning regulation by district, the Town of Wendell is hereby divided into various zoning districts that set forth uniform regulations for the development of land within each district.

These district regulations are intended to provide a regulating plan for the use of land and buildings in standards of good health and safety and in conditions of orderly community development. These regulations shall apply to all land and structures within the respective zoning district.

Transect Zone	New District*	Old District
	Base Districts	
T-1 Natural	Open Space Conservation (OSC)	*None*
T-2 Rural	Rural Agriculture (RA); max. 1 unit/ acre with road frontage or 1 unit/2 acres for interior family subdivision lots	*Residential Agricultural (RA); 20,000 sq ft minimum lots*
	Rural Residential (RR); Very Low Density; 25,000 sq ft minimum lots	R20; 20,000 *sq ft minimum lots*
T-3 Suburban	Residential, Low Density (R2); 15,000 sq ft minimum lots	*R15; 15,000 sq ft minimum lots*
	Residential, Medium Density (R3); 10,000 sq ft minimum lots	*R12; 12,000 sq ft minimum lots* *R10; 10,000 sq ft minimum lots*
T-4 General Urban	Residential, High Density (R4); 6,000 sq ft minimum lots	*R7; 7,000 sq ft minimum lots*
	Residential, High Density (R7); 3,500 sq ft minimum lots	*None*
	Neighborhood Center (NC)	*O&I Office and Institutional* *CN Neighborhood Commercial*
T-5 Urban Center	Corridor Mixed Use (CMX) Community Center (CC)	*CH Highway Commercial* *CS Shopping Center Commercial*
T-6 Urban Core	Downtown Mixed Use (DMX)	*CD Commercial Downtown* *DROD Downtown Retail Overlay District* *DDOD Downtown Development Overlay District*
SD Special Districts	Manufactured Home (MH) Highway Commercial (CH) Manufacturing & Industrial (M&I)	*MH Mobile Home Park District* *CH Highway Commercial* *M&I Manufacturing & Industrial*

**Designated floodplain area may not be platted as buildable lot.*

B. Planned Development Districts

The following districts function as floating overlay districts. They are permitted subject to the minimum development size and/or density of the underlying district.

Traditional Neighborhood Development (TND) *(Old NT and PUD)*

C. Overlay Districts

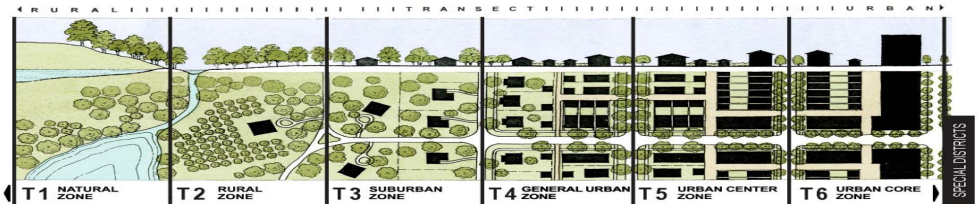
In accordance with North Carolina General Statute 160A-382, the following overlay districts are established. These overlay districts impose additional requirements on properties within one or more underlying base or conditional districts.

Manufactured Housing Overlay (MHO) *(Old MHOD)*
Gateway Overlay (GO) *(Old SHOD)*

D. Conditional Districts

Where lands are classified in a conditional zoning district, any conditions approved by the Board of Commissioners shall apply in addition to the regulations governing development in the corresponding base zoning district. The procedure for the establishment of these districts is found in Section 15.13. See Section 2.18, Conditional Districts, for additional details. Each District has a corresponding Conditional District.

2.2 Form-Based Standards by Zoning District



Base Districts	OSC	RA RR MH	R2 R3	R4 R7 NC	CMX CC	DMX	CH M&I MH
Assigned Districts			TND (R3)	TND	TND	TND	
Conditional & Overlay Districts	CD	CD	CD	CD GO MHO (R4,R7)	CD GO	CD GO	CD GO
Building Type *(CH 5)*	**OSC** Civic Institutional House (street)	**RA and RR** Civic Institutional House (street)	**R2 and R3** Civic Institutional House (street) **R3** House (alley)	**R4 and R7** Civic Institutional House (street) House (alley) **R7** Townhouse Apartment	**CMX and CC** Civic Institutional House (street) House (alley) Townhouse Apartment Mixed-Use Commercial	**DMX** Civic Institutional House (street) House (alley) Townhouse Apartment Mixed-Use Commercial	District – specific requirements
Minimum Lot Size *(CH 5)*	See Section 2.4	RA – 1acre with road front; 2 acres interior family subdivision RR – 25,000 sf	R2 – 15,000 sf R3 – 10,000 sf	R4 – 6,000 sf R7 – 3,500 sf	As determined by building type	As determined by building type	As determined by building type
Min. Height	None	None	None	None	None	2 stories/20 ft	None
Max. Height *(CH 5- Bldg Type)*	50 ft	50 ft	3 stories	3 stories	5 stories	4 stories	CH - 3 stories M&I - None
Open Space Dedication[1] *(CH 7)*	As req'd by district	RA – None RR - Yes	Yes	Yes	Yes	Yes	Yes
On-Street Parking *(CH 10)*	None	None	Occasional (marked)	Marked	Marked	Marked	Marked
Lighting *(CH 11)*	Not Required	Not Required or Regular Spacing	Regular Spacing	Pedestrian-Scaled	Pedestrian-Scaled	Pedestrian-Scaled	Regular Spacing
Curb[2] *(CH 9)*	Not Required	Not Required	R2 – Not Req. or Vertical R3 – Rolled or Vertical	R4 /R7 –Rolled or Vertical NC - Vertical	Vertical (Standard)	Vertical (Standard)	Vertical (Standard)
Drainage[3] *(CH 9)*	Open Swale	Open Swale	R2 – Open Swale R3-Closed/LID[3]	Closed/LID[3]	Closed/LID[3]	Closed/LID[3]	Closed/LID[3]
Street Trees *(CH 8)*	Not Required	RA - None RR - 40 ft average in planting strip	40 ft average spacing in planting strip	40 ft average spacing in planting strip	40 ft average spacing in planting strip or tree wells	40 ft average spacing in tree wells	40 ft average spacing in planting strip or tree wells
Sidewalk[4] *(CH 9)*	Not Required	Multi-Use Path (Typical)	R2 -Multi-use path; R3 – 5-8 ft one/both sides	5-16 feet; one or both sides	6-16 feet both sides	8-16 feet both sides	5-16 feet both sides

[1] Dedication is required for residential development only
[2] Where vertical curb and gutter is specified, it shall be 1.5 ft. wide for residential development and 2.5 ft. for non-residential or mixed-use development.
[3] LID (Low Impact Development) drainage options shall be as specified in the UDO or approved by the Administrator.
[4] Sidewalk Width: 5 ft for Residential, 8 ft min for Retail/Restaurants and 8-16 ft for DMX.

2.3 Use Categories and Tables of Permitted Uses

A. All uses permitted in this Ordinance have been divided into eight general categories and are generally defined as follows:

1. **Residential:** Premises available for long-term human habitation by means of ownership and rental, but excluding short-term leasing or rental of less than a month's duration.

2. **Lodging:** Premises available for short-term human habitation, including daily and weekly rental.

3. **Office/Service:** Premises available for the transaction of general business and the provision of services, but excluding retail sales and manufacturing, except as a minority component.

4. **Retail/Restaurants:** Premises available for the commercial sale of merchandise, prepared foods, and food and drink consumption, but excluding manufacturing.

5. **Entertainment/Recreation:** Premises for the gathering of people for purposes such as arts and culture, amusement, and recreation.

6. **Manufacturing/Wholesale/Storage:** Premises available for the creation, assemblage, storage, and repair of items including their wholesale or retail sale.

7. **Civic/Institutional:** Premises available for organizations dedicated to religion, education, government, social service, health care, and other similar functions.

8. **Infrastructure:** Uses and structures dedicated to transportation, communication, information, and utilities.

B. Interpretation of Use Matrices

1. **Permitted/Prohibited Uses:** Uses not listed as permitted (P); permitted with additional standards (PS); or requiring a special use permit (SUP) are presumed to be prohibited from the applicable zoning district.

2. **Uses Not Listed:** In the event that a particular use is not listed in the Use Matrix, and such use is not listed as a prohibited use and is not otherwise prohibited by law, the Administrator shall determine whether a materially similar use exists in this Chapter. Should the Administrator determine that

a materially similar use does exist, the regulations governing that use shall apply to the particular use not listed and the Administrator's decision shall be recorded in writing. Should the Administrator determine that a materially similar use does not exist, this Chapter may be amended to establish a specific listing for the use in question.

a. Materially Similar Uses: The Administrator may determine that a use is materially similar if:

i. The use is listed as within the same Structure or Function classification as the use specifically enumerated in the Use Matrix, as determined by the Land-Based Classification Standards ("LBCS") of the American Planning Association [*Reference: http://www.planning.org/lbcs/index.html*]. The use shall be considered materially similar if it falls within the same LBCS classification and meets the requirements of subsection ii below.

ii. The proposed use shall not generate average daily trips exceeding other similar uses proposed in the zoning district by more than 10 percent, as determined by the Institute of Transportation Engineers, Trip Generation (most recent edition)(the "ITE Manual"), which document is hereby incorporated by this reference. If the trip generation is not listed in the ITE Manual, then the use shall be considered materially similar to the use that most closely approximates the proposed use. The Administrator may also refer to similar local traffic studies.

3. Rules of Construction: In order to assist in interpretation of the Use Matrix, the LBCS numbers, where applicable, are enumerated in Chapter 19, Definitions. In interpreting the Use Matrix, the following rules of construction shall apply:

a. If a use is listed for a specific classification, while a more general classification within the same industry classification is also listed for another use, the specific classification governs. A specific use is not permitted in all districts where uses assigned to the general classification are permitted simply because they share a similar LBCS code number. The numbers increase as the use classifications get more specific.

b. Some uses are listed separately, but fall within the same LBCS classification. The uses within one such classification are not permitted in other zoning districts simply because they fall within the same LBCS classification.

C. Use Matrices

BASE DISTRICT	OSC	RA	RR	R2	R3	R4	R7	NC	CMX	CC	DMX	MH	CH	M&I	TND
Residential															
Dwelling-Single Family	P	P	P	P	P	P	P	P	P	P	P	P	P	-	P
Dwelling-Multifamily	-	-	-	-	-	-	SUP	SUP	SUP	SUP	SUP	-	SUP	-	SUP
Dwelling-Secondary	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	-	PS	-	PS
Family Care Home (6 or fewer residents)	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	-	PS
Home Occupation	-	PS	PS	PS	PS	PS	PS	P	P	P	P	-	P	-	PS
Housing Service for the Elderly	-	-	-	-	PS	PS	P	P	P	P	P	-	P	-	P
Live-Work Units	-	-	-	-	-	-	-	PS	PS	PS	PS	-	PS	-	PS
Manufactured Housing	-	PS	PS	-	PS	-	-	-	-	-	-	PS	-	-	-
Lodging															
Bed and Breakfast Inns	P	P	P	P	P	P	P	P	P	P	P	-	P	-	P
Hotels/Motels/Inns	-	-	-	-	-	-	-	-	P	P	P	-	P	-	P
Rooming or Boarding House	-	-	-	-	-	-	PS	PS	PS	PS	PS	-	-	-	PS
Office/Service															
Animal Services	-	PS	PS	PS	PS	PS	-	-	PS	PS	PS	-	PS	PS	-
ATM	-	-	-	-	-	-	-	PS	P	P	P	-	P	P	P
Banks, Credit Unions, Financial Services	-	-	-	-	-	-	-	P	P	P	P	-	P	-	P
Business Support Services	-	-	-	-	-	-	-	P	P	P	P	-	P	P	P
Child/Adult Day Care Home (8 or less persons)	-	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	-	PS	-	PS
Child/Adult Day Care Center (More than 8 persons)	-	-	-	-	-	-	-	SUP	PS	PS	PS	-	PS	PS	PS
Community Service Organization	-	-	-	-	-	-	-	P	P	P	P	-	P	-	P
Drive Thru Service	-	-	-	-	-	-	-	PS	PS	PS	SUP	-	PS	-	SUP
Equipment Rental	-	-	-	-	-	-	-	-	P	-	-	-	P	P	-
Funeral Homes	-	-	-	-	-	-	-	P	P	P	P	-	P	-	P
Group Care Facility (More than 6 residents)	-	PS	PS	-	-	SUP	SUP	PS	PS	PS	PS	-	PS	-	PS
Government Services	SUP	P	P	P	P	P	P	P	P	P	P	-	P	P	P
Laundry Services	-	-	-	-	-	-	-	P	P	P	P	-	P	-	P
Medical Services - Clinic, Urgent Care Center	-	-	-	-	-	-	-	P	P	P	P	-	P	-	P
Medical Services – Doctor office	-	-	-	-	-	-	-	P	P	P	P	-	P	-	P

P Permitted
PS Permitted subject to Additional Standards in Chapter 3
SUP Special Use Permit Required (See Chapter 3 and Chapter 15)
— Not Permitted

BASE DISTRICT	OSC	RA	RR	R2	R3	R4	R7	NC	CMX	CC	DMX	MH	CH	M&I	TND
Office/Service (cont)															
Outdoor Kennels/Equine Facilities	-	PS	PS	-	-	-	-	-	-	-	-	-	PS	PS	-
Post Office	-	-	-	-	-	-	-	P	P	P	P	-	P	P	P
Professional Services	-	-	-	-	-	-	-	P	P	P	P	-	P	P	P
Residential Treatment Facility	-	-	-	-	-	-	-	SUP	SUP	SUP	-	-	SUP	-	-
Studio – Art, Music	-	-	-	-	-	-	-	P	P	P	PS	-	P	P	P
Studio – Dance, Martial Arts	-	-	-	-	-	-	-	P	P	P	SUP	-	P	P	P
Tattoo Parlor	-	-	-	-	-	-	-	-	-	-	-	-	PS	-	-
Vehicle Services – Minor Maintenance/Repair	-	-	-	-	-	-	-	-	PS	PS	PS	-	PS	PS	-
Vehicle Services – Major Repair/Body Work	-	-	-	-	-	-	-	-	PS	-	PS	-	PS	PS	-
Retail/Restaurants															
Alcoholic Beverage Sales Store	-	-	-	-	-	-	-	SUP	PS	PS	PS	-	PS	-	PS
Auto Parts Sales	-	-	-	-	-	-	-	P	P	P	P	-	P	-	-
Bar/Tavern/Night Club	-	-	-	-	-	-	-	SUP	SUP	SUP	SUP	-	SUP	-	SUP
Car Wash – Stand Alone, Self Service	-	-	-	-	-	-	-	-	PS	PS	-	-	PS	-	PS
Drive-Thru Retail/Restaurants	-	-	-	-	-	-	-	-	PS	-	-	-	PS	-	-
Gas Station	-	-	-	-	-	-	-	-	PS	PS	SUP	-	PS	-	PS
General Retail – 10,000 sf or less	-	-	-	-	-	-	-	PS	P	P	P	-	P	P	P
General Retail – 10,001 – 50,000 sf	-	-	-	-	-	-	-	SUP	P	P	P	-	P	-	P
General Retail – Greater than 50,000 sf	-	-	-	-	-	-	-	-	PS	PS	PS	-	PS	-	PS
Restaurant	-	-	-	-	-	-	-	P	P	P	P	-	P	P	P
Shopping Center – Neighborhood Center	-	-	-	-	-	-	-	SUP	P	P	-	-	P	-	P
Shopping Center – Community Center	-	-	-	-	-	-	-	-	P	P	-	-	P	-	-
Vehicle Sales	-	-	-	-	-	-	-	-	PS	PS	PS	-	PS	PS	-
Heavy Equipment/RV Sales/Farm Equipment Sales /Mobile Home Sales	-	-	-	-	-	-	-	-	-	PS	-	-	PS	PS	-
Entertainment/Recreation															
Adult Establishment	-	-	-	-	-	-	-	-	-	-	-	-	-	PS	-
Amusements, Indoor	-	-	-	-	-	-	-	-	PS	PS	PS	-	PS	-	-
Amusements, Outdoor	-	PS	PS	-	-	-	-	-	PS	-	-	-	PS	-	-
Billiard/Pool Hall	-	-	-	-	-	-	-	SUP	SUP	SUP	SUP	-	SUP	-	-
Cultural or Community Facility	PS	PS	PS	PS	PS	PS	PS	P	P	P	SUP	P	P	P	P
Meeting Facilities	PS	PS	PS	PS	PS	PS	PS	P	P	P	SUP	P	P	P	P
Recreation Facilities, Indoor	PS	PS	PS	PS	PS	PS	PS	P	P	P	SUP	P	P	P	P
Recreation Facilities, Outdoor	PS	PS	PS	PS	PS	PS	PS	P	P	P	SUP	P	P	P	P
Sweepstakes Center	-	-	-	-	-	-	-	-	-	-	-	-	SUP	-	-
Theater, Movie	-	-	-	-	-	-	-	-	P	P	P	-	P	-	-
Theater, Live Performance	-	-	-	-	-	-	-	P	P	P	P	-	P	-	P

P Permitted
PS Permitted subject to Additional Standards in Chapter 3
SUP Special Use Permit Required (See Chapter 3 and Chapter 15)
— Not Permitted

BASE DISTRICT	OSC	RA	RR	R2	R3	R4	R7	NC	CMX	CC	DMX	MH	CH	M&I	TND
Manufacturing/Wholesale/Storage															
Agriculture	P	P	P	-	-	-	-	-	-	-	-	-	-	P	-
Laundry, dry cleaning plant	-	-	-	-	-	-	-	-	-	-	-	-	P	P	-
Manufacturing, Light	-	-	-	-	-	-	-	-	PS	-	SUP	-	PS	P	-
Manufacturing, Neighborhood	-	-	-	-	-	-	-	PS	PS	PS	SUP	-	PS	P	PS
Manufacturing, Heavy	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-
Media production	-	-	-	-	-	-	-	-	P	P	P	-	P	P	-
Metal products fabrication, machine or welding shop	-	-	-	-	-	-	-	-	P	-	SUP	-	P	P	-
Mini-Warehouses	-	-	-	-	-	-	-	-	PS	-	-	-	PS	PS	-
Research and development	-	-	-	-	-	-	-	-	SUP	SUP	SUP	-	PS	P	P
Storage - Outdoor as a primary use	-	P	-	-	-	-	-	-	-	-	-	-	P	P	-
Storage - Warehouse, indoor storage	-	-	-	-	-	-	-	-	PS	-	PS	-	-	P	-
Wholesale Distribution	-	-	-	-	-	-	-	-	-	-	-	-	P	P	-
Civic/Institutional															
Campground	PS	PS	-	-	-	-	-	-	-	-	-	-	-	-	-
Cemetery	PS	PS	-	PS	PS	-	-	-	PS	PS	-	PS	PS	PS	-
Colleges/Universities	-	-	-	-	-	-	-	SUP	SUP	SUP	SUP	-	SUP	SUP	-
Hospital	-	-	-	-	-	-	-	SUP	SUP	SUP	SUP	-	-	-	-
Public Safety Station	-	SUP	SUP	SUP	SUP	SUP	SUP	P	P	P	P	-	P	P	P
Religious Institutions	-	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	-	SUP	SUP	SUP	SUP
Schools – Elementary & Secondary	-	P	P	P	P	P	P	P	P	P	-	-	-	-	P
Schools – Vocational/Technical	-	-	-	-	-	-	-	P	P	P	P	-	P	P	P
Infrastructure															
Airport	-	SUP	-	-	-	-	-	-	-	-	-	-	-	SUP	-
Transit Station - Passenger	-	-	-	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS
Wireless Telecommunication Facility-Stealth	-	-	-	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS
Wireless Telecommunication Facility-Tower	-	PS	PS	-	-	-	-	-	PS	-	PS	-	PS	PS	-
Utilities-Class 1	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	-	PS	PS	PS	PS
Utilities-Class 2	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	-	PS	PS	PS	PS
Utilities-Class 3	-	PS	PS	-	-	-	-	-	-	-	-	-	PS	PS	-
Parking Lot (primary use)	-	-	-	-	-	-	-	-	-	P	P	-	-	-	P
Parking Structure (primary use)	-	-	-	-	-	-	-	-	PS	PS	PS	-	-	-	PS

P Permitted
PS Permitted subject to Additional Standards in Chapter 3
SUP Special Use Permit Required (See Chapter 3 and Chapter 15)
— Not Permitted

2.4 Open Space Conservation (OSC)

A. Purpose and Intent: The Open Space Conservation District is intended to protect areas that are permanently conserved through government ownership or private easements as natural, environmentally, or recreationally significant lands. Such areas include parks, wetlands, and areas placed in conservation easement.

B. Minimum Lot Size *(individual single family dwellings not part of a common plan of development)*: 1 Unit/20 acres

C. Dimensional Standards for all other Uses: See Chapter 5

D. Permitted Development Types: The following type of residential development is permitted within the OSC District.

1. Conservation Neighborhood

The conservation neighborhood offers property owners a way to maintain land in the OSC district as largely undeveloped. Conservation neighborhoods may be approved by the Administrator upon a finding that all requirements of this section have been met.

a. Development Requirements:

	Minimum Acreage	Maximum Density	Maximum Dwelling Units
Conservation Neighborhood	40 acres	1 unit/20 acres	6

b. Owners shall establish an irrevocable conservation easement held by a conservation organization (as authorized by US 150(h); 20559(a) and NC GS 124-34 et seq.) and shall provide the Town with a boundary description of the area under the conservation easement.

c. In a Conservation Neighborhood, land set aside for detached houses shall be specified in the easement and shall be the minimum size necessary to allow construction of the house.

d. Access and Rights-of-Way: No new public streets may be created. All buildings within the Conservation Neighborhood shall have permanent access by way of a public road frontage or a 20-foot wide access easement connecting to a public right-of-way. Where the tract abuts or includes a segment of a

public street, thoroughfare, or greenway as shown on an adopted plan, the developer shall provide for these improvements by either deed or plat map. However, the developer shall not be required to construct any of these improvements.

e. The tract shall preserve the rural appearance of the land from the view of public roads and abutting properties.

f. Only structures and uses identified as acceptable by the conservation organization will be allowed on the property.

g. **Required Improvements:** The Conservation Neighborhood shall be exempt from the requirements of Chapter 7, Open Space; Chapter 8, Tree Protection & Landscaping (except Section 8.5, Tree Protection); and Section 17.2, General Infrastructure Improvement Requirements.

h. In a Conservation Neighborhood, there shall be no further subdivision of lots without the consent of all landowners and easement holders and approval of the Administrator.

2.5 Rural Agricultural (RA) *(Old RA)*

A. **Purpose and Intent: The** Rural Agricultural district is coded to accommodate very low density residential development and agricultural uses, protect natural vistas, and landscape features that define Wendell's rural heritage. The intent of this district is two-fold. First, it is designed to maintain a rural boundary, preserving important agricultural and forested areas on the perimeter of Wendell and providing incentives to place land into conservation. Second, it is intended to reserve developable areas until utility infrastructure can be installed to allow for planned growth.

B. **Minimum Lot Size – Option A** *(individual lots not part of a common plan of development with existing road frontage)*: 1 acre

C. **Minimum Lot Size – Option B** *(individual lots deeded to family members not part of a common plan of development interior to a lot shall require deeded access)*: 2 acres (maximum of two family subdivision lots to family members which may or may not live in the same household)

D. **Dimensional Standards for all other Uses:** See Chapter 5

E. **Permitted Development Types:** Developments of five or fewer residential lots may be developed as a minor subdivision within the RA district. Further development is not permitted in the RA zoning district.

2.6 Rural Residential (RR)

A. Purpose and Intent: The Rural Residential district is designed to accommodate very low density residential development. The intent of this district is to provide for residential lots within a common development of more than five lots while maintaining a rural feel through the use of larger lot sizes, open space and the rural road cross-section.

B. Permitted Development Types:

a. Minimum lot size shall be 25,000 square feet.

b. Open space shall be provided for within a Rural Residential subdivision. See Chapter 7.

c. If the development includes a homeowners association, the association may own the development's undeveloped land. Otherwise, the undeveloped land may be privately held, as long as a permanent conservation easement is placed on the land. Alternatively, it may be owned by a land conservancy, or other entities proposed by the Town.

d. Streets within a Rural Residential subdivision shall use the rural road cross-section (See Chapter 9).

e. While the rural road cross-section does not require installation of sidewalks, a minimum 8 foot wide multi-purpose path is required on one side of the street.

2.7 Residential Districts (RR, R2, R3, R4, R7)

Residential, Low Density (RR, R2) *(Old R20, Old R15)*
Residential, Medium Density (R3) *(Old R12 and Old R10)*
Residential, High Density (R4, R7) *(Old R7, None)*

A. Purpose and Intent: The Residential Districts are coded for the Town's existing predominately-residential neighborhoods as well as to provide for new primarily-residential development in accordance with this pattern. These Districts are differentiated by the density of the overall development relative to the planning goals of the Town as set forth in the Town Plan.

B. Specific District Provisions:

1. Minimum Lot Sizes:

	Minimum Lot Size
RR	25,000 sq ft
R2	15,000 sq ft
R3	10,000 sq ft
R4	6,000 sq ft
R7	3,500 sq ft

2. Permitted Building Type Ratio: The maximum number of Townhouse buildings in a R7 development shall not exceed 30 percent of the total number of units.

3. Lot and Building Dimensional Requirements: For infill lots in already built upon areas of the Town, the minimum lot width and front setback shall be equal to the average dimensions within 300 feet or one block length (whichever is greater), except with approval of the Administrator. Otherwise, the dimensional requirements for new developments shall be as specified in Chapter 5.

2.8 Neighborhood Center (NC) *(Old O&I and CN)*

A. Purpose and Intent: The Neighborhood Center District is coded to provide for areas for residential and mixed-use development in close proximity to existing and planned neighborhood centers. The intent is to create higher density residential areas that compliment commercial districts with physical proximity and pedestrian connectivity. Different housing types and lot styles are encouraged. Development in this district should encourage pedestrian use through connections to adjacent neighborhoods and the construction of mixed-use buildings.

B. Specific District Provisions:

1. Areas Available for Retail: Areas available for retail uses are limited to the first story of buildings radiating from corner locations where one of the fronting streets is a thoroughfare (as designated by the Collector Street Plan).

2. Lot and Building Dimensional Requirements: For infill lots in already built upon areas of the Town, the minimum lot width and front setback shall be equal to the average dimensions within 300 feet or one block length (whichever is

greater), except with approval of the TRC. Otherwise, the dimensional requirements for new development shall be as specified in Chapter 5.

2.9 Corridor Mixed-Use (CMX) *(Old CS and CH)*

A. Purpose and Intent: The Corridor Mixed-Use District is coded to provide pedestrian-scaled higher density residential and neighborhood-serving commercial activities along existing mixed use corridors. Developments in this district should encourage pedestrian use through connections to adjacent neighborhoods and the construction of mixed-use buildings. Depending on the presence of on-street parking, buildings may be set close to the street and may be larger in form.

B. Specific District Provisions:

1. **Lot and Building Dimensional Requirements:** For infill lots in already built upon areas of the Town, the minimum lot width and front setback shall be equal to the average dimensions within 300 feet or one block length (whichever is greater), except with approval of the TRC. Otherwise, the dimensional requirements for new developments shall be as specified in Chapter 5.

2.10 Community Center (CC)

A. Purpose and Intent: A Community Center is a mixed-use activity center with employment and commercial uses that attract people from beyond the immediate neighborhoods and from surrounding communities. A Community Center combines a variety of housing types, including higher density single- and multi-family housing, as well as commercial and civic uses in a compact, walkable setting. Community Centers feature a highly interconnected street network and setbacks appropriate to create a public realm built on a human scale.

B. Specific District Provisions:

1. **Lot and Building Dimensional Requirements:** See Chapter 5

2.11 Downtown Mixed-Use (DMX) *(Old CD, DROD and DDOD)*

A. Purpose and Intent: The Downtown Mixed-Use District is coded to encourage the redevelopment and expansion of the traditional Downtown area. Individual buildings are encouraged to be mixed vertically with street level commercial and upper level residential or commercial uses. Higher densities of residential development are encouraged.

B. Specific District Provisions:

1. **Parking Requirements:** New structures in the DMX District will either provide off-street parking under the requirements of Chapter 10 or provide a fee in lieu of payment.

2. **Open Space Requirements:** As specified in Chapter 7.

3. **Lot and Building Dimensional Requirements:** As specified in Chapter 5.

2.12 Manufactured Home District (MH) *(Old MH)*

A. Purpose and Intent: Manufactured housing is a recognized form of affordable housing. The MH district is coded to allow for the development of neighborhoods which utilize manufactured housing as its principal building construction. The intent is to treat manufactured housing with the same design considerations applied to homes built to the standards set forth in the North Carolina Building Code and those codified in this Ordinance.

B. Manufactured Home Neighborhood

1. **General Description:** The Manufactured Home Neighborhood is a subdivision of land that permits double-wide manufactured houses that are aligned on the lots in a manner similar to site-built homes with their front doors facing the streets.

2. Individual homes shall be placed upon separately platted lots.

3. Design of manufactured homes should be in compliance with the architectural standards in Section 5.9, Building Type: House.

4. Neighborhoods with 30 or more lots shall have at least two entrances.

5. Lot and Dimensional Specifications:

	All Structures
Minimum Development Size	3 acres
Maximum Development Size	40 acres
Maximum Development Density *(Units/Acre)*	7
External Development Setback	50 ft
Internal Setbacks (*Minimum*)	Front – 10 feet Side – 3 feet Rear – 25 feet

C. Manufactured Home Parks

1. Manufactured Home Parks, which may be established in certain districts as prescribed in the district use matrices of this chapter, are subject to the requirements of that district and the standards set forth below.

2. **Special Use Permit Required:** No Manufactured Home Park within the jurisdiction of the town shall be established or expanded until a special use permit has been issued by the Board of Commissioners.

3. **Lot and Dimensional Specifications:**

	All Structures
Minimum Development Size	3 acres
Maximum Development Size	10 acres
Minimum number of Manufactured Home Spaces	2
Maximum Development Density *(Units/Acre)*	6
Exterior Development Setback	50 ft
Minimum Area for Manufactured Home Space	7,500 sq ft*
Distance between Units	20 ft
Internal Setbacks *(Minimum)*	See 3b

** If individual sewage disposal systems (septic tanks) are used, each manufactured home space shall contain at least 20,000 square feet of ground area, subject to approval by Wake County Environmental Services. If subsoil conditions dictate, Wake County Environmental Services may require larger lots.*

a. All manufactured homes shall be located on individual manufactured home spaces.

b. Each manufactured home shall be located at least 20 feet from any other manufactured home, at least 15 feet from any building within the Manufactured Home Park, at least 15 feet from any property line, and at least 15 feet from the edge of the right-of-way of any street.

4. **Identification Signs:** Manufactured Home park identification signs shall be limited to one ground sign per park entrance. No sign shall exceed 36 square feet in area. Only indirect, non-flashing lighting shall be used for illumination.

5. **Administrative Office:** Within a Manufactured Home park, one manufactured home may be used as an administrative office.

6. **Convenience Establishments:** Convenience establishments of a commercial nature, such as food stores, coin-operated laundries, and beauty parlors, may be permitted in Manufactured Home Parks subject to the following restrictions:

   a. Such establishments shall be subordinate to the residential use and character of the park;

   b. Such establishments shall present no visible evidence of their commercial character outside the park;

   c. Such establishments shall be designed to serve the trade and service needs of the park residents only, and

   d. Sewage disposal facilities outside the service area of the town's sewer system are subject to Wake County Environmental Services approval.

7. **Streets and Paving:**

   Refer to Chapter 9 - Circulation and Connectivity

8. **Open Space:**

   Refer to Chapter 7 - Open Space

9. Water and Sewer Connections

Each manufactured home space shall be provided with and connected to a source of water and a system of sewage disposal approved by Wake County Environmental Services.

10. Lighting

Refer to Chapter 11 - Lighting

11. Garbage/Recycling

All garbage and refuse in every Manufactured Home Park shall be stored in a suitable watertight and insect-tight receptacle. Wake County Environmental Services shall approve the method of garbage, refuse and recycling disposal, if not served by municipal garbage collection.

12. Inspections

Wake County Environmental Services or the Zoning Administrator are hereby authorized and directed to make such inspections as are necessary to determine satisfactory compliance with this chapter. It shall be the duty of the owners or occupants of Manufactured Home parks to give these agencies free access to such premises at reasonable times for the purpose of inspection and to maintain the park, its facilities, and equipment in good repair and in a clean and sanitary condition.

13. Relocation and Sales of Manufactured Homes within Parks

a. It shall be unlawful for manufactured home dealers/manufacturers to sell manufactured homes within a Manufactured Home Park.

b. Relocation of manufactured homes whether it be from an existing lot to another or from an outside location to within the park shall be required to meet all of the following:

i. The assessed or appraised value of the manufactured home being relocated to within the park shall be greater than the manufactured home being moved, removed, or replaced from the park.

ii. The square footage of the manufactured home being relocated to within the park shall be as great, or greater than, the manufactured home being moved, removed, or replaced from the park.

2.13 Highway Commercial (CH) *(Old CH)*

A. Purpose and Intent: The intensity of commercial development in the Highway Commercial district is established by the traffic of the fronting thoroughfare. The intent of these regulations is to facilitate convenient access, minimize traffic congestion, and reduce the visual impact of excessive signage and parking lots.

B. Specific District Provisions

1. **Lot and Building Dimensional Requirements:** See Chapter 5

2.14 Manufacturing & Industrial (M&I) *(Old M&I)*

A. Purpose and Intent: The Manufacturing and Industrial District is coded to permit the development and operation of light or heavy industrial or flex-space buildings and uses that are typically too large in scale to fit within a neighborhood environment and that should be buffered from surrounding neighborhood uses. In the interest of economic development, this District is reserved for non-residential uses only to preserve adequate opportunities for future relocation and expansion of employment-based uses.

B. Specific District Provisions:

1. **Internal Streets:** An interconnecting network of internal streets shall be designed to accommodate the various uses found within the District. Where possible, all access to sites shall be from these internal streets.

2. **Building Design Standards:** All portions of buildings within 100 feet of the street shall be designed in a manner that is pedestrian in scale and massing unless a technological requirement demands a different design. Required building design elements include the following, unless waived by the Administrator based on determination that the requirements would adversely impact the intended use of the building:

   a. **Building Materials:** All building walls visible from a public street shall be brick or decorative concrete masonry unit, or other materials similar in appearance and durability.

   b. **Building Facades:** All buildings shall avoid long, blank walls by integrating design variety along the façade through wall offsets, change in material patterning, awnings, windows, or doors or other techniques used to avoid wall monotony.

3. **Parking:** Parking lots may be placed adjacent to internal streets only, but shall be screened in accordance with the standards of Chapter 8 - Tree Protection & Landscaping. Parking lots shall not be adjacent to external streets unless existing conditions do not provide a practical alternative.

4. **Lot and Building Dimensional Requirements:**

	All Structures
Exterior District/Development Setback (*Minimum*)	100 ft
Undisturbed District/Development Buffer (*Minimum*)	30 ft
Internal Setbacks (*Minimum*)	0 ft to 30 ft

2.15 Traditional Neighborhood Development (TND) *(Old NT & PUD)*

A. Purpose and Intent: The intent of this District is to allow for the development of fully integrated, mixed-use pedestrian-oriented neighborhoods that minimize traffic congestions, suburban sprawl, infrastructure costs, and environmental degradation. Traditional Neighborhoods adhere to the following principles:

- All neighborhoods have identifiable centers and edges
- All lots are within walking distance to retail (a distance not greater than ¼ mile) and recreation opportunities (a distance not greater than ½ mile)
- Uses and housing types are mixed and in close proximity to one another
- Street networks are interconnected and blocks are small
- Civic buildings are given prominent sites throughout the neighborhood

B. Specific District Provisions:

1. **Development Size (Minimum-Maximum):** 40 acres - 200 acres *(Notes: Projects in excess of 200 acres should be developed as multiple Traditional Neighborhoods, each individually subject to all such provisions.*

2. **Neighborhood Design:** The entire land area of the TND shall be divided into blocks, streets, lots and open space areas.

3. **Land Use Relationships:** Similar land use categories shall generally front across streets. Dissimilar categories shall abut at rear lot lines. Corner lots which front on

streets of dissimilar use shall be set back the same as the adjacent use with the lesser setback.

4. **Terminating Vistas:** The long axis of streets exceeding 500 feet in length shall have appropriate termination with either a public monument, specifically designed building façade, or a gateway to the ensuing space.

5. **Open Space:** Open Space shall be provided in accordance with the requirements of Chapter 7.

6. **Dimensional Standards and Building Types:** The Dimensional Standards and Building Types shall be established in accordance with the neighborhood design, but within 200 feet of all adjacent property boundaries (not across streets) the lot widths and depths and building types shall be generally consistent with the adjacent zoning district(s) of a lower development intensity/density.

7. **Use Standards:** The proposed uses shall be consistent with the requirement of Section C below and the permitted uses listed in the Use Matrices in Section 2.3.

C. Land Allocation by Use:

(Note: The figures in the table below are to be calculated as the net development area, excluding street-rights-of-way)

	Minimum	Maximum
Single-Family Uses	15%	75%
Two-Family and Multi-Family Uses	10%	40%
Lodging/Office/Retail Uses	2%	40%
Civic Uses	2%	none
Open Space	Per Chapter 7	

D. Permitted Locations and Densities:

	Maximum Density By Right (units/acre)	Maximum Density as a Conditional District (units/acre)
R3	2.48	4.5
R4	3.77	7.5
R7	6.67	10.5
NC	22.5	Not Restricted
CC	Not Restricted	Not Restricted
CMX	Not Restricted	Not Restricted
DMX	Not Restricted	Not Restricted

2.16 Manufactured Housing Overlay (MHO) *(Old MHOD)*

A. Purpose and Intent: The purpose of this district is to provide an opportunity to designate areas within the R4 and R7 Residential districts that are suitable for the location of manufactured housing.

B. Specific District Provisions:

a. Land uses other than manufacturing housing shall be allowed within any manufactured housing overlay district as provided for by the standard district regulations.

b. Manufactured housing located within any Manufactured Housing Overlay District must meet both the requirements of the larger district and other requirements related specifically to manufactured housing. Where these requirements may conflict, the more restrictive or detailed provisions shall prevail.

c. Manufactured housing shall meet the requirements of a Manufactured Housing Neighborhood which are located in Section 2.12.

2.17 Gateway Overlay (GO) *(Old SHOD)*

A. Purpose and Intent:

The purpose of these regulations is to protect the natural scenic beauty along the thoroughfares leading to and from Wendell, which are in Wendell's jurisdiction while allowing the orderly development of land along its highways. It is the intent of these regulations that development in the Gateway Overlay shall be in harmony with, and shall preserve, to the extent possible, the natural beauty and wooded character of the district. Ensuring the attractiveness of uses will in turn contribute and enhance trade, tourism, capital investment, and general welfare.

B. Applicability

1. **Location:** The Gateway Overlay shall be appropriately located on either side of an existing or proposed interstate, US Highway 64 Business (Wendell Boulevard), Wendell Falls Parkway, Richardson Road, Poole Road, Marshburn Road, and other major/minor thoroughfares as determined by the Wendell Board of Commissioners, within the town's zoning jurisdiction.

2. **Boundary:** The district shall be measured 300 feet in either direction from the road right-of-way, and shall follow identifiable geographic boundary lines whenever possible and may include adjacent lands where development may affect natural scenic beauty by travelers on the thoroughfare. District boundaries may be located closer to the special highway where:

   a. Intervening topography or other permanent natural features preclude adjacent development from being visible from the thoroughfare.

   b. The adjacent underlying zoning is residential and there is existing or approved residential development.

3. **Non-Conforming Uses:** Development existing at the date of approval of this ordinance shall not be required to comply with the regulations contained herein, except those subject to the Non-Conforming Use provisions of Chapter 13.

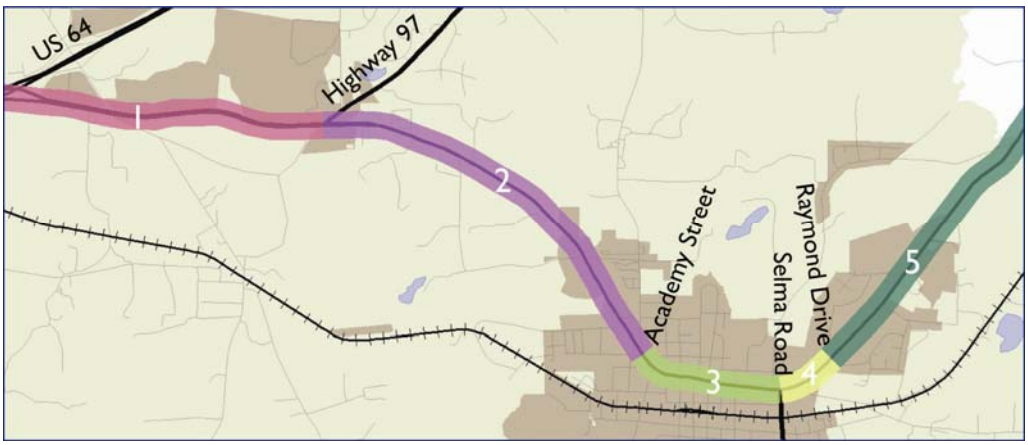
C. Permitted Uses: The district does not replace or restrict the range of uses permitted in the underlying zoning districts. The overlay district includes additional development requirements that shall be met by any development within the district. The provisions of the Gateway Overlay shall be applicable to all underlying districts as shown on the zoning map.

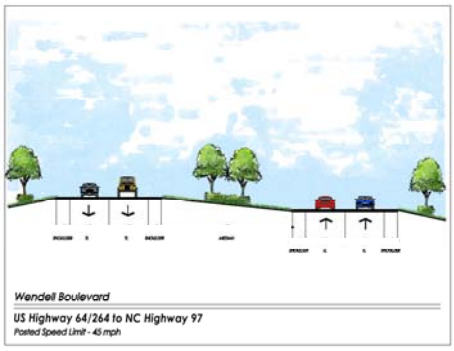
D. Development Standards

The development of land or structures within the Gateway Overlay shall comply with the development regulations applicable to the underlying zoning district, except that the following regulations shall apply wherever they are more restrictive than those underlying zoning district. The standards in this section shall apply to the entire GO zone unless specific standards for various land use and transportation context zones have been established by an adopted plan.

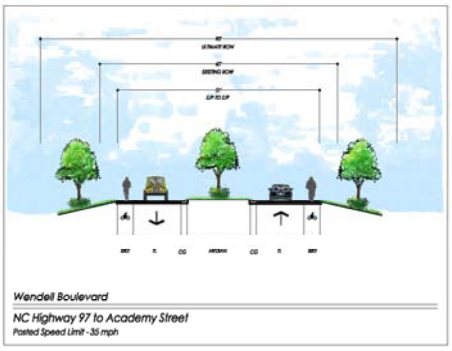
1. Context Zones: Wendell Boulevard

The Town Board-adopted *Town Plan of Wendell* includes typical cross-sections for five different sections of the Wendell Boulevard corridor. These cross sections represent five different zones where the existing and proposed transportation infrastructure and the land use and form of development provide unique contexts for development. Development standards for building setbacks and streetscape treatments are keyed to these various context zones. Plans for improvements to Wendell Boulevard will be reviewed and approved by NCDOT.

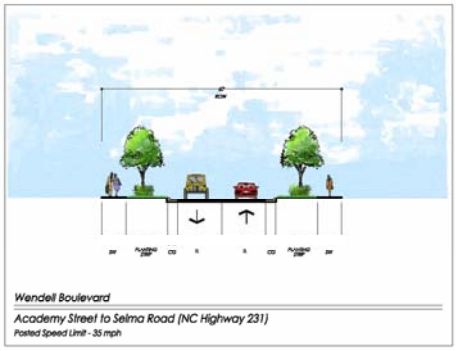




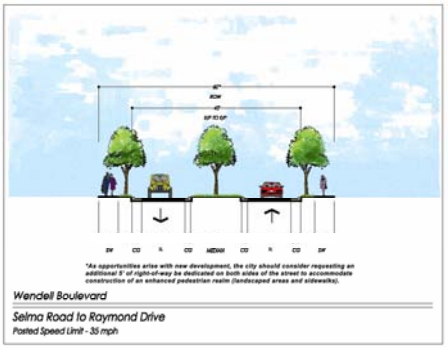
1. US Hwy 64/264 to NC Hwy 97



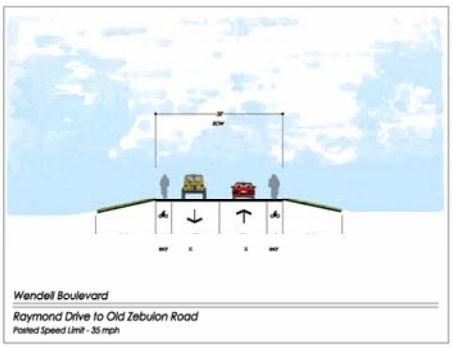
2. NC Hwy 97 to Academy St



3. Academy St to Selma Rd



4. Selma Rd to Raymond Dr



5. Raymond Dr to Old Zebulon Rd

2. Dimensional Standards:

	Context Zones 1 & 5	Context Zones 2, 3, 4
Front Setback (*Minimum*)	25 ft	10 ft
Front Setback *(Maximum)*	None	50 ft
Streetyard Buffer (*Minimum width*)	40 ft min* (20 ft min.**)	n/a
Internal Building Setbacks (*Minimum*)	0 ft or 4 ft	0 ft or 4 ft
Maximum Building Height	As determined by underlying district	

* *Where the underlying zoning is a residential district and the principal use, either existing or proposed, is residential, the minimum width of the bufferyard shall be 40 feet, measured from the edge of the thoroughfare's ultimate right-of-way.*
*** For all non-residential uses, the minimum width of the bufferyard shall be 20 feet, measured from the edge of the thoroughfare's ultimate right-of-way.*

3. Streetscape Standards:

Unless specified in an adopted street section or streetscape plan, all new development shall provide the following across all street frontages:

	Context Zones 1 & 5	Context Zones 2, 3, 4
Pedestrian Facilities	6 ft sidewalk or 8 ft multi-use path	6 ft sidewalk; Both sides
Landscaping	Streetyard buffer	Street trees in planting strip and Planting Yard
Drainage	Swales	Curb & gutter

a. **Planting strip:** 8-foot landscape strip between the curb and sidewalk (for replacement of existing sidewalk or for new construction only, otherwise for repair and infill the existing dimension varies. A NCDOT encroachment is required.)

b. **Curb and Gutter:** Curb and gutter shall be required unless otherwise specified in an adopted street section or streetscape plan.

c. **Sidewalk:** 6-foot wide minimum or as shown in adopted street sections for context zones.

d. **Planting Yard:** 10-foot (minimum) landscape strip behind the right-of-way (within the front setback). The planting yard along Wendell Boulevard will be a minimum of 20-feet in width.

e. **Street Trees:** Where street trees are required, canopy trees shall be planted 35 feet on-center in the planting strip between the sidewalk and curb. (Where aerial utility lines prohibit the installation of canopy trees, small maturing trees may be substituted with permission of the Town of Wendell). All trees planted within the right-of-way shall require approval by NCDOT.

f. **Utility Service Lines:** New service lines are to be placed underground.

4. Parking Areas

Parking areas shall meet the following standards and the standards of Chapter 10, Parking.

a. **Parking Area Setbacks:**

i. **Secondary Street:** 10 feet

ii. **Gateway street:** 8 feet (except 20 feet from residentially-zoned properties)

b. **Location:**

i. Up to 25 percent of the required parking area may be located in the front of the building on Gateway streets. The remainder of the parking may be located in the side and rear only.

ii. Parking areas on secondary streets within the GO may be located in the front, side or rear.

iii. No off-street parking area shall be located within any front setback.

iv. Parking lots in the side yard shall not occupy more than 35 percent of the width of the lot along the primary street (Context Zones 2, 3, 4 only)

v. No surface parking or circulation driveway is permitted within any required or established setback, except that driveways providing access to the parking area may be installed across these areas. It is the intent that these driveway entrances be as nearly perpendicular to the street right-of-way as possible.

c. Circulation Drives: A circulation drive may be permitted around the front of the building but may not encroach into the front setback or any required landscape area. If provided, this drive shall be designed to be the minimal width required (not to exceed 12 feet in width).

Circulation drives, if provided, should be minimized.

5. Lighting: Lighting in the Gateway Overlay shall meet the following standards and the standards of Chapter 11, Lighting.

The purpose of this Section is to provide direction in controlling light spillage and glare so as not to adversely affect motorists, pedestrians, and land uses of adjacent properties. Lighting intensities should be controlled to assure that excessive light spillage and glare are not directed at adjacent properties, neighboring areas, and motorists.

a. All exterior lights, except street lights, shall be constructed or located so that the light source is not directly visible from the fronting thoroughfare.

b. Pole-based light fixtures (not attached to buildings) shall be affixed to a decorative pole, which may be of metal, fiberglass, or concrete. No wooden poles shall be allowed.

c. The maximum height of a light source (light bulb) not attached to a building or canopy shall be 20 feet.

d. No light fixture shall be located within 20 feet of a residentially-zoned property.

e. Light fixtures shall be served by underground wiring.

6. Signage

a. Signage in the Gateway Overlay shall comply with the requirements for the underlying district as specified in Chapter 12, Signs.

b. Pole signs shall be prohibited. Monument signs, attached signs or other signage allowed in the underlying district shall be the permitted signage types.

c. Billboards and other off-premise signs shall be prohibited.

2.18 Conditional Districts (CD)

A. Purpose and Intent: Conditional Districts provides for orderly and flexible development under the general policies of this Ordinance without the constraints of some of the prescribed standards guiding by-right development. Because Conditional District developments are constructed in a comprehensive manner, they establish their own building, street, block, and lot pattern which may be unique from other surrounding blocks or neighborhoods. This Conditional District may be used in any district but is not intended to relieve hardships that would otherwise be handled using a variance procedure.

B. Applicability:

Rural Agriculture (RA)
Rural Residential (RR)
Residential (R2, R3, R4, R7)
Neighborhood Center (NC)
Corridor Mixed Use (CMX)
Community Center (CC)
Downtown Mixed Use (DMX)
Manufactured Home Park (MH)
Highway Commercial (CH)
Manufacturing & Industrial (M&I)
Traditional Neighborhood Development (TND)

C. Modifications to General Provisions:

Within a Conditional District (CD), all permitted uses of the corresponding Base District must be met. However, petitioners requesting a zoning amendment to the Conditional District may place additional requirements and standards onto themselves and their property or ask that certain standards identified in the specific zoning category or provisions in Chapters 2-12 be decreased.

It shall be the Board of Commissioner's final decision to grant approval or denial of the zoning amendment in light of the revised development standards presented to the Town Board. If no specific request is made by the petitioner to the change in the development standards or if the petition is silent on the point, it shall be understood that the underlying zoning district guidelines and standards shall apply.

In addition the modification of specific district provisions (except use), the following General Provisions as detailed in Chapters 2-12 may be varied if specifically requested by the petitioner as part of a Conditional District application

CH	Title	Exception to modifications:
2	District Provisions	Uses permitted may not be varied unless the use proposed is not currently defined or contemplated by the Code
3	Additional Use Standards	
4	General Provisions	
5	Building Types & Design Standards	
7	Open Space	May substitute required open space for payment-in-lieu. Amount required may not be reduced.
8	Tree Protection and Landscaping	No further modifications permitted. Alternate Methods of Compliance provided for.
9	Streets and Circulation	Variations permitted in Chapter 9. No further modifications permitted.
10	Parking	
11	Lighting	
12	Signs	

Chapter 3. SUPPLEMENTAL USE STANDARDS

3.1 Purpose and Intent

There are certain uses that exist which may be constructed, continued, and/or expanded provided they meet certain mitigating conditions specific to their design and/or operation. Such conditions ensure compatibility among building types so that different uses may by located in proximity to one another without adverse affects to either. This Chapter specifies those requirements that shall be met by all the uses listed in the Use Matrices in Chapter 2 as Uses Permitted with Additional Standards (PS) and uses requiring Special Use Permits (SUP).

Each use shall be permitted upon compliance with all conditions listed for the use in this chapter. Uses classified as Special Uses require a Special Use Permit and Board of Commissioner's approval in accordance with Section 15.15.

3.2 Applicability

The regulations contained in this Chapter shall be applicable in those districts within which such uses are permitted.

3.3 Additional Standards by Use

A. Adult Establishment (M&I)

The purpose of this special exception shall be to permit the location of adult establishments within the industrial district of the town provided the proposed business adheres to the guidelines established herein.

Because of their very nature, adult establishments are recognized as having serious objectionable operational characteristics, particularly when they are located near a residential zoning district or certain existing land uses. Special regulation of these establishments is necessary to ensure that these adverse effects will not contribute to a downgrading or blighting of surrounding residential districts or neighborhoods, unless otherwise determined by this Section.

1. Location Standards: No portion of a lot for an adult establishment may be located within a 1,000-foot radius (determined by a straight line and not street distance) of the property line of any place of worship, school (public or private), specialty school, day care facility, public park, college or university, nursing home, hospital, any residence or residential zoning district or any establishment with an on-premise ABC license. No portion of the lot on which the adult establishment is located shall be situated within 2,000 feet of another adult establishment.

2. The owner/operator of the adult establishment must have a current, valid business license. Owner/operator and employees must disclose a criminal

record and consent to a criminal records check. Persons with a record of sex offenses will be denied a business license or employment.

3. There shall be no more than one adult establishment business in the same building, structure, or portion thereof. No other principal or accessory use may occupy the same building, structure, property, or portion thereof with any adult establishment business.

4. The adult establishment shall not be open for business between the hours of midnight and noon. The establishment shall be closed on Sundays.

5. If dancers are employed as a feature of the adult establishment, the performing areas for such dancers shall be separated from patrons.

6. If viewing booths are provided, such are to be designed so as to allow the person or occupants to be completely visible from a portion of the premises open and available to the patrons.

7. An adult establishment may be advertised by one sign on the premises that is not greater than one-fourth of a square foot per linear foot of the building wall and may be illuminated in compliance with Chapter 11. The wall sign shall face a public street right-of-way.

8. No printed material, video, photograph, written text, live show, or other visual presentation format shall be visible to the public from outside of the walls of the establishment, nor shall any live or recorded voices, music, or sounds be heard from outside the walls of the establishment.

9. After the commencement of business operations, the Town Board will have the right to require and may require on-site security on any individual adult establishment where there are police reports and/or other police related problems.

B. Airport (RA*, M&I*) **Special Use*

1. Hangers or open storage shall be screened with a Type A buffer from all property lines, except those properties with M&I zoning.

2. Lighting provided shall be per the specifications of Chapter 11.

3. No outdoor public address system shall be permitted which can be heard beyond the boundaries of the property.

4. Hours of operation shall be determined based on discussions with potential airport operators.

C. Alcohol Beverage Sales Store (NC*, CMX, CC, DMX, CH, TND)

**Special Use*

1. Such uses shall not be located within a minimum of 100 feet of the property line for parcels in use with schools, churches, or day care centers.

D. Amusements, Indoor (CMX, CC, DMX, CH)

1. No outdoor public address or audio system shall be permitted which can be heard beyond the boundaries of the property.

E. Amusements, Outdoor (RA, RR, CMX, CH)

1. All outdoor amusement uses shall meet the lighting standards for Outdoor Recreational uses listed in Section 11.4.

2. No outdoor public address or audio system shall be permitted which can be heard beyond the boundaries of the property.

F. Animal Services (RA, RR, R2, R3, R4, CMX, CC, DMX, CH, M&I)

1. All buildings and structures related to the overnight care of animals shall be located a minimum of 100 feet from any property line.

2. All open exercise, boarding, training or similar areas shall be designed to effectively buffer noise audible to surrounding properties and enclosed by a fence or wall no less than 6 feet in height and screened from any residence by a Type B buffer or off-site view from a public street by a Type C buffer with a minimum width of 10 feet.

3. Hours of operation for the outdoor exercise facility are limited from 7 a.m. to 9 p.m.

4. No more than 30 percent of the gross floor area of the principal structure is permitted for use of boarding animals.

G. Automated Teller Machines (ATMs) (NC)

1. Signage shall be limited to no more than 10 percent of the building façade up to 8 square feet and limited to two signs.

2. Lighting provided shall be per the specifications of Chapter 11.

3. Any ATM, whether a part of another facility or as a standalone use, shall be integrated as part of the development with similar building materials and design. Metal siding is not permitted.

4. All ATMs will have paved access.

H. Bar/Tavern/Night Club (NC*, CMX*, CC*, DMX*, CH*, TND*) **Special Use*

1. No such facility shall be located within 300 feet of the property line of any lot containing a church or school or any residential district (RA, RR, R2, R3, R4, R7).

I. Campground - Developed (OSC, RA)

1. **Size:** maximum of 10 acres

2. **Density:** Maximum of 10 campsites per acre

3. **Minimum space requirements:**

   a. Each space shall consist of at least 2,000 square feet;

   b. Each space shall be designated on the ground by permanent markers.

4. **Minimum setbacks for campsites and accessory structures:**

   a. 100 feet from any adjoining property line;

   b. 50 feet from any public street right-of-way.

5. **Minimum setbacks for recreational vehicles (or travel trailers):** Setbacks shall be at least 10 feet from each other or from accessory structures, such as attached awnings or carports, or individual storage facilities.

6. **Access to the site:** Access shall be provided by a major or minor thoroughfare or public right-of-way.

7. **Interior drives:**

   a. Each campsite shall abut an interior drive;

   b. A minimum of 18 feet in width for two-way travel; a minimum of 12 feet in width for one-way travel;

   c. Paved or consist of a minimum of 6-inch compacted gravel

   d. No parking on either side.

8. **Parking:** An all-weather surface area, such as pavement or gravel, with sufficient dimensions to accommodate at least one automobile and camping vehicle shall be constructed within each site.

9. **Walkways:** Sidewalks and other walkways within the campground area shall be at least 4 feet in width with an all-weather surface, such as pavement or gravel. Nature trails are not required to have all-weather surfaces.

10. **Unpaved Areas:** All unpaved areas within the campground shall have vegetative ground cover adequate to prevent erosion and dust.

11. **Trees:** At least one tree shall be provided for each two camping spaces.

12. **Recreation area:**

    a. In all campgrounds there shall be at least one recreation area that shall be easily accessible to all spaces.

    b. The size of such area shall not be less than 8 percent of the gross site area.

13. **Buffers:**

    a. Adjoining residentially zoned properties – Type B buffer, with complete visual separation.

    b. Adjoining non-residentially zoned properties – Type C buffer.

14. **Trash collection areas:** All trash collection areas shall be completely screened from view at any public right-of-way or property line.

15. **Telephone:** At least one public telephone shall be provided.

16. **Utilities:**

    a. All utilities shall be located underground;

    b. The installation, alteration, or use of all utilities including, but not limited to, electrical service, plumbing fixtures, and sewage disposal systems shall conform to all applicable codes.

    c. Each park shall obtain water from a municipal water supply when available and, when unavailable, from a source approved by the county health department. The water supply and pressure shall be adequate for the park requirements.

17. **Signage:** Signage shall be in accordance with signage permitted in residential districts, per Chapter 12.

18. **Maximum length of stay:**

    a. 30 consecutive calendar days;

    b. 90 calendar days per calendar year

19. **Employee(s):** Each campground shall provide at least one full-time attendant.

20. **Manufactured dwellings:** It shall be unlawful for a person to park or store a manufactured dwelling in a campground, except that one manufactured dwelling may be located within the park for exclusive use by the park manager or operator. This manufactured dwelling shall be located in an area designated on the site plan and approved by reviewing boards.

21. **Accessory uses:**

    a. The park may contain a retail sales counter and/or coin-operated machines for the park residents' use only, provided they are enclosed within a structure and there is no exterior advertising.

    b. The park may contain laundry facilities, limited in usage to campground patrons.

J. Car Wash, Stand Alone, Self Service (CMX, CC, CH, TND)

1. The outdoor service area of a car wash (such as vacuum cleaners) shall be placed in the rear yard only and screened from view from the public street(s).

K. Cemetery (OSC, RA, R2, R3, CMX, CC, MH, CH, M&I)

1. Setbacks from all street right-of-ways and adjacent properties to a grave shall be a minimum of 10 feet.

2. Brick or stone walls between 2.5 feet and 4 feet are permitted along the perimeter.

3. Wrought iron fences between 2.5 feet and 6 feet are permitted along the perimeter.

4. Any internal road system shall be designed for adequate parallel parking and stacking for vehicles and provide for convenient circulation for ingress and egress.

5. A Type A buffer shall be provided along any side or rear property line adjoining a residential district.

6. Private family or church cemeteries are considered accessory uses and are exempt.

L. Child/Adult Day Care Home (RA, RR, R2, R3, R4, R7, NC, CMX, CC, DMX, CH, TND)

1. A Child Day Care Home is limited to no more than eight children being cared for at any one time. Of those eight children, no more than five children may be of pre-school age. Pre-school age children are children who have not yet reached an age to attend school (i.e. kindergarten). Child Day Care Homes providing service to three or less children or providing care less than four hours per day and who are otherwise not subject to the regulation of the North Carolina Department of Health and Human Services Division of Child Development or other licensing agencies, are still subject to the regulations contained herein.

2. The primary care provider must reside in the Child Day Care Home. No additional employees are permitted in the operation of the Child Day Care Home with the exception of a substitute who provides care during planned absences of the primary caregiver, as allowed by the North Carolina

Department of Health and Human Services Division of Child Development.

3. All rear yards for Child/Adult Day Care Home shall be fenced or walled. The minimum height for such walls or fences shall be 4 feet.

4. All equipment pertaining to the operation of a Child/Adult Day Care Home, to include toys, shall be stored in the rear yard. Front yards shall not be used as playground areas.

5. A building inspection, performed by a Wake County Building Inspector, shall be completed for all Child/Adult Day Care Homes prior to zoning approval by the Town of Wendell.

6. Hours of operation for Child/Adult Day Care Homes shall be permitted from 6 a.m. until 8 p.m.

7. A Child/Adult Day Care Home, required to be licensed by the State of North Carolina, may not be located within one-quarter mile radius of an existing Child/Adult Day Care Home.

8. Adult Day Care Homes shall meet the requirements of the North Carolina Department of Health and Human Service's "Adult Day Care and Day Health Services Standards for Certification."

M. Child/Adult Day Care Center (More than 8 persons) (NC*, CMX, CC, DMX, CH, M&I, TND) *Special Use*

1. Outdoor Play Space for Child Care Homes

a. Outdoor play space for Child Care Centers shall be provided in accordance with the regulations of North Carolina Department of Human Resources.

b. Outdoor play space shall be enclosed on all sides by building, and/or permitted types of walls or fences. The minimum height for such fences shall be 4 feet.

c. Outdoor play space may not include driveways, parking areas, or land otherwise unsuitable for children's play space.

d. Outdoor play space may not be in the established front yard.

2. Adult Day Care Centers shall meet the requirements of the North Carolina Department of Health and Human Service's "Adult Day Care and Day Health Services Standards for Certification."

N. Cultural or Community Facility (OSC, RA, RR, R2, R3, R4, R7, DMX*) **Special Use*

1. Cultural or community facilities are permitted as part of a common plan of development but shall not be permitted as infill development.

O. Drive-Thru Service (NC, CMX, CC, DMX*, CH, TND*) and **Drive Thru Retail/Restaurant (CMX, CH)** **Special Use*

1. No drive-thru window or building may be located within 100 feet of any existing residence.

2. Drive-thru windows and services shall be located and accessed only at the side or rear of a building.

3. Vehicle storage/stacking areas for drive-thru uses shall be located outside of and physically separated from the right-of-way of any street.

4. Drive-thru facilities shall be screened from off-site view from a street right-of-way by a Type C buffer with a minimum width of 10 feet.

5. Drive-thru facilities will have paved access going to and from the drive-thru window or service. Areas for drive-thru windows or services must also be paved.

P. Dwelling-Secondary (OSC, RA, RR, R2, R3, R4, R7, NC, CMX, CC, DMX, CH, TND)

Secondary dwelling units within single-family houses or on single-family lots shall be encouraged and designed to meet housing needs.

1. The accessory dwelling unit shall be subordinate to the primary living quarters.

2. Not more than one secondary dwelling unit is permitted per lot.

3. If a secondary dwelling is detached from the primary dwelling, it shall be counted as an accessory structure.

4. Any secondary dwelling unit shall be located in the rear yard of a single family use lot subject to the requirements of this Section.

5. Secondary dwelling units may be created as a second story within detached garages provided that the height of the secondary dwelling unit and/or garage does not exceed the height of the principal structure on the lot. There shall be a two story height maximum.

6. The secondary dwelling unit may not be larger than 50 percent of the gross floor area of the principal structure. The minimum habitable area of the secondary dwelling shall not be less than 300 square feet. Gross floor area for a secondary dwelling unit shall be 750 square feet.

7. One additional parking space is required for the secondary dwelling unit provided the number of spaces for the principal structure (per Chapter 10) is satisfied.

8. Secondary dwelling units shall be architecturally compatible to the principal building (e.g. pitch of roof, wall or trim materials, architecture style, window details).

9. The property owner(s) on which the accessory dwelling unit is to be located shall occupy at least one of the dwelling units on the premises.

Q. Family Care Home (OSC, RA, RR, R2, R3, R4, R7, NC, CMX, CC, DMX, CH, MH, TND)

1. Family Care Homes shall be certified by the State of North Carolina.

2. No family care home shall be located within a ½ mile radius of another family care home.

R. Gas Station (CMX, CC, DMX*, CH, TND) **Special Use*

1. All canopies shall be a minimum of 10 feet from any adjoining non-residential property or public right-of-way and 20 feet from any residentially-zoned property.

2. The sale of food and other items as well as car washes shall be incidental to the primary use of fuel sales.

3. No gasoline pump shall be located within 100 feet of any existing residence.

4. All areas where vehicles are stored temporarily shall be considered as parking lots and shall comply with the provisions of Chapter 10.

5. All such vehicle storage areas shall be located at the rear of the building.

6. The outdoor service area of a car wash (such as vacuum cleaners) shall be placed in the rear yard only and screened from view from the public street(s).

7. Lighting provided by canopies shall be per the specifications of Chapter 11.

8. No outdoor public address system shall be permitted which can be heard beyond the boundaries of the property.

9. Up to half of required parking may be satisfied by fueling station vehicle spaces.

S. General Retail - greater than 50,000 square feet (CMX, CC, DMX, CH, TND)

1. **Traffic Study Required:** Development greater than 50,000 square feet in Gross Floor Area shall require the submission of a Traffic Impact Analysis in accordance with Section 16.13. The improvements recommended by the Study shall be constructed by the applicant as a condition of approval.

T. Group Care Facility (More than 6 residents) (RA, RR, R4*, R7*, NC, CMX, CC, DMX, CH, TND) **Special Use*

1. Any structure used for such facility in the RR or R4, R7, or NC districts shall maintain an appearance of a residence which is compatible with the surrounding neighborhood. (See Chapter 5 for requirements for House building type.)

2. The minimum lot size requirement shall be increased by 750 square feet for each person in excess of six people for whom care is provided.

3. No more than one facility may be located within one-half mile of another similar facility, housing service for the elderly, or adult care facility.

U. Heavy Equipment Sales and/or RV Sales and/or Farm Equipment Sales and/or Mobile Home Sales (CC, CH, M&I)

1. **Equipment Display/Storage:** No equipment for sale or rent shall be permitted to encroach on any required landscaping areas or buffer yards.

2. **Outdoor PA Systems:** No outdoor public address system shall be permitted which can be heard beyond the boundaries of the property.

3. All vehicles/equipment etc. visible from any property line shall be operable, suitable for driving/operating/habituating and ready for sale. Any item not meeting this criterion shall be removed within seven calendar days. Any item visible from the property line that is visibly damaged or missing parts must be removed within three calendar days.

V. Home Occupation (RA, RR, R2, R3, R4, R7, TND)

A home occupation is a permitted accessory to any dwelling unit (except manufactured housing) in accordance with the following requirements:

1. The home occupation shall be clearly incidental to the residential use of the lot and shall not change the essential residential character of the dwelling or of the surrounding neighborhood. The home shall continue to be used principally as a dwelling.

2. A home occupation conducted in an accessory structure shall be housed only in a garage or other accessory structure that meets the requirements of this Ordinance.

3. The use shall employ no more than one person who is not a resident of the dwelling.

4. The use shall not be open to the public before 7 a.m. or after 9 p.m.

5. A home occupation housed within the dwelling shall occupy no more than 25 percent or more than 500 square feet (whichever is less) of the total floor area of the dwelling.

6. There shall be no visible outside display of stock in trade which is sold on the premises.

7. There shall be no outdoor storage or visible evidence of equipment or materials used in the home occupation, excepting equipment or materials of

a type and quantity that could reasonably be associated with the principal residential use.

8. Operation of the home occupation shall not be visible from any dwelling on an adjacent lot, nor from a street.

9. Only non-commercial vehicles will be permitted in connection with the conduct of the home occupation.

10. The home occupation shall not utilize mechanical, electrical, or other equipment which produces noise, electrical or magnetic interference, vibration, heat, glare, or other nuisances outside the dwelling or accessory structure housing the home.

11. One sign is permitted per lot not to exceed 2 square feet in size. Sign may not be internally illuminated.

12. Home occupations shall consist of personal services including, but not limited to, the following: accountant; addressing service, architect, artist, art teacher, attorney, beauty shop, computer operator, drafting, dressmaking, engineering, insurance agent, manufacturer's representative, music teacher, notary public, photography, real estate agent, sound studio, tax consultant, typing service.

13. Home occupations shall not include the following uses, which are not limited to: retail sales of products, vehicle repair service or sales, theaters, massage, or storage.

W. Housing Service for the Elderly (R3, R4)

1. The total number of residents shall not exceed 60 and shall not exceed a density of 10 units per acre.

2. All service areas shall be located at the rear of the building and screened from any residence or off-site view from a public street by a Type C buffer with a minimum width of 20 feet.

3. Any site shall front on no less than a collector street. Ingress and egress shall be provided directly onto that collector or to a neighborhood street within 150 feet to the collector.

4. Any structure used for such facility shall maintain an appearance of a residence which is compatible with the surrounding neighborhood.

X. Live Work Units (NC, CMX, CC, DMX, CH, TND)

Construction shall meet requirements of the International Residential Code, and the following:

1. Non-residential use areas shall meet accessibility requirements of the North Carolina Accessibility Code (including site access and parking).

2. The maximum total size of Live-Work unit is 3,000 square feet and three stories in height.

3. The work area shall occupy 50 percent or less of the total unit.

4. The same tenant shall occupy the work area and living area.

Y. Manufactured Housing (RA, RR, MH, R3)

1. The Manufactured Home shall meet the architectural standards of Section 5.8.

2. A minimum width (the width being the narrower of the two overall dimensions) of the main body of the manufactured home as assembled on the site shall be at least 22 feet for a distance extending along the length (the length being the longer of the two overall dimensions) of at least 40 feet. In general terms, this only permits double-wide manufactured housing.

3. In no instance may a manufactured home be used for a nonresidential purpose.

Z. Manufacturing, Light (CMX, DMX*, CH) *Special Use*

1. All materials or equipment shall be stored within an enclosed building or outdoor storage with opaque fence or wall and restricted to the rear yard.

2. Any operation which results in the creation of noxious vibrations, odors, dust, glare or sound is prohibited.

AA. Manufacturing, Neighborhood (NC, CMX, CC, DMX*, CH, TND) *Special Use*

1. All materials or equipment shall be stored within an enclosed building.

2. Any operation which results in the creation of noxious vibrations, odors, dust, glare or sound is prohibited.

3. Uses such as, but not limited to, small woodworking shop, minor assembly, craftsman, and artisan are preferred.

BB. Meeting Facilities (OSC, RA, RR, R2, R3, R4, R7, DMX*) *Special Use

1. Meeting facilities are permitted as part of a common plan of development but shall not be permitted as infill development.

CC. Mini-Warehouses (CMX, CH, M&I)

1. All areas shall be screened from any residence or offsite view from a public street by a Type C buffer with a minimum width of 10 feet.

2. Metal and vinyl siding are prohibited. Brick, stone or decorative masonry is permitted for all exterior walls.

3. No outdoor storage of goods or materials shall be permitted.

4. Animals are not permitted for use as security (i.e. guard dogs).

DD. Outdoor Kennels/Equine Facilities (RA, RR, CH, M&I)

1. All open exercise, boarding, training and similar areas shall be enclosed by a perimeter fence or wall no less than 4 feet in height.

2. Outdoor kennels will be screened from any pre-existing adjacent residential dwelling (other than the owner's) by a Type A buffer.

3. No outdoor kennel or accessory building related to the care or boarding of animals shall be located within 300 feet of any dwelling, house, church, business, commercial or professional establishment.

4. Horses may be kept in accordance with North Carolina Department of Agriculture guidelines.

EE. Recreation Facilities, Indoor (OSC, RA, RR, R2, R3, R4, R7, DMX*) **Special Use*

1. Indoor recreation facilities are permitted as part of a common plan of development but shall not be permitted as infill development.

FF. Recreation Facilities, Outdoor (OSC, RA, RR, R2, R3, R4, R7, DMX*) **Special Use*

1. Outdoor recreation facilities are permitted as part of a common plan of development but shall not be permitted as infill development.

GG. Research and Development (CMX*, CC*, DMX*, CH) **Special Use*

1. All materials or equipment shall be stored within an enclosed building.

2. Any operation which results in the creation of noxious vibrations, odors, dust, glare or sound is prohibited.

HH. Rooming or Boarding House (R7, NC, CMX, CC, DMX, TND)

1. All parking areas screened from any residence or off-site view from a public street by a Type B buffer with a minimum width of 20 feet.

2. All guest rooms must take access from an interior hallway. No guest room shall be accessible without passing through a secured area.

3. Staff supervision is required to be provided at all times.

4. One wall sign is permitted and limited to 4 square feet.

II. Storage – Warehouse, Indoor Storage (CMX, DMX)

1. Facility is limited to 5,000 square feet per floor in the DMX District.

2. No outdoor storage of any kind is permitted.

JJ. Studio – Art, Music (DMX)

1. Art studios and music studios are prohibited on the ground floor of buildings where the studio faces a public street.

KK. Sweepstakes Center (CH*) *Special Use

1. Selling and/or consuming alcoholic beverages are prohibited.

2. Persons under the age of eighteen (18) are prohibited from the premises.

3. All sweepstakes centers shall be located at least 1,000 feet from any school, church, or residential use.

4. Parking shall be provided at a rate of one space per terminal/machine.

5. The permitted hours of operation for sweepstakes centers shall be 9 a.m. to 10 p.m.

6. All uses meeting the definition of "internet café" or "sweepstakes center" legitimately established prior to March 22, 2010 shall cease operations and close or be brought into compliance by midnight, September 22, 2010.

7. Sweepstakes Centers shall be operated only on the ground floor of a building and plate glass windows shall be in those parts of the building facing any street, so that a clear and unobstructed view of the interior may be had from the street.

8. No curtains, screens, blinds, partitions, or other obstructions shall be placed between the entrance to the room where computers or gaming terminals are stationed and the rear walls of the room so that a clear view of the interior may be had from the street.

9. Adequate lighting shall be provided inside the sweepstakes center as well as the immediate exterior of the building.

10. The establishment must be a minimum of 1,000 feet from any other sweepstakes center.

11. Sweepstakes Centers shall have at least 100 sq. feet of space per gaming terminal.

12. Cash payouts shall be limited to $500 per individual per visit.

13. After the commencement of business operations, the Town Board will have the right to require and may require on-site security on any individual internet café business where there are police reports and/or other police related problems.

LL. Tattoo Parlor (CH)

1. Location Standards: No portion of a lot for a tattoo parlor may be located within a 1,000-foot radius (determined by a straight line and not street distance) of the property line of any place of worship, school (public or private), specialty school, day care facility, public park, college or university, nursing home, hospital, any residence or residential zoning district or any establishment with an on-premise ABC license. No portion of the lot on which the tattoo parlor is located shall be situated within 2,000 feet of another tattoo parlor.

2. There shall be no more than one tattoo parlor in the same building, structure, or portion thereof. No other principal or accessory use may occupy the same building, structure, property, or portion thereof with any tattoo parlor.

3. A tattoo parlor may be advertised by one sign on the premises that is not greater than one-fourth of a square foot per linear foot of the building wall and may be illuminated in compliance with Chapter 11. The wall sign shall face a public street right-of-way.

4. No printed material, video, photograph, written text, live show, or other visual presentation format shall be visible to the public from outside of the walls of the establishment, nor shall any live or recorded voices, music, or sounds be heard from outside the walls of the establishment.

5. After the commencement of business operations, the Town Board will have the right to require and may require on-site security on any individual tattoo parlor where there are police reports and/or other police related problems.

6. Tattoo parlors shall not be open before 10 a.m. or after midnight.

MM. Transit Station – Passenger (R2, R3, R4, R7, NC, CMX, CC, DMX, MH, CH, M&I, TND)

1. All transit stations must have seating available within a covered waiting area.

2. Any outdoor storage areas shall be located at the rear of the building and enclosed by an opaque fence or wall and screened from the right-of-way with a Type B buffer with a minimum width of 20 feet.

3. All areas where fleet vehicles are stored temporarily shall be considered as parking lots and must comply with the provisions of Chapter 10.

4. All maintenance of fleet vehicles and related materials and equipment shall be within an enclosed building or outdoor storage area with an opaque fence or wall and is restricted to the rear yard.

5. All vehicles shall be operable and suitable for driving. Any vehicle not meeting this criterion shall be removed within seven calendar days. Any damaged vehicle or one missing parts must be removed within three calendar days.

6. Any operation that results in the creation of noxious vibrations, odors, dust, glare or sound is prohibited.

NN. Utilities Class I, II, III (OSC, RA, RR, R2, R3, R4, R7, NC, CMX, CC, MH, CH, M&I)

1. Utilities Class I, II, III shall provide an opaque vegetative buffer so they may not be seen from an adjacent property line or right-of-way.

2. Additional measures may be required by the Administrator to be consistent with the surrounding area.

OO. Vehicle Sales (CMX, CC, DMX, CH, M&I)

1. **Equipment Display/Storage:** No equipment for sale or rent shall be permitted to encroach on any required landscaping areas or buffer yards.

2. **Outdoor PA Systems:** No outdoor public address system shall be permitted which can be heard beyond the boundaries of the property.

3. **DMX District:** Vehicle Sales shall not at any time occupy more than 16 percent of the DMX District.

PP. Vehicle Services – Minor Maintenance/Repair (CMX, CC, DMX, CH, M&I)

1. All vehicles, materials or equipment shall be stored within an enclosed building or outdoor storage with opaque fence or wall and restricted to the rear yard.

2. Storage yards shall be set back a minimum of 50 feet from any residential district. No stored vehicles may be visible from any property line.

3. Any operation which results in the creation of noxious vibrations, odors, dust, glare or sound is prohibited.

4. No vehicle may be kept or used for parts for other vehicles.

5. No vehicles may be stored for more than 30 calendar days without repair work.

6. Car washes must be approved by the City of Raleigh Public Utilities Department.

QQ. Vehicle Services – Major Repair/Body Work (CMX, DMX, CH, M&I)

1. All vehicles, materials or equipment shall be stored within an enclosed building or outdoor storage with opaque fence or wall and restricted to the rear yard.

2. Storage yards shall be set back a minimum of 50 feet from any residential district. No stored vehicles may be visible from any property line.

3. Any operation which results in the creation of noxious vibrations, odors, dust, glare or sound is prohibited.

4. No vehicle may be kept or used for parts for other vehicles.

5. No vehicles may be stored for more than 30 calendar days without repair work.

6. Car washes must be approved by the City of Raleigh Public Utilities Department.

RR. Wireless Telecommunication Facility (RA, RR, CMX, DMX, CH, M&I)

See Appendix D

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Chapter 4. GENERAL LOT & STRUCTURE PROVISIONS

4.1 Applicability

The following provisions shall apply throughout the jurisdiction of this Ordinance, regardless of the underlying zoning district provisions.

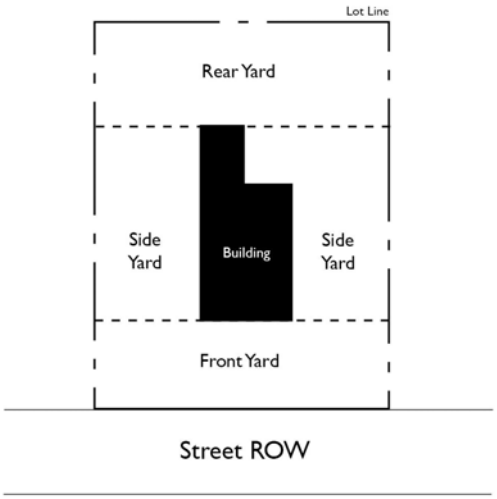
4.2 Basic Lot Standards

A. All Lots to Front on Public Street or Public Space: All lots shall front upon a public street. With provision of alley access, lots may front upon a public open space, but access shall be of sufficient design to allow for the provision of emergency services.

B. Number of Principal Buildings per Lot: In any zoning district, more than one building housing a permitted principal use may be erected on a single lot, provided that setback, minimum lot area, and other requirements of this Ordinance shall be met for each building as though it were on an individual lot.

C. Location of Required Yards:

1. **Front Yard:** A space extending the full width of the lot between the architectural front of a building (the front setback) and the front lot line or the fronting street right-of-way measured perpendicular to the building at the closest point to the front lot line. Typically this yard is required to remain open and unoccupied by structures, with the exception of certain encroachments such as porches, bay windows, porticos, arcades, stoops, sidewalks, handicapped accessibility facilities, street furniture, fences, walls, and landscaping.



2. **Side Yard:** A space extending from the front yard to the rear yard between the principal building façade and the side lot line and measured perpendicular from the side lot line to the closest point of the principal building facade. Side yards extend from the sides of a building to a street right-of-way or property line.

3. **Rear Yard:** A space extending across the full width of the lot between the architectural rear of the principal building and the rear lot line and measured perpendicular to the building to the closest point of the rear lot line. Rear yards extend from the back of a building to a property line.

4. **Corner lots:** Any building on any corner lot shall comply with the minimum front setback for each street which the corner lot abuts.

5. No yard for one principal building shall be considered as a yard for any other principal building.

D. Irregular Lot Setbacks: The location of required front, side and rear yards (or setbacks) on irregularly shaped lots shall be determined by the Administrator. The determination will be based on the intent and purpose of this Ordinance to achieve an appropriate spacing and location of buildings and buildings on individual lots. Where questions arise as to appropriateness, the subdivider may be requested to provide additional design information.

E. Side Lot Lines: Side lot lines shall be substantially at right angles or radial to street lines. (See illustration.)

F. May Not Reduce/Create Lot(s) Below Minimum Requirements:

1. Yards or lots created after the effective date of this Ordinance shall meet the minimum requirements established by this Ordinance. See Chapter 5.

2. No lot shall be reduced or changed in size so that the total area, minimum frontage, front, side, or rear setbacks, or other dimensions, areas, or open spaces required by this Ordinance are not maintained.

3. No lot shall be reduced in size so as to produce an additional lot that is not in conformity with these regulations unless the lot is combined with other land to produce a conforming lot or unless the lot is needed and accepted for public use.

4. These prohibitions shall not be construed to prevent the purchase or condemnation of narrow strips of land or parcels for public utilities, substations, street rights-of-way, or similar purposes.

G. Dimensional Standards for Infill Lots: For infill lots in already built upon areas of the Town, the minimum lot width and front setback shall be equal to the average dimensions on the same side of the street within 300 feet or one block length (whichever is greater), except with approval of the TRC.

H. Substandard Lots of Record: Any lot of record existing as of February 4, 1965, which has an area or a width which is less than required by this chapter, shall be subject to the following exceptions and modifications:

1. **Adjoining lots:** When two or more undeveloped adjoining lots with continuous frontage are in one ownership at any time after the adoption of this chapter, and such lots individually are less than the minimum square footage or have less than the minimum width required in the district in which they are located, such group of lots shall be considered as a single lot or several lots of minimum permitted width and area for the district in which located.

2. **Lots not meeting the minimum lot size requirements:** Except as set forth in subsection 1 above, in any district in which single family dwellings are permitted, any lot of record existing at the time of the adoption of this chapter which has an area or a width which is less than required by these regulations may be used as a building site for a single-family dwelling.

I. Flag Lots: Flag (or "pipe stem") lots shall be prohibited in all zoning districts except the OSC and the RA districts, where they shall be allowed if the width of the stem is at least 60 feet.

J. Double frontage lots: Double frontage lots should be avoided. However, on lots having frontage on two streets, but not located on a corner, the minimum front yard shall be provided on each street in accordance with the provisions of this ordinance. On lots having frontage on more than two streets, the minimum front yard shall be provided in accordance with the regulations set forth in this ordinance on at least two of the street frontages. The minimum front yard on the other frontage or frontages may be reduced along the other streets in accordance with the street side yard requirements of the district.

K. Setbacks along Thoroughfares: Setbacks along existing thoroughfares shall be measured from the future right-of-way as determined by the locally adopted Thoroughfare Plan and/or Long Range Transportation Plan for roadway widening.

L. Rights-of-Way Not Considered in Yard Requirements: Rights-of-way or easements for streets and roads shall not be considered a part of a lot or open space, or front, side, or rear yards for the purpose of meeting yard requirements.

4.3 Containment Areas for Commercial Trash and Recyclables

All containment devices for commercial trash and recyclables, including compactors, dumpsters, commercial roll-out bins, and areas for storing cardboard shall be located and designed so as not to be visible from the view of adjacent streets and shall be placed in the side or rear yards only.

Image depicts appropriate screening of dumpsters.

All commercial containment areas for trash and recyclables shall meet the following standards:

A. All containment areas shall be enclosed to contain windblown litter.

B. The enclosure shall be at least as high as the highest point of the compactor or dumpster.

C. The enclosure shall be made of a material that is opaque at the time of installation and compatible with and/or similar to the design and materials of the principal building.

D. All compactors and dumpsters shall be placed on a concrete pad that is large enough to provide adequate support, allows for positive drainage, and conforms to the Wake County Health Department regulations governing compactor pads. A concrete apron the same width as the compactor pad shall also extend from the pad for support.

E. The enclosure shall contain gates to allow for access and security.

F. Dumpsters and compactors shall be located within the side or rear yard behind buildings and away from sidewalks or pedestrian circulation. Such locations should be accessible to service vehicles.

G. Enclosures shall be landscaped in accordance with Section 8.10.D.

4.4 Accessory Structures & Uses

A. **Principal Buildings Required:** The construction of an accessory building is not permitted unless a principal building is located on the lot. Accessory and principal buildings may be constructed concurrently.

B. General Building Requirements

1. **Location:** Accessory buildings shall be located only in side or rear yards for non-corner (interior) lots. Accessory buildings shall be in rear yards only for corner lots.

2. Accessory structures shall be limited to two per lot, except in the RA District. The aggregate area of accessory use buildings shall not exceed 50 percent of the floor space of the principal use building.

3. A garage for more than three motor vehicles shall not be permitted as an accessory use in connection with any one family or two family dwelling, except in the RA District.

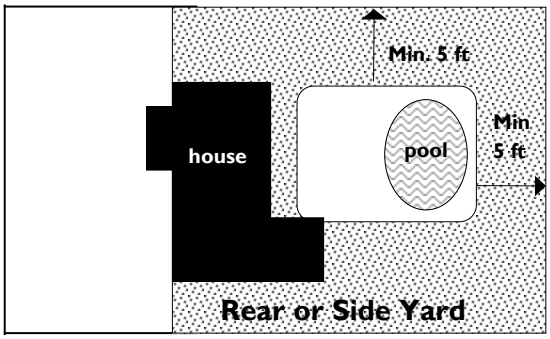
C. Permitted Uses: The following non-commercial uses are permitted within enclosed residential accessory buildings:

- Parking
- Gazebo
- Pool House
- Equipment Enclosure
- Garage/Carport
- Fall-out Shelters
- Artist Studio Space
- Sauna
- Workshop
- Conservatory/Greenhouse
- Customary Home Occupation
- Personal Storage

D. Doghouses and Kennels: Doghouses and fenced dog kennels may be placed in rear yards only. Doghouses and fenced dog kennels must be set back from rear and side property lines by at least 5 feet.

E. Pools (for Single Family Homes)

1. All pools for single family homes, whether above-ground or in-ground, may be built in the side or rear yards. The definition of a pool shall include all buildings, and walks or patio areas of cement, stone, or wood, at or above grade, built for, and used in conjunction with the pool.



2. Pools, as defined above, shall be set back a minimum of 5 feet from all side and rear property lines.

3. Pools utilizing a pump shall be enclosed by a fence (with self-latching gate) at a minimum height of 4 feet and a maximum of 6 feet. In ground pools shall be enclosed by a privacy fence. The distance between boards or slats shall be no greater than 4 inches.

4.5 Fences & Walls

A. Residential Fences

1. **Front Yard:** Fences or garden/decorative walls shall be no greater than 3 feet in height in the front yard.

2. **Side/Rear Yard:** Fences or garden/decorative walls shall be no greater than 6 feet in height in the side or rear yard.

3. **Materials:** Garden/decorative walls may be of brick, stone, wrought iron, or stucco matching the principal building. Retaining walls shall be wood, brick, stone or stucco. Front yard fences shall be wood picket, wrought iron or materials similar in appearance and durability. Side and rear yard fences may be green or black chain link, wood, wrought iron, or similar material.

4. **Exceptions:** Engineered retaining walls that may be needed due to topography are not subject to height limitations.

B. Commercial, Mixed-Use, Civic & Institutional Fences

1. **Front Yard:** Fences and garden/decorative walls shall be no greater than 3 feet in height in the front yard.

2. **Side/Rear Yard:** Fences or garden/decorative walls shall be no greater than 8 feet in the side or rear yard.

3. **Materials:** Front yard fences shall be wrought iron, or similar looking material only. Fence piers may be brick or stone. Side and rear yard fences and decorative walls shall be brick, stucco, wrought iron, or stone. Retaining walls shall be brick, stone or stucco or similar materials.

4. **Exceptions:** Engineered retaining walls that may be needed due to topography are not subject to height limitations.

C. Industrial Fences

1. **Front Yard:** Fences shall be no greater than 6 feet in height in the front yard.

2. **Side/Rear Yard:** Fences or decorative walls shall be no greater than 8 feet in height in the side or rear yard unless topography necessitates additional height. The Administrator may approve fences or walls no greater than 9 feet. Requests for heights above 9 feet are subject to approval from the Board of Commissioners.

3. **Materials:** Barbed wire fences are permitted in rear yards not visible from a street and are not permitted adjacent to any lot in residential use or zoning. Retaining walls shall be brick, stone or stucco or similar materials.

4. **Exceptions:** Engineered retaining walls that may be needed due to topography are not subject to height limitations.

4.6 Temporary Uses

Temporary buildings and uses may be permitted in compliance with the provisions of this Ordinance and all other ordinances of the Town of Wendell.

A. General Requirements

1. The Administrator may attach any conditions to a temporary use permit needed to protect the public health, safety and welfare.

2. All permits for temporary uses may be renewed provided that:

   a. The use is clearly of a temporary nature;

b. The use will cause no traffic congestion; and,

c. The use will not create a nuisance to surrounding uses.

B. Uses and Buildings Permitted

The following temporary buildings and uses shall be permitted:

1. **Carnivals or Circus:** Carnivals or circuses are permitted for a period not to exceed 21 calendar days, subject to the approval of Board of Commissioners.

2. **Religious Meeting:** Religious meetings are permitted in a tent or other temporary building, for a period not to exceed 30 calendar days.

3. **Christmas Tree Lots, Firework Sales, Other Holiday and Special Sale Lots:** Christmas tree, firework sales, and other holiday and special event sales in open lots within industrial and commercial districts are permitted for a period not to exceed 45 calendar days provided the lot otherwise complies with the standards of this Ordinance. Christmas tree lots are also permitted in the Residential Agriculture zoning district, in addition to industrial and commercial districts.

4. **Contractor's Office and Equipment Shed:** A contractor's office and equipment shed is permitted in any district for a period covering construction phase of the project not to exceed two years, provided that such office be placed on the property where the construction is taking place.

5. **Mobile Storage Units:** Mobile storage units (such as PODS) shall not remain on a property longer than 90 calendar days except that units used as part of a construction or renovation project may be in place for up to one year. Storage units used for construction/renovation shall be removed within 45 calendar days of the conclusion of construction or issuance of a certificate of occupancy, whichever comes first.

6. **Seasonal Buildings:** Tents, and other temporary buildings for a period not to exceed 90 calendar days. These buildings shall be removed on their expiration date.

7. **Yard Sales:** Yard sale, garage sales, or any such sales are not to be conducted on the same lot for more than three calendar days (whether consecutive or not) during a 90 calendar day period.

8. **Other Temporary Uses:** The Administrator may issue a permit for any other temporary use provided that:

   a. The use is clearly of a temporary nature;

   b. The use is limited to a period not to exceed one year; and,

   c. The use is in keeping with the requirements and intent of this Ordinance.

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Chapter 5. BUILDING TYPES AND DESIGN STANDARDS

5.1 Purpose and Intent

The standards in this Chapter are intended to attach the same or greater level of importance to building design as is placed on the uses contained within buildings. The established architectural vernacular of the Town of Wendell exhibits a wide variety of common building types and this Ordinance has established regulations specific to these typologies. The rich architectural history and vocabulary of the Town presents a wide variety of development options for using traditional building forms. New and renovated buildings in Wendell are expected to contribute to the vibrancy and attractiveness of the Town.

This chapter is guided by and intends to fulfill the following principles of *The Town Plan of Wendell:*

- Preserve the small-town feel and historic character of the community.
- Protect and enhance the strengths of the downtown core.
- Promote Wendell's attractiveness to business and people of all walks of life.
- Provide for a range of housing opportunities, including upscale housing, senior housing, and downtown living choices.

5.2 Applicability

The following provisions shall apply throughout the jurisdiction of this Ordinance, regardless of the underlying zoning district provisions. However, the building type standards only apply to those buildings which are specified for the various zoning districts in this chapter.

5.3 General Building Design Requirements

A primary entrance façade shall be oriented toward the street. (5.3.B)

Important street vistas should terminate in a focal point. (5.3.D)

Pitched roof on a commercial building (5.3.I)

Unless otherwise noted, all buildings shall meet the following provisions:

A. All Buildings to Front on Street or Public Space: All buildings except for buildings in the M&I District shall front on a public street or public space. Such buildings shall include a principal building entrance and architectural front. With the provision of alley access, lots may front upon a public open space which shall have public street access, but shall be of sufficient design to allow for access by emergency services.

B. Building Entrances: A primary entrance façade shall be oriented toward the street, be designed for the pedestrian, and be distinguishable from the rest of the building and other entrances. Additional entrances may be oriented toward side or rear parking lots. Service entrances for shipping and receiving shall be oriented away from the public street.

C. Architectural Style: When a building design exhibits a known architectural style (e.g., Colonial, Victorian, Classical Revival) the details shall be complementary with that style.

D. Termination of Vistas: Important street vistas identified in any adopted plan should terminate in a focal point, such as a building or other architectural or natural feature.

E. Compatibility: Adjacent buildings should relate in similarity of scale, roof pitch, height, architectural elements, and/or lot configuration.

F. Wall Materials: When two or more materials are used on a façade, the visually heavier material (i.e. masonry) should be placed below the lighter material (i.e. siding) to give the sense of support and grounding.

G. Underground Wiring: To reduce the visual impact of overhead wiring, new utility services shall be located underground.

H. Type of Construction: Manufactured, mobile, and metal units shall be prohibited, except as may be allowed in Section 4.6, Temporary Uses, for a temporary office or classrooms, site management, or storage uses during construction projects.

I. Roof Pitch: Roof pitches less than 4:12 and flat roofs will require a parapet wall.

J. Public Art: Public art, such as statues, fountains, and other works of art are encouraged.

5.4 Exceptions

A. While it is expected that some new building types will be introduced to the Town, these variations should be based upon the predominant types listed in this Chapter. Innovative planning or design ideas for development in any district where the proposed building types are different than those allowed by the base district requirements may be approved subject to the approval of a Conditional District.

B. Buildings in the M&I District are exempt from the building design requirements of this chapter, except for those requirements in Section 5.6, Encroachments.

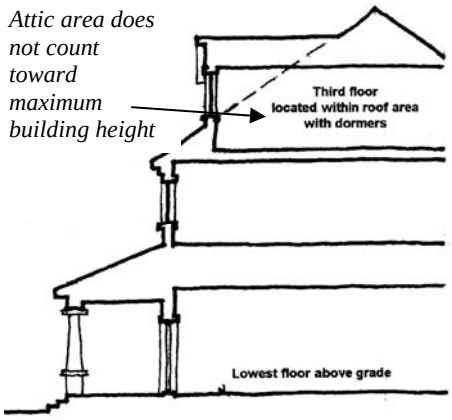
C. Where specific architectural elements are required as part of an adopted plan or associated with local historic guidelines, these shall take precedence over the building design requirements of this chapter.

5.5 Building Heights

Building heights shall be as specified in the building type sections that follows and shall be determined according to the provisions below.

A. **Story:** That part of a building or building above ground level and between a floor and the floor or roof next above shall be considered a story. A mezzanine shall be considered a story if it exceeds one-third of the area of the floor immediately below. A penthouse shall be considered a story if it exceeds one-third of the area of the roof. The under-roof area with dormers does not count as a story.

B. **Items Not Included in Calculation:** The height limitations of this Ordinance shall not apply to church spires, belfries, cupolas, and domes not intended for human occupancy, monuments, water towers, mechanical penthouses (provided they are set back 20 feet from the front elevation), observation towers, transmission towers, chimneys, smokestacks, conveyors, flagpoles, masts and antennas (provided evidence from appropriate authorities is submitted to the effect that such building or buildings will not interfere with any airport zones or flight patterns).



As noted above, the portion of a residential building that is located within a pitched roof areas (attic area) shall not be counted toward the maximum story requirement.

5.6 Encroachments

Certain architectural features are permitted to encroach into the front setback (except as noted). The following standards shall be established for encroachments:

A. Arcades: Building arcades, if provided, should be designed to avoid the swing of car doors parked parallel to the arcade. In addition the sidewalk within the arcade should be sufficient to accommodate the intended uses (i.e. outdoor seating) while providing suitable clearances per the American with Disabilities Act Accessibilities Guidelines (ADAAG).

Building arcades should avoid the swing of car doors and provide adequate space for pedestrians.

B. Awnings: All awnings, if provided, may encroach and shall be supported by means of a frame attached directly to the building receiving beneficial use of the awning. In no case shall awnings be supported by a frame attached to a sidewalk or other public right-of-way.

C. Bay Windows: Bay windows shall not exceed a maximum projection of 2 feet from the primary wall. In addition, it shall not contain habitable floor space, but may provide seating as an integral element.

D. Balconies, Porches, and Stoops: Only open balconies, porches, and stoops are permitted as encroachments. To the extent possible, these features are to remain visually permeable so that the front door can be easily seen from the street or sidewalk. Roofs and Ordinance-required railings are permitted. Enclosure of these areas with screening is considered an enclosure for the purposes of this section.

E. Handicapped Ramps: A ramp installed on a residential building to provide access for a disabled resident may encroach into the front setback, unless a less obtrusive means of access can be provided at another entry point (i.e. the back door).

F. Rear Yard Encroachments: Open decks, porches, patios, and other similar buildings not exceeding a finished height above grade of 30 inches may encroach into the side and rear setback to within 5 feet of the property line.

G. Encroachments over the Public Rights of Way: With approval of the Town or NCDOT (whichever has authority over a street), upper story balconies or bay windows may encroach into the right-of-way, but shall be a minimum of 3 feet behind the curb.

H. Shrubbery, Driveways, Retaining Walls, Fences, Curbs, Ornamental Objects, and Buffer strips. Shrubbery, driveways, retaining walls, fences, curbs, ornamental objects, and planted buffer strips shall not be construed to be encroachments on yards.

5.7 Building Type Summary Table

There are seven major building types provided for in this ordinance. These include:

- Civic Building
- Institutional Building
- House
- Townhouse
- Apartment Building
- Mixed-Use Building
- Commercial Building

The sections that follow outline the specific design standards for the various building types. The table below indicates the zoning districts in which the various building types are allowed.

	Civic	Institutional	House - Street	House - Alley	Townhouse	Apartment	Mixed-Use	Commercial	All Other Bldgs
OSC	●	●	●	–	–	–	–	–	–
RA	●	●	●	–	–	–	–	–	–
RR	●	●	●	–	–	–	–	–	–
R2	●	●	●	–	–	–	–	–	–
R3	●	●	●	●	–	–	–	–	–
R4	●	●	●	●	–	–	–	–	–
R7	●	●	●	●	●	●	–	–	–
NC	●	●	●	●	●	●	●	●	–
CC	●	●	●	●	●	●	●	●	–
CMX	●	●	●	●	●	●	●	●	–
DMX	●	●	●	●	●	●	●	●	–
CH	●	●	●	●	●	●	●	●	●
MH	●	●	●	–	–	–	–	–	–
TND	●	●	●	●	●	●	●	●	–
M&I	*	*	*	*	*	*	*	*	●

● = *building type allowed*
* = see Section 2.14

5.8 General Design Requirements for Residential Building Types

The following standards apply to all residential building types, including Houses (which includes manufactured housing), Townhouses and Apartment Buildings.

A. Materials

1. Building Walls:

a. Building walls (including accessory structures greater than 120 square feet) shall be primarily clad in wood clapboard, cementitious fiber board, wood shingle, wood drop siding, primed board, wood board and batten, brick, stone, stucco, vinyl, or synthetic materials similar and/or superior in appearance and durability.

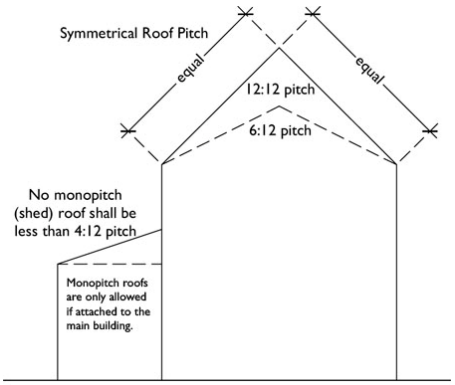
b. **Vinyl:** Vinyl may only be used on buildings that are no closer than 30 feet from the next closest building and that do not contain mixed occupancy or attached dwelling units.

c. **EIFS:** Exterior insulation finishing systems (EIFS) may be used above 8 feet from the base of residential buildings (Townhouse, Apartment and Mixed-Use buildings only) and may not be used for House building types.

2. Roofs: Roofs shall be clad in wood shingles, asphalt shingles, standing seam metal, terne, slate, or synthetic materials similar and/or superior in appearance and durability.

B. Other Requirements

1. Roof Pitch: Main roofs on House or Townhouse-type buildings shall have gables or hips with a front pitch between 6:12 and 12:12. Monopitch (shed) roofs are allowed only if they are attached to the wall of the main building. No monopitch roof shall be less than 4:12.



2. Crawlspace: The crawlspace of buildings shall be enclosed with solid/permanent material that complements the dwelling style.

3. Overhanging Eaves: Overhanging eaves may expose rafters.

4. **Flush Eaves:** Flush eaves shall be finished by profiled molding or gutters.

5. **Visitability/Accessibility Standard:** For residential buildings in developments designed for residents aged 55 and older, there shall be provided one zero-step entrance to each building from an accessible path at the front, side, or rear of each building. This does not eliminate the requirements for residential buildings to have raised front entrances.

5.9 Building Type: House

A. Description: The house is the predominant building type in the Town of Wendell. This building type is flexible in use, accommodating: single family uses, home occupations, professional offices, and limited retail uses based on the zoning district in which it is located.

House with detached garage and alley

The two basic House building types – House with Driveway and House with Alley – are a function of how the lot is accessed by automobile.

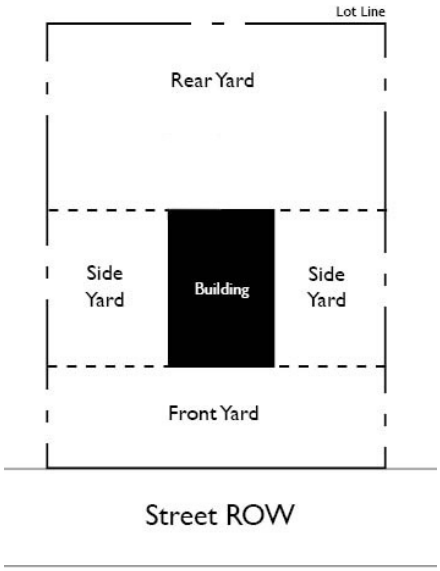
House with driveway

In general, within a block, building types should be uniform in their use of driveways or alleys.

B. Yards

The House typically has four yards (front yard; two side yards; and rear yard). Variations include setting the building on one of the side property lines.

House: Professional Offices



C. Dimensional Standards by Zoning District

The House building type is allowed in the zoning districts noted in the table below according to the dimensional standards noted therein.

	OSC	RA, RR	R2	R3	R4	R7, NC, CMX, CC, DMX	CH
Lot Width (*Minimum*) *(a)*	100 ft	100 ft	70 ft	60 ft	50 ft	24 ft	35 ft
Lot Depth *(Minimum)*	100 ft	100 ft	100 ft	100 ft	100 ft	100 ft	none
Front Setback (*Minimum*)*(b)(f)*	40 ft	40 ft	30 ft	25 ft	25 ft	10 ft	10 ft
Front Yard Encroachment *(c)*	none	8 ft	8 ft	8 ft	8 ft	8 ft	none
Side Setback (*Minimum*)	10 ft	10 ft	10 ft	20% of lot width combined *(d)*	20% of lot width combined *(d)*	3 ft *(d)*	none
Rear Setback (*Minimum*)	30 ft	30 ft	25 ft	20 ft	20 ft	25 ft	none
Rear Setback from Alley (*Minimum*)	none	none	none	15 ft from centerline	15 ft from centerline	15 ft from centerline	0 ft
Accessory Structure Side/Rear Setback (*Minimum*)	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	0 ft or 4 ft *(e)*
Maximum Height *(see Sec. 5.5)*	35 ft	35 ft	3 stories	3 stories	3 stories	3 stories	3 stories

Notes:

(a) See Chapter 2 for additional dimensional standards.

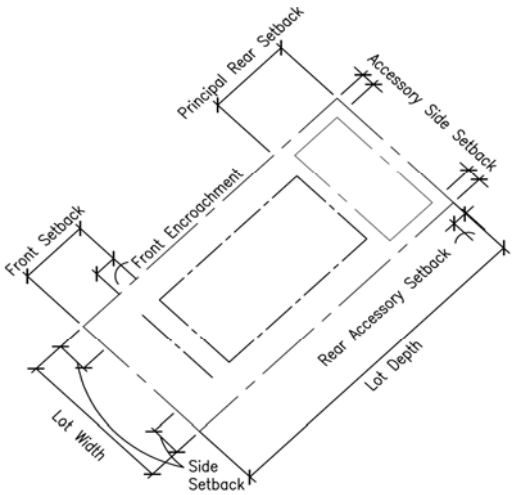
(b) For corner lots, the building shall utilize the front setbacks for both streets.

(c) Balconies, stoops, stairs, chimneys, open porches, bay windows, and raised doorways are permitted to encroach into the front setback. See section 5.6 Encroachments.

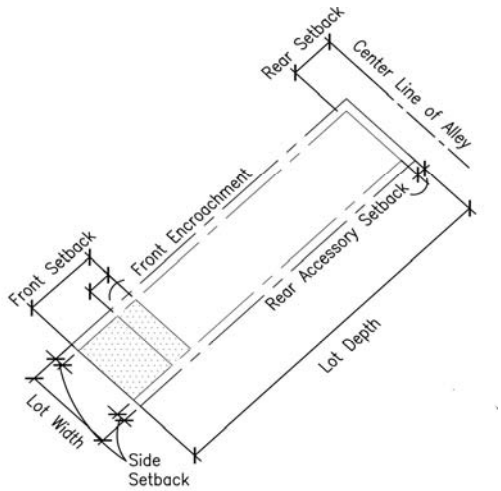
(d) In new developments only (vs. infill lots), the entire setback may be allocated to one side with a minimum of 6 feet total building separation, providing the setback condition is consistent with the block.

(e) Accessory Structure either needs to be attached or must have at least 4 feet of separation.

(f) Where garages are allowed see 5.9E4.



House with driveway lot



House with Alley lot

D. Applicability of House Design Requirements Based on Lot Dimension

		DESIGN REQUIREMENT APPLICABILITY					
		5.3 General Design Req'mts	5.5 Building Height	5.9.E.1.a Front Porches	5.9.E.4.a Garage doors on front facade	5.9.E.4.b Alley/ Detached Garage	5.9.F Additional Design Req'mts
LOT DIMENSION	30 – 40 ft wide	Required	See 5.9C	Required	Not Allowed	Required	Required
	41 – 49 ft wide	Required	See 5.9C	Required	Not Allowed	Required	Not Required
	50 – 70 ft wide	Required	See 5.9C	Allowed	Allowed	Allowed	Not Required
	More than 70 ft wide *and/or* setback more than 40 ft	Not Required	See 5.9C	Allowed	Allowed	Allowed	Not Required

E. General Requirements

1. Front Porches:

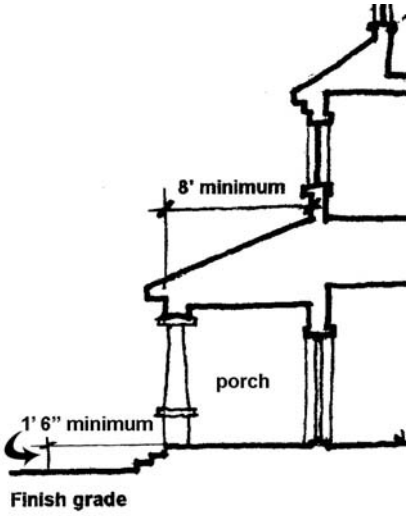
a. On lots 49 feet or less in width, ground level front porches shall be at least 8 feet deep and extend more than 40 percent of the façade.

2. Architectural Design:

a. To ensure that a variety of exteriors are utilized, each common plan of development shall have at least three different architectural design exteriors.

3. Raised Entrances:

a. All front entrances shall be raised above the finished grade a minimum of 1 ½ feet.



Residential entrances shall be raised above the finished grade. Porches are required to be at least 8 feet deep.

4. Garages and Off-Street Parking Location

a. Garage doors are not permitted on the front elevation of any house on a lot less than 50 feet wide.

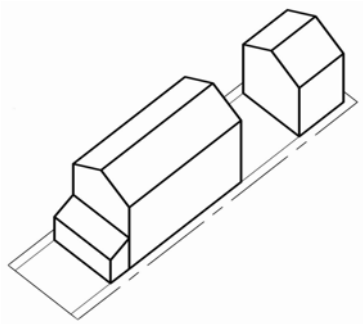
b. For houses on lots less than 50 feet wide garages or off-street parking areas shall be accessed from an alley leading to a detached garage or parking area behind the front façade of the house.

c. Attached garages with front-loading bays shall be recessed at least 5 feet from the front facade of the house and visually designed to form a secondary building volume.

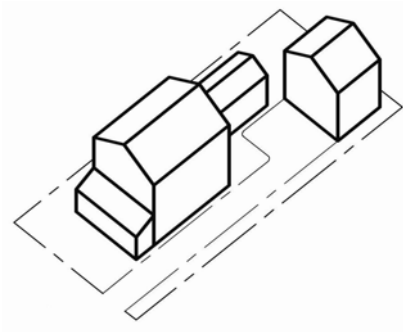
d. No garage door shall be any closer than 15 feet from the right-of-way.

e. All garages with more than two bays shall be turned such that no more than two bays are visible from the street.

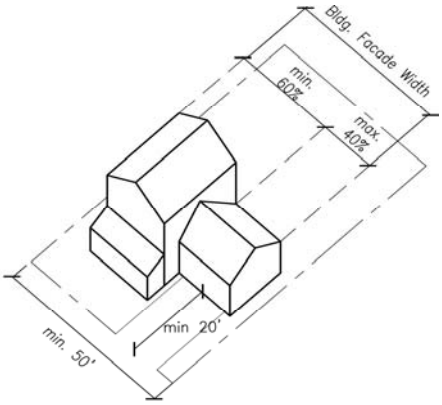
f. The width of an attached garage shall not exceed 40 percent of the total building facade.



House with Alley



House with driveway – detached garage



House with driveway – attached garage

F. Additional Design Requirements for Houses on Narrow Lots (49 feet or less)

In all new development of two or more lots, houses built on lots of 49 feet wide or less shall provide detailed design along all primary elevations and elevations facing a public street or open space. Detailed design shall be provided by using at least five of the following architectural features as appropriate for the proposed building type and style (may vary features on rear/side/front elevations):

1. Dormers
2. Gables
3. Recessed entries
4. Covered porch or stoop entries
5. Cupolas or towers

6. Pillars or posts

7. Eaves (minimum 10 inch projection which may include gutter)

8. Off-sets in building face or roof (minimum 16 inches)

9. Window trim (minimum 4 inches wide)

10. Bay windows

11. Balconies

12. Decorative patterns on exterior finish (e.g. scales/shingles, wainscoting, ornamentation, and similar features)

13. Other architectural features appropriate to the architectural style of the house

G. Additional Requirements for Manufactured Housing

In addition to the above criteria, a manufactured home must bear a seal certifying it was built to the standards adopted on July 1, 1976 by the US. Department of Housing and Urban Development. In addition, manufactured homes must also satisfy each of the following criteria:

1. A continuous, permanent brick or architectural Concrete Masonry Unit (CMU) foundation or curtain wall, unpierced except for required ventilation and access, shall be installed upon a poured concrete footer after placement on the lot, and before occupancy.

2. Stairs, porches, entrance platforms and other means of entrance and exit to the manufactured home shall be installed and constructed in accordance with the standards set by the NC Department of Insurance. The entrance platform shall be a minimum of 24 square feet.

3. The roof of the manufactured home shall have an eave extending at least 10 inches from each vertical exterior wall. A site installed gutter may be counted in the width of the eave.

4. The front facade of the building shall extend parallel to the street right-of-way.

5. The manufactured home is set up on the site in accordance with the standards set by the NC Department of Insurance.

6. The tongue, axles, transporting lights, and removable towing apparatus are removed after placement on the lot and before occupancy.

5.10 Townhouse Buildings

A. Description: The townhouse is a building with two or more residential units that are located side by side. The use permitted within the building is determined by the District in which it is located. When an entrance is provided at-grade, the townhouse may be used as a live-work unit. Standards in this section are also applicable to duplex dwellings.

Townhomes with Alley

B. Yards

The Townhouse typically has one yard (Rear) though variations include a small front setback to provide some landscaping.

Townhomes with Alley

Live-Work Townhomes

C. Dimensional Standards by Zoning District

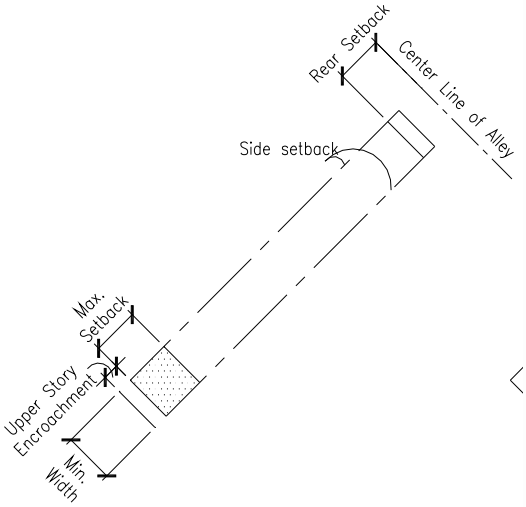
The Townhouse building type is allowed as a Special Use in the zoning districts noted in the table below according to the dimensional standards noted therein.

	R7, NC, CMX, CC	DMX	CH
Lot Width (*Minimum*)	16 ft	16 ft	16 ft
Front Setback (*Minimum*)	0 ft (10 ft) *(a)*	0 ft	10 ft
Front Setback *(Maximum)*	none	20 ft	none
Front Yard Encroachment *(b)*	5 ft	8 ft	none
Side Setback (*Minimum*)	5 ft or 10 ft (between buildings)	3 ft or 6 ft (between buildings)	0 ft or 4 ft (between buildings)
Rear Setback (*Minimum*)	none	none	4 ft
Rear Setback from Alley (*Minimum*)	15 ft from centerline	15 ft from centerline	0 ft
Accessory Structure Side/Rear Setback (*Minimum*)	0 ft	0 ft	4 ft
Maximum Height	3 stories	3 stories	3 stories
Minimum Height	none	2 stories or 20 ft	none

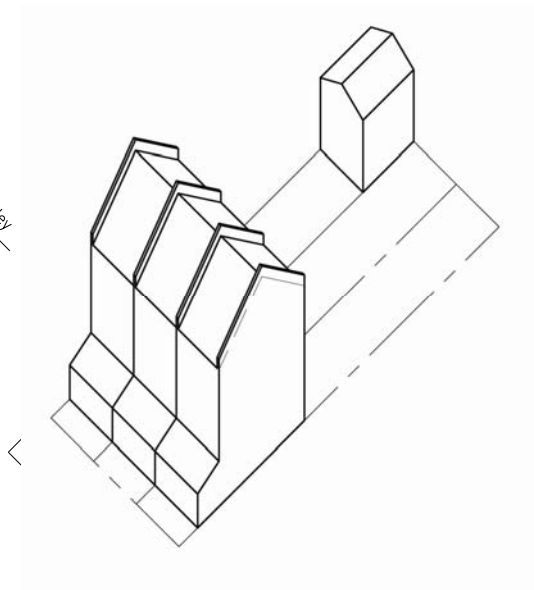
Notes:

(a) Along designated thoroughfares or collector streets, the minimum front setback shall be 10 feet.

(b) Balconies, stoops, stairs, chimneys, open porches, bay windows, and raised doorways are permitted to encroach into the front setback. Upper story balconies may encroach into the right-of-way (over the sidewalk only) with permission from the Administrator.



Townhouse lot



Townhouse buildings with alley parking

D. General Requirements

1. **Bulk and Scale:** The bulk and scale of townhouse infill development shall be similar to and consistent with the surrounding neighborhood as evaluated by the bulk of buildings adjacent, abutting and surrounding the proposed development.

2. **Front Porches:** Front porches, if used, shall be at least 8 feet deep and extend more than 30 percent of the façade width.

3. **Garage Doors:** Garage doors are not permitted on the front elevation of any townhouse building.

4. **Doors, Porches, Balconies, Windows:** All townhouse building elevations visible from the street shall provide doors, porches, balconies, and/or windows. A minimum of 60 percent of front elevations, and a minimum of 30 percent of side and rear building elevations, as applicable, shall meet this standard. "Percent of elevation" is measured as the horizontal plane (lineal feet) containing doors, porches, balconies, terraces and/or windows. This standard applies to each full and partial building story.

5. **Raised Entrances:** All front entrances shall be raised from the finished grade (at the building line) a minimum of 1 ½ feet, except live-work units, which may have entrances at grade.

6. **Detailed Design Features:** All townhouse buildings shall provide detailed design along all primary elevations and elevations facing a public street or open space. Detailed design shall be provided by using at least five of the following architectural features as appropriate for the proposed building type and style (may vary features on rear/side/front elevations):

   a. Dormers

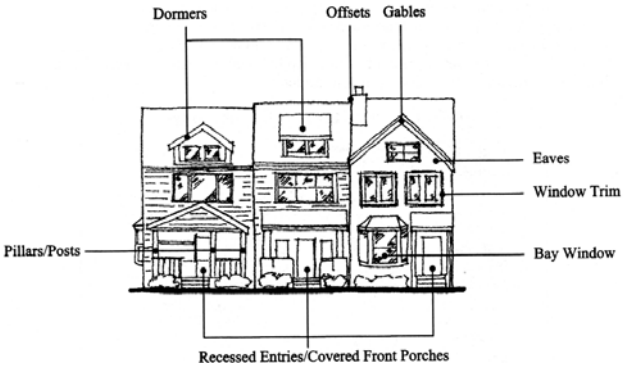
   b. Gables

   c. Recessed entries

   d. Covered porch or stoop entries

   e. Cupolas or towers

   f. Pillars or posts



   g. Eaves (minimum 10 inch projection which may include gutter)

   h. Off-sets in building face or roof (minimum 16 inches)

   i. Window trim (minimum 4 inches wide)

   j. Bay windows

   k. Balconies

   l. Decorative patterns on exterior finish (e.g. scales/shingles, wainscoting, ornamentation, and similar features)

   m. Other architectural features appropriate to the architectural style of the unit

5.11 Apartment Buildings

A. Description: A multiple-unit building with dwelling units vertically arranged (generally) and with parking located below or behind the buildings. Units may be for rental or for sale in condominium ownership or may be designed as continuing care facilities. The ground floor may be available for commercial uses. The uses permitted within the building are determined by the District in which the building is located.

Multi-Family Apartment Building

B. Yards

The Apartment Building typically has one yard (Rear) though variations include a small front setback to provide some landscaping.

Multi-family Apartment Building

Eight-plex Apartment Building

Multi-Family Apartment Building

C. Dimensional Standards by Zoning District

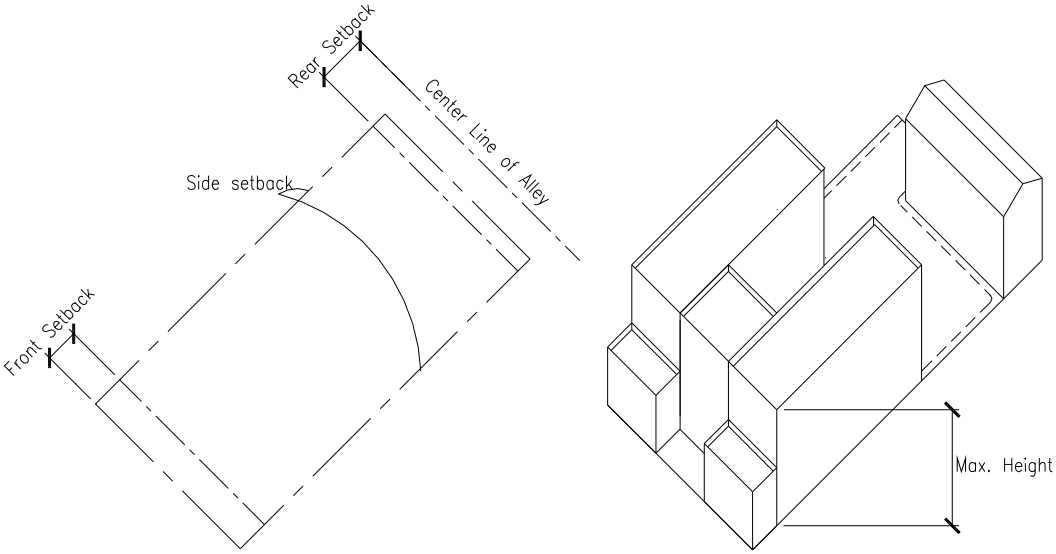
The Apartment building type is allowed as a Special Use in the zoning districts noted in the table below according to the dimensional standards noted therein.

	R7, NC, CMX, CC	DMX	CH
Lot Width (*Minimum*)	NA	30 ft	32 ft
Front Setback (*Minimum*)	0 ft (10 ft) *(a)*	0 ft	10 ft
Front Setback *(Maximum)*	-	25 ft	NA
Front Yard Encroachment *(b)*	8 ft	8 ft	NA
Side Setback (*Minimum*)	10 ft between buildings	6 ft between buildings	0 ft or 4 ft
Rear Setback (*Minimum*)	0 ft	0 ft	0 ft or 4 ft
Rear Setback from Alley (*Minimum*)	15 ft from centerline	15 ft from centerline	0 ft
Accessory Structure Side/Rear Setback (*Minimum*)	5 ft	0 ft	0 ft or 4 ft
Maximum Height	R7, NC: 3 stories CMX, CC: 5 stories	4 stories	3 stories
Minimum Height	NA	2 stories or 20 ft	NA

Notes:

(a) Along designated thoroughfares, the minimum front setback shall be 10 feet.

(b) Balconies, stoops, stairs, chimneys, open porches, bay windows, and raised doorways are permitted to encroach into the front setback. Upper story balconies may encroach into the right-of-way (over the sidewalk only) with permission from the Administrator.



D. General Requirements

1. **Bulk and Scale:** The bulk and scale of apartment infill development shall be similar to and consistent with the surrounding neighborhood as evaluated by the bulk of buildings adjacent, abutting and surrounding the proposed development. All buildings should be designed to adhere to the existing architectural pattern of the surrounding neighborhood.

2. **Porches and Stoops:** Useable porches and stoops shall form a predominate motif of the building design and be located on the front and/or side of the building. Useable front porches are at least 8 feet deep and extend more than 30 percent of the facade width.

3. **Garage Doors:** Garage doors are not permitted on the front elevation of any apartment building.

4. **Building Elevations:** All building elevations visible from the street shall provide doors, porches, balconies, and/or windows. A minimum of 60 percent of front elevations, and a minimum of 30 percent of side and rear building elevations, as applicable, shall meet this standard. "Percent of elevation" is measured as the horizontal plane (lineal feet) containing doors, porches, balconies, terraces and/or windows. This standard applies to each full and partial building story.

5. **Raised Entrances:** All front entrances shall be raised from the finished grade (at the building line) a minimum of 1 ½ feet.

6. **Design Details:** All apartment buildings shall provide detailed design along all primary elevations and elevations facing a public street or open space. Detailed design shall be provided by using at least three of the following architectural features as appropriate for the proposed building type and style (may vary features on rear/side/front elevations):

   a. Dormers

   b. Gables

   c. Recessed entries

   d. Covered porch or stoop entries

   e. Cupolas or towers

   f. Pillars or posts

   g. Eaves (minimum 10 inch projection which may include gutter)

h. Off-sets in building face or roof (minimum 16 inches)

i. Window trim (minimum 4 inches wide)

j. Bay windows

k. Balconies

l. Decorative patterns on exterior finish (e.g. scales/shingles, wainscoting, ornamentation, and similar features)

m. Decorative cornices and roof lines (for flat roofs)

n. Other architectural features appropriate to the architectural style of the unit.

7. **Roof Pitch:** If pitched roofs are used, they shall be symmetrical gables or hips with a pitch between 6:12 and 12:12.

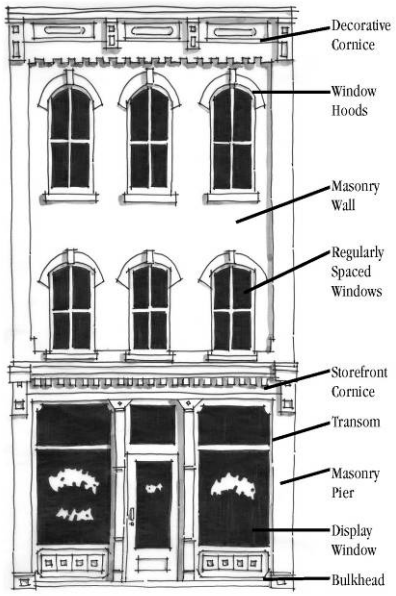
8. **Rooftop Equipment:** All rooftop equipment shall be screened from view.

5.12 General Design Requirements for Building Types: Mixed-Use, Commercial, Civic, Institutional

A. Façade Treatment

1. **Architectural Elements:** Architectural elements such as windows and doors, bulkheads, masonry piers, transoms, cornice lines, window hoods, awnings, canopies, and other similar details shall be provided on all facades facing public rights-of-way.

2. **Building Wall and Roofline Offsets:** Building wall offsets, including projections, recesses and changes in floor level shall be used in order to add architectural interest and variety, relieve the visual effect of a single, long wall; and subdivide the wall into human size proportions. Similarly, roofline offsets shall be provided to lend architectural interest and variety to the massing of a building and to relieve the effect of a single, long roof.



B. Ground Level Treatment:

The ground level of the building shall offer pedestrian interest along sidewalks and paths. This includes windows, entrances, and architectural details. Incidental signage on buildings (in accordance with Chapter 12), awnings and ornamentation are encouraged.

1. **Street Walls:** The first floors of non-residential buildings (NC, CC, CMX, DMX, and TND only) and all mixed-use buildings shall be designed to encourage and complement pedestrian-style interest and activity by adhering to the following provisions:

   a. **Windows and Doors:** The first floor of all buildings fronting directly on a street shall include transparent windows and doors arranged so that the uses inside are visible from and/or accessible to the street on at least 40 percent (65 percent for NC, CC and DMX) of the length of the first floor building elevation along the first floor street frontage.

   b. **Window dimensions:**
      - **i.** Maximum Sill Height (1st Floor): 42 inches (as measured from the finished floor elevation)
      - **ii.** Minimum Area: 16 sq ft
      - **iii.** Minimum Width: 3 feet
      - **iv.** Minimum Height: 4 feet

c. **Blank Walls:** Expanses of blank walls may not exceed 20 feet in length. (A "blank wall" is a facade that does not contain transparent windows or doors.)

d. **Ventilation Grates and Exit Doors:** Ventilation grates or emergency exit doors located at the first floor level in the building facade, which are oriented to any public street, shall be decorative.

C. Building Entrances: A primary entrance facade shall be oriented toward the street, be designed for the pedestrian, and be distinguishable from the rest of the building. Such entrances shall provide a sense of entry and add variety to the streetscape. Additional entrances may be oriented toward side or rear parking lots. Service entrances for shipping and receiving shall be oriented away from the public street.

D. Building Canopy: A building canopy, awning, or similar weather protection may be provided and should project a minimum of 5 feet from the façade.

E. Materials

1. Mixed-Use and non-residential building walls shall be brick, stucco, pre-cast concrete, stone, cementitious fiber board, architectural concrete block or wood clapboard. Exterior insulation finishing systems (EIFS) type stucco may be used above 8 feet from the base of the building. Vinyl or metal siding is not permitted.

2. Pitched roofs shall be clad in wood shingles, standing seam metal, corrugated metal, slate, or asphalt shingles.

5.13 Mixed-Use Building

A. Description: A multi-story small scale structure which can accommodate a variety of uses. A group of mixed-use buildings can be combined to form a mixed-use neighborhood center. Individual mixed-use buildings can be used to provide some commercial service, such as a neighborhood store, in close proximity to homes. The uses permitted within the building are determined by the District in which it is located.

Office over Retail/Restaurant

B. Yards

The Mixed-Use Building typically has one yard (Rear) though variations include a small front plaza or courtyard to provide public space for outdoor seating as well as a building with complete lot coverage where parking is handled in a manner other than on-site surface parking.

Office over Retail/Office

C. General Requirements: Building Height

Mixed-use buildings shall have a minimum of two stories.

Residential/Office over Retail

Office over Office/Retail

Residential over Residential/Office/Retail

D. Dimensional Standards by Zoning District

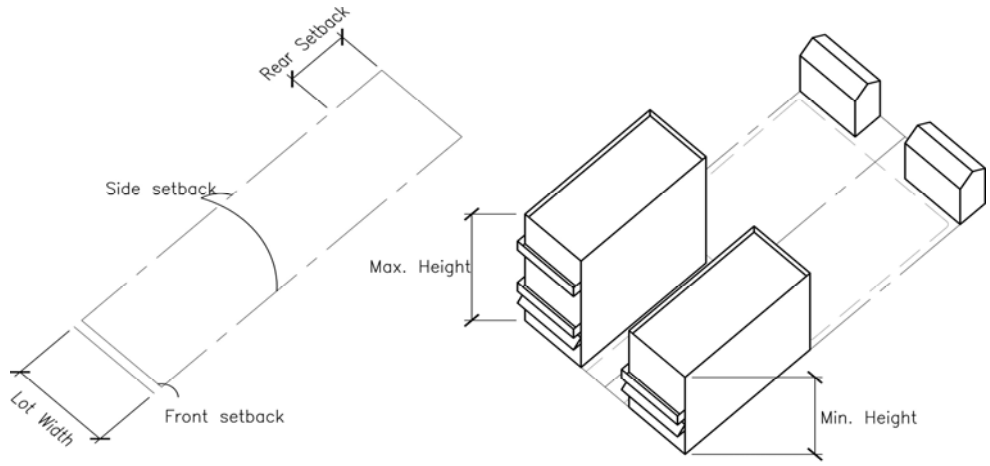
The Mixed-use building type is allowed in the zoning districts noted in the table below according to the dimensional standards noted therein.

	NC	CMX, CC	DMX	CH
Lot Width (*Minimum*)	25 ft	25 ft	25 ft	32 ft
Front Setback (*Minimum*)	0 ft	0 ft (10 ft) *(a)*	0 ft	10 ft
Front Setback *(Maximum)*	10 ft	none	10 ft	none
Front Yard Encroachment *(b)*	8 ft	8 ft	8 ft	none
Side Setback (*Minimum*)	0 ft within development, otherwise 5 ft	0 ft within development, otherwise 5 ft	0 ft or 4 ft	4 ft
Rear Setback (*Minimum*)	0 ft	0 ft	0 ft or 4 ft	4 ft
Rear Setback from Rear Lane/Alley (*Minimum*)	0 ft	0 ft	0 ft	0 ft
Accessory Structure Side/Rear Setback (*Minimum*)	0 ft	0 ft	0 ft	4 ft
Maximum Height	3 stories	5 stories	4 stories	3 stories
Minimum Height	2 stories or 20 ft	2 stories or 20 ft	2 stories or 20 ft	2 stories or 20 ft

Notes:

(a) Along designated thoroughfares, the minimum front setback shall be 10 feet.

(b) Balconies, stoops, stairs, chimneys, open porches, bay windows, and raised doorways are permitted to encroach into the front setback. Upper story balconies may encroach into the right-of-way (over the sidewalk only) with permission from the Administrator.



5.14 Commercial Building

A. Description: This building type provides convenient automobile access from the fronting thoroughfare, while minimizing impacts of parking lots on an active pedestrian realm. The uses permitted within the building are determined by the District in which it is located.

B. Yards

The Commercial Building typically has one yard (Rear) though variations include a small front plaza or courtyard to provide public space for outdoor seating.

Retail

Grocery Store

Retail along a thoroughfare

Pharmacy with Drive Thru

Gas Station

C. Dimensional Standards by Zoning District

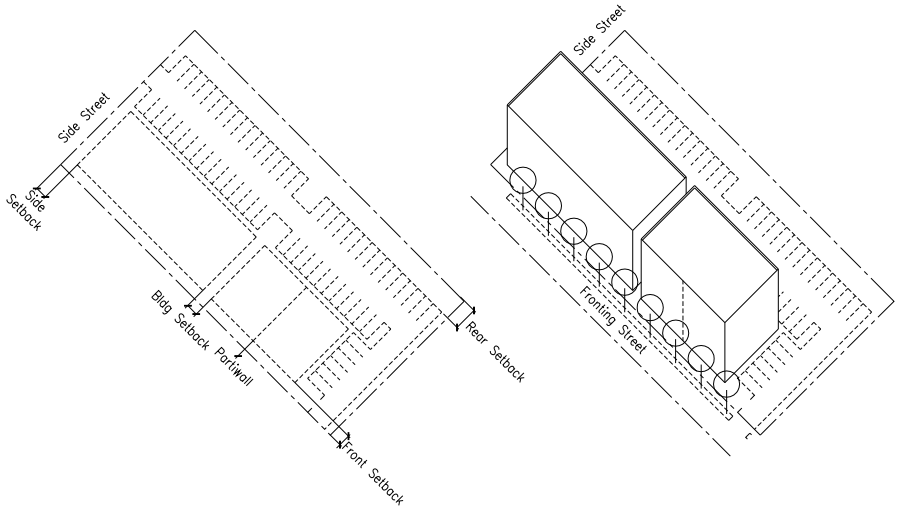
The Commercial building type is allowed in the zoning districts noted in the table below according to the dimensional standards noted therein.

	NC	CMX, CC	DMX	CH
Lot Width (*Minimum*)	32 ft	32 ft	25 ft	32 ft
Lot Depth *(Minimum)*	none	none	none	none
Front Setback (*Minimum*)	0 ft	0 ft (10 ft) *(a)*	0 ft	10 ft
Front Setback *(Maximum)*	10 ft	75 ft	10 ft	none
Front Yard Encroachment *(b)*	8 ft	8 ft	8 ft	none
Side Setback (*Minimum*)	0 ft within development, otherwise 5 ft	0 ft within development, otherwise 5 ft	0 ft or 4 ft	4 ft
Rear Setback (*Minimum*)	0 ft	0 ft	0 ft or 4 ft	4 ft
Rear Setback from Rear Lane/Alley (*Minimum*)	0 ft	0 ft	0 ft	0 ft
Accessory Structure Side/Rear Setback (*Minimum*)	0 ft	0 ft	0 ft	4 ft
Maximum Height	3 stories	5 stories	4 stories	3 stories
Minimum Height	none	none	2 stories or 20 ft	none

Notes:

(a) Along designated thoroughfares, the minimum front setback shall be 10 feet.

(b) Balconies, stoops, stairs, chimneys, open porches, bay windows, and raised doorways are permitted to encroach into the front setback. Upper story balconies may encroach into the right-of-way (over the sidewalk only) with permission from the Administrator.



5.15 Civic

A. Description: The Civic Building serves as a landmark and a public gathering place. Such buildings should be constructed as permanent additions to the long-term vibrancy of the Town and should serve to exemplify the very best architectural designs and building practices.

Courthouse

B. Applicability: The Civic Building type includes public buildings such as town halls, libraries, transit stations, and post offices, as well as semi-public buildings such as museums and observatories.

Transportation Terminal

C. Requirements:

1. They should be built so that they terminate a street vista whenever possible.

2. They should be designed to create visual anchors for the community.

3. Two wall materials may be combined horizontally on one façade. The heavier material (based on appearance) should be below. (i.e. stone and brick are visually heavier than siding and shakes)

4. All rooftop equipment shall be screened from view.

5.16 Institutional

A. Description: Institutional Buildings also often serve as landmarks and public gathering places. However, because most institutional uses serve specialized populations (i.e. children, elderly, college students, or the infirmed) they have unique characteristics that require design control. Like Civic buildings, Institutional buildings should be constructed as permanent additions to the long-term vibrancy of the Town and should serve to exemplify the very best architectural designs and building practices.

College Building

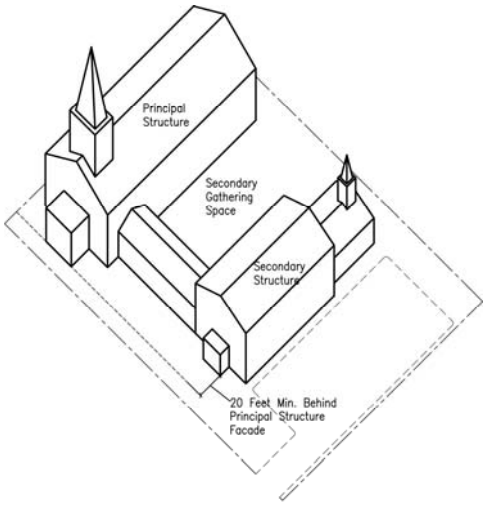
Church

B. Applicability: Uses appropriate for the Institutional building type include governmental offices, schools, hospitals and long-term care facilities, churches, synagogues and non-profit or charitable clubs and organizations.

C. General Requirements:

1. Institutional buildings should be of sufficient design to create visual anchors for the community.

2. **Secondary Buildings:** Building(s) incidental to the principal structure shall be behind line a minimum of 20 feet behind the front facade of the principal structure, and if more than one, shall be arranged to create secondary gathering spaces within the lot.



3. **Building Walls:** Institutional building walls shall be clad in clapboard, stone, stucco, cementitious fiber board, brick, or marble. Decorative concrete masonry units (CMU), exterior insulation finishing systems (EIFS) and/or vinyl siding may be used as a secondary element, or on facades not facing public streets.

4. **Roofs:** Flat roofs are allowed, but principal buildings adjacent to residential structures shall have similar architectural features such as pitched roofs to ensure compatibility.

Chapter 6. ENVIRONMENTAL PROTECTION

6.1 Purpose and Intent

A primary and fundamental element of this Ordinance is the protection of our existing environmental resources including floodplains and other stream corridors, wetlands, watersheds and groundwater recharge areas, soils, forest stands, specimen trees and other significant vegetation and wildlife. These elements are of economic value to the Town and make it a desirable place to live and visit.

6.2 Land Suitability

Land subject to flood hazard, improper drainage, erosion or that is for topographical or other reasons unsuitable for development as determined by the Town of Wendell, shall not be platted or developed for residential use nor for any other uses that will continue or increase the danger to health, safety, or property unless the hazards can be and are corrected.

A. Demolition Landfill Development

Areas that have been used for the disposal of solid waste shall not be subdivided into commercial or residential building sites. This includes areas that have been used for the disposal of trash, demolition waste, construction debris, stumps, and other waste materials.

6.3 Sedimentation and Erosion Control

In order to prevent soil erosion and sedimentation pollution, the developer shall comply with all requirements of the North Carolina Sedimentation Pollution Control Act of 1973, as amended.

A Sedimentation and Erosion Control Plan approved by Wake County Environmental Services (or other agencies having jurisdiction) shall be in place prior to any land disturbing activity.

6.4 Pre-Development Site Grading

Pre-development site grading may commence only with a permit issued in accordance with the provisions of Section 6.5, Stormwater Runoff Provisions. Predevelopment site grading, for the purpose of this ordinance, is any land disturbing activity of 1 acre or more that is not regulated by a site plan previously approved by the Board of Commissioners.

The grading may be considered a "low impact" or "high impact" activity based on the table below. If one or more of the high impact activities exist, the grading is considered high impact.

Low Impact Activity	High Impact Activity
1. Land disturbing activity is more than 100 feet from a residential district.	**1.** Land disturbing activity is 100 feet or less from a residential district.
2. Land disturbing activity will not intrude into either the Street Yard landscaping area or Planting Yard landscaping area *(see Chapter 8, Tree Protection and Landscaping)*	**2.** Land disturbing activity will intrude into either the Street Yard area or the Planting Yard landscaping area *(see Chapter 8, Tree Protection and Landscaping)*
3. The steepness of the proposed slope at clearing limit is 3:1 (horizontal: vertical) or flatter.	**3.** The steepness of the proposed slope at clearing limit is greater (steeper) than 3:1 (horizontal: vertical)
4. The height of the proposed grade change (cut or fill) is less than or equal to 3 feet.	**4.** The height of the proposed grade change is greater than 3 feet.

6.5 Stormwater Runoff Provisions: Post-Construction Stormwater Ordinance

A. Title

This section and related sections shall officially be known as the "Post-Construction Stormwater Ordinance."

B. Authority

The Town of Wendell 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 municipal Charter of the Town of Wendell; North Carolina General Statutes 143-214.7 and rules promulgated by the Environmental Management Commission thereunder; Session Law 2004-163; Chapter 160A, §§ 174, 185 [as well as Chapter 113A, Article 4 (Sedimentation Pollution Control)]; [Article 21, Part 6 (Floodway Regulation)]; [Chapter 160A, Article 19 (Planning and Regulation of Development); Chapter 153A, Article 18]; as well as Chapter 153A, Article 18 related to statutory authority for planning and regulation of development (Parts 1, 2, and 3), including particularly but not limited to G.S. 153A-324 (enforcement), G.S. 153A-330 and 331 (subdivision), G.S. 153A-340 (zoning).

C. Findings

It is hereby determined that:

Development and redevelopment alter the hydrologic response of local watersheds and increases stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, nonpoint and point source pollution, and sediment transport and deposition, as well as reducing groundwater recharge;

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 Post-Construction Stormwater Rules promulgated under it compel the Town to adopt the minimum stormwater controls such as those included in this ordinance.

Therefore, the Town of Wendell 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, stream bank erosion, nonpoint and point source;

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 green space and other conservation areas to the maximum extent practicable;

d. establishing provisions for the long-term responsibility for and maintenance of Structural and Non-Structural stormwater 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. 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 Stormwater Best 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 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 24 percent or more 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 areas include, but are not limited to, rooftops, sidewalks, walkways, patio areas, driveways, parking lots, storage areas, engineered and compacted gravel surfaces used for 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" An 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 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 drainage ways to the maximum extent practical.

"Non-Structural BMP" A practice that is intended to reduce the impacts of stormwater runoff by managing pollution at the source and that is not a physical device constructed to control or treat stormwater runoff. Examples of Non-Structural BMP's include reducing impervious areas, making use of existing natural features and system, reforestation, and cluster development.

"1-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.

"Redevelopment" Any rebuilding activity 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.

"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:

(1) obtaining a grading permit and conducting grading activity on a continuous basis and not discontinued for more than 30 days; or
(2) 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.

"Ultra Low-Density Project" A project is an Ultra Low -Density project if it has 15 percent or less Built-Upon Area (BUA) and has less than one dwelling unit per acre 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 drainage ways to the maximum extent practicable.

F. 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

a. 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.

b. 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.

c. 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 development or sale, even though multiple, separate or distinct activities take place at different times on different schedules.

d. 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 exterritorial 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 to included changes in the land area covered by this ordinance and the geographic location of all Structural BMPs permitted under 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.

G. 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.

2. **Additional Rules of Interpretation:** Additional questions of interpretation shall follow the provisions laid out in Section 1.10 of this UDO.

H. North Carolina Stormwater Best Management Practices Design Manual

1. Reference to Design Manual

The Stormwater Administrator or his/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 the 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.

3. Changes to Standards and Specifications

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

I. 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, and 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 easement, covenant, or other private agreement, then 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 of Wendell be obligated to enforce the provisions of any easements, covenants, or agreements between private parties.

J. 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.

K. Effective Date and Transitional Provisions

1. Effective Date

The effective date of the stormwater ordinance is the date of adoption by the Board of Commissioners.

2. Final Approvals, Complete Applications

All development and redevelopment projects for which complete and full applications were submitted and approved by the Town of Wendell prior to the effective date of this ordinance 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, including but not limited to illicit discharge 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.

L. Administration and Procedures

1. Review and Decision Making Entities

a. Stormwater Administrator:

i. Designation: A Stormwater Administrator shall be designated by the Town of Wendell to administer and enforce this ordinance.

ii. Powers and Duties: In addition to the powers and duties that may be conferred by other provisions of the Town of Wendell's Code of Ordinances and other laws, the Administrator shall have the following powers and duties under this ordinance:

a. To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to this ordinance.

b. To make determinations and render interpretations of this ordinance.

c. To enforce the provisions of this ordinance in accordance with its enforcement provisions.

d. To maintain records, maps, forms and other official materials as they relate to the adoption, amendment, enforcement, and administration of this ordinance.

e. To designate appropriate other person(s) who shall carry out the powers and duties of the Administrator.

f. To take any other action necessary to administer the provisions of this ordinance.

2. Review Procedures

a. 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.

b. 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.

c. Authority to File Applications: All applications required pursuant to this Code shall be submitted to the Stormwater Administrator by the land owner or the land owner's duly authorized agent.

d. Establishment of Application Requirements, Schedule, and Fees:

i. Application Contents and Form: The Stormwater Administrator shall establish requirements for the content and form of all 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.

ii. Submission Schedule: The Stormwater Administrator shall establish a submission schedule for applications. The schedule shall establish deadlines by which complete applications shall be submitted for the purpose of ensuring that there is adequate time to review applications, and that the various stages in the review process are accommodated.

iii. Permit Review Fees: Permit review fees as well as policies regarding refund of any fees upon withdrawal of an application, and may amend and update the fees and policies from time to time.

iv. Administration 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.

e. Submittal of Complete Application: Applications shall be submitted to the Stormwater Administrator pursuant to the application submittal schedule in the form established by the 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.

f. **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.

i. **Approval:** If the Stormwater Administrator finds that the application complies with the standards of this ordinance, 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.

ii. **Fails to Comply:** If the Stormwater Administrator finds that the application fails to comply with the standards of this ordinance, 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.

iii. **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 6 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.

3. Applications for Approval

a. **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 project. This consultation meeting should take place at the time of the preliminary plan of subdivision or other early step in the development process. The purpose of this meeting is to discuss the 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 Wendell Open Space and Greenway Master Plan, the Framework Plan (as described in the Town of Wendell 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:

i. **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.

ii. **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.

iii. **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.

b. Stormwater Management Permit Application.

i. **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 N, Standards.

ii. **Downstream Impact Analysis:** As part of the permit application, all development and redevelopment shall perform a Downstream Impact Analysis as specified in Section N.1.

iii. **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 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. Incomplete submittals shall be treated pursuant to Section L.2.D.

c. As-Built Plans and Final Approvals. Upon completion of a project, and before a certificate of occupancy shall be granted, the applicant shall certify that the completed project is in accordance with the approved stormwater management plans and designs, and shall submit actual "as built" plans for all stormwater management facilities or practices after final construction is completed.

The plans shall show the final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. The designer of the stormwater management measures and plans shall certify, under seal, that the as-built stormwater measures,

controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this ordinance. A final inspection and approval by the Administrator shall occur before the release of any performance securities.

4. Approvals

a. Effect of Approval: Approval authorizes the applicant to go forward with only the specific plans and activity 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.

b. Time Limit/Expiration: An approved plan shall become null and void if the applicant has failed 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.

5. Appeals

a. Right of Appeal: Any aggrieved person affected by any decision, order, requirement, or determination relating to the interpretation or application of this ordinance and made by the Administrator may file an appeal to the Zoning Board of Adjustment within 30 days.

b. 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 Appeal Board all documents constituting the record on which the decision appealed from was taken.

The hearing conducted by the town's Appeal Board shall be conducted in the nature of a quasi-judicial proceeding with all findings of fact supported by competent, material evidence.

c. **Review by Superior Court:** Every decision of the town's 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:

i. the decision of the town's Appeal Board is filed; or

ii. a written copy thereof 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.

M. Standards Based on Project Density

1. Development Standards for Ultra-Low and Low-Density Projects

Ultra-Low and Low-Density projects shall comply with each of the following standards, in addition to the general standards found in Section B in this Section:

a. Stormwater runoff from the development shall be transported from the development by vegetated conveyances to the maximum extent practicable.

b. All Development and Redevelopment shall be located outside the Riparian Buffer Zone and Flood Protection Zone.

c. The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as a recorded deed restriction or protective covenants, to ensure that future development and redevelopment maintains the site consistent with the approved project plans.

d. No Development or Redevelopment shall contribute a nitrogen export load exceeding 3.6 pounds per acre per year. Development and Redevelopment to which this ordinance applies that achieve classification as LID Projects in accordance with Section N.2.5 shall have the option of offsetting their nitrogen export load limitations by paying monies to the North Carolina Riparian Buffer Restoration Fund based on the latest fee adopted by the State. Development and Redevelopment to which this ordinance applies that do not apply for or achieve classification as LID projects in accordance with Section N.2.5 shall not have the option of offsetting their nitrogen export load limitations.

e. For Ultra Low-Density Projects only, pervious portions of the site must be utilized to the maximum extent practicable to convey and control stormwater runoff.

f. For Low-Density Projects only, Structural and Non-Structural BMPs shall control and treat the difference in the stormwater runoff peak discharge rate leaving the project site between the pre- and post-Development conditions for, at a minimum, the 1-year, 24-hour storm. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours.

g. General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c), as explained in the Design Manual.

h. Developers must manage residential runoff so that after Development the site will not exceed the Target Curve Numbers in the table in Section M.2.

i. Ultra-Low Density Projects and Low-Density Projects may be eligible for target curve number credits, as described found in Section M.3, below.

2. Maximum Curve Number after Development

Developers must manage residential runoff so that after development the site will not exceed the following composite curve numbers, in accordance with procedures specified in the United States Department of Agriculture, Natural Resource Conservation Service, Technical Release 55, *Urban Hydrology for Small Watersheds.*

Project Density	Maximum Composite Curve Number, by Soil Group			
	A	B	C	D
Ultra-Low	43	63	76	81
Low	48	66	78	83
High	n/a	n/a	n/a	n/a

3. Target Curve Number Credits

a. **Purpose:** The purpose of establishing a stormwater credit system is to provide incentives to implement better site design and locate new development in a manner that causes less impact to aquatic resources. Certain development practices reduce the

generation of stormwater from the site; thereby reducing the size and cost of stormwater storage. In addition, these practices can provide partial removal of many pollutants. The credit system directly translates into cost savings and better protection of water resources.

b. **Disconnected Impervious Surfaces:** Disconnected impervious surfaces, included permeable pavers, are encouraged. Runoff from these disconnected surfaces must be spread over pervious areas as sheet flow. As a credit, these disconnected impervious surfaces will be assigned the lower curve number specified by procedures of the United States Department of Agriculture, Natural Resources Conservation Service, Technical Release 55, *Urban Hydrology for Small Watersheds.*

c. **Reforestation:** The planting of trees and shrubs is encouraged as a means of reducing runoff. As a credit for such practices, reforested areas will be assigned the curve number for woods in good condition per procedures in the United States Department of Agriculture, Natural Resources Conservation Service (NRCS), Technical Release 55, *Urban Hydrology for Small Watersheds*. Areas planted with trees or shrubs must meet the following standards to qualify for the credit.

i. **Tree/Shrub Density and Spacing:** Planted trees or shrubs must meet the minimum density and spacing standards of the NRCS, as specified in the Field Office Technical Guide. Existing trees or shrubs may be used towards meeting the planting standard.

ii. **Mulching:** An initial application of mulch is required for the area designated for reforestation. Mulching must meet applicable standards of the NRCS, as specified in the Field Office Technical Guide. Existing groundcover may be used towards meeting the mulching standard.

d. **Cluster and Open Space Subdivisions:** Cluster and open space subdivisions are encouraged. In applying curve number calculations to such developments, calculations must take into account the lots' proportionate share of right-of-way and permanent open space.

e. **Calculations Regarding Ponds, Lakes, and Streams:** Surface water bodies may not be assigned a curve number for impervious surfaces. Instead, such water bodies will be removed

from calculations so that developments are not penalized for their presence. Surface water bodies shall be included in calculations of project density.

4. Development Standards for High-Density Projects

High-density projects shall implement stormwater control measures that comply with each of the following standards, in addition to the general standards found in subsection N of this chapter.

a. The measures shall control and treat runoff from the first inch of rain. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours.

b. All structural stormwater treatment systems used to meet the requirements of the program shall be designed to have a minimum of 85 percent average annual removal for Total Suspended Solids (TSS).

c. No Development or Redevelopment shall contribute a nitrogen export load exceeding 3.6 pounds per acre per year. Development and Redevelopment to which this ordinance applies that achieve classification as LID Projects in accordance with Section N.5 shall have the option of offsetting their nitrogen export load limitations by paying monies to the North Carolina Riparian Buffer Restoration Fund based on the latest fee adopted by the State. Development and Redevelopment to which this ordinance applies that do not apply for or achieve classification as LID projects in accordance with subsection N.4 shall not have the option of offsetting their nitrogen export load limitations.

d. Structural and Non-Structural BMPs shall be used to ensure there is no net increase in peak flow leaving the site from the pre- and post-development conditions for the 1-year, 24-hour storm. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours.

e. General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c), as explained in the Design Manual.

f. All development and redevelopment shall be located outside the Riparian Buffer and Flood Protection Zone. These zones shall be in accordance with the following provisions:

i. Except where other applicable buffer standards are more restrictive, the Riparian Buffer Zone shall extend a minimum of 50 feet landward of all Perennial and Intermittent Surface Waters. The most restrictive standards shall apply.

ii. The Riparian Buffer Zone shall remain undisturbed unless otherwise permitted by this section.

iii. The Flood Protection Zone shall extend throughout the FEMA 100-year floodplain as identified on the current Flood Insurance Rate Map (FIRM) published by FEMA. The Flood Protection Zone shall remain undisturbed unless otherwise permitted by this section.

iv. No Development or Redevelopment is permitted within the Riparian Buffer Zone or the Flood Protection Zone except for stream bank or shoreline restoration or stabilization, water dependent structures, and public or private projects such as road crossings and installations, utility crossings and installations, and greenways, where no practical alternatives exist.

v. Permitted activities within the Riparian Buffer Zone and the Flood Protection Zone shall minimize impervious coverage, direct runoff away from surface waters to achieve diffuse flow, and maximize the utilization of Non-Structural BMPs.

vi. Where the Riparian Buffer Zone and the Flood Protection Zone both are present adjacent to surface waters, the more restrictive shall apply.

g. The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as recorded deed restrictions or protective covenants, to ensure that future Development and Redevelopment maintains the site consistent with the approved project plans. Buffer widths and locations shall be clearly delineated on all plans, final plat, and as-builts.

N. General Standards

1. **Downstream Impact Analysis:** The Downstream Impact Analysis must be performed in accordance with the "10% rule," and a copy of the analysis must be provided with the permit application. The purpose of the Downstream Impact Analysis is to determine if the project will cause any unintentional additional impacts on flooding or channel degradation downstream of the project site. The analysis must include the assumptions, results and supporting calculations to show safe passage of post-development design flows downstream. This analysis shall be performed at the outlet(s) of the site, and downstream at each tributary junction to the point(s) in the conveyance system where the area of the portion of the site draining into the system is less than or equal to 10% of the total drainage area above that point.

   The typical steps in the application of the 10% rule are:

   a. Using a topographical map, determine the point downstream where the proposed site equals 10% of the total drainage area, called 10% point. Identify all tributary junctions between the downstream site boundary and the 10% point. All points identified, as well as the outlet of the site, are known as 10% rule comparison points.

   b. Using a hydraulic model with existing land uses, determine the pre-development peak runoff rate (cfs) for the 10-year design storm event at each comparison point.

   c. Insert the proposed site design and proposed BMP's into land uses and determine the post-development peak runoff rate for the 10-year design storm at each comparison point.

   d. If the 10-year post-development peak discharge rate is greater than the pre-development discharge rate at any comparison point, then one of the following actions must be taken:

      i. Revise the site plan for the proposed site to incorporate better use of natural features, design additional structural control facilities, reduce impervious cover, or alter timing of peak flows to lower post-Development flows at each comparison point to pre-Development levels.

ii. Obtain a flow easement from downstream property owners through the 10% point where the post-Development peak discharge rate is higher than the pre-Development peak discharge rate.

iii. Work with the town to determine other acceptable approaches to reduce the peak discharge rate for the 10-year storm.

For further information on the 10% rule, refer to the *Georgia Stormwater Manual*, www.georgiastormwater.com.

2. Standards for Stormwater Control Measures

a. Evaluation According to Contents of Design Manual: All stormwater control measures and stormwater treatment practices (or BMPs) required under this ordinance shall be evaluated by the Stormwater Administrator according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice, in the Design Manual. The Stormwater Administrator shall determine whether proposed BMPs will be adequate to meet the requirements of this ordinance.

b. Determination of Adequacy; Presumptions and Alternatives: Stormwater treatment practices that are designed, constructed, and maintained in accordance with the criteria and specifications in the Design Manual will be presumed to meet the minimum water quality and quantity performance standards of this ordinance. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the Design Manual, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this ordinance. The Stormwater Administrator may require the applicant to provide documentation, calculations, and examples as necessary for the Stormwater Administrator to determine whether such an affirmative showing is made.

c. Separation from Seasonal High Water Table: For BMPs that require a separation from the seasonal high-water table, the separation shall be provided by at least 12 inches of naturally occurring soil above the seasonal high-water table.

d. Changes to Stormwater Plan Based on Emerging Technologies: Subject to the standards of this ordinance and other applicable law, a developer, in conjunction with the development's lot owners, may submit an application to revise the approved stormwater plan so as to use new technologies or best management practices not available when the original stormwater plan was approved. Innovative technologies may be used on a demonstration basis for a period of one year while simultaneously collecting data on the effectiveness of the technology according to its design. If at the end of the demonstration period the technology is not performing according to its intended design functions as judged by the Stormwater Administrator, the developer must retrofit the site with a standard technology.

3. Additional Stormwater Management Measures

In some cases, the Stormwater Administrator may require more stringent stormwater management measures where it is determined that additional measures are required to protect water quality and maintain existing and anticipated uses of these waters or to minimize offsite damage from stormwater runoff in accordance with the purpose of this ordinance as defined in Section D.

4. Dedication of BMPS, Facilities and Improvements

The town may accept dedication of any existing or future stormwater management facility for maintenance, provided such facility meets all the requirements of this ordinance and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

5. Low Impact Development (LID) Project Classifications

a. All development or redevelopment to which this ordinance applies may be submitted for classification as a Low Impact Development (LID) Project.

b. Classification as a Low Impact Development requires that the development mimic the pre-developed hydrologic conditions of the site, as defined as "woods in good condition" for the 2-yr, 24 hr storm, within 10%. The pre-developed conditions shall include: its hydrologic balance; frequency distribution of high flows; magnitude, frequency, and duration of low flows; groundwater recharge (or infiltration), and flow length and

pattern. The conditions shall be measured through the comparison between measures of the pre-developed and developed conditions including: total runoff volume, time of concentration, curve number, and peak discharge. Mimicry of the pre-developed hydrologic conditions may be achieved through such techniques as the minimization of disturbed areas and the use of on-lot distributed retention storage as described in more detail on Wake County's Stormwater Web Site under Low Impact Development.

c. The following techniques must be used to achieve LID classification:

i. natural site design in consultation with the Town;

ii. site buildings, roads, and other disturbance in the least environmentally sensitive areas, pursuing steep slopes, naturally well draining soils, and other hydrologically valuable features undisturbed.

d. In addition, one of the following two techniques must be used to achieve LID classifications:

i. bio-retention systems;

ii. on-site infiltration;

e. In additions, at least two of the following techniques must be used to achieve LID

i. retention of 50 percent of vegetated area, including open space, landscaping, or forests:

ii. use of Permeable pavement for all private driveways, private roads, sidewalks, and parking areas in accordance with the North Carolina Stormwater Best Management Practices Design Manual;

iii. installation of one rain cistern per lot or three rain barrelsper lot;

iv. installation of vegetated roofs;

v. increasing all buffers in the Riparian Buffer Zone of the Flood Protection Zone, whichever is greater, by 50 feet, in accordance with Section M.1 for Low-Density Development and Ultra Low Density projects and Section M.4 for High-Density Projects

vi. use of reclaimed water for all buildings in accordance with State and local laws.

vii. use of innovative LID techniques subject to the approval of the Town.

f. For Development and Redevelopment projects achieving classification as LID Projects, the Stormwater Administrator shall waive the stormwater permit fee if stipulated in the fee schedule duly adopted by the applicable governing board.

g. Wake County will expedite the permitting process for Development and Redevelopment projects achieving classification as an LID Project.

6. On-Site Wastewater

Onsite systems disposal systems shall be operated and maintained in accordance with the *Regulations Governing Sewage Treatment and Disposal Systems in Wake County (Regulations)* adopted by the Wake County Board of Human and Environmental Services and enforced by Wake County. Onsite systems shall be inspected, permitted, repaired and/or professionally operated in accordance with the Regulations and in a manner to prevent adverse to prevent adverse impacts on surface water and groundwater. The Town of Wendell and WCES shall collaborate on identification of areas of high risks for system failures and associated need for environmental surveys, system repairs and possible service by municipal utilities.

O. Completion of Improvements and Maintenance

1. Performance Security for Installation and Maintenance of Improvements

The town may, at its discretion, require the submittal of a performance bond, letter of credit from, or cash escrow account with a local bank prior to issuance of a permit. If improvements are not installed prior to approval of a record plat, the town shall require the submittal of a

performance bond, letter of credit from, or cash escrow account with a local bank prior to issuance of a permit. This performance security is required in order to ensure that the Structural BMPs are:

a. installed by the permit holder as required by the approved stormwater management plan, and/or

b. maintained by the Owner as required by the operation and maintenance agreement.

2. Form and Amount of Installation Performance Security

The amount of an installation performance security must equal at least 125 percent of the estimated cost of the required improvements, including project management costs that have not been installed by the time of Record Plat submittal.

3. Form and Amount of Maintenance Performance Security

The amount of a maintenance performance security must be at least 125 percent of the total estimated construction cost of the Structural BMPs approved under the permit.

4. Uses of Performance Security for Installation

a. **Forfeiture Provisions.** The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or Owner in accordance with this ordinance, approvals issued pursuant to this ordinance, or an operation and maintenance agreement established pursuant to this ordinance.

b. **Default.** Upon default of the Owner to construct, maintain, repair and, if necessary, reconstruct any Structural BMP in accordance with the applicable permit or operation and maintenance agreement, the Stormwater Administrator shall obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the Owner to comply with the permit or maintenance agreement. In the event of a default triggering the use of installation performance security, the town shall not return any of

the unused deposited cash funds or other security, which shall be retained for maintenance.

c. **Costs in Excess of Performance Security.** If the town takes action upon such failure by the applicant or Owner or property owners' association, the town may collect from the applicant or Owner or property owners' association the difference between the amount of the reasonable cost of such action and the amount of the security held, in addition to any other penalties or damages due.

d. **Refund.** Within 60 days of the final approval, the installation performance security shall be refunded to the applicant or terminated, except any amount attributable to the cost (plus 25 percent) of landscaping installation and ongoing maintenance associated with the BMPs covered by the security. Any such landscaping shall be inspected one year after installation with replacement for compliance with the approved plans and specifications and, if in compliance, the portion of the financial security attributable to landscaping shall be released.

5. Uses of Performance Security for Maintenance

a. **Forfeiture Provisions.** The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or Owner in accordance with this ordinance, approvals issued pursuant to this ordinance, or an operation and maintenance agreement established pursuant to this ordinance.

b. **Default.** Upon default of the Owner to construct, maintain, repair and, if necessary, reconstruct any Structural BMP in accordance with the applicable permit or operation and maintenance agreement, the Stormwater Administrator shall obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the Owner to comply with the permit or maintenance agreement. In the event of a default triggering the use of installation

performance security, the town shall not return any of the unused deposited cash funds or other security, which shall be retained for maintenance.

c. **Costs in Excess of Performance Security.** If the town takes action upon such failure by the applicant or Owner or property owners' association, the town may collect from the applicant or Owner or property owners' association the difference between the amount of the reasonable cost of such action and the amount of the security held, in addition to any other penalties or damages due.

6. As-Built Plans and Final Approval

Upon completion of a project, the applicant shall certify that the completed project is in accordance with the approved stormwater management plans and designs, and shall submit actual "as built" plans in both digital file (one copy) and mylar formats (three mylars) for all stormwater management facilities or practices after final construction is completed.

The plans shall show the final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. The designer of the stormwater management measures and plans shall certify, under seal, that the as-built stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this ordinance. A final inspection and approval by the Stormwater Administrator shall occur before the release of any performance securities.

No certificate of compliance or occupancy shall be issued without final as-built plans and a final inspection, or performance guarantees, and approval by the Stormwater Administrator.

7. Maintenance Of Improvements

a. **Maintenance Required.** All Structural and Non-Structural BMPs must be maintained so they will continue to serve their intended functions.

b. Parties Responsible for Maintenance of Structural BMPs

i. The developer must maintain Structural and Non-Structural BMPs until accepted by a property owners' association or lot Owner. All Structural BMPs required for residential subdivisions, including those on individual lots, must be accepted for maintenance by a property owners' association. The developer must disclose which party will be responsible for continued maintenance on the record plat and on the stormwater management plan.

ii. Before improvements are accepted for maintenance by the property owners' association or lot Owner, the developer or the developer's engineer or other representative, as authorized by Statute, must certify to the property owners' association or lot Owner and to the town that improvements are complete and functioning as designed.

iii. If a property owners' association or similar legal entity is to be responsible for the maintenance and control of BMPs, it shall be established so that it has clear legal authority to maintain and exercise control over, including the power to compel contributions from subdivision property owners to cover their proportionate shares of the costs associated with the maintenance of the BMPs. Such association shall be established prior to approval of the final plat.

iv. Documents providing for the establishment of a homeowners' association or similar legal entity in accord with this ordinance shall be approved by the Stormwater Administrator before any plat is recorded.

8. Maintenance Plan

a. The developer must record, and reference on the record plat, a maintenance plan that instructs the property owners' association or lot Owner about the annual maintenance tasks and associated costs for at least a 20-year period.

b. It will be the responsibility of the property owners' association or lot Owner to update the maintenance plan at least every 10 years in perpetuity.

9. Maintenance Agreement

a. The developer must record, and reference on the record plat, a maintenance agreement, or restrictive covenant that sets forth the property owners' association's or lot Owner's continuing responsibilities for maintenance, including specifying how cost will be apportioned among lot owners served.

b. The maintenance agreement must provide that the association and its individual members are jointly and severally liable for maintenance.

c. The maintenance agreement shall grant to the town a right of entry in the event that the Stormwater Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair or reconstruct the Structural and Non-Structural BMPs; however, in no case shall the right of entry, of itself, confer an obligation on the town to assume responsibility for the Structural and Non-Structural BMPs.

10. Maintenance Easement

The developer must record easements for access, maintenance and inspections by any property owners' association and by the town.

11. Annual Maintenance Inspection and Report

The person or entity responsible for maintenance of any Structural and Non-Structural BMPs installed pursuant to this ordinance shall submit to the Stormwater Administrator an annual inspection report from one of the following persons performing services only in their area of competence: a qualified registered North Carolina professional engineer, surveyor, landscape architect, soil scientist, aquatic biologist, or person certified by the North Carolina Cooperative Extension Service for stormwater treatment practice inspection and maintenance.

Annual inspection reports are due by June 30 of each year. The first annual report is due by June 30 following one year after approval of the as-built plan. For Structural BMPs located on properties subject to property owners' association agreements, the property owners' association is responsible for collecting and submitting information on all individual lot Structural BMPs installed pursuant to this ordinance on an annual basis. The inspection report shall contain all of the following:

a. The name and address of the land Owner;

b. the recorded book and page number of the lot of each Structural and Non-Structural BMPs;

c. a statement that an inspection was made of all Structural and Non-Structural BMPs;

d. the date the inspection was made;

e. a statement that all inspected Structural and Non-Structural BMPs are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this ordinance;

f. and the original signature and seal of the engineer, surveyor, or landscape architect.

All inspection reports shall be on forms supplied by the Stormwater Administrator. An original inspection report shall be provided to the Stormwater Administrator by the first day of July following the issuance of a certificate of occupancy. Subsequent annual reports shall be due on the first day of July each year.

12. Inspection Program

Inspections and inspection programs by the town may be conducted or established on any reasonable basis, including but not limited to routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in BMPs; and evaluating the condition of BMPs.

If the Owner or occupant of any property refuses to permit such inspection, the Stormwater Administrator shall proceed to obtain an administrative search warrant pursuant to G.S. 15-27.2 or its successor.

No person shall obstruct, hamper or interfere with the Stormwater Administrator while carrying out his or her official duties, including inspections on private property. Refusal of Owner or occupant of any property to permit such inspection is a violation of this ordinance.

13. Signage

Where appropriate in the determination of the Stormwater Administrator to assure compliance with this ordinance, Structural BMPs shall be posted with a conspicuous sign stating who is responsible for required maintenance and annual inspection. The sign shall be maintained so as to remain visible and legible.

14. Records of Installation and Maintenance Activities

The Owner of each Structural BMP shall keep records of inspections, maintenance, and repairs for at least five years from the date of creation of the record and shall submit the same upon reasonable request to the Stormwater Administrator.

15. Nuisance

The Owner of each stormwater BMP, whether Structural or Non-Structural BMP, shall maintain it so as not to create or result in a nuisance condition.

P. Enforcement and Violations

1. General

a. **Authority to Enforce:** The provisions of this ordinance shall be enforced by the Stormwater Administrator, his or her designee, or any authorized agent of the Town of Wendell. Whenever this section refers to the Stormwater Administrator, it includes his or her designee as well as any authorized agent of the Town of Wendell.

b. **Violation Unlawful:** Any failure to comply with an applicable requirement, prohibition, standard, or limitation imposed by this ordinance, or the terms or conditions of any permit or other development or redevelopment approval or authorization granted pursuant to this ordinance, is unlawful and shall constitute a violation of this ordinance.

c. **Each Day a Separate Offense:** Each day that a violation continues shall constitute a separate and distinct violation or offense.

d. **Responsible Persons/Entities:** Any person who erects, constructs, reconstructs, alters (whether actively or passively), or fails to erect, construct, reconstruct, alter, repair or maintain any structure, BMP, practice, or condition in violation of this ordinance shall be subject to the remedies, penalties, and/or enforcement actions in accordance with this section. Persons subject to the remedies and penalties set forth herein may include any architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that results in or constitutes a violation of this ordinance, or fails to take appropriate action, so that a violation of this ordinance results or persists; or an owner, any tenant or occupant, or any other person, who has control over, or responsibility for, the use or development of the property on which the violation occurs.

For the purposes of this section, responsible person(s) shall include but not be limited to:

i. **Person Maintaining Condition Resulting In or Constituting Violation:** An architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that constitutes a violation of this ordinance, or fails to take appropriate action, so that a violation of this ordinance results or persists.

ii. **Responsibility For Land or Use of Land:** The owner of the land on which the violation occurs, any tenant or occupant of the property, any person who is responsible for stormwater controls or practices pursuant to a private agreement or public document, or any person, who has control over, or responsibility for, the use, development or redevelopment of the property.

2. Remedies and Penalties

The remedies and penalties provided for violations of this ordinance, whether civil or criminal, shall be cumulative and in addition to any other remedy provided by law, and may be exercised in any order.

a. Remedies:

i. Withholding of Building Permit: The Stormwater Administrator or other authorized agent may refuse to issue a building permit for a building or other improvements constructed or being constructed on any development site and served by the Structural BMP in question until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.

ii. Withholding of Certificate of Occupancy: The Stormwater Administrator or other authorized agent may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site and served by the stormwater practices in question until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.

iii. Disapproval of Subsequent Permits and Development Approvals: As long as a violation of this ordinance continues and remains uncorrected, the Stormwater Administrator or other authorized agent may withhold, and the Wendell Board of Commissioners may disapprove, any request for permit or development approval or authorization provided for by this ordinance or the zoning, subdivision, and/or building regulations, for the land on which the violation occurs.

iv. Injunction, Abatements, etc.: The Stormwater Administrator, with the written authorization of the Town Manager, may institute an action in a court of competent jurisdiction for a mandatory or prohibitory injunction and order of abatement to correct a

violation of this ordinance. Any person violating this ordinance shall be subject to the full range of equitable remedies provided in the General Statutes or at common law.

v. **Correction as Public Health Nuisance, Costs as Lien, etc.:** If the violation is deemed dangerous or prejudicial to the public health or public safety and is within the geographic limits prescribed by North Carolina G.S. § 160A-193, the Administrator, with the written authorization of the Town Manager, may cause the violation to be corrected and the costs to be assessed as a lien against the property.

vi. **Stop Work Order:** The Stormwater Administrator may issue a stop work order to the person(s) violating this ordinance. The stop work order shall remain in effect until the person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein. The stop work order may be withdrawn or modified to enable the person to take the necessary remedial measures to cure such violation or violations.

b. **Civil Penalties:** Violation of this ordinance may subject the violator to a civil penalty to be recovered in a civil action in the nature of a debt if the violator does not pay the penalty within 30 days after notice of the violation is issued by the Stormwater Administrator. Civil penalties may be assessed up to the full amount of penalty to which the Town of Wendell is subject for violations of its Phase II Stormwater permit, or if no Phase II Stormwater permit exists for the jurisdiction, civil penalties may be assessed up to the full amount allowed by law.

c. **Criminal Penalties:** Violation of this ordinance may be enforced as a misdemeanor subject to the maximum fine permissible under North Carolina law.

3. Procedures

a. **Initiation/Complaint:** Whenever a violation of this ordinance occurs, or is alleged to have occurred, any person may file a written complaint. Such complaint shall state fully the alleged violation and the basis thereof, and shall be filed with the Stormwater

Administrator, who shall record the complaint. The complaint shall be investigated promptly by the Stormwater Administrator.

b. **Inspection:** The Stormwater Administrator shall have the authority, upon presentation of proper credentials, to enter and inspect any land, building, structure, or premises to ensure compliance with this ordinance.

c. **Notice of Violation and Order to Correct:** When the Stormwater Administrator finds that any building, structure, or land is in violation of this ordinance, the Stormwater Administrator shall notify, in writing, the property owner or other person violating this ordinance. The notification shall indicate the nature of the violation, contain the address or other description of the site upon which the violation is occurring, order the necessary action to abate the violation, and give a deadline for correcting the violation. If civil penalties are to be assessed, the notice of violation shall also contain a statement of the civil penalties to be assessed, the time of their accrual, and the time within which they must be paid or be subject to collection as a debt.

The Stormwater Administrator may deliver the notice of violation and correction order personally, by the Town of Wendell Police Department or The Wendell Planning Department Code Enforcement Officer, by certified or registered mail, return receipt requested, or by any means authorized for the service of documents by Rule 4 of the North Carolina Rules of Civil Procedure.

If a violation is not corrected within a reasonable period of time, as provided in the notification, the Stormwater Administrator may take appropriate action under this ordinance to correct and abate the violation and to ensure compliance with this ordinance.

d. **Extension of Time:** A person who receives a notice of violation and correction order, or the owner of the land on which the violation occurs, may submit to the Stormwater Administrator a written request for an extension of time for correction of the violation. On determining that the request includes enough information to show that the violation cannot be corrected within the specified time limit for reasons beyond the control of the person requesting the extension, the Stormwater Administrator may extend the time limit as is reasonably necessary to allow timely correction of the violation, up to, but not exceeding 14 days. The Stormwater Administrator may grant 7-day extensions in addition to the foregoing extension if the violation cannot be corrected within the

permitted time due to circumstances beyond the control of the person violating this ordinance. The Stormwater Administrator may grant an extension only by written notice of extension. The notice of extension shall state the date prior to which correction must be made, after which the violator will be subject to the penalties described in the notice of violation and correction order.

e. Enforcement after Time to Correct: After the time has expired to correct a violation, including any extension(s) if authorized by the Stormwater Administrator, the Stormwater Administrator shall determine if the violation is corrected. If the violation is not corrected, the Stormwater Administrator may act to impose one or more of the remedies and penalties authorized by this ordinance.

f. Emergency Enforcement: If delay in correcting a violation would seriously threaten the effective enforcement of this ordinance or pose an immediate danger to the public health, safety, or welfare, then the Stormwater Administrator may order the immediate cessation of a violation. Any person so ordered shall cease any violation immediately. The Stormwater Administrator may seek immediate enforcement, without prior written notice, through any remedy or penalty authorized by this section.

g. Variances:

i. Any person may petition the Town for a variance granting permission to use the persons land in a manner otherwise prohibited by this ordinance. To qualify for a variance, the petitioner must show all of the following:

(a) Unnecessary hardships would result from strict application of this ordinance.

(b) The hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property.

(c) The hardships did not result from actions taken by the petitioner.

(d) The requested variance is consistent with the spirit, purpose, and intent of this ordinance; will secure public safety and welfare; and will preserve substantial justice.

ii. The Town may impose reasonable and appropriate conditions and safeguards upon any variance it grants.

iii. **Statutory Exceptions:** Notwithstanding subdivision a. of this section, exceptions from the Riparian Buffer Zone and Flood Protection Zone requirements as well as the deed restrictions and protective covenants requirements shall be granted in any of the following instances:

(a) When there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of BMPs.

(b) When there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, including, but not limited to, water, sewer, or gas construction and maintenance corridor, as long as it is located 15 feet landward of all perennial and intermittent surface waters and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of BMPs.

(c) A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration, or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters.

Q. Illicit Discharges and Connections

1. Illicit Discharges

a. No person shall cause or allow the discharge, emission, disposal, pouring, or pumping directly or indirectly to any stormwater conveyance, the waters of the State, or upon the land in manner and amount that the substance is likely to reach a stormwater conveyance or the waters of the State, any liquid, solid, gas, or other substance, other than stormwater; provided that non-stormwater discharges associated with the following activities are allowed and provided that they do not significantly impact water quality:

i. water line flushing;

ii. landscape irrigation;

iii. diverted stream flows;

iv. rising ground waters;

v. uncontaminated ground water infiltration;

vi. uncontaminated pumped ground water;

vii. discharges from potable water sources;

viii. foundation drains;

ix. air conditioning condensation;

x. irrigation water;

xi. springs;

xii. water from crawl space pumps;

xiii. footing drains;

xiv. lawn watering;

xv. residential and charity car washing;

xvi. flows from riparian habitats and wetlands;

xvii. dechlorinated swimming pool discharges;

xviii. street wash water;

xix. other non-stormwater discharges for which a valid NPDES discharge permit has been approved and issued by the State of North Carolina, and provided that any such discharges to the municipal separate storm sewer system shall be authorized by the Town of Wendell.

b. Prohibited substances include but are not limited to: oil, anti-freeze, chemicals, animal waste, paints, garbage, and litter.

2. Illicit Connections

a. Connections to a stormwater conveyance or stormwater conveyance system that allow the discharge of non-stormwater, other than the exclusions described in section Q.1.a. above, are unlawful. Prohibited connections include, but are not limited to: floor drains, waste water from washing machines or sanitary sewers, wash water from commercial vehicle washing or steam cleaning, and waste water from septic systems.

b. Where such connections exist in violation of this section and said connections were made prior to the adoption of this provision or any other ordinance prohibiting such connections, the property owner or the person using said connection shall remove the connection within one year following the effective date of this ordinance. However, the one-year grace period shall not apply to connections which may result in the discharge of hazardous materials or other discharges which pose an immediate threat to health and safety, or are likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat.

c. Where it is determined that said connection:

i. May result in the discharge of hazardous materials or may pose an immediate threat to health and safety, or is likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat, or

ii. Was made in violation of any applicable regulation or ordinance, other than this section;

the Stormwater Administrator shall designate the time within which the connection shall be removed. In setting the time limit for compliance, the Stormwater Administrator shall take into consideration:

i. The quantity and complexity of the work,

ii. The consequences of delay,

iii. The potential harm to the environment, to the public health, and to public and private property, and

iv. The cost of remedying the damage.

3. Spills

Spills or leaks of polluting substances released, discharged to, or having the potential to released or discharged to the stormwater conveyance system, shall be contained, controlled, collected, and properly disposed. All affected areas shall be restored to their preexisting condition.

Persons in control of the polluting substances immediately prior to their release or discharge, and persons owning the property on which the substances were released or discharged, shall immediately notify the Wendell Fire Chief of the release or discharge, as well as making any required notifications under state and federal law. Notification shall not relieve any person of any expenses related to the restoration, loss, damage, or any other liability which may be incurred as a result of said spill or leak, nor shall such notification relieve any person from other liability which may be imposed by State or other law.

4. Nuisance

Illicit discharges and illicit connections which exist within the Town limits or ETJ are hereby found, deemed, and declared to be dangerous or prejudiced to the public health or public safety and are found, deemed, and declared to be public nuisances. Such public nuisances shall be abated in accordance with the procedures set forth in Sections 10-106 and 10-107 of the Code of the Town of Wendell.

6.6 Stream Corridor Buffers (Stream Protection)

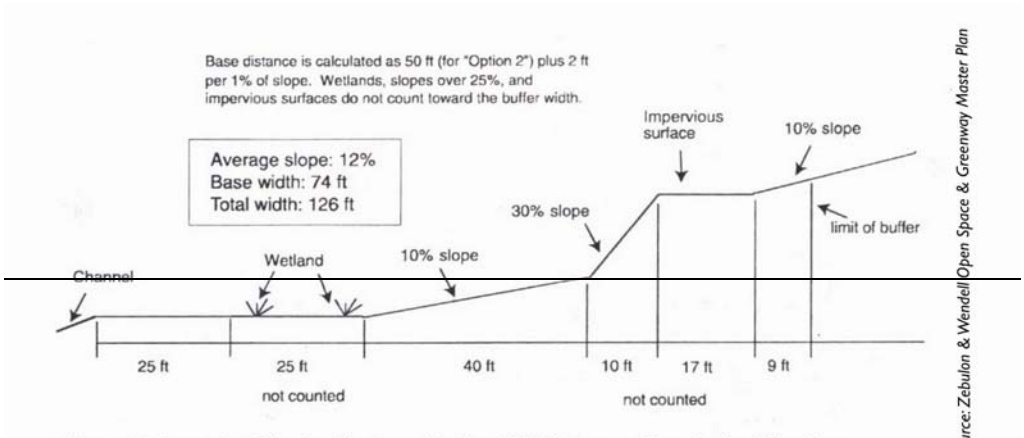
A. Purpose and Intent

Stream corridor buffers protect water quality by filtering pollutants from runoff, controlling soil erosion, enhancing fish and wildlife habitat and reducing flooding.

The Buffer Zone shall extend 50 feet landward of all perennial and intermittent surface waters. A perennial or intermittent surface water shall be deemed present if the feature is approximately shown on either of 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 may be allowed when surface waters area not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using Division-approved methodology. The Buffer Zone shall remain undisturbed unless permitted by this section.

The Flood Protection Zone shall extend throughout the FEMA 100-year floodplain as identified on the current Flood Insurance Rate Map (FIRM) published by FEMA. The Flood Protection Zone shall remain undisturbed unless otherwise permitted by this section.

Where the Buffer Zone and the Flood Protection Zone both are present adjacent to surface waters, the more restrictive shall apply.



Source: Zebulon & Wendell Open Space & Greenway Master Plan

Figure 10. Example of the Application of Buffer Guidelines to a Hypothetical Riparian Landscape.

Base distance is calculated as 50 ft (for "Option 2") plus 2 ft per 1% slope. Wetlands, slopes over 25%, and impervious surfaces do not count toward the buffer width.

B. General Provisions

1. Buffer areas must be clearly delineated on all site plans, including construction plans, grading and clearing plans, and erosion and sediment control plans.

2. Buffer boundaries must be marked on site prior to any land disturbing activities.

3. Buffer areas as well as all buffer requirements must be specified on the recorded plat, on individual deeds, and in property association documents.

4. Public infrastructure such as road crossings and utility lines are allowed where no practical alternative exists, but these activities should minimize impervious surface area and avoid large amounts of vegetation removal by crossing the buffer at a minimum 75 degree angle.

6.7 Flood Damage Protection Ordinance

A. Statutory Authorization

The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3, 5, and 8 of Article 19 of Chapter 160A; and Article 8 of Chapter 160A of the North Carolina General Statutes, delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the Board of Commissioners of the Town of Wendell, North Carolina, does ordain as follows:

B. Findings of Fact

1. The flood prone areas within the jurisdiction of The Town of Wendell are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

2. Those flood losses are caused by the cumulative effect of obstructions by materials such as trees, limbs, sediment, construction debris, etc. in floodplains causing increases in flood heights and velocities, and by the occupancy in flood prone areas by uses vulnerable to floods or hazardous

to other lands which are inadequately elevated, flood-proofed, or otherwise unprotected from flood damages.

C. Statement of Purpose

It is the purpose of this section to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas and provisions designed to:

1. restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion, flood heights or velocities;

2. require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

3. control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;

4. control filling, grading, dredging, and all other development which may increase erosion or flood damage; and,

5. prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

D. Objectives

The objectives of this Ordinance are:

1. to protect human life and health;

2. to minimize expenditure of public money for costly flood control projects;

3. to minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

4. to minimize prolonged business losses and interruptions;

5. to minimize damage to public facilities and utilities (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located in flood prone areas;

6. to help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas; and,

7. to ensure that potential homebuyers are notified that property is in a Special Flood Hazard Area.

E. Definitions

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance it's most reasonable application.

"Accessory Structure (Appurtenant Structure)" means a structure which is located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Garages, carports and storage sheds are common urban accessory structures. Pole barns, hay sheds and the like qualify as accessory structures on farms, and may or may not be located on the same parcel as the farm dwelling or shop building.

"Addition (to an existing building)" means an extension or increase in the floor area or height of a building or structure.

"Administrator" is the individual appointed to administer and enforce the floodplain management regulations.

"Appeal" means a request for a review of the Administrator's interpretation of any provision of this ordinance.

"Area of Special Flood Hazard" see "Special Flood Hazard Area (SFHA)"

"Basement" means any area of the building having its floor subgrade (below ground level) on all sides.

"Base Flood" means the flood having a 1 percent chance of being equaled or exceeded in any given year.

"Base Flood Elevation (BFE)" means a determination of the water surface elevations of the base flood based on current conditions hydrology as published in the Flood Insurance Study. When the BFE has not been provided in a "Special Flood Hazard Area", it may be obtained from engineering studies available from a Federal or State other source using FEMA approved engineering methodologies. This elevation, when combined with the

"Freeboard", establishes the "Regulatory Flood Protection Elevation" in Special Flood Hazard Areas.

"Building" see "Structure"

"Chemical Storage Facility" means a building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.

"Current Conditions Hydrology" means the flood discharges associated with the land-use conditions existing within the drainage area of a watercourse at the time a flood study of the watercourse was conducted. Current conditions flood discharges and historical flood study information is published in the Flood Insurance Study.

"Development" means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

"Disposal" means, as defined in NCGS 130A-290(a)(6), the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or on any land or water so that the solid waste or any constituent part of the solid waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

"Elevated Building" means a non-basement building which has its reference level raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

"Encroachment" means the advance or infringement of uses, fill, excavation, buildings, permanent structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

"Existing Manufactured Home Park or Manufactured Home Subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) was completed before the original effective date of the floodplain management regulations adopted by the community.

"Flood" or "Flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters; and/or the unusual and rapid accumulation of runoff of surface waters from any source.

"Flood Hazard Boundary Map (FHBM)" means an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the Special Flood Hazard Areas have been defined as Zone A.

"Flood Insurance" means the insurance coverage provided under the National Flood Insurance Program.

"Flood Insurance Rate Map (FIRM)" means an official map of a community, issued by the Federal Emergency Management Agency, on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated.

"Flood Insurance Study (FIS)" means an examination, evaluation, and determination of flood hazard areas, corresponding water surface elevations (if appropriate), flood insurance risk zones, and other flood data in a community issued by FEMA. The Flood Insurance Study report includes Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), if published.

"Floodplain" or "Flood Prone Area" means any land area susceptible to being inundated by water from any source.

"Floodplain Development Permit" means any type of permit that is required in conformance with the provisions of this ordinance, prior to the commencement of any development activity.

"Floodplain Management" means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

"Floodplain Management Regulations" means this ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power which control development in flood-prone areas. This term describes federal, state or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.

"Floodproofing" means any combination of structural and nonstructural additions, changes, or adjustments to structures, which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitation facilities, or structures with their contents.

"Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than 1 foot.

"Flood Zone" means a geographical area shown on a Flood Hazard Boundary Map or Flood Insurance Rate Map that reflects the severity or type of flooding in the area.

"Freeboard" means the height added to the Base Flood Elevation (BFE) or the Future Conditions Flood Elevation to account for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization on the watershed. The Base Flood Elevation plus the freeboard establishes the "Regulatory Flood Protection Elevation".

"Functionally Dependent Facility" means a facility which cannot be used for its intended purpose unless it is located in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

"Future Conditions Flood" means the flood having a 1 percent chance of being equaled or exceeded in any given year based on future conditions hydrology.

"Future Conditions Flood Elevation" means a determination of the water surface elevations of the 1 percent annual chance flood based on future conditions hydrology as published in the Flood Insurance Study. This elevation, when combined with the freeboard, establishes the "Regulatory Flood Protection Elevation" in Future Conditions Flood Hazard Areas.

"Future Conditions Flood Hazard Area" means the land area that would be inundated by the 1 percent annual chance flood based on future conditions hydrology as determined in Article 3, Section B of this ordinance.

"Future Conditions Hydrology" means the flood discharges associated with projected land-use conditions based Wake County's June 2003 countywide equivalent zoning classification data on the Town of Wendell's 2003 Zoning Map and without consideration of projected future construction of flood detention structures or projected future hydraulic modifications within a stream or other waterway such as bridge and culvert construction, fill, and excavation. Future conditions flood discharges are published in the Flood Insurance Study.

"Hazardous Waste Management Facility" means a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste as defined in NCGS Article 9 of Chapter 130A.

"Highest Adjacent Grade (HAG)" means the highest natural elevation of the ground surface, prior to construction, next to the proposed walls of the structure.

"Historic Structure" means any structure that is:

a. listed individually in the National Register of Historic Places (a listing maintained by the US Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register;

b. certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

c. individually listed on a local inventory of historic landmarks in communities with a "Certified Local Government (CLG) Program"; or

d. certified as contributing to the historical significance of a historic district designated by a community with a "Certified Local Government (CLG) Program." Certified Local Government (CLG) Programs are approved by the US Department of the Interior in cooperation with the North Carolina Department of Cultural Resources through the State Historic Preservation Officer as having met the requirements of the National Historic Preservation Act of 1966 as amended in 1980.

"Lowest Adjacent Grade (LAG)" means the elevation of the ground, sidewalk, patio slab, or deck support immediately next to the building after completion of the building. For Zone A and AO, use the natural grade elevation prior to construction.

"Lowest Floor" means the subfloor, top of slab or grade of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited storage in an area other than a basement area is not considered a building's lowest floor provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

"Manufactured Home" means a structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

"Market Value" means the building value, excluding the land (as agreed to between a willing buyer and seller), as established by what the local real estate market will bear. Market value can be established by independent certified appraisal; replacement cost depreciated by age of building (Actual Cash Value) or adjusted assessed values.

"Mean Sea Level" means, for purposes of the NFIP, the National Geodetic Vertical Datum (NGVD) as corrected in 1929, the North American Vertical Datum (NAVD) as corrected in 1988 or other vertical control datum used as a reference for establishing varying elevations within the floodplain, to which Base Flood Elevations (BFEs) shown on a FIRM are referenced. Refer to each FIRM panel to determine datum used.

"New Construction" means structures for which the "start of construction" commenced on or after the effective date of the original version of this ordinance and includes any subsequent improvements to such structures.

"Non-Encroachment Area" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than 1 foot as designated in the Flood Insurance Study report.

"Post-FIRM" means construction or other development for which the "start of construction" occurred on or after the effective date of the initial Flood Insurance Rate Map for the area.

"Pre-FIRM" means construction or other development for which the "start of construction" occurred before the effective date of the initial Flood Insurance Rate Map for the area.

"Principally Above Ground" means that at least 51 percent of the actual cash value of the structure is above ground.

"Public Safety" and/or "Nuisance" means anything which is injurious to the safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

"Recreational Vehicle (RV)" means a vehicle, which is:

a. built on a single chassis;

b. 400 square feet or less when measured at the largest horizontal projection;

c. designed to be self-propelled or permanently towable by a light duty truck; and,

d. designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

"Reference Level" is the top of the lowest floor for structures within Special Flood Hazard Areas and Future Conditions Flood Hazard Areas designated as Zone AE, A, A99 or X (Future).

"Regulatory Flood Protection Elevation" means the elevation above mean sea level to which the reference level of all structures and other development located within Special Flood Hazard Areas and Future Conditions Flood Hazard Areas must be protected.

a. In "Special Flood Hazard Areas" where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus 3 feet of freeboard.

b. In "Special Flood Hazard Areas" where no BFE has been established, this elevation shall be at least 3 feet above the highest adjacent grade.

c. In Future Conditions Flood Hazard Areas this elevation shall be the Future Conditions Flood Elevation plus 3 feet of freeboard.

"Remedy a Violation" means to bring the structure or other development into compliance with State or Community floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

"Riverine" means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

"Salvage Yard" means property used for the storage, collection, and/or recycling of any type of equipment whatsoever, whether industrial or noncommercial, and including but not limited to vehicles, appliances and related machinery.

"Shear Walls" contains the vertical elements of the horizontal wall resisting system, typically wood covered with a structural sheathing material like

plywood. When properly installed the shear wall will have the strength and stiffness to resist the horizontal forces.

"Solid Waste Disposal Facility" means any facility involved in the disposal of solid waste, as defined in NCGS 130A-290(a)(35).

"Solid Waste Disposal Site" means, as defined in (NCGS 130A-290(a)(36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.

"Special Flood Hazard Area (SFHA)" means the land in the floodplain subject to a 1 percent or greater chance of being flooded in any given year based on current conditions hydrology, as determined in Section F.2 of this ordinance.

"Start of Construction" includes substantial improvement, and means the date the building permit was issued provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

"Structure" means a walled and roofed building, a manufactured home.

"Substantial Damage" means damage of any origin sustained by a structure during any 1 year period whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. See definition of "Substantial Improvement." Substantial Damage also means flood-related damage sustained by a structure on two separate occasions during a 10 year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

"Substantial Improvement" means any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one year period whereby the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "Substantial Damage", regardless of the actual repair work performed. The term does not, however, include either:

a. any correction of existing violations of State or Community health, sanitary, or safety code specifications which have been identified by the community code enforcement official and which are the minimum necessary to assure safe living conditions; or,

b. any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

"Variance" is a grant of relief from the requirements of this ordinance.

"Violation" means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Sections J and G is presumed to be in violation until such time as that documentation is provided.

"Water Surface Elevation (WSE)" means the height, in relation to mean sea level, of floods of various magnitudes and frequencies in the floodplains of coastal or ravine areas.

"Watercourse" means a lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

F. General Provisions

1. Applicable Lands

This ordinance shall apply to all Special Flood Hazard Areas and Future Conditions Flood Hazard Areas within the jurisdiction, including Extra-Territorial Jurisdictions (ETJs) if applicable, of the Town of Wendell and within the jurisdiction of any other community whose governing body agrees, by resolution, to such applicability.

2. Basis for Establishing the Special Flood Hazard Areas and Future Conditions Flood Hazard Areas

The Special Flood Hazard Areas and Future Conditions Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) and its accompanying Flood Insurance Rate Maps (FIRM), for Wake County dated May 2, 2006 which are adopted by reference and declared to be a part of this ordinance.

3. Establishment of a Floodplain Development Permit

A Floodplain Development Permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities within Special Flood Hazard Areas and Future Conditions Flood Hazard Areas determined in Section F.2.

4. Compliance

No structure or land shall hereafter be located, extended, converted, altered, or developed in any way without full compliance with the terms of this section and other applicable regulations.

5. Abrogation and Greater Restrictions

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

6. Interpretation

In the interpretation and application of this ordinance, all provisions shall be:

a. Considered as minimum requirements;

b. Liberally construed in favor of the governing body; and,

c. Deemed neither to limit nor repeal any other powers granted under NC statutes.

7. Warning and Disclaimer of Liability

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur. Actual flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the Special Flood Hazard Areas and Future Conditions Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the Town of Wendell or by any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

8. Penalties for Violation

Violation of the provisions of this ordinance or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than $100 or imprisoned for not more than 30 days, or both. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the Town of Wendell from taking such other lawful action as is necessary to prevent or remedy any violation.

G. Provisions for Flood Hazard Reduction

1. General Standards

All developments and redevelopments shall be in accordance with the following provisions:

a. No development or redevelopment is permitted with the Flood Hazard or Buffer Zone except for stream bank or shoreline restoration or stabilization, water dependent structures, and public or private projects such as greenways, parks, and their accessory uses.

b. Permitted activities within the Flood Protection Zones shall minimize impervious coverage and direct runoff away from surface waters.

c. All development and/or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the structure.

d. All development and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

e. All development and substantial improvements shall be constructed by methods and practices that minimize flood damages.

f. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, appliances (washers, dryers, refrigerators, freezers, etc.), hot water heaters, and electric outlets/switches.

g. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

h. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into flood waters.

i. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

j. This ordinance shall prevent the repair, reconstruction, or replacement of a building or structure, as allowed under G.1.a., and in existence on the effective date of this ordinance and located totally or partially within the floodway, non-encroachment area, or

stream setback, provided there is no additional encroachment below the regulatory flood protection elevation in the floodway, non-encroachment area, or stream setback, and provided that such repair, reconstruction, or replacement meets all of the other requirements of this ordinance.

k. A structure or tank for chemical or fuel storage incidental to an allowed use or to the operation of a water treatment plant or wastewater treatment facility may be located in a Special Flood Hazard Area or Future Conditions Flood Hazard Area only if the structure or tank is either elevated or floodproofed to at least the regulatory flood protection elevation and certified according to Section J.2. of this ordinance.

l. All subdivision and other development proposals shall be constructed to minimize flood damage.

m. All subdivision and development proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

n. All subdivision proposals and other development proposals shall have adequate drainage provided to reduce exposure to flood hazards.

o. All subdivision and development proposals shall have received all necessary permits from those governmental agencies for which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.

2. Specific Standards

In all Special Flood Hazard Areas where Base Flood Elevation (BFE) data has been provided and in Future Conditions Flood Hazard Areas where Future Conditions Flood Elevations data has been provided, as set forth in Section F.2, or Section J.3.k and l, the following provisions, in addition to those provisions in Section 6.7.G.1, are required:

a. Elevated Buildings. Fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor:

i. Shall not be designed or used for human habitation, but shall only be used for parking of vehicles, building access,

or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door). The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, except to enclose storage areas;

ii. shall be constructed entirely of flood resistant materials below the regulatory flood protection elevation;

iii. shall include, in Zones A, AE and X (Future), flood openings to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet or exceed the following minimum design criteria;

(a) a minimum of two flood openings on different sides of each enclosed area subject to flooding;

(b) the total net area of all flood openings must be at least 1 square inch for each square foot of enclosed area subject to flooding;

(c) if a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;

(d) the bottom of all required flood openings shall be no higher than 1 foot above the adjacent grade;

(e) flood openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions; and

(f) enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require flood openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires flood openings as outlined above.

b. Additions/Improvements:

i. Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

(a) not a substantial improvement, shall be designed to minimize flood damages and must not be any more non-conforming than the existing structure.

(b) no substantial improvements are permitted within the flood hazard area.

ii. Additions to post-FIRM structures with no modifications to the existing structure other than a standard door in the common wall shall require only the addition to comply with the standards for new construction.

iii. Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

(a) not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction.

(b) a substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.

iv. Where an independent perimeter load-bearing wall is provided between the addition and the existing building, the addition(s) shall be considered a separate building and only the addition must comply with the standards for new construction.

c. Recreational Vehicles: Recreation vehicles placed on sites within a Special Flood Hazard Area shall either:

i. Be on site for fewer than 180 consecutive days and be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and has no permanently attached additions); or,

H. Standards for Floodplains without Established Base Flood Elevations

Within the Special Flood Hazard Areas designated as Approximate Zone A and established Section F.2, where no Base Flood Elevation (BFE) data has been provided by FEMA, the following provisions, in addition to Sections G.1 and G.2, shall apply:

1. No encroachments, including fill, new development, or substantial improvements shall be permitted within a distance of 50 feet each side from top of bank or five times the width of the stream on each side whichever is greater, unless certification with supporting technical data by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

2. The BFE used in determining the regulatory flood protection elevation shall be determined based on one of the following criteria set in priority order:

a. If Base Flood Elevation (BFE) data is available from other sources, all new construction and substantial improvements within such areas shall also comply with all applicable provisions of this ordinance and shall be elevated or floodproofed in accordance with standards in Sections J.3.k and l.

b. All subdivision, manufactured home park and other development proposals shall provide Base Flood Elevation (BFE) data if development is greater than 5 acres or has more than 50 lots/manufactured home sites. Such Base Flood Elevation (BFE) data shall be adopted by reference per Section F.2 to be utilized in implementing this ordinance.

c. When Base Flood Elevation (BFE) data is not available from a Federal, State, or other source as outlined above, the reference level shall be elevated to or above the

regulatory flood protection elevation, as defined in Section F.2.

I. Floodways and Non-Encroachment Areas

Areas designated as floodways or non-encroachment areas are located within the Special Flood Hazard Areas established in Section F.2. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions, in addition to standards outlined in Sections G.1 and G.2, shall apply to all development within such areas:

1. No encroachments, including fill, new construction, substantial improvements and other developments in accordance with G.1.a. shall be permitted unless it has been demonstrated that:

a. the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the Administrator prior to issuance of floodplain development permit, or

b. a Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained upon completion of the proposed encroachment.

2. If Section I.1 is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this ordinance.

3. No new or additional manufactured homes shall be permitted, except replacement manufactured homes in an existing manufactured home park or subdivision, provided the following provisions are met:

a. the anchoring and the elevation standards of Section G.2.c; and

b. the no encroachment standard of Section I.1.

J. Administration

1. Designation of Administrator

The Administrator or his or her designee is hereby appointed to administer and implement the provisions of this ordinance.

2. Floodplain Development Permit and Certification Requirements

a. Plans and Application Requirements. Application for a Floodplain Development Permit shall be made to the floodplain administrator prior to any development activities located within Special Flood Hazard Areas and Future Conditions Flood Hazard Areas. The following items shall be presented to the floodplain administrator to apply for a floodplain development permit:

i. A plot plan drawn to scale which shall include, but shall not be limited to, the following specific details of the proposed floodplain development:

(a) the nature, location, dimensions, and elevations of the area of development/disturbance; existing and proposed structures, utility systems, grading/pavement areas, fill materials, storage areas, drainage facilities, and other development;

(b) the boundary of the Special Flood Hazard Area or Future Conditions Flood Hazard Area as delineated on the FIRM or other flood map as determined in Section F.2, or a statement that the entire lot is within the Special Flood Hazard Area or Future Conditions Flood Hazard Area;

(c) flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined in Section F.2;

(d) the boundary of the floodway(s) or non-encroachment area(s) as determined in Section F.2;

(e) the Base Flood Elevation (BFE) or Future Conditions Flood Elevation where provided as set forth in Sections F.2; J.3.k and l; and G.2;

(f) the old and new location of any watercourse that will be altered or relocated as a result of proposed development;

(g) certification of the plot plan by a registered land surveyor or professional engineer.

ii. Proposed elevation, and method thereof, of all development within a Special Flood Hazard Area or Future Conditions Flood Hazard Area including but not limited to:

(a) elevation in relation to mean sea level of the proposed reference level (including basement) of all structures;

(b) elevation in relation to mean sea level to which any non-residential structure in Zone AE, A or X (Future) will be flood-proofed; and

(c) elevation in relation to mean sea level to which any proposed utility systems will be elevated or floodproofed;

iii. If floodproofing, a Floodproofing Certificate (FEMA Form 81-65) with supporting data and an operational plan that includes, but is not limited to, installation, exercise, and maintenance of floodproofing measures.

iv. A Foundation Plan, drawn to scale, which shall include details of the proposed foundation system to ensure all provisions of this ordinance are met. These details include but are not limited to:

(a) the proposed method of elevation, if applicable (i.e., fill, solid foundation perimeter wall, solid backfilled foundation, open foundation on columns/posts/piers/piles/shear walls);

(b) openings to facilitate equalization of hydrostatic flood forces on walls in accordance with Section G.2, when solid foundation perimeter walls are used in Zones A, AE and X (future);

v. Usage details of any enclosed areas below the regulatory flood protection elevation.

vi. Plans and/or details for the protection of public utilities and facilities such as sewer, gas, electrical, and water systems to be located and constructed to minimize flood damage;

vii. Copies of all other Local, State and Federal permits required prior to floodplain development permit issuance (Wetlands, Endangered Species, Erosion and Sedimentation Control, Riparian Buffers, Mining, etc.)

viii. Documentation for placement of Recreational Vehicles and/or Temporary Structures, when applicable, to ensure Section G.2.c and g of this ordinance are met.

ix. A description of proposed watercourse alteration or relocation, when applicable, including an engineering report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map (if not shown on plot plan) showing the location of the proposed watercourse alteration or relocation.

b. Floodplain Development Permit Data Requirements. The Floodplain Development permit shall include, but not be limited to:

i. A description of the development to be permitted under the floodplain development permit.

ii. The Special Flood Hazard Area or Future Conditions Flood Hazard Area determination for the proposed development per available data specified in Section F.2.

iii. The regulatory flood protection elevation required for the reference level and all attendant utilities.

iv. The regulatory flood protection elevation required for the protection of all public utilities.

v. All certification submittal requirements with timelines.

vi. A statement that no fill material or other development shall encroach into the floodway or non-encroachment area of any watercourse, as applicable.

vii. The flood openings requirements, if in Zones A, AE or X (Future).

viii. Limitations of below BFE enclosure uses, if applicable (i.e., Parking, Building Access and Limited Storage only).

c. Certification Requirements:

i. Elevation Certificates

(a) An Elevation Certificate (FEMA Form 81-31) is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the floodplain administrator a certification of the elevation of the reference level, in relation to mean sea level. The floodplain administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder prior to the beginning of construction. Failure to submit the certification or failure to make required corrections shall be cause to deny a floodplain development permit.

(b) An Elevation Certificate (FEMA Form 81-31) is required after the reference level is established. Within seven calendar days of establishment of the reference level elevation, it shall be the duty of the permit holder to submit to the floodplain administrator a certification of the elevation of the reference level, in relation to mean sea level. Any work done within the seven day calendar period and prior to submission of the certification shall be at the permit holder's risk. The floodplain administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being permitted to proceed. Failure to submit the certification or failure to make required corrections shall be cause to issue a stop-work order for the project.

(c) A final as-built Elevation Certificate (FEMA Form 81-31) is required after construction is completed

and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the floodplain administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The floodplain administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to Certificate of Compliance/ Occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make required corrections shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.

ii. **Floodproofing Certificate.** If non-residential floodproofing is used to meet the regulatory flood protection elevation requirements, a Floodproofing Certificate (FEMA Form 81-65), with supporting data and an operational plan, is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the floodplain administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to mean sea level. Floodproofing certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The floodplain administrator shall review the certificate data and plan. Deficiencies detected by such review shall be corrected by the applicant prior to permit approval. Failure to submit the certification or failure to make required corrections shall be cause to deny a floodplain development permit. Failure to construct in accordance with the certified design shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.

iii. If a manufactured home is placed within Zone A, AE or X (Future) and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required per Section G.2.c.

iv. If a watercourse is to be altered or relocated, a description of the extent of watercourse alteration or relocation; a professional engineer's certified report on

the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map showing the location of the proposed watercourse alteration or relocation shall all be submitted by the permit applicant prior to issuance of a floodplain development permit.

v. Certification Exemptions. The following structures, if located within Zone A, AE or X (Future), are exempt from the elevation/floodproofing certification requirements specified in items (1) and (2) of this subsection:

(a) Recreational Vehicles meeting requirements of Section G.2.c.i;

(b) Temporary Structures meeting requirements of Section G.2.

3. Duties and Responsibilities of the Administrator

Duties of the Administrator shall include, but not be limited to:

a. Review all floodplain development applications and issue permits for all proposed development with in flood prone areas to assure that the requirements of this ordinance have been satisfied.

b. Advise applicant that additional Federal or State permits (i.e., Wetlands, Erosion and Sedimentation Control, Riparian Buffers, Mining, etc.) may be required, and require that copies of such permits be provided and maintained on file with the floodplain development permit.

c. Notify adjacent communities and the North Carolina Department of Crime Control and Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency (FEMA).

d. Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

e. Prevent encroachments within floodways and non-encroachment areas unless the certification and flood hazard reduction provisions are met.

f. Obtain actual elevation (in relation to mean sea level) of the reference level (including basement) of all attendant utilities of all new or substantially improved structures, in accordance with Section J.2.c.

g. Obtain the actual elevation (in relation to mean sea level) to which the new or substantially improved structures and all utilities have been floodproofed, in accordance with Section J.2.c.

h. Obtain actual elevation (in relation to mean sea level) of all public utilities, in accordance with Section J.2.c.

i. When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with Section J.2.c and Section G.2.

j. Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Areas or Future Conditions Flood Hazard Areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.

k. When Base Flood Elevation (BFE) data has not been provided in accordance with Section F.2, obtain, review, and reasonably utilize any Base Flood Elevation (BFE) data, along with floodway data or non-encroachment area data available from a Federal, State, or other source, including data developed pursuant to Section G.3.b. in order to administer the provisions of this ordinance.

l. When Base Flood Elevation (BFE) data is provided but no floodway nor non-encroachment area data has been provided in accordance with Section F.2, obtain, review, and reasonably utilize any floodway data or non-encroachment area data available from a Federal, State, or other source in order to administer the provisions of this ordinance.

m. When the lowest ground elevation of a parcel or structure located within Zone AE is above the Base Flood Elevation (BFE), advise the

property owner of the option to apply for a Letter of Map Amendment (LOMA) from FEMA. Maintain a copy of the Letter of Map Amendment (LOMA) issued by FEMA in the floodplain development permit file.

n. Permanently maintain all records that pertain to the administration of this ordinance and make these records available for public inspection.

o. Make on-site inspections of work in progress. As the work pursuant to a floodplain development permit progresses, the floodplain administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and the terms of the permit. In exercising this power, the floodplain administrator has a right, upon presentation of proper credentials, to enter on any premises within the jurisdiction of the community at any reasonable hour for the purposes of inspection or other enforcement action.

p. Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this ordinance, the floodplain administrator may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing/authorizing/financing the work. The stop-work order shall state the specific work to be stopped, the specific reason(s) for the stoppage, and the condition(s) under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.

q. Revoke floodplain development permits as required. The floodplain administrator may revoke and require the return of the floodplain development permit by notifying the permit holder in writing stating the reason(s) for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, or specifications; for refusal or failure to comply with the requirements of State or local laws; or for false statements or misrepresentations made in securing the permit. Any floodplain development permit mistakenly issued in violation of an applicable State or local law may also be revoked.

r. Make periodic inspections throughout all special flood hazard areas within the jurisdiction of the community. The floodplain administrator and each member of his or her inspections department shall have a right, upon presentation of proper

credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.

s. Follow through with corrective procedures of Section J.4.

t. Review, provide input, and make recommendations for variance requests.

u. Maintain a current map repository to include, but not limited to, the FIS Report, FIRM and other official flood maps and studies adopted in accordance with Section F.2 of this ordinance, including any revisions thereto including Letters of Map Change, issued by FEMA. Notify State and FEMA of mapping needs.

v. Coordinate revisions to FIS reports and FIRMs, including Letters of Map Revision Based on Fill (LOMR-F) and Letters of Map Revision (LOMR).

4. Corrective Procedures

a. Violations to be Corrected: When the floodplain administrator finds violations of applicable State and local laws, it shall be his or her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law cited in such notification.

b. Actions in Event of Failure to Take Corrective Action. If the owner of a building or property shall fail to take prompt corrective action, the Administrator shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:

i. that the building or property is in violation of the Flood Damage Prevention Ordinance;

ii. that a hearing will be held before the Administrator at a designated place and time, not later than 10 days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and,

iii. that following the hearing, the Administrator may issue such order to alter, vacate, or demolish the building; or to remove fill as appears appropriate.

c. **Order to Take Corrective Action:** If, upon a hearing held pursuant to the notice prescribed above, the Administrator shall find that the building or development is in violation of the Flood Damage Prevention Ordinance, he or she shall make an order in writing to the owner, requiring the owner to remedy the violation within a specified time period, not less than 60 calendar days nor more than 180 calendar days. Where the Administrator finds that there is imminent danger to life or other property, he may order that corrective action be taken in such lesser period as may be feasible.

d. **Appeal:** Any owner who has received an order to take corrective action may appeal the order to the local elected governing body by giving notice of appeal in writing to the Administrator and the clerk within 10 days following issuance of the final order. In the absence of an appeal, the order of the Administrator shall be final. The local governing body shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.

e. **Failure to Comply with Order:** If the owner of a building or property fails to comply with an order to take corrective action from which no appeal has been taken, or fails to comply with an order of the governing body following an appeal, he shall be guilty of a misdemeanor and shall be punished at the discretion of the court.

5. Variance Procedures

a. The Zoning Board of Adjustment as established by the Town of Wendell, shall hear and decide requests for variances from the requirements of this ordinance.

b. Any person aggrieved by the decision of the Board of Adjustment may appeal such decision to the Court, as provided in Chapter 7A of the North Carolina General Statutes.

c. Variances may be issued for:

i. the repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and that the variance is the minimum necessary to preserve the historic character and design of the structure.

ii. functionally dependent facilities if determined to meet the definition as stated in this ordinance, provided provisions of Section J.5.i.(ii), (iii), and (iv) have been satisfied, and such facilities are protected by methods that minimize flood damages.

d. In passing upon variances, the Board of Adjustment shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:

i. the danger that materials may be swept onto other lands to the injury of others;

ii. the danger to life, property, and environment (plant and animal life) due to flooding or erosion damage;

iii. the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

iv. the importance of the services provided by the proposed facility to the community;

v. the necessity to the facility of a waterfront location, where applicable;

vi. the availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

vii. the compatibility of the proposed use with existing and anticipated development;

viii. the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

ix. the safety of access to the property in times of flood for ordinary and emergency vehicles;

x. the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and,

xi. the costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

e. A written report addressing each of the above factors shall be submitted with the application for a variance.

f. Upon consideration of the factors listed above and the purposes of this ordinance, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

g. Any applicant to whom a variance is granted shall be given written notice specifying the difference between the Base Flood Elevation (BFE) and the elevation to which the structure is to be built and that such construction below the Base Flood Elevation increases risks to life and property, and that the issuance of a variance to construct a structure below the Base Flood Elevation will result in increased premium rates for flood insurance up to $25 per $100 of insurance coverage. Such notification shall be maintained with a record of all variance actions, including justification for their issuance.

h. The floodplain administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency and the State of North Carolina upon request.

i. Conditions for Variances:

i. Variances shall not be issued when the variance will make the structure in violation of other Federal, State, or local laws, regulations, or ordinances.

ii. Variances shall not be issued within any designated floodway or non-encroachment area if the variance would result in any increase in flood levels during the base flood discharge.

iii. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

iv. Variances shall only be issued prior to development permit approval.

v. Variances shall only be issued upon:

(a) a showing of good and sufficient cause;

(b) a determination that failure to grant the variance would result in exceptional hardship; and

(c) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

j. A variance may be issued for solid waste disposal facilities, hazardous waste management facilities, salvage yards, and chemical storage facilities that are located in Special Flood Hazard Areas or Future Conditions Flood Areas provided that all of the following conditions are met.

i. The use serves a critical need in the community.

ii. No feasible location exists for the use outside the Special Flood Hazard Area or Future Conditions Flood Hazard Area.

iii. The reference level of any structure is elevated or floodproofed to at least the regulatory flood protection level.

iv. The use complies with all other applicable federal, state and local laws.

v. The Town of Wendell has notified the Secretary of the North Carolina Department of Crime Control and Public Safety of its intention to grant a variance at least 30 calendar days prior to granting the variance.

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Chapter 7. OPEN SPACE

7.1 Purpose and Intent

This chapter is guided by and intends to fulfill Principle 7 of the *Town Plan of Wendell*, which calls for an "increase in community amenities, such as parks. . ." Additionally, the purpose of this Chapter is to permanently set aside and save for public use and enjoyment undeveloped or predominately undeveloped land which has value for one or more of the following purposes: (1) park and recreational purposes, (2) conservation of land and other natural resources, or (3) historic or scenic purposes.

7.2 Applicability

A. All residential development classified as major subdivisions or non-residential development consisting of more than 10,000 square feet shall be required to dedicate open space. Developers may, as an alternative and with proper justification, elect to pay a fee in lieu of land dedication with approval of the Board of Commissioners.

B. **Exemptions:** Developments in OSC and RA districts are required to conserve open space by their base district standards (see Chapter 2). These districts are therefore exempt from the dedication requirements of this Chapter.

7.3 General Provisions and Standards

All land dedicated for open space shall substantially meet the criteria below:

A. Land eligible for possible open space dedication and/or credit include areas not covered by residential and commercial building lots or parking lots, dry detention structures, planting yards, streets, or required setbacks and meets the requirements of this section and section 7.4, Open Space Types.

B. **Accessibility**

1. Open space shall be conveniently accessible to all residents of the development, and/or the public and shall have at least 60 feet of frontage or 25 percent of its perimeter on at least one public street within the development.

2. All residential units within a major subdivision of the town shall be within close proximity of open space.

3. With the approval of the Administrator, open space land may be cleared of underbrush and debris and may contain one or more of the following

enhancements: landscaping, walls, fences, walks, statues, boardwalks, wildlife viewing sites, educational and informational signs and exhibits, utilities, irrigation, fountains, ball fields, playground equipment, historic sites and structures, and other appropriate structures.

C. Location

1. Open space land shall be located so as to at least serve the needs of the residents of the neighborhood and/or the residents of the immediate area within which the development is located.

2. Open space land should provide focal points for developments and the Town.

3. Enhancements should be located toward the interior of the open space land to provide for adequate safety of users.

4. Areas described in the *Zebulon & Wendell Open Space & Greenway Master Plan* or any other adopted open space land or greenways plan shall be preserved and dedicated where practical and feasible.

D. Usability

1. At least one-half of the total open space land dedicated shall be located outside areas of special flood hazard, including the 100-year floodplain. Within the area proposed for dedication, sufficient engineering data and/or detail shall be indicated to insure compliance with this section.

2. Dedicated areas including road/street rights-of- way, easements or areas for public utility transmission lines shall not receive credit in the computation for the amount of open space land required.

E. Topography

The Administrator shall have the right to disqualify lands proposed for open space where topography makes them unsuitable for their intended open space use.

F. Shape

The shape of land for active recreation shall be suitable for, but not limited to, playground, courts, or playfields. The shape of land for passive recreation shall be sufficient to encompass the walking or jogging path, natural or cultural resource or other proposed area.

G. Plan Compatibility

For developments which abut or include areas designated on the *Open Space & Greenway Master Plan*, the Town may require that the open space be located in accordance with the proposed site or portion of an existing site as shown thereon. For developments that abut or include areas designated as future greenways on the *Open Space & Greenway Master Plan*, the Board of Commissioners shall require a 20-foot minimum width public pedestrian and non-motorized vehicle easement be dedicated along all such areas in all or part of the open space land required under this Chapter.

H. Dedication Procedure

Open space land shall be separately deeded to either a homeowner's association, a non-profit land trust or conservancy, Wake County, to the Town of Wendell (upon approval by the Board of Commissioners), or may be held in private ownership with conservation easements recorded in the Wake County Register of Deeds in a form approved by the Town. A metes and bounds description of the space to be preserved and limits on its use shall be recorded on the development plan, in homeowner covenants, and on individual deeds when open space lands are not held entirely in common. Alternative means of permanent open space preservation may include acceptance by a land conservation trust or a unit of government. Private management alternatives will also be permitted. It is the intent of this chapter that all dedicated lands remain perpetually as open space lands.

I. Design and Development Plans

The Administrator shall review all open space lands design and development plans for consistency with the intent of this chapter. When such land design and plans are determined appropriate by the administrator, the Administrator may approve them.

7.4 Open Space Types

Open Space land shall be classified in accordance with this Chapter. Open space, not classified under these types, shall not be counted toward the dedication requirement of this Ordinance.

A. Types

1. Park and Recreational Areas

2. Conservation and Natural Areas

3. Historic and Scenic Areas

B. Common Area Open Space

Common, open space lands are designed to serve the residents of the immediate block or neighborhood. Ownership and maintenance of such common areas shall be in fee simple title to a homeowners association or similar organization.

C. Public Open Space

Public Open Space lands shall be dedicated to the Town of Wendell, Wake County, or a non-profit conservancy organization for ownership and maintenance. Public open space shall be open to the public. Hours of access may be restricted in accordance with health and safety guidelines. Open space lands dedicated to the Town of Wendell shall be in accordance with an Open Space Land Master Plan or other adopted plan and approved by the Board of Commissioners for ownership and maintenance.

7.5 Open Space Dedication

Open space dedication is required for both residential and non-residential development.

A. Residential

Calculations for open space requirements for all residential development shall be at the rate of 500 square feet of open space per bedroom within a development considered a major subdivision.

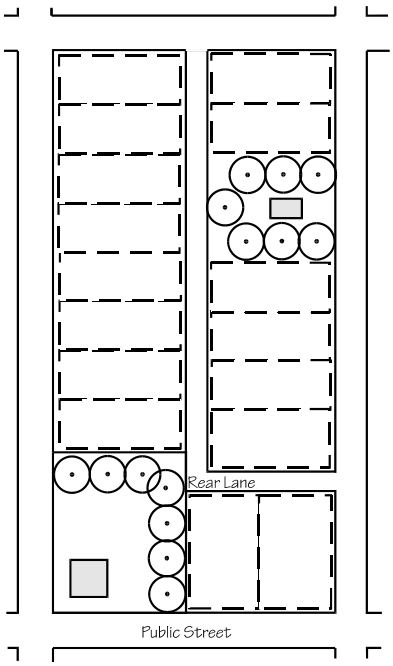
B. Non-Residential

Calculations for open space requirements for non-residential development shall be 0.15 acres of open space per every 1 acre of land within the development.

C. Dedication Calculations

1. Determine average number of bedrooms per dwelling unit (good faith estimate): For the purposes of good faith estimation, all single family developments will dedicate open space at a rate of 3.5 bedrooms per unit unless otherwise stipulated by the development plan.
2. Multiply number of bedrooms by the number of housing units to get to the estimated number of bedrooms.
3. Multiply the estimated number of bedrooms by 500 square feet.
4. Because the open space dedication requirements are based upon preliminary estimations of bedroom units in a given development, changing market conditions and final build-out of a project may yield a different bedroom count. In order to accommodate for variations, this code will permit variations to the estimated number of bedrooms up to 10 percent. Variations of less than 10 percent may allow a payment in lieu of additional dedication. Variations in excess of 10 percent will require the dedication of additional open space.

D. Open Space Examples

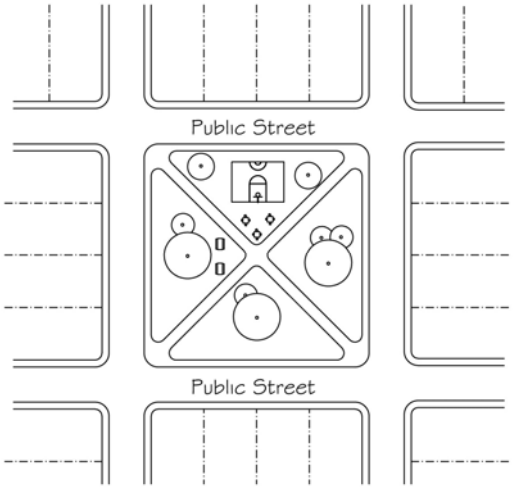


1. PLAYGROUNDS

Playgrounds provide sunny and shaded play areas for children as well as open shelter with benches for parents. Playgrounds shall be built within other park types or may stand alone within a residential block. Playgrounds shall provide playground equipment. Playing surfaces may be covered in material that meets current playground standards for accessibility and safety. Paths and walkways may be paved in concrete, crushed gravel, brick pavers, or similar material, or partially paved.

Minimum Size: 2,000 square feet
Maximum Size: 20,000 square feet

Minimum Street Frontage: 25% of perimeter or 60 feet whichever is greater



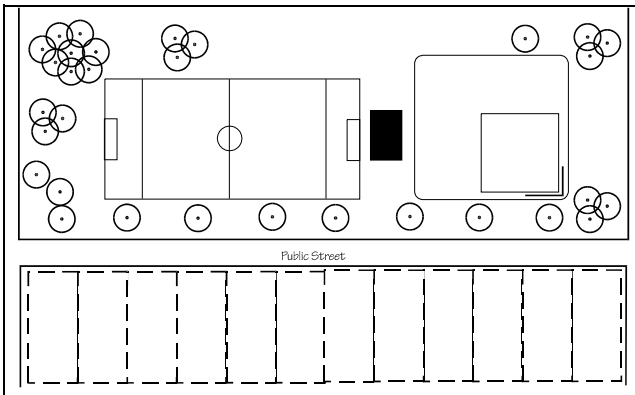
2. MINI-PARK

A mini-park is characterized by its relatively small size (less than an acre) and its specialized facilities, which could be planned to serve a specific segment of the population (i.e. small children or senior citizens). The service area for a mini-park is generally less than ¼ mile.

Mini-parks may be formal such as an attached squares, plazas, forecourts, or detached squares, or informal such as a green.

At a minimum, mini-parks shall include seating areas, pathways, lighting, landscaping, and irrigation and/or water taps.

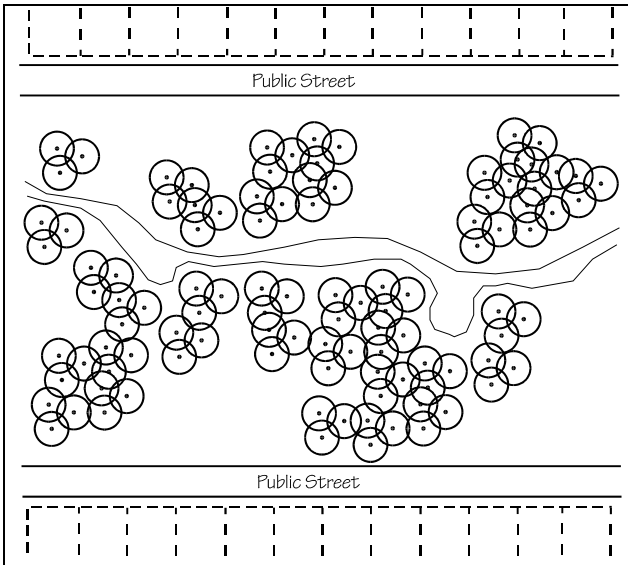
Minimum Street Frontage: 25% of perimeter or 60 feet whichever is greater



3. NEIGHBORHOOD PARK

A neighborhood park is designed to serve a population of up to 5,000 people and should be a minimum of 5-15 acres. The neighborhood park is typically characterized by recreational activities for each family including courts, crafts, playground apparatus, pools, clubhouses, picnic shelters and space for quiet/passive activities.

Minimum Street Frontage: 25% of perimeter or 60 feet whichever is greater



4. GREENWAY/LINEAR PARK

Greenways and linear parks are large, irregular open spaces designed to incorporate natural settings such as creeks and significant stands of trees within neighborhoods.

Greenways and linear parks differ from mini-parks and parks in that their detailing is natural (i.e. informally planted) except along rights-of-way, and may contain irregular topography. Linear parks and greenways may be used for certain active recreational uses and shall provide at a minimum, recreation trails approved by the Town for walking, jogging, or bicycling.

Greenway design should conform to the guidelines in the adopted *Zebulon & Wendell Open Space and Greenway Master Plan.*

5. UNIQUE OR SPECIAL AREAS

The unique or special areas are historic or natural feature types which accommodate special man-made or natural features in a pristine state. These can include significant stands of hardwood trees, stream bed and floodplain areas, and other valuable topographic features, historical sites and buildings, cemeteries, sites of archeological significance, arboretums, conservation easements, etc. The size of the area should be sufficient to protect and interpret the resource.

7.6 Payment in Lieu of Open Space Dedication

A. Any person developing and/or subdividing property subject to this Chapter, upon approval of the Board of Commissioners, may make a payment in lieu of any required dedication of open space land.

B. Value Determination

1. Payment in lieu of dedication shall be the product of the average post-development appraised value per acre of the land within the development multiplied by the number of acres required to be dedicated: as shown in the following formula:

Average Post Development Appraised Per Acre Value of Entire Development
x (Required Open Space Dedication)
=Payment in Lieu Dedication Fee

2. The average Post Development Appraised Value per acre of the Entire Development shall be established by an appraiser at the applicant's expense. The appraiser shall be a member in good standing of the American Institute of Real Estate Appraisers.

3. Any disagreement in the amount of required payment shall be resolved by conducting a second professional appraisal of the fair market value of the property. Another professional appraiser shall be mutually agreed upon by the developer and Town. This appraiser shall be appointed by the Town, at the developer's expense, should an initial agreement not be reached.

C. The Board of Commissioners may, at its discretion, accept either an equitable amount of land in another location or a fee paid to the Town in lieu of dedication. A combination of open space land dedication and payments-in-lieu of dedication may be permitted.

D. All open space land dedication payments made in lieu of dedication shall be made at the time of Preliminary Plat approval. Failure to make such dedication and/or submit the required fee along with such applications will delay approval of such submissions until payment is rendered. All funds received for payment in lieu of dedication shall be deposited in a special fund or line item to be used only for the acquisition, development, management and/or redevelopment of public open space by the Town.

E. Reasons for payments in lieu of dedication may include, but are not limited to, proximity to existing public parks and/or existing topographic or geographic conditions.

Chapter 8. TREE PROTECTION AND LANDSCAPING

8.1 Purpose and Intent

The appropriate use of existing and supplemental landscaping enhances the aesthetic appearance of new development and blends new development with the natural landscape. The conservation of native evergreen and deciduous plant materials blends the built environment with new construction while maintaining the aesthetic character of the Town. This Chapter is intended to establish minimum standards for the protection of existing trees and design of landscapes to enhance Wendell's visual and environmental character by:

A. Encouraging the conservation of existing trees and vegetation, which contribute to preservation of wildlife habitat; promotion of natural diversity; air quality; groundwater recharge; energy conservation; and reduced stormwater runoff.

B. Separating incompatible land uses in order to minimize potential nuisances such as the transmission of noise, dust, odor, litter, and glare of lights;

C. Enhancing property values and establishing a sense of privacy.

D. Preserving and protecting the identity and character of Wendell and enhancing the business economy.

E. Encouraging cooperation with Wake County Capital Tree Program to preserve and protect trees recognized by the program.

8.2 Applicability

A. After the adoption date of this ordinance, these requirements shall apply to:

1. **New Development:** New residential, commercial, industrial, institutional, or mixed-use buildings, developments, or subdivisions;

2. **Building Expansion:** Any existing principal structure which is expanded by 25 percent or more. The landscaping improvements are required for the expanded portion of existing development only.

3. **Parking Lot Expansion:** Any existing parking lot (paved or unpaved) expanded or improved to add 12 or more spaces. If a parking lot is expanded, then buffers and parking lot landscaping requirements shall be applicable.

4. **Change of Use:** If the zoning district classification changes for an existing use then the parcel shall comply with the landscaping requirements of this Chapter or, at a minimum, the intent of this Chapter as prescribed by the Administrator. The owner or developer may need to

install additional plant material on the parcel in order to meet the intent of this Chapter, especially on developed sites, or to bring the parcel up to the standards for the type of buffer landscaping which would be required under this Chapter.

B. Where the requirements of this Chapter and a zoning district's dimensional requirements differ, the more restrictive requirement will apply.

8.3 General Provisions

A. Existing Vegetation, Fences, Walls, and Berms: Existing trees or shrubs will be conserved to satisfy the landscaping requirements of this Chapter. Significant existing vegetation within landscaped areas shall be preserved and credited toward required landscaping. Existing berms, walls, or fences within the landscaped area, but not including chain link fencing, may be used to fulfill the standards for the type of landscaping required, provided that these elements are in good condition.

B. Protection of Vegetation During Design: The Town expects new development, through the protection of trees and existing vegetation, to be creative in design and placement of buildings, structures, parking and other impervious surfaces as to preserve natural features and to complement the existing topography.

C. Installation of New Vegetation and Other Features: New plant material should complement existing vegetation. If existing significant vegetation and other site features do not fully meet the standards for the type of landscaping required, then additional vegetation and/or site features (including fences) shall be planted or installed within the required landscaping area.

D. Grading and Development in Required Landscape Areas: The required landscaping shall not contain any development, impervious surfaces, or site features that do not function to meet these standards or that require removal of existing significant vegetation. No grading, development, or land-disturbing activities shall occur within required landscaped areas if forest canopy, specimen trees, or significant vegetation exists within the buffer yard, unless approved by the Administrator. If grading within a planting yard is proposed, slopes of 3:1 or less are encouraged to ensure the proper transition of grades to the adjacent property and to facilitate landscaping and maintenance.

E. Easements & Rights-of-Way: Nothing shall be planted or installed within an underground or overhead utility easement or a drainage easement without the consent of the Administrator and the easement holder at the time of site plan approval.

F. **Building Setbacks:** Required building setbacks (as listed in Chapter 5) shall supersede Buffer or Street Yard requirements.

G. **Protection during Surveying:** No tree greater than 12 inches in diameter at breast height (DBH) located on public property or within a required tree protection area shall be removed for the purpose of surveying without an approval from the Administrator.

H. **Tree Trimming:** Every owner of any tree overhanging any street or right-of-way within the Town shall prune the branches so that such branches shall not obstruct the view of any street intersection and so that there shall be a clear space of 8 feet above the surface of the street or sidewalk. Said owners shall remove all dead, diseased or dangerous trees, or broken or decayed limbs which constitute a menace to the safety of the public in accordance with the standards specified in section 'M' below. The Town is authorized to remove and/or trim trees and shrubs from public properties and public rights-of-way. The North Carolina Department of Transportation is authorized to remove and or trim trees and shrubs in the public rights-of-way owned by the State of North Carolina. Approval from the Administrator is required to trim a tree in a tree save area, required landscaping area, or buffer yard more than 25 percent of its overall canopy.

I. **Removal by Utility Companies:** Trees to be removed from the public right-of-way by electric utilities and other overhead utilities must be replaced by such entity in equal quantity and minimum caliper size with an approved species.

J. **Tree Topping/Shearing:** Tree topping and/or shearing shall be prohibited on all trees on public property, designated rights-of-way, required tree save areas, landscaping, and buffer yards unless otherwise approved by the Tree Board. Trees severely damaged by storms or other causes, or certain trees under utility lines or other obstructions where other pruning practices are impractical may be exempted from this Chapter at the determination of the Administrator.

K. **Tree Replacement:** Should any tree designated in a tree save area, required landscaping area, planting strip or planting yard die within two years of issuance of the certificate of occupancy, the owner of the property/developer shall replace it within 180 calendar days. See Section 8.12 for more information.

L. **Removal of Dead Trees on Public Property:** Approval by the Tree Board shall be required for removal of trees that are dead, infected by disease, or determined to be a hazard to public safety and welfare.

M. Tree Removal on Private Property: The Town shall have the right to cause or approve the removal of any dead or diseased trees or tree parts on private property when such trees constitute a hazard to life and property, or harbor insects or disease which constitutes a potential threat to other trees in the Town. The Administrator or their designee will notify in writing the owner(s) of such trees or tree parts. Removal shall be done at the owner(s) expense within 90 calendar days after the date of service of notice. In the event of failure of the owner(s) to comply with such provisions, the Town shall have the authority to remove such trees and charge the cost of removal to the owner.

N. Stumps: All stumps of trees shall be removed or shall be ground up within 90 calendar days of tree removal. This applies to both public and private property.

O. Alternate Methods of Compliance:

1. Alternate landscape plans, plant materials, or methods may be used in situations where strict adherence to the provisions of this Chapter would result in impractical or unreasonable situations. Such situations may result from severe topography, natural rock formations, and utility easements, lot configurations, or other physical conditions. The Administrator must approve alternate methods of compliance.

2. Alternate landscape plans shall be reviewed based on their effectiveness and performance in meeting the spirit and intent of this ordinance. The Administrator shall review the alternate plan taking into account adjacent land uses, amount of plantings, species arrangement, and coverage.

8.4 Landscape Plan

A. Applicability:

1. A landscape plan, to include tree preservation, shall be required prior to any land disturbance for any proposed development plan. (Predevelopment site grading, or any land disturbing activity of 1 acre or more that is not regulated by a previously approved site plan, shall be governed by the provisions of Chapter 6, Environmental Protection.) The plan shall contain the information detailed in Section 16.10, Landscape Plan Requirements.

2. Minor changes or additions to existing development or approved plans may be submitted via an abbreviated site plan. An abbreviated site plan shall be allowed when a proposed change is physically limited to only a portion of the site. An abbreviated site plan shall include, but not be

limited to, items listed in Section 16.10. The Administrator shall determine when an abbreviated site plan may be submitted for a detailed site plan and what items shall be included.

B. Revisions to Approved Landscape Plans: Due to lack of plant availability, approved landscape plans may require minor revisions. Minor revisions to landscape plans may be approved by the Administrator if:

1. There is no reduction in the quantity of plant material.

2. There is no significant change in size or location of plant materials.

3. The new plants are of the same general category (i.e., canopy trees, understory trees, shrubs, groundcover) and have the same general design characteristics (mature height, crown spread) as the materials being replaced.

8.5 Tree Protection

A. Protection and Preservation

1. General Provisions

a. Wooded sites offer the distinct advantages of providing shade and aesthetically pleasing views. Vegetation on sloping sites plays a critical role in maintaining aesthetic quality, water quality, and in minimizing erosion and downstream flooding. Selective retention of significant vegetation should occur, particularly in areas or portions of a site that are located within a fragile ecological setting.

b. Significant forest stands, natural vegetation, specimen trees, severe natural topography, drainage features and water courses should be preserved to the extent that is reasonable and practical while otherwise not reasonably prohibiting development. Forested and vegetated areas whose physical site conditions render them unsuitable for development should be set aside as conservation areas or as open space. Isolated pockets of existing trees, specimen trees, Heritage Trees, and trees recognized under the Capital Trees Program should be protected as a valuable asset of the property where practical.

c. **Planting Season:** The planting season for trees shall be September 1 through May 31 unless otherwise permitted by the Administrator.

2. Preservation of Existing Trees

Priority Tree Save Area	Required Protection
• 100-year Floodplain • Required Stream Buffers • Required Buffer or Street Yards • Wetlands • Conservation and Natural Areas (Open Space)	All Vegetation and Soil to Remain Undisturbed *In some cases, limited disturbance may occur within the areas to be protected provided all necessary approvals are obtained. Such activities include, but are not limited to the following:* 1. *Mitigation of development activities.* 2. *Restoration of previously disturbed areas.* 3. *Utility installations and emergency public safety activities.* 4. *Construction of a trail or pedestrian walkway that will provide public access.* 5. *Required Street or Driveway connections.*
• Front Setback Areas • Required Landscaping Areas • Required Open Space • Historic and Scenic Areas (Open Space) • Parks & Recreational Open Space (see 8.52c)	All Trees Greater than 12" DBH *(Diameter at Breast Height =diameter of trunk at 4.5 ft above ground)* *Replacement trees shall be planted at a rate of 1tree per each 8" DBH*
All Other Locations	All Trees Greater than 16" DBH *Replacement trees shall be planted at a rate of 1tree per each 8" DBH [See Section 8.12 for info on replacement tree sizes & types.]*

a. Required Tree Save Areas: Trees and existing vegetation shall be preserved in accordance with the table above. Exceptions shall be approved by the Administrator, who shall work jointly with the developer, Tree Board, and design team during the project approval process. Surveyors should use a GPS device to flag trees for preservation or further study.

b. **Existing Trees:** Notwithstanding the requirements in the table above, canopy trees at least 12 inches DBH and all understory trees greater than 4 inches DBH anywhere on the site shall be preserved to the greatest extent practical and incorporated into the required landscaping.

c. All plans to remove trees greater than 12 inches DBH for Parks & Recreational Open Space uses shall be approved by the Board of Commissioners.

d. **Tree Protection Plan:**

i. A tree protection plan, showing there will be no disturbance in the Critical Root Zone (CRZ) shall be submitted prior to grading. Trenching, placing backfill, driving, or parking equipment in the CRZ, and the dumping of materials detrimental to plant health in close proximity of the trees to be preserved is prohibited.

ii. Where existing trees are to be preserved in a buffer zone, limits of grading shall maintain a minimum 20-foot separation from the base of each tree or to the dripline.

e. When selecting which trees to preserve, the following shall be considered:

i. Age, condition, and type of tree, not limited solely to species, but to include: uniqueness, historical significance, placement, etc.

ii. Existing and proposed grading;

iii. Location of site improvements and utility connections.

f. **Landscape Credits for Tree Preservation:** Preserved trees shall be credited toward the satisfaction of the minimum landscape planting requirements based on the following details:

i. Minimum size requirement to qualify for tree preservation credit is 4 inches in diameter at breast height (DBH).

ii. Landscape credits for existing trees in parking areas and buffer or street yards shall be given at a rate of one tree per 4 inches of DBH of existing tree preserved.

iii. Credits for tree preservation are only offered when a tree preservation plan is submitted prior to grading the site.

iv. These credits shall only be given if the trees preserved are located in or within 15 feet of the specific area (street/buffer planting areas and parking area). For example: The trees preserved in the street planting area shall be given credit for the street planting requirements only. Credit for trees preserved in the parking area shall apply only to the parking requirements, etc.

g. Replacement of Preserved Trees: Should any tree designated for preservation in the tree protection plan die within two years of issuance of the certificate of occupancy, the owner of the property/developer shall replace it within 180 calendar days with landscaping equal to what would be required in this Chapter.

8.6 Buffers and Screening

A. Required Buffer Yards:

1. Buffer yards are planting areas located parallel to the side and rear lot lines designed to separate incompatible adjacent uses and provide privacy and protection against potential adverse impacts of an adjoining incompatible use or zoning district.

2. The size of a buffer shall be determined both by the zoning district of the proposed development and by the adjacent zoning district(s). Buffer yards shall be required in accordance with the table below when any use is being established on a property that abuts an existing developed lot or less intense zoning district. Where a more intense proposed use abuts an existing single family residential use within any zoning category, a Type B buffer yard shall be required.

District of Proposed Development	Adjacent Zoning District: OSC, RA, RR R2, R3 R4	R7 NC	CMX TND CC	DMX	MH CH	M&I
OSC, RA, RR R2, R3 R4		C[1]	B[1]	B[1]	A[1]	A[1]
R7[2] NC[3]	C					
CMX[3] TND[3] CC[3]	B	C				
DMX[3]	C	C				
MH CH	A	B	B	C		
M&I	A	A	A	B	B	

[1] *Only required where adjacent, more intense use is pre-existing and no equivalent buffer is provided on the adjacent property*
[2] *Only multifamily dwellings shall be required to provide buffers*
[3] *Only multifamily and non-residential uses shall provide buffers between less intense adjacent uses*

	= buffer yard not required by proposed development

3. Buffer yards are intended to be constructed along the perimeter of the property; however, when there is irregular topographic conditions such as the perimeter of the property is at a lower grade than the use being screened, the Administrator may require the relocation of the required buffer yard in order to better serve its purpose.

4. Where a proposed use or development type abuts multiple use types or zoning districts along the same side or rear year, the largest buffer will apply.

5. Buffers shall not be located on any portion of any existing or proposed street right-of-way. Buffers shall be permitted to intersect utility easements or run parallel with them; however, they shall not be permitted to run linear with and be superimposed on them.

B. Buffer Yard Types

1. Type A Buffer Yard	
a. Description	A Type A buffer is intended to provide a very dense sight barrier to significantly separate uses and zoning districts. It is intended to reduce intrusive lighting and noise from adjacent properties.
b. Option A:	
(1) Minimum Width	25 feet
(2) Minimum Plantings	**Trees:** 1 canopy tree every 40 feet 1 understory tree every 20 feet **Shrubs:** 1 shrub every 5 feet
c. Option B:	
(1) Minimum Width	10 feet
(2) Performance Standard	Buffer Yard shall be completely opaque (i.e., having no horizontal openings from the ground to a height of 6 feet within two 2 years of planting) consisting of fencing and/or walls and plantings.

2. Type B Buffer Yard	
a. Description	A Type B buffer is medium density screen which is intended to create a visual separation between uses and zoning districts.
b. Minimum Width	20 feet
c. Minimum Plantings	**Trees:** 1 tree every 25 feet **Shrubs:** 1 shrub every 6 feet

3. Type C Buffer Yard	
a. Description	A Type C buffer is a planting strip intended to separate uses, provide vegetation in densely developed areas and enhance the appearance of individual properties.
b. Minimum Width	10 feet
c. Minimum Plantings	**Trees:** 1 tree every 40 feet **Shrubs:** 1 shrub every 8 feet

C. Additional Buffer Requirements

1. **Fences and Walls:** A 6-foot tall privacy fence or wall made of treated and stained wood, brick, stone, or other composite material as approved by the Administrator and maintained in a like-new manner, may be used to reduce the required buffer width by 25 percent. (This reduction shall not apply to Buffer Yard Type A, Option B.)

2. **Berms:** All berms, if provided, shall not exceed a slope with maximum rise of 1 foot to a run of 2 feet (a ratio of 1:2) and a maximum height of 4 feet. All berms, regardless of size, shall be stabilized with a ground cover or other suitable vegetation or permanent slope retention device. Berms taller than 4 feet shall be approved by the Administrator on a case by case basis.

3. **Existing Vegetation:** Existing vegetation within the buffer yard which meets or exceeds the standards of this section shall be maintained and may receive partial or total credit toward screening requirements.

8.7 Subdivision Plantings

A. Applicability: Residential uses with front setbacks of 5 feet or more in a residential or mixed-use subdivision that includes more than five single-family dwelling units.

B. Required Planting:

1. A street yard planting of one canopy tree per 50 feet of lot frontage is required for single family dwellings with setbacks of 15 feet or more. The developer may choose a tree from the *Acceptable Plant Material* list (Appendix A), but a specific variety of tree should be used throughout the subdivision for consistency.

2. Required street trees (see Section 8.8) and/or existing trees over 4 inches DBH may be counted toward fulfillment of the street yard planting requirement above.

3. Where there are abutting rear yards, one tree and one shrub shall be planted for every 15 feet of rear property line of each lot.

4. Planted areas around cable boxes and HVAC units shall be provided with a minimum of four 7-gallon evergreen shrubs, unless some other opaque screening is provided, planted 5 feet on center surrounding the box/unit.

5. Foundation Plantings: Foundation plantings are required at a rate of one shrub per 5 linear feet of dwelling frontage.

8.8 Street Tree Plantings

Trees shall be planted in the right-of-way in planting strips or in tree wells, as indicated in the table below. Spacing of trees should allow for a clear view of buildings and land uses.

Zoning Districts	OSC	RA	RR, R2 R3, R4	R7 NC	CMX TC	DMX	CH, MH, MHO,M&I, TND, GO
Street Tree Requirements	n/a	n/a	Plantin g strip	Plantin g strip	Planting strip or tree wells	Planting strip or tree wells	Planting strip or tree wells

A. Applicability:

1. Street trees shall be planted in the right-of-way, between the street and the sidewalk, in all zoning districts except in OSC, RA districts, where no street trees are required. This requirement shall apply to newly constructed streets and as feasible on existing or reconstructed streets, as determined by the TRC.

2. Where sidewalk is only required on one side of the street, street trees shall be planted at the same intervals and the same distance from the curb on both sides of the street.

3. Where specific cross-sections or streetscape plans have been developed as part of an adopted corridor or small area plan, the required plantings shall adhere to said plan.

B. Planting strips shall have a minimum width of 6 feet for understory trees or 10 feet for canopy trees. Planting strips are permitted and encouraged to be designed as bio-swales (rain gardens) to substitute for conventional piped storm drainage.

C. In mixed-use districts along street frontages that contain ground floor retail uses and on-street parking, or where specified on an adopted area plan, trees shall be planted in tree wells. Tree wells shall provide an adequate root aeration zone around the base of a tree. Tree grates or ground cover shall cover the exposed area of soil and protect this zone. The wells shall be a minimum of 5 feet square.

D. Planting strips shall not be required in alleys.

E. Street trees shall be planted as canopy trees and installed at an average distance of 40 feet on-center. Where overhead utilities exist prior to development, understory trees may be substituted, installed at an average distance of 20 feet on-center.

F. Street trees shall be placed at least 8 feet from light poles and 10 feet from electrical transformers in order to allow these utilities to be safely serviced.

G. Along State-maintained roads, plantings shall comply with NCDOT standards.

8.9 Street Yards

A Street Yard consists of a planting area parallel to a public right-of-way but on private property, typically between the sidewalk and new development. It is designed to provide continuity of vegetation along the right-of-way and to soften the impact of development by providing a pleasing view from the road.

A. Applicability:

1. Any use with a rear yard that abuts a street right-of-way.

2. All non-residential uses in CH districts with front setbacks greater than 20 feet.

3. All uses in MH, MHO, and M&I districts

B. Minimum Width: Street Yards shall be a minimum of 10 feet wide.

C. Required Landscaping:

1. **Commercial and Industrial Uses:** Two canopy trees or four understory trees, and eight shrubs (5-7 gallon) per 100 linear feet or a combination thereof to include a minimum of 50 percent evergreens.

2. **Multi-Family Uses:** Two canopy trees per 100 linear feet of frontage. Foundation plantings shall be provided for multi-family uses at a rate of one shrub per 5 linear feet of dwelling frontage.

D. Landscape Credits: Landscape credits for existing trees within Street Yards will be given at the rate of one shade tree per each existing tree 4 inches in DBH or greater.

E. Tree Spacing: These trees shall be evenly distributed along the street frontage, but they are not required to be at absolute equal intervals. This will allow for some flexibility in design while discouraging long intervals without trees.

F. No more than 20 percent of the Street Yard may be used for walkways or signs.

G. Parking, merchandise display and off-street loading are prohibited in the Street Yard.

H. All trees in Street Yards shall be planted no closer than 4 feet from any public right-of-way.

8.10 Parking Lot Screening

Screen parking lots from the street with landscaping or a solid decorative wall or fence or combination thereof.

A. Applicability: Perimeter yard of all parking areas visible from the street (except single-family homes).

B. Minimum Planting: Semi-Opaque Screen from the ground to at least a height of 3.5 feet for screening of car lights and glare (minimum width: 10 feet).

C. Performance Standard: This type of screening functions as a semi-opaque screen around the perimeter of a parking lot from the ground to at least 3.5 feet for the screening of car lights and glare. This shall only be required along the parking area that fronts the public right-of-way or any side of a parking lot that is not protected by a Type C buffer yard. The location of such yards shall be determined by the Administrator upon review. Effective screening devices may include solid decorative brick walls, wood fences, earth berms, and tight evergreen hedges which shall reach the required height within two years of planting, or any combination of the above. Groundcover, exclusively, shall be planted in the sight triangle on each side of drives or streets. A 6-foot opening shall be allowed every 150 feet to permit pedestrian passage where a formal connection to a sidewalk or pathway is provided.

D. Screening of Open Storage, Above Ground Utilities, and Dumpsters: Any open storage of merchandise, equipment, materials or goods other than those on display for retail sales, above ground utilities, loading areas, and dumpsters areas shall be screened from view from any street right-of-way. These areas shall include adjacent planting islands and shall be landscaped with an evergreen screen and fully enclosed in a fence or wall of at least 6 feet in height (see also Section 4.3, Containment Areas for Trash and Recyclables).

Enclose dumpsters and storage areas with planting and walls or fences

8.11 Parking Lot Landscaping

A. Intent: Planting areas within and adjacent to parking areas designed to provide shade and improve the attractiveness of a large area of pavement.

B. Applicability: Interiors of all parking areas with more than 12 spaces.

C. Minimum Plantings:

1. **Trees:** One canopy tree per 12 parking spaces.

2. **Shrubs:** Four per 12 parking spaces.

3. Plantings shall be in a planting area within the parking lot measuring at least 300 square feet and protected by curbs or wheel stops. Planting areas may have no bare soil.

4. For parking lots of 24 spaces or less, trees and shrubs may be planted at the end of parking rows or in planting strips as defined above.

D. Performance Standards: Parking lot landscaping functions as a tree ceiling over a parking area providing shelter from sun and rain and minimizing the impact of runoff by providing "green" surface area on which to collect.

1. Canopy trees shall be planted in a manner that provides shade for the entire parking area at maturity. No parking space shall be more than 60 feet from the base of a canopy tree (parking lots using biorention areas, as outlined in the section below, are exempt from this requirement). The use of existing vegetation to satisfy this requirement is encouraged.

2. Landscape credits for existing trees in parking areas shall be given at a rate of one tree per each 4 inches DBH of existing plant preserved.

E. Curbing/Bioretention Options:

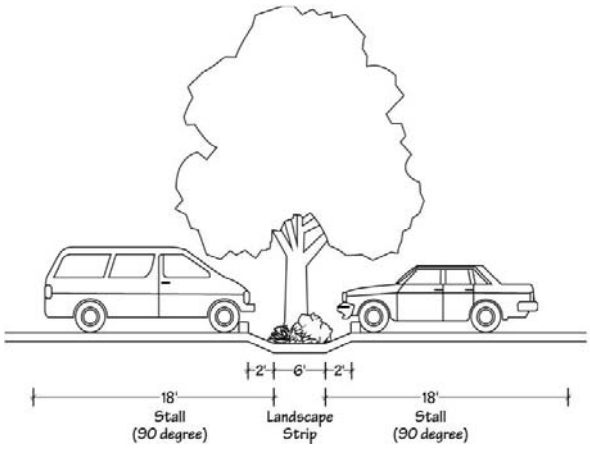
1. All parking areas and landscaped islands shall either be curbed using a vertical curb or wheel stops. Curbing may be discontinuous or perforated allowing stormwater to enter landscaped areas constructed for bioretention. Where bioretention areas are constructed, wheel stops may be used in place of curbing. Where landscaping is above grade, curbing must be continuous to prevent landscaping material from eroding into the parking area.

Example of discontinuous curbing around parking lot bio-retention area.

2. **Bioretention Areas:** Required parking lot landscaping may be substituted with one or more consolidated bioretention areas. Bioretention areas shall be located where it is most practical to capture stormwater, manage parking lot traffic and facilitate pedestrian use, including adjacent to and connecting with vegetated areas on the perimeter of a parking lot. Bioretention areas shall be designed and landscaped to trap and mitigate runoff from paved surfaces consistent with the description and intent of EPA Storm Water Technology Fact Sheet – Bioretention (EPA 832-F-99-012, September 1999;), or equivalent, including NC Cooperative Extension Bulletin, *Designing Rain Gardens (Bio-Retention Areas)*, 2001. These documents are included in Appendix B.

3. **Parking Dimension Bonus:** A portion of the space devoted to motor vehicle parking may be landscaped instead of paved, as follows:

   a. A landscaped area may include up to 2 feet of the front of the parking space as measured from a line parallel to the direction of the bumper of a vehicle using the space, as shown at right. The landscape strip shall be a minimum of 6 feet in width.



Required parking landscaped areas may include up to 2 feet of the front of a parking space as measured from a line parallel to the direction of the bumper of a vehicle using the space, as shown.

   b. The landscaped area within the parking space counts toward parking lot landscaping requirements and toward any overall site landscaping requirements.

   c. In order to utilize this parking dimension bonus, landscaping must be below grade and designed as a bio-retention area.

F. Responsibility of Owner: Owners shall be responsible for maintaining parking lot landscaping consistent with specifications above.

8.12 General Installation and Maintenance Standards

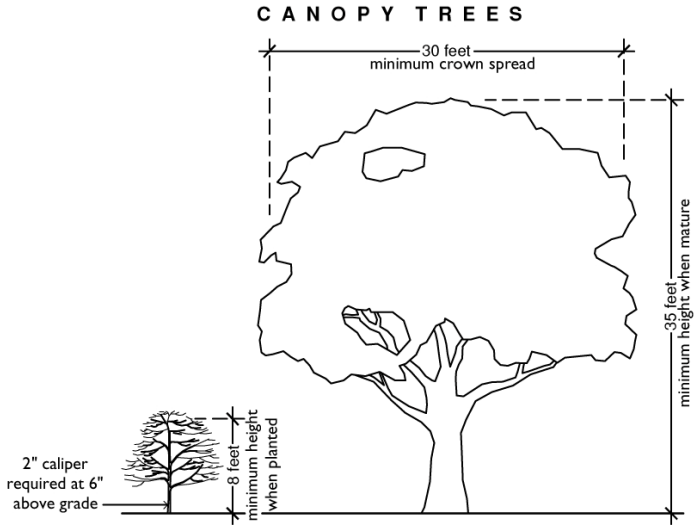
A. Plant Material Classifications and Standards:

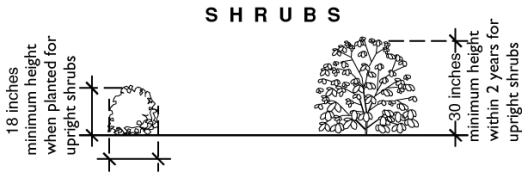
1. **Canopy (Large Shade) Trees:** Canopy trees must be a locally adapted species with an expected mature height of 35 feet or greater and an expected mature crown spread of 30 feet or greater. Canopy trees, existing or planted, must be a minimum of 8 feet high, and have a minimum caliper of 2 inches measured 6 inches above grade. Multi-stemmed trees shall have at least 3 stalks and be at least 8 feet in height.

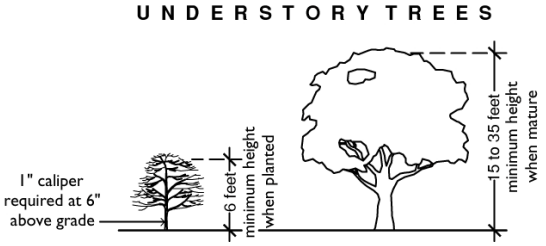
2. **Understory (Small) Trees:** Understory trees must be a minimum of 6 feet high and 1-inch in caliper, measured 6 inches above grade when planted. When mature, understory trees should have an expected height of 15 to 35 feet.

3. **Shrubs:** All shrubs shall be a minimum of 1½ feet in height when planted. All shrubs shall reach a height of 36 inches and a minimum spread of 30 inches within two years of planting.

4. **Groundcover:** All required groundcover type plants must be a minimum of 1-1/2 to 2-1/2 inch pots with a 4 inch minimum length. Groundcover must be planted with on-center spacing equivalent to the average mature spread for each particular species.







B. Landscaping Standards

1. **Retention of Existing Vegetation:** Existing vegetation shall be retained and maintained to the maximum extent possible so as to permit such vegetation to contribute to buffer and screening requirements. Such retained vegetation, which meets or exceeds the standards of this ordinance, may receive partial or total credit toward planting requirements.

2. **Planting standards:**

   a. All plant materials shall be installed in accordance with the standards found in the latest edition of *American Standards For Nursery Stock* published by the American Association of Nurserymen. After installation, plant materials shall be mulched with a 2 to 3-inch layer of appropriate material.

   b. Landscaping should be of sufficient size so that mature appearance will be achieved within thee to five years of installation (Canopy trees shall not be subject to this requirement).

   c. Where new landscape materials are to be installed, the type of material used shall be complementary to plant materials existing on the property and on adjoining properties. The use of drought tolerant vegetation that is native to the area is encouraged to reduce dependency upon irrigation.

   d. All portions of the landscaping area not planted with shrubs and trees or covered by a wall or other screening device shall be planted with ground cover and/or grass, or covered with natural mulch with a minimum depth of 2 inches.

   e. Each canopy tree shall be provided with a minimum pervious ground area of 300 square feet for root growth and should be planted on slopes not to exceed 4:1 horizontal to vertical distance.

   f. If canopy trees are required and overhead utility lines exist, understory trees planted one per 20 linear feet shall be substituted with the approval of the Administrator.

g. No trees or shrubs shall be planted within the sight distance triangle at an intersection, or driveway access point as defined by this Ordinance or NCDOT. (See Chapter 9, Section 9.3E3)

3. **Materials permitted:** The Administrator shall maintain a list of acceptable plant material, which may be used to satisfy the requirements of this ordinance. (See Acceptable Plant Material List, Appendix A.) If the applicant proposes a species which is not on the approved list, the Administrator may approve the plant material so long as it is appropriate for the local climate and meets the definition for the use for which it is intended.

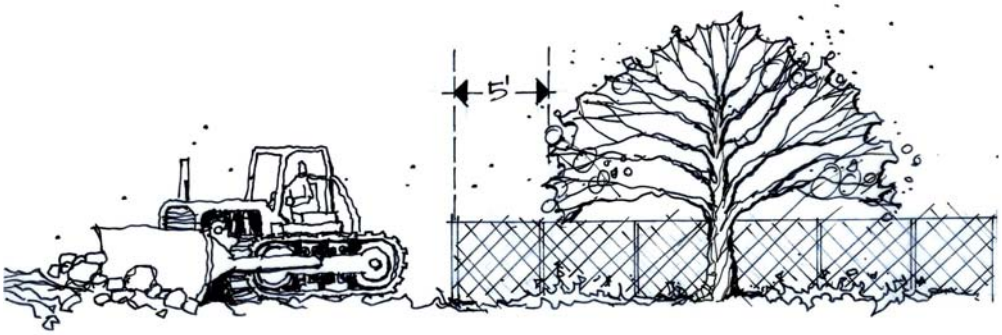
4. **Installation Of Required Plant Materials:**

a. **Certificate of Occupancy:** A final certificate of occupancy for commercial, industrial, multi-family, and and/or non-residential uses shall not be issued until all required landscaping is in place. Required trees for residential subdivisions should be planted upon completion of construction and will be a requirement for certificate of occupancy.

b. **Requests for Delay:** Where weather conditions or construction activity would endanger the health and survivability of required plantings, the Administrator may delay the installation. The developer shall submit a copy of signed contract for installation of the required planting areas and may be required to post a surety equal to 125 percent of the amount of the contract. The surety shall not be issued for more than 180 calendar days. For commercial, industrial, multi-family, and non-residential projects, a temporary certificate of occupancy may be issued.

C. **Protection of Existing Vegetation During Construction:**

1. Protective barricades shall be placed around all trees designated to be saved, prior to the start of development activities or grading. Protective barricades shall remain in place until development activities are completed. The following conditions are required:



a. Barricades may consist of 2 x 4 inch posts with 1 x 4 inch rails, orange safety fence, or a similar treatment and shall remain in place until development activities are complete.

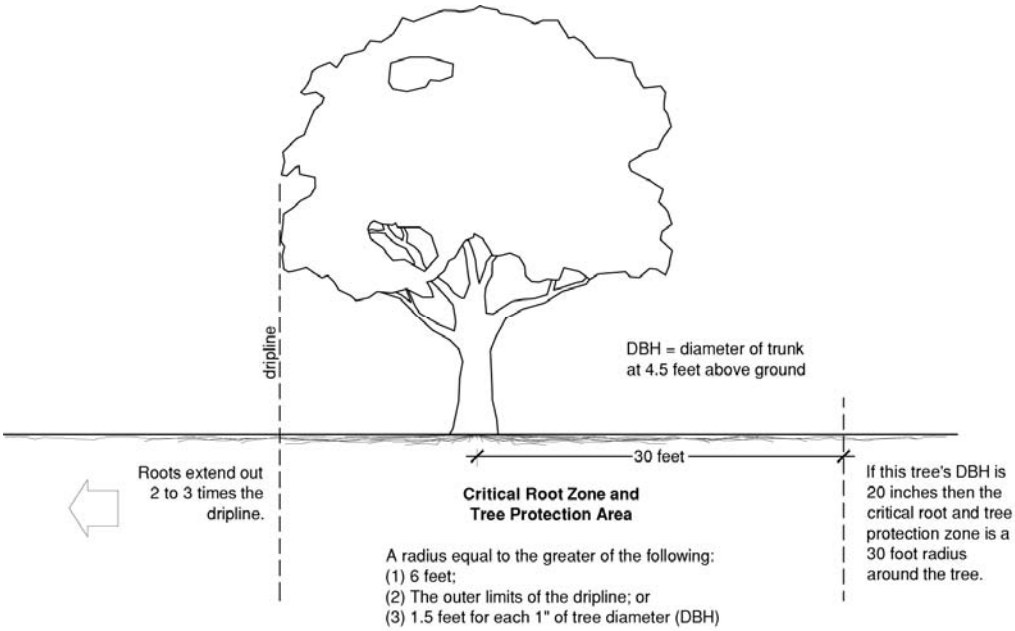
b. The barricaded area shall remain free of all building materials, stockpiled soil or other construction debris.

c. Construction traffic, storage of vehicles and materials, and grading shall not take place within the protective areas of the existing trees.

d. Barricades shall be erected at a recommended minimum distance from the base of protected trees according to the following standards:

i. **For trees 10 inches or less in caliper:** Place at a minimum distance of 6 feet from the base of each protected tree, or outside the dripline, whichever is greater.

ii. **For trees greater than 10 inches in caliper:** Place at a minimum distance equal to 1.5 feet for each 1 inch in caliper, or outside the dripline, whichever is greater.



2. Construction access to a site should occur where an existing or proposed entrance/exit is located.

3. Land disturbance within a tree dripline is prohibited except for driveway access points, sidewalks, curb and gutter.

4. Where grading within a tree dripline cannot be avoided, cut and fill shall be limited to ¼ to ½ of the area within the dripline, and tree roots must be pruned with clean cuts at the edge of the disturbed area. (No fill shall be placed within the dripline of a tree without venting to allow air and water to reach the roots.)

5. Storage of construction materials and any other construction activities that contribute to soil compaction should be limited to areas of the site within the limits of construction.

D. Irrigation:

The use of irrigation is permitted in all required landscaping areas as required by this Chapter. The use of moisture metering devices and automatic timers is required. The use of water conserving practices and drip irrigation is also encouraged, unless otherwise required.

1. If automatic irrigation systems are permitted, moisture sensor regulators, soil moisture regulators, or drip irrigation shall be used.

2. Irrigation systems may connect to the main water connection for the building unless otherwise restricted and/or through other Town ordinances or policies.

E. Maintenance:

1. **Maintenance:** All vegetation and other screening devices shall be maintained so as to continue their effectiveness. The owner shall replace any required plantings, which die or otherwise fail to satisfy the requirements of this Chapter, within 180 calendar days with an equal or similar species and size. When plant material is severely damaged due to unusual weather conditions or other acts of God, the owner shall have up to two years to replant with submittal of a guarantee.

2. **Inspection of Site:** The Administrator may inspect the site once a year after the issuance of a permanent certificate of occupancy in order to ensure compliance with the approved site plan and to ensure that the landscape is properly maintained. The Administrator may issue a Notice of Violation to comply with the provisions of this ordinance if warranted upon an inspection under the provisions of Chapter 18 of this Ordinance.

F. Replacement of Disturbed and Damaged Vegetation:

1. The disturbance of any landscaped area or vegetation required by this Code shall constitute a violation of the site or sketch plan. All disturbed landscaped areas and vegetation shall be replanted to meet the standards of this section as well as the approved site or sketch plan.

2. Where the vegetation that has been disturbed or damaged existed on the site at the time the development was approved, all replacement vegetation shall meet the standards set forth in this section taking into account any unique site conditions and significant vegetation remaining within the landscaped area. Required trees, vegetation, or other landscaping that die shall be removed and replaced with new vegetation of equal or greater size.

3. Existing vegetation required to be preserved that has been damaged or destroyed during the course of development activity shall be subject to civil penalty and replaced in accordance with the requirements of this section.

4. A revegetation plan shall be submitted that takes into consideration the development condition of the site, significant vegetation remaining

within landscaped areas, and the replacement plant materials. The Town of Wendell may require equal amounts of new vegetation to be installed equal to the size of the vegetation removed.

5. Replacement consists of one or a combination of any of the following measures:

a. Replant according to the requirements of this Chapter. A replanting plan denoting the proposed installation shall be submitted to the Administrator for approval.

b. Replace damaged or destroyed significant vegetation in both perimeter and or interior landscaped areas with an equal amount of new vegetation according to the size of vegetation removed.

i. Any tree with a DBH of at least 4 inches that is damaged or removed shall be replaced with one or more trees of an equivalent classification (see 8.12.A) and variety with a cumulative caliper equal to or greater than the original tree.

ii. Trees less than 4 inches DBH that are damaged or destroyed shall be replaced with a tree of an equivalent classification and variety and meeting the planting standards of this section.

iii. Understory plantings may also be required to restore the buffer performance criteria for the disturbed area.

6. A revegetation plan denoting the proposed installation shall be submitted to the Administrator for approval. The Administrator may elect to present the revegetation plan to the Tree Board for final approval. This requirement may be modified by the Administrator based upon site conditions.

7. For all other cases where existing vegetation is damaged or removed, the type and amount of replacement vegetation required shall be of the type and amount that is necessary to provide the type of landscaping required under this Chapter.

8. Replanting should be located within the vicinity of the violation. If the area is too small for sufficient growth, a more suitable location on the site may be selected as permitted by the Administrator.

CHAPTER 9. CIRCULATION AND CONNECTIVITY

9.1 Purpose and Intent

This chapter is guided by and intends to fulfill the following principle of *The Town Plan of Wendell:* "Ensure local and regional transportation and interconnectivity and options while also maintaining and enhancing Wendell as a walkable community." This Chapter serves to implement the policy and regulatory recommendations of the *Town of Wendell Collector Street Plan* (CSP) which also recognizes the importance and long-term need of new and enhanced thoroughfares throughout the community. It is the intent of this Chapter to build streets that are integral components of community design. Streets shall be detailed to complement neighborhoods and commercial centers and shall accommodate all modes of travel.

The purpose of this Chapter is to:

- Support the creation of a highly connected transportation system within Wendell in order to provide choices for drivers, bicyclists and pedestrians;
- Promote walking and bicycling;
- Connect neighborhoods to each other and to local destinations such as schools, parks, and shopping centers;
- Reduce vehicle miles of travel and travel time;
- Reduce travel times and increase efficiency of public service delivery (e.g., school buses, refuse collection, mail delivery) and emergency responders; and
- Reduce reliance on thoroughfares for short trips so that thoroughfares can better serve regional travel needs and widening beyond four lanes can be avoided; and
- Ensure that pedestrian connections serve all citizens of Wendell by mandating that projects meet ADA requirements.

9.2 General Infrastructure Design Guidelines

All infrastructure shall be designed and installed in accordance with the Town's *Standard Specifications and Details* manual and the requirements of this chapter.

9.3 General Provisions for Street Design

New development or redevelopment with frontages on existing publicly-maintained streets shall be required to upgrade all street frontages to meet the standards of this Ordinance including sidewalks, street trees, curb and gutter, and right-of-way reservation. Payment in lieu of physical improvements may be permitted by the Board of Commissioners. The following specifications shall apply to street design:

A. Streets: The Town views streets as important public space and, in an effort to protect this investment, has developed a set of principles which permit this space to be used comfortably and safely by motorists, pedestrians and cyclists.

1. Streets shall interconnect within a development and with adjoining development. Street stubs shall be provided to adjacent property to provide for future connections (see Section 9.7, Connectivity).

2. Streets shall be planned with due regard to the designated corridors shown on the adopted *Town of Wendell Collector Street Plan* and the CAMPO Thoroughfare Plan.

3. Streets shall be landscaped with street trees per the requirements of Chapter 8.

4. Reserve strips and non-access easements adjoining street rights-of-way for the purpose of preventing access to or from adjacent property (except those required by the Board of Commissioners to prevent access to thoroughfares), half-streets and private or gated streets shall not be permitted.

5. The use of horizontal traffic calming devices (such as landscaped bulb-outs, medians, traffic circles, or roundabouts) is encouraged subject to approval by the Town's Technical Review Committee (TRC).

B. Trees

All street trees shall be installed in accordance with the provisions of Chapter 8, Landscaping and shall conform to the regulations of NCDOT, where required.

C. Sidewalks

Sidewalks, shall be constructed along streets (including cul-de-sacs) as indicated by the cross-sections in Section 9.4 and the table below. The following standards shall apply:

Zoning Districts	OSC	RA, RR, R2 MHO	R3	MH	R4, R7 NC	CMX CC	DMX	CH, M&I, TND, GO
Sidewalk req'mt	Not req'd	Multi-use path	5 ft; one side	5-8 ft; one or both sides	5-16 ft; both sides	6-16 ft; both sides	8-16 ft; both sides	5-16 ft; both sides

1. Sidewalks shall have a minimum width of 5 feet.

2. Sidewalks shall be required on both sides of all roads except where:

   a. Net residential densities of developed areas are three dwelling units per acre or less, in which case sidewalks shall only be required on one side;

b. Sidewalks may only be required on one side in R3 and are not required in OSC.

3. Developments in Rural Agriculture (RA) districts shall provide a multi-use pathway of a minimum 8 feet in width, constructed of asphalt or similar material along one side of thoroughfare or collector road frontages or as designated on an adopted plan.

4. Sidewalks along thoroughfares, collector streets, and/or streets with fronting commercial and/or multi-family uses shall have a minimum width of 6 feet.

5. Unless otherwise specified by an adopted area plan, street frontages with mixed-use or commercial buildings having setbacks of 10 feet or less from the right-of-way and ground floor commercial space, shall be constructed with sidewalks a minimum of 8 feet in width. Where there is also on-street parking and retail uses along the street frontage, the minimum sidewalk width shall be 16 feet with trees in tree wells or other tree protection as approved by the Administrator.

6. Sidewalks shall be placed far enough from the curb to accommodate the minimum planting strip width required in Section 8.8, Street Trees.

7. All sidewalks shall be paved with broom-finished concrete, paving brick or concrete pavers. Similar materials may be permitted by the Administrator on a case-by-case basis, in compliance with ADA standards.

D. Bikeways

1. Bike lanes or separate off-street multi-use paths shall be installed on developer-built or modified roadways where designated for such by *the Town of Wendell Comprehensive Plan* or subsequently adopted plan; and/or as specified in item 3 below where the adopted plan does not provide sufficient guidance.

2. Where a proposed development does not include new or widening of existing collector or thoroughfare streets, the developer shall reserve right-of-way sufficient to accommodate the appropriate bikeway facility.

3. Bike lanes and bike paths shall be designed according to the *North Carolina Bicycle Facilities Planning and Design Guidelines* published by NCDOT and shall include all appropriate signage and pavement markings. Variations from the NCDOT standards may be allowed subject to approval from the Administrator based on the standards below.

4. Bicycle facilities shall be included in the cross-sections of Section 9.4, Permitted Street Sections, and added to the right-of-way dimensions for collectors and

thoroughfares (specifically for Main Street, Avenue, and Boulevard cross-sections or other sections approved by the Town) based on the matrix below. Motor vehicle volumes shall be based on projected motor vehicle volumes in a 20 year time horizon. Speeds shall be based on the design speed of the proposed roadway.

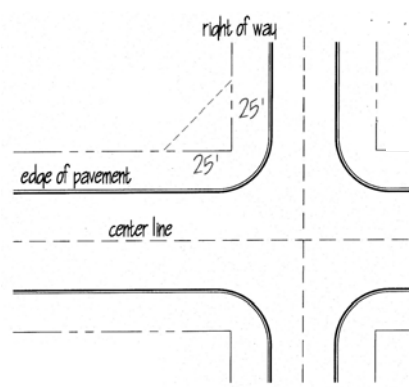
		Projected Motor Vehicle Volumes (Average Daily Traffic)					
		< 2,500 ADT	2,500 – 5000 ADT	5,000 – 10,000 ADT	10,000 – 20,000 ADT	20,000 – 40,000 ADT	> 40,000 ADT
Roadway Design Speed	< 25 mph	N	N	W	BL	BL	BL
	25 mph	N	W	BL	BL	BL	BL
	30 mph	N	W	BL	BL	BL	S
	35 mph	W	W	BL	BL	BL	S
	40 mph	W	BL	BL	BL	BL	S
	45 mph	W	BL	BL	BL	S	S
	> 45 mph	S	S	S	S	S	S

N = Normal Lane, 9-12 feet wide. Cyclists would operate in mixed traffic near the middle of the lane.
W = Wide Lane, 13-15 feet wide. Cyclists would generally operate in the right most portion of the lane. MUTCD-approved shared lane markings shall be used.
BL = Bike Lane, 4-6 feet wide (striped/marked) or narrow shoulder. In general, bike lanes should be at least 5 feet wide at higher traffic volumes (over 20,000 ADT) and higher speeds (40 mph and higher) and 6 feet wide next to on-street parking.
S = Separated Lane. Anything wider than 6 foot bike lane, including wide bike lanes/shoulders or parallel multi- use paths.

E. Intersections

1. All streets shall intersect at right angles as nearly as possible and no street shall intersect at less than 60 degrees.

2. Where practical, intersections should be aligned to create four-way intersections.



3. **Sight Triangles:** On a corner lot in any district, no planting, structure, fence, wall or obstruction to vision more than 3 feet in height measured from the edge of pavement shall be placed or maintained with the triangular area formed by the intersection of the street lines (right-of-way) and a straight line connecting points on said street lines, each of which is 25 feet distance from the point of intersection. NCDOT standards may also apply.

Sight triangles are not required in NC, TND, or DMX districts at intersections with all-way stops or traffic signals.

4. Bulb-outs (also known as curb extensions) to demarcate parking areas and to narrow the street width at intersections may be required on streets 30 feet wide or wider, but are discouraged on narrower streets.

A bulb-out or curb-extension demarcates parking areas and narrows the street width at intersections. (Image source: R. Drudl)

F. Curb Radii

Curb radii (or corner radius at an intersection) shall be designed according to the street cross-section specifications in Section 9.4 to minimize pedestrian crossing times along all streets requiring sidewalks.

G. Storm Drainage in Streets

All streets must be designed as to provide for the discharge of surface water from the right-of-way of all streets. Street drainage facilities shall be designed in accordance with the Town's *Standard Specifications and Details.*

1. Storm drainage type should generally be as specified in the Form-Based Standards by Zoning District matrix in Section 2.2. Vertical curb and gutter shall be used when on-street parking is marked, as specified in Section 9.4.

Zoning Districts	OSC	RA, RR, R2	R3,R4, MH, MHO	R7 NC	CMX CC	DMX	CH, M&I, TND, GO
Curb/ gutter type	Not req'd	Not req'd	Not required or Rolled or Vertical	Rolled or Vertical (Standard)	Vertical (Standard)	Vertical (Standard)	Vertical (Standard)
Drainage type	Open Swale	Open Swale	Closed/ LID[2]	Closed/ LID[2]	Closed/ LID[2]	Closed/ LID[2]	Closed/ LID[2]

1. Open Swales must have vegetated cover.
2. LID (Low Impact Development) drainage options shall be as specified in the Town's Standard Specifications & Details *or as approved by the Administrator.*

2. For local streets and cul-de-sacs installed under jurisdiction of these regulations, exception to the requirement for curb and gutter may be allowed for residential lots with a minimum size of 15,000 square feet that meet the criteria as set forth in the Town of Wendell's *Standard Specifications & Details* and written approval of the Town Engineer.

3. Where vertical curb and gutter is specified, it shall be a minimum of 1.5 feet wide for residential development and 2.5 feet wide for non-residential or mixed-use development.

H. Alleys

1. Alleys shall be privately owned and maintained as easements or common areas.

2. Public access easements shall be provided for all alleys and shall be marked as such on all plats.

3. Alleys shall be constructed with standard concrete driveway ramps at entrances to streets. Driveway standards shall be as specified in the Town's *Standard Specifications and Details.*

I. NCDOT Streets

All streets designed for inclusion in the NCDOT system are subject to approval by the Town and by NCDOT.

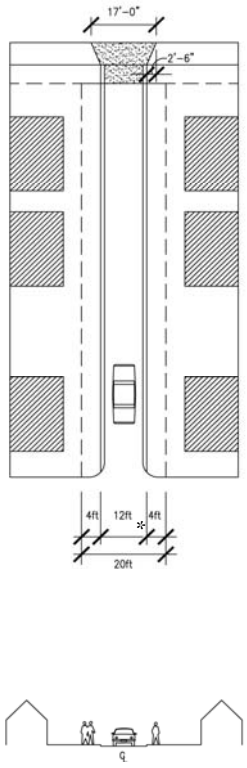
9.4 Permitted Street Sections

The Town permits the use of the following street standards in accordance with the street hierarchy detailed as follows. NCDOT approval may also be required. *(**Note:** All street widths shown are pavement widths only and do not include curb and gutter dimensions except in the case of alleys.)*

A. RESIDENTIAL ALLEY

20 ft Easement

The residential alley is a narrow route behind neighborhood streets providing rear access to residential buildings. Residential alleys also serve as areas for underground utilities. Alleys shall be constructed with standard concrete driveway ramps at entrances to streets.

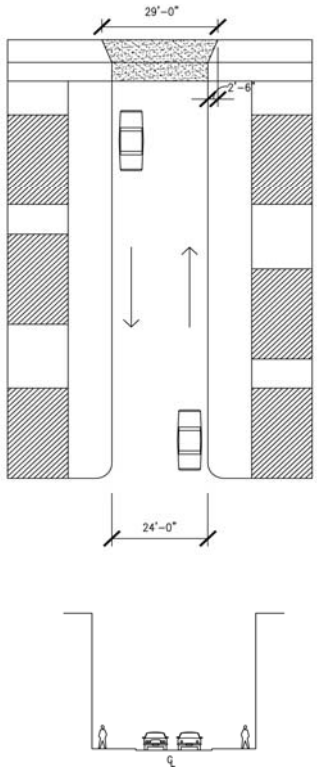


Pavement Width	12 ft*
Easement Width	20 ft
Curb Radius	20 ft (face of curb)
Drainage	Open Swale / Closed pipe
On Street Parking	N/A
Street Trees	No
Sidewalks	No

B. COMMERCIAL ALLEY

24 ft Easement

The commercial alley is a narrow access route servicing the rear of buildings (typically non-residential or multi-family uses). Commercial Alleys are used by trucks and must accommodate dumpsters. They are usually paved to the edges, with center drainage via an inverted crown, no center line, and concrete driveway ramps.

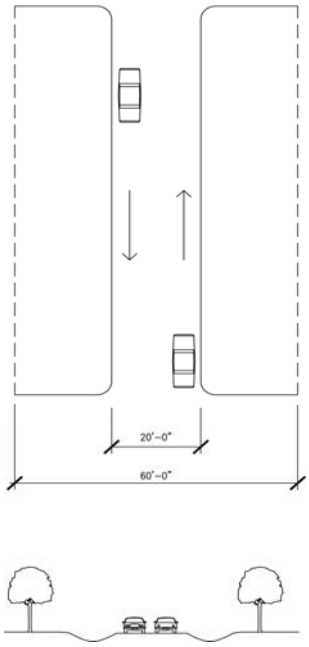


Pavement Width	24 ft*
Easement Width	24 ft
Curb Radius	5 ft (face of curb)
Drainage	Closed pipe
On Street Parking	Yes
Street Trees	No
Sidewalks	No

**Includes 1 ft. wide concrete band on either side of pavement*

C. RURAL ROAD
60 ft ROW

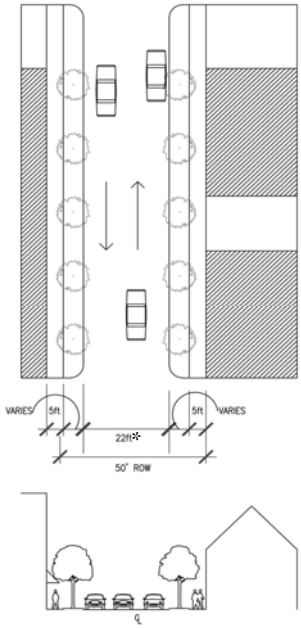
The Rural Road cross-section is appropriate in areas where the rural character of the land and the surrounding uses is intended to be preserved. These roads shall be characterized by curb-less, ribbon asphalt with grass swales for drainage and no required sidewalks, although multi-use paths on one side of the roadway may be required. This cross-section may only be used when lots are greater than 15,000 square feet.



Posted Speed	25 mph or 35 mph
Min. Centerline Radius	100 ft
Pavement Width	20 ft*
ROW Width	60 ft
Curb Radius	20 ft (face of curb)
Drainage	Grassed swale
On Street Parking	No
Street Trees	Not Required
Sidewalks	Not Required or min. 8 ft. multi-use path

D. LOCAL STREET
50 ft ROW

The local street serves as a small-scale, low-speed street. Local streets provide frontage for medium-to-low-density residential buildings such as detached homes and duplexes. A local street is urban in character, with raised or rolled curbs, closed drainage, sidewalks, occasional parallel parking, and trees in continuous planting strips.

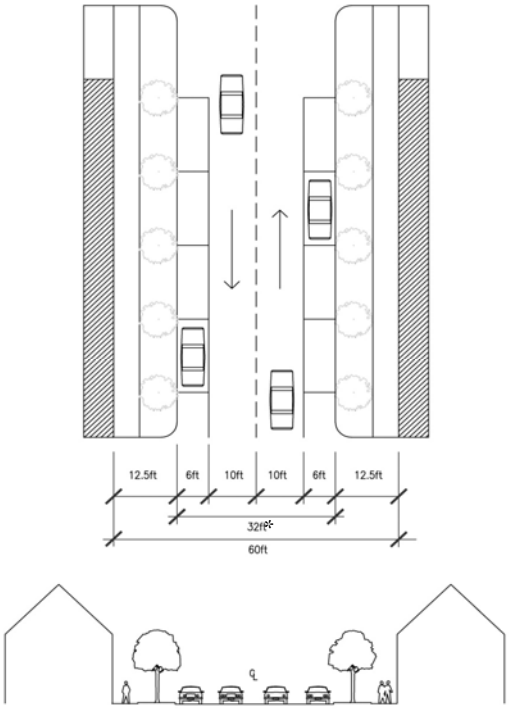


Posted Speed	25 mph or 35 mph
Min. Centerline Radius	100 ft
Pavement Width	22 ft*
ROW Width	50 ft
Curb Radius	15 ft (face of curb)
Drainage	Curb & Gutter (1.5 ft)
On Street Parking	Permitted (Marked – one side only)
Street Trees	Yes
Sidewalks	Yes (5 ft min)

**Street widths shown are pavement widths only and do not include curb and gutter dimensions. See Section 9.3.G.*

E. RESIDENTIAL MAIN STREET
60 ft ROW

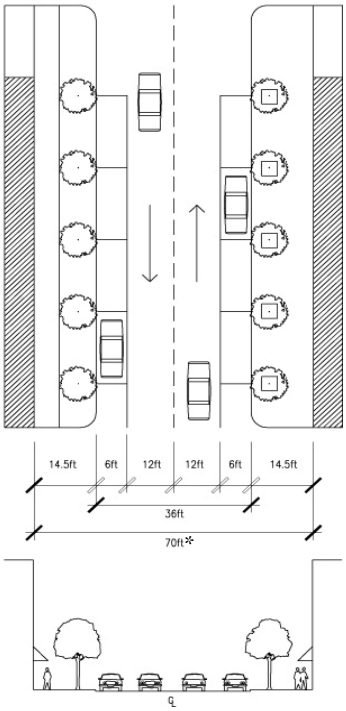
A residential main street serves as a small-scale, low-speed street. Residential main streets provide frontage for high-density residential buildings such as apartment buildings and rowhouses. A residential main street is urban in character, with raised curbs, closed drainage, sidewalks, parallel parking, trees in continuous planting strips, and buildings aligned on short setbacks.



Posted Speed	25 mph
Min. Centerline Radius	100 ft
Pavement Width	32 ft*
ROW Width	60 ft
Curb Radius	15 ft (face of curb)
Drainage	Curb & Gutter (1.5 ft)
On Street Parking	Yes (marked)
Street Trees	Yes
Sidewalks	Yes (5 ft min)

F. MAIN STREET
70 ft ROW

A main street serves as a small-scale, low-speed street. Main streets provide frontage for high-density buildings including mixed-use and commercial buildings, apartment buildings, and townhouses. A main street is urban in character, with raised curbs, closed drainage, wide sidewalks, parallel parking, trees in planting strips or tree wells and buildings aligned on short setbacks.

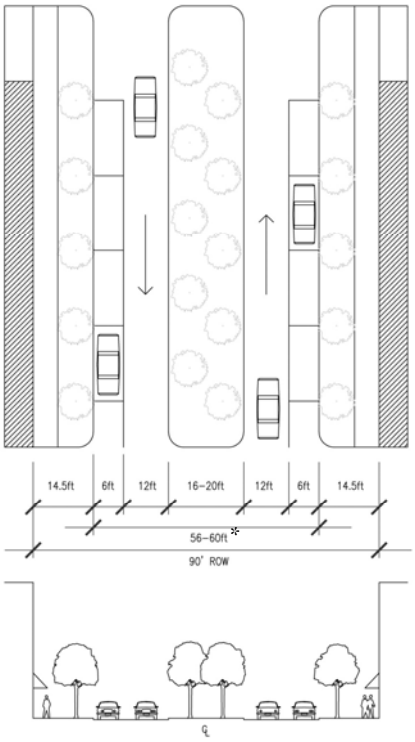


Posted Speed	25-30 mph
Min. Centerline Radius	250 ft
Pavement Width	36 ft*
ROW Width	70 ft
Curb Radius	15 ft (face of curb)
Drainage	Curb & Gutter (2.5 ft)
On Street Parking	Yes (marked)
Street Trees	Yes
Sidewalks	Yes (8 ft min; 9.4.D)

**Street widths shown are pavement widths only and do not include required bicycle facilities or curb and gutter dimensions. See Sections 9.3.D and 9.3.G. Bicycle facilities are not typically required or suggested for Main Streets.*

G. AVENUE
90 ft ROW

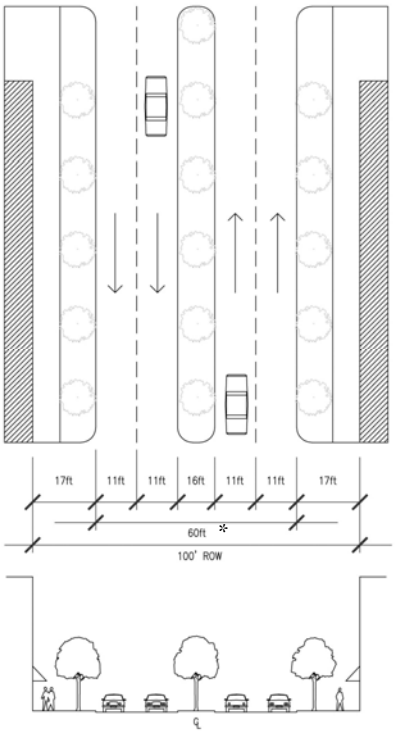
The avenue is a short-distance, medium-speed street that transverses an urbanized area. The avenue is typified by carefully landscaped edges and may have a range of fronting building types from civic/institutional to mixed-use. Buildings uniformly line the edges.



Posted Speed	25-30 mph
Min. Centerline Radius	per AASHTO**
Pavement Width	18 ft each direction*
ROW Width	90 ft
Curb Radius	15 ft (face of curb)
Drainage	Curb & Gutter (2.5 ft)
On Street Parking	Permitted (Marked)
Street Trees	Yes
Sidewalks	Yes (6 ft min; see 9.4.D)

H. BOULEVARD
100 ft ROW

The boulevard serves as a long-distance, lower-speed corridor that traverses an urbanized area. It is usually lined by wide sidewalks or side medians planted with trees. Center medians may be continuously planted or have trees in individual planting areas.

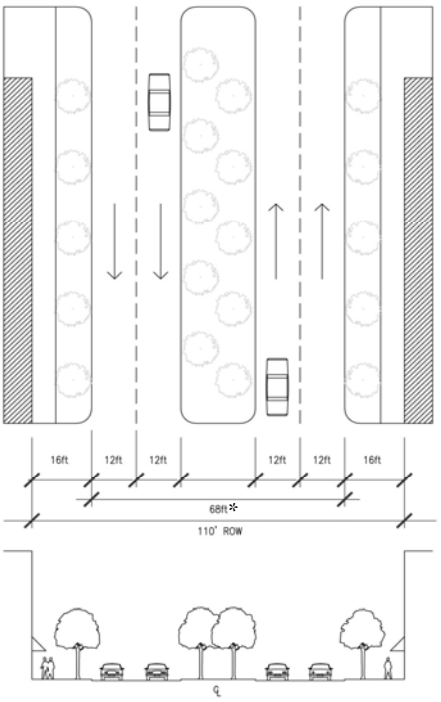


Posted Speed	25-35 mph
Min. Centerline Radius	per AASHTO**
Pavement Width	22 ft per direction*
ROW Width	100 ft
Curb Radius	15 ft (face of curb)
Drainage	Curb & Gutter (2.5 ft)
On Street Parking	No
Street Trees	Yes
Sidewalks	Yes (6 ft min; see 9.4.D)

**Street widths shown are pavement widths only and do not include curb and gutter dimensions or required bicycle facilities. See Sections 9.3.D and 9.3.G.*
***AASHTO: American Association of State Highway and Transportation Officials*

I. PARKWAY
110 ft ROW

The parkway serves as a long-distance, medium-speed corridor which traverses an urbanized area. It is usually lined with wide sidewalks, and/or side medians planted with trees. Center medians may be continuously planted or have trees in individual planting areas. Buildings uniformly line the edges.



Posted Speed	35-40 mph
Min. Centerline Radius	per AASHTO*
Pavement Width (only)	28 ft per direction**
ROW Width	110 ft
Curb Radius	15 ft (face of curb)
Drainage	Curb & Gutter (2.5ft)
On Street Parking	Yes
Street Trees	Yes
Sidewalks	Yes (6 ft min; see 9.4.D)

**Street widths shown are pavement widths only and do not include curb and gutter dimensions or required bicycle facilities. See Sections 9.3.D and 9.3.G.3.*
***AASHTO: American Association of State Highway and Transportation Officials*

9.5 Thoroughfare Plan and Collector Street Plan Conformity

This section addresses the thoroughfare and street collector plans, which identifies a hierarchy of streets and highways to serve the long term needs of the community. The plan consists of a map indicating existing and planned highways. Roads are classified by usage and carrying capacity (i.e. arterials, connectors, locals). As new construction is proposed, more detailed impact study may be conducted to understand how the adjacent streets as well as the entire transportation network will be affected.

A. The location and design of streets shall be in conformance with the adopted Thoroughfare Plan.

B. Whenever a tract of land included within any proposed development plan embraces any part of the thoroughfare network as designated on the Thoroughfare Plan (Capital Area Metropolitan Planning Organization's [CAMPO] Thoroughfare Plan or as indicated on the *Town of Wendell Collector Street Plan* [see Collector Street Map, Appendix C] or other adopted Transportation Plan), the development shall be required to dedicate and plat the thoroughfare right-of-way, and shall be responsible for the cost and the installation of the improvements in accordance with the Town's and NCDOT's standards for roadways.

C. Developments which embrace only one side of an existing or planned thoroughfare right-of-way will only be required to dedicate and plat additional right-of-way for that portion of roadway on which the development has frontage, and shall be responsible for the cost and the installation of the improvements in accordance with the Town's and NCDOT's standards for roadways.

D. Dedication of Right-of-Way Abutting Existing Major Thoroughfares:

1. If a development site abuts an existing major thoroughfare with a right-of-way width less than that recommended in the adopted Thoroughfare Plan, then the development shall include dedication of any additional right-of-way along the development's frontage on the major thoroughfare. The dedication shall include right-of-way sufficient to widen the right-of-way to 45 feet from the centerline of the roadway unless a thoroughfare cross-section has been adopted, in which case the development shall dedicate the amount of right-of-way needed to achieve the proposed cross-section.

2. For development fronting Wendell Boulevard, the developer shall dedicate sufficient right-of-way to achieve the cross-sections shown in Section 2.17, Gateway Overlay District or as shown in the *Town Plan of Wendell* unless subsequent street sections are in place and/or required by NCDOT.

E. Proposed New Thoroughfares

1. **Incorporation of Thoroughfare:** If (i) an adopted Thoroughfare Plan, Collector Street Plan or Transportation Plan proposes a new major thoroughfare across part of a development site; and (ii) an alignment for the thoroughfare has been determined to a reasonable degree of certainty (for example, as a centerline alignment on a functional design plan); and (iii) the thoroughfare could appropriately serve to provide direct access to the development (for example, it would not be a freeway or other restricted-access road), then the development shall incorporate the major thoroughfare into its internal road layout by having one of the development's roads run along the proposed thoroughfare alignment.

2. **Reservation of Future Right-of-Way:**

   a. If (i) an adopted Thoroughfare Plan, Collector Street Plan or Transportation Plan proposes a new major thoroughfare – other than one defined in subsection 1 above – across part of a development site; and (ii) an alignment for the thoroughfare has been determined to a reasonable degree of certainty (for example, as a centerline alignment on a functional design plan); and (iii) the Town's development regulations reasonably allow the developer to both realize the maximum lot density allowed by the site's zoning and physical characteristics and avoid developing that part of the site needed as future right-of-way for the proposed thoroughfare, then the development shall include reservation of the thoroughfare's future right-of-way; that is, it shall not include lots or other development within the land area needed as the thoroughfare's future right-of-way.

   b. Land area needed as future right-of-way shall be determined from NCDOT plans where available or other by applying half the right-of-way width recommended in the Thoroughfare Plan along each side of the thoroughfare's proposed centerline alignment.

3. **Exception to Applicability:** If neither provision 1 or provision 2 above applies to a proposed development across which a major thoroughfare is proposed, no incorporation of the major thoroughfare or reservation of future right-of-way for the major thoroughfare shall be required.

4. **Record Plat Notice of Future Right-of-Way:** If the Thoroughfare Plan recommends the widening of an existing major thoroughfare abutting a development site, or proposes a new major thoroughfare across part of a development site, the record plat for the development shall include notice of such. If the land area needed for the planned widening or new thoroughfare

can be ascertained with a reasonable degree of certainty, the record plat shall delineate it and label it as future right-of-way.

9.6 Collector Street Plan

A. Purpose/Intent: The CSP is intended to promote orderly, incremental implementation of a network of collector streets. Implementation will occur primarily through the local development process. The proposed collector street alignments assume that development exists (or will exist at some future date) at a scale to warrant the construction of a collector street. Although some improvements to existing collector streets will be made through local, State, or MPO-driven transportation projects, proposed new collector streets will be constructed primarily as the result of private development activity.

B. Collector Street Alignments:

1. While the CSP map depicts existing and future streets, this map is conceptual only and does not reflect the actual location or exact alignment of a proposed facility. Location decisions can only be made after careful consideration and evaluation of a given facility, the specific constraints related to its construction, and proposed land use changes. The map associated with the CSP is intended to identify the general location of future collector streets and the recommended level of connectivity and street spacing.

2. The street layout in any development shall conform to the arrangement, width and location of collector streets indicated in the adopted CSP. (See Collector Street Map, Appendix C). Whenever a tract of land included within any proposed development plan includes any part of the collector street system as designated on the CSP, the development shall be required to dedicate and plat a collector right-of-way, and shall be responsible for the cost and the installation of the improvements in accordance with the Town's standards for roadways.

3. Developments which include only one side of an existing or planned collector street right-of-way will only be required to dedicate and plat the additional right-of-way along the development frontage, if necessary, and shall be responsible for one half of the cost and the installation of the improvements in accordance with the Town's standards for collector streets.

4. New developments will be required to construct collector streets to the outer perimeter boundaries of the development based on the criteria below. If the street in question meets at least two of the following criteria, then the street must be built to an appropriate collector street standard.

a. The street intersects directly with an arterial street and provides access to an area with an overall density of 10 dwelling units per acre, or provides access to more than 150 dwelling units.

b. The street by its general configuration, in relationship to the existing development of the area, in effect serves a collector function.

c. The street extends into an undeveloped area in such a manner as to serve a future collector function.

d. The street serves as primary access to a significant nonresidential, institutional, or recreational land, as well as, an access to a residential area of 20 or more acres.

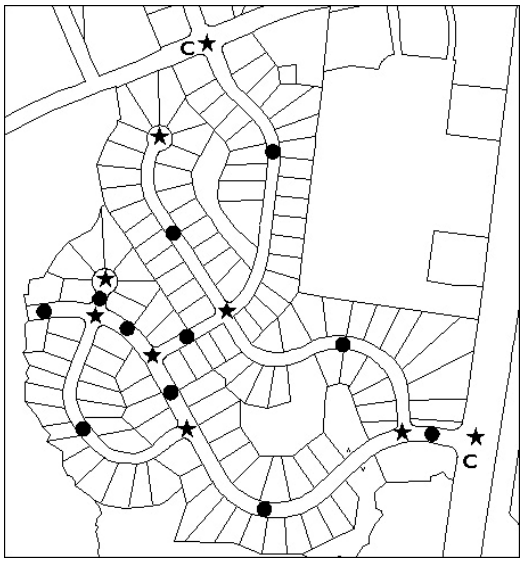
9.7 Street Connectivity

Proposed new streets in Wendell shall be extended to the boundary of the development for future connection. Improving connectivity and limiting cul-de-sacs result in improved mobility for motorists, pedestrians, and cyclists; decreased response time for emergency services and delivery costs for services such as garbage collection through improved routing options; and dispersion of motor vehicle traffic.

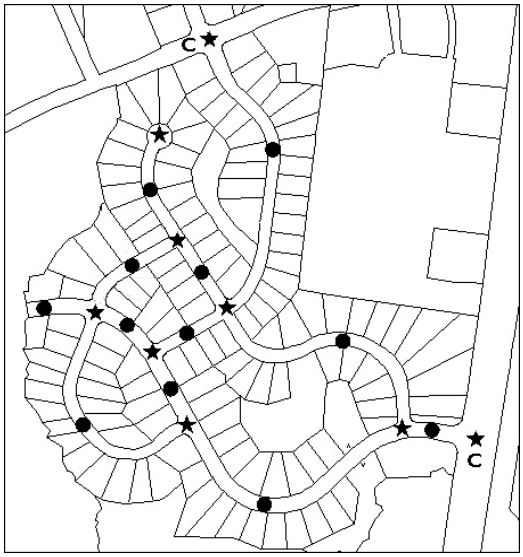
A Connectivity Index shall be used to determine the adequacy of street connectivity in new developments. The index is calculated as the ratio of the number of street links in a project's street layout (road sections between intersections or stubs to adjacent property) plus connections to existing streets divided by the number of street nodes (intersections and cul-de-sac heads).

Connectivity Index = (links + connections)/nodes

The illustration at right above illustrates a connectivity index of 1.44 (links are shown as circles, nodes are shown as stars, and connections to existing streets are shown as C's). The illustration has 11 links, 2 connections, and 9 nodes for an index of (11+2) / 9 = 1.44. In the illustration at right below, one cul-de-sac is converted to a full intersection. This gives the development one additional link for a connectivity index of 1.55 ([12 links + 2 connections] / 9 nodes). The same number of lots is shown in both illustrations.



A street layout showing a connectivity index of 1.44 ([11 links + 2 connections]/9 nodes). Links are shown as circles and nodes are shown as stars and connections to existing streets are shown as C's.



A street layout showing a connectivity index of 1.55 ([12 links + 2 connections]/9 nodes). Note that one cul-de-sac from the original layout has been converted to a full intersection. The same

A. Connectivity Index Requirement

1. Developments shall be required to achieve a connectivity index as shown in the following table.

	OSC	RA M&I	RR, R2, R3, R4, MH	R7, NC, TND, CC, CMX, DMX	CH
Connectivity Index *(Minimum Required)*	n/a	1.3	1.4	1.5	n/a

2. Variations in the connectivity requirement may be considered on a case-by-case basis by the Administrator based on the factors that follow. The Administrator may award a connectivity index bonus if it is determined that more than 60 percent of any "side" of a development (four sides total) faces impracticalities for connectivity to adjacent properties due to the presence of controlled-access highways, railroad rights-of-way, stream buffers, topographical conditions (pre-development slopes of 25 percent or greater) or existing developments that have not provided street stub-outs for connection purposes.

B. Street Layout

The street layout in any development shall conform to the arrangement, width and location of public streets indicated on the regulating Thoroughfare Plan and Collector Street Plan for the area. Streets not indicated on that plan shall be designed and located to:

1. Connect to existing and proposed streets in adjacent developments wherever possible as determined by the Administrator;

2. Relate to the topography;

3. Preserve natural features such as streams and tree growth;

4. Provide for adequate public safety and convenience.

5. Where land is subdivided into larger parcels than ordinary building lots, such parcels shall be so arranged as to allow for the opening of future streets and logical further resubdivision.

C. Block Length

Zoning Districts:	RR, R2, R3	R4, R7, NC, CMX, CC DMX, CH, TND, MH
Maximum Block Length	1,200 feet	800 feet
Average Block Length	800 feet (max.)	600 feet (max.)

1. On one-way local streets (see cross-section 9.4.D), where on-street parking is allowed, blocks shall be no longer than 300 feet or they shall provide at least every 200 feet areas of 40 feet in length where no parking is allowed. These areas are to be used for emergency access staging.

2. **Pedestrian Path:** Blocks longer than 800 feet may be required to include a pedestrian pathway across the center of the long side of the block. The path shall have at least a 20-foot easement with a minimum 6-foot wide pathway.

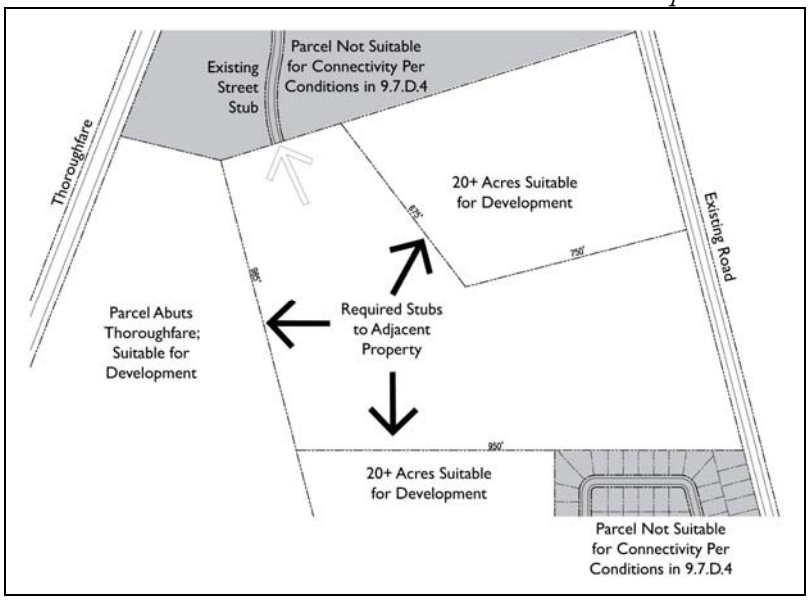
3. **Exceptions:** OSC, RA and M&I Districts are exempt from the block length provisions of this subsection.

D. Required Stubs

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

2. The number of required street stubs to adjacent property is determined by calculating the cumulative linear feet of all property lines surrounding the proposed development contiguous with land that is suitable for development or redevelopment (as determined by the Administrator or an adopted land use plan); dividing by 1,200; and rounding up to the nearest whole number.

Example (see diagram below):
675' + 750' + 950' + 985' = 3160' /1200 = 2.63 = 3 required stubs



3. The location of new required stub street shall be prioritized as follows:

a. Adjacent parcels 20 acres or greater.

b. Adjacent parcels that abut or are traversed by existing or proposed thoroughfares or collector streets.

c. Where any adopted transportation or land use plan recommends a street connection.

d. Landlocked properties.

4. Where the conditions listed in Section 9.7.E, Cul-de-Sacs (below) would prevent connections, the adjacent property shall not be included in the calculation of required stubs.

5. Stub streets and streets intended for extension during future phases shall be constructed to extend to the property line or as close to the line as practical. It shall be the responsibility of the second development to construct the connection to an existing stub street. Stub (or dead head) streets shall not exceed 150 feet in length without a paved turnaround (permanent or temporary).

E. Cul-de-Sacs

1. Cul-de-sacs shall not be used to avoid connection with an existing street, to avoid the extension of a thoroughfare or collector street, or to avoid connection to adjoining property. In general, cul-de-sacs shall not be used to provide access to development on the boundary of the development.

2. Cul-de-sacs are permitted where one or more of the following conditions offer no practical alternative for connectivity:

a. Topographical conditions (where pre-development slopes are 25 percent or greater)

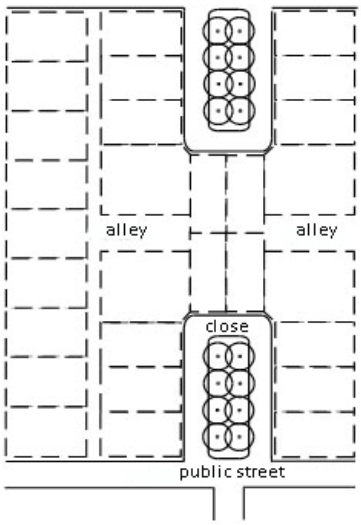
b. Environmental conditions

c. Property shape

d. Property accessibility

e. Land use relationships

3. Where practical, a close should be used in place of a cul-de-sac.



Close – an alternative to cul-de-sacs

4. Any permanent dead-end streets or cul-de-sac shall comply with the length limits shown in the following table.

Measurement shall be from the point where the centerline of the cul-de-sac street intersects with the centerline of the general circulation street to the center of the turnaround of the cul-de-sac.

	OSC	RA, RR, R2	R3, R4, R7, MH, NC,	CH, TND, CMX, CC DMX	M&I
Cul-de-Sac Length *(Maximum)*	800'	600'	300'	Not Allowed	500'

5. Where cul-de-sacs or dead end streets are unavoidable, developments shall incorporate provisions for pedestrian and bicycle connections to adjacent properties.

6. No system of multiple branching cul-de-sacs from a single access point is permitted.

9.8 Intersections

A. Streets shall be designed so as to intersect as nearly as possible at right angles.

B. No street shall intersect any other street at an angle of less than 60 degrees.

C. Streets crossing natural areas or streams shall cross at or as near to right angles as possible within limits of topographic conditions. Crossing of "blue line" channels shown on the current USGS Quad Map or USDA Soil Survey Map shall also be approved by the North Carolina Division of Water Quality.

D. Offset intersections are to be avoided.

E. Intersection Spacing:

1. Intersections with major thoroughfares shall be at least 800 feet apart (measured from centerline to centerline) where posted speeds are more than 35 mph; or as specified by NCDOT.

2. On major thoroughfares where posted speeds are 35 mph or less, intersections shall be spaced at least 400 feet.

3. On all other streets, a minimum intersection spacing of 200 feet shall be maintained for all other streets.

9.9 Access Management

Access management standards seek to preserve the traffic moving capacity of the Town's major streets, and in so doing, protect the investment of the taxpayer in the costs of road construction. The Town does not wish to allow unnecessary driveway cuts to neutralize the value of road construction dollars provided by Federal, State and local taxpayers. Frequent driveways allow for unpredictable stops and vehicle turning movements, causing increased congestion, and greater opportunities for traffic accidents.

Developments should minimize or eliminate curb cuts along arterials. Where possible, vehicular access should be shared with the adjacent properties and/or alleys or should be utilized for access. All non-residential lots, parcels, or any other division of land adjacent to an arterial roadway may be allowed driveways or street connections in accordance with the tables below.

A. Driveway Number and Spacing (thoroughfares only)

Parcel Frontage (feet)	Number of Driveways Allowed
< 500	1
501-1200	2
>1200	3

B. Driveway Distance from Intersections

Location guidelines for driveway access points along arterials are shown in the table below. If access to a lot, parcel, or any other lawful division of land is physically unobtainable under the provisions below, driveway access points are to be located the greatest distance possible from one another and from other public and private streets.

Street Type	Minimum Distance (feet)
Major Thoroughfare	300
Collector Street/Minor Thoroughfare	150
Local	50

C. Median Opening Spacing

Crossovers along median divided thoroughfares should be spaced no closer than 1,200 feet. For all other streets, the spacing should be no closer than 660 feet. In general, if the left turn lane storage requirements for adjacent intersections overlap, the minimum spacing shall be increased to provide adequate left turn lane storage in both directions. Where the *NC DOT Driveway Manual* or *Median Crossover Guide* conflicts, the stricter of the two standards should prevail.

9.10 Transportation Impact Analysis

The Transportation Impact Analysis (TIA) is a specialized study that evaluates the effects of a development's traffic on the surrounding transportation infrastructure. It is an essential part of the development review process to assist developers and government agencies in making land use decisions involving annexations, subdivisions, rezonings, special land uses, and other development reviews. The TIA helps identify where the development may have a significant impact on safety, traffic and transportation operations, and provides a means for the developer and government agencies to mitigate these impacts. Ultimately, the TIA can be used to evaluate whether the scale of development is appropriate for a particular site and what improvements may be necessary, on and off the site, to provide safe and efficient access and traffic flow.

Trip Generation:
The sum of the number of inbound and outbound vehicle trips that are expected for the type and size of the proposed land use. For purposes of determining the requirement to submit a TIA, adjustments such as modal split, pass-by trips, and internal capture rates will be allowed to reduce the site traffic calculation.

Note: *The following developments typically meet or exceed the 3,000 vehicles per day threshold:*
- *55,000 sf Retail*
- *300 Single family homes*
- *250,000 sf Office*
- *400,000 sf Industrial*
- *350 room Hotel*

A. A TIA shall be required for a rezoning, subdivision plan, site plan, conditional use permit, certificate of zoning compliance, or preliminary plat for developments and/or their subsequent phases with an estimated trip generation of 3,000 vehicles per day or greater during an average weekday based on a five day national average as defined in the ITE Trip Generation Manual.

B. A traffic impact analysis report shall address the impact of projected horizon year (two years after build-out by phase or entire development as appropriate) traffic volumes. It shall identify the methodology used to evaluate the impact. The weekday peak hour impact shall be evaluated as well as the Saturday peak hour for those uses exhibiting high levels of weekend traffic generation.

C. Based on the findings of the analysis, if a proposed development does not meet the applicable service level standards, the applicant shall be required to upgrade the facilities in accordance with the adopted level of service program. Mitigation measures may involve strategies other than roadway construction or other physical improvements such as changes to traffic signal timing or phasing, and transportation management strategies.

D. **Thresholds for Mitigation:** The Town requires consideration of roadway and/or operational improvements when the proposed development increases the intersection Volume-to-Capacity Ratio (V/C) beyond the thresholds indicated in the table below. The Town evaluates the impacts of proposed development at intersections (primarily under existing year conditions) based on the increase in V/C ratio as a result of the

projected site traffic. This increase is determined by comparing the V/C ratio under existing development conditions and proposed development conditions. For the purposes of this comparison, all non-signalized intersections are analyzed as signalized intersections.

Existing V/C	Allowable Increase in V/C By Development
0.00 – 0.60	0.10
0.61 – 0.70	0.07
0.71 – 0.80	0.05
0.81 – 0.90	0.03
0.91 – 1.00+	0.02

E. A TIA will vary in range and complexity depending on the type and size of the proposed development. The procedures for a TIA are part of the Major Site Plan Review as noted in Section 15.6.B. The TIA requirements as described in Section 16.11 may be modified by the Administrator.

Chapter 10. PARKING

10.1 Purpose and Intent

Parking lots, loading areas, and similar facilities are necessary elements in the urban environment. The purpose of this chapter is to provide for these necessary elements while:

- Ensuring adequate parking for future commercial and residential parking.
- Managing stormwater volume and velocity,
- Limiting surface pollutants,
- Reducing surface level heat and glare,
- Increasing the efficiency of the connecting street system, and
- Protecting the operations of the surrounding pedestrian and bicycle network.

To provide adequate service, the Town has enacted standards to regulate the construction, expansion, and renovation of such facilities.

10.2 Applicability

At the time of erection of any new building, permanent parking spaces shall be provided in all districts in the amount specified by this Chapter.

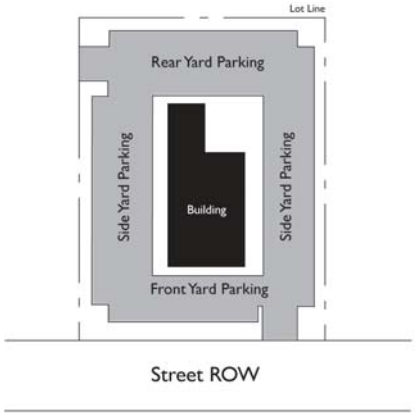
10.3 Off-Street Parking Area Design Specifications

Off-street parking areas should be designed to minimize breaks in the pedestrian network along public streets and create safe and comfortable passage for pedestrians. In order to accomplish this purpose, the following standards shall be met:

A. Permitted Off-Street Parking Locations by Building Type

	Civic	Institutional	House - Street	House - Alley	Townhouse	Apartment	Mixed-Use	Commercial	All Other Bldgs
OSC	V	V	V	–	–	–	–	–	–
RA	V	V	V	–	–	–	–	–	–
RR	III	III	III	–	–	–	–	–	–
R2	III	III	III	–	–	–	–	–	–
R3	II	II	III	II	–	–	–	–	–
R4	II	II	III	II	–	–	–	–	–
R7	II	II	III	II	II	II	II	–	–
NC	II	II	III	II	II	II	II	II	–
CMX	II	II	III	II	II	II	II	IV	–
CC	II	II	III	II	II	II	II	IV	–
DMX	I	I	–	–	I	I	I	I	–
CH	V	V	V	V	V	V	V	V	V
M&I	V	V	–	–	–	–	–	V	V
MH	III	III	III	–	–	–	–	–	–
TND	II	II	III	II	II	II	II	II	–

I Rear Yard Only
II Side and Rear Yards Only
III Yard Limited to Prepared Surfaces Only
IV Front Yard Limited to Two Rows Only *(one drive aisle with two bays)*
V Unrestricted *(For properties in the GO refer to section 2.17)*



Off-street parking locations

B. Parking Area Location: Parking lots and parking structures as stand-alone uses in the NC, CMX, CC, DMX or TND districts shall not abut intersections, pedestrian-oriented (i.e, streets with ground floor commercial uses) streets, or civic buildings; be adjacent to squares or parks; or occupy lots which terminate a vista (i.e., the view at the end of a street/corridor).

C. Landscaping & Curbing/Bioretention: Landscaping shall be provided in accordance with Section 8.11, Parking Lot Landscaping.

D. Sidewalk Corridors: Parking Areas shall be designed to allow pedestrians to safely move from their vehicles to the building. Sidewalk corridors shall be provided within the parking area and/or along the perimeter to provide safe building access for pedestrians.

E. Connectivity: Adjoining parking lots serving non-residential buildings shall be interconnected except where topographic conditions prohibit a feasible connection.

F. Circulation and Maneuvering:

1. Off-street parking areas shall be designed to facilitate adequate movement and access by sanitation, emergency, utility, and other public service vehicles without posing a danger to pedestrians or impeding the function of the parking area.

2. Except for single-family dwellings with separated parking areas and driveways, parking and maneuvering areas shall be arranged to allow vehicles to enter and leave the premises or parking areas in a forward motion. When more than two required spaces are provided in a single parking area, then entering and leaving in a forward motion is required.

G. Encroachment: Off-street parking areas shall be designed so that parked vehicles do not encroach upon or extend onto public rights-of-way or sidewalks; or strike against or damage any wall, vegetation, utility, or other structures.

H. Disabled Parking: Disabled parking shall be provided in accordance with the North Carolina Accessibility Code and federal ADA standards.

I. Parking Area Lighting: Parking lots shall be lighted in such a manner as to provide adequate lighting per standards of Chapter 11, Lighting.

10.4 General Parking Requirements

A. Parking Ratios

Use Type	Auto Parking Spaces	Bicycle Parking Spaces *(b)*
	Minimum Required *(a)*	
Residential	1 per bedroom up to 2 per unit	1/20 auto spaces *(c)*
Secondary Dwelling	1 space in addition to spaces for primary dwelling	N/A
Lodging	1 per room or suite	1/50 auto spaces
Office/Service Uses	2 per 1000 sq ft	1/20 auto spaces
Retail Uses	2 per 1000 sq ft	1/20 auto spaces
Restaurants	1 per 4 seats	1/20 auto spaces
Entertainment/ Recreation Uses	1 per 1000 sq ft	1/20 auto spaces
Theaters	1 per 3 seats	1/20 auto spaces
Manufacturing/ Wholesale/Storage	.25 per 1000 sq ft of non-office space	1/50 auto spaces
Civic/Institutional (Schools)	2 per 1000 sq ft	1/20 auto spaces
Civic/Institutional (Non-Assembly Uses, e.g. Hospital, Public Safety Station)	2 per 1000 sq ft	1/20 auto spaces
Civic/Institutional Uses (Assembly Uses Only, e.g., Religious Institutions)	1 per 4 seats (If benches or pews are used then the standard shall be measured as 1 per 6 ft)	1/20 auto spaces
Infrastructure	2 per 1000 sq ft	1/50 auto spaces

(a) All square footage is in gross square feet.

(b) Required bicycle parking spaces are based on 1 bicycle parking space per the indicated number of auto parking spaces provided. A single "inverted U" bicycle parking rack will count as two bicycle parking spaces. The maximum required bicycle spaces shall be 20, equivalent to 10 racks. The minimum required shall be two spaces or one rack.

(c) Bicycle parking is only required for multi-family dwellings of more than 4 units/building

B. Exemptions and Adjustments

1. **DMX:** Developments in the DMX District are expected to provide parking under the requirements of this Chapter or pay a fee in lieu of the required improvements.

2. **On-Street Parking:** Where parking on-street is permitted, the on-street spaces directly along a parcel's frontage for any use except a single-family dwelling may count toward the minimum parking requirement.

3. **Housing Services for the Elderly:** The Board of Commissioners may authorize a reduction in off-street parking requirements for multi-family dwellings that provide Housing Services to the Elderly (including duplexes and multi-family buildings of four or more units) to no less than three off-street parking spaces for each four dwelling units or fraction thereof: Should a change of use occur such that the building is no longer providing Housing Services for the Elderly as the primary use, parking requirements shall meet the minimum ratio for residential uses as required in the table above (Section 10.4.A).

4. **Tree Preservation:** The minimum number of parking spaces required may be adjusted by the Administrator when it has been determined that the reductions are necessary to preserve a healthy tree or trees (with a 12 inch or greater diameter at breast height) from being damaged or removed, and where the site plan provides for the retention of said tree or trees. (See Chapter 8.)

C. Shared / Combined Parking

The parking spaces required for one use may be used to satisfy the parking requirements for a second use on the same zoning lot, subject to certification by the Administrator that such joint usage of parking complies with the following:

1. The peak usage of the parking facility by one use will be at night or on Sundays (such as with theaters, assembly halls, or churches), and the peak usage of the parking facility by the second use will be at other times; or,

2. The second use is an accessory use to the first use, such as restaurants and meeting rooms to hotels and motels.

3. The joint use of shared off-street parking between two uses may be made by contract between two or more adjacent property owners.

D. Parking Space Dimensions

1. Parking space dimensions (other than those designed for the disabled) shall be a minimum of 18 feet long and 9 feet wide.

2. Parallel parking space dimensions shall be a minimum of 20 feet by 8 feet (20 by 7 feet may be used in constrained conditions or on residential streets). The dimension is measured from the face of the curb and may include the gutter.

E. Driveway Widths for Parking Lots

Driveways for parking lots shall be a minimum of 12 feet in width for one-way traffic and 24 feet in width for two-way traffic. Driveway widths shall not exceed 24 feet, except as required by the Town of Wendell or the North Carolina Department of Transportation (NCDOT).

F. Bicycle Parking

Bicycle parking is required to encourage the use of bicycles for personal transportation and to provide for bicycle access to employment, retail, and other destinations in Wendell.

1. **Required Racks:** Where bicycle racks are used, "Inverted U" type racks or other racks that support the bicycle at two points on the bicycle frame are required.

"Inverted U" bicycle rack

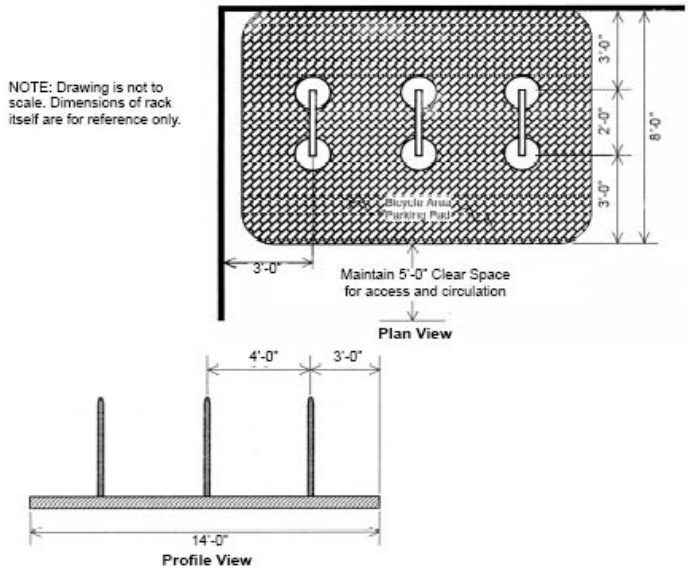
2. **Rack Siting and Dimensions:**

   a. Racks shall be secured to the ground on a hard surface such as concrete, asphalt or unit pavers.

   b. Each bicycle parking space shall provide 6 feet by 2 feet in area per bicycle plus the area needed for access.

   c. Bicycle parking shall be located no closer than 3 feet from any wall to provide adequate space for access and maneuvering.

Minimum bicycle rack area dimensions



d. At least 4 feet between parallel racks shall be provided for access.

e. Bicycle racks installed on sidewalks should provide for a clear, unobstructed width of at least 5 feet for pedestrians and should be installed parallel to and at least 3 feet from the face of curb.

f. Bicycle racks shall be placed a minimum of 4 feet from existing street furniture (i.e. mailboxes, light poles, benches) and be no closer than 12 feet from the edge of fire hydrants.

g. Racks should be placed along a major building approach line and clearly visible from the approach and no more than 50 feet from building entrances. Rack placement should allow for visual monitoring by people within the building and/or people entering the building.

h. If required bicycle parking is not visible from the street or main building entrance, a sign shall be posted at the main entrance indicating the location of the parking.

i. Uses with several major, actively used entrances shall locate a portion of the required bicycle parking at each entrance.

3. **Shared Bicycle Parking:** Any property owner required to have bicycle parking may elect to establish shared bicycle parking with any other property owner within the same block to meet the combined requirements.

G. Satellite Parking

Satellite parking may be permitted, subject to certification by the Administrator that the following requirements have been met:

1. The use being served by the off-site parking shall be a permitted principal use, as established in Chapter 2, in the zoning districts within which the lot containing such parking is located;

2. The off-site parking spaces shall be located within 500 feet walking distance, and accessible by sidewalks or other designated safe walkways, of a public entrance to the structure or zoning lot containing the use for which such spaces are required;

3. The continued availability of off-site parking spaces necessary to meet the requirements of this section shall be ensured by an appropriate condition that the continued validity of the zoning compliance or special use permit shall be dependent upon the permit holder's continued ability to provide the requisite number of parking spaces.

H. Structured Parking

1. Where an above-ground parking structure fronts a public street, it shall be screened in such a way that cars are not visible from the street. The ground level of a parking structure should be wrapped by retail, office or some other active use along the primary façade, at least.

2. Along pedestrian oriented streets, parking structure façades shall be treated with high quality materials and given vertical articulation and emphasis compatible with the principle structure. The façade shall be designed to visually screen cars.

3. Pedestrian entries shall be clearly visible. The vertical circulation should not be located in the center of the structure so that it is difficult to locate.

4. The location of off-street bicycle parking spaces in parking structures is highly encouraged. Where bicycle parking is located in a parking structure, it shall be located on the level closest to the street and/or a primary building entrance.

I. Use of Parking Spaces

1. Required parking areas shall be available for the parking of operable vehicles of residents, customers and employees, and shall not be used for

the storage of vehicles or materials, or for the parking of vehicles used for loading or unloading, or in conducting the use.

J. Circulation Drives: A one-way circulation drive may be permitted around the front of the building but may not encroach into the front setback or any required landscape area. If provided, this drive shall be designed to be the minimal width required (not to exceed 10 feet in width). See 10.4E for drive widths in parking lots.

Circulation drives, if provided, should be minimized.

K. Surfacing

All vehicle accommodation area surfacing shall be constructed in accordance with the following:

1. **Residential Parking Areas:** Parking for single family residences shall be on prepared surfaces only. Prepared surfaces include concrete, asphalt, brick, gravel, or other similar materials, but shall not include landscaped areas or dirt. Parking areas must be properly prepared and maintained, as determined by the Administrator. No more than 25 percent of the yard or the width or two parking spaces (20 feet), whichever is less, may be used for motor vehicle parking. This provision shall apply to all existing development, with the exception of driveways, and all new development within the corporate limits of the Town.

2. **Porous Paving Permitted:** The Administrator may permit and/or require that porous paving materials be substituted for paved surfaces in some portion of a vehicular surface area where it finds it is necessary to protect the root system of an existing tree or trees from damage or reduce the amount of impervious surface.

3. **Overflow Parking:** Off-street areas used for special event parking (to accommodate occasional overflow volumes) may be constructed of any dust-free compacted, pervious ground cover. The owner of the property shall be responsible for the maintenance of such parking areas in a clean and dust-free condition. Grass and mulch are examples of acceptable pervious ground cover.

4. Pervious Paving Required

When parking areas exceed the minimum parking requirements a portion of the excess spaces (as detailed in the table below) shall be constructed using a pervious technique approved by the Administrator including but not limited to pervious pavers, pervious pavement, grass block, or grass with structural supports. It is the responsibility of the owner to maintain these parking areas as pervious.

Excess Parking Provided	Required Pervious Paving
> 150-200% of minimum required parking	20% of excess spaces up to 200%
> 200% of minimum required parking	All spaces in excess of 200% of minimum (in addition to the 20% required above)

Example: *A 60,000 square foot retail use is required to provide a minimum of two spaces per 1,000 square feet or 120 parking spaces. If the developer chooses to provide three parking spaces per 1,000 square feet or 180 spaces (150 percent of required minimum), then 36 of the spaces (20 percent) shall be constructed using a pervious paving technique.*

If the developer chooses to provide 4.5 spaces per 1000 square feet or 270 spaces, then all of the spaces in excess of 200% of the minimum spaces (120 spaces x 200% = 240 spaces; 270 – 240 = 30 spaces); PLUS 20% of the spaces up to 200% (240 x 20% = 48 spaces + 30 spaces = 78 spaces) shall be constructed using a pervious paving technique.

Pervious pavers and other pervious paving techniques allow stormwater to infiltrate into the ground below.

5. **Exceptions to Paved Parking:** The following situations are exempted from the requirements of this Section:

   a. An overflow parking lot used only for occasional use (Use that occurs on two or fewer days per week) or is temporary in nature (not exceeding 24 months).

   b. Whenever a proposed development involves only one of the following:

      i. an accessory structure, or,

      ii. a change in use which will not increase the number of required parking spaces by more than 25 percent and the existing parking lot is not paved.

   c. The Administrator may exempt up to 75 percent of the required employee parking spaces in Manufacturing & Industrial (M&I) zoning district from the paving requirements of the Section. The exemption is based upon the following criteria: if the employee parking area is not visible, either by effective buffer screening or because of the grade of the site, from any public right-of-way or a residentially or commercially zoned property.

6. **Non-Paved Areas**

   Whenever a permanent parking area is exempt from the paved parking requirements or otherwise not required to be paved, the Administrator shall:

   a. Require that landscape aisles or spatial separations be provided where the Administrator finds it is desirable to ensure that the parking spaces will be readily identifiable to the users; and,

   b. Require the perimeter of the vehicle accommodation area encompassing the parking stalls and the side of any unpaved drive or aisle leading to said stalls, to be edged with brick, pressure treated timbers, or cast in place concrete, and anchored into place. Alternate borders may be considered on a case by case basis.

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Chapter 11. LIGHTING

11.1 Purpose and Intent

Exterior lighting shall be designed to provide the minimum lighting necessary to ensure adequate safety, night vision, and comfort and not create or cause excessive glare onto adjacent properties and public street rights-of-way.

Levels of illumination to achieve a certain function or desired effect should also reduce or eliminate the hazardous aspects and nuisance of glare and light spillage. All exterior lighting — with the exception of street lighting — that is used around buildings, recreation areas, parking lots, and signs, shall be designed to protect against the spillage of light to adjacent properties.

11.2 General Standards

All exterior lighting, except street lighting, shall conform to the following standards:

A. Unless otherwise specified in subsections below, the maximum light level shall be 0.5 maintained foot-candles at any property line in a residential district, or on a lot occupied by a dwelling, congregate care or congregate living structure, unless otherwise approved by the Administrator.

B. All other exterior lighting shall be designed and located such that the maximum illumination measured in foot-candles at the property line shall not exceed 1 foot-candle.

C. All floodlights shall be installed such that the fixture shall be aimed down at least 45 degrees from vertical. Flood lights and display lights shall be positioned such that any fixture located within 50 feet of a public street right-of-way is mounted and aimed perpendicular to the right-of-way, with a side-to-side horizontal aiming tolerance not to exceed 15 degrees from perpendicular to the right-of-way.

D. All flood lamps emitting 1,000 or more lumens shall be aimed at least 60 degrees down from horizontal or shielded such that the main beam from the light source is not visible from adjacent properties or the public street right-of-way.

E. All wall pack fixtures shall be cutoff fixtures. Wall packs on buildings may be used at entrances to a building to light unsafe areas. They are not intended to draw attention to the building or provide general building or site lighting.

F. Exterior lighting shall not shine directly into the yard or into the windows of an adjacent residence.

G. Exterior lighting shall be designed, located, and mounted at heights no greater than 18 feet above grade for pedestrian lights, or 37 feet above grade for street or parking area lights.

H. All outdoor and parking lot lighting fixtures, including: metal halide, mercury vapor, fluorescent, induction, white high-pressure sodium and color-improved high-pressure sodium lamps used in non-cutoff fixtures shall be coated with an internal white frosting inside the outer lamp envelope.

I. Floodlights shall be hooded or shielded so that the light source is not visible from any public right-of-way or adjacent property.

J. Flickering, rotating, or flashing lights, or search lights shall not be permitted.

11.3 Design Procedures and Illumination Levels

A. The maximum permitted points of illumination shall be measured from ground level in accordance to the standards expressed in this Chapter. The following standards shall be required of all exterior lighting with the exception of public street lighting which is exempt.

B. The quantity of fixtures to be provided shall be based upon the desired level of uniform illumination as established by the following table and current standards of the Illuminating Engineering Society of North America (IESNA). Fixture locations should be chosen to minimize the hazard of glare and to minimize conflicts with landscaping plans.

C. **Illumination Levels:** The level of illumination shall be based upon the primary activity in each area to be lighted as outlined below:

1. Open Parking Facilities

a. For lighted parking lots, the minimum light level shall be no less than 0.2 foot-candles (FC). All light levels are measured at ground level.

b. The minimum light level requirements vary depending on the use/task classification. The specified minimum FC value above 0.2 FC as outlined in the following table means that the lowest light level point or location in the parking lot must not exceed the minimum stated FC value in the table (i.e. 0.9 FC for large shopping centers). An average to minimum uniformity ratio of 4:1 means that the average FC to minimum FC ratio cannot be worse (higher) than 4:1. See the following table:

Light Levels for Open Outdoor Parking Facilities		
Use/Task	Maintained Foot-candles	Avg/Min Uniformity
(a) Parking, residential, multi-family: *Low to medium vehicular/pedestrian activity*	Range from 0.2 FC Min to 0.7 FC Min	4:1
(b) Parking, industrial/commercial/ institutional/municipal: *High activity, i.e. large shopping centers/fast food facilities, major athletic/civic cultural events*	0.9 FC Min	4:1
Medium/low activity, i.e. community shopping, office parks, hospitals, commuter lots, cultural/civic/ recreational events, residential neighborhood shopping, industrial employee parking, schools, church parking	Range from 0.2 FC Min to 0.7 FC Min	4:1

Source: IESNA 8th Edition Lighting Handbook with modifications

c. Illumination levels are horizontal on the task, e.g. at grade or area surface.

d. Uniformity ratios dictate that average illuminance values shall not exceed minimum values by more than the product of the minimum value and the specified ratio. For example, for commercial parking medium/low activity, the average foot-candles shall not be in excess of 2.8 (0.7 x 4).

e. The Administrator shall be responsible for determining the activity level of a development. Applicants may appeal this decision to the Planning Board.

2. Other Outdoor Areas

Light Levels for Other Outdoor Areas	
Use/Task	Maximum Illumination Allowed *(Average Foot-candles Maintained)**
Vehicular Canopies (Service Stations)**	
Approach	10
Gas Pump Island	30
Building Exteriors	3
Outdoor Display Areas (i.e., car lots)**	
Merchandise (lot)	30
Feature (front row)	5
Tractor Trailer Storage Areas	10
Public Entrances	5
Employee or Other Entrance	3
Vital Locations or Structures	6
Building Surroundings	2

** Foot-candles are for a "typical application" per IESNA 9th Edition Handbook. Adjustments may be required depending on specific circumstances with approval from the Administrator.*
*** Source: IESNA RP-2-01*

11.4 Additional Standards for Lighting in Parking Lots and Outdoor Areas

A. Other than flood lights and flood lamps, all outdoor area and parking lot lighting fixtures shall be cutoff fixtures or comply with subsection D below.

B. The mounting height of all exterior lighting, except outdoor sports field lighting and outdoor performance area lighting shall not exceed 37 feet above finished grade, unless approved by the Planning Board as having no adverse effect.

C. All metal halide fixtures equipped with a medium base socket must utilize either an internal refractive lens or a wide-body refractive globe as described in Chapter 19, Definitions.

D. Non-Cutoff fixtures:

1. Non-cutoff fixtures may be used when the maximum initial lumens generated by each fixture shall not exceed 9500 initial lamp lumens per fixture.

2. All metal halide, mercury vapor, fluorescent, induction, white high pressure sodium and color improved high pressure sodium lamps used in non-cutoff fixtures shall be coated with an internal white frosting inside the outer lamp envelope.

11.5 Additional Standards for Gas Station/Convenience Store Aprons and Canopies

Lighting under canopies shall be designed so as not to create glare off-site. Acceptable methods include one or more of the following:

A. Recessed fixture incorporating a lens cover that is either recessed or flush with the bottom surface (ceiling) of the vehicular canopy that provides a cutoff or shielded light distribution.

B. Surface mounted fixture incorporating a flat glass that provides a cutoff or shielded light distribution.

C. Other method approved by the Administrator.

D. Lights shall not be mounted on the top or sides of the canopy and the sides of the canopy shall not be externally illuminated.

11.6 Additional Standards for Lighting of Outdoor Display Areas (Car Lots, etc.)

A. Parking lot outdoor areas shall be illuminated in accordance with the requirements for subsection 11.3 above.

B. All light fixtures shall meet the IESNA definition of cutoff fixtures. Forward throw fixtures (type IV light distribution, as defined by the IESNA) are required within 25 feet of any public street right-of-way. Alternatively, directional fixtures (such as floodlights) may be used provided they shall be aimed in accordance with subsections 11.2.C of this Chapter.

C. The mounting height of outdoor display area fixtures shall not exceed 37 feet above finished grade.

11.7 Lighting of Buildings and Landscaping

A. Lighting fixtures shall be selected, located, aimed, and shielded so that direct illumination is focused exclusively on the building façade, plantings, and other intended site feature and away from adjoining properties and the public street right-of-way.

B. Maximum illumination on any vertical surface or angular roof shall not exceed 5.0 foot-candles average maintained.

C. To the extent practical and where possible, lighting fixtures shall be directed downward rather than upward.

D. When upward aiming lighting is used, placing low wattage fixtures with shields as needed close to the building to graze the façade is encouraged to minimize reflected light from windows and other surfaces that would be present from a flood design.

11.8 Outdoor Sports Fields

A. The mounting height of outdoor sports field lighting fixtures shall not exceed 80 feet from finished grade unless approved by the Planning Board as having no adverse effect or approved by the Town as part of a Special Use Permit.

B. All outdoor sports field and outdoor performance area lighting fixtures shall be equipped with a glare control package (louvers, shields, or similar devices).

C. The fixtures must be aimed so that their beams are directed and fall within the primary playing or performance area.

D. Non-conforming fixtures lighting sports fields may be replaced or otherwise changed on an individual/small cluster basis with new non-conforming fixtures. However, when all the fixtures are upgraded or otherwise changed, the fixtures must be brought into compliance with the requirements of this Chapter.

E. The hours of operation for the lighting system for any game or event shall not exceed one hour after the end of the event.

11.9 Sign Lighting

Lighting fixtures illuminating signs shall be aimed and shielded so that direct illumination is focused exclusively on the sign. Top down mounting of light fixtures is required where feasible.

11.10 Street Lighting

A. Street lighting shall be placed on all streets by the developer to allow for the safe use of streets by both cars and pedestrians. All street lighting shall be placed in accordance with the following minimum design standards:

1. Minimum average street light spacing:

	OSC	RA	RR, R2, R3, R4, MH	R7, TND, NC, CMX, CC, DMX	CH, M&I
Minimum Average Street Light Spacing	n/a	n/a	300 ft	150 ft (pedestrian-scaled)	300 ft

2. Lighting shall be placed at street intersections and is preferred at street curves.

3. Pedestrian-scaled lighting (no taller than 18 feet) should be prioritized over automobile lighting. Lighting should be placed in a manner to limit the casting of shadows on sidewalks.

4. All lighting shall utilize a cutoff fixture. Where buildings are close to the street (less than 15 feet from the right-of-way), full cutoff fixtures are required to limit glare and light spillage on upper levels.

B. Alleys are excluded from the spacing and lighting requirements of this Chapter.

11.11 Walkways, Bikeways/Greenways and Parks (Sections to be lighted only)

Walkway, pathway or ground areas that are to be lighted shall be illuminated to a level of at least 0.2 and no more than 0.5 average horizontal maintained foot-candles.

11.12 Lighting Plan Requirements

See Chapter 16, Development Plan Requirements

11.13 Nonconformities

See Chapter 13, Nonconformities

11.14 Exemptions

A. Lighting of the United States of America or State of North Carolina flags and other non-commercial flags expressing constitutionally protected speech. Current official flags of the United States of America, State of North Carolina, County of Wake, and Town of Wendell are permitted by right. Whenever these flags are used, they should follow the Federal Flag Code whenever possible. The Federal Flag Code was established by Congress on July 7, 1976 – Public Law 94-344, 94th Congress, S.J. Res 49.

B. Circus, fair, carnival, or other Board of Commissioners recognized civic or community event.

C. Construction and emergency lighting are exempt from the provisions of this Chapter provided said lighting is temporary and is discontinued immediately upon completion of the construction work or abatement of the emergency necessitating said lighting.

D. Underwater lighting used for illumination of swimming pools and fountains is exempt from shielding standards.

E. Holiday decorations lighting (i.e. Christmas trees and lighting).

Chapter 12. SIGNS

12.1 General Purpose and Intent

It is the purpose of this Chapter to permit signs of a commercial nature in districts which have appropriate uses and to regulate the size and placement of signs intended to be seen from a public right-of-way in the interest of public safety and general welfare. This Chapter shall serve the following purposes:

- To preserve Wendell as a community that is attractive to business;
- To encourage the effective use of signs as a means of communication in the Town;
- To enhance and maintain the pleasing look of the Town, which attracts to the Town major events and regional and statewide interest;
- To improve pedestrian and traffic safety;
- To minimize the possible adverse effects of signs on nearby public and private property; and
- To implement relevant provisions of the Town's Comprehensive Plan.

Additionally, this Chapter intends to fulfill Principle 5 of the *Town Plan of Wendell's* Statement of General Principles: "Promote Wendell's attractiveness to business and people of all walks of life."

12.2 Applicability

A. All signs within the jurisdictional area shall be covered by these regulations and shall be erected, constructed, or maintained in accordance with the provisions of this Chapter.

B. Except as otherwise provided, no sign shall be erected, altered, constructed, moved, converted or enlarged except in accordance with the provisions of this chapter and pursuant to issuance of a Sign Permit. No Sign Permit shall be issued unless plans and supporting information have been submitted to clearly demonstrate that the sign will conform to all applicable requirements of this Chapter, or to clearly demonstrate that the sign is exempt from issuance of a Sign Permit.

C. Notwithstanding the above, changing or replacing the permanent copy of an existing lawful sign shall not require a permit, provided the copy does not change the nature of the sign so as to render it in violation of this ordinance.

12.3 General Provisions

A. The scale of the sign(s) should be appropriate for the building on which they are placed. Signs should reflect the proportional and dimensional relationships of the structure.

B. Signs should not obscure building elements such as windows, cornices, or decorative details and should be integrated with the design of the building.

C. Any structurally unsafe sign that endangers the public safety shall be immediately removed.

D. In no way shall a sign hinder or obstruct visibility of the right-of-way, either at intersections or points of ingress or egress from parking lots, or be located in a sight triangle.

E. Signage on buildings should be pedestrian-oriented in pedestrian-oriented areas (e.g. Downtown Wendell and other mixed-use areas) as well as near entrances.

F. Overhead signs shall be placed so as not to be easily reached by pedestrian traffic. The bottom of the sign shall be located a minimum of 8 feet above grade immediately under the sign, if the sign is within 15 feet of the edge of the street right-of-way.

G. Illumination devices for signs such as, but not limited to, flood or spot lights shall be so placed and so shielded as to prevent the rays of illumination from being cast on neighboring buildings or vehicles approaching from either direction.

H. No non-governmental sign shall be attached to or painted on power poles, traffic signs or other objects not intended to support a sign.

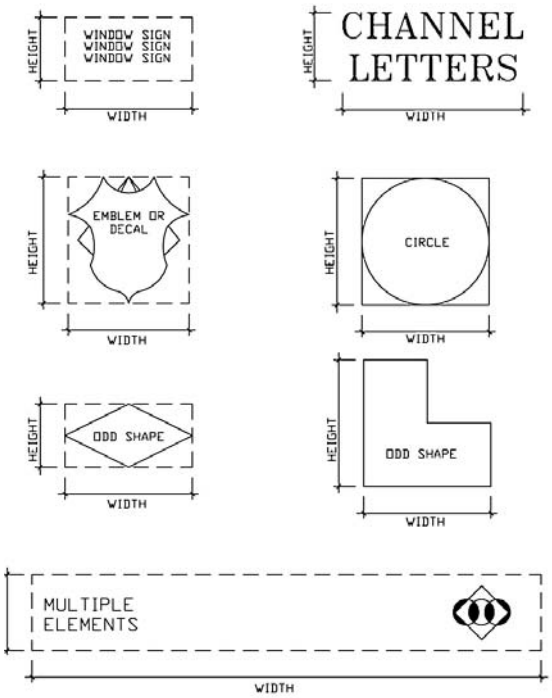
I. No signs shall be permanently erected within the public right-of-way, except that signs for buildings permitted to have 0-foot setbacks may over hang the right-of-way with approval from NCDOT on State-maintained roads. Temporary signs, such as sandwich board signs, may be allowed in the right-of-way consistent with the regulations in this Chapter and/or approval by the Administrator.

12.4 Computation of Signage Area

The area of a sign face (which is also the sign area of a wall sign or other sign with only one face) shall be computed by means of the smallest rectangle that will encompass the extreme limits of the writing, representation, emblem or other display, together with any material or color forming an integral part of the background of the display or used to differentiate the sign from the backdrop or structure against which it is placed, but not including any supporting framework, base, bracing or decorative fence or wall when

such fence or wall otherwise meets the regulations of this chapter and is clearly incidental to the display itself.

For a single wall on a single-occupant building, all pieces of information or other graphic representations on that wall shall be measured as though part of one sign, encompassed within one rectangle, which may not exceed the permitted total wall area to which the sign is affixed. For a single wall on a multi-occupant building, the area of signs shall be computed using these principles and each individual sign shall not exceed the permitted total wall area to which the sign(s) is affixed.



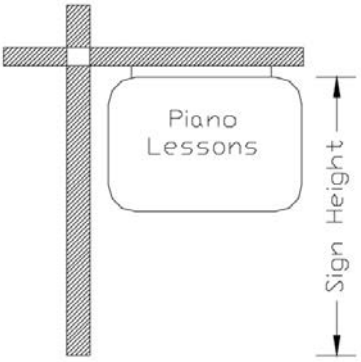
Where the sign faces of a double-faced sign are parallel or the interior angle formed by the faces is 60 degrees or less, only one display face shall be measured in computing sign area. If the two faces of a double-faced sign area of unequal area, the area of the sign shall be the area of the larger face. In all other cases, the areas of all faces of a multi-faced sign shall be added together to compute the area of the sign.

12.5 Computation of Sign Height

The maximum height shall be as measured from street grade or the sidewalk (where one exists), whichever is less.

12.6 Signage Types & Requirements

A. Suspended Shingle Post Signs



1. All suspended Shingle Post Signs shall be located behind the street right-of-way and no portion shall overhang the street right-of-way.

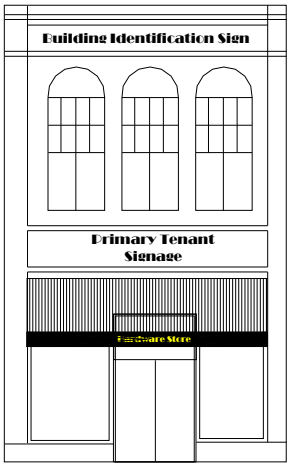
2. Suspended Shingle Post Signs shall not be internally illuminated.

3. Suspended Shingle Post Signs and their supporting posts shall be of a color and material which are similar or complimentary to those of the structure housing the subject establishment.

B. Wall Signs

1. The maximum permitted aggregate area of Wall Signs includes the area of any windows or doorways.

2. The preferred location for Wall Signs is between the first floor window and window sill of second floor, or on a sign frieze area of the building if original to the building. (Exception: Building identification which is an integral part of the building's design and architectural character shall not be considered a sign for the purposes of this Standard.)



3. **Signs on Windows and Doors:** Signage posted on windows and doors shall not exceed 25 percent of the window/door.

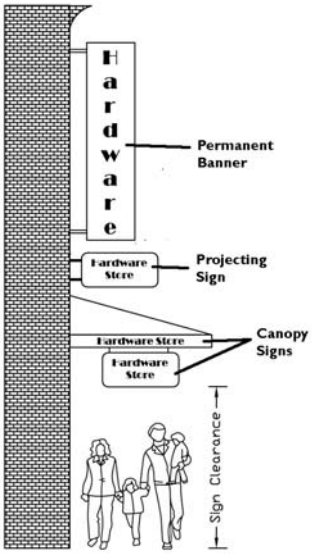
4. Except awning signs, no Wall Sign shall project more than 12 inches from the building wall. Further, no Wall Sign or its supporting structure shall cover any window or part of a window, nor shall it extend beyond the highest point of a roofline, parapet, or eave line.

5. More than one wall sign may be erected provided the total surface area regulation is not exceeded

6. Principal building walls and service station canopies may have signage on all faces which front on a public street.

7. Signs on awnings shall be considered Wall Signs. **Maximum Awning Sign Area:** 50 percent of Awning area

C. Canopy Signs



1. If suspended from a canopy, the principal use sign must be at least 8 feet above the sidewalk level.

   i. **Maximum Dimensions:**
   Height: 16 inches
   Width: 40 inches

   ii. **Sign Clearance:** 8 feet

D. Projecting Signs

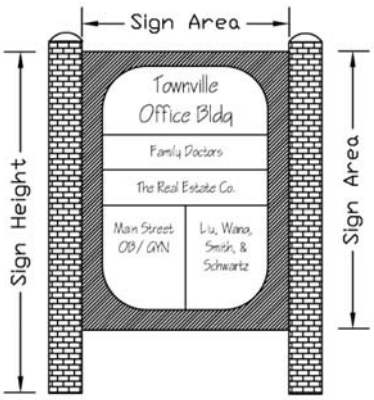
1. **Minimum Width of Façade:** 20 feet (except in the DMX District)

2. **Maximum Height:** 8 feet (Sign may not extend above the soffit, parapet, or eave line, as appropriate, of the building to which it is attached.)

3. **Maximum Area:** 16 square feet per side

4. **Maximum Projection from Wall:** 5 feet

E. Monument Signs



1. Only buildings set back more than 25 feet from the right-of-way and having 100 feet or more of street frontage may use a Monument Sign.

2. All Monument Signs shall be located a minimum of 5 feet behind the street right-of-way.

3. No Monument Sign shall be located within 10 feet of a side property line or 20 feet from any right-of-way intersection.

4. A Suspended Shingle Post Sign may be substituted for a Monument Sign but shall meet all height and area requirements as provided.

5. Monument signs shall include a support or base (min. 1 ft in height) constructed of rock, brick, or other masonry material.

6. Development with over 200,000 square feet of retail commercial space and adjacent to a limited-access highway are allowed to exceed specified maximum height and area computations as recommended by the Administrator and subject to approval of the Board of Commissioners.

F. Decorative Flags:

1. **Maximum Number:** One flag for every 10 feet of linear building frontage.

12.7 Permitted Principal Use Signs

A. General Provisions

1. Each principal use sign shall require a sign permit and may require a building permit.

2. Principal use signs may be illuminated consistent with the provisions of this Chapter. (See Section 12.10, Illumination.)

B. Permitted Signs in Primarily Residential Districts (OSC, RA, RR, R2, R3, R4, R7, MH)

Permitted Sign Type(s)	Specific Applicability	Maximum Area	Maximum Height	Maximum Number
Suspended Shingle Post Sign	Home Occupation Uses Only	2 sq ft	5 ft	1
Monument	Neighborhood Entrances	36 sq ft per sign face	7 ft	2 per neighborhood entrance

C. Mixed-Use, Primarily Commercial, and Industrial Districts (NC, CMX, CC, DMX, CH, M&I) and Permitted Civic/Institutional Uses in any district.

Permitted Sign Type(s)	Specific Applicability	Maximum Area	Maximum Height	Maximum Number
Monument		36 sq ft per sign face	7 ft	1 per street frontage
***Wall, Canopy, or Projecting**	1 sq ft of signage per linear foot of building frontage/ tenant space	100 sq ft	n/a	n/a

**On corner lots, the secondary façade may receive an additional 1 sq ft of signage per linear foot of secondary building frontage/tenant space (100 sq ft maximum for the building/tenant space still applies).*

D. Temporary Signs Requiring a Permit

A temporary sign permit, obtained from the Administrator, shall be required for the following sign types. Signs enumerated below shall be located either behind a sidewalk or ditch line, or where neither is present, signs must be located at least 5 feet from the edge of pavement.

1. **Lighter-Than-Air Signs:** A lighter than air sign may be permitted on the premises of any given business up to two times per year for no longer than three consecutive calendar days per use. The sign shall be situated so that the height of the sign is directly proportional to the distances to the property lines, not to exceed 100 feet in height.

2. **Seasonal Farm Product Signs:** Off-premise signs advertising the seasonal sale of farm products may be permitted for a maximum period of 60 calendar days. Signs are not to exceed 3 square feet in size and are to be located on private property. No more than six signs will be allowed at any one time.

3. **Mobile Signs:** Signs mounted on a mobile framework, trailer, or other movable apparatus other than vehicles used for transporting are prohibited on a permanent basis. One mobile sign will be permitted on a temporary basis at grand openings, open houses or special events in any commercial or manufacturing district for a total of 40 calendar days in a calendar year and not to exceed 10 calendar days in any one period.

4. **Non-Profit Community and Civic Event Signs:** Such signs shall be mounted on the ground shall not exceed six per event and shall not exceed

32 square feet of sign area each. The event sponsor must secure the permission of the property owner to post the sign. Signs shall be permitted for no more than four events per calendar year with a maximum time period for each event of 10 calendar days.

5. **Banners and Pennants.** Banners and pennants may be displayed on a commercial building under the following conditions:

a. Only one banner may be displayed by each business at any time and shall be no greater than 32 square feet in area. Banners may be erected for 30 days at a time no more than four times per calendar year.

b. No banner and/or pennant may be displayed unless the commercial message contained in the banner relates to a specific, special promotion of limited duration.

c. No banner and/or pennant may be displayed or used as a general or ongoing advertisement of the business or its customary activities.

d. No banner and/or pennant may be displayed or used as a replacement for permanent signage.

e. The Administrator shall have the authority to order the removal of any banner and/or pennant that:

i. Is, or appears to be, out of date.

ii. Is, or appears to be deteriorated, or in a state of disrepair, wear, or neglect.

iii. Is, or appears to be, abandoned.

E. **All Other Temporary Signs:** All other temporary signs not enumerated in section 12.8 shall be limited by the standards herein and shall be erected for 10 days at a time no more than four times per year. If signs do not exceed 3 square feet in area, six signs will be allowed at any one time. If signs are located off premise, the permit applicant must secure the permission of the property owner to post the sign.

12.8 Signs Not Requiring a Permit

The following types of signs may be allowed in any district without a permit, subject to the specific provisions below. Signs enumerated below shall be located either behind a sidewalk or ditch line, or where neither is present, signs must be located at least 5 feet from the edge of pavement.

A. Any sign that is required by law.

B. **Business and/or House Number Signs.** Signs bearing only property numbers, post office box numbers, names of occupants, or other identification not having commercial connotations.

C. **Directional and Information Signs.** Signs erected and maintained by public agencies and governmental bodies.

D. **Bulletin Boards.** Churches, schools, community centers, and similar public and institutional uses may erect one sign or bulletin board not to exceed 12 square feet in area for the purpose of displaying the name of the institution and related information. Such signs shall be used as wall signs or shall be located a minimum of 12 feet from the street line and side lot lines. Where side yards are required, no such sign shall be erected in the side yards. Such signs may be indirectly illuminated.

E. **Construction Signs.** During the construction, repair, or alteration of a structure, temporary signs which denote builder, or other participants in the project, or which denote the name of the structure and its occupants-to-be may be placed within the required yard setbacks as ground, wall, or roof signs. The total area of such signs shall not exceed 32 square feet.

F. **Subdivision Advertising Signs.** Subdivision signs advertising the sale of lots or buildings within new subdivisions on which they are located are permitted provided:

1. They do not exceed 20 square feet;
2. They are non illuminated or indirectly illuminated;
3. Not more than one such sign may be erected at each major entrance to the subdivision;
4. They meet all requirements applicable to principal structures with respect to yard, setback, and height requirements;

5. Display of such signs shall be limited to a period of two years, unless the signs are of a permanent nature with advertising restricted to the name of the subdivision only, and are dedicated to and accepted by the county, a municipal government, or a lawfully-established homeowner, or community association responsible for the maintenance of commonly-owned properties of the development.

G. Governmental Flags, Banners, Signs, and Insignias. Flags of the United States, the State, the Town, foreign nations having diplomatic relations with the United States, and any other flag adopted or sanctioned by an elected legislative body of competent jurisdiction, provided that such a flag shall not exceed 60 square feet in area and shall not be flown from a safe and properly-installed pole, the top of which is more than 45 feet in height. All flags must be flown in accordance with protocol established by the Congress of the United States for the Stars and Stripes.

H. Temporary Political Signs.

1. Signs shall not be erected more than 45 calendar days prior to the election.

2. Signs shall be removed within five calendar days following election.

3. At the voting place, any number of political signs not to exceed 3 square feet each in size may be erected. Such signs shall not be placed 24 hours preceding the opening of the polls and shall be removed within 24 hours following the closing of the polls. The candidate shall be responsible for collecting the signs within 24 hours following the closing of the polls.

I. Holiday Decorations and Civic Event Signs. As part of customary holiday decorations and annual civic events, signs and decorations may be displayed so long as they are not placed in any public right-of-way and shall be displayed for a period of not more than 60 consecutive calendar days, or more than 30 calendar days following the holiday or event.

J. Real Estate Signs

1. Signs advertising the sale, rental or lease of the premises on which the sign is located, provided such signs do not exceed one sign per street frontage, and do not exceed 3 square feet in area per display surface for a residential premises.

2. For properties in excess of 1 acre, signs may not exceed 32 square feet of aggregate signage per street frontage. Signs are to be located a minimum of 10 feet off the right-of-way. The sign must be removed within 90 calendar days of the sale of the property.

3. Real estate signs are not to be located on any right-of-way.

4. Signs in residential districts may not be illuminated.

K. Realtor and Non-Realtor Open House Signs, Yard Sale Signs and Special Event Signs

1. **Authorized Time Period for Display:** Yard sale signs, realtor and non-realtor open house signs, and special event signs of recognized non-profit or charitable organizations shall only be displayed on or after 4 p.m. on the Friday before the yard sale, open house, or special event, whichever is applicable, and shall be removed no later than 7 p.m. on the Sunday of the weekend of the yard sale, open house, or special event, whichever is applicable.

2. **Size of Signs:** Yard sale signs, realtor and non-realtor open house signs, and special event signs shall not exceed 9 square feet in size, not including the device attaching the sign to the ground.

3. **Placement of Sign:** Yard sale signs, realtor and non-realtor open house signs, and special event signs shall not be placed on utility poles, stop signs, street signs, public right of ways, nailed to trees, or placed on private property without permission of the property owner, etc.

4. This policy does not authorize non-compliance with other provisions of this Chapter or with Section 4.6.B.7, Yard Sales, except as set forth in this policy.

L. Signs Inside a Building: Any sign inside a building, not attached to a window or door that is not legible from a distance of more than 3 feet beyond the lot line of the parcel on which such sign is located.

M. Ballpark Signage: Signage within ballfields and sports stadiums that is directed within the facility including, but not limited to, banners, fixed placards and scoreboards does not require a permit.

N. Memorial Signs & Date Blocks: Memorial signs or tablets, and names and construction dates of buildings when cut into any masonry surface, or inscribed on or otherwise affixed to a permanent metal plaque.

O. Sandwich Board Signs: Sandwich board signs may be placed on sidewalks in the NC, CC, CMX, or DMX districts provided they maintain clear pedestrian access a minimum of 3 feet in width and are removed each night after the business is closed. Neither face shall exceed 3 feet in width or 12 square feet in area. The chalk board must be located within 8 feet of a doorway or under the roof line. The chalk board frame shall be a non-reflective material or color.

P. Traffic Control Signs on Private Property: Signs directing and guiding traffic and parking on private property on which the signs are located, provided such signs are not internally or indirectly illuminated and do not exceed 4 square feet in sign area for each sign face. Exemptions to this area requirement are permitted only for signage erected in accordance with the Federal Highway Administration's *Manual for Uniform Traffic Control Devices* (MUTCD).

Q. Murals or Wall Art: Murals or similar wall art located on secondary buildings walls (not primary frontages) are permitted provided the total area of commercial copy does not exceed 10 percent of the total wall area.

12.9 Prohibited Signs

All signs not expressly permitted under this ordinance or exempt from regulation hereunder in accordance with this Chapter are prohibited. Such signs include but are not limited to:

A. Signs that Impact Traffic Safety: No sign shall be erected or continued that:

1. Obstructs the sight distance along a public right-of-way or at intersections;

2. Would tend by its location, color or nature to be confused with or obstruct the view of traffic signs or signals or would tend to be confused with a flashing light of an emergency vehicle; or

3. Uses admonitions such as "stop," "go," "slow," "danger" and the like which might be confused with traffic directional signals.

B. Flashing Signs: No flashing or intermittent illumination shall be permitted on any advertising sign or structure.

C. Animated, rotating or moving signs.

D. Permanent off premise signs.

E. Billboards

F. Pennants and strings of lights strung between poles, pillars or buildings unless they are from a recognized non-profit or charitable organization.

G. Signs on vehicles that are parked or placed in a stationary position.

H. Roof signs

I. Pole signs

12.10 Sign Illumination

A. All lighted signs shall have their lighting directed in such a manner as to illuminate only the face of the sign. If separate fixtures are used to illuminate a sign, lighting fixtures used to illuminate an outdoor advertising sign either shall be by directed ground lighting or mounted on the top of the sign, and shall comply with shielding requirements.

B. **Wall Signs:** Wall signs may be illuminated provided such signs shall be lighted from behind to silhouette letters and figures, or those utilizing floodlighting or other non-internally illuminated light sources shall be contained within a concealed fixture and angled so as to prevent a direct view of the light source from a public street or adjacent property.

C. **Time of Operation:** No sign within 100 linear feet of a pre-existing residential structure may be illuminated between the hours of midnight and 6 a.m. A residence shall be deemed "pre-existing" for purposes of this Chapter if it has a valid building permit in effect for construction of said structure or if construction of said structure was complete on or prior to the effective date of this provision.

D. All lighting shall be in conformance with Chapter 11, Lighting.

12.11 Maintenance and Upkeep of Signs

A. All signs shall be maintained in proper working order.

B. Lights and /or bulbs of illumination signs shall be replaced as needed. Burnt out, defective or missing bulbs shall be replaced within 10 working days following notification of the violation.

C. Signs that are broken, vandalized, torn, rotten, faded or otherwise become unsightly or fall into a state of disrepair shall be improved, removed, or replaced within 60 calendar days following notification of the violation.

D. Whenever a sign becomes structurally unsafe or endangers the safety of a building or the public safety the Administrator shall order the sign be made safe or removed. A period of 10 calendar days following receipt of the order by the person, firm, or corporation owning or using the sign shall be allowed for compliance.

E. **Abandoned signs.** Signs meeting the definition of obsolete shall be classified as abandoned. When the establishment to which a sign is related ceases or the building is vacated for more than 180 days, the sign shall be classified as obsolete. Signs classified as abandoned must be removed within 60 calendar days of

notification by the Town. Owners of property on which an abandoned sign is located shall be subject to authorized enforcement procedures should an abandoned sign fail to be removed within the allotted time.

12.12 Non-Conforming Signs

(see Chapter 13, Nonconformities)

12.13 Penalties for Violations

(see Chapter 18, Violations & Penalties)

Chapter 13. NONCONFORMITIES

13.1 Purpose and Applicability

The purpose of this section is to regulate and limit the continued existence of uses and structures established prior to the effective date of this Ordinance (or any subsequent amendment) that do not conform to this Ordinance. Any nonconformity created by a change in the classification of property or the text of these regulations shall also be regulated by the provisions of this section. The provisions of this section are intended to bring about eventual elimination and/or lessen their impact upon surrounding conforming uses to preserve the integrity of the area. Any expansion or further development of a nonconformity shall comply with the requirements of this Ordinance.

13.2 Summary Applicability Matrix

The following table summarizes the primary requirements that shall be met when there are changes to existing development and/or to nonconforming structures or uses. A ✓ indicates that compliance with all applicable standards is required.

	Ch. 5 Dimensional Standards	Ch. 5 Building Design	Ch. 8 Landscaping & Planting	Ch. 8 Parking Area Landscaping	Ch. 9 Sidewalks	Ch. 10 Parking	Ch. 11 Outdoor Lighting	Ch. 12 Signs
Parking Area Expansion								
12 or more spaces *(Sec. 13.8.A)*			✓	✓ *(a)*				
Expansion of ≥ 40% of paved area *(Sec. 13.9)*					✓ *(c)*			
Existing Development								
Expansion of nonconforming residential use *(Sec. 13.4.C)*	✓	✓						
Reconstruction of nonconforming principal structure (damage > 65% of assessed value) *(Sec. 13.4.H)*	✓	✓	✓	✓	✓	✓	✓	✓
Replacement of non-conforming manufactured home *(Sec. 13.5)*		✓						
Nonconforming vacant lot *(Sec. 13.3.A)*	✓							
Replacement, alteration of nonconforming signs *(Sec. 13.7)*								✓
Expansion of non-residential structure: >25% of total floor area *(Sec. 13.8.A)*		✓ *(a)*	✓ *(a)*	✓	✓	✓	✓	✓

(a) For expanded portion only; (b) non-residential structures only; (c) non-residential and multi-family uses only

13.3 Nonconforming Lots

A. Except as provided in subsections B and C below, a nonconforming vacant lot may be developed for any of the uses permitted by these regulations in the District in which it is located, provided that the use meets all applicable yard and setback requirements for the District in which the lot is located.

B. A nonconforming vacant lot shall not be developed if it can be combined with an adjoining lot owned by the same person on or after the effective date of these regulations in order to create a single lot. For the purposes of this section, "adjoining" shall be deemed to mean the sharing of one or more common lot lines and access to both lots can be provided by the same street without crossing that street.

C. A nonconforming lot may be developed if, at the effective date of this Ordinance the lot is nonconforming, the lot is located in (i) a subdivision that had received preliminary plat approval; or (ii) a subdivision in which had received final plat approval.

13.4 Nonconforming Uses and Structures

A. Nonconforming uses of land or structures, and nonconforming structures that contain nonconforming uses may continue only in accordance with the provisions of this section, but this section shall only apply to the extent these or such nonconformities fully and clearly meet the definition of "nonconforming use" in Chapter 19 of this Ordinance.

B. **Non-Residential Uses:** An existing nonconforming non-residential use may be enlarged or altered. Any such enlargement or alteration shall be in compliance with all yard requirements and other regulations of such structures as required in the specific District. Any occupation of additional lands beyond the boundaries of the lot(s) on which the nonconforming use is located is prohibited.

C. **Residential Uses:** An existing nonconforming residential use may be enlarged or altered. Any such enlargement or alteration shall be in compliance with all yard requirements and other regulations of such structures as required in the specific District.

D. Once a nonconforming use has been changed to a conforming use, it shall not revert or be used for any nonconforming use, except as provided for in Section 13.11.

E. If a nonconforming use is abandoned for 180 consecutive calendar days or more, the use shall not be allowed to be re-established, except in conformance with this chapter. All new uses subsequently established shall be conforming.

F. Maintenance and repairs necessary to keep a structure housing a nonconforming use in sound condition shall be permitted.

G. Should a nonconforming structure be destroyed by any means to an extent of more than 65 percent of its appraised value at time of destruction, it shall not be reconstructed except in conformity with the provisions of this Ordinance. The appraised value is the value recorded by the Wake County Tax Assessor's Office.

13.5 Nonconforming Manufactured Homes and Mobile Home Parks

A. A nonconforming manufactured home use as a principal residential structure may only be replaced in accordance with the design criteria found in Chapter 5 of this Ordinance.

B. A manufactured home may continue to be placed or replaced within a nonconforming manufactured home subdivision on previously platted lots or previously approved spaces, as well as make any necessary improvements to the subdivision infrastructure, but shall not be permitted to expand the area or number of units contained within the boundary of the subdivision.

13.6 Nonconforming Accessory Uses and Structures

A. A nonconforming accessory structure may be expanded only if the expansion does not increase the non-conforming condition of the structure.

B. No nonconforming residential accessory use or accessory structure shall continue after the principal use or structure is terminated by abandonment, damage, or destruction unless such accessory use or structure is made to conform to the standards for the zoning district in which it is located. No non-conforming accessory use or structure shall become or replace any terminated principal non-conforming use or structure.

13.7 Nonconforming Signs

A. Signs in existence as of July 27, 2010 may be considered non-conforming and will not be made to comply with the standards found in Chapter 12 unless the following conditions in this section are found to apply. Similarly signs on lots brought into the Town's extraterritorial jurisdiction will not be made to comply provided such signs are in existence on the date the property becomes part of the ETJ and the following conditions in this section are not applicable. These signs may be restored to their original condition and function if no enhancements as to the illumination or animation are added that were not

originally part of the sign and that no part of the sign prohibits motorist/pedestrian visibility and/or safety concerns.

B. Non-conforming signs requiring repair exceeding 100 percent of the original cost or which have been rendered unsafe may only be repaired or replaced in conformity with this Ordinance.

C. Nonconforming signs classified as abandoned shall not be allowed to remain. (See Chapter 12, Section 12.11.E, Abandoned Signs for more information.)

D. Signs requiring repair as mentioned in 13.7B shall be brought into conformity with this section within six months of the adoption of this Ordinance.

E. Nothing in this Chapter shall prevent the ordinary maintenance and repair of a nonconforming sign or replacement of a broken part of a nonconforming sign. The nonconforming condition of a sign shall not be increased or cause a previously conforming sign to become nonconforming.

F. If there is an expansion of the heated square footage of an existing business, or a change in use to an existing building (except multi-tenant buildings), and there were one or more on-premise non-conforming signs which advertised the former or current business or use, any new signs and all new sign faces for the new use or business must meet all sign requirements for the district.

13.8 Nonconforming Landscaping, Screening, and Lighting

A. If there is an expansion of the parking lot by 12 or more spaces, or an expansion to the heated square footage of an existing use by more than 25 percent of the total floor area, the lot shall comply with street yard, planting yard, and other landscaping requirements, per the provisions of Section 8.2.

B. Nonconforming Lighting

1. Any nonconforming lighting fixture lawfully in place or approved by the Town prior to the adoption of this Ordinance shall be exempt from these requirements. At the time that a non-conforming fixture, which was installed prior to the adoption of this Ordinance, is replaced, moved, upgraded, or otherwise changed, the fixture must be replaced by either:

a. The same type of fixture that emits an equal or less amount of lumens as the original fixture; allows the trespassing of an equal or less amount of light onto neighboring properties; and restricts uplighting to an equal or less amount than the original fixture.

Or

b. A fixture that is in compliance with this Ordinance.

2. Routine maintenance, including changing the lamp, ballast, starter, photo control, lens, and other required components, is permitted for all existing fixtures.

13.9 Nonconforming Street Frontages

For an existing non-residential or multi-family use, if there is an expansion to the heated square footage and/or to the paved areas which increases the total impervious area more than 40 percent, the lot shall fully comply with the sidewalk requirements of Chapter 9, Section 9.3.C, Sidewalks. This requirement shall not apply in the OSC, RA and RR zoning districts.

13.10 Nonconforming Plans

A. Any site specific plan (including but not limited to master plans, preliminary plats, final plats, conditional district plans, conditional use permit plans) for the development of property and/or construction of a building which has received final approval by the Town of Wendell for development and/or construction, but does not conform to this Ordinance, may be developed and/or constructed in accordance with the Ordinance, rules, and regulations, including any conditions imposed upon approval. Any plan approved prior to the adoption of this Ordinance, but which conforms to its provisions, shall be administered, interpreted, amended and implemented in accordance with the provisions of this Ordinance. For additional information, please refer to Chapter 15, Administration.

B. A property owner with an approved site specific plan as identified above may elect to develop such property and/or construct such building in accordance with the terms and provisions of this Ordinance and the rules and regulations upon which the plan was approved. The property owner shall notify the Administrator assigned to approve such plan. A property owner shall be notified in writing of additional required approvals or modifications which may be necessary in order for the plan to conform to the Ordinance.

C. Any amendment or modification to an approved site specific plan, which would have required approval pursuant to the Ordinance, the rule or regulation by which the plan was originally approved, shall be reviewed and considered in accordance with the terms and provisions of this Ordinance as if it were an amendment or modification to a plan originally approved under this Ordinance.

D. If an approved, non-conforming development has not shown continuous significant progress within 24 months of preliminary plat approval, it must be redesigned to meet current UDO standards, not withstanding any statutory requirements.

E. This section does not prohibit the exercise of any vested right established by common law, ordinance or statute.

13.11 Appeals and Modifications

A. The Board of Commissioners shall hear and decide appeals and modifications of nonconformities under this Chapter from any land owner provided the appeal does not involve the replacement of one nonconformity with another nonconformity.

B. The Board of Commissioners may only grant a change for a nonconforming use or replacement of a nonconforming structure which has been destroyed after having first held a public hearing and having determined that:

1. Said change will be more suitable and appropriate for the lot(s) on which it is located than the existing situation; and,

2. The proposed change will have a less harmful effect than the existing situation on the properties surrounding the lot(s) in question; and,

3. The decision to grant the change will be in harmony with the general purpose and intent of this Ordinance and will not be injurious to the neighborhood or otherwise be detrimental to the public welfare.

C. The Board of Commissioners, in granting such changes, may prescribe appropriate conditions and safeguards in conformity with this Ordinance. Violation of such conditions and safeguards when made a part of the terms upon which the change was granted, shall be deemed a violation of this Ordinance and shall be subject to enforcement provisions a prescribed per Chapter 18, Violations and Penalties.

Chapter 14. BOARDS & COMMISSIONS

14.1 Boards and Commissions Established

The following Boards and Commissions are hereby established:

- Planning Board
- Zoning Board of Adjustment
- Technical Review Committee

(The list above is not intended to serve as an all inclusive list of the Town's citizen boards, but rather those that are under the purview of the Town of Wendell Planning Department.)

14.2 Planning Board

The authority to establish a Planning Board for the Town of Wendell is granted under the authority of G.S. 160A-361 & 387.

A. Authority and Responsibility

The Planning Board shall have the following duties and responsibilities:

1. To review and make a recommendation on Text Amendments and Rezonings (including Conditional Districts).

2. To render opinions and make recommendations on all issues and petitions related to the Ordinance and other land use plans which may be adopted from time to time which require approval by the Board of Commissioners.

B. Membership and Terms of Office

1. The Planning Board shall consist of a total of nine members. In accordance with G.S. 160A-360, the total membership of the Planning Board shall be proportional to the population of residents of the Town of Wendell and residents in the ETJ area. Population shall be determined by best available U.S. Census/GIS Data.

2. Representatives from within the corporate limits shall be appointed by the Wendell Board of Commissioners. Representatives from the ETJ area shall be recommended by the Wendell Board of Commissioners to the Wake County Board of Commissioners for appointment. ETJ representatives shall be entitled to cast votes on all matters coming before the Planning Board.

3. In-town members shall be appointed for three-year staggered terms. ETJ representatives shall be appointed for a two-year term. A member may be reappointed for a consecutive term, but after two consecutive terms a member shall be ineligible for reappointment until one calendar year has elapsed from the date of the termination of his or her second term.

4. In the case of a vacancy occurring during a term, such vacancy shall be filled for the unexpired portion of such term. If the unexpired portion of a vacated position is equal to or less than one year, the applicant filling that term may be re-appointed for two additional three year terms. Otherwise, the applicant filling the position is only eligible for one additional three year term.

5. The Board of Commissioners shall appoint a Chairperson and Vice-chairperson to the Planning Board. The Chair and Vice-Chair shall serve one-year terms (July through June or until their replacement is appointed) and may be appointed to serve additional one-year terms. The Chair and Vice-Chair are able to vote in all instances unless a conflict of interest arises on a particular issue.

C. Application Process for Advisory Boards

1. The Town Clerk advertises opportunities for service at the beginning of each year. Interested citizens fill out applications for nomination deadline and return them to the Town Clerk. The Town Clerk enters all of the applications into a tracking table, which lists the names of citizens and the boards for which they wish to apply. This document is an internal document used by the Clerk's staff for tracking purposes. A letter is sent to applicants acknowledging receipt and thanking them for their application.

2. The Town Clerk fills out the advisory board vacancies chart, which lists boards with openings and the schedule for consideration of appointment by the Board of Commissioners. This chart is an internal document used by the Clerk's staff for tracking purposes.

3. Applicants will receive notification acknowledging receipt of their application and noting an approximate schedule of appointments by the Board of Commissioners.

4. Voting on advisory committee board appointments will be done by written ballot in conformance with the Rules of Procedure approved by the Board of Commissioners. Applicants must receive an affirmative vote from a majority of the Board members present and voting to be appointed. After each round of balloting, votes will be

counted to determine if sufficient votes have been received by candidates for appointment.

14.3 Board of Adjustment

The authority to establish a Zoning Board of Adjustment for the Town of Wendell is granted under the authority of G.S. 160A-388.

A. Authority and Responsibility

The Zoning Board of Adjustment shall have the following duties and responsibilities:

1. **Administrative review:** To hear and decide any appeal from and review any order, requirement, decision, or determination made by the Administrator or the Technical Review Committee.

2. **Variances:** To authorize on appeal any variances from the terms of this Ordinance as will not be contrary to the public interest where, owning to special conditions, a literal enforcement of the provisions of this Ordinance would result in unnecessary hardship. In granting any variance, the Board of Adjustment may prescribe appropriate conditions and safeguards in conformity with this Ordinance.

B. Membership and Terms of Office

1. The Board of Adjustment shall consist of seven members. Five members shall reside within the Town and shall be appointed by the Town Board of Commissioners. Upon recommendation by the Board of Commissioners, the Wake County Board of Commissioners shall appoint two members, who reside in the extraterritorial jurisdiction area. If the Wake County Board of Commissioners fails to appoint these two members within 90 calendar days after receiving the resolution from the Town, the Town Board of Commissioners shall make the appointments.

2. **Members at Meetings:** The Zoning Board of Adjustment meeting shall consist of five members, with four of the seated members representing the jurisdiction within the municipal corporate limits, and one seated member representing the ETJ. A quorum of the Zoning Board of Adjustment shall consist of three members. However, no decision regarding a variance, zoning interpretation, or appeal shall be held with less than five members in attendance.

3. **Terms of office:** Appointment to the Board of Adjustment shall be as follows:

   a. All new terms shall be for three years and members may be re-appointed. Members may serve a maximum of two consecutive terms but may be re-appointed after a one year absence.

   b. In the case of a vacancy occurring during a term, such vacancy shall be filled for the unexpired portion of such term. If the unexpired portion of a vacated position is equal to or less than one year, the applicant filling that term may be re-appointed for two additional three year terms. Otherwise, the applicant filling the position is only eligible for one additional three year term.

4. **Officers and Terms:** The Board of Commissioners shall appoint a chairman and vice-chairman from the membership of the Board of Adjustment, for one-year terms (July to June or until their replacements are appointed). All officers shall be appointed for one year and may be eligible to succeed themselves for an additional term. No officer shall serve more than two consecutive one-year terms. Officers shall be eligible to vote on decisions before the Board of Adjustment.

5. **Chairperson and Authority**
   The Chairman of the Board of Adjustment is authorized in his official capacity to administer oaths to witnesses in any matter coming before the Board. Any member of the Board while temporarily acting as chairman shall have and exercise like authority.

C. Application Process

(See 14.2.C, Application Process for Advisory Boards.)

14.4 Technical Review Committee

The authority to establish the Technical Review Committee for the Town of Wendell is granted under the authority of G.S. 160A-361 & 373.

A. Authority and Responsibility

The Technical Review Committee shall have the following duties and responsibilities:

1. To assist in the establishment of technical requirements for all applications, including: submission schedules, size and number of drawings, type of media, etc.;

2. To review and approve major site plans and preliminary plans for compliance with this Ordinance. In determining compliance with this Ordinance, the TRC may take the following actions:

a. Approve the site plan or preliminary plat as submitted (or with changes agreed to by the applicant at the meeting); or,

b. Deny the site plan or preliminary plat for non-compliance with this Ordinance; or,

c. Make recommendations to be considered by the applicant upon re-submittal to ensure compliance with this Ordinance; or,

d. Conditionally approve site plans or preliminary plats subject to final review by the Administrator; or,

e. Table the site plan or preliminary plat for further study or additional information.

B. Membership

The Technical Review Committee shall be chaired by the Planning Director (or their designee) and may consist of the following members:

- One Board of Commissioners Member (ex-officio)
- One Planning Board Member (ex-officio)
- The following Departments Heads or their designee:
  - Planning
  - Utilities (CORPUD)
  - Fire
  - Public Works
  - Police
  - Parks & Recreation
- The following technical staff (as selected by the Planning Director as needed or on a project by project basis):
  - Planner (1)
  - Engineer (1)
  - Zoning Official (1)
  - Town Attorney (1)
  - Emergency Medical Services (1)
- In addition, the Chair may, at their discretion, or at the request of other TRC members, invite other administrative staff members from the following organizations to participate in the meetings. Such participants shall serve in an ex-officio capacity only.
  - Other Town of Wendell Departments
  - Wake County
  - NCDOT
  - Other NC State and/or Federal agencies

14.5 Meetings, General Procedures, and Provisions

A. All meetings of bodies under this Ordinance shall be open to the public in accordance with G.S. 143-318 (Meetings of Public Bodies) and shall be conducted in accordance with the procedures set forth in these regulations and rules of procedure adopted by the respective bodies and approved by the Board of Commissioners.

B. Any adopted rules of procedure shall be kept on file at the Planning Department and shall be made available to the public.

C. Accurate minutes of each meeting shall be maintained, showing the vote of each member on each question, or if absent or failing to vote, indicating such fact, and it shall keep records of its examinations and official actions, all of which shall be filed in the office of the Administrator for the public record.

D. All bodies authorized under this Ordinance shall meet at regularly scheduled times and at such other times as determined by the chairman as provided for in the rules of procedure.

E. Town employees are prohibited from serving on citizen boards. Likewise, spouses and children of any board member may not serve on the same board together.

14.6 Staff

The Administrator or their designee shall serve as staff to the Planning Board, Zoning Board of Adjustment, and the Technical Review Committee. In addition, the Town Attorney may provide legal and procedural assistance when requested.

14.7 Attendance Policy

Any member of a Board or Commission who misses three meetings held by the board during any 12-month period may be removed from the board by the Board of Commissioners. Vacancies resulting from a member's failure to attend the required number of meetings shall be filled as provided. The Chairman of the board or commission shall notify the proper appointing authority after a member misses three meetings in any 12-month period or fails to meet their expected contribution, and a new appointment may be made by the Board of Commissioners to fill that vacancy.

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Chapter 15. ADMINISTRATION

15.1 Purpose and Intent

In order to establish an orderly process to develop land within the jurisdiction of the Town of Wendell consistent with standard development practices and terminology it is the purpose of this Chapter to provide a clear and comprehensible development process that is fair and equitable to all interests including the petitioners, affected neighbors, Town staff and related agencies, and the Board of Commissioners. The intent of this Chapter is as follows:

- To ensure that land, parcels, and lots are appropriately subdivided so that their use and development complies with all applicable requirements of this Ordinance;

- To ensure that development is in a manner generally harmonious with surrounding properties and without the endangerment of the health, safety, and general welfare of existing, prospective, or future owners, users, surrounding and adjoining properties, and the public; and

- To provide for the adequate and efficient provision of facilities and/or infrastructure, and the dedication of land, rights-of-way, and easements, so as not to burden the fiscal resources of the Town. This includes the construction of buildings and utilities, streets and sidewalks, landscaping, open spaces, and other provisions required for the public good of the Town of Wendell.

The Wendell Board of Commissioners shall adopt from time to time, a schedule of fees for application and processing as specified in this Ordinance.

15.2 General Applicability

A. The provisions of this Chapter shall be applicable to all development activity under the jurisdiction of the Town of Wendell.

B. No land shall be used or occupied and no structures shall be erected, moved, extended, or enlarged, nor shall any excavation or filling of any lot for the construction of any building be initiated until the Administrator has issued a zoning permit which will certify that the proposed work is in conformity with the provisions of this chapter.

15.3 Administrator

The authority to establish an Administrator for the Town of Wendell is granted under the authority of G.S. 160A-361 & 373.

A. General Responsibilities: The various provisions of this Ordinance shall be administered by the Town of Wendell Planning Department under the primary direction of the Planning Director. For purposes of the administration of this Ordinance, the Planning Director and subordinate staff are collectively referred to as the Administrator.

B. Maintain Records and Files: The Administrator shall maintain a record of all permits and approvals on file and copies shall be made available to interested parties.

C. Stormwater Ordinance Administration: Any act authorized by the Sections 6.5, Post-Construction Stormwater Control (Phase II Stormwater Ordinance) shall be carried out by the Administrator or their designee. The Administrator has the authority to determine the interpretation of this ordinance. Any person may request an interpretation by submitting a written request to the Administrator, who shall respond in writing within 30 calendar days. The Administrator shall keep on file a record of all written interpretations of this ordinance.

In addition to the powers and duties that may be conferred by other provisions of the Unified Development Ordinance and other laws, the Administrator shall have the following powers and duties under this Ordinance:

1. To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to the Stormwater Ordinance.

2. To make determinations and render interpretations of the Stormwater Ordinance.

3. To establish application requirements and schedules for submittal and review of applications and appeals, to review and make recommendations to the Town of Wendell on applications for development or redevelopment approvals.

4. To enforce the provisions of the Stormwater Ordinance in accordance with its enforcement provisions.

5. To maintain records, maps, and official materials as related to the adoption, amendment, enforcement, or administration of the Stormwater Ordinance.

6. To provide expertise and technical assistance to the Board of Commissioners upon request.

7. To designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.

8. To take any other action necessary to administer the provisions of the Stormwater Ordinance.

15.4 Administrative Permit Procedures – General Provisions

A. Permit Not Required: Not withstanding any other provisions of this Ordinance, a zoning permit is not required for the following uses:

1. Street construction or repair by NCDOT or the Town of Wendell.

2. Electric power, telephone, telegraph, cable television, gas, water, and sewer lines, wires or pipes, together with supporting poles or structures, located within a public right-of-way in accordance with all applicable municipal franchise agreements.

3. Specific signs exempted in Chapter 12.

4. Mailboxes, newspaper boxes, birdhouses, flag poles, pump covers, and doghouses.

B. Waiver of Certain Application Requirements: The Administrator may waive certain application requirements for the following items if she/he determines that the submission of a complete Development Plan in accordance with Chapter 16, Development Plan Requirements, would serve no useful purpose.

1. Signs

2. Interior alterations and renovations requiring a county building permit which do not alter the footprint or height of an otherwise conforming use and/or structure (i.e. HVAC, re-roofing, steps, or siding).

3. Accessory structures for all building types;

4. Any enlargement of a principal building by less than 20 percent of its existing size provided such enlargement will not result in site or landscaping improvements or the expansion of parking areas;

5. A change in principal use where such change would not result in a change in lot coverage, off-street parking access or other external site characteristics.

C. Application for Zoning Permit Approval Required: Upon receipt of a complete application, the Administrator shall review and approve, approve with conditions, or deny the application. Applications that are denied shall have the reasons for denial, in writing, attached to the application.

D. Expiration of Permit: Any zoning permit issued in accordance with this Ordinance will lapse and become invalid unless the work for which it was issued is started within six months (one year for infrastructure improvements) of the date of issue, or if the work authorized by it is suspended or abandoned for a period of at least one year.

E. Zoning Permit Extension: Upon approval by the Town Manager, the Administrator shall have the authority to grant one six-month extension to previously issued zoning permits, provided no changes have occurred or are proposed which are contrary to what was initially submitted and that the initial issuance of the permit occurred no more than one year prior to the extensio*n*

F. Temporary permit

1. The Administrator is authorized to issue a temporary zoning permit for bazaars, fairs, carnivals, and similar uses. Such permits shall be issued for a fixed period of time, but shall not exceed 90 calendar days and shall be subject to such limitations as the Administrator may impose to protect the character of the district affected.

G. Compliance and Violations: Zoning permits issued on the basis of dimensional plans approved by the Administrator authorize only the use, arrangement, and construction set forth in such approved plans and applications. Use, arrangement, or construction which differs from that authorized by the zoning permit shall be deemed a violation of this Ordinance and shall be subject to civil penalties per Chapter 18, Violations and Penalties.

H. Right of Appeal: If a request for a zoning permit is denied or if a ruling of the Administrator is questioned, any aggrieved party may appeal such ruling to the Zoning Board of Adjustment in accordance with Section 15.16, Administrative Appeals.

I. Certificate of Occupancy

1. No previously unoccupied structure shall be used or occupied until a Certificate of Occupancy has been issued by the Administrator, stating that the building or proposed use complies with the provisions of this Ordinance and the North Carolina State Building Code.

2. A Certificate of Occupancy, either for the whole or a part of a building shall be applied for before the structure is occupied, and shall be issued within five working days of the determination by the Administrator that the erection or alteration of the building, or part thereof, has been completed in conformity with the provisions of this Ordinance.

15.5 Floodplain Development Permits

A. **Applicability:** A Floodplain Development Permit with an accompanying Elevation Certificate shall be submitted for any proposed development within 100 feet of a flood protection zone. Floodplain Development Permits shall be approved by the Administrator.

No structure or land shall be located, extended, converted or structurally altered without full compliance with the term of this Chapter and Chapter 6. In addition to those federal, state, and county government agency approvals, the applicant must also be in compliance with the provisions of this Ordinance.

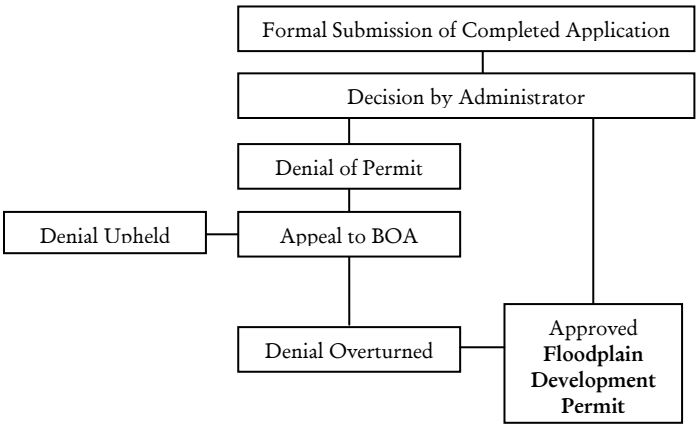
Any activity which differs from that authorized by the Floodplain Development Permit shall be deemed a violation of this Ordinance and shall be subject to civil penalties as specified in Chapter 18.

B. Required Procedure for Floodplain Development Approval:

Upon receipt of a completed application, the Administrator shall approve, approve with conditions or deny the application. Applications that are denied shall have the reasons for denial, in writing, attached to the application.

The applicant's surveyor or engineer will certify the actual elevation (in relation to mean sea level) of the lowest floor (including basement) and the actual elevation to which the new or substantially improved buildings have been flood-proofed. Certification from the property owner's or developer's Project Engineer or Surveyor must accompany this application.

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL PROCESS
Floodplain Development Permits (16.12)	Administrator	Floodplain Development Permit Issued - or – Denial and Request for Resubmission	Zoning Board of Adjustment (BOA)



15.6 Site Plans

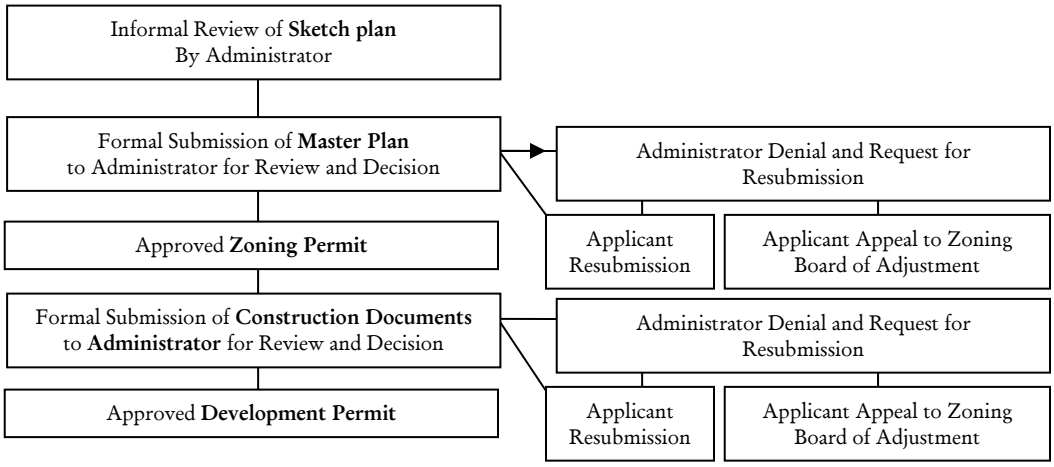
A. Minor Site Plans

1. Applicability:

- Duplexes*
- Multi-family with four or fewer units*
- Non-residential Development with structures totaling less than 10,000 square feet

2. Procedure:

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL AUTHORITY
Sketch Plan (16.4)	Administrator	Non-Binding Review Only	n/a
Master Plan (16.5) w/Environmental Survey (16.3)	Administrator	Review for Completeness & Ordinance Compliance Zoning Permit Issued **-or-** Denial and Request for Resubmission	Zoning Board of Adjustment
Construction Documents (16.6) (if applicable) w/Environmental Survey (16.3)	Administrator	Review for Completeness & Ordinance Compliance Development Permit Issued **-or-** Denial and Request for Resubmission	Zoning Board of Adjustment



**Multi-family projects shall require a Special Use Permit (SUP), per the requirements of Chapter 2.*

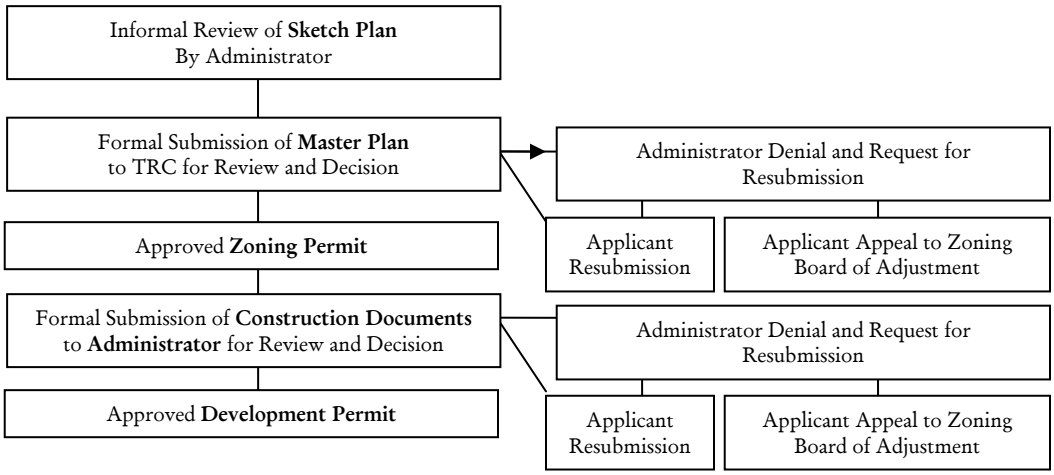
B. Major Site Plans

1. Applicability:

- Multi-family buildings with more than four units*
- Non-residential Development 10,000 square feet or greater
- Industrial Development

2. Procedure:

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL AUTHORITY
Sketch Plan (16.4)	Administrator	Non-Binding Review Only	n/a
Master Plan (16.5) w/Environmental Survey (16.3)	Technical Review Committee (TRC)	Review for Completeness & Ordinance Compliance Zoning Permit Issued **-or-** Denial and Request for Resubmission	Zoning Board of Adjustment
Construction Documents (16.6) w/Environmental Survey (16.3)	Administrator	Review for Completeness & Ordinance Compliance Development Permit Issued **-or-** Denial and Request for Resubmission	Zoning Board of Adjustment



** Multi-family projects shall require a Special Use Permit (SUP), per the requirements of Chapter 2. Following the issuance of an SUP, the applicant may proceed directly to the Construction Documents phase of the Major Site Plan approval process.*

15.7 Minor Subdivisions

A. Applicability: Minor subdivisions are those which involve five lots or fewer and which in the opinion of the Administrator:

1. Do not involve any public street dedication and will not require any new street, public or private, to provide access to interior lots or parcels; and

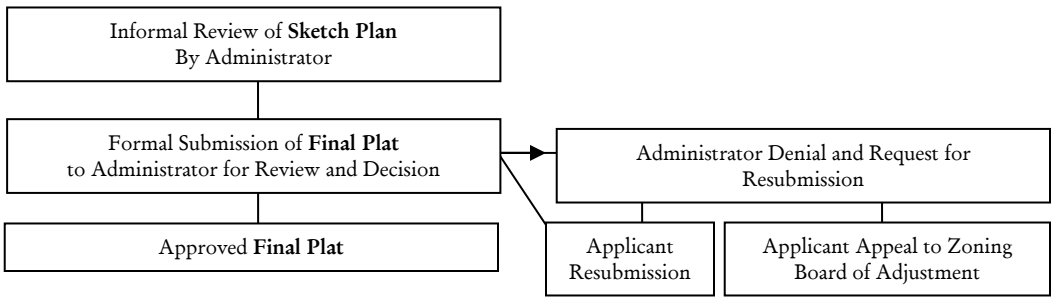
2. Do not involve the extension of public sewerage or water lines or the creation of new drainage easements or dedications; and

3. Do not adversely affect the development of the remainder of the parcel or of adjoining property and would not block future street connectivity.

B. The minor subdivision process is not intended to permit the consecutive subdivision of land in order to avoid making improvements otherwise required by this Ordinance. No more than five lots under one owner from one tract shall be considered for a minor subdivision in any three-year period.

C. Procedure:

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL AUTHORITY
Sketch Plan (16.4)	Administrator	Non-Binding Review Only	n/a
Final Plat (16.7)	Administrator	Review for Completeness & Ordinance Compliance Final Plat Issued **-or-** Denial and Request for Resubmission	Zoning Board of Adjustment



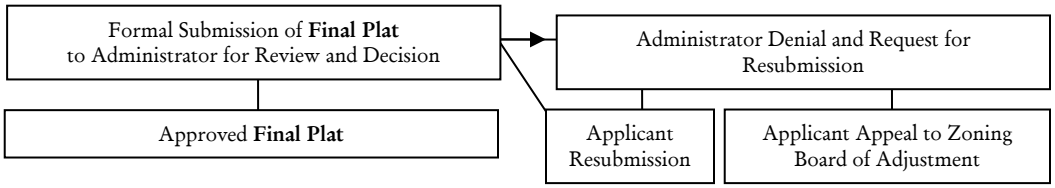
15.8 Exception Plat Subdivision

A. Applicability:

- 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 as required by this ordinance
- The division of land into greater than 10 acres where no street right-of-way dedication is involved;
- The public acquisition by purchase of strips of land for the widening or opening of streets or for public transportation system corridors; or
- The division of a tract in single ownership whose entire area is no greater than 2 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 as required by this ordinance.

B. Procedure:

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL AUTHORITY
Final Plat (16.7)	Administrator	Review for Completeness & Ordinance Compliance Final Plat Issued -**or**- Denial and Request for Resubmission	Zoning Board of Adjustment



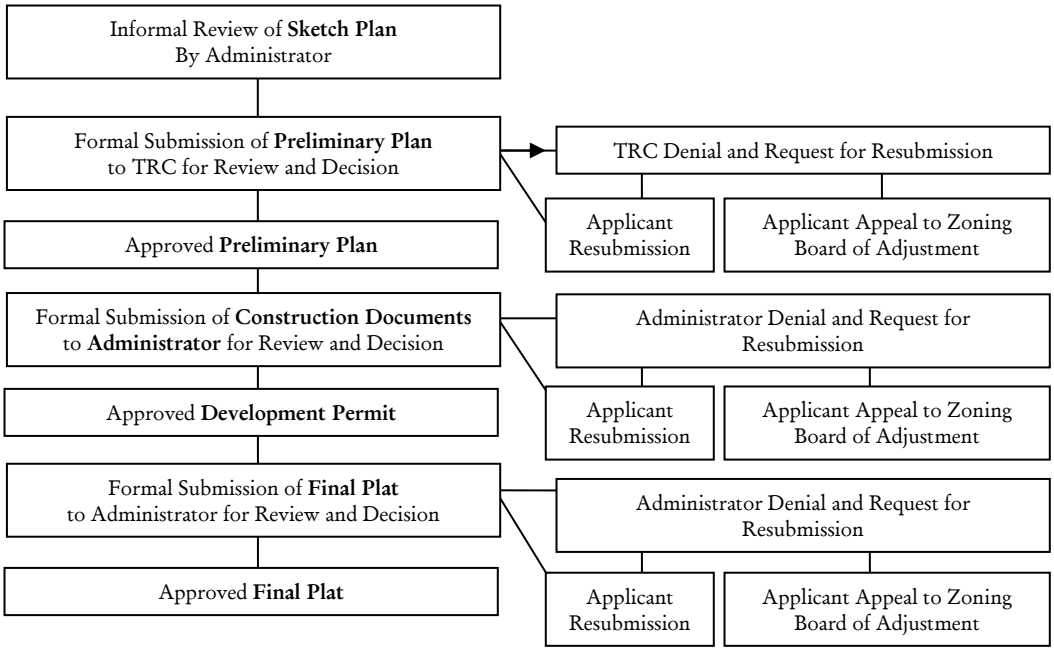
15.9 Major Subdivisions

A. Applicability:

A Major Subdivision is a subdivision of land that exceeds the minimum thresholds for Exception Plats and Minor Subdivisions.

B. Procedure:

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL AUTHORITY
Sketch Plan (16.4)	Administrator	Non-Binding Review Only	n/a
Preliminary Plan (16.5) w/Environmental Survey (16.3)	Technical Review Committee (TRC)	Review Completeness & Ordinance Compliance Preliminary Plan Issued – **or** Denial and Request for Resubmission	Zoning Board of Adjustment
Construction Documents (16.6) w/Environmental Survey (16.3)	Administrator	Review Completeness & Ordinance Compliance Development Permit Issued **-or-** Denial and Request for Resubmission	Zoning Board of Adjustment
Final Plat (16.7)	Administrator	Review for Completeness & Ordinance Compliance Final Plat Issued **-or-** Denial and Request for Resubmission	Zoning Board of Adjustment



15.10 Additional Procedures for Minor and Major Subdivisions

A. Approval to Proceed with Construction Activity: A developer shall begin grading, soil erosion, and infrastructure construction for a development only after receiving Final Plat approval for a Minor Subdivision or Construction Document approval for Major Subdivisions as prescribed by this Chapter and other written approval and necessary permits from the appropriate regulating agencies (including, but not limited to, a Wake County Sediment and Erosion Control Permit).

B. Sketch Plans:

1. Sketch Plan approval shall authorize the subdivider to proceed to prepare the Preliminary Plan. A Sketch Plan shall be valid for a one-year period from the date of approval.

C. Preliminary Plan:

1. Preliminary Plan approval shall constitute tentative approval of the Final Plat if the Final Plat is in substantive agreement with the Preliminary Plan and shall entitle the subdivider to proceed to prepare street, storm drainage and utility Construction Plans, if applicable, and/or to proceed to prepare the Final Plat. Approval of Construction Plans shall entitle the subdivider to proceed with construction of subdivision improvements for the Preliminary Plan and no construction, including grading, shall proceed without such approval. In addition, the Administrator may require, as a prerequisite to Preliminary Plan approval, the submittal for review and approval of all or part of subdivision Construction Plans in order to ascertain the feasibility of all or part of a proposed subdivision.

2. If a Final Plat of all or part of the area shown on a Preliminary Plan is not recorded in the office of the Register of Deeds within 24 months of approval of the Preliminary Plan, or if there is a lapse of more than 12 months between the recording of sections, the Administrator may require the re-submittal of the unrecorded portion as a Preliminary Plan.

3. The approval of the Preliminary Plan shall become null and void within two years, unless the developer has completed required improvements (or posted the appropriate guarantee of improvements) and submitted for approval the Final Plat as required by this ordinance or shall have applied for and received an extension of time from the Administrator. The Technical Review Committee may, at its discretion, require a Preliminary Plan to adhere to any new requirements before granting this extension. If a Preliminary Plan

becomes null and void, the subdivider may resubmit for an updated approval; however, the resubmitted Preliminary Plan may be subject to any new requirements for Preliminary Plans, and fees shall be paid at current standard cost rates.

4. **Multiple Phases Not Approved:** Approval of a Preliminary Plan constituting an individual phase of a multi-phase project, which has not been entirely approved, does not constitute approval by the Town of any remaining phases. For approved Preliminary Plans consisting of multiple phases, only the phase that is to be developed for sale immediately shall be submitted for Final Plat approval.

D. Final Plats:

1. Final Plat approval shall entitle the subdivider to record the Final Plat. The Final Plat shall constitute a complete phase of the approved Construction Documents.

2. **Plats to be Recorded:** Approved Final Plats shall be filed by the applicant for recording with the Register of Deeds of Wake County within 30 calendar days of the date of approval by the Administrator; otherwise, such approval shall be null and void.

3. **Improvements Required:** No Final Plat shall be approved unless and until the developer has installed in that area all improvements required by this Ordinance and CORPUD; or has posted any required improvement guarantees approved by the Administrator and prescribed by this Ordinance in Section 17.17, Guarantee of Required Improvements and Warranty Against Defects.

4. In addition, no Final Plat shall be approved for recording unless such plat is in substantial agreement, as determined by the Administrator, with the approved Preliminary Plan. Final Plats not in substantial agreement shall be resubmitted as Preliminary Plans as provided for herein.

5. After the Final Plat is recorded, lots as shown on the Plat may be sold or otherwise conveyed by reference to the Plat. Building permits may be authorized to be issued and Certificates of Occupancy may be issued provided all required improvements, including individual building connections, have been installed and inspected and approved by CORPUD and the Administrator. The subdivider shall provide the Administrator with a certified copy of the as built drawings of all public improvements.

6. Restrictive Covenants

a. Must be submitted and approved by the Administrator prior to recording and recorded prior to Final Plat approval.

b. All amendments to the Restrictive Covenants must be filed with the Town.

c. All amendments to the Restrictive Covenants, in cases where the Restrictive Covenants were part of the approval process, must be approved by the Board of Commissioners.

E. Record Plats:

1. Map for recordation submittal: Any map for recordation that does not constitute a subdivision shall be submitted to the Administrator who shall determine that the requirements of this ordinance are not applicable. Such determination shall be affixed to the map for recordation as shown in section 16.9., Required Notes and Certifications. One print shall be retained by and become a permanent record of the Town. There shall be no filing fee for such a map.

15.11 Text Amendments

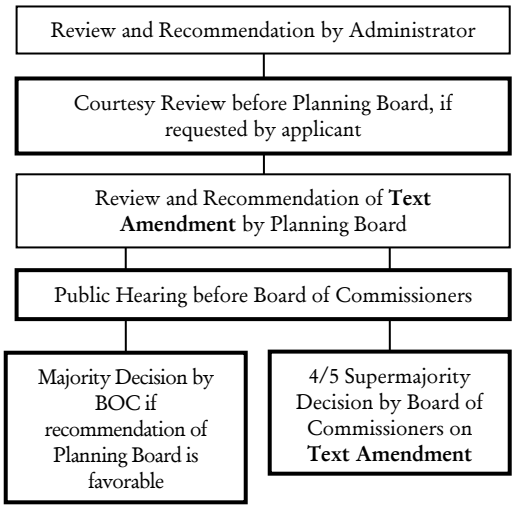
A. **Purpose:** The purpose of this Section is to establish uniform procedures for amending the text of the Ordinance.

B. **Application Required:** An amendment to the text of this Ordinance may be initiated by the Board of Commissioners, the Planning Board, the Administrator, or any private citizen by filing an application with the Administrator.

C. **Procedure:** All petitions to amend this Ordinance shall be directed to the Administrator, who shall transmit them to the Town Planning Board for review and recommendation.

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL AUTHORITY
Text Amendment: The Administrator must receive petitions 30 calendar days prior to the next regularly scheduled meeting of the Planning Board to be considered at that meeting. The petition shall state the nature of the proposed amendment, and if applicable, a description of the property involved, names and address of the owners of the property, and a statement why amendment is necessary to promote public health, safety, and general welfare.	Administrator	Review for completeness & code compliance; Issue Staff Report	n/a
	Planning Board	Courtesy review, if requested by applicant	n/a
	Planning Board	Review and recommendation of Text Amendment application	n/a
	Board of Commissioners	Public hearing*	n/a
	Board of Commissioners	Text Amendment Adoption* – **or** – Denial and Request for Rehearing	Superior Court

** Applicant can request that the Board of Commissioners adopt the Amendment at the same meeting as the public hearing. Otherwise, decision to adopt will be made no sooner than the next Board meeting.*



15.12 Map Amendments (Rezonings)

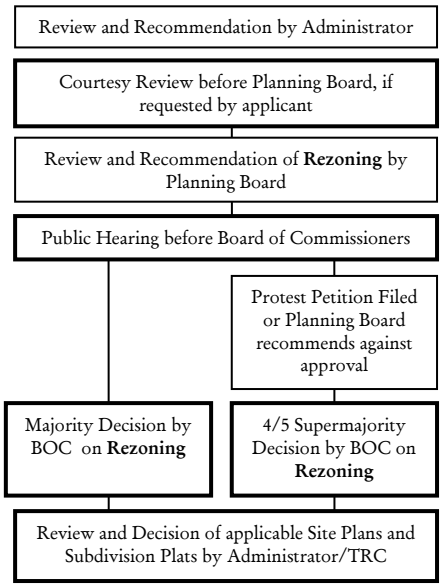
A. Purpose: The purpose of this Section is to establish uniform procedures for amending the zoning classification of land as shown on the Zoning Map.

B. Application Required: An amendment to the Zoning Map may be initiated by the Board of Commissioners, the Planning Board, the Administrator, or any private citizen by filing an application with the Administrator.

C. Procedure:

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL AUTHORITY
Map Amendments (Rezonings): The Administrator must receive petitions 30 calendar days prior to the next regular meeting of the Planning Board to be considered at that meeting. The petition shall state the nature of the proposed amendment, and if applicable, a description of the property involved, names and address of the owners of the property, and a statement why the proposed amendment is necessary to promote public health, safety, and general welfare.	Administrator	Review submittal procedures and requirements Review for completeness & code compliance. Issue Staff Report	n/a
	Planning Board	Courtesy review, if requested by applicant	n/a
	Planning Board	Review and recommendation of Rezoning application	n/a
	Board of Commissioners	Public hearing*	n/a
	Board of Commissioners	Grant Rezoning – **or** - Denial and Request for Rehearing	Superior Court

** Applicant can request that the Board of Commissioners adopt the Amendment at the same meeting as the public hearing. Otherwise, decision to adopt will be made no sooner than the next Board meeting.*



15.13 Conditional Districts

A. Purpose: The purpose of the Conditional Districts is to provide an alternative means of land development and an alternative zoning procedure that may be used to establish residential, commercial, and industrial Conditional Districts at appropriate locations and in accordance with the planning and development objectives of the Town.

A Conditional District (CD) established according to the provisions of this section may depart from the strict application of the requirements of the town's general zoning districts, as outlined in Section 2.18, Conditional Districts. The CD alternative may allow uses which are not specifically allowed in standard zoning districts. A primary purpose of this section is to provide standards by which such flexibility may be achieved while maintaining and protecting the public health, safety and welfare of the citizens.

A second purpose of this section is to establish a more complete living and working environment through the application of enlightened and imaginative approaches to community planning and property design. A CD should provide a variety of natural features and scenic areas, efficient and economical land use, improved amenities, orderly and economical development, and the protection of existing and future adjacent development.

B. General Requirements:

1. **Applicant:** Conditional District classification shall only be considered upon the request of the owners and/or their representatives of all the property to be included. A CD shall consist of land under unified control which may be planned and developed as a single development or as an approved programmed series of development phases by multiple developers. "Unified control" means that all land to be included within a CD shall be owned or otherwise under the legal control of the person or legal entity which has applied for a Conditional District. Such person or entity shall be legally capable of providing a commitment to the town that the CD development will comply with all documents, plans, standards and conditions ultimately approved by the town.

2. **Standards of District to be Met:** Within an approved Conditional District, no use shall be permitted except pursuant to the conditions imposed by the applicant on the Conditional District in the approval of the rezoning. The Board of Commissioners may impose additional reasonable and appropriate conditions or safeguards to serve the purpose and intent of this Section, and to preserve public welfare, and justice.

3. Content of Application:

a. A Conditional District shall consist of the CD Master Development Plan, individually, or in combination with a CD Final Development Plan; as well as any other plans, drawings, renderings, elevations, maps and documents specifically included as development documents for approval by the Board of Commissioners. The Master Plan, as a site specific Conditional Zoning Plan, is itself a condition of the Conditional District rezoning.

b. **Master Development Plan:** The development concept of all land areas encompassed by a Conditional District shall be adequately described by a Master Development Plan comprised of scaled drawings and associated reports. At a minimum, the Master Development Plan shall adequately describe:

i. The overall boundary and area of the district, including underlying zoning districts;

ii. The general location, orientation and size of principal structures and associated parking areas; landscape and buffer areas; open space areas; the location, size and general treatment of environmentally sensitive areas; the general location and size of existing and proposed water mains and sewer trunk lines required to service the development; and general traffic routes (external and internal) to and from the development with major access points identified;

iii. Tabular data, including the range and scope of proposed land uses, proposed densities, floor area ratios or impervious surface ratios as applicable to development type; and land areas devoted to each type of general land use and phase of development;

iv. Full list of proposed uses consistent in character with the underlying zoning district;

v. A proposed development schedule if the project is to be phased.

c. **Final Development Plan:** All Final Development Plans shall conform to the general development concept of an approved Master Development Plan. A final plan shall consist of a detailed set of construction plans that fully demonstrate

compliance with all applicable construction regulations and provisions of the Town of Wendell and with all applicable performance criteria, conditions, and other requirements of the enacting Conditional District zoning ordinance.

d. In addition to the Master Plan, the applicant shall provide the exact land use classifications proposed for the Conditional District. Such use classifications may be selected from any of the uses, whether permitted, by right or conditional, allowed in the general zoning district upon which the Conditional District is based. Uses not otherwise permitted within the general zoning district shall not be permitted within the Conditional District.

4. **Fair and Reasonable Conditions:** The provisions of the CD Master Plan shall replace all conflicting development regulations set forth in this Ordinance which would otherwise apply to the development site. The Planning Board may recommend and the Board of Commissioners may attach reasonable and appropriate conditions including, but not limited to, the location, nature, hours of operation, and extent of the proposed use(s). Conditions and site-specific standards shall be limited to those that address conformance of the development and use of the site to this Ordinance and officially adopted plans and those standards and conditions that address the impacts reasonably expected to be generated by the development and use of the site. The applicant will have a reasonable opportunity to consider and respond to any additional requirements proposed by either the Planning Board or the Board of Commissioners prior to final action.

5. **Decisions:** Decisions by the Board of Commissioners shall be by majority vote, unless a valid Protest Petition in accordance with Section 15.19.C has been filed, in which case, a 3/4 majority vote of eligible members shall be required for approval.

C. **Ability to Proceed:** The applicant may proceed with development only after approval of the Conditional District Master Plan by Board of Commissioners. A simple majority vote of the Board of Commissioners is required when the Conditional District Master Plan receives a favorable recommendation from the Planning Board. When the Planning Board recommends against the Conditional District Master Plan, a supermajority, or four-fifths, vote from the Board of Commissioners is required for approval. A Conditional District Final Development Plan must also be approved by the Planning Board and the applicable plat must be recorded with the Wake County Register of Deeds. The development and use of all land within the Conditional District shall be in keeping with the approved Master Plan and all applicable provisions therein.

D. Approval Process:

1. The procedure for approval of the Master Plan shall follow the procedure outlined in the table in subsection H below and in Section 15.12, Map Amendments (Rezonings).

2. Following approval of the Conditional District rezoning and the Master Plan by the Board of Commissioners, the applicant shall submit a Final Development Plan to the Planning Board for approval. The Final Development Plan shall implement the Master Plan with any changes, additions and conditions required and approved by the Board of Commissioners. Following Final Development Plan approval, permits for the installation of infrastructure only (streets, utilities, etc.) may be issued for development of the site.

E. Final Approval by Stages: If so reflected on the Master Plan, the Board of Commissioners may allow the staging of final development. Each phase of development shall adhere to all applicable provisions and standards of this section and the applicable CD Master Plan.

F. Substantial Changes: Any substantial change to a Master Plan as noted below shall be reviewed by the Planning Board and approved or denied by the Board of Commissioners as an amended Conditional District.

1. The following changes to a CD Master Plan or subsequent Final Plan shall require approval by the Board of Commissioners:

   a. Land area being added or removed from the Conditional District.

   b. Modification of special performance criteria, design standards, or other requirements specified by the enacting ordinance.

   c. A change in land use or development type beyond that permitted by the approved Master Plan.

   d. When there is introduction of a new vehicular access point to an existing street, road or thoroughfare not previously designated for access.

   e. When there is an increase in the total number of residential dwelling units originally authorized by the approved Master Plan.

f. When the total floor area of a commercial or industrial classification is increased more than 10 percent beyond the total floor area last approved by Board of Commissioners.

2. All other changes to a CD Master Plan or subsequent Final Plan shall receive approval by the Planning Board. However, if in the judgment of the Planning Board, the requested changes alter the basic development concept of the CD, the Planning Board may require concurrent approval by the Board of Commissioners.

G. **Rescission of Conditional Districts**: The Applicant shall secure a valid building or construction permit(s) within a 12 month period from date of approval of the Conditional District unless otherwise specified. If such project is not complete and a valid building or construction permit is not in place at the end of the 12 month period, the Administrator shall notify the applicant of either such finding. Within 60 calendar days of notification, the Administrator shall make a recommendation concerning the rescission of the Conditional District to the Board of Commissioners. The Board of Commissioners may then rescind the Conditional District, or extend the life of the Conditional District for a specified period of time.

H. Procedure:

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL AUTHORITY
Conditional District: Rezoning w/Master Plan (16.5)	Administrator	Review submittal procedures and requirements. Review for completeness & code compliance. Issue Staff Report.	n/a
	Planning Board	Courtesy hearing, if requested	n/a
	Planning Board	Review and recommendation of Conditional District application	n/a
	Board of Commissioners	Public hearing	n/a
	Board of Commissioners	Grant Conditional District - **or** - Denial and Request for Rehearing	Superior Court
	Planning Board	Approve Final Development Plan	n/a

15.14 Vested Rights

A. General Procedures/Establishment of Vesting:

1. Pursuant to G.S.160A-385.1 and not withstanding any other provision or amendment, a landowner may apply for approval of a site-specific development plan as defined in the statute that shall entitle said landowner to develop property in accordance with the previously approved plan.

2. The approval authority may approve a site specific development plan upon such terms and conditions as may reasonably be necessary to protect the public health, safety, and general welfare.

3. Approval of site specific development plan with the condition that a variance be obtained shall not confer a zoning vested right unless and until the necessary variance is obtained.

4. A site specific development plan shall be deemed approved upon the effective date of the approval authority's action ordinance relating thereto.

5. The establishment of a zoning vested right shall not preclude the application of overlay zoning that imposes additional requirements but

does not affect the allowable type or intensity of use, or ordinances or regulations that are general in nature and are applicable to all property subject to land use regulation by the Town, including but not limited to, building, fire, plumbing, electrical, and mechanical codes. Otherwise, applicable new or amended regulations shall become effective with respect to property that is subject to a site specific development plan upon the expiration or termination of the vested right in accordance with this subchapter.

6. A zoning vested right is not a personal right, but shall attach to and run with the applicable property. After approval of a site specific development plan, all successors to the original landowner shall be entitled to exercise such right while applicable.

B. Approval procedures and approval authority

1. Except as otherwise provided in this section, an application for site specific development plan approval shall be processed in accordance with the procedure established by ordinance and shall be considered by the designated approval authority for the specific type of zoning or land use permit or approval for which the application is made.

2. Notwithstanding the provisions of 15.14.B.1 above, if the authority to issue a particular zoning or land use permit or approval has been delegated by ordinance to a board, committee, or administrative official other than the Board of Commissioners in order to obtain a zoning vested right, the applicant must request in writing at the time of the application that the application be considered and acted on by the Board of Commissioners following notice and a public hearing as provided in North Carolina General Statute §160A-364.

3. In order for a zoning vested right to be established upon approval of a site specific development plan, the applicant must indicate at the time of application, on a form to be provided by the Town, that a zoning vested right is being sought.

4. The Board of Commissioners may not require the landowner to waive his vested right as a condition of development approval.

5. Each map, plat, site plan, or other document evidencing a site specific development plan shall contain the following notation: "Approval of this plan establishes a zoning vested right under North Carolina General Statute §160A-385.1. Unless terminated at an earlier date, the zoning vested right shall be valid until _____. "

6. All requests for Vested Rights shall be accompanied by a copy of the approved Site-Specific Development Plan (Master Plan), Special Use Permit, Zoning Permit, or Subdivision Preliminary Plan that is not a phased development plan in accordance with the provisions of this Chapter. Notwithstanding the foregoing, neither a variance, a Sketch Plan, nor any other document that fails to describe with reasonable certainty the type and intensity of use for a specified parcel or parcels of property shall constitute a site-specific development plan.

7. Following approval or conditional approval of site specific development plan, nothing in this subchapter shall exempt such a plan from subsequent reviews and approvals to ensure compliance with the terms and conditions of the original approval, provided that such reviews and approval are not inconsistent with the original approval.

8. Nothing in this subchapter shall prohibit the revocation of the original approval or other remedies for failure to comply with applicable terms and conditions of the approval or the Ordinance.

C. Duration

1. A zoning right that has been vested as provided in this subchapter shall remain vested for a period of two years unless specifically and unambiguously provided otherwise pursuant to subsection C.2 below. The vesting shall not be extended by any amendments or modifications to a site specific development plan unless expressly provided by the approval authority at the time the amendment or modification is approved.

2. Notwithstanding the provisions of subsection C.1 above, the approval authority may provide that rights shall be vested for a period exceeding two years but not exceeding five years where warranted in light of all relevant circumstances, including, but not limited to, the size of the development, the level of investment, the need for or desirability of the development, economic cycles, and market conditions. These determinations shall be in the sound discretion of the approval authority at the time the site specific development plan is approved.

3. Upon issuance of a building permit, the expiration provisions of North Carolina General Statute §160A-418 and the revocation provisions of North Carolina General Statute §160A-422 shall apply, except that a building permit shall not expire or be revoked because of the running of time while a zoning vested right under this section is outstanding.

D. Termination

A zoning right that has been vested as provided in this subchapter shall terminate:

1. At the end of the applicable vesting period with respect to buildings and uses for which no valid building permit applications have been filed;

2. With the written consent of the affected landowner;

3. Upon findings by the Town Board of Commissioners, or by resolution after notice and a public hearing, that natural or manmade hazards on or in the immediate vicinity of the property, if uncorrected, would pose a serious threat to the public health, safety, and general welfare if the project were to proceed as contemplated in the site specific development plan;

4. Upon payment to the affected landowner of compensation for all costs, expenses, and other losses incurred by the landowner, including, but not limited to, all fees in consideration of financing, and all architectural, planning, marketing, legal, and other consultant's fees incurred after approval by the town, together with interest thereon at the legal rate until paid. Compensation shall not include any diminution in the value of the property which is caused by such action;

5. Upon findings by the Town Board of Commissioners, by ordinance after notice and a hearing that the landowner or his representative intentionally supplied inaccurate information or made material misrepresentations which made a difference in the approval by the approval authority of the site specific development plan; or

6. Upon the enactment or promulgation of a state or federal law or regulation that precludes development as contemplated in the site specific development plan, in which case the approval authority may modify the affected provisions, upon a finding that the change in state or federal law has fundamental effect on the plan, or by resolution after notice and hearing.

E. Voluntary Annexation

1. A petition for annexation filed with the Town under North Carolina General Statute §160A-31 or North Carolina General Statute §160A-58.1 shall contain a signed statement declaring whether or not any zoning vested right with respect to the properties subject to petition

has been established under North Carolina General Statute §160A-385.1 or North Carolina General Statute §160A-344.1, or the failure to sign a statement declaring whether or not a zoning vested right has been established, shall be binding on the landowner and any such zoning vested right shall be determined.

F. Limitations

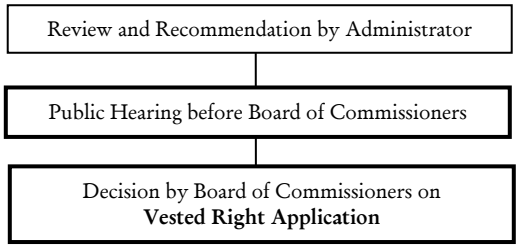
1. Nothing in this subchapter is intended or shall be deemed to create any vested right other than those established pursuant to North Carolina General Statute §160A-385.1.

G. Repealer

1. In the event that North Carolina General Statute §160A-385.1 is repealed, this subchapter shall be deemed repealed and the provisions hereof no longer effective.

H. Procedure:

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL AUTHORITY
Vested Right Application w/Master Plan (16.5)	Administrator	Review submittal procedures and requirements Review Master Plan for completeness & code compliance. Issue Staff Report	n/a
	Board of Commissioners	Public hearing on Master Plan and requirements for vested right	n/a
	Board of Commissioners	Grant Vested Right Application **– or -** Denial and Request for Rehearing	Superior Court



15.15 Special Use Permits

A. Purpose: Special uses are land uses that are generally compatible with the land uses permitted by right in a zoning district, but which require individual review of their location, design, and configuration so as to evaluate the potential for adverse impacts on adjacent property and uses. Special uses ensure the appropriateness of the use at a particular location within a given zoning district.

B. General Requirements:

1. Only those uses enumerated as Special Uses in a zoning district shall be authorized by the Board of Commissioners.

2. The evaluation and approval of the Special Use Permit shall be governed by quasi-judicial proceedings, which are based upon the sworn testimony and evidence presented at the hearing relevant to the following standards:

a. That the proposed use does not affect adversely the general plans for the physical development of the town as embodied in this Ordinance and in any plan or portion thereof adopted by the Board of Commissioners;

b. The proposed use will not be contrary to the purposes stated for these regulations;

c. The proposed use will not adversely affect the health and safety of residents and workers in the town;

d. The proposed use will not be detrimental to the use of development of adjacent properties or other neighborhood uses;

e. The proposed use will not be affected adversely by the existing uses;

f. The proposed use will be placed on a lot of sufficient size to satisfy the space requirements of the use;

g. The proposed use will not constitute a nuisance or hazard because of the number of persons who will attend or use the facility, vehicular movement, noise, or fume generation or type of physical activity;

h. The standards set forth for each particular use for which a permit may be granted have been met;

i. The Board may impose or require such additional restrictions and conditions as may be necessary to protect the health and safety of works and residents in the community, and to protect the value and use of property in the general neighborhood;

j. The proposed use shall be subject to the minimum area, setback, and other location requirements of the zoning district in which it will be located; and

k. The proposed use shall be subject to the off-street parking and service requirements of these regulations.

l. Wherever the Board shall find, in the case of any permit granted pursuant to the provisions of this chapter, that any of the terms, conditions, or restrictions, on which such permit was granted are not being complied, the Board shall rescind and revoke the permit after giving due notice to all parties concerned and granting full opportunity for a public hearing.

C. Procedures:

1. The processing of a Special Use Permit shall be conducted by the Board of Commissioners. During the public hearing, all parties presenting testimony and evidence shall be duly sworn. Testimony both in favor and against the Special Use Permit application shall be presented and will be considered in formulating the findings-of-fact required for a decision.

2. The Board of Commissioners may attach reasonable and appropriate conditions on the location, nature, and extent of the proposed use. The applicant shall have up to 30 calendar days to consider and respond to any additional requirements prior to approval or denial by the Board of Commissioners.

3. A notice of each public hearing shall be published in a newspaper of general circulation in the town, at least one time a week for two consecutive weeks prior to the public hearing.

D. Effect of Approval: If an application is approved, the Special Use Permit that is established and all conditions which may have been attached to the approval are binding on the property. All subsequent development and use of the property shall be in accordance with the approved plan and conditions. The

applicant shall record the approved Special Use Permit with the Register of Deeds and submit a copy to the Town. The authorization of the Board of Commissioners for a Special Use Permit and all supporting documentation shall become a part of the certificate of occupancy.

E. **Substantial Changes:** Any substantial change to a Special Use Permit that results in the increase of the intensity, density, or character of the use shall be approved or denied by the Board of Commissioners as an amended Special Use Permit. Minor field alterations or minor revisions to approved Special Use Permits may be approved by the Administrator if the Special Use still meets the intent of the standards established with the original approval.

F. **Appeal:** The determination of the Board of Commissioners shall be conclusive and final and there shall be no further appeal to the Zoning Board of Adjustment or any other administrative board or commission except the State Superior Court. A request for a review may be made in the same manner as an original request. Evidence in support of the request shall initially be limited to that which is necessary to enable the Board of Commissioners to determine whether there has been a substantial change in the facts, evidence, or conditions in the case. It shall thereupon treat the request in the same manner as the original request. Otherwise, the Board of Commissioners may terminate any further consideration of such request. The Board of Commissioners may, however, review its authorization and the conditions thereof and after such review may modify or change the conditions of the Special Use Permit or may terminate the Special Use Permit only upon agreement with one or more of the criterion set forth in 15.15.G.3, below. Any appeal for administrative review concerning the enforcement of a Special Use Permit shall be to the Board of Commissioners.

G. **Rescission of Special Use Permits:**

1. The applicant shall secure a valid building permit within a 12 month period from date of approval of the Special Use Permit unless otherwise specified.

2. If such project is not complete and a valid building permit is not in place at the end of the 12 month period, the Administrator shall notify the applicant of either such finding. Within 30 calendar days of said notification, the Administrator shall make a recommendation concerning the rescission of the Special Use Permit to the Board of Commissioners. The Board of Commissioners may then rescind or extend the Special Use Permit, for a specified period of time.

3. Other criterion for which a Special Use Permit may be rescinded or terminated shall be as follows:

a. Non-compliance with adopted conditions.

b. Expressed diminution of value of surrounding properties that may only be found during the evidentiary hearing and made a part of the Findings of Fact.

c. Expressed negative impacts related to the general safety, health, and welfare of the surrounding community, which may only be found during the evidentiary hearing and made a part of the Findings of Fact.

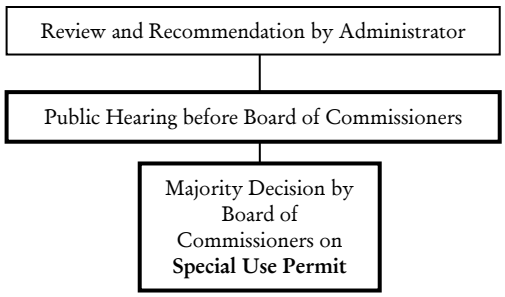
d. Recorded and repeated Code violations.

e. Any non-conformity created by amortization of the permitted use which would only be established as a condition of the permit.

f. Any zoning map amendment to a zoning district that would create a nonconformity between the district and associated permit.

H. Procedure:

APPLICATION	REVIEWING AUTHORITY	ACTION TO BE TAKEN	APPEAL AUTHORITY
Special Use Permit w/ Master Plan (16.5)	Administrator	Review submittal procedures and requirements. Review for completeness & code compliance. Issue Staff Report	n/a
	Board of Commissioners	Public hearing	n/a
	Board of Commissioners	Approval of Special Use Permit – **or** – Denial and Request for Rehearing	Superior Court



15.16 Administrative Appeals

A. Applicability: The Zoning Board of Adjustment shall hear and decide appeals of any order, requirement, decision, interpretation or citation made by the Administrator, or the Technical Review Committee and apply such interpretation to particular fact situations. The Board of Commissioners shall hear such cases involving nonconformities.

B. Applicant with Standing: An appeal may be made by any aggrieved party or by any officer, department or board of Wendell who has received a ruling from the Administrator, or the Technical Review Committee, upon the submission of a completed application. An appeal to the Zoning Board of Adjustment and/or the Board of Commissioners shall be made within 30 calendar days of the decision, order, determination, or interpretation made by the Administrator. An appeal shall be placed on the Zoning Board of Adjustment and/or the Board of Commissioners agenda within 30 calendar days of filing. The filing of any application stays all proceedings unless the Administrator certifies that a stay in his opinion will cause imminent peril to life or property, or, that because the violation charged is transitory in nature a stay would seriously interfere with enforcement of the Ordinance. In that event, proceedings shall not be stayed except by a restraining order, which may be granted by the Zoning Board of Adjustment, the Board of Commissioners or by a judicial court of law.

C. Board Powers and Responsibilities: The Zoning Board of Adjustment and/or the Board of Commissioners may, after having held a public hearing on the matter, reverse or affirm, wholly or partly, or may modify the order, requirement, decision or determination appealed. The Zoning Board of Adjustment and/or the Board of Commissioners shall have all the powers of the Administrator in making any order, requirement, decision, interpretation or determination with reference to an appeal or petition.

D. Supermajority Required: The concurrent supermajority vote of 4/5 of the voting members of the Zoning Board of Adjustment and/or the Board of Commissioners shall be necessary to make an interpretation of the Ordinance, reverse any order, requirement, or decision or determination of the Administrator. In all matters coming before the Zoning Board of Adjustment and/or the Board of Commissioners, the applicant shall have the burden of providing clear, competent and material evidence in support of the application. All decisions of the Zoning Board of Adjustment and/or the Board of Commissioners shall be in writing and filed with the Administrator. Every variance decision of the Board of Adjustment and/or the Board of Commissioners shall be subject to review by the Wake County Superior Court. Any appeal to the Wake County Superior Court shall be taken within 30 calendar days after the decision of the Board of Adjustment and/or the Board of Commissioners is filed in the office of the Administrator. The

Administrator shall notify they applicant by registered mail within 30 calendar days of the Board of Adjustment's and/or the Board of Commissioners decision.

E. Appeals

1. Appeals from the enforcement and interpretation of this Ordinance, and requests for conditional uses or variances shall be filed with the Administrator, who shall transmit all such records to the Board of Adjustment and/or the Board of Commissioners.

2. It is the intention of this Ordinance that all questions arising in connection with the enforcement of this Ordinance shall be presented first to the Administrator. All appeals from the Administrator's decisions shall be presented to the Board of Adjustment and/or the Board of Commissioners. The Wake County Superior Court provides the next recourse from the Board of Adjustment and/or the Board of Commissioners decisions under this chapter.

3. The Board of Adjustment shall fix a reasonable time, not to exceed 60 calendar days for a public hearing on appeals of the decision of the Administrator. A notice of each public hearing shall be published in a newspaper of general circulation in the town, at least one time a week for two consecutive weeks prior to the public hearing.

4. An appeal stays all proceedings in furtherance of the action appealed from, unless the Administrator certifies to the Board of Adjustment and/or the Board of Commissioners that, based on the records of the case, a stay would cause damage to life or property, in which case proceedings shall not be stayed otherwise than by an order from the Wake County Superior Court.

15.17 Variances

A. Applicability: When practical difficulties, special conditions or unnecessary hardships would result from carrying out the strict letter of this Ordinance, the Zoning Board of Adjustment shall have the power to vary or modify any of the regulations or provisions of this Ordinance. The Board of Commissioners shall hear such cases involving nonconformities.

B. Applicant with Standing: A petition for a variance may be initiated only by the owner of the affected property, an agent authorized in writing to act on the owner's behalf, or a person having a written contractual interest in the affected property upon the submission of a completed application. The filing of any application stays all proceedings unless the Administrator certifies that a stay

in his opinion will cause imminent peril to life or property, or, that because the violation charged is transitory in nature a stay would seriously interfere with enforcement of the Ordinance. In that event, proceedings shall not be stayed except by a restraining order, which may be granted by the Zoning Board of Adjustment, Board of Commissioners or by a judicial court of law.

C. **Required Findings of Fact:** The Zoning Board of Adjustment and/or the Board of Commissioners may only grant a variance having first held a public hearing on the matter and having made the following determinations:

1. There are practical difficulties or unnecessary hardships in the way of carrying out the strict letter of the Ordinance; and

2. That the variance is in harmony with the general purpose and intent of this Ordinance and preserves its spirit; and

3. That in the granting of the variance, the public safety and welfare have been assured and substantial justice has been done; and

4. That the reasons set forth in the application justify the granting of a variance, and that the variance is a minimum one that will make possible the reasonable use of land or structure; and,

5. That if the applicant complies with the provisions of this Ordinance, can secure no reasonable return from, nor make any reasonable use of the property.

6. The following are not cause for a variance:

a. The citing of other nonconforming or conforming uses of land or structures in the same or other districts.

b. The request for a particular use expressly, or by inference, prohibited in the district involved.

c. Economic hardship or the fact that property may be utilized more profitably with a variance.

D. **Board May Apply Conditions to Motion:** The Zoning Board of Adjustment and/or the Board of Commissioners, in granting a variance, may prescribe appropriate conditions and safeguards in conformity with this Ordinance. Violation of such conditions and safeguards, when made a part of the terms under which a variance is granted, shall be deemed a violation of this Ordinance and shall be punishable as prescribed in Chapter 18.

E. Supermajority Required for Decision: The concurrent, supermajority vote of 4/5 of the voting members of the Zoning Board of Adjustment and/or the Board of Commissioners shall be necessary to grant a variance. In all matters coming before the Zoning Board of Adjustment and/or the Board of Commissioners, the applicant shall have the burden of providing clear, competent and material evidence in support of the application. All decisions of the Zoning Board of Adjustment and/or the Board of Commissioners shall be in writing and filed with the Administrator.

F. Time for Decision: Except for minor variances noted in Section 15.18.G.1, the Zoning Board of Adjustment and/or the Board of Commissioners shall hold a public hearing on an application no later than 60 calendar days after a complete application has been filed with the Administrator. The Zoning Board of Adjustment and/or the Board of Commissioners shall decide on the matter which was presented at the public hearing within 30 calendar days of the close of the public hearing. If the Board of Adjustment and/or the Board of Commissioners fails to render a decision within the allotted time, the variance request is deemed to be not approved.

G. Rehearings: An application for a rehearing shall be made in the same manner as provided for an original hearing within a period of 15 calendar days after the date of the Zoning Board of Adjustment's and/or the Board of Commissioners decision. In addition, specific information to enable the Zoning Board of Adjustment and/or the Board of Commissioners to determine whether or not there has been a substantial change in facts, evidence, or conditions in the case, shall be presented in writing or graphically. A rehearing shall be denied by the Zoning Board of Adjustment and/or the Board of Commissioners, if, in its judgment, such change in facts, evidence or conditions has not been proven. A public hearing shall not be required to be held by the Zoning Board of Adjustment and/or the Board of Commissioners to consider holding such a rehearing. Approval of said consideration shall, however, require an affirmative vote of at least four voting members. In the event that the Zoning Board of Adjustment and/or the Board of Commissioners find that a rehearing is warranted, it shall proceed as in the original hearing except that the application fee shall be waived.

H. Effect of Denial-Time to Resubmit: Upon the denial of an original application, or upon the denial of an application from which a rehearing has been conducted, a similar application may not be filed for a period of one year after the date of denial of the original application.

15.18 Modification of Dimensional Standards

A. In keeping with the purpose of these regulations to accomplish coordinated, balanced, and harmonious development in a manner which will best promote the health, safety, and general welfare while avoiding undue and unnecessary hardships, on approval by the Town Manager, the Administrator is authorized to approve requests that deviate from required setbacks set forth in this Ordinance by up to 10 percent of the required setbacks or 24 inches, whichever is greater, upon determination that one or more of the following conditions exists:

1. There are site or structural conditions that preclude strict adherence to the setback requirements, such as, but not limited to: the lot does not meet the dimensional standards established for the zoning district in which it is located; the lot has topographic limitations that require placement of the structure into the required setback area; or the structure is physically in line with an existing, legally established wall or walls of a principal structure already within the minimum setback area.

2. The part of the proposed structure that would encroach into the minimum setback area is less than 50 percent of the width of the affected building facade(s), provided the part of the structure that would encroach into a front setback shall either be open (such as a porch or screen room) or not subject to occupancy (such as a chimney).

3. The part of the proposed structure that encroaches into the minimum setback area is necessitated by a life-safety code, flood hazard reduction, Americans with Disabilities Act standard, or other public safety code requirements.

4. The proposed structure will allow the preservation of significant existing vegetation.

5. A good faith error was made in the location of a building foundation not exceeding 1 foot due to either field construction or survey error.

Prior to rendering a decision, the Administrator shall notify the Town Manager in writing of any minor deviation for approval.

B. The authority given to the Administrator to grant such modification shall be construed to be permissive and not mandatory and the Administrator may decline to make such modification. In the event this occurs, the applicant shall have the right to submit an application to the Zoning Board of Adjustment and/or the Board of Commissioners to grant a variance to these requirements.

C. Nothing in this section shall be construed as limiting the Administrator's duties and rights under this Chapter, or an applicant's right to appeal the decision of the Administrator to the Zoning Board of Adjustment and/or the Board of Commissioners.

15.19 Legislative Procedures – General Provisions

A. **Purpose:** The purpose of this Section is to establish uniform procedures for processing matters requiring a legislative approval process.

B. **Required Compliance with Comprehensive Plans:**

1. Text and Zoning Map amendments shall be made in accordance with the *Town Plan of Wendell* or other adopted comprehensive or related plan. Prior to adopting or rejecting any zoning amendment, the Board of Commissioners shall adopt a statement describing whether its action is consistent with the adopted comprehensive plan and explaining why the Board of Commissioners considers the action taken to be reasonable and in the public interest. That statement is not subject to judicial review.

2. The Planning Board shall advise and comment on whether the proposed amendment is consistent with any comprehensive plan that has been adopted and any other officially adopted plan that is applicable. The Planning Board shall provide, within 30 calendar days of its decision, a written recommendation to the governing board that addresses plan consistency and other matters as deemed appropriate by the Planning Board.

3. A comment by the Planning Board that a proposed amendment is inconsistent with the comprehensive plan shall not preclude consideration or approval of the proposed amendment by the Board of Commissioners. However, a four-fifths majority vote by the Board of Commissioners shall be required to amend this Ordinance when the Planning Board recommends against such amendments. A simple majority of the Board shall be required to amend the Ordinance when recommendation by the Planning Board is favorable.

C. Protest Petitions

1. In the case of a protest against a rezoning (Zoning Map amendment) duly signed by the owners of 20 percent or more, either of the area of the lots included in the proposed change, or those immediately adjacent thereto, either in the rear thereof or on either side thereof, extending 100 feet from the street frontage of such opposite lots, the amendment shall not become effective except by favorable vote of three-fourths of all the members of the Board of Commissioners.

2. No protest against any proposed amendment shall be valid or effective unless it is on a form provided by the Town actually bearing the signatures of the required number of property owners and stating that the signers do protest the proposed change or amendment. All such petitions shall be filed in the office of the Town Clerk for validation at or before 12:00 noon not less than three working days prior to the date of the hearing.

3. A person filing a protest against a proposed zoning amendment may withdraw the protest any time prior to the meeting at which the rezoning will be considered. Withdrawal with a refund of required fees is permitted if requested prior to the printing of the advertisement in the newspaper.

D. Town Board Decision: Once the public hearing has been conducted the Town Board shall render a decision on the petition. All decisions shall be by simple majority vote unless a valid Protest Petition has been submitted in accordance with Section 15.19.C.

1. A decision concerning a petition for rezoning shall be as follows:

a. Grant the rezoning as requested; or,

b. Grant the rezoning with a reduction in the area requested; or,

c. Grant the rezoning to a more restrictive general zoning district; or,

d. Grant the rezoning with a combination of b and c above; or,

e. Deny the application.

2. A decision concerning the petition to amend the text of this Ordinance shall be as follows:

a. Adoption of the amendment as written; or,

b. Adoption of the amendment as revised; or,

c. Rejection of the amendment.

E. Rehearing

1. An application for a rehearing shall be made in the same manner as provided for an original hearing within a period of 15 calendar days after the date of the Board of Commissioners decision.

2. Specific information to enable the Board of Commissioners to determine whether or not there has been a substantial change in facts, evidence, or conditions in the case, shall be presented in writing or graphically.

3. A rehearing shall be denied by the Board of Commissioners, if, in its judgment, such change in facts, evidence or conditions have not been proven.

4. A public hearing shall not be required to be held by the Board of Commissioners to consider holding such a rehearing. Approval of said consideration shall, however, require an affirmative vote of at least four voting members. In the event that the Board of Commissioners finds that a rehearing is warranted, it shall then proceed as in the original hearing except that the application fee shall be waived.

5. Upon the denial of an original application, or upon the denial of an application from which a rehearing has been conducted, a similar application may not be filed for a period of one year after the date of denial of the original application.

F. Appeals: Every legislative decision of the Board of Commissioners shall be subject to review by the Superior Court Division of the General Courts of Justice of the State of North Carolina by proceedings in the nature of certiorari. Any petition for review by the Superior Court shall be duly verified and filed with the Clerk of Superior Court within 30 calendar days after the decision of the Board is filed in the office of the Town Clerk, or after a written copy is delivered to every aggrieved party who has filed a written request for such copy with the Administrator at the time of the hearing of the case by the Board of Commissioners, whichever is later.

G. Application Withdrawal

1. The petitioner may withdraw his application before submission of the public notice to the newspaper announcing the public hearing.

2. After submission of such notice, an application may be withdrawn at the discretion of the Planning Board or Board of Commissioners at the public hearing.

3. No more than two withdrawals may occur on the same parcel or portion of land within a one year period.

4. No application shall be filed on the same parcel or portion of land within a one year period after the date of the second withdrawal.

CHAPTER 16. DEVELOPMENT PLAN REQUIREMENTS

16.1 Purpose and Intent

This Chapter describes the information required for all development activity to ensure compliance with the standards found in this Ordinance. The submission of a complete application in accordance with this Chapter is necessary prior to the scheduling of any review by the Administrator, Technical Review Committee, Planning Board, and/or Board of Commissioners.

16.2 Number of Plan Sets Required

Three sets of each applicable plan type shall be submitted. The required plans are specified in Chapter 15.

Plan Type	Initial Review	Boards and Committees	Town File (as approved)
Sketch Plan	5 prints	n/a	3 prints + 1 digital (pdf)
Master Plan/ Preliminary Plan	5 prints	10 copies + 1 digital (if required)	3 prints + 1 digital (pdf)
Construction Documents	5 prints	n/a	3 prints + 1 digital (pdf)
As-Builts	5 prints	n/a	3 prints + 1 digital (pdf)
Final Plat	3 prints	15 where applicable	1 mylar print + 2 copies + 1 digital (pdf)
Minor Subdivision	As determined by Administrator		

16.3 Environmental Survey

An environmental survey is intended to identify forest stands or trees of a uniform size and species; specimen trees of varying sizes and species, particularly free standing or open-grown or field grown trees; a distinctive tree line or forest edge; existing watercourses; and previously documented endangered species habitats. Identification of existing trees, understory vegetation, known endangered species, habitats, wetlands, perennial streams, floodplains, and topographical features on a site prior to the advanced preparation of development plans enables the reasonable and practical planned preservation of existing and environmentally sensitive areas. This requirement provides the Town and the applicant the ability to evaluate the proposed development in order to preserve vegetation, to improve the appearance of the development proposed and to encourage the use of the existing forest and tree canopy,

specimen trees, and significant vegetation to satisfy the requirements of this Ordinance.

A. For Master Plan/Preliminary Plan submittals, the use of digital geographic data (including, but not limited to, aerial photography, topography, wetland information, tree cover or other information that may be available and relevant) obtained from the Town of Wendell or Wake County is deemed to be sufficient.

B. For Construction Documents, the Environmental Survey requirements are as follows *(Note: This requirement can be waived by the Administrator if he/she determines the site lacks qualifying natural features.)*:

1. Provide a general written description of the significant vegetation, including the typical tree species composition of the forest stand, typical tree size, and general health and vigor of the stand and specimen trees. Significant vegetation is defined as canopy trees 12 inches in diameter at breast height (DBH) or greater and native understory species 2 inches in diameter or greater (e.g. dogwood, holly, redbud, etc.).

2. Denote the dripline of any existing forest stand.

3. Identify all open grown or specimen trees located on the site 12 inches or greater DBH.

4. Denote site conditions as "prime buildable," "secondary buildable," "conserved," or "preserved" as defined in Section 8.5, Tree Protection.

5. Show all other important natural features influencing site design such as the location of wetlands, rock outcroppings, site topography at 2 foot contour intervals, slopes steeper than 15 percent, and perennial streams, natural drainage ways, lakes, and other water bodies, and floodplains indicating both the flood fringe and the flood way. USGS and FEMA data shall be used to determine the location of perennial streams.

6. Denote the presence of any known endangered species' habitats indicated in any surveys completed by Wake County, the State of North Carolina, or other governmental agency.

7. Show all buffer delineations as follows:

a. Stream buffer boundaries including all undisturbed buffer zones shall be clearly delineated on all Development Plans for approval by the Town, on all Construction Documents,

including grading and clearing plans, erosion and sediment control plans, and site plans.

b. Buffer boundaries for all required undisturbed buffer zones shall be clearly delineated on-site prior to any land disturbing activities. Where existing trees are to be preserved in a buffer zone, limits of grading shall maintain a minimum 20-foot separation from the base of each tree on the upland side of the buffer or to the dripline.

c. Buffer boundaries including all buffer zones as well as all buffer requirements shall be specified on the record plat, on individual deeds, and in property association documents for lands held in common.

16.4 Sketch Plan Requirements

The Sketch Plan shall show in simple sketch form the proposed layout of streets, lots, buildings, public open spaces and other features in relation to existing conditions based upon the size of the tract proposed for development. Sketch Plans shall be reviewed as binding documents for Zoning Permits, but shall be used for non-binding review for all other development application processes in which a Sketch Plan is required. All plans shall be submitted at a scale not less than 1 inch = 50 feet (for Site Plans) or 1 inch = 200 feet (for Subdivisions) unless otherwise authorized by the Administrator.

Sketch Plans shall include the following information:

A. The name of the proposed development.

B. Name of map or plan (e.g. Sketch Plan)

C. The name, address and telephone number of the property owner.

D. The name, address and telephone number of the developer, if different from property owner.

E. A sketch vicinity map, including north arrow and property address, showing the location of the subdivision in relation to neighboring tracts, subdivisions, roads, and waterways.

F. Date(s) map(s) prepared or revised.

G. Name, address and telephone number of map preparer.

H. North arrow and orientation (north arrow shall be oriented toward the top of the map where practical)

I. Scale denoted as a bar graph and numerically.

J. The existing boundary lines of the property and total acreage. If existing property lines are to be changed, label as "old property lines" and show as dashed lines.

K. Lots of adjacent developed or platted properties, including tax map, block, and parcel numbers

L. The existing and proposed land uses and the existing land uses of adjacent properties.

M. Zoning classification of the land and adjacent properties.

N. Corporate limits, town limits and other jurisdiction boundary lines on or within 300 feet of the land to be subdivided or developed, if any.

O. The location, names and right-of-way width of any existing streets on and within 300 feet of the land to be subdivided or developed.

P. Location of existing or proposed thoroughfares or collector streets on and within 300 feet of the property as shown on the Town's currently adopted thoroughfare plan or Collector Street Plan.

Q. Floodplain and floodway delineation.

R. Water courses, ponds, lakes or streams.

S. Railroad lines and rights-of-way.

T. Location of existing public water and/or sewer lines on and within 300 feet of the property.

U. Dimensions, location, and use of all existing buildings; distances between buildings measured at the closest point; distances from buildings to closest property lines; and, buildings to remain on final plan.

V. Name and location of any property or building on the National Register of Historic Places or locally designated historic property.

W. If deemed necessary by the Administrator, existing topographic conditions shall be provided. Contours should be at least in 2-foot intervals. Wake

County or Town of Wendell topographic information may be used to fulfill this requirement.

X. Proposed lot lines, dimensions and street network.

Y. Square footage of all lots less than 1 acre in size, with smallest lot indicated. Acreage for all lots over 1 acre.

Z. Site calculations, including acreage in total tract, total number of lots proposed.

AA. Lots sequenced or numbered consecutively.

BB. Street data illustrating right-of-way lines

CC. Plan for providing water and sewer service in graphic or narrative form.

DD. General open space areas.

EE. Statement of Comprehensive Plan consistency.

16.5 Master Plan/Preliminary Plan Requirements

The Master Plan (or Preliminary Plan for Major Subdivisions) shall be drawn to the following specifications and shall contain or be accompanied by the information listed below. All plans shall be submitted at a scale not less than 1 inch = 50 feet (for Site Plans) or 1 inch = 200 feet (for Subdivisions) unless otherwise authorized by the Administrator. No processing or review of a Master Plan or Preliminary Plan will proceed without all of the information required for Sketch Plan review in addition to the information listed below:

A. Plat book or deed book references.

B. Names of adjoining property owners (or subdivision or developments of record) with plat book and/or deed book reference.

C. The boundary, as determined by survey, of the area to be developed with:

1. All bearings, curve data and distances on outside boundaries and street centerlines;

2. Street centerlines tied to the boundary;

3. The location within the area, or contiguous to it, of any existing streets, railroad lines, perennial streams, wetlands, easements or other significant features of the tract.

4. At least one corner tied to the NC grid with grid coordinates provided where at least one of two control monuments needed are within 2,000 feet of the boundary. Otherwise, boundary should be tied to the nearest street intersections.

5. Locations of intersecting property boundary lines of adjoining properties;

D. Site calculations including total acreage of tract, acreage in recreational open space and other non-residential uses, total number and acreage of parcels, and the total number of housing units.

E. Original contours at intervals of not greater than 2 feet for the entire area to be subdivided/developed and extending into adjoining property for a distance of 100 feet at all points where street rights-of-way connect to the adjoining property and 10 feet at all other points of common project boundaries. At least two contours per map should be labeled. Wake County or Town of Wendell digital topography may be used to satisfy this requirement but should be field-verified by the applicant's consultant to ensure accuracy. This requirement may be waived by the Administrator for developments smaller than 1 acre or where insufficient topographic changes warrant such information.

F. Building elevations required for all Major Site Plans.

G. The location of:

1. proposed buildings

2. parking and loading areas

3. streets and alleys with total right-of-way dimensions; right-of-way width dimensions from center lines of existing public streets; and existing and proposed street names

4. lots

5. detailed plans of parks, recreation and open space

6. site reservations (e.g., school sites)

7. property lines and building setback lines

8. tentative lot dimensions

9. building restriction areas (i.e. flood hazard areas, buffer locations, watershed protection districts, and/or jurisdictional wetlands)

10. location, dimension, and type of all easements (existing and proposed)

11. proposed size of utility mains, extensions and services

H. Environmental Survey Requirements in accordance with Section 16.3.

I. Calculations of proposed impervious cover.

J. Typical cross-sections of proposed streets and alleys. Cross-sections shall include the following information: right-of-way widths, pavement widths, curb and gutter profile, planting strip widths and locations, sidewalk widths and locations, underground utilities' widths and locations, and building setbacks.

K. The proposed limits of construction for all proposed development activity.

L. Illustrative Landscape/Tree Plan showing general location and massing of proposed landscape material.

M. Phase lines (if applicable).

N. Certification statements.

O. Floodplain Development Permit and Certification application with supporting documentation as required by the Wendell Flood Damage Prevention Ordinance (if applicable; see Chapter 6). (Application must be prepared for review, although not necessarily approved at the time of submittal of the Master Plan/Preliminary Plan documents.)

P. Certificate of Appropriateness for historic properties (if applicable).

Q. Traffic Impact Analysis (if applicable; see Section 16.11, Traffic Impact Analysis).

* Submittal of estimated payment-in-lieu of dedicated open space must be made at the time of master plan/preliminary plat approval (if applicable).

16.6 Construction Document Requirements

The Construction Documents for Site Plans and Subdivision Plans shall be submitted in accordance with the specifications of this Section except where specifically noted. Construction Documents shall constitute the final submittal requirements for Site Plans and Major Subdivision Plans required prior to construction.

Construction Drawings shall be drawn to the following specifications and shall contain or be accompanied by the applicable information listed below. All plans shall be submitted at a scale not less than 1 inch = 50 feet unless otherwise authorized by the Administrator. All streets, utilities, and stormwater, and other infrastructure systems shall be designed and constructed in accordance with the adopted Standard Specifications and Details of the Town of Wendell, and/or other authorized entities (i.e. CORPUD, NCDOT). No processing or review of Construction Documents will proceed without all of the information required for Sketch Plan and Master Plan review in addition to the following information:

A. The proposed names of the development and streets, the owner's name and address, signature of the owner or owner's duly authorized agent, the surveyor's and/or engineer's name, signature, and seal.

B. Site calculations including total acreage of tract, acreage in parks and other non-residential uses, total number and acreage of parcels, the total number of housing units, area of all mixed-use and non-residential buildings, gross project density per acre, linear feet of streets, and the accurate locations and descriptions of all monuments, markers, and control points.

C. Existing topography and finish grading with contours drawn at 2-foot intervals. This requirement may be waived for developments smaller than 1 acre or where insufficient topographic changes warrant such information.

D. Proposed lot lines, lot and block numbers, and exact dimensions.

E. The future ownership (dedication or reservation for public use to a governmental body; for owners to duly constituted home owners' association; for tenant's remaining in subdivider's ownership of recreational open space lands).

F. The location of proposed buildings, parking and loading areas, streets, alleys, lots, reservations (i.e. school sites), property lines and building setback lines with street dimensions, lot dimensions, and the location of any building restriction areas (i.e. flood hazard areas, watershed protection districts, and/or jurisdictional wetlands).

G. The location and dimensions of all off-street parking and loading spaces, and walkways indicating the type of surfacing, size, angle of stalls, and width of aisles.

H. The location and dimensions of proposed open space, and required amenities and improvements including the calculated area of all required open space dedications in accordance with Chapter 7.

I. The location and dimensions of any sidewalks, curb and gutters to be installed along public street frontages, and other required street improvements designated in Chapter 9 of this Ordinance. Required right-of-way shall be drawn in the location shown on any official plan at the width specified in this Ordinance.

J. Typical cross sections of proposed streets showing rights-of-way, pavement widths, grades, and design engineering data for all corners and curves. Where a proposed street is an extension of an existing street the profile of the street shall include 300 feet of the existing roadway, with a cross section of the existing street. Where a proposed street within the subdivision abuts a tract of land that adjoins the subdivision and where said street may be expected to extend into said adjoining tract of land, the profile shall be extended to include 300 feet of the said adjoining tract.

K. The location of any existing or proposed demolition landfills in the site. Such sites shall not be used for building.

L. The plans for utility layouts, including sanitary sewers, storm drains, and water lines, illustrating connections to existing systems.

M. Utility Layout Plan showing connections to existing systems, line sizes, material of lines, location of fire hydrants, blow offs, valves, manholes, catch basins, force mains, etc. for the following types of utility lines: sanitary sewer; water distribution; storm sewer.

N. The location and size of all utility lines, easements, and rights-of-way. Easements shall be provided on all Construction Documents as follows:

1. **Utility Easements.** Easements for underground or above ground utilities shall be provided for and centered along rear or side lot lines, and shall be a minimum of 10 feet in width. Easements for water and sanitary sewer lines shall be centered on the pipe and a minimum of 20 feet in width or as required by the City of Raleigh Public Utilities Department (CORPUD) Handbook. City of Raleigh utility easements shall not be shared with any other utilities, storm drainage pipes or BMPs.

2. **Drainage Easements.** Where a development is crossed by a stream or drainage way, an easement shall be provided conforming to the lines of such drainage way and in accordance with the adopted *Standard Specifications and Details* of the Town of Wendell.

3. **Landscape Easements.** Landscape easements (if necessary or required) for street yards, planting yards and along any private streets should be designed in accordance with the provisions of Chapter 8, Tree Protection and Landscaping. The Town may require landscape easements for planting yards for developments where industrial or commercial uses abut residential uses.

4. **Public Access Easements.** Public Access Easements shall be provided for sidewalks, trails, greenways, and other pedestrian and bicycle facilities that provide connections other than within public rights-of-way.

5. **Maintenance of Easements:** Note indicating that 'maintenance of easements shall be the responsibility of the property owner' shall be included on the Construction Documents.

O. **Non-Public/Private Water and Sewer Utilities:** Well and septic systems which do not come under the immediate supervision of the municipality shall comply with the following:

1. **Individual sewer and water system.** An acknowledgment from the Wake County Health Department indicating that the water supply and sewage disposal system installed or proposed for installation fully meets the requirements of the North Carolina State Board of Health.

P. A copy of the soil erosion and sedimentation plans and approval letter.

Q. Approved Floodplain Development Permit and Certification application with supporting documentation as required by the Wendell Flood Damage Prevention Ordinance (if applicable).

R. Stormwater permit (if applicable).

S. Supplemental Plans, as applicable:

1. **Landscape Plan** in accordance with Section 16.8.

2. **Lighting Plan** in accordance with Section 16.9.

3. **Architectural Plans** in accordance with Section 16.10.

T. Required notes and certifications (see Section 16.14)

16.7 Final Plat Requirements

The final plat shall be prepared by a registered land surveyor, licensed to practice in the State of North Carolina and shall be drawn to a scale no less than 1 inch = 100 feet, and shall meet the requirements of the Wake County Register of Deeds Office. The final plat shall constitute an entire phase as shown on the approved master plan. The size and number of completed applications shall be set by the Technical Review Committee.

No Final Plat shall be approved unless and until as-built drawings have been submitted to and approved by the Town of Wendell and CORPUD and the subdivider has installed in the platted area all improvements required by this Ordinance or has posted Improvement Guarantees, as described in Chapter 17. The Final Plat shall contain the following:

A. A vicinity map showing the location of the subdivision with respect to adjacent streets and properties.

B. The name of the owner, and the name, signature, registration number, and seal of the registered surveyor under whose supervision the plat was prepared.

C. The name of the subdivision.

D. The date of the plat.

E. The exact boundary of the tract of land being subdivided showing clearly the disposition of all portions of the tract.

F. Scale denoted both graphically and numerically with north arrow and declination.

G. Sufficient data, as determined by the Administrator, to determine readily and reproduce accurately on the ground the location, bearing, and length of every street, alley line, lot line, building line, easement line, and setback line. All dimensions, bearings, and angles shall be in accordance with the Standards of Practice for Surveying in the State of North Carolina.

H. The lines and names of all streets, alley lines, lot lines, lot and block numbers, lot addresses, building setback lines, easements, reservations, on-site demolition landfills and areas dedicated to public purpose with notes stating their purposes.

I. All plats showing a regulated floodplain shall be noted with the following statement:

"Any construction or use within the Special Flood Hazard Area (SFHA) is subject to the restrictions imposed by the Wendell Flood Damage Prevention Ordinance."

A minimum finished floor elevation shall be noted for all lots in the SFHA as well as referenced FIRM map and date of map.

J. The accurate locations and descriptions of all monuments, markers, and control points.

K. Underground and aerial utility easements shall be shown.

L. The exact location of stream corridor buffer boundaries including all buffer zones as well as all buffer requirements shall be specified on the record plat, on individual deeds, and in property association documents for lands held in common.

M. As-built drawings and plans of all water, sewer, and storm drainage system facilities, illustrating their layouts and connections to existing systems. Such plans shall show all easements and rights-of-way, to demonstrate that the facilities are properly placed and the locations of all fire hydrants, blow-off valves, manholes, pumps, force mains, and gate valves are indicated. This information shall not be placed on the final plat but shall be submitted at the time of request for final plat approval.

* Submittal of all outstanding fees is required before Final Plat approval.

16.8 Landscape Plan Requirements

A. A landscape plan shall be required prior to any land disturbance for any proposed development plan. (Predevelopment site grading, or any land disturbing activity of 1 acre or more that is not regulated by a site plan previously approved by the Board of Commissioners, shall be governed by the provisions of Section 8.4, Landscape Plans.)

B. The plan shall contain the following information:

1. Name of the project, name and address of owner, name and address of designer, scale, date, legend, and north arrow.

2. An accurate, scaled drawing of property boundaries with zoning designations of proposed development and adjacent properties drawn to a scale no less than 1 inch = 50 feet (for Site Plans) or 1 inch = 200

feet (for Subdivisions) unless otherwise authorized by the Administrator.

3. A development summary including the total development acreage, proposed use(s), required parking and provided parking spaces, and total building square footage.

4. The location of proposed buildings, signage, driveways, parking areas, required parking spaces, connections to existing streets, and traffic patterns.

5. The location of all overhead and underground utilities.

6. General location, type and quantity of existing plant materials.

7. Existing plant materials and areas to be left in natural state.

8. Methods and details for protecting the critical root zone (CRZ) of existing plant materials during construction.

9. Locations, size and labels for all proposed plants.

10. Plant lists with common name, botanical name, quantity, and spacing and size at time of planting of all proposed landscape material.

11. Location and description of other landscape improvements, such as earth berms, walls, fences, screens, sculptures, fountains, lights, courtyards, walks or paved areas.

12. Location and type of irrigation system, if applicable.

13. Planting and installation details as necessary to ensure conformance with all required standards as referenced in Chapter 8.

C. **Alternative Plans:** Alternate landscaping plans, plant materials, or planting methods may be used where the Administrator determines that unreasonable or impractical situations would result from application of landscaping requirements, or where necessary to protect existing vegetation. Such situations may result from streams, natural rock formations, topography, or other physical conditions; or from lot configuration, utility easements, unified development design, or unusual site conditions.

16.9 Lighting Plan Requirements

The applicant for any permit required for work involving exterior lighting shall submit documentation at time of site plan or plot plan approval that the proposed lighting plan complies with the provisions of Chapter 11, Lighting. The submission shall contain, but not be limited to the following, all or part of which may be part of or in addition to the information required in Chapter 11:

A. A site plan drawn to scale showing building(s), landscaping, parking areas, and proposed exterior lighting fixtures.

B. A point-by-point foot-candle array in a printout format indicating the location and aiming of illuminating devices. The printout shall indicate compliance with the maximum maintained foot-candles required by Chapter 11.

C. Description of the illuminating devices, fixtures, lamps, supports, reflectors, poles, raised foundations and other devices (including but not limited to manufacturer's or electric utility catalog specification sheets and/or drawings, and photometric report indicating fixture classification [cutoff fixture, wall pack, flood light, etc.]) and the height of fixtures. The Administrator may waive any or all of the above permit requirements, provided the applicant can otherwise demonstrate compliance with Chapter 11.

D. **Measurements:** Light level measurements shall be made at the property line of the property generating the light. If measurement on private property is not possible or practical, light level measurements may be made at the boundary of the public street right-of-way that adjoins the property of the complainant or at any other location on the property of the complainant. Measurements shall be made at finished grade (ground level), with the light-registering portion of the meter held parallel to the ground pointing up. The meter shall have cosine and color correction and have an accuracy tolerance of no greater than plus or minus 5 percent. Measurements shall be taken with a light meter that has been calibrated within two years. Light levels are specified, calculated and measured in foot-candles. All foot-candle values are maintained foot-candles.

16.10 Architectural Plans

A. Architectural plans shall be required for Zoning Permit approval in order to determine compliance with the building design requirements in the Ordinance.

B. Architectural plans shall depict architectural details of proposed buildings and shall consist of:

1. All exterior wall elevations.

2. Photos of existing conditions and surrounding structures and properties.

3. Building Materials Schedule (material samples may be required).

16.11 Traffic Impact Analysis (TIA)

A. Transportation Impact Analyses shall be required for a rezoning, subdivision plan, site plan, Special Use Permit, certificate of zoning compliance, or Preliminary Plan for developments with an estimated trip generation of 3,000 vehicles per day or greater as defined in Section 9.10 (or as required by NCDOT, in which case NCDOT TIA regulations should also be followed).

1. **Rezoning Transportation Impact Analysis Report:** Evaluates whether adequate transportation capacity exists or will be available within a reasonable time period to safely and conveniently accommodate proposed uses permitted under the requested land use or zoning classification.

2. **Transportation Impact Analysis Report:** Required for certain permitted and special uses, subdivisions, and Preliminary Plans exceeding the specific trip generation threshold.

B. The applicant shall provide the full rationale, from a North Carolina licensed engineer, to perform such duties to support the recommendations of this analysis. The submission shall include all pertinent traffic data and computations affecting the design proposal.

C. The Rezoning Transportation Impact Analysis or the Transportation Impact Analysis Report shall contain the following:

1. **Site Description:** A detailed report, containing illustrations and narrative, shall describe the site's characteristics, adjacent land uses, as

well as any anticipated development within the site's vicinity influencing future traffic conditions.

a. A rezoning transportation impact analysis shall provide a description of the development's potential uses.

b. A transportation impact analysis report shall include access plans, staging plans, and land use / intensity information.

2. **Study Area:** The report shall indicate the geographic location of the study area, roadway segments, critical intersections, and access points to be analyzed. The study area shall extend not less than 1/2 mile from the site.

3. **Existing Conditions:** An analysis of the existing transportation conditions, including all data used for the analysis shall be provided in the report, including:

a. Traffic count and turning movement information, including the date and source from which this information was obtained;

b. Correction factors used to convert collected traffic data into representative average daily traffic volumes;

c. Roadway characteristics, including:

i. Design configuration of existing or proposed roadways;

ii. Existing traffic control measures;

iii. Existing driveways and turning movement conflicts in the vicinity of the site.

d. Existing Level of Service (LOS) for roadways and intersections without project development traffic. LOS shall be calculated for the weekday peak hour, and in the case of uses generating high levels of weekend traffic, the Saturday peak hour.

4. **Horizon Year(s) and Background Traffic:** The report shall identify the horizon year(s) that were analyzed in the study, the background traffic growth factors for each horizon year, and the method and assumptions used to develop the background traffic growth. Unless otherwise approved by the Administrator, development impacts shall be examined for the first and tenth years after the development is completed.

5. **Trip Generation, Trip Reduction, and Trip Distribution:** A summary of projected a.m. and p.m. peak hour and average daily trip generation for the proposed development shall be provided in addition to projected trip distribution to and from the site. The factors used to determine trip generation, reduction, and distribution are also to be included in the summary.

6. **Traffic Assignment:** The report shall identify the projected roadway segment, intersection or driveway traffic volumes, with and without the proposed development, for the horizon year(s) of the analysis.

7. **Impact Analysis:** The report shall address the impact of projected horizon year(s) traffic volumes. It shall identify the methodology used to evaluate the impact. The weekday peak hour impact shall be evaluated as well as the Saturday peak hour for those uses exhibiting high levels of weekend traffic generation.

8. **Mitigation / Alternatives:** The report shall identify alternatives for achieving traffic service standards, including:

   a. Additional rights-of-way necessary to implement mitigation strategies.

   b. Suggested phasing improvements necessary to maintain compliance with traffic service standards.

   c. Other alternatives, including transportation management strategies.

   d. Anticipated costs of recommended improvements.

16.12 Floodplain Development Permit Requirements

In addition to the Environmental Survey, floodplain development plans shall be required when applying for a Floodplain Development Permit. All plans shall be submitted at a scale not less than 1 inch = 50 feet unless otherwise authorized by the Administrator. Application for a Floodplain Development Permit shall be made to the Administrator on forms furnished by him or her prior to any development activities proposed to be located within flood prone areas. Floodplain Development Permits shall be in accordance with the requirements of Section 6.7, Flood Damage Protection Ordinance.

16.13 Stormwater Permit Requirements

Any development requiring a stormwater permit shall comply with the application requirements as outlined in Section 6.5, Post-Construction Stormwater Ordinance. The permit application shall be submitted as required in Section 6.5.

16.14 Required Notes and Certifications

A. Master Plan/Preliminary Plan Certifications: The following note must appear on the Master Plan/Preliminary Plans:

I hereby certify that this Plan was approved by the (Administrator) or (TRC) of the Town of Wendell on the _____ day of _____20__.

_____
Administrator

B. Final Plat Certifications: The following certifications must appear on the Final Plat, as appropriate:

1. Certificate of Survey and Accuracy. (As required under G.S. 47-30 as amended)

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 clearly indicated as drawn from information found in Book _____, Page _____; that the ratio of precision as calculated is 1:1_____ *[note: maximum allowable error: 1:10,000]* ; that this plat was prepared in accordance with G.S. 47-30 as amended.

Witness my original signature, registration number and seal on this date:

_____, 20___ _____ (Seal)
Date Registered Land Surveyor with Registration #

2. Certificate of Ownership and Dedication. I (We) hereby certify that I am (we are) the owner(s) of the property shown and described hereon and that I hereby adopt this plan of subdivision with my (our) free consent, establish minimum building lines, and dedicate all streets, alleys, walks, parks, and other sites to public or private use as noted. Further, I (We) certify the land as shown hereon is within the platting jurisdiction of the Town of Wendell.

2a. Certificate of Road Maintenance: I (we) hereby certify that I (we) will maintain the roads to the standards set forth by the Town of Wendell until the respective governmental agency takes over this responsibility. (This does not include the removal of snow/ice).

_____, 20___ _____
Date Owner(s)/Developer

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 an acceptable manner and according to Town of Wendell Specifications and Standards.

OR

I hereby certify that a guarantee of the installation of the required improvements in an amount and manner satisfactory to the Town of Wendell has been received.

_____, 20 __ _____ (Seal)
Date Town Engineer, Town of Wendell

4a. Certificate of Approval for Recording Plat and Acceptance of Dedications: I do hereby certify that on the _____ day of _____, 20____, the (applicable approving body) approved this plat for recording and accepted the dedication of the streets, easements, rights-of-ways and public parks and other sites for public purposes as shown hereon, but assumes no responsibility to open or maintain the same until, in the opinion of the governing body of the Town of Wendell, it is in the public interest to do so. Plat must be recorded within 30 days of this date.

_____, 20__ _____ (Seal)
Date Town Clerk, Town of Wendell

OR

The following certificate shall appear on all plats which do not meet the definition of subdivision as defined in this Ordinance, but which need approval from the Town for recording at the Wake County Register of Deeds Office. This Certificate is to be used in lieu of 4a. above.

4b. Certificate of Approval for Recording. I hereby certify that:

. . .the subdivision plat shown is exempt from the subdivision provisions of the Wendell Unified Development Ordinance.

OR

. . .this is a map for recordation and does not constitute a subdivision of land.

The plat has been found to comply with the regulations of the Wendell Unified Development Ordinance, and has been approved by the Town of Wendell for recording in the Office of the Register of Deeds of Wake County.

_____, 20__ _____ (Seal)
Date Town Clerk, Town of Wendell

5. Review Officer Certification. State of North Carolina, County of Wake
I, _____, Review Officer of Wake County, certify that the map or plat to which this certification is affixed meets all the statutory requirements for recording.

_____, 20___ _____
Date Review Officer

6. North Carolina Department of Transportation Construction Standards Certification.

Division of Highways
Proposed Subdivision Road
Construction Standards Certification

APPROVED:_____ Date:_____
District Engineer

7. On-site Water and/or Sewer Note (where appropriate)

(All the Lots) or (Lots # _____) as shown on this plat are proposed to be served with on-site water and/or sewer systems. The lots as shown meet the minimum size prescribed by the Wake County Health Department for such systems(s). However, the recording of this plat does not guarantee that any such lots will meet the requirements for approval by the Health Department for such on-site systems

_____ Date:_____
Engineer/Survey License or Reg. #

8. Special Flood Hazard Area Note (word to represent actual situation).

Reference: Floodway Panel # _____
Date: _____ (of Panel)
Reference: FIRM map and date of map.
(If part of the property is in a Special Flood Hazard Area it shall be shown graphically on the plat.)

16.15 Record Plat Requirement

The following certification shall be affixed to the map for recordation in such a manner as to insure that said certificate will be legible on any prints made therefrom:

> I hereby certify that this is a map for recordation and does not constitute a subdivision of land.
>
> _____ _____
> Administrator (date)

Chapter 17. INFRASTRUCTURE IMPROVEMENT REQUIREMENTS

17.1 General Infrastructure Improvement Requirements

A. In addition to the standards found elsewhere in this Ordinance, all developments shall be required to install or provide the following improvements, as applicable:

- Water supply distribution and fire hydrants (Chapter 17)
- Sanitary sewer (or meet Wake County Health Department requirements for on-site systems) (Chapter 17)
- Streets (Chapters 9, 17) and other public rights-of-ways (e.g., greenway paths; see Chapter 7)
- Easements (Chapter 17)
- Sidewalks (Chapter 9)
- Storm drainage in streets (Chapter 9)
- Street lighting (Chapter 17)
- Wiring (Chapter 17)
- Dedicated recreational open space (Chapter 7)
- Landscaping (Chapter 8)
- Storm drainage infrastructure (Chapter 17)
- Special street signs and other traffic control devices in accordance with the *Manual of Uniform Traffic Control Devices*, latest edition. (Chapter 17)

B. All required improvements set forth in this Chapter shall be installed or constructed by the developer at no cost to the Town except as may otherwise be specifically provided herein or by Town policy or agreement. Required improvements under this Chapter shall not be installed or constructed until required construction plans have been approved by the Administrator and an order to proceed has been issued. The Town may, in order to serve future development, require the developer to install certain oversized improvements and/or to increase such improvements to a size and/or extent beyond that necessary for the needs created by the developer. In such cases, the Town shall enter into an agreement to reimburse the developer for the oversizing and/or extension based upon rates as agreed to by the Town.

C. **Infrastructure Design Specifications:** All infrastructure shall be designed and installed in accordance with the Wendell *Standard Specifications and Details Manual* and the City of Raleigh Public Utilities Department's current handbook.

D. **Phasing:** Developments may be designated to be constructed and platted in phases. Provided, however, the Administrator may not approve a phasing plan when in the Administrator's opinion such phasing will not provide for adequate public facilities to support any such phase or phases independent of the overall development plan. In approving phases the Administrator may require that additional streets, water and sewer facilities or other required public facilities be constructed as part of the phase or phases in order to ensure that sufficient public facilities will be in place to support such phase, or phases, independent of any future development.

E. **Funds in Lieu of Construction:** At the option of the developer and with the consent of the Board of Commissioners, a developer may, in lieu of the construction of the portion of a street which crosses over a water course located at the boundary of the development, deposit with the Town the sum sufficient (in the Town's determination) to construct such portion of the street. This option shall not be available when such street connects to an existing street at the boundary of the development or serves as a necessary means of access to a lot within the new development. Funds may be paid in lieu of construction of improvements for minor developments upon approval of the Board of Commissioners.

17.2 Street Improvements

A. All proposed streets shall be improved with a pavement width and storm drainage section as required for the particular classification of street specified in Chapter 9.

B. All grading, pavement and curb and gutter shall be designed and installed in accordance with Town standards and the approved construction plan.

C. Where bridges are required, such shall be installed to fit the cross-section of the street classification.

D. In addition, street paving and curb and gutter and storm drainage, in accordance with the above conditions, shall be installed in the following situations:

1. Any existing street segment that has not been accepted for maintenance by either the Town or the North Carolina Department of Transportation, and that is to serve one or more lots created pursuant to these regulations, shall be improved and dedicated to the public, as provided for above, in such a way that the street segment meets the standards of these regulations for the particular classification of street, including right-of-way width. Such street segment shall be directly connected to the existing public street system by way of at least one public street accepted for maintenance by either the Town or

the North Carolina Department of Transportation. No development shall be permitted on any street that is an "island" not connected directly to the public street system.

2. Where a development fronts on any existing street segment maintained by either the Town or the North Carolina Department of Transportation and the street does not meet the minimum standards of these regulations for the classification of street, the developer shall improve the portion of street adjoining the development to meet the minimum standards including construction and width. When the development adjoins only one side of an existing street, one-half of the minimum right-of-way shall be provided, measured from the centerline of the street.

3. The Administrator may require pavement and widening or pavement and widening and curb and gutter and storm drainage for turning lanes along any street that forms a significant entrance to a proposed development where in the opinion of the Administrator such improvements are necessary in order to provide for safe vehicular movement into and out of the proposed development.

4. Required pavement and widening, curb and gutter and storm drainage for turning lanes and entrances to new construction along any major thoroughfare shall be installed in accordance with NCDOT standards.

5. Where a street is stubbed into adjoining property for future extension and such street serves as the frontage for one or more lots which are not corner lots, the Administrator may require the pavement of a temporary turn-around in a form similar to a cul-de-sac on such street where in the Administrator's opinion such turn-around is necessary for the public convenience, safety and service.

6. Streets and sidewalks shall be extended within existing rights-of-way as needed to provide publicly maintained street frontage to all newly created lots; however, construction standards may be modified to coincide with an existing publicly maintained street stub, if applicable.

E. **Street Names:** Proposed streets which are obviously in alignment with other existing streets shall bear the assigned name of the existing street. In no case shall the name for proposed streets duplicate or be phonetically similar to existing street names, irrespective of the use of the suffixes for street, avenue, boulevard, driveway, place, or court. The number of characters for street names shall not exceed 18 characters including the suffix abbreviation and the compass direction abbreviation, if any. Proposed streets names are subject to the approval of the Town prior to being forwarded to Wake County for approval.

F. Connection to State Streets

1. North Carolina General Statutes 136-102.6 "Compliance of Development Streets with Minimum Standards of the Board of Transportation Required of Developers" requires that new public streets outside the Town limits and changes to existing streets inside the Town limits that are the responsibility of NCDOT be in accordance with the *Minimum Right-of-Way and Construction Standards* established by the Board of Transportation for acceptance on the State highway system. It is the intent of the UDO standards and requirements, as set forth, to complement and not to conflict with the requirements of NCDOT as stated in NCGS 136-102.6. In all cases the most restrictive limitation or requirement or the requirement causing the highest standard of improvement shall govern. An approved permit is required to connect to any existing state system street.

2. NCDOT's *Traditional Neighborhood Development Guidelines* may be used in lieu of the State's "Development Roads Minimum Construction Standards" for developments in the Town's ETJ that meet the *Guideline's* standards for applicability.

17.3 Street Name Signs

A. Standard street name signs will be installed by the Town at all intersections in accordance with Town Standards. Prior to the installation of such signs, the developer shall pay the costs of such signs, posts and installation.

B. Custom or decorative markers or signposts proposed by the developer are subject to approval by the Administrator prior to installation. The developer is responsible for all costs associated with the use of custom or decorative materials.

17.4 Traffic Control Signs, Signals, and Markings

For streets to be maintained by the Town, traffic control signs, signals, and markings will be installed by the Town in accordance with Town standards and specifications. Prior to the installation of such facilities, the developer shall pay the Town for the costs of such items and installation. For streets to be maintained by NCDOT, the developer shall be responsible for installing such facilities in accordance with NCDOT standards and specifications.

17.5 Street Lights

A. The developer shall install underground wiring for street lights and shall install lights at the developer's cost.

B. **Decorative Street Lights:** Custom or decorative street lighting proposed by the developer is subject to approval by the Town prior to installation. The developer is responsible for all costs associated with the use of custom or decorative materials.

17.6 Sidewalks

Any sidewalks required by preliminary development approval shall be constructed to Town standards. See Chapter 9 for information on sidewalk requirements.

17.7 Storm Drainage in Public Streets

Storm drainage in public streets shall be designed as required in Chapter 9.

17.8 Storm Drainage Not in Public Streets

A. The developer shall install storm drainage facilities to handle storm drainage not in public streets as are required below and as shown on the approved Construction Plan.

B. Storm drainage systems and facilities shall be designed in accordance with the requirements of this Section and the Town's *Standard Specifications and Details*. The design of storm drainage systems and plans, including calculations, shall clearly indicate the easements and dedicated areas required for the construction and maintenance of the drainage system. The property owner shall be responsible for the maintenance for all storm drainage systems and easements except those dedicated and accepted as dedicated floodplain and open space in accordance with Section 17.8.E.

C. All watercourses which would carry a flow of 5 cubic feet or more during a 10-year storm and all blue-line streams shown on the latest USGS maps, which are not situated within a street right-of-way, shall be treated in one or more of the three ways set forth in Sections D, E, and F below. Open drainage requirements shall be based upon a 100-year storm and enclosed systems shall be designed based upon a 10-year storm.

D. Enclosed Subsurface Drains

1. Profiles and enclosure standards shall be in accordance with the Town's *Standard Specifications and Details*.

2. A utility easement shall be placed on a recorded plat which shall state the right of the Town to enter the utility easement for enclosure maintenance purposes when determined to be a public necessity by the Town Manager. The required utility easement shall be centered on the enclosure when practical, but in no case shall the outside wall of the enclosure be located closer than 5 feet to the utility easement line. The utility easement shall be of a width determined necessary for maintenance purposes by the Administrator based upon enclosure depth, topography and location of existing and proposed improvements, but no less than 20 feet.

3. The utility easement shall be kept free and clear of any buildings or other improvements which would interfere with the proper maintenance of the underground enclosures. The Town shall not be liable for damages to any improvement located within the utility easement area caused by maintenance of any utilities located therein. Furthermore, utility easements may be used for future installation of any underground utility, provided that:

a. Any underground utility to be installed by any utility provider other than the Town shall be subject to approval by the Administrator.

b. Any private company installing additional underground lines after development has been completed by the owner of the property shall be responsible for the replacement of all fencing, pavement and grassed area disturbed by such installation.

c. The Town shall not be responsible for damages caused by installation of additional lines by any private utility company.

d. The Administrator may require that in order to reduce the rate of flow of discharge from any enclosed subsurface drain that an open channel with rip-rap material or other such performance standard be provided as part of the overall system.

E. Open Channel In Dedicated Floodplain and Open Space Area.

1. The floodplain and open space area shall be dedicated by a recorded plat and shall be labeled "Dedicated to the Town of Wendell for Floodplain and Open Space." If a portion of the floodplain and open space lies within a proposed thoroughfare shown on the thoroughfare plan, it shall be labeled "Dedicated to the Town of Wendell for Floodplain and Open Space or Thoroughfare."

2. The dedicated floodplain and open space area shall include the natural 100-year flood contour as determined by the Administrator, provided that the minimum width shall be no less than 100 feet total or 50 feet from top of bank in each direction.

3. In case of severe topography, additional width may be required to assure reasonable ease of maintenance.

4. The minimum length of street frontage at each location where floodplain and open space abuts public street right-of-way shall be 60 feet. The maximum distance, measured by straight lines on either side of the floodplain and open space, between points at which the floodplain and open space abuts street right-of-way shall be 1,000 feet.

5. Adjoining development shall be designed to provide for economical and efficient maintenance of the drainage channel and surrounding open area. The centerline of the required drainage channel shall be located no less than 50 feet from any street or property line provided that the dimensions of the drainage area conform to all other requirements of this section.

6. The open area to be dedicated as floodplain and open space shall be left in its natural condition or graded to a section approved by the Administrator which will allow economical and efficient maintenance and shall be stabilized with permanent vegetative cover.

F. Open Channel On Private Property Within Drainage Maintenance and Utility Easement.

1. This method shall not be utilized in any development of individual lots intended for single-family detached dwellings unless the Board of Commissioners determines that floodplain and open space dedication along the watercourse is not in the public interest; that an open channel would not become a missing segment in a system of stormwater piping; and that the open channel is well removed from all anticipated house locations. In such cases the homeowner or a homeowner's association shall be established with authority to provide for maintenance of the easement.

2. The drainage maintenance and utility easement shall include the required drainage channel and the land between the channel and the natural 100-year flood contour as determined by the Administrator; or, in some cases, it may be reduced by modifying the drainage maintenance and utility easement topography to a typical required drainage channel section as provided for in subsection 4. However, the minimum total width of a drainage maintenance and utility easement shall be no less than specified below.

Cubic feet per second in 100-year storm	Drainage maintenance and and utility easement width
5 - 16	30 ft, centered
17 - 70	60 ft, centered
70+	100 ft, plus width of channel

The drainage maintenance and utility easement shall be centered on the typical required drainage channel section, unless the Administrator approves other drainage maintenance and utility easement alignments because of topographic conditions.

3. In case of severe topography, additional width may be required to assure reasonable ease of maintenance.

4. The drainage maintenance and utility easement topography may be modified. In such cases, the approved typical required drainage channel section shall include the necessary channel to accommodate a 100-year flood. The area outside of the required drainage channel may be filled; but any resulting slope shall be no steeper than 3:1, unless the slope is protected by masonry paving, rip rap, or other material which will meet Town specifications.

5. Where, in the opinion of the Administrator, suitable access to the drainage maintenance and utility easement is not otherwise provided, access shall be guaranteed by a suitably located access easement which shall be no less than 20 feet in width.

6. It shall be the responsibility of the owner to provide maintenance to all streams located on the property as shown on the plat. However, in the event the Board of Commissioners determines that it is in the public interest to alter the typical required drainage channel section and/or profile of the stream in order to improve flow, the Town may enter upon the property within the indicated access and/or drainage maintenance and utility easement and carry out the necessary work without any liability for damage to the property, or improvements thereon, located within the indicated access and/or drainage maintenance and utility easement.

7. Drainage maintenance and utility easements (excludes easements for water and sewer facilities owned, operated and maintained by CORPUD) may be utilized for any underground utility provided that:

a. Underground utility to be installed by any utility provider other than the Town shall be subject to approval by the Administrator.

b. A private company installing underground lines after development has been completed by the owner of the property shall be responsible for the replacement of all fencing, pavement and grassed areas disturbed by such installation.

c. The Town shall not be responsible for damages caused by installation of additional lines by any private utility company.

d. The Town shall not be liable for damages to any improvements located within the drainage maintenance and utility easement area caused by maintenance of utilities located therein.

8. No buildings shall be placed or constructed within the access or drainage maintenance and utility easement. All drives, parking areas, or other improvements shall be constructed no closer than 2 feet from the top of any back slope along any open watercourse.

17.9 Drinking Water and Sanitary Sewer Improvements

A. Extension of public water and/or sewer systems shall conform to the City of Raleigh Code of Ordinances, as amended, pertaining to water, sewer and reuse utilities consistent with the City of Raleigh and the Town of Wendell's utility system merger dated October 2, 2006.

B. **Private Water Distribution/Sewer Collection Systems:** Should private water and sewerage systems be allowed, such shall meet CORPUD requirements.

17.10 Open Space Dedication

Open Space shall be dedicated as required in Chapter 7.

17.11 Placement of Monuments and Markers

The developer shall install such property monuments and markers as are required by law and the standards of practice for land surveying in North Carolina. Prior to the approval of the final plat for any conventional development, permanent reference points shall have been placed in accordance with the following requirements:

A. **Development corner tie:** At least one corner of the development shall be accurately tied to and coordinated with a horizontal control monument in accordance with the North Carolina Administrative Code, Standards and Practice for Land Surveying. The development corner tie may also serve as one of the control corners listed below.

B. **Control corners:** At least three control corners shall be established in accordance with G.S. 39-32.1, 39-32.2 and 39-32.3, and clearly identified on the final plat. All monuments shall be constructed of concrete and shall be at least 4 inches in diameter or square and not less than 3 feet in length. Each monument shall have imbedded in and flush with its top to serve as the point a metal rod capable of being detected by standard surveying means. Such monuments shall be set at least 30 inches in the ground with 6 inches exposed above the ground unless this requirement is impractical because of traffic or other factors. The surveyor shall employ additional monuments if and when required.

C. **Property markers:** A steel or wrought iron pipe or the equivalent not less than 1/2 inch in diameter and at least 24 inches in length shall be set at all corners, except those located by monuments. A marker shall also be set at a point of curve, point of intersection, property corner, point of tangency, reference point and tangent unless a monument has already been placed at these points. Additional markers shall be placed at other points of importance if and when required.

D. **Accuracy:** Land surveys within the corporate limits shall meet the standards of Class A surveys, and beyond the corporate limits, Class B surveys, as defined by the North Carolina Administrative Code, Standards and Practice for Land Surveying.

17.12 Fire Hydrants

A. Placement of fire hydrants shall be placed per the City of Raleigh handbook and/or the Town of Wendell Fire Department standards pursuant to the City of Raleigh and the Town of Wendell's utility system merger dated October 2, 2006.

17.13 Other Utilities and Services

Electric power, telephone, cable television, natural gas lines and other utilities which are proposed to be installed in the development and which are required to be shown on construction plans are not "Required Improvements" within the context of this Chapter. Since the installation of such improvements are by agreement between the developer and the appropriate utility company, the execution of such agreements between the developer and the utility companies are deemed to satisfy the construction and installation requirements of these regulations as long as they are installed in the public right-of-way or easement in accordance with Town standards for such installations.

17.14 Utility Easements

A. All utilities and service lines shall be placed underground. The developer shall be responsible for incorporating the design of all utilities and services into the easement and Construction Plan design.

B. To provide for electric, telephone and gas service, community antenna television distribution systems, and other such facilities within the development, appropriate utility easements not less than 20 feet shall be provided on the final plat. Easements as they pertain to water, sewer, and reuse utilities shall be sized according to the CORPUD handbook. The locations of such easements shall be based upon the approved construction plans.

17.15 Development Entrance Markers and Landscaped Medians

The Board of Commissioners may permit development entrance markers and landscaped medians within the public right-of-way subject to the following conditions and any additional conditions the Board of Commissioners may find to be appropriate in the individual circumstance:

A. The Town will not be responsible for maintenance.

B. An entity responsible for maintenance shall be created.

C. No such improvements shall interfere with sight distance or with normal maintenance requirements or otherwise pose a hazard to vehicular or pedestrian traffic.

D. In the event of loss, damage or lack of maintenance, the Town may remove all improvement and maintain the area in accordance with Town standards.

E. NCDOT must approve any such developments in streets to be maintained by NCDOT.

17.16 Construction in Public Right-of-Way and Easements

The design and construction of any facilities, whether required or provided, within public right-of-way and easements shall be in accordance with Town's *Standard Specifications and Details.*

17.17 Guarantee of Required Improvements & Warranty Against Defects

A. Financial Guarantee in Lieu of Immediate Installation for Approval

In lieu of requiring the completion, installation and inspection of all or any part of the required improvements as described in this Ordinance prior to Final Plat approval, the Town may approve a financial guarantee whereby the developer shall agree to complete all required improvements. Once said financial guarantee is approved by the Board of Commissioners and the security required herein is provided, the Final Plat may be approved if all other requirements of the Ordinance are met. To secure this agreement, the developer shall provide either of, or a combination of, the following guarantees to cover the costs of the proposed improvements:

1. **Cash or Equivalent Security:** The developer shall deposit cash, a certified check or an irrevocable letter of credit with the Town Manager. The use of any instrument other than cash shall be subject to the approval of the Town. The amount of deposit shall be equal to 125

percent of the estimated cost as approved by the Town Manager, of installing all required improvements. The initial cost estimate shall be the responsibility of the developer and certified by his engineer but the approval of the final cost estimate shall be made by the Town Manager.

2. **Governmental Guarantee:** In any case where a required improvement is to be provided by the State of North Carolina or any local government other than the Town, the developer may provide, in lieu of the types of financial guarantee as provided for above, a letter from the appropriate State or local government official guaranteeing the installation of the improvement in the required manner and within the time allotted. Provided, however, in any case where the cost of such improvement exceeds $10,000 as determined by the Town, such governmental guarantee shall be in form of an approved Project Budget Ordinance where local government is to be the provider and an equivalent document where the State is to be the provider.

B. Duration of Financial Guarantees

1. The duration of a financial guarantee shall be of a reasonable period to allow for completion and acceptance of improvements. In no case shall the duration of the financial guarantee for improvements exceed 18 months unless extended by the Board of Commissioners.

2. All subdivisions whose public improvements are not completed and accepted at least 30 calendar days prior to the expiration of the financial guarantee shall be considered to be in default, unless said guarantee is extended with the consent of the Board of Commissioners to a future date certain not to exceed six months.

C. Default

1. Upon default, meaning failure on the part of the developer to complete the required improvements in a timely manner as specified in the financial agreement, the Town may expend said funds as deemed necessary to complete all or any portion of the required improvements.

2. Default on a project does not release the developer from liability/responsibility, financial or otherwise, for the completion of the improvements.

D. Release of Guarantee Security

1. The Town Manager may release a portion or all of any security posted as the improvements are completed. Prior to such release the developer shall provide the Administrator with a set of 'as built' drawings certified by his engineer.

E. Warranty Against Defects

1. Prior to the approval of the Final Plat or acceptance by the Town of any improvements in any subdivision, the developer shall furnish to the Town a written warranty against defects which shall guarantee the material and workmanship of required improvements for a period of not less than one year from the date of such acceptance. Such warranty shall be accompanied by a financial guarantee payable to the Town equal to at least 10 percent of the cost of the installation of such improvements as determined by the Town Manager. Such financial guarantee shall be in the form of financial guarantee as provided for in Section 17.17.A of this Chapter.

The financial guarantee will be renewable, in one year terms, until 50 percent of building permits have been issued within the applicable phase. When 50 percent of building permits have been issued in a particular phase, the developer may petition the town to take over ownership and maintenance of the streets and infrastructure within the phase.

2. Upon successful performance of the improvements, as determined by the Town Manager, the financial guarantee shall be returned to the developer. Upon the failure of an improvement to perform within the generally accepted standards for the type improvement as determined by the Town Manager, the developer shall be notified and given a reasonable period of time to correct the defects. Should the developer fail to act, fail to act in a timely manner, or otherwise fail to correct the defect(s), the Town Manager shall find the developer in default and proceed in the same manner as provided for in Section 17.17.C of this Chapter. Although other utilities and services as are set forth in Section 17.13 are not included in this warranty against defects, any grading, boring, cutting or other disturbances in public easements or rights-of-way associated with the installation or such facilities shall be restored prior to the release of this financial guarantee.

Chapter 18. Violations and Penalties

18.1 Complaints Regarding Violations

Whenever a violation of this Ordinance occurs, or is alleged to have occurred, any person may file a written complaint. Any written complaint stating fully the cause and basis of the complaint shall be filed with the Administrator who shall properly record such complaint, investigate in a timely manner and take appropriate action as provided by this Ordinance.

18.2 Penalties for Transferring Lots in Unapproved Subdivisions

Any property owner or owner's agent of any land located within the jurisdiction of the Town of Wendell, who subdivides 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 this Ordinance and recorded in the office of the Register of Deeds, shall be guilty of a misdemeanor, with a fine not exceeding $100 or imprisonment not exceeding 30 calendar days.

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. The Town of Wendell may bring an action for injunction of any illegal subdivision, transfer, conveyance, or sale of land, and the court shall, upon appropriate findings, issue an injunction and order requiring the offending party to comply with this Ordinance. In addition, the Town may refuse to issue any permits.

18.3 Penalties for Violation

Failure to comply with any provision of this Ordinance is hereby declared unlawful. The following remedies and enforcement powers may be used to administer and enforce this Ordinance and one, all or a combination of the remedies authorized and prescribed by this Chapter may be used.

A. Civil Penalty: The Administrator may, in addition to other remedies found in this Chapter, issue civil penalties.

1. Penalties for Violation:

a. Any person determined to be in violation of any of the provisions of this Ordinance shall receive a warning citation. Such citation shall set out the nature of the violation, the section violated, the date of the violation, and shall contain an order to immediately cease the violation. The warning citation shall specify that a second citation shall incur a civil penalty, together with costs, and attorney fees.

b. If the violation is in the nature of an infraction for which an order of abatement would be appropriate in a civil proceeding, a reasonable period of time must be stated in which the violation must be abated.

c. Where the Administrator determines that the period of time stated in the original warning citation or consent agreement is not sufficient for abatement based upon the work required, the Administrator may amend the warning citation to provide for additional time.

d. Upon failure of the violator to obey the warning citation, a civil citation shall be issued by the Administrator and either served directly on the violator, his duly designated agent, or registered agent if a corporation, either in person or posted in the United States Postal Service by first class mail addressed to the last known address of the violator as contained in the records of the Town or County property tax records or obtained from the violator at the time of issuance of the warning citation. The violator shall be deemed to have been served upon the mailing of said citation. The citation shall direct the violator to pay the civil assessment within 15 calendar days of the date of the citation.

e. The violation for which the citation is issued must have been corrected by the time the citation is paid otherwise further citations shall be issued. Citations may be issued for each calendar day the offense continues until the prohibited activity is ceased or abated.

f. Civil penalties shall be in the amount of $100 for each violation and each calendar day any single violation continues shall be a separate violation.

g. The owner, tenant, or occupant of any building or land or part thereof or any person who participates in or acts in concert, assists, directs, creates, or maintains any condition found to be a violation shall be subject to the penalties and remedies herein provided.

2. **Failure to Pay:** If the civil penalty is not paid within 15 calendar days of the issuance of a citation, the Town may initiate a civil action in the nature of a debt collection to recover the penalty, costs, attorney fees, and such other relief as permitted by law. Such action shall be in the amount of $100 for each violation and each calendar day any single

violation continues shall be a separate violation and shall not stop further civil penalties from accruing if the violation has not been corrected.

3. **Civil Citations not Exclusive:** Civil penalties are an additional remedy for code enforcement. In addition thereto, all remedies allowed in North Carolina General Statutes and this Ordinance may also be pursued by the Town at the same time without waiving the civil penalties authorized in this Chapter.

4. **Appeal of determination of violation:**

   a. A person notified of a violation may appeal such determination to the Board of Adjustment. Such appeal shall be filed in writing with the Town not later than 10 work days after the receipt of the first notice issued. Failure to file a timely appeal shall constitute acceptance of the determination that a violation exists. If an appeal is filed, further action by the Administrator shall be suspended until a ruling is issued by the Board of Adjustment.

   b. The Board shall only have power in the manner of administrative review and interpretation where it is alleged that the Administrator has made an error in the application of the Ordinance, in the factual situation as it relates to the application of the Ordinance, or both.

   c. If the Board finds that a violation exists, enforcement under this Chapter shall continue despite any further appeals by the violator. The fact that an appeal has been filed or ruled upon by the BOA shall not prevent the Town from pursuing other enforcement remedies allowed by law on the same violation..

B. **Criminal:** Pursuant to North Carolina General Statute 14-4, any person, firm, or corporation convicted of violating the provisions of this Ordinance shall, upon conviction, be guilty of a misdemeanor and shall be fined an amount consistent with the General Statutes.

C. **Equitable Remedy:** In addition to the civil penalties set out above, any provision of this Ordinance may be enforced by an appropriate equitable remedy issuing from a court of competent jurisdiction. The Administrator may apply to a judicial court of law for any appropriate equitable remedy to enforce the provisions of this Ordinance. It is not a defense to the Administrator's application for equitable relief that there are other remedies provided under general law or this Ordinance.

D. **Injunction:** In addition to the civil penalties set out above, enforcement of the provisions of this Ordinance may also be achieved by injunction. When a violation occurs, the Administrator may, either before or after the initiation of other authorized action, apply to the appropriate division of the court for a mandatory or prohibitory injunction commanding the defendant to correct the unlawful condition or cease the unlawful use of the property. The action shall be governed in all respect by the laws and rules governing civil proceedings, including the Rules of Civil Procedure in general and Rule 65 in particular.

E. **Order of Abatement:** In addition to an injunction, the Administrator may apply for and the court may enter into an order of abatement as part of the judgment in the case. An order of abatement may direct any of the following actions:

1. Buildings or other structures on the property be closed, demolished, or removed;

2. Fixtures, furniture or other moveable property be moved or removed entirely;

3. Improvements alterations, modifications or repairs be made; or

4. Any other action be taken that is necessary to bring the property into compliance with this Ordinance.

F. **Execution of Court Decisions:** If the defendant fails or refuses to comply with an injunction or with an order of abatement within the time allowed by the court, the defendant may be cited for contempt. The Administrator may execute the order of abatement and will have a lien on the property in the nature of a mechanic's and materialman's lien for the cost of executing the order. The defendant may secure cancellation of an order of abatement by paying all costs of the proceedings and by posting a bond for compliance with the order. The bond must be given with sureties approved by the Clerk of Superior Court in an amount approved by the judge before whom the matter was heard and shall be conditioned for the defendant's full compliance with the terms of the order of abatement within the time fixed by the judge. Cancellation of an order of abatement does not suspend or cancel an injunction issued in conjunction with the order.

G. **Stop Work Order Issuance and Revocation of Permits:** Whenever a building, structure or part thereof is being constructed, demolished, renovated, altered, or repaired in material violation of any applicable provision of this Ordinance, the Administrator may order the specific part of the work that is in violation, or would be when the work is completed, to be immediately stopped. The stop work order shall be in writing, directed to the person doing

the work, and shall state the specific work to be stopped, the specific reasons for cessation and the action(s) necessary to lawfully resume work.

The Administrator may revoke any permit (e.g. Building Certificate of Occupancy) by written notification to the permit holder when violations of this Ordinance have occurred. Permits may be revoked when false statements or misrepresentations were made in securing the permit, work is being or has been done in substantial departure from the approved application or plan, there has been a failure to comply with the requirements of this Ordinance, or a permit has been mistakenly issued in violation of this Ordinance.

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Chapter 19. DEFINITIONS

19.1 Intent

For the purpose of interpreting this Ordinance, certain words, concepts, and ideas are defined herein. Except as defined herein, all other words used in this Ordinance shall have their everyday meaning as determined by their dictionary definition.

19.2 Interpretation

A. Words used in the present tense include the future tense.

B. Words used in the singular number include the plural, and words used in the plural number include the singular.

C. Any word denoting gender includes the female and the male.

D. The word "person" includes a firm, association, organization, partnership, corporation, trust and company as well as an individual.

E. The word "lot" includes the word "plot" or "parcel" or "tract".

F. The word "shall" is always mandatory and not merely directory.

G. The word "structure" shall include the word "building."

19.3 Definitions

Access Road: A public or private one-way or two-way road for ingress and/or egress. Such access roads may be of various types, including frontage roads, rear access roads, roads with cul-de-sacs, and dead-end roads. This definition includes secondary roads but does not include driveways.

Accessory Building: See Building, Accessory

Accessory Facility or Structure: An accessory facility or structure serving or being used in conjunction with Wireless Telecommunications Facilities, including but not limited to, utility or transmission equipment storage sheds or cabinets.

Administrator: The person, officer, or official and his authorized representative, whom the Town Board has designated as their agent for the administration of these regulations. S/he may provide the enforcement of this Ordinance by means of the withholding of building permits and occupancy permits and by instituting injunction, mandamus, or other appropriate action or such violation, or to prevent the occupancy of the building, structure, or land.

Adult Establishment: Any establishment having a substantial portion of materials or entertainment characterized by an emphasis on sexual activities, anatomical genital areas, or the female breast as defined in NC General Statute, Section 14.210.10 (or any successor thereto).

Aggregate Signage: The total surface area of all signs located on a particular tract not counting incidental signs. For double-sided signs the area of one side only will count toward calculating the total.

Agriculture: These establishments grow crops, raise animals, harvest timber, and harvest fish and other animals from a farm, ranch, or their natural habitats. They may be described as farms, ranches, dairies, greenhouses, nurseries, orchards, or hatcheries. A farm, as an establishment, may be one or more tracts of land, which may be owned, leased, or rented by the farm operator. Farms may hire employees for a variety of tasks in the production process. Subcategories in this dimension differentiate establishments involved in production versus those that support agricultural production. For agricultural research establishments administering programs for regulating and conserving land, mineral, wildlife, and forest use, apply the relevant institutional or research and development categories. *(LBCS F9000 and S8000)*

Airport: Establishments that provide air transportation for passengers or cargo using aircraft, such as airplanes and helicopters. This subcategory includes scenic and sightseeing air transportation establishments, which may involve local departure and same-day return. (*LBCS F4110, S3920 and S5600*)

Alcoholic Beverage Sales Store: The retail sales of beer, wine, and/or other alcoholic beverages for off-premise consumption as a primary use. (*LBCS F2155*)

Alley or Alleyway: A strip of land, owned publicly or privately, set aside primarily for vehicular service access to the back or side of properties otherwise abutting on a street.

Alter: To make any structural changes in the supporting or load bearing members of a building such as walls, columns, beams, girders, or floor joists.

Amortization: The process by which nonconforming uses and structures shall be discontinued or made to conform to requirements of the ordinance at the end of a specified period of time.

Amusements, Indoor: Establishments that provide commercial recreation activities completely within an enclosed structure such as video arcades, skating rinks, roller rinks, and bowling alleys. *(LBCS F5320, F5380, F5390 and S3200)*

Amusements, Outdoor: Establishments that provide commercial recreation activities primarily outdoors such as miniature golf establishments; go-cart facility; theme parks, carnivals, fairgrounds, and midways; paintball parks; and water rides. *(LBCS F5310 and S4440)*

Animal Services: Establishments that include services by licensed practitioners of veterinary medicine, dentistry, or surgery for animals; boarding services for pets; and grooming. *(LBCS F2418 and F2720)*

Animal Unit: A unit of measurement developed by the U. S. Environmental Protection Agency that is used to compare different types of animal operations.

Antenna: A system of electrical conductors that transmit or receive electromagnetic waves or radio frequency signals. Such waves shall include, but not be limited to radio, television, cellular, paging, personal Telecommunications services (PCS), and microwave Telecommunications.

Apartment Building: a multiple-unit building with dwelling units arranged either vertically or horizontally. Units may be for rent or sale.

Arcades: A series of arches, either supported by columns, piers, or pillars, either freestanding or attached to a wall to form a gallery or for decorative purposes.

Assembly/Meeting Facilities: Meeting/conference facilities that include room(s) or space(s) used for assembly purposes by 50 or more persons including fraternal halls (VFW lodges, etc) and banquet facilities. *(LBCS S3800)*

Auto Parts Sales: Establishments selling new, used, or rebuilt automotive parts and accessories. Examples include auto supply stores, automobile parts dealers, automotive audio equipment stores, tire dealers, parts & accessories dealers, and used automotive parts and tire dealers. (*LBCS F2115*)

Automated Teller Machines (ATM): Computerized, self-service machines used by banking customers for financial institutions, including deposits, withdrawals and fund transfers, without face-to-face contact with financial institution personnel. These machines may be located at or within banks, or in other locations.

Banks, Credit Unions, Financial Services: Establishments that engage in financial transactions that create, liquidate, or change ownership of financial services. Banks, credit unions, and savings institutions may perform central banking functions, accept deposits, and lend funds from these deposits. In addition to banks and credit unions, financial services institutions may include: credit agencies, trust companies, holding companies, savings and loan institutions, check cashing services, securities/commodity contract brokers and dealers, security and commodity exchanges, vehicle finance (equity) leasing agencies, and investment companies. (*LBCS F2200, F2210 and F2230*)

Banner: A sign of lightweight fabric or similar material that is mounted to a pole or a building at one or more edges. National flags, state or municipal flags or the official flag of an institution or business shall not be considered banners.

Bar/Tavern/Nightclub: A business where alcoholic beverages are sold for on-site consumption, which are not part of a larger restaurant. Includes bars, taverns, pubs, and

similar establishments where any food service is subordinate to the sale of alcoholic beverages. May also include beer brewing as part of a microbrewery and other beverage tasting facilities. Entertainment including live music, and/or dancing, comedy, etc. may also be included.

Bay Window: A window assembly whose maximum horizontal projection is not more than two feet from the plane of an exterior wall and is elevated above the floor level of the home.

Bed and Breakfast Inn: Establishments primarily engaged in providing short-term lodging in facilities known as bed-and-breakfast inns. These establishments provide short-term lodging in private homes or small buildings converted for this purpose. Bed-and-breakfast inns are characterized by a highly personalized service and inclusion of a full breakfast in a room rate. *(LBCS F1310)*

Bedroom: A room designated as a sleeping room or bedroom on the building plans.

Berm: A mound of material, the purpose of which is to divert the flow of runoff water and/or to act as a visual and sound buffer to nearby properties.

Best Management Practices (BMP): A structural or nonstructural management based practice used singularly or in combination to reduce nonpoint source inputs to receiving waters in order to achieve water quality protection goals.

Billiard/Pool Hall: Any place where one or more billiard or pool tables are operated or maintained, except for private family use, whether such place is a social club or a business enterprise operated for profit.

BMP, Structural: 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. “Structural BMP” is synonymous with “structural practice”, “stormwater control facility,” “stormwater control practice,” “stormwater treatment practice,” “stormwater management practice,” “stormwater control measures,” “structural stormwater treatment systems,” and similar terms used in this ordinance.

Bioretention: A water quality practice that utilizes landscaping and soils to treat stormwater runoff by collecting it in shallow depressions and filtering it through a planting soil media.

Board of Commissioners: Board of Commissioners of the Town of Wendell, North Carolina.

Bona Fide Farm: Land primarily used for the production, and activities relating or incidental to the production of crops, fruits, vegetables, ornamental and flowering plants, dairy products, livestock, poultry, and all other forms of agriculture products having domestic or foreign markets. A bona fide farm use also includes the accessory uses and buildings necessary

incidental to such agricultural production (such as packing, treating, or storing of the products). A bona fide farm
use does not include forestry, the retail sale of products, farm serving uses, or commercial agricultural services (such as veterinary services, landscape contracting, and crop services or animal services for the production of other farms).

Brownfields: Vacant or underused industrial or commercial properties where contamination, or at least the threat of contamination, has hindered development.

Buffer: An area of natural or planted vegetation through which stormwater runoff flows in a diffuse manner so that the runoff does not become channelized and which provides for infiltration of the runoff and filtering of pollutants. The buffer is measured landward from the normal pool elevation of impounded structures and from the bank of each side of streams or rivers.

Buffer Yard: A landscaped area intended to give spatial separation between incompatible land uses.

Buildable Area: The portion of a lot remaining after required yard setbacks has been provided.

Building: Building. Any structure having a roof supported by columns or by walls, and intended for shelter, housing, or enclosure of persons, animals, or property. The connection of two buildings by means of an open porch, breezeway, passageway, carport, or other such open structure, with or without a roof, shall not be deemed to make them one building.

Building Height: The vertical distance measured from the average elevation of the finished grade to the topmost section of the roof.

Building Permit: A permit issued by the Administrator when a proposal to use or occupy a lot or structure, or to erect, install, or alter a structure, building, sign, or lot fully meets the requirements of this chapter. This permit must be obtained before any work is initiated on the proposed use.

Building, accessory: A building subordinate to the main building on a lot and used for purposes customarily incidental to the main or principal building and located on the same lot therewith.

Building, principal: A building in which is conducted the main or principal use of the lot on which said building is situated.

Built-Upon Area: 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 pervious or partially pervious paving material to the extent that the paving material absorbs water or allows water to infiltrate through the paving material.

Business Support Services: These establishments provide any of the following: document preparation, telephone answering, telemarketing, mailing (except direct mail advertising), court reporting, and steno typing. They may operate copy centers, which provide photocopying, duplicating, blueprinting, or other copying services besides printing. They may provide a range of support activities, including mailing services, document copying, facsimiles, word processing, on-site computer rental, and office product sales. *(LBCS 2424)*

Caliper: A standard trunk diameter measurement for nursery grown trees taken 6 inches above the ground for up to and including 4-inch Caliper size, and 12 inches above the ground for larger sizes.

Campground: Establishments accommodating campers and their equipment, including tents, tent trailers, travel trailers, and recreational vehicles. Facilities and services such as cabins, washrooms, food services, recreational facilities and equipment, and organized recreational activities.

Canopy Tree: A species of tree, which normally grows to a mature height of 40 feet or more with a minimum mature crown width of 30 feet.

Cemetery: A parcel of land used for internment of the dead in the ground or in mausoleums. *(LBCS S4700)*

Centerline Radius: This is the imaginary line segment or bend from the centerline of one road to where another intersects. The centerline radius may be increased or decreased based on a number of factors including, but not limited to, terrain, speed limit and the size of vehicles the road is designed to accommodate.

Certificate of Occupancy: A certificate issued by the Administrator or his designated representative certifying that all structures, their land uses, and land restrictions conform to all the requirements of the Wendell Unified Development Ordinance. This certificate is issued prior to occupying any structure or use for which a zoning permit is issued.

Child/Adult Day Care Center: An individual, agency, or organization providing supervision or care on a regular basis for children or adults who are not related by blood or marriage to, and who are not the legal wards or foster children of, the supervising adults; and who are not residents in the center; designed and approved to accommodate more than eight children or adults at a time based on State regulations; not an accessory to residential use.

Child/Adult Day Care Home: Supervision or care provided on a regular basis as an accessory use within a principal residential dwelling unit, by a resident of the dwelling, for no more than eight children (no more than five of which may be of pre-school age). For additional information and standards, refer to section 3.3I.

Civic Building: a building that serves as a landmark and public gathering place and is a permanent addition to the long-term vibrancy of the town.

Collector Street/Road: Collectors are designed to provide a greater balance between mobility and land access within residential, commercial, and industrial areas. The makeup of a collector facility is largely dependent upon the density, size, and type of abutting developments. Emphasizing balance between mobility and access, a collector facility is designed to better accommodate bicycle and pedestrian activity while still serving the needs of the motoring public.

Collector Street Plan: A plan of collector roads and streets.

Colleges/Universities: Comprise junior colleges, colleges, universities, and professional schools. These establishments furnish academic or technical courses and grant degrees, certificates, or diplomas at the associate, baccalaureate, or graduate levels. (*LBCS F6130*)

Co-location: The use of the same Telecommunications Tower or structure to carry two or more Antennae for the provision of wireless services by two or more persons or entities.

Commercial Building: a building that encompasses a commercial business.

Commercial Vehicle, Oversized: Oversized commercial vehicles shall include any vehicle (*except* pick-up trucks) or trailer that bears a commercial license plate; and,

1. Has more than 2 axles or 4 tires; or
2. Is designed to carry more than 15 passengers, including the driver; or
3. Weighs more than 10,000 pounds with or without load; or
4. Requires hazardous materials placards; or
5. Is more than 9 feet in height; or
6. Is more than 22 feet in length

This definition includes, but is not limited to semi-trailers, tow trucks, buses, limousines, tractors, construction equipment, delivery vans, or similar vehicles.

Community Service Organization: A public or quasi-public establishment providing social and/or rehabilitation services, serving persons with social or personal problems requiring special services, the handicapped, and the otherwise disadvantaged such as counseling centers, welfare offices, job counseling and training centers, vocational rehabilitation agencies, and community improvement and neighborhood redevelopment, but does not include any services providing on-site residential or accommodation services. *(LBCS F6560)*

Concentrated flow: Drainage concentrated in ditches or pipes, as opposed to spread out.

Condominium: Real estate, portions of which are designated for separate ownership and the remainder of which is designated for common ownership solely by the owners of those portions.

CORPUD: City of Raleigh Public Utilities Department

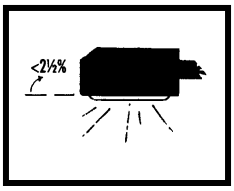
Critical Root Zone (CRZ): A circular region measured outward from a tree trunk representing the essential area of the roots that must be maintained in order for the tree's survival. The critical root zone is one foot of radial distance for every inch of tree DBH, with a minimum of 8 feet.

Cul-De-Sac: See *Street, cul-de-sac*

Cultural or Community Facility: Facilities designed to promote cultural advancement and serve the community such as live theater, dance, or music establishments; art galleries, museums; non-profit civic or fraternal organizations; museums, exhibition, or similar facility; libraries; and community centers, such as the YMCA and YWCA. *(LBCS S3800, S4400, F5110, F5210, and FS6830)*

Curb Cut: A lowered or cut-away curb for purposes of ingress or egress to property abutting a public street.

Cutoff Fixture: A fixture light distribution where no more than 2.5 percent of a lamp's light intensity is emitted at or above a horizontal plane drawn through the bottom of the fixture and no more than 10 percent of the lamp's light intensity is emitted at an angle 10 degrees below that horizontal plane, at all lateral angles around the fixture.



DBH: Diameter-at-breast-height is the tree trunk diameter measured in inches at a height of 4.5 feet above the ground.

Deciduous: Those plants that annually lose their leaves.

Dedication: A gift, by the owner, of a right to use land for a specified purpose or purposes. Because a transfer of property rights is entailed, dedication must be made by a written instrument, and is completed with an acceptance.

Design Manual: The stormwater design manual approved for use in Phase II jurisdictions by The North Carolina Department of Environment and Natural Resources (NCDENR) developed by the Town of Wendell and certified by this jurisdiction and approved by The Division of Water Quality of NCDENR as at least as stringent as the stormwater design manual approved for use in Phase II jurisdictions by NCDENR 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 which adds to or changes the amount of impervious or partially pervious cover on a land area or which otherwise decreases the infiltration of precipitation into the soil, other than rebuilding activity that does not qualify as redevelopment.

Direct Light: Light emitted directly from the lamp, off of the reflector or reflector diffuser, or through the refractor or diffuser lens, of a luminaire.

Directional Fixture: An assembly that holds the lamp along with any globe, shade, or other covering surrounding the lamp that may be adjusted to concentrate or throw light in a specific direction.

Discharging Landfill: A facility with liners, monitoring equipment and other measures to detect and/or prevent leachate from entering the environment and in which the leachate is treated on-site and discharged to a receiving stream.

Drainageway: Any natural or manmade channel or drainage structure that carries surface runoff from precipitation.

Drip Line: A vertical line extending from the outermost edge of the tree canopy or shrub branch to the ground.

Drive Thru Service: A facility where services may be obtained by motorists without leaving their vehicles. These facilities include drive-through bank teller windows, dry cleaners, etc. Does not include: Automated Teller Machines (ATMs), gas stations or other vehicle services, which are separately defined.

Drive-Thru Retail/Restaurants: A facility where food and other products may be purchased by motorists without leaving their vehicles. Examples include: fast-food restaurants, drive-through coffee, dairy product, photo stores, pharmacies, etc.

Drive-thru window: A window or other fenestration or other device for the delivery of goods or products from a principal or accessory structure to a vehicle or pedestrian and through which compensation for such may be exchanged, including the making of change, and the order for such goods is made from a remote on-site station rather than at a window or other fenestration of other device. (This definition includes the term "drive-in window.")

Driveway: A private way beginning at the property line of a lot abutting a public road, private road, easement or private right-of-way, giving access from that public road, recorded easement, recorded private road, or private right-of-way, and leading to a building, use, or structure on that lot.

Dwelling: A building designed, arranged, or used for permanent living quarters for one or more persons.

Dwelling-Duplex: A two-unit building that is divided horizontally or vertically, and each unit has a separate entrance from the outside or through a common vestibule. Buildings are typically under one ownership. (*LBCS F 1100 and S1121*)

Dwelling-Multifamily: A dwelling unit that is part of a structure containing more than one unit. Each unit has a separate entrance from the outside or through a common vestibule. Multi-family dwellings may include triplexes, or fourplexes (buildings under one ownership with two to four dwelling units in the same structure), as well as townhouses (a type of

structure that has at least three or more separate dwelling units divided vertically, and each unit has separate entrances to a front and rear yard), and apartments. (*LBCS S1121 and S1140*)

Dwelling-Secondary: A dwelling unit either detached or attached, such as a garage apartment or cottage, designed for occupancy by one or two persons, not exceeding 750 square feet of gross floor space and located on a lot with an existing single-family dwelling. Said units shall not exceed one per lot.

Dwelling-Single Family: A free standing building designed for and/or occupied by one household. These residences may be individually owned as residences or residences owned by rental or management companies. Also includes factory-built, modular housing units that comply with NC State Building Code. (*LBCS F1100 and S1100*)

Dwelling Unit: A building, or portion thereof providing complete living quarters for one or more persons.

Easement: A grant by the property owner for use by the public, a corporation, or person(s) of a strip of land for specified purpose.

Easement, access: An easement which grants the right to cross property.

Easement, conservation: A restriction placed on a piece of property to protect the resources (natural or man-made) associated with the parcel. The easement is either voluntarily sold or donated by the landowner, and constitutes a legally binding agreement that prohibits certain types of development (residential or commercial) from taking place on the land.

Easement, drainage: An easement which recognizes and documents the presence of a drainageway, guarantees the passage of stormwater runoff, and may grant the right to maintain, relocate, or in such other manner utilize the easement for the improvement of drainage and stormwater flow.

Easement, utility: An easement which grants to the Town of Wendell or other utility providers the right to install and thereafter maintain any and all utilities including, but not limited to, water lines, sewer lines, storm sewer lines, electrical power lines, telephone lines, natural gas lines, and community antenna television systems.

EIFS: (Exterior insulation finishing systems) a type of building product that provides exterior walls with an insulated finished surface and waterproofing in an integrated composite material system.

Engineering Drawings: Plans, profiles, and associated documentation of all proposed street, drainage, water and sewer improvements, prepared in accordance with the Uniform Construction Standards Manual.

Equipment Rental: Establishments renting or leasing heavy equipment without operators used for construction, mining, or forestry, such as bulldozers, earthmoving equipment, etc. or, agricultural equipment without operators. (*LBCS F2334*)

Erosion: The wearing away of land surface by the action of wind, water, gravity, or any combination thereof.

Evergreen: Those plants that retain foliage throughout the year.

Evergreen Screen: A plant growing to over 20 feet in height at maturity that retains foliage year round that is planted to provide a dense vegetative screen for purposes of visual mitigation between zoning districts.

Existing Development: Those projects that are built or those projects that at a minimum have established a vested right under North Carolina zoning law as of the effective date of this ordinance based on at least one of the following criteria:

(a) Substantial expenditures of resources (time, labor, money) based on a good faith reliance upon having received a valid local government approval to proceed with the project, or
(b) Having an outstanding valid building permit as authorized by the General Statutes (G.S. 160A-385.1), or
(c) Having expended substantial resources (time, labor, money) and having an approved site specific or phased development plan as authorized by the General Statutes (G.S. 160A-385.1).

Extraterritorial Jurisdiction (ETJ): That land lying beyond the municipal limits of the Town of Wendell and within the extraterritorial jurisdiction boundary as delineated on the official zoning map of the Town of Wendell in accordance with G.S. 160A-360. The authority is granted to a locality to exercise zoning powers for a specified distance outside its boundaries. It is intended to protect activities on the edge of communities from being encroached on by incompatible adjacent activities.

Family: An individual, or two or more persons related by blood, marriage or adoption.

Family Care Home: A home with support and supervisory personnel that provides room and board, personal care and rehabilitation services in a family environment for not more than six resident handicapped persons and is certified by the State of North Carolina. *(NCGS 168-21)*

Fixture: The assembly that houses the lamp or lamps and can include all or some of the following parts: a housing, a mounting bracket or pole socket, a lamp holder, a ballast, a reflector or mirror, and/or a refractor or lens.

Flag: Any fabric, banner or bunting containing distinctive colors, patterns or symbols uses as a symbol of a government, political subdivision or other entity.

Flag Lot: *See "Lot, pipestem"*

Flood Fringe: The land area located between the floodway and maximum elevation subject to inundation by the base flood.

Flood, base: The flood having a 1 percent chance of being equaled or exceeded in any given year.

Flood Lamp: A form of lighting designed to direct its output in a specific direction with a reflector formed from the glass envelope of the lamp itself. Such lamps are so designated by the manufacturers and are typically used in residential outdoor area lighting.

Flood or Spot Light: Any light fixture or lamp that incorporates a reflector or a refractor to concentrate the light output into a directed beam in a particular direction.

Floodplain: The relatively flat area or low land adjacent to the channel of a federally designated watercourse which has been or may be covered by floodwater during a base flood event.

Floodway: The channel of a federally designated watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than 1-foot.

Foot-candle (FC): A unit of illuminance amounting to 1 lumen per square foot.

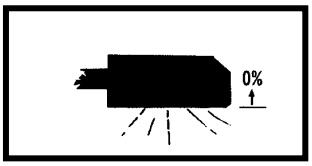
Foot-candle Grid: A graphical representation of points placed onto a grid or layout where each point identifies the amount of illuminance (light) in foot-candles or lux (1/10 of a foot-candle). The spacing between points can vary depending on the size of the area to be lighted. For many typical outdoor layouts, a 10' x 10' spacing grid layout is used. Larger areas may utilize a 15' or 20' grid spacing. This type layout can also indicate luminance or reflected light instead of illuminance.

Free Standing Tower: A Tower that is not supported by guy wires and ground anchors or other means of attached or external support.

Frontage: All the property abutting on one side of a street between two intersecting streets measured along the street line. "Frontage along a public street" requires means of direct access by the public.

Frontage Road: A frontage road is a local street or road that is parallel to a full or partial access controlled facility and functions to provide access to adjacent land.

Fueling Station: Pumps and associated storage tanks and/or mechanical equipment where fuels, oils for motor vehicles are dispensed, sold, or offered for sale.



Full Cutoff Fixture: A fixture for light distribution where no light intensity is emitted at or above a horizontal plane drawn through the bottom of the fixture and no more than 10 percent of the lamp's light intensity is emitted at an angle 10 degrees below that horizontal plane, at all lateral angles around the fixture.

Funeral Homes and Services: Establishments for preparing the dead for burial or internment and conducting funerals (i.e. providing facilities for wakes, arranging transportation for the dead, and selling caskets and related merchandise). *(LBCS F6700-6702)*

Gas Station: Establishment that primarily retails automotive fuels. These establishments may further provide services such as automotive repair, automotive oils, and/or replacement parts and accessories. Gas stations include structures that are specialized for selling gasoline with storage tanks, often underground or hidden. The sale of food and other items as well as car washes shall be incidental to the gas station. (*LBCS F2116 and S2270*)

General Retail - 10,000 sf or less: A use category allowing premises to be available for the commercial sale of merchandise and prepared foods, but excluding manufacturing. Size is 10,000 square feet or less. (*LBCS F2100*)

General Retail - 10,000 sf – 50,000 sf: A use category allowing premises to be available for the commercial sale of merchandise and prepared foods, but excluding manufacturing. Ranging in size between 10,001 square feet and 50,000 square feet. (*LBCS F2100*)

General Retail - Greater than 50,000 sf: A use category allowing premises to be available for the commercial sale of merchandise and prepared foods, but excluding manufacturing. Greater than 50,000 square feet.

Glare: Light emitting from a luminaire with intensity great enough to reduce a viewer's ability to see, and in extreme cases causing momentary blindness.

Government Services: Includes federal, state, and local government agencies that administer, oversee, and manage public programs and have executive, legislative, and judicial authority. (*LBCS F6200*)

Greenway: Public open space featuring paths and trails of various kinds, based on natural corridors usually along rivers and streams and ridgelines as well as canals, abandoned railbeds or other public rights-of-ways, which are owned and maintained by the Town and have been designated on an officially adopted greenway or open space plan.

Ground Cover: A prostrate plant growing less than two feet in height at maturity that is grown for ornamental purposes. Ground covers are used as an alternative to grasses. On slopes, ground covers control erosion while eliminating the maintenance of mowing on hillsides. Many ground covers survive in poor soils, shade and other adverse conditions.

Group Care Facilities: A facility that provides resident services to more than six individuals of whom one or more are unrelated. These individuals are handicapped, aged, or disabled, [or]

are undergoing rehabilitation, and are provided services to meet their needs. This category includes uses licensed or supervised by any federal, state, or county health/welfare agency, such as group dwellings (all ages), halfway houses, nursing homes, resident schools, resident facilities, and foster or boarding homes. *(LBCS F6520)*

Handicapped Person: As used in family care definition, a person with a temporary or permanent physical, emotional, or mental disability including but not limited to mental retardation, cerebral palsy, epilepsy, autism, hearing and sight impairments, emotional disturbances and orthopedic impairments but not including mentally ill persons who are dangerous to others as defined in G.S. 122C-3(11)(b).

Hazardous Material: Any substance listed as such in: SARA section 302, Extremely Hazardous Substances, CERCLA Hazardous Substances, or Section 311 of CWA (oil and hazardous substances).

High-Density Project: Any project that exceeds the low density threshold for dwelling units per acre and built-upon area.

Home Occupation: An occupation or profession conducted within a dwelling unit by a residing family member that is incidental to the primary use of the dwelling as a residence. Home Occupations are small and quiet non-retail businesses generally invisible from the frontage, seldom visited by clients, requiring little parking, little or no signage, and having only one or two employees and provide services such as professional services, music instruction, and hair styling. Home Occupations include Child Day Care Homes.

Hospital: A health care facility and related facilities the purpose of which is to provide for care, treatment, testing for physical, emotional, or mental injury, illness, or disability, and overnight boarding of patients, either on a for-profit or not-for-profit basis; but not including group homes. *(LBCS F6530 and S4110)*

Hotels/Motels/Inns: Establishments providing lodging and short-term accommodations for travelers. They may offer a wide range of services including, overnight sleeping space, food services, convention hosting services, and/or laundry services. Entertainment and recreation activities may also be included. Extended-stay hotels are included in this category. (*LBCS F1300 and F1330*)

House: a dwelling for single-family occupancy or other limited uses.

Housing Services for the Elderly: Establishments that offer a wide range of housing services for those who cannot care for themselves, such as the elderly residing or living in retirement housing, congregate living services, assisted living services, continuing care retirement centers, and skilled nursing services. (*LBCS F1200)*

IESNA: Illuminating Engineering Society of North America, a non-profit professional organization of lighting specialists that has established recommended design standards for various lighting applications.

Impervious Surface: Improvements including street pavement, driveways, gravel areas, buildings, and other structures which cover the soil surface and prevent infiltration of water into the soil.

Incidental Sign: A sign, generally informational, that has a purpose secondary to the use of the lot on which it is located, such as "no parking," "loading only," "telephone," and other similar directives.

Indirect Light: Direct light that has been reflected or has scattered off of other surfaces.

Injunction: A court order that orders a party to do or refrain from doing a certain act (or acts) as opposed to a money judgment.

Institutional Building: a building that serves a specialized population within the community and serves as a landmark or public gathering place.

Internal Refractive Lens: A glass or plastic lens installed between the lamp and the sections of the outer fixture globe or enclosure. Refractive refers to the redirection (bending) of the light as it goes through the lens, softening and spreading the light being distributed from the light source thereby reducing direct glare.

Internet Café: see Sweepstakes Center

Isolux Lighting Plan: A demonstration or topographic of light distribution over a given area.

Lamp: The component of a luminaire that produces the actual light (bulb).

Land Disturbing Activity: Any use of the land by any person(s) in residential, industrial, educational, institutional, or commercial development, highway or road construction or maintenance, that results in a change in natural cover or topography that may cause or contribute to sedimentation.

Landfill: A facility for the disposal of solid waste on land in a sanitary manner in accordance with Chapter 130A Article 9 of the N.C. General Statutes. For the purpose of this ordinance, this term does not include composting facilities.

Landlocked Property: A parcel that has no frontage on a public right-of-way.

Landscaping: Changing, rearranging, or adding to the original vegetation or scenery of a piece of land to produce an aesthetic effect appropriate for the use to which the land is put. It may include reshaping the land by moving the earth, as well as preserving the original vegetation or adding vegetation.

Laundry, Dry Cleaning Plant: A service establishment engaged primarily in high volume laundry and garment services, including: carpet and upholstery cleaners; diaper services; dry-cleaning and garment pressing; commercial laundries; and linen supply. These facilities may

include customer pick-up but do not include coin-operated laundries, dry cleaning pick-up stores without dry cleaning equipment, or dry cleaning stores that do not provide cleaning services to other collection stations or stores.

Laundry Services: Coin-operated laundries, dry cleaning pick-up stores without dry cleaning equipment, or dry cleaning stores that do not provide cleaning services to other collection stations or stores.

Light Spillage: The shining of light produced by a luminaire beyond the boundaries of the property on which it is located and desired as measured at the border.

Live-Work Unit: An attached residential building type with small commercial enterprises on the ground floor and a residential unit above or behind with a common tenant in both spaces (no dual occupancy is permitted).

Lot: A portion of a subdivision or any other parcel of land intended as a unit for transfer of ownership or for development or both. The word "lot" includes the word "plot" or "parcel."

(a) *Double-frontage lot:* A lot of the same depth as the width of a block containing two tiers of lots and which is accessible from both of the streets upon which it fronts.
(b) *Single-tier lot:* A lot which backs upon limited access highway, a railroad, a physical barrier, or a nonresidential use and to which access from the rear is usually prohibited.
(c) *Corner lot:* A lot which has continuous frontage at two intersecting streets.
(d) *Pipe stem lot* (also known as flag lot or panhandle lot): A lot which contains a relatively narrow strip that provides street access.

Lot of Record: A lot which is a part of a subdivision, a plat of which has been recorded in the office of the register of deeds of Wake County or a lot described by metes and bounds, the description of which has been so recorded.

Lot, infill: The development of new housing or other buildings on vacant sites in a built-up area.

Lot Width: The distance between side lot lines measured at the building line.

Low-Density Project: A project that has no more than two dwelling units per acre or 24 percent built-upon area (BUA) for all residential and non-residential development.

Lumen: A unit of luminous flux. The total quantity of light emitted from a light source. One foot-candle is one lumen per square foot. For the purposes of this Ordinance, the lumen-output values shall be the Initial lumen output ratings of a lamp.

Luminaire: A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the power supply.

Maintained Footcandle: Luminance of lighting fixtures adjusted for a maintenance factor accounting for dirt build-up and lamp output depreciation. The maintenance factor used in the design process to account for this depreciation cannot be lower than 0.72 for high-pressure sodium and 0.64 for metal halide and mercury vapor.

Major Subdivision: Generally subdivision that include more than five lots. Other items may trigger a parcel's classification as a major subdivision such as: public street dedication, new streets, whether public or private, to provide access to interior lots or parcels; the extension of public water or sewer or the creation of new drainage easements; future street connectivity concerns; and any non-residential use.

Manufactured Housing: A dwelling unit, other than a modular home, fabricated in an off-site manufacturing facility for installation or assembly on the building site, which is at least eight feet in width and at least 32 feet in length, which bears a seal certifying that it was built to the standard adopted pursuant to the "National Manufactured Housing Construction and Safety Standards Act of 1974", 42 U.S.C. Sec 5401 et seq., which is placed upon a permanent foundation which meets the installation and foundation requirements adopted by the N.C. Commissioner of Insurance, but which is not constructed or equipped with a permanent hitch or other device allowing it to be moved other than for the purpose of moving to a permanent site, and which does not have permanently attached to its body or frame any wheels or axles. *(LBCS S1150)*

Manufactured Home Neighborhood: A subdivision of land that permits double-wide manufactured houses that are aligned on the lots in a manner similar to site built homes with their front doors facing the streets.

Manufactured Home Park: The location of two or more manufactured homes on a parcel of land shall constitute a manufactured home park.

Manufacturing, Heavy: A non-residential use that requires a National Pollutant Discharge Elimination System (NPDES) permit for an industrial or stormwater discharge or involves the use or storage of any hazardous materials or substances or that is used for the purpose of manufacturing, assembling, finishing, cleaning or developing any product or commodity. Typically the largest facilities in a community, these structures house complex operations, some of which might be continuous (operated 24 hours a day, seven days a week). (*LBCS S2620*)

Manufacturing, Light: A non-residential use that requires a National Pollutant Discharge Elimination System (NPDES) permit for an industrial or stormwater discharge or involves the use or storage of any hazardous materials or substances or that is used for the purpose of manufacturing, assembling, finishing, cleaning or developing any product or commodity. Facilities are typically designed to look and generate impacts like a typical office building, but rely on special power, water, or waste disposal systems for operation. Noise, odor, dust, and glare of each operation are completely confined within an enclosed building, insofar as practical. (*LBCS S2613*)

Manufacturing, Neighborhood: The assembly, fabrication, production or processing of goods and materials using processes that ordinarily do not create noise, smoke, fumes, odors, glare, or health or safety hazards outside of the building and are visually undifferentiated from an office building. This includes medical and testing laboratories but shall not include uses that require frequent deliveries by truck with more than two axles. *(LBCS S2610)*

Map for Recordation: A plat that depicts existing property where the act of subdivision is not involved.

Marquee: A structure which is constructed and framed in steel or other durable material, extended permanently over the ground, sidewalk, or walkway, and of sufficient strength and design to carry superimposed sign structures.

Mechanical Equipment: HVAC, utility cabinets, or other equipment related to the mechanical operation of a building.

Mechanical Penthouse: story of a building dedicated to mechanical and electronics equipment

Media Production: Facilities for motion picture, television, video, sound, computer, and other communications media production. These facilities include the following types:

1. Back lots/outdoor facilities:
2. Indoor support facilities:

Medical Clinic: Facilities that provide ambulatory or outpatient health care such as physician offices and dentists; emergency medical clinics; outpatient family planning services; and blood and organ banks. *(LBCS F6510, F6512, and F6514)*

Metal Products Fabrication, Machine or Welding Shop: An establishment engaged in the production and/or assembly of metal parts, including the production of metal cabinets and enclosures, cans and shipping containers, doors and gates, duct work forgings and stampings, hardware and tools, plumbing fixtures and products, tanks, towers, and similar products. Examples of these include:

1. Blacksmith and welding shops
2. Plating, stripping, and coating shops
3. Sheet metal shops
4. Machine shops and boiler shops

Mezzanine: a low story between two other stories of greater height in a building.

Mini-Warehouses: A building containing separate enclosed storage spaces of varying sizes leased or rented on an individual basis.

Minor Subdivision: subdivisions that include five lots or less; does not involve any public street dedication, does not require any new street, whether public or private, to provide access to interior lots or parcels; does not involve the extension of public water or sewer or the creation of new drainage easements; does not adversely affect the development of the remainder of the property or the adjoining property and would not block future street connectivity; and is for residential use only.

Mixed-Use Building: a multi-story small scale structure that can accommodate a variety of uses.

Mobile Car Wash: A mobile car wash is defined as a vehicle with an internal combustion engine and upon its chassis is mounted on a vehicle or carried on a trailer a liquid holding tank, pump, hose or hoses, and nozzles. Other equipment, such as sponges, buckets, brushes, etc. that is necessary to the purpose of a mobile car wash may be carried on the vehicle.

Modular Home: A dwelling unit constructed in accordance with the standards set forth in the North Carolina State Building Code and composed of components substantially assembled in a manufacturing plant and transported to the building site for final assembly on a permanent foundation.

Multi-Use Path: A pathway usually intended for the use of bicycles, pedestrians and other non-motorized means of conveyance. Usually 8-12 feet of a paved surface or a surface graded with a material suitable for the types of users.

Nonconforming: A lot, structure, sign, or use of land or structure, which is now prohibited under the terms of this ordinance but was lawful at the date on which it was established or became lawful at some later date. Nonconforming lots, signs, use of land or structures in place at the time of adoption of this Ordinance are grandfathered; however, any changes to the nonconforming lot, structure, sign or use of land or structure, shall comply with the UDO under the terms of Chapter 13.

Nonconforming Lot: A lot of record that does not conform to the dimensional requirements of the zoning district in which it is located. The nonconformity may result from adoption of this ordinance or any subsequent amendment.

Nonconforming Structure: A structure that does not conform to dimensional, elevation, location, or other requirements of this ordinance. The nonconformity may result from adoption of this ordinance or any subsequent amendment.

Nonconforming Use: A use which was once a permitted use on a parcel of land or within a structure but which is now not a permitted use of that parcel or structure according to Chapter 13 of this ordinance. The nonconformity may result from the adoption of this ordinance or any subsequent amendment.

Non-Cutoff Fixture: A fixture light distribution where there is no light intensity limitation in the zone above the maximum distribution of light intensity.

Non-Residential: All uses which are neither single-family nor multi-family. *For the purposes of watershed or flood protection:* All development other than residential development, agriculture and silviculture.

Official Maps or Plans: Any maps or plans officially adopted by the Board of Commissioners as a guide for the development of the town and surrounding area.

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 within a duration of 24 hours.

Open Space: Undeveloped or predominantly undeveloped land which has value for one or more of the following purposes: park and recreation, conservation of land and other natural resources, and/or historic and scenic purposes.

Outdoor Advertising Signs: A free-standing sign located outdoors that directs attention to a business, commodity, service or entertainment conducted, sold, manufactured or offered either on the same premises as the sign or at a different location.

Outdoor Display Area: Commercial establishments that rely on outdoor sales and display areas including but not limited to heavy equipment sales, recreational vehicle sales, automobile sales, manufactured home displays, and sales of building materials.

Outdoor Kennels: A use or structure intended and used for the breeding or accommodation of small domestic animals for sale or for the training or overnight boarding of animals for persons other than the owner of the lot, but not including a veterinary clinic in which the overnight boarding of animals is necessary for or accessory to the testing and medical treatment of the physical disorders of animals. (*LBCS F2700*)

Outdoor Lighting: The nighttime illumination of an outdoor area or object by any man-made device located outdoors that produces light by any means.

Outparcel: A parcel of land designated on an approved commercial development site plan or determined as such by the Administrator. An outparcel shall be secondary in nature to the primary commercial development. It shall contain a single building and be independent of the total development in that its driveways, walkways, landscaping, and lighting are unique to the building on the site.

Overlay district: A set of zoning requirements that is described in the ordinance text, is mapped, and is imposed in addition to those of the underlying district. Developments within the overlay district must conform to the requirements of both zones or the more restrictive of the two.

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. A secured lender not in possession of the property does not constitute an owner, unless the secured lender is included within the meaning of "owner" under another description in this definition, such as a management entity.

Parcel: A lot, or contiguous group of lots in single ownership or under single control, and usually considered a unit for purposes of development.

Park and Ride Spaces: A parking lot/spaces designated for drivers to leave their cars and use mass transit facilities beginning, terminating, or stopping within immediate walking distance of the park and ride facility.

Parking Lot (Primary Use): A stand-alone parking lot that is available for public or private use, but that is not an accessory to another use.

Parking Space: The storage space for one automobile plus the necessary access space.

Parking Structure (Primary Use): A stand alone parking structure (deck) that is available for public or private use, but that is not an accessory to another primary use.

Pennant: Any lightweight plastic fabric, or other material, whether containing a message of any kind, suspended from a rope, wire or string, usually in a series, designed to move in the wind.

Permanent Car Wash : A permanent car wash is defined as a facility, consisting of a building with a roof and side walls that is permanently affixed to the land and is taxed as an improvement to the land. A permanent car wash facility may be either (1) fully automated, or (2) partially automated and where detailing of the vehicle is done outside of the physical facility by company employees, or (3) customer controlled pressure nozzles that spray liquids onto the vehicle and detailing is done by the customer outside of the facility.

Personal Wireless Facility: *See definition for Wireless Telecommunications Facilities.*

Planning Board: The Town of Wendell Planning Board.

Planting Area: The area prepared for the purpose of accommodating the planting of trees, shrubs, and groundcovers.

Post Office: Establishments conducting operations of the United States Postal Service. (*LBCS F4170*).

Porch: An open air room appended to a building with floor and roof but no walls on the sides facing public frontage.

Preliminary Plat: A draft plat of a proposed subdivision, used to determine if the proposed development is in general conformance with town standards and ordinances.

Principal Building or Principal Use: The principal purpose for which a lot or the main building thereon is designed, arranged, or intended, and for which it is or may be used, occupied, or maintained.

Professional Services: Services provided that make available the knowledge and skills of their employees to sell expertise and perform professional, scientific, and technical services to others such as legal services; accounting, tax, bookkeeping, and payroll services; architectural, engineering, and related services; graphic, industrial, and interior design services; consulting services; research and development services; advertising, media, and photography services; real estate services; investment banking, securities, brokerages; and insurance-related services; and, medical services such as physician's and dentist's offices. (*LBCS F2230, F2240, F2300, F2410-2417, and F6511)*

Protected area: The area adjoining and upstream of the critical area in a WS-IV water supply in which protection measures are required. The boundaries of the protected areas are defined as extending 5 miles upstream and draining to water supply reservoirs (measured from the normal pool elevation) to the ridge line of the watershed (whichever comes first); or 10 miles upstream and draining to the intake located directly in the stream or river (run-of-the-river), or to the ridge line of the watershed (whichever comes first).

Public Realm: Those areas within a community to which the public has open access, such as public streets, sidewalks, building facades, lighting, etc. which fosters social interaction, community activity and connectivity among those aspects of urban development.

Public Safety Facility: A facility operated by a public agency including fire stations, other fire prevention and fire fighting facilities, police and sheriff substations and headquarters, including incarceration facilities.

Recreation Facilities, Indoor: Uses or structures for active recreation including gymnasiums, natatoriums, fitness center, athletic equipment, indoor running tracks, climbing facilities, court facilities and their customary accessory uses. This definition is inclusive of both non-profit and for-profit operations.

Recreation Facilities, Outdoor: Parks and other open space used for active or passive recreation such as ball fields, batting cages, skateboard parks, playgrounds, greenway trails, driving ranges, tennis courts, riding stables, campgrounds, and golf courses and their customary accessory uses including, but not limited to, maintenance sheds, clubhouses (with or without food service), pools, restrooms, and picnic shelters. This definition is inclusive of both non-profit and for-profit operations.

Recreational Vehicle: A vehicle or portable structure which can be towed, hauled, or driven and is primarily designed as temporary living accommodation for recreational, camping, and ravel use. A recreational vehicle shall not be considered as a dwelling unit

Redevelopment: Any rebuilding activity 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.

Religious Institution: Any facility such as a church, temple, monastery, synagogues, or mosque used for worship by a non-profit organization and their customary related uses for education (pre-schools, religious education, etc.), recreation (gymnasiums, activity rooms, ball fields, etc.), housing (rectory, parsonage, elderly or disabled housing, etc.) and accessory uses such as cemeteries, mausoleums, offices, soup kitchens, and bookstores. *(LBCS F6600 and S3500)*

Required Yard Area: That space between the required yard setback lines and the lot lines from which the required yard setbacks are measured.

Research and Development (R&D): A facility for scientific research, and the design, development, and testing of electrical, electronic, magnetic, optical and computer and telecommunications components in advance of product manufacturing, and the assembly of related products from parts produced off-site, where the manufacturing activity is secondary to the research and development activities. R&D facilities include pharmaceutical, chemical, and biotechnology research and development. Also includes laboratories for testing, analysis, and/or research. Examples of this include medical labs, soils and materials testing labs, and forensic labs.

Residential Development: Buildings for residence such as attached and detached single-family dwellings, apartment complexes, condominiums, townhouses, cottages, etc. and their associated outbuildings such as garages, storage buildings, gazebos, etc. and customary home occupations.

Residential Support Facility: A building or group of buildings owned or operated by a non-profit organization intended to be used solely for temporary occupancy by patients or family members of patients being treated at a local hospital.

Residential Treatment Facility: A facility that primarily provides 24-hour supervision and Level I, II, or III therapeutic treatment as licensed by the North Carolina Department of Health and Human Services for adults or children with behavioral disorders, or juveniles adjudicated in a court of law as delinquent. Residential treatment facilities are limited to no more than six clients.

Restaurant: A retail business selling ready-to-eat food and/or beverages for on or off-premise consumption. Customers may be served from an ordering counter (i.e. cafeteria or limited service restaurant); at their tables (full-service restaurant); and, at exclusively pedestrian-oriented facilities that serve from a walk-up ordering counter (snack and/or nonalcoholic bars). (*LBCS F2510, F2520, and F2530*)

Rezoning: An amendment to or a change in the zoning ordinance. Rezonings can take three forms: (1) a comprehensive revision or modification of the zoning text and map; (2) a text change in zone requirements; and (3) a change in the map, i.e., the zoning designation of a

particular parcel or parcels. Rezonings, like enactment of the original ordinance, are legislative acts that cannot be delegated to administrative officials. According to state law, planning boards make recommendations and Board of Commissioners approve or deny rezonings.

Right-of-way: *See "Street right-of-way"*

Rooming or Boarding House: Short or long-term accommodations that serve a specific groups or membership such as a dormitory, fraternity or sorority house, youth or adult hostel or similar tourist accommodations, or single room occupancy units that provide a number of related services including, but not limited to housekeeping, meals, and laundry services. *(LBCS F1320, S 1320, and S1340)*

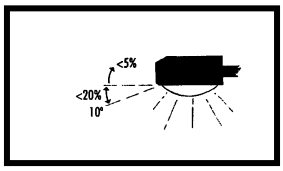
School, Elementary & Secondary: A public or private institution for education or learning including athletic or recreational facilities, which does not include lodging. This institution includes any school licensed by the state and that meets the state requirements for elementary and secondary education. (*LBCS F6100*)

School, Vocational/Technical: A public or private institution for education or learning including athletic or recreational facilities, which does not include lodging. These schools offer vocational and technical training in a variety of technical subjects and trades. Training may lead to job-specific certification. (*LBCS F6100 and F6140*)

Sediment: Solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its site of origin.

Sedimentation: The process by which sediment resulting from accelerated erosion has been or is being transported off the site of the land-disturbing activity or into a lake or natural water course.

Semi-Cutoff Fixture: A fixture light distribution where no more than 5 percent of a lamp's light intensity is emitted at or above a horizontal plane drawn through the bottom of the fixture and no more than 20 percent of the lamp's light intensity is emitted at an angle 10 degrees below that horizontal plane, at all lateral angles around the fixture.



Semi-Opaque: Partially opaque or partially impenetrable to sight

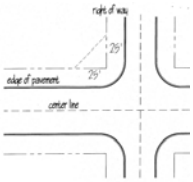
Setback: A line parallel to the property line in front of which no structure shall be erected.

Shopping-Neighborhood Center: Sizes vary from 30,000 to 150,000 square feet on sites ranging from 3 to 15 acres, and have a 3- mile primary trade area radius. Typically serves immediate neighborhood with convenience shopping. Often anchored by a supermarket or drugstore. (*LBCS S2510*)

Shopping Center-Community Center: Usually configured as a strip center. Sizes vary from 100,000 to 350,000 square feet on sites ranging in size from 10 to 40 acres and have a 3- to 6-mile primary trade area radius. Serves a wider market than neighborhood and also offers wider range of goods, especially apparel goods. Anchors include supermarkets, super drug stores, and discount stores. Some centers may also contain outlet stores selling toys, electronics, sporting goods, and home improvement and furnishings. (*LBCS S2520*)

Shrub: An upright plant planted for ornamental or screening purposes.

Sight Triangle: A triangular area formed by the intersection of the projected street lines (right-of-way lines) and a straight line connecting points on said street lines.



Sign: Any form of publicity or advertising which is visible from any public way, directing attention to an individual, business, commodity, service, activity, or product, by means of words, lettering, parts of letters, figures, numerals, phrases, sentences, emblems, devices, trade names or trademarks, or other pictorial matter designed to convey such information and displayed by means of paint, bills, posters, panels, or other devices erected on an open framework, or attached or otherwise applied to stakes, posts, poles, trees, buildings, or other structures or supports.

Sign, Awning: A sign, which is painted, stitched, sewn, or stained onto the exterior of an awning.

Sign, Canopy: A sign which is suspended from, attached to, supported from, applied to, or forms part of a canopy. Also known as a canopy-suspended sign.

Sign, Conforming: A sign which is in compliance with all the provisions of this ordinance.

Sign, Construction: A single sign giving the name or names of building owners, architects, engineers, and/or lending institutions and principal contractors responsible for construction on the site where the sign is placed, together with other appropriate information included thereon.

Sign, Direct (or internal) illumination: A light source which is enclosed within the sign and viewed through a translucent panel. Luminous tubing (neon lights) is one kind of direct illumination.

Sign, Directional: A sign containing only the name and address of a facility and information pertaining to the direction of the facility.

Sign, Indirect (or external) illumination: A light source which is placed outside of or away from the sign in a manner to illuminate the sign.

Sign, Information: Any on-premise sign containing no other message, copy, announcement, or decoration other than instruction or direction to the public. Such signs include, but are not

limited to, the following: the identification of rest rooms, public telephones, walkways, entrance and exit drives, freight entrances, and traffic direction.

Sign, Monument: Any sign, other than a pole sign, which is attached directly to the ground by means of one or more upright pillars, braces or posts and not attached to any other structure.

Sign, Nonconforming: A sign erected before the effective date of this ordinance which is not in compliance with one or more of the provisions contained herein.

Sign, Obsolete: A sign identifying a business establishment no longer in existence, products no longer being sold, services no longer being rendered, or events which have already occurred or a sign advertising a business, product, or service still in existence by which is no longer in operation or available at the location where the sign is located.

Sign, Off-Premise: Any sign or structure, pictorial or otherwise, regardless of size or shape, which directs attention to a business, commodity, attraction, profession, service, or entertainment conducted, offered, sold, manufactured, existing, or provided at a location other than on the premises where the sign is located or to which it is affixed.

Sign, On-Premise: Any sign or structure, pictorial or otherwise, regardless of size or shape, which directs attention to a business, commodity, attraction, profession, service, or entertainment conducted, offered, sold, manufactured, existing, or provided at a location on the premises where the sign is located or to which it is affixed.

Sign, Pole: A sign more than 10 feet but not more than 20 feet in height which is attached directly to the ground by one or more upright supports.

Sign, Real estate sign: A sign located on the premises and offering the premises for sale, rent, lease or development.

Sign, Roof sign: A sign erected, constructed, placed, or maintained upon the roof of any building.

Sign, Special Event: A sign of a business or organization which is not part of its normal activities. Such a sign shall be limited to a business "grand opening" or "going-out-of-business sale," as well as fund-raising membership drives or events of civic, philanthropic, educational, or religious organizations.

Sign, Temporary Sign: A sign which is permitted for a limited period of time.

Sign, Wall Sign: A sign erected parallel to the facade of any building to which it is attached, and supported throughout its entire length by the building face.

Sign Face: The part of the sign that is or can be used to identify, advertise, or communicate information, or is used for visual representation which attracts the attention of the public for

any purpose. Sign face includes any background material, panel, trim, color, and direct or self-illumination used that differentiates that sign from the building, structure, backdrop, surface, or object upon which or against which it is placed. The sign structure shall not be included as a portion of the sign face provided that no identifying/advertising message, symbol, or any of the aforementioned sign face criteria are displayed on or designed as part of the sign structure, whether structurally necessary or not.

Signage, Aggregate: The total surface area of all signs located on a particular tract not counting incidental signs. For double-sided signs, the area of one side will only count toward calculating the total.

Site Plan: A diagram to scale showing the development plans for a project.

Small Area Plan: A detailed plan for the growth and development of a sub-area of a town or city.

Soundstages: Warehouse-type facilities providing space for the construction and use of indoor sets, including supporting workshops and craft shops.

Specimen Tree: Any healthy, existing tree over 18 inches in caliper measured at DBH, (excluding Sweet Gum, Catalpa, Wild Cherry, Wild Elm, Princess, Hackberry, and Tree-of-Heaven trees) found in a field or open grown condition, or along the edge of a forest stand or tree stand and displaying the root zone, canopy, and structure characteristic of the particular species.

Stoop: A small stair, landing, or ramp connecting a building entrance to the sidewalk.

Storage-Storage Yard: The storage of various materials outside of a structure, as a principal use.

Storage-Warehouse, Indoor Storage: Facilities for the storage of furniture, household goods, or other commercial goods of any nature. Includes cold storage. Does not include warehouse, storage, or mini-storage facilities offered for rent or lease to the general public; warehouse facilities primarily used for wholesaling and distribution; or terminal facilities for handling freight.

Storm Drainage Facilities: The system of inlets, conduits, channels, ditches, and appurtenances which serve to collect and convey stormwater through and from a given drainage area.

Stormwater Runoff: The direct runoff of water resulting from precipitation in any form.

Story: a horizontal section of a building, having one continuous or practically continuous floor.

Stream: A watercourse that collects surface runoff.

Street: A dedicated and accepted public right-of-way for vehicular traffic which affords the principal means of access to abutting properties.

Street, cul-de-sac: A short local street having one end open to traffic and the other end permanently terminated by a vehicular turnaround.

Street, local: A street whose primary function is to provide access to abutting properties.

Street, private: A vehicular travelway not dedicated or offered for dedication as a public street but resembling a cul-de-sac or a local street and providing the principal means of access to abutting properties or buildings.

Street, public: A dedicated and accepted public right-of-way for vehicular traffic. In the town limits, a public street shall be maintained by the Town of Wendell or the state Department of Transportation. Alleys are specifically excluded.

Street Frontage: The length of property of a single lot abutting a public right-of-way or private street.

Street Right-of-Way: A strip of land whose legal title has been offered for public access and is occupied or intended to be occupied by a travelway and is also available, with the consent of the appropriate governmental agency, for installation and maintenance of traffic control devices, regulatory and information signs, water lines, sanitary sewer lines, storm sewer lines, gas lines, power lines, and communication lines.

Street Tree: A tree planted along the street, typically in the right-of-way in a planting strip or tree well.

Street Yard: A Planting Area parallel to a public street designed to provide continuity of vegetation along the right-of-way and to soften the impact of development by providing a pleasing view from the road.

Structural BMP: *See BMP, structural.*

Structure: Anything constructed or erected, the use of which requires more or less permanent location on the ground or which is attached to something having more or less permanent location on the ground.

Structure, accessory: A detached, subordinate structure, the use of which is customarily incidental to that of the principal structure and which is located on the same lot as the principal structure.

Structure, historic (State or National Register): Any structure that is: (1) listed individually in the National Register of Historic Places (a listing maintained by the U. S. Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register; (2) certified or preliminarily

determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; (3) individually listed on a state inventory of historic places; (4) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified (a) by an approved state program as determined by the Secretary of Interior, or (b) directly by the Secretary of Interior in states without approved programs.

Structure, principal: The primary structure on a lot.

Studio-Art, Dance, Martial Arts, Music, etc.: Small facilities, typically accommodating one group of students at a time, in no more than one instructional space. These establishments may include: individual and group instruction and training in the arts; production rehearsal photography, and the processing of photographs produced only by users of the studio facilities; martial arts training studios; gymnastics, yoga, and similar instruction; and aerobics and gymnastics studios with no other fitness facilities or equipment.

Subdivider: Any person, firm or corporation who subdivides or develops any land deemed to be a subdivision as herein defined.

Subdivision: A "subdivision" shall include all divisions of a tract or parcel of land into two or more lots, building sites, or other divisions for the purposes of sale or building development (whether immediate or future) and shall include all division of land involving the dedication of a new street or a change in existing streets.

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 on a continuous basis and not discontinued for more than 30 calendar days; 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.

(a) *Campground or Recreational Vehicle Park:* Land containing two or more campsites which are located, established, or maintained for occupancy by people in temporary living quarters, such as tents, recreational vehicles, or travel trailers which are used for recreation or vacation purposes. A 'mobile home park' shall not be deemed a campground or recreational vehicle park.
(b) *Campsite:* Any plot of ground within a campground intended for exclusive occupancy by a cabin, recreational vehicle, or tent.
(c) *Recreational Vehicle:* A vehicle or portable structure which can be towed, hauled, or driven and is primarily designed as temporary living accommodation for recreational, camping, and ravel use. A recreational vehicle shall not be considered as a dwelling unit

Surety: A pledge or formal promise made to secure against loss, damage, or default; a security.

Sweepstakes Center: An "internet café," "cybercafé," or "sweepstakes center" or by what other terminology such establishment might be known, is a for profit business enterprise, whether as a principal or an accessory use, where electronic machines can be utilized, including but not limited to computers and gaming terminals and where cash, merchandise or other items of value are redeemed or otherwise distributed, whether or not the value of such distribution is determined by electronic games played or by predetermined odds. This term includes, but is not limited to those establishments where one can use a computer with internet access, usually for a fee on a per hour or per minute basis; or unmetered access with a pass for a day, month, etc. The establishment may serve as a regular café, as well, with food and drinks being served.

Technical Review Committee (TRC): A group of Town staff and other reviewing agencies who review and approve Site Plans and Preliminary Plats.

Telecommunications: The transmission and reception of audio, video, data and other information by wire, radio frequency, light and other electronic or electromagnetic systems.

Telecommunications Structure: A structure used in the provision of services described in the definition of Wireless Telecommunications Facilities.

Telecommunications Tower. *See definition for Wireless Telecommunications Facilities.*

Theater, Movie: A specialized theater for showing movies or motion pictures on a projection screen. This category also includes cineplexes and megaplexes, complex structures with multiple movie theaters, each theater capable of an independent performance. (*LBCS S3120*)

Theater, Live Performance: Includes concert halls and other structures with fixed seats arranged on a sloped or stepped floor. (*LBCS S3110*)

Thoroughfare Plan: A plan adopted by the Board of Commissioners for the development of existing and proposed major streets that will adequately serve the future travel needs of an area in an efficient and cost-effective manner.

Thoroughfare Street, major: Major thoroughfares consist of interstate, other freeway, expressway, or parkway links, and major streets that provide for the expeditious movement of high volumes of traffic within and through urban areas.

Thoroughfare Street, minor: Minor thoroughfares collect traffic from local and other non-thoroughfare streets and carry it to the major thoroughfare system. Minor thoroughfares may be used to supplement the major thoroughfare system by facilitating movement of moderate volumes of traffic within and through urban areas and may also serve abutting property.

Town: The Town of Wendell, North Carolina

Town Board: The Town Board of Commissioners, Wendell, North Carolina

Townhouse Dwelling: A building consisting of single family residences attached to one another in which each unit is located on an individually owned parcel, generally within a development containing drives, walks, and open space in common area.

Toxic Substance: Any substance or combination of substances (including disease causing agents), which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, has the potential to cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions or suppression in reproduction or growth) or physical deformities in such organisms or their off spring or other adverse health effects.

Transit Station-Passenger: Facilities for ground passenger transit systems using multiple modes of transport over regular routes and on regular schedules within the town or that operated over long distances between metropolitan areas. *(LBCS F4120 and S3900)*

Travel trailer (camping trailer): A vehicular, portable structure, built on a chassis, designed to be used as a temporary dwelling for travel, recreational and vacation uses and being of any length or width, provided its gross weight does not exceed 4,500 pounds, or being of any weight, provided its overall length does not exceed 29 feet.

Tree Save Area: Conservation area where trees are to be preserved from grading or future development.

Tree Wells: Openings within large sidewalks where trees are planted; provides aeration for tree roots and is typically covered with a metal grate to protect the soil/roots from being compacted.

Understory Tree: A species of tree, which normally grows to a mature height of 15 feet to 35 feet.

Use, permitted: A use permitted in a given district as a permitted use and so authorized by being listed, or referenced as a permitted use, by district, in Chapter 2, District Provisions.

Use, residential: Any type dwelling unit including single-family dwelling, two-family dwelling, multifamily dwelling, rooming or boarding house, accessory buildings and structures thereof and customary home occupations.

Use, Special: A use permitted only upon approval of the Wendell Zoning Board of adjustment. Such a use shall be permitted only in the district in which it is listed and shall not be accumulative to any other district. If property exists such that an existing use which was previously allowed by right would be allowed only as a conditional use, that use shall become nonconforming unless and until a conditional use permit is issued.

Utilities: Publicly or privately owned facilities or systems for the distribution of gas, electricity, steam, or water, the collection, treatment and disposal of sewage or refuse; the transmission of communications; of similar functions necessary for the provision of public

services. Radio transmission facilities for use by ham radio operators or two-way radio facilities for business or governmental communications shall be deemed accessory uses and not utilities, provided no transmitter or antenna tower exceed 180 ft in height. Utilities are divided into three classes:

Class 1 Transmission and collection lines (above and below ground) including electrical, natural, gas, waste water collection, and water distribution lines; pumping stations, lift stations, and telephone switching facilities (up to 200 sq. ft).

Class 2 Elevated water storage tanks; package treatment plants, telephone switching facilities (over 200 sq. ft), substations, or other similar facilities in connection with telephone, electric, steam, and water facilities.

Class 3 Generation, production, or treatment facilities such as power plants, water and sewage plants, and landfills.

Variance: A permission to develop or use property granted by the Watershed Review Board relaxing or waiving a water supply watershed management requirement adopted by the Environmental Management Commission that is incorporated into this ordinance.

Vehicle/Heavy Equipment Sales: Establishments which may have showrooms or open lots for selling vehicles or heavy equipment. May include car dealers for compact automobiles and light trucks, bus, truck, mobile homes, motorcycle, ATV, or boat and marine craft dealers. (*LBCS F2110, F2111, F2112, F2113 and F2114*)

Vehicle Services – Major Repair/Body Work: The repair, servicing, alteration, restoration, towing, painting, cleaning, or finishing of automobiles, trucks, recreational vehicles, boats and other vehicles as a primary use, including the incidental wholesale and retail sale of vehicle parts as an accessory use. This includes major repair and body work which encompasses towing, collision repair, other body work and painting services, and tire recapping.

Vehicle Services - Minor Maintenance & Repair: The repair, servicing, alteration, restoration, towing painting, cleaning, or finishing of automobiles, trucks, recreational vehicles, boats and other vehicles as a primary use, including the incidental wholesale and retail sale of vehicle parts as an accessory use. Minor facilities providing limited repair and maintenance services. Examples include: car washes, attended and self-service; car stereo and alarm system installers; detailing services; muffler and radiator shops; quick-lube services; tire and battery sales and installation (not including recapping).

Vested rights: The right to undertake and complete the development and use of property under the terms and conditions of an approved site specific development plan or an approved phased development plan.

Watershed: The entire land area contributing surface drainage to a specific point (e.g. the water supply intake.)

Wetlands: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, under normal conditions, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Wholesaling and Distribution: Establishments engaged in selling merchandise to retailers; to contractors, industrial, commercial, institutional, farm or professional business users; to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies. This does not include selling to the public. Examples of these establishments include:

1. Agents, merchandise or commodity brokers, and commission merchants;
2. Assemblers, buyers and associations engaged in the cooperative marketing of farm products;
3. Merchant wholesalers;
4. Stores primarily selling electrical plumbing, heating, and air conditioning supplies and equipment.

Wide-body Refractive Globe: A translucent lamp enclosure used with some outdoor fixtures to provide a decorative look. "Wide-body" refers to a wider than average size globe (greater than 15.75 inches in diameter). "Refractive" refers to the redirection (bending) of the light as it goes through the lens, rendering the light fixture more effective. Wide-body refractive globes are intended to soften and spread the light being distributed from the light source thereby reducing direct glare.

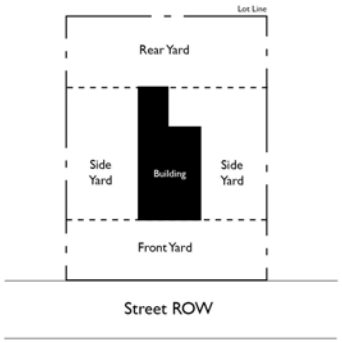
Wireless Telecommunication Facility: Equipment constructed in accordance with Section 332(c)(7) of the federal Communications Act at a single location by a private business user, governmental user, or commercial wireless service provider to transmit, receive, or relay electromagnetic signals (including microwave). Such facility includes antennas or antenna arrays, wireless telecommunication towers, support structures, transmitters, receivers, base stations, combiners, amplifiers, repeaters, filters, or other electronic equipment; together with all associated cabling, wiring, equipment enclosures, and other improvements.

Stealth: Equipment that is unobtrusive in its appearance such as the co-location on existing tower facilities; and the placement of equipment on flagpoles, buildings, silos, water tanks, pole signs, lighting standards, steeples, billboards and electric transmission towers.

Tower: The construction of new free-standing facilities or facilities that extend more than 20 feet above the normal height of the building or structure on which they are placed. The following shall not be included in this definition:

- Amateur radio facilities with antennas mounted on supporting structures less than 100 feet in height;
- Residential antennas for receiving television or AM/FM radio broadcasts;
- Residential satellite dishes; or, commercial or industrial satellite dishes that are less than 20 feet in height.

Yard: A space on the same lot with a principal building open, unoccupied and unobstructed by buildings or structures from ground to sky except where encroachments and accessory buildings are expressly permitted.



Yard, front: An open, unoccupied space on the same lot with a principal building, extended the full width of the lot, and situated between the street and that front line of the building, projected to the side lines of the lot.

Yard, rear: An open, unoccupied space on the same lot with a principal building, extending the full width of the lot and situated between the rear line of the lot and the rear line of the building projected to the side lines of the lot.

Yard, side: An open, unoccupied space on the same lot with a principal building, situated between the building and the side lot line and extending from the rear line of the front yard to the front line of the rear yard.

Zero Lot Line: A development approach in which a building is sited on one or more lot lines with no yard. Conceivably, three of the four sides of the building could be on the lot lines. The intent is to allow more flexibility in site design and to increase the amount of usable open space on the lot. Virtually all zoning ordinances retain yard requirements; where zero lot line developments have been permitted, they have been handled through group development procedures, or other devised which allow for site plan review. The few ordinances which specifically authorize the zero lot line approach do so as an exception to prevailing regulations and under clearly defined circumstances.

Zoning: A police power measure, enacted primarily by general purpose units of local government, in which the community is divided into districts or zones within which permitted and special uses are established as are regulations governing lot size, building bulk, placement, and other development standards. Requirements vary from district to district. The zoning ordinance consists of two parts: a text and a map. For the most part, this conventional definition of zoning still applies, but recent innovations in special (or conditional) use districts and overlay districts have begun to blur some of the ordinance's neatness and clarity.

Zoning Districts: A section of a town designated in the zoning ordinance text and (usually) delineated on the zoning map, in which requirements for the use of land and building and development standards are prescribed.

Zoning Map: The map delineating the boundaries of districts which, along with the zoning text, comprises the zoning ordinance.

Appendix A. ACCEPTABLE PLANT MATERIAL

All plant material required by this section shall be of one or more species listed below. However, the Administrator may approve other plant material not listed herein if he finds that such material will fulfill the requirements of this section. Specifically, the utility company shall approve trees proposed to be located below utility lines.

BOTANNICAL	COMMON NAME
Large Shade Trees	
Acer rubrum	Red Maple
Acer saccharum	Sugar Maple
Fraxinus pennsylvanica	Green Ash
Magnolia grandiflora	Southern Magnolia
Platanus occidentalis	Sycamore
Quercus coccinea	Scarlet Oak
Quercus hemisphaerica	Laurel Oak
Quercus palustris	Pin Oak
Quercus phellos	Willow Oak
Zelkova serrata – Village Green	Village Green Zelkova
Small Shade Trees	
Quercus acutissima	Sawtooth Oak
Betula nigra	River Birch
Cercis canadensis	Eastern Redbud
Cornus florida	Flowering Dogwood
Koelreuteria paniculata	Golden Rain Tree
Lagerstroemia indica	Crepe Myrtle
Prunus serrulata – Kwanzan	Kwanzan Cherry
Prunus x yedoensis	Yoshino Cherry
Ilex cassine	Dahoun Holly
Small Evergreen Tree	
Cupresso cyparis leylandii	Leyland Cypress
Ilex x attenuata – Fosteri	Foster Holly
Ilex x attenuata – Savannah	Savannah Holly
Ilex x attenuata – Nellie R. Stevens	Nellie R. Stevens Holly
Large Shrubs (Buffer Plants)	
Cleyera japonica	Cleyera
Elaeagnus pungens	Thornyl Elaeagnus
Ilex vomitoria	Yaupon Holly
Ilex x – Emily Bruner	Emily Brunner Holly
Ilex opaca – Greenleaf	Greenleaf American Holly
Ligustrum japonicum	Waxleaf Ligustrum

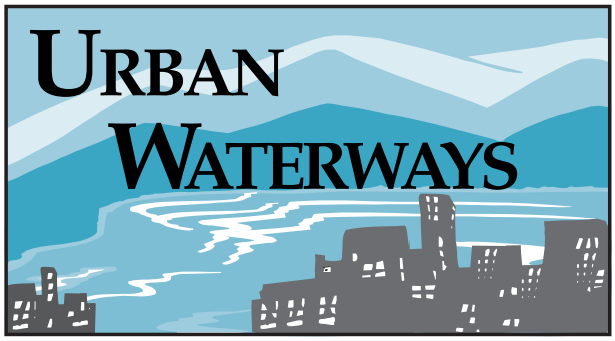
Prunus carolinana	Carolina Cherry-Laurel
Prunus laurocerasus	English Laurel

Medium Shrubs (Buffering Plant)

Ilex cornuta – Burfordii Nana	Dwarf Burford Holly
Ilex cornuta – Needlepoint	Needlepoint Holly
Ilex cornuta – Convexa	Convexa Japanese Holly
Ilex cornuta – Green Lustre	Green Lustre Holly
Ilex cornuta – Rotundifolia	Rotundifolia Holly

Appendix B. BIORETENTION DESIGN GUIDELINES

The following documents are provided per the reference in Chapter 8, Section 8.11.E.2 Bioretention Areas: "Required parking lot landscaping may be substituted with one or more consolidated bioretention areas (aka "rain gardens"). Bioretention areas shall be located where it is most practical to capture stormwater, manage parking lot traffic and facilitate pedestrian use, including adjacent to and connecting with vegetated areas on the perimeter of a parking lot. Bioretention areas shall be designed and landscaped to trap and mitigate runoff from paved surfaces consistent with the description and intent of *EPA Storm Water Technology Fact Sheet – Bioretention* (EPA 832-F-99-012, September 1999;), or equivalent, including NC Cooperative Extension Bulletin, *Designing Rain Gardens* (Bio-Retention Areas), 2001."



Designing Rain Gardens (Bio-Retention Areas)

As communities in North Carolina develop, more and more land is converted into impermeable surfaces, which do not allow water to infiltrate. These include driveways, parking lots, homes, offices, schools, highways, and paved walkways. Much of this expanding infrastructure is needed to maintain a desired quality of life. Everything from a dry place to work, eat, and sleep to easy access to hospitals depends on a system of impervious surfaces. However, without careful consideration, impermeable land can dramatically harm the quality of the state's waters, adjacent wetlands and forests, and other natural areas. Water that once soaked into the ground—or infiltrated—now runs on top of roads or through gutters, often heading straight to nearby streams and lakes and carrying potentially harmful pollutants. Often a network of impervious surfaces serves as a "stormwater superhighway" that quickly conveys stormwater and associated pollutants into streams.

Increased stormwater runoff introduces many undesirable effects:

1) More flooding during storms and less groundwater (or base flow) during dry weather.
2) Increased erosion and subsequent sedimentation (settling) of eroded particles in streams or flood plains.
3) Streambank erosion resulting from high stream velocities.
4) More chemicals and metals being deposited by vehicles and equipment, eventually reaching streams.
5) Nutrients, such as nitrogen and phosphorus, gaining easier access to natural water bodies via an "efficient" storm sewer.
6) Increased numbers of potentially harmful bacteria and other pathogens from humans, pets, and wildlife entering the state's waters.
7) All the pollutants—from sediment to toxic chemicals to bacteria—harming plants and animals living in or near North Carolina's streams, lakes, and estuaries.

Fortunately, there are techniques that can minimize flooding, erosion, and the amount of metals, nutrients, and bacteria that enter the state's waters. These measures are often called stormwater Best Management Practices (BMPs). BMPs can include relatively simple changes in homeowner actions, such as proper application of fertilizer. Others involve reduction at the source through site design or mitigation measures, such as preserving vegetation along streams or other sensitive areas. Still other BMPs are structural; that is, they are built. The most well-known structural BMP is the pond or reservoir, but many others are becoming more common, such as stormwater wetlands, sand filters, grassy swales, and, more recently, rain gardens. These BMPs tend to disrupt the "stormwater superhighway," allowing for infiltration or retention of the water. For a more detailed survey of several structural BMPs, please refer to the first publication in the Urban Waterways series,

Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Employment and program opportunities are offered to all people regardless of race, color, national origin, sex, age, or disability. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.

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College of Agriculture and Life Sciences, NC State University
School of Agriculture and Environmental and Allied Sciences, NC A&T State University

Urban Stormwater Structural Best Management Practices (BMPs), AG-588-1, available through your local Cooperative Extension center.

Selecting a BMP depends on many factors, including available land and its cost, homeowner and community attitudes, topography, source and type of pollution, soil type, watershed size, and land cover. In areas where land is limited, where aesthetics are an important concern of the community (or homeowner), where nuisances need to be avoided at all cost, or where "childproof" safety is required, rain gardens may prove to be the optimal BMP to install.

Rain Gardens: What Are They?

Pioneered in Prince George's County, Maryland, rain gardens are designed to merge two important goals: aesthetics and water quality. Rain gardens (also known as bio-retention areas) are intended to be landscaped areas that treat stormwater runoff. Homeowners or custodians can treat these gardens, giving them significant attention, or they can blend them into the landscape and make them look "natural." Whatever the context, a rain garden should look like part of the landscape: plants—particularly shrubs and trees—surrounded by mulch.

However, the true nature of a rain garden is to treat stormwater. Water is directed into them by pipes, swales, or curb openings. The garden is a depression or bowl that temporarily holds water, as opposed to shedding it away. The trees and shrubs growing in rain gardens are water tolerant, rather than water loving (as discussed later).

Figure 1. Rain garden installed at Neuseway Nature Center (Kinston, N.C.). Stormwater runoff enters through the 6-inch-diameter pipe near the right foreground. The garden receives rainfall from a nearby rooftop. This rain garden is a small depression in sandy soil. The mulch is hardwood.

Rain gardens can be installed in a variety of soil types from clays to sands. A rain garden constructed in sandy soil in Kinston, North Carolina, is shown in Figure 1; a clay soil rain garden in Cary, North Carolina, is shown in Figure 2.

Rain gardens can vary in size. They can be installed in a corner of your lawn, placed along the edges of roads, or put in the medians of parking lots. The size and design of the rain garden depend on the area that drains to it and the type of soil in which the garden is placed.

How Rain Gardens Remove Pollution

Rain gardens remove pollutants using physical, chemical, and biological mechanisms. Specifically, they use absorption, microbial action, plant uptake, sedimentation, and filtration. In addition, rain gardens sited in appropriate soils can be designed to allow infiltration of most stormwater runoff, thus replenishing groundwater. An explanation of each of these mechanisms is provided below and in Table 1.

Absorption is a chemical process that removes some forms of metals and phosphorus. The process takes place on mulch and soil particles lying on the floor of the rain garden. Soil particles have charges—similar to a magnet—as do dissolved metals and soluble phosphorus. When these charges are complementary, dissolved metals and phosphorus are attracted to the open soil particles. This process is called absorption. One drawback to absorption is that there is a finite number of charged soil particles at the bottom of a rain garden. Once all the available charged mulch and soil particles have sorbed with metals and phosphorus, the absorption potential of a rain garden decreases dramatically. Scientists and engineers wrestle with this problem today, but research-

Figure 2. Bio-retention median in a Cary, N.C., parking lot. Bio-retention is a practical alternative for treating stormwater runoff from heavily impervious commercial areas.

ers monitoring rain gardens in Maryland suggest that the capacity of soil to retain pollutants could last for more than 10 years. Decomposed mulch helps replenish the soil's absorptive capacity. It has been found important to have a relatively "fresh" layer of mulch, making landscape management very important.

Microbes found in rain gardens break down organic substances and may eat harmful pathogens. The shallow root zone-soil interface of rain gardens provides a medium for these microbial processes to occur.

Exposure to sunlight and dryness helps kill pathogens, which typically prefer wet conditions. Because it is inherent in the design of rain gardens to dry out quickly, they could be good at combating pathogens. Management of rain gardens is important: pets and wildlife should be discouraged from making their home in rain gardens if pathogens from their waste are a concern.

Though not a significant means of removing nitrogen and phosphorus from inflow, plants do take up these nutrients. Rain garden vegetation uses nutrients as it grows. Plant die-off can be a concern because decaying vegetation does release nutrients back into the system. Removing dead vegetation from a rain garden should keep this problem to a minimum.

Rain gardens also treat pollutants by allowing stormwater to infiltrate. Once stormwater becomes part of shallow groundwater, nutrients in it can then be treated as it flows through riparian buffers (vegetated areas adjacent to streams). Without rain gardens, stormwater on the surface probably would be quickly ferried into nearby streams and lakes via the storm drainage network. For information on riparian buffers, please refer to other fact sheets available from North Carolina Cooperative Extension and the North Carolina Department of Environment and Natural Resources' Division of Water Quality.

Sedimentation and filtration are physical processes that remove soil particles, litter, and other debris from water. Although rain gardens are not good at removing sediment long term, any BMP that can contribute to this end is helpful because sediment is the state's number one water pollutant.

Sedimentation occurs because water slows down once it enters a rain garden. Faster-moving water has more energy and is, therefore, able to carry sediment, trash, and other debris. Once the water slows down inside the rain garden, it loses its ability to carry these pollutants; thus, suspended particles tend to settle to the bottom of rain gardens. Vegetation, particularly grass, provides a limited amount of filtration and aids in sedimentation. Because the inflow water must pass through vegetation, some pollutants can be "snagged" by the plant mass. This is the process of filtration. Because rain gardens tend not to be densely planted, the amount of filtration that rain gardens provide is typically ***very*** limited. Sedimentation and filtration are primary mechanisms for removing total suspended solids (TSS), litter and debris, nutrients attached to sediment particles—such as some forms of phosphorus, and bacteria and other pathogens that are also affixed to sediment. It is best to construct rain gardens, however, in established watersheds, such as shopping centers or subdivisions, because they can clog very easily. While rain gardens can be very effective devices for removing sediment initially, they only maintain their function if they are maintained constantly when they are constructed in watersheds with sediment inputs. As a result, rain gardens are very rarely used for sedimentation control.

The exact ability of rain gardens to remove pollutants has not yet been quantified fully. Research has just begun on these new practices. However, rain gardens do appear to be effective at removing the most critical pollutants found in urban stormwater runoff, including most metals, total phosphorus, and total nitrogen. Initial results suggest that rain gardens are not effective at removing nitrate-nitrogen, but that treatment could occur later when water passes through other vegetated areas, such as riparian buffers.

Table 1. Pollutant removal mechanisms used in rain gardens

Pollutant Removal Mechanism	Pollutants
Absorption to soil particles Plant uptake	Dissolved metals and soluble phosphorus Small amounts of nutrients including phosphorus and nitrogen
Microbial processes	Organics, pathogens
Exposure to sunlight and dryness	Pathogens
Infiltration of runoff	Minor abatement of localized flooding, minor increase in localized base flow of groundwater, allowing some nutrients to be removed when groundwater flows through buffer
Sedimentation and filtration	Total suspended solids, floating debris, trash, soil-bound phosphorus, some soil-bound pathogens

(Adapted from Brix, 1993)

Designing a Rain Garden: Sandy Soils

Sandy soils simplify the design of rain gardens. Locate the rain garden where it can receive water. Slightly depressed areas are good candidates, provided these depressions do NOT have a seasonally high water table. If the surface is frequently saturated, the site may be too wet, stunting or killing many of the rain garden's plants. A high water table would encourage the growth of wetland plants, which many homeowners sometimes want to avoid. If a suitable depression does not exist, a flat site works best. Dig a small bowl in a flat area downstream of runoff no deeper than 6 to 12 inches, with 9 inches as a standard. This range of depth allows for vegetative diversity while still improving water quality. Deeper water ponding depths tend to limit vegetative diversity, and depths of more than 2 feet have proven to be too much to allow most types of vegetation to subsist.

Sizing a Rain Garden

Designers commonly want to know how much land area is needed to build a rain garden. The state of Maryland suggests that the area of the rain garden should vary between 5 percent and 7 percent of the drainage area depending upon the percentage of impervious surface in the contributing watershed. Another way to answer the question is to make the rain garden large enough to hold runoff from the first inch of rainfall in the drainage area, no matter the soil type in the rain garden. To do this, use the following equation from the Natural Resources Conservation Service:

$$\textbf{Runoff depth in inches} = (\mathbf{P} - 0.2\,\mathbf{S})^2 \div (\mathbf{P} + 0.8\,\mathbf{S}),$$

where **P** = Precipitation (typically use 1 inch) and
S = 1,000 ÷ **CN** – 10.
CN = Curve Number
CN, or Curve Number, is a measure of how much water will infiltrate during a storm. Curve numbers vary by soil type and land use. A short list of curve numbers is given in Table 2.

When rain gardens treat only impervious areas, such as rooftops and parking lots, use the standard curve number of 98. Assuming a 100 percent impervious area (and a curve number of 98), one would arrive at 0.79 inch of runoff from 1 inch of rain. By multiplying this runoff depth by the area of the watershed, the volume of runoff from a 1-inch rain falling on a given watershed can be calculated. So, if the watershed is a rooftop that has a surface area of 2,000 square feet, the volume of runoff from a 1-inch storm would be calculated to be:

Runoff volume (cubic feet) = **Area** × **Runoff depth**

2,000 square feet × 0.79 inch ×
(1 foot/12 inches ≅ 130 cubic feet

This is the amount of water the rain garden would be designed to hold.

Because rain gardens are often designed to hold water 9 inches deep (though values ranging from 6 to 12 inches are commonly used), the surface area required of a rain garden can be found using the following equation:

Rain garden surface area = Rain garden volume ÷ Average depth of water

In the example given, this equation would be:

Surface area = 130 cubic feet ÷ [(9 inches) × (1 foot/12 inches)] = **170 square feet**, or roughly 8 percent of the watershed (rooftop).

As more pervious area becomes a part of the watershed, the relative size of the rain garden diminishes substantially. For example, if the watershed consists of a 2,000-

Table 2. Partial listing of NRCS curve numbers in urban areas. Please note that Soil Groups A and B are sandier and Soil Groups C and D are more clayey. These soil classifications would be found in a county soil survey available at any Soil and Water Conservation District office or North Carolina Cooperative Extension center.

Land Use/Cover	Soil Group A	Soil Group B	Soil Group C	Soil Group D
100% Impervious (parking lots, rooftops, paved sidewalks)	98	98	98	98
Open space (lawns and golf courses) with grass cover < 50%	68	79	86	89
Open space with grass cover 50% to 75%	49	69	79	84
Open space with grass cover > 75%	39	61	74	80
Woods in fair hydrologic condition	36	60	73	79

(Taken from USDA-NRCS, 1986)

square-foot building surrounded by 6,000 square feet of lawn, the rain garden would require 270 square feet of surface area or roughly 3 percent of the contributing watershed. Rain garden design parameters for sandy soils are summarized in Table 3.

Designing the Overflow

As noted earlier, rain gardens are designed to treat runoff from the first flush (typically the first inch of rainfall). But what if it rains more than 1 inch? This happens 11 to 12 times a year, on average, in Raleigh, North Carolina[1], and even more frequently in other parts of the state. Therefore, it is important to design an overflow to divert excess water either around or out of the rain garden. In many cases water can simply flow "out the back" of the rain garden. This is allowed in rain gardens that are constructed in flat areas. Water would leave the rain garden simultaneously from several places along the back side. This works only in virgin—or unaltered—soil with a turf cover.

If the perimeter of the rain garden is altered during construction, this soil will likely erode if water flows over it for any length of time. Rain gardens that have disturbed soil must have a designated water overflow area for larger storms. Rocks or turf reinforcement mats can be used to line the outlet area.

In commercial and industrial settings, an overflow pipe often is installed in the middle of the rain garden. The top of the pipe or overflow box is set at the desired maximum water depth (ranging from 6 to 12 inches generally, with 9 inches considered a standard). A diagram of this type of overflow system is shown in Figure 3, and the photo in Figure 4 shows a similar system in Maryland. For additional design information on outlet controls, please refer to *Elements of Stormwater Design* by H. R. Malcom or see the website : http://www2.ncsu.edu/eos/info/bae/cont_ed/bio_ret_course/, which has a sample overflow design.

[1]Determined from 10 years of data (1988-1998) from the Southeastern Climate Data Center.

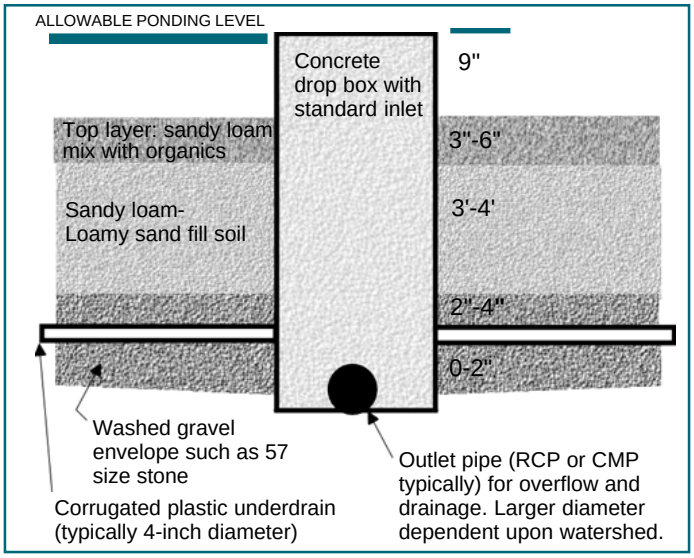

Figure 3. Rain garden cross-section with an overflow box (note: not to scale)

Figure 4. Bio-retention median or rain garden in Maryland with overflow drain visible on the right. The top of the overflow, shown here as a metal grate, is typically 9 inches above the bottom elevation of the bio-retention area.

Table 3. Summary of design parameters for rain gardens constructed in sandy soils

Infiltration rate	Greater than 1 inch per hour (typical for sandy loam, loamy sand, and sand).
Maximum depth of water	Range from 6 to 12 inches, with 9 inches standard. Some applications have deeper water allowances, which make plant growth difficult.
Relative size of rain garden	Varies, but typically 3 to 8 percent of contributing watershed, depending upon the amount of impervious surfaces.
Topographic feature	Flat areas that are downstream of impervious surfaces work best. A shallow bowl naturally serves as a rain garden.
Existing water table	Seasonally high water table should not come within 2 feet of the surface.
Places to avoid placing rain gardens	Areas that flood regularly (at least yearly) for at least two weeks and areas immediately adjacent to building and road foundations.
Mulches	A minimum of 2 inches is needed; 3 to 4 inches are preferable. Mulch should be hardwood, not pine bark nuggets (which float). Double-shredded hardwood works well. Pine straw may be used.

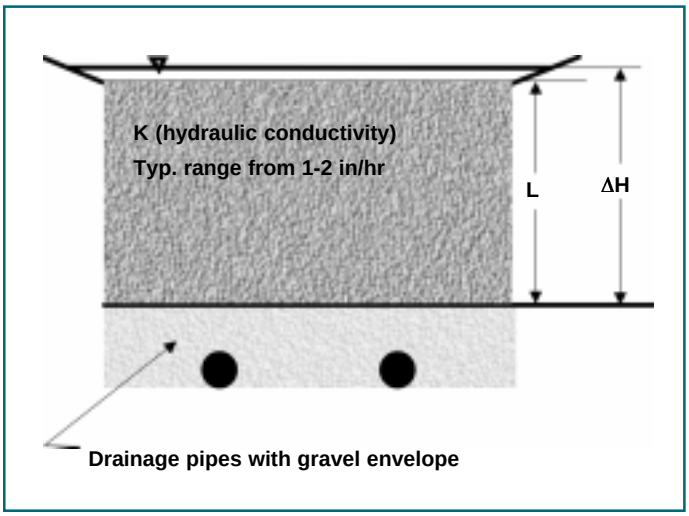

Figure 5. Darcy's Law applied to a rain garden cross-section. Specific discharge (q) is equal to hydraulic conductivity (K) multiplied by the ratio of water height (ΔH) divided by layer thickness (L).

Designing a Rain Garden: Clay Soils

Unlike those in sandy soils, rain gardens in clay soils must be designed to include drainage. Rain gardens in clay soils are essentially vegetated sand filters. Connecting a rain garden to an existing drainage network or siting it in a "table" area—a relatively flat area with a defined edge that steeply slopes away—can limit the higher costs of rain gardens in clay soils. The table area minimizes the length of drainage pipe needed. As with sandy soil rain gardens, it is important to site the rain garden in an area without a seasonally high water table.

Figure 3 on page 5 shows a cross-sectional view of a rain garden constructed in clay soil. There are three principal parts to the cross section:

1. The drainage area, which is comprised of drainage pipe and washed stone,
2. The soil zone, where the plants take root and much of the water treatment occurs, and
3. The vegetation and mulch zone, the visible part of the rain garden.

As noted in the illustration, the soil zone is at least 3 feet deep unless grass is the only vegetation, in which case it should be 1.5 feet deep. The soil is usually imported. This depth ensures enough room for the roots of shrubs and small, shallow-rooting trees. If possible, a depth of 4 to 5 feet is preferable. A deeper depth allows for additional treatment of pollutants. The depth of the drain system varies between 6 and 12 inches, depending on the type and size of drainage pipe used. Typically, 4- to 6-inch-diameter corrugated plastic pipes that are slotted with holes are used. The number and diameter of pipes vary according to drainage needs. Between the rock layer and the soil, a permeable geotextile is placed, which allows water to pass through but effectively keeps soil particles separated from the rock layer.

Importing Soils

The success of a rain garden in clay soils hinges on its ability to move water through the system. As with sandy soils, water ponding at the surface for long periods can hamper plant growth in rain gardens with clay soils. Perhaps a more natural structure for areas with high water tables is a small stormwater wetland. The wetland could better thrive in these wetter areas. For more information on stormwater wetlands, see *Designing Stormwater Wetlands for Small Watersheds*, AG-588-2.

The designer controls two factors that influence the drainage capability of the system: the type of soil used for media and the size and number of drainage pipes. Soil type is the limiting factor of the two. The soil selected must have enough fines (clays) to support plant growth and capture particles of pollutants. The soil also must be permeable enough to allow water to pass. This balance is best achieved by using sandy loam to loamy sand. Typical permeabilities for these soils range from 1 to 6 inches per hour. These permeabilities can be reached by either importing the appropriate soil or amending the existing soil with an import that is typically more permeable.

You can estimate the rate at which water moves through this soil layer by using Darcy's Law. The following equation and Figure 5 will illustrate Darcy's Law:

$$\mathbf{q = K\,\Delta H / L},$$

where **q** = Flow per cross-sectional area, **K** is hydraulic conductivity, **ΔH** is change in head (height of water), and **L** is thickness of soil layer.

For deep rain gardens, ΔH and L are nearly the same number (ΔH ≅ L). In these cases, the rate of water movement can be reasonably estimated by the relationship, q = K.

You must ascertain how long water will be within the top 2 feet of the surface. Designs in Maryland suggest that water must be removed within 48 hours of rainfall to a level 2 feet below the surface. This is not a problem when sandy loam or loamy sand fill soils are used. For a thorough explanation of Darcy's Law, consider several references in the hydraulics and hydrogeological field, including *Applied Hydrogeology* by C. W. Fetter.

Selecting Underdrain Pipes

Pipes must be selected so that they drain water from the rock layer substantially faster than water enters from the soil fill layer above. The removal capacity of the

underdrain should be an order of magnitude higher than the inflow amount. Peak inflow is achieved when water is at its highest level in the rain garden (typically set at 9 inches). Using Darcy's Law, a rain garden that has a 1,000-square-foot area, a fill soil layer 4 feet thick, and a permeability of 2 inches per hour would have a peak inflow ($\mathbf{q_p}$) of:

$\mathbf{q_p}$ = (2 in/hr) x (4.75 feet) ÷ (4 feet) = 2.4 in/hr per unit area. Multiplying by the area of the rain garden (1,000 square feet) will then determine the total flow that the underdrain pipes must be able to remove from the rain garden. This is shown below:

$Q = q_p$ x Area = 2.375 in/hr x 1,000 square feet x (1 ft/12 inches) x (1 hour/3,600 sec) ≅ 0.05 cubic feet per second

By sizing the pipe system to carry at least 10 times this minimum amount, the design flow becomes 0.5 cubic feet per second.

To determine the number of pipes and their associated diameter, the Manning Equation is used.

$$\mathbf{N} \times \mathbf{D} = 16 \times \{\mathbf{Q} \times \mathbf{n} \div \mathbf{s}^{0.5}\}^{3/8},$$

Where **N** = number of pipes
D = diameter of pipes (inches)
Q = flow to be carried (cfs)
n = Manning coefficient (0.014 for 4- to 6-inch single-wall corrugated pipe)
s = slope of pipe (for this site, assume 0.5%)

Solving this equation for the example site,

$$N \times D = 16 \times \{0.5 \text{ cfs} \times 0.014 \div 0.005^{0.5}\}^{3/8}$$

N x D must equal 6.72 inches. Therefore, two 4-inch (N x D = 8 in) diameter single-wall corrugated pipes would carry water from the gravel layer at a rate at least 10 times faster than water enters the gravel layer from the in-fill soil layer. A list of Manning coefficients applicable to rain gardens is provided in Table 4.

Sizing a rain garden's surface area, designing overflow, and selecting mulch for rain gardens in clay soils does not differ from designing a rain garden in sandy soils. Please refer to the previous section for this information. A summary of design parameters for rain gardens constructed in clay soils is given in Table 5.

Table 4. Manning roughness coefficients for selected underdrain pipe sizes

Pipe type and diameter	Manning roughness coefficient
4" Single-wall corrugated plastic	0.014-0.015
4" Smooth-wall plastic	0.010-0.011
6" Single-wall corrugated plastic	0.014-0.015
6" Smooth-wall plastic	0.010-0.011
8" Single-wall corrugated plastic	0.015-0.016

Other Design Considerations

After you locate, size, and excavate the rain garden, take a few more measures. First, stabilize all water inlets. If water enters the garden in a concentrated flow, such as from a pipe or ditch, it may be necessary to

Table 5. Summary of design parameters for rain gardens constructed in clay soils

Infiltration rate	Between 1 and 6 inches per hour for imported soil (typical of sandy loam, loamy sand).
Maximum depth of water	Range from 6 to 12 inches, with 9 inches standard. Some applications have deeper water allowances, which make plant growth difficult.
Relative size of rain garden	Varies, but typically 3 to 8 percent of contributing watershed, depending upon the amount of impervious surfaces.
Topographic feature	Flat areas that are downstream of impervious surfaces work best, provided they are adjacent to an existing stormwater sewer network. A table area (flat with relatively steep drop-off at edge) is necessary if existing storm sewer is not nearby.
Existing water table	Seasonally high water table should be below the bottom of the rain garden (typically 4 to 6 feet below the surface of the rain garden).
Places to avoid placing rain gardens	Areas that flood regularly (at least yearly) for at least two weeks and areas adjacent to building and road foundations.
Mulches	A minimum of 2 inches is needed; 3 to 4 inches are preferable. Mulch should be hardwood, not pine bark nuggets (which float). Double-shredded hardwood works well. Pine straw may be used.
Rock for gravel layer	Washed stone is preferable. Separate gravel from fill soil with a permeable geotextile.
Drainage pipes	Design to carry 10 times the maximum inflow from soil layer.

place rock at the end of the conveyance (pipe or swale). This rock dissipates the energy of the water as it enters the rain garden. A level spreader (device used to spread water flow into sheet flow) is used to evenly distribute water as it enters the rain garden. For more information, see *Urban Stormwater Structural Best Management Practices (BMPs)*, AG-588-1. As long as velocity is not greater than 1 to 2 feet per second (fps), there is little chance for erosion. If a rain garden will treat concentrated flow from a large watershed (at least 1 acre), consult the state of North Carolina's *Erosion and Sediment Control Planning and Design Manual,* which describes how to size stilling areas. However, rain gardens normally serve small watersheds or have several water entry points, thus limiting the amount of "concentrated" water.

If a TSS load is possible, consider using grass buffer strips and force sheet flow through them. The grass strip will filter much of the solids, keeping the rain garden free of this clogging agent. Grass strips should run the length of the garden where sheet flow would be expected to enter at a nominal width of 5 feet, though these strips have been as narrow as a few feet or much wider than 5 feet depending upon the application.

If the rain garden will treat runoff from and is being constructed adjacent to a parking lot, leave a 2- to 3-inch drop from the edge of the parking lot to the surface of the rain garden. If the rain garden at the edge of the parking lot is even with the pavement, eventual plant growth and debris buildup in the rain garden (or grass filter strip) will create a miniature dam, forcing water to move laterally along the pavement rather than through the strip and into the rain garden. Figures 6 and 7 illustrate this concept.

Once you stabilize the drainage area, it is time to plant. Rain garden plant recommendations are given in a later section. After planting, cover the exposed soil with mulch. The mulch layer should be at least 2 inches thick—though 3 to 4 inches are preferable—and should be a hardwood mulch, not a pine mulch. Experience from Maryland has shown that double-shredded hardwood mulches are much less apt to float, which is a real concern in an area that will frequently experience temporary flooding. Pine bark mulch floats too well to be used for this purpose.

A plan view of a rain garden is shown in Figure 8. This rain garden is designed to treat runoff from a parking lot and to serve as a bio-retention median.

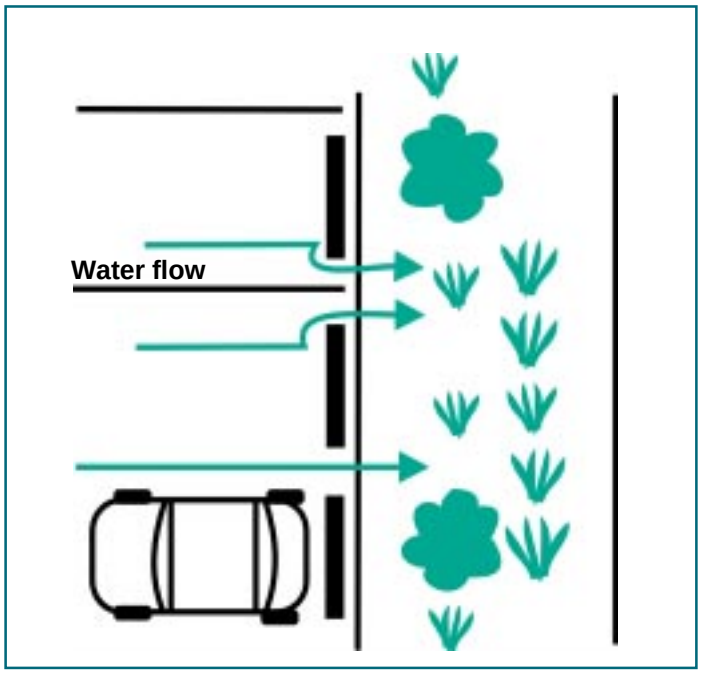

Figure 6. Overland flow from parking lot into rain garden/bio-retention area. Water flows between parking stops before spilling into the bio-retention median.

Landscaping with Rain Garden-Appropriate Plants

Rain gardens were specifically intended *not* to be wetlands. They are designed so that water does not regularly saturate or inundate the garden for long periods. Therefore, rain gardens are too dry for many obligate wetland plants, such as cattails, common reed, and water lillies. Conversely, rain gardens are designed to receive stormwater runoff; therefore, the vegetation must be able to withstand brief periods of inundation. Biologists have classified five types of wetland and upland vegetation (see Table 6). Typically, neither obligate wetland nor obligate upland vegetation is

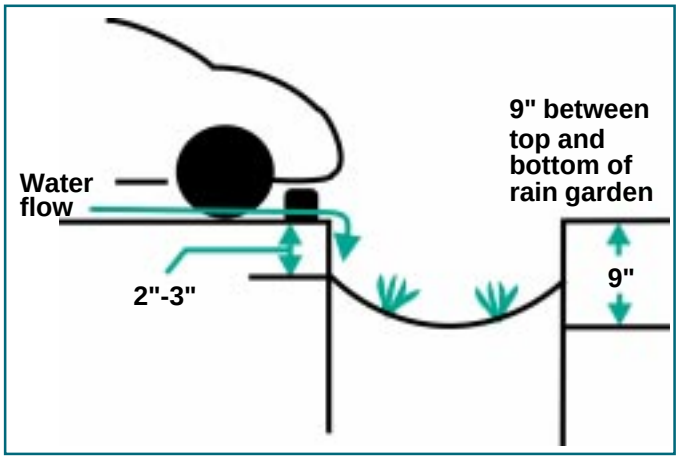

Figure 7. Profile view of runoff entering rain garden/ bio-retention area from parking lot. Note the 2- to 3-inch distance between the top of the bio-retention area and the end of the curb.

appropriate for rain gardens.

The dryness of a rain garden—which depends upon how much water is directed to it, how quickly the garden drains, and how frequently it rains—usually dictates the type of vegetation that can thrive in the garden. Work in Maryland and North Carolina has revealed that facultative plants usually work best in rain gardens; however, certain species of facultative-wetland and facultative-upland plants survive depending on the wetness of the site. Rain garden vegetation must also be drought-tolerant if the site is to be maintained infrequently. Rain gardens are wet only during and immediately after rain events. Plants in the garden must also be able to tolerate some periods without substantial moisture if the garden is ignored.

Table 7 on page 10 lists several trees and shrubs that can be grown in rain gardens. Their Latin name, common name, habitat, and size are given. This table is a not a complete list. Moreover, certain plants listed are primarily found in either the eastern or western portions of North Carolina. Before deciding which vegetation to plant, be sure to consult more authoritative sources, such as your county Extension agent, nursery specialist, or landscape contractor. Two excellent references are *Manual of Woody Landscape Plants* by M. Dirr and *Carolina Landscape Plants* by G. Halfacre.

A few other significant factors are used to determine which plants to grow in rain gardens. For those constructed in clay soils, it is very important to select trees and shrubs that do not have overly aggressive roots. Plants like willows can quickly send roots into drainage pipes in search of water, clogging the pipes. It is important to note that all plants seek out water. There is no foolproof way of keeping tree and shrub roots out of drainage pipes. Because sandy soil rain gardens are not drained by pipes, plants with aggressive roots are typically not a concern. Another plant to avoid is any type of cherry tree. When inundated, cherry tree roots release a poison that kills the tree.

Aesthetics play an important role in plant selection, especially for the homeowner. Several plants have attractive blooms. Evergreen species should also be selected to maintain color in the rain garden during the winter. Consult your nursery or landscape professional to help select material that suits your situation.

The best time to plant shrubs and trees depends upon

Table 6. Definitions for wetland indicator status

Plant type	Where plant type occurs
Obligate wetland (OBL)	Plants almost always occur in wetlands (> 99% of the time)
Facultative wetland (FACW)	Plants usually occur in wetlands (67-99% of the time)
Facultative (FAC)	Plants just as likely to occur in wetland or non-wetland areas (34-66% chance of occurring in wetlands or non-wetlands)
Facultative upland (FACU)	Plants that occasionally occur in wetlands (1-33% of the time)
Obligate upland (UPL)	Plants that almost never occur in wetlands (< 1% of the time)

(Taken from N.C. DENR, 1997)

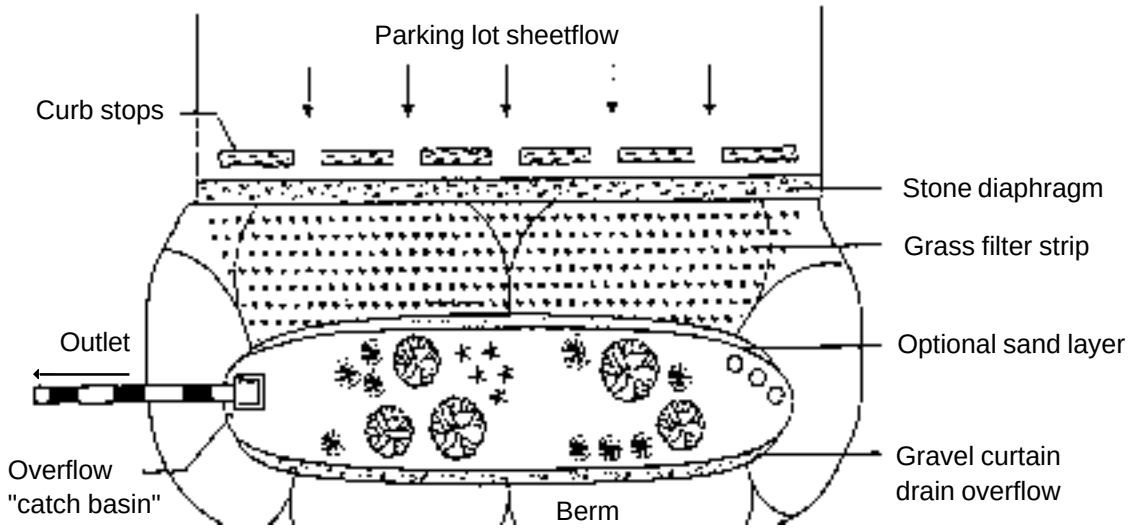

Figure 8. Plan view of a rain garden/bio-retention area. Reproduced from *Stormwater Modules* with permission from the Center for Watershed Protection.

plant type. Ornamental grasses and evergreens are well suited for spring planting. Deciduous trees and shrubs are best planted in the fall to early winter. Smaller herbaceous species can be planted in spring or fall. Planting the rain garden often dictates the timing of construction. It is very important that the watershed draining into the rain garden be stable before planting.

As with any garden, rain gardens must be maintained. Make sure you know the horticultural needs of the plants you choose. Once the plants are in the ground they cannot be entirely ignored and be expected to survive. It is important to inspect rain gardens seasonally or after substantial rainfall—particularly early on. Small maintenance needs include removing trash and other unwanted debris from the garden and replacing mulch. The more a rain garden is treated as a garden, the more apt it is to be attractive and flourish.

Costs

Costs of rain gardens are affected by four primary factors: 1) the type of in-situ soil (sand or clay), 2) the topography (flat or hilly), 3) the types of vegetation selected, and 4) the required surface area. The first two factors can make rain garden construction much less expensive in the coastal plain and sandhills than in the piedmont and mountains (though some mountain soils, particularly in abandoned flood plains, tend to be quite sandy).

The type of soil dictates the costs of excavating, hauling, installing pipes, and importing new soil and rocks. With sandy soils, most excavation and hauling costs are minimized; there are often no pipe and soil importation costs. However, if the rain garden site is located in an area where heavy equipment has passed several times (such as a townhouse construction site), it may be important to install underdrain pipes even in

Table 7. Listing of shrubs and trees potentially used in rain gardens/bio-retention areas

Latin name	Common name	N.C. habitat	Size/form
Acer negundo	Box elder	Across N.C.	Small tree
Acer rubrum	Red maple	Across N.C.	Medium tree
Aronia arbutifolia	Red chokeberry	Across N.C.	Medium shrub
Cercis canadensis	Redbud	Across N.C.	Large shrub
Clethra alnifolia	Sweet pepperbush	Coastal plain, piedmont	Medium shrub
Cornus sericea ssp. stolonifera	Red osier dogwood	Piedmont, mountains	Medium-small shrub
Cyrilla racemiflora	Ti-ti	Coastal plain	Large shrub (semi-evergreen)
Diospyros virginiana	Persimmon	Piedmont, mountains	Small-medium tree
Euonymus americana	Strawberry bush	Across N.C.	Small shrub
Fraxinus pennsylvanica	Green ash	Piedmont, coastal plain	Medium tree
Hypericum frondosum	St. John's wort	Piedmont, coastal plain	Ground cover/herbaceous
Ilex vomitoria	Dwarf yaupon	Coastal plain	Small shrub (evergreen)
Juniperus virginiana	Grey owl red cedar	Across N.C.	Shrub (evergreen)
Magnolia virginiana	Sweetbay (magnolia)	Coastal plain	Small tree (evergreen)
Myrica cerifera	Wax myrtle	Across N.C.	Large shrub (evergreen)
Pinus palustris	Longleaf pine	Coastal plain, piedmont	Tall tree (evergreen)
Pinus taeda	Loblolly pine	Piedmont, coastal plain	Medium tree (evergreen)
Quercus pagoda	Cherrybark oak	Piedmont, coastal plain	Large tree
Sambucus canadensis	American elderberry	Across N.C.	Medium shrub
Scuttellaria integrifolia	Scull cap	Across N.C.	Ground cover

rather sandy soils.

Topography affects the amount of soil hauling, excavation, and pipe installation, too. A flat area is best for constructing the body of a rain garden. In areas requiring underdrains, it is important to have a relatively steep area adjacent to the body of the rain garden to minimize pipe costs.

The number, species, and age of vegetation greatly influence costs as well. Certain species are rarer and therefore cost more. Plant density in the rain garden changes total cost as does the age of the vegetation. Young, small plants cost less than their larger, more mature counterparts.

In general, construction costs for rain gardens in the coastal plain, sandhills, and sandy areas in the N.C. mountains range from $1.50 to $3 per square foot of rain garden area. In the piedmont, costs range from $4 to $6 per square foot.

Maintenance costs vary depending upon the level of attention the rain garden warrants. The rain garden's underdrains must be inspected at least yearly to make sure they are not clogged. The mulch layer will decompose, so mulch must be added as needed. This keeps up the appearance of the rain garden (minimizing weeds) and continues to provide a key water quality function. This maintenance needs to be performed once or twice per year. During droughts, it may be important to water the garden. As with any garden, the more care plants receive, the more able they are to survive. Also, all vegetation eventually dies, so the gardens will have to be replanted over time. This is not expected to be a yearly occurrence, however. It is reasonable to assume that vegetation will need to be replaced every 10 years, but this has not been verified.

Table 8 summarizes the costs for two rain gardens, one in the coastal plain and a second in the piedmont.

Summary

Rain gardens are a very attractive BMP because they can improve environmental quality while meeting landscape requirements. Rain gardens that treat stormwater runoff can appeal to homeowners and developers. The gardens can be constructed in both residential and commercial areas across the state, though more easily in the coastal plain, sandhills, and abandoned floodplains of the mountains. For more information, please contact your local North Carolina Cooperative Extension Center or N.C. DENR's Division of Water Quality.

Table 8. Calculating rain garden costs—two case studies

1. **Relatively flat coastal plain site. Very sandy soils. Mature plants not densely placed. Total area = 250 square feet.**
2. **Relatively flat piedmont site. Very clayey soils. Young plants and free transplants used. Total area = 900 square feet.**

Construction Element	Coastal plain		Piedmont	
	Unit Cost	Total	Unit Cost	Total
Excavation (including labor and equipment rental)	Cubic yard	$100	$9.50/cubic yard (also includes excavation for pipe trench)	$1,600
Hauling	Included in above price	Included in above price	Included in above price	Included in above price
Importing rock and sand	N/A	N/A	$0.40/cubic foot	$1,280
Piping and filter fabric	N/A	N/A	$2/linear foot	$800
Mulch	$0.30/square foot	$80	$0.30/square foot	$250
Vegetation	$2/square foot (mature plants, somewhat dense)	$400	$0.30/square foot (young plants and free transplants)	$250
Total		$580		$4,180
Total per square foot		$2.32		$4.65

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Please see other fact sheets in the Urban Waterways series, AG-588, including:
Urban Stormwater Structural Best Management Practices (BMPs) (AG-588-1)
Designing Stormwater Wetlands for Small Watersheds (AG-588-2).

Another fact sheet is available from your local Extension center: *Stormwater Management for Homeowners,* AG-567-6.

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Funding for this publication was provided by the Mid-Neuse Non-Point Source Team.

1,000 copies of this public document were printed at a cost of $2,376.40 or $2.38 per copy.

Published by

NORTH CAROLINA COOPERATIVE EXTENSION SERVICE

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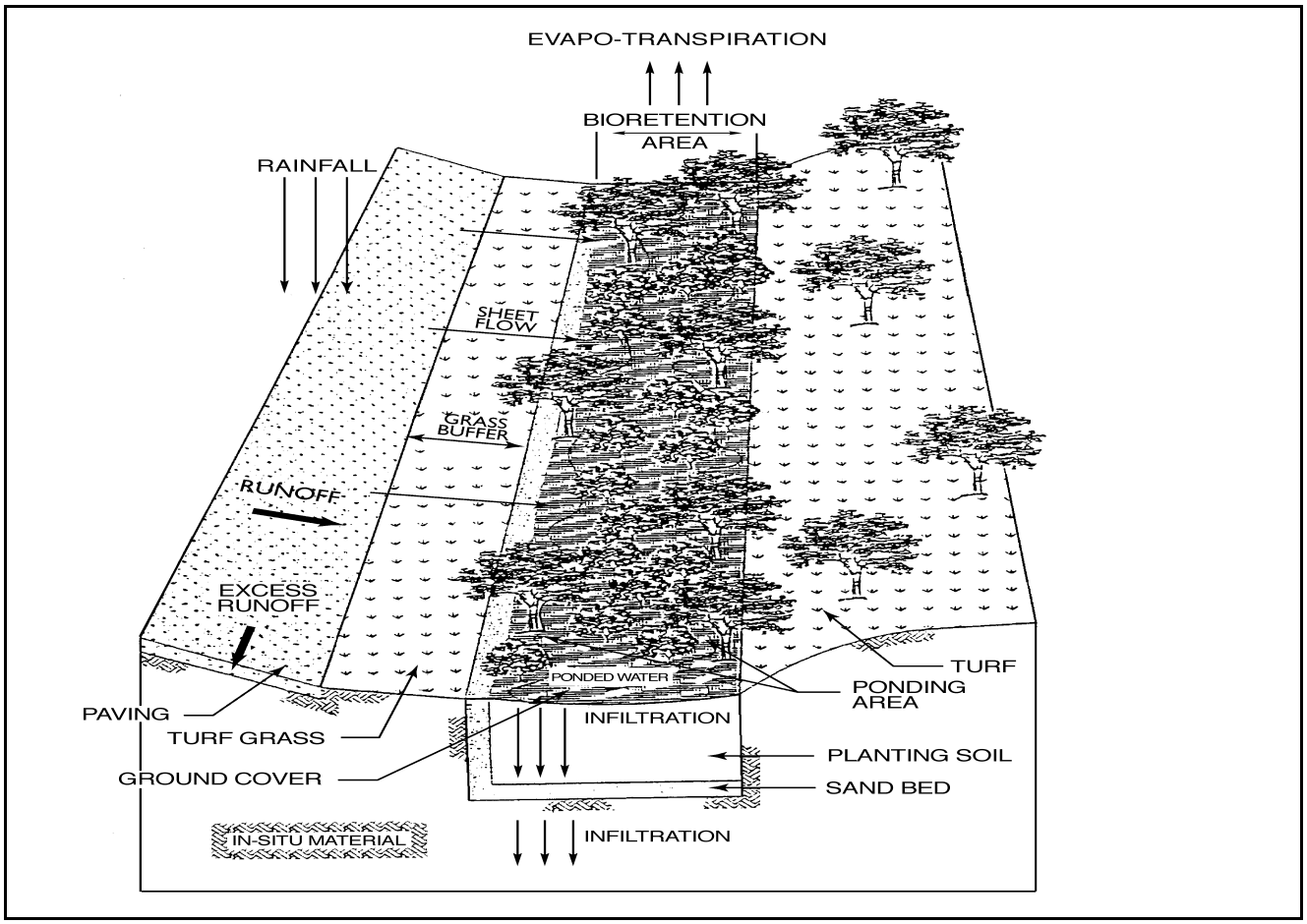
6/01—1M—DSB
E01-38929

United States Environmental Protection Agency
Office of Water Washington, D.C.
EPA 832-F-99-012 September 1999

Storm Water Technology Fact Sheet
Bioretention

DESCRIPTION

Bioretention is a best management practice (BMP) developed in the early 1990's by the Prince George's County, MD, Department of Environmental Resources (PGDER). Bioretention utilizes soils and both woody and herbaceous plants to remove pollutants from storm water runoff. As shown in Figure 1, runoff is conveyed as sheet flow to the treatment area, which consists of a grass buffer strip, sand bed, ponding area, organic layer or mulch layer, planting soil, and plants. Runoff passes first over or through a sand bed, which slows the runoff's velocity, distributes it evenly along the length of the ponding area, which consists of a surface organic layer and/or ground cover and the underlying planting soil. The ponding area is graded, its center depressed. Water is ponded to a depth of 15 centimeters (6 inches) and gradually infiltrates the bioretention area or is



Source: PGDER, 1993.

FIGURE 1 BIORETENTION AREA

evapotranspired. The bioretention area is graded to divert excess runoff away from itself. Stored water in the bioretention area planting soil exfiltrates over a period of days into the underlying soils.

The basic bioretention design shown in Figure 1 can be modified to accommodate more specific needs. The City of Alexandria, VA, has modified the bioretention BMP design to include an underdrain within the sand bed to collect the infiltrated water and discharge it to a downstream sewer system. This modification was required because impervious subsoils and marine clays prevented complete infiltration in the soil system. This modified design makes the bioretention area act more as a filter that discharges treated water than as an infiltration device. Design modifications are also being reviewed that will potentially include both aerobic and anaerobic zones in the treatment area. The anaerobic zone will promote denitrification.

APPLICABILITY

Bioretention typically treats storm water that has run over impervious surfaces at commercial, residential, and industrial areas. For example, bioretention is an ideal storm water management BMP for median strips, parking lot islands, and swales. These areas can be designed or modified so that runoff is either diverted directly into the bioretention area or conveyed into the bioretention area by a curb and gutter collection system. Bioretention is usually best used upland from inlets that receive sheet flow from graded areas and at areas that will be excavated. The site must be graded in a manner that minimizes erosive conditions as sheet flow is conveyed to the treatment area, maximizing treatment effectiveness. Construction of bioretention areas is best suited to sites where grading or excavation will occur in any case so that the bioretention area can be readily incorporated into the site plan without further environmental damage. Bioretention should be used in stabilized drainage areas to minimize sediment loading in the treatment area. As with all BMPs, a maintenance plan must be developed.

Bioretention has been used as a storm water BMP since 1992. In addition to Prince George's County and Alexandria, bioretention has been used successfully at urban and suburban areas in Montgomery County, MD; Baltimore County, MD; Chesterfield County, VA; Prince William County, VA; Smith Mountain Lake State Park, VA; and Cary, NC.

ADVANTAGES AND DISADVANTAGES

Bioretention is not an appropriate BMP at locations where the water table is within 1.8 meters (6 feet) of the ground surface and where the surrounding soil stratum is unstable. In cold climates the soil may freeze, preventing runoff from infiltrating into the planting soil. The BMP is also not recommended for areas with slopes greater than 20 percent, or where mature tree removal would be required. Clogging may be a problem, particularly if the BMP receives runoff with high sediment loads.

Bioretention provides storm water treatment that enhances the quality of downstream water bodies. Runoff is temporarily stored in the BMP and released over a period of four days to the receiving water. The BMP is also able to provide shade and wind breaks, absorb noise, and improve an area's landscape.

DESIGN CRITERIA

Design details have been specified by the Prince George's County DER in a document entitled *Design Manual for the Use of Bioretention in Storm Water Management* (PGDER, 1993). The specifications were developed after extensive research on soil adsorption capacities and rates, water balance, plant pollutant removal potential, plant adsorption capacities and rates, and maintenance requirements. A case study was performed using the specifications at three commercial sites and one residential site in Prince George's County, Maryland.

Each of the components of the bioretention area is designed to perform a specific function. The grass buffer strip reduces incoming runoff velocity and filters particulates from the runoff. The sand bed also reduces the velocity, filters particulates, and spreads flow over the length of the bioretention

area. Aeration and drainage of the planting soil are provided by the 0.5 meter (18 inch) deep sand bed. The ponding area provides a temporary storage location for runoff prior to its evaporation or infiltration. Some particulates not filtered out by the grass filter strip or the sand bed settle within the ponding area.

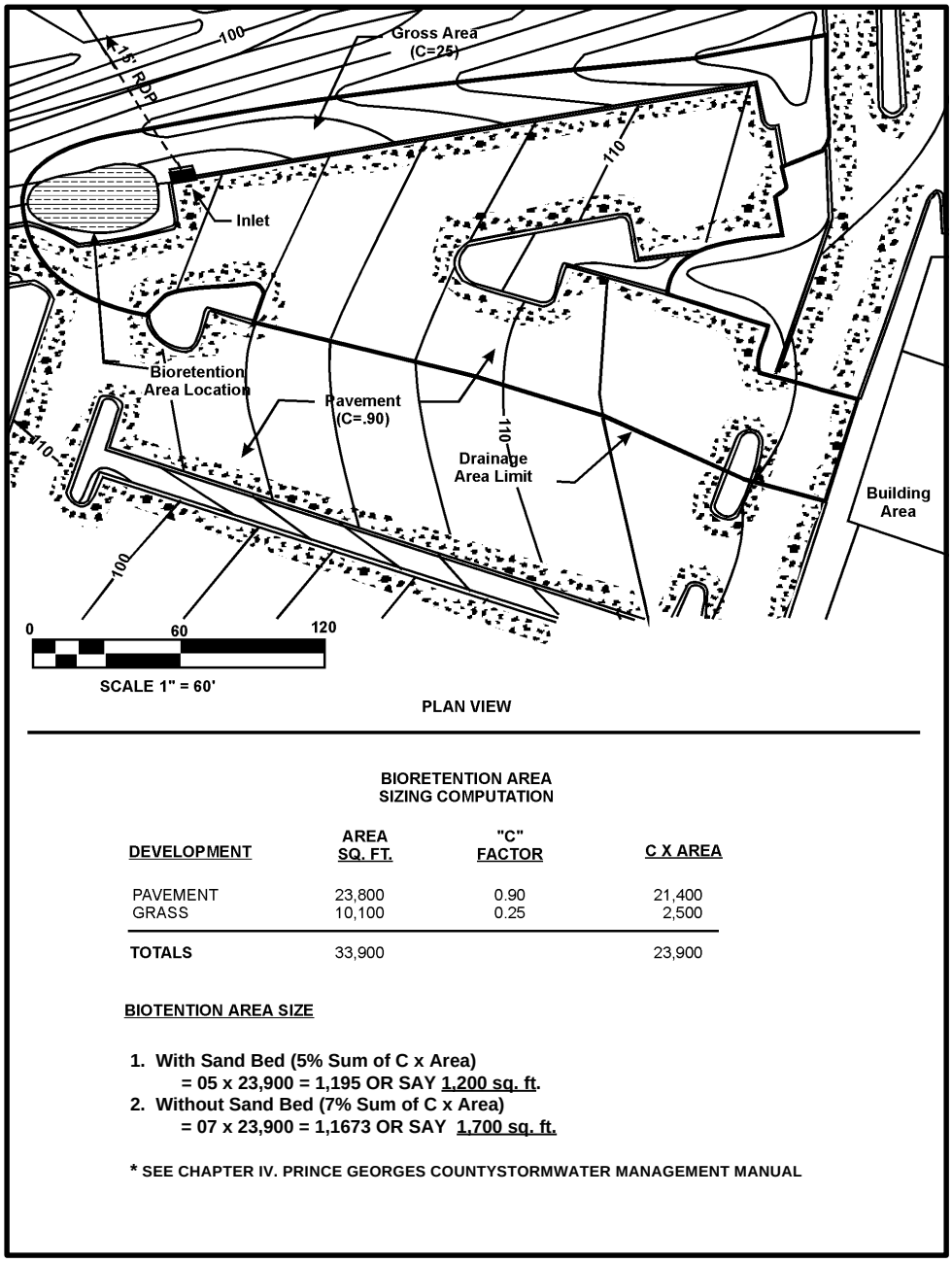
The organic or mulch layer also filters pollutants and provides an environment conducive to the growth of microorganisms, which degrade petroleum-based products and other organic material. This layer acts in a similar way to the leaf litter in a forest and prevents the erosion and drying of underlying soils. Planted ground cover reduces the potential for erosion as well, slightly more effectively than mulch. The maximum sheet flow velocity prior to erosive conditions is 0.3 meters per second (1 foot per second) for planted ground cover and 0.9 meters per second (3 feet per second) for mulch.

The clay in the planting soil provides adsorption sites for hydrocarbons, heavy metals, nutrients and other pollutants. Storm water storage is also provided by the voids in the planting soil. The stored water and nutrients in the water and soil are then available to the plants for uptake.

The layout of the bioretention area is determined after site constraints such as location of utilities, underlying soils, existing vegetation, and drainage are considered. Sites with loamy sand soils are especially appropriate for bioretention because the excavated soil can be backfilled and used as the planting soil, thus eliminating the cost of importing planting soil. An unstable surrounding soil stratum (e.g., Marlboro Clay) and soils with a clay content greater than 25 percent may preclude the use of bioretention, as would a site with slopes greater than 20 percent or a site with mature trees that would be removed during construction of the BMP. Bioretention can be designed to be off-line or on-line of the existing drainage system. The "first flush" of runoff is diverted to the off-line system. The first flush of runoff is the initial runoff volume that typically contains higher pollutant concentrations than those in the extended runoff period. On-line systems capture the first flush but that volume of water will likely be washed out by subsequent runoff resulting in a release of the captured pollutants. The size of the drainage area for one bioretention area should be between 0.1 and 0.4 hectares (0.25 and 1.0 acres). Multiple bioretention areas may be required for larger drainage areas. The maximum drainage area for one bioretention area is determined by the amount of sheet flow generated by a 10-year storm. Flows greater than 141 liters per second (5 cubic feet per second) may potentially erode stabilized areas. In Maryland, such a flow generally occurs with a 10-year storm at one-acre commercial or residential sites. The designer should determine the potential for erosive conditions at the site.

The size of the bioretention area is a function of the drainage area and the runoff generated from the area. The size should be 5 to 7 percent of the drainage area multiplied by the rational method runoff coefficient, "c," determined for the site. The 5 percent specification applies to a bioretention area that includes a sand bed; 7 percent to an area without one. An example of sizing a facility is shown in Figure 2. For this discussion, sizing specifications are based on 1.3 to 1.8 centimeters (0.5 to 0.7 inches) of precipitation over a 6-hour period (the mean storm event for the Baltimore-Washington area), infiltrating into the bioretention area. Other areas with different mean storm events will need to account for the difference in the design of the BMP. Recommended minimum dimensions of the bioretention area are 4.6 meters (15 feet) wide by 12.2 meters (40 feet) in length. The minimum width allows enough space for a dense, randomly-distributed area of trees and shrubs to become established that replicates a natural forest and creates a microclimate. This enables the bioretention area to tolerate the effects of heat stress, acid rain, runoff pollutants, and insect and disease infestations which landscaped areas in urban settings typically are unable to tolerate. The preferred width is 7.6 meters (25 feet), with a length of twice the width. Any facilities wider than 6.1 meters (20 feet) should be twice as long as they are wide. This length requirement promotes the distribution of flow and decreases the chances of concentrated flow.

The maximum recommended ponding depth of the bioretention area is 15 centimeters (6 inches). This



BIORETENTION AREA SIZING COMPUTATION

DEVELOPMENT	AREA SQ. FT.	"C" FACTOR	C X AREA
PAVEMENT	23,800	0.90	21,400
GRASS	10,100	0.25	2,500
TOTALS	33,900		23,900

BIOTENTION AREA SIZE

1. **With Sand Bed (5% Sum of C x Area)**
   = 05 x 23,900 = 1,195 OR SAY 1,200 sq. ft.
2. **Without Sand Bed (7% Sum of C x Area)**
   = 07 x 23,900 = 1,1673 OR SAY 1,700 sq. ft.

*** SEE CHAPTER IV. PRINCE GEORGES COUNTYSTORMWATER MANAGEMENT MANUAL**

Source: PGDER, 1993.

FIGURE 2 BIORETENTION AREA SIZING

depth provides for adequate storage and prevents water from standing for excessive periods of time. Because of some plants' water intolerance, water left to stand for longer than four days restricts the type of plants that can be used. Further, mosquitoes and other insects may start to breed if water is standing for longer than four days.

The appropriate planting soil should be backfilled into the excavated bioretention area. Planting soils should be sandy loam, loamy sand, or loam texture with a clay content ranging from 10 to 25 percent. The soil should have infiltration rates greater than 1.25 centimeters (0.5 inches) per hour, which is typical of sandy loams, loamy sands, or loams. Silt loams and clay loams generally have rates of less than 0.68 centimeters (0.27 inches) per hour. The pH of the soil should be between 5.5 and 6.5. Within this pH range, pollutants (e.g., organic nitrogen and phosphorus) can be adsorbed by the

soil and microbial activity can flourish. Other requirements for the planting soil are a 1.5 to 3 percent organic content and a maximum 500 ppm concentration of soluble salts. In addition, criteria for magnesium, phosphorus, and potassium are 39.2 kilograms per acre (35 pounds per acre), 112 kilograms per acre (100 pounds per acre), and 95.2 kilograms per acre (85 pounds per acre), respectively. Soil tests should be performed for every 382 cubic meters (500 cubic yards) of planting soil, with the exception of pH and organic content tests, which are required only once per bioretention area.

Planting soil should be 10.1 centimeters (4 inches) deeper than the bottom of the largest root ball and 1.2 meters (4 feet) altogether. This depth will provide adequate soil for the plants' root systems to become established and prevent plant damage due to severe wind. A soil depth of 1.2 meters (4 feet) also provides adequate moisture capacity. To obtain the recommended depth, most sites will require excavation. Planting soil depths of greater than 1.2 meters (4 feet) may require additional construction practices (e.g., shoring measures). Planting soil should be placed in 18 inches or greater lifts and lightly compacted until the desired depth is reached. The bioretention area should be vegetated to resemble a terrestrial forest community ecosystem, which is dominated by understory trees (high canopy trees may be destroyed during maintenance) and has discrete soil zones as well as a mature canopy and a distinct sub-canopy of understory trees, a shrub layer, and herbaceous ground covers. Three species each of both trees and shrubs are recommended to be planted at a rate of 2500 trees and shrubs per hectare (1000 per acre). For example, a 4.6 meter (15 foot) by 12.2 meter (40 foot) bioretention area (55.75 square meters or 600 square feet) would require 14 trees and shrubs. The shrub-to-tree ratio should be 2:1 to 3:1. On average, the trees should be spaced 3.65 meters (12 feet) apart and the shrubs should be spaced 2.4 meters (8 feet) apart. In the metropolitan Washington, D.C., area, trees and shrubs should be planted from mid-March through the end of June or from mid-September through mid-November. Planting periods in other areas of the U.S. will vary. Vegetation should be watered at the end of each day for fourteen days following its planting.

Native species that are tolerant to pollutant loads and varying wet and dry conditions should be used in the bioretention area. These species can be determined from several published sources, including *Native Trees, Shrubs, and Vines for Urban and Rural America* (Hightshoe, 1988). The designer should assess aesthetics, site layout, and maintenance requirements when selecting plant species. Adjacent non-native invasive species should be identified and the designer should take measures (e.g., provide a soil breach) to eliminate the threat of these species invading the bioretention area. Regional landscaping manuals should be consulted to ensure that the planting of the bioretention area meets the landscaping requirements established by the local authorities.

The optimal placement of vegetation within the bioretention area should be evaluated by the designers. Plants should be placed at irregular intervals to replicate a natural forest. Shade and shelter from the wind will be provided to the bioretention area if the designer places the trees on the perimeter of the area. Trees and shrubs can be sheltered from damaging flows if they are placed away from the path of the incoming runoff. Species that are more tolerant to cold winds (e.g., evergreens) should be placed in windier areas of the site.

After the trees and shrubs are placed, the ground cover and/or mulch should be established. Ground cover such as grasses or legumes can be planted during the spring of the year. Mulch should be placed immediately after trees and shrubs are planted. Five to 7.6 cm (2 to 3 inches) of commercially-available fine shredded hardwood mulch or shredded hardwood chips should be applied to the bioretention area to protect from erosion. Mulch depths should be kept below 7.6 centimeters (3 inches) because more would interfere with the cycling of carbon dioxide and oxygen between the soil and the atmosphere. The mulch should be aged for at least six months (one year is optimal), and applied uniformly over the site.

PERFORMANCE

Bioretention removes storm water pollutants through physical and biological processes,

including adsorption, filtration, plant uptake, microbial activity, decomposition, sedimentation and volatilization. Adsorption is the process whereby particulate pollutants attach to soil (e.g., clay) or vegetation surfaces. Adequate contact time between the surface and pollutant must be provided for in the design of the system for this removal process to occur. Therefore, the infiltration rate of the soils must not exceed those specified in the design criteria or pollutant removal may decrease. Pollutants removed by adsorption include metals, phosphorus, and some hydrocarbons. Filtration occurs as runoff passes through the bioretention area media, such as the sand bed, ground cover and planting soil. The media trap particulate matter and allow water to pass through. The filtering effectiveness of the bioretention area may decrease over time. Common particulates removed from storm water include particulate organic matter, phosphorus, and suspended solids. Biological processes that occur in wetlands result in pollutant uptake by plants and microorganisms in the soil. Plant growth is sustained by the uptake of nutrients from the soils, with woody plants locking up these nutrients through the seasons. Microbial activity within the soil also contributes to the removal of nitrogen and organic matter. Nitrogen is removed by nitrifying and denitrifying bacteria, while aerobic bacteria are responsible for the decomposition of the organic matter (e.g., petroleum). Microbial processes require oxygen and can result in depleted oxygen levels if the bioretention area is not adequately aerated.

Sedimentation occurs in the swale or ponding area as the velocity slows and solids fall out of suspension.

Volatilization also plays a role in pollutant removal. Pollutants such as oils and hydrocarbons can be removed from the wetland via evaporation or by aerosol formation under windy conditions. The removal effectiveness of bioretention has been studied during field and laboratory studies conducted by the University of Maryland (Davis et al, 1998). During these experiments, synthetic storm water runoff was pumped through several laboratory and field bioretention areas to simulate typical storm events in Prince George's County, MD. Removal rates for heavy metals an nutrients are shown in Table 1. As shown, the BMP removed between 93 and 98 percent of metals, between 68 and 80 percent of TKN and between 70 and 83 percent of total phosphorus. For all of the pollutants analyzed, results of the laboratory study were similar to those of field experiments. Doubling or halving the influent pollutant levels had little effect on the effluent pollutants levels (Davis et al, 1998). For other parameters, results from the performance studies for infiltration BMPs, which are similar to bioretention, can be used to estimate bioretention's performance. These removal rates are also shown in Table 1. As shown, the BMP could potentially achieve greater than 90 percent removal rates for total suspended solids, organics, and bacteria. The microbial activity and plant uptake occurring in the bioretention area will likely result in higher removal rates than those determined for infiltration BMPs.

TABLE 1 LABORATORY AND ESTIMATED BIORETENTION

Pollutant	Removal Rate
Total Phosphorus	70%-83% [1]
Metals (Cu, Zn, Pb)	93%-98% [1]
TKN	68%-80% [1]
Total Suspended Solids	90% [2]
Organics	90% [2]
Bacteria	90% [2]

Source: [1]Davis et al. (1998)
[2]PGDER (1993)

OPERATION AND MAINTENANCE

Recommended maintenance for a bioretention area includes inspection and repair or replacement of the treatment area components. Trees and shrubs should be inspected twice per year to evaluate their health and remove any dead or severely diseased vegetation. Diseased vegetation should be treated as necessary using preventative and low-toxic measures to the extent possible. Pruning and weeding may also be necessary to maintain the treatment area's appearance. Mulch replacement is recommended when erosion is evident or when the site begins to look unattractive. Spot mulching may

be adequate when there are random void areas; however, once every two to three years the entire area may require mulch replacement. This should be done during the spring. The old mulch should be removed before the new mulch is distributed. Old mulch should be disposed of properly.

The application of an alkaline product, such as limestone, is recommended one to two times per year to counteract soil acidity resulting from slightly acidic precipitation and runoff. Before the limestone is applied, the soils and organic layer should be tested to determine the pH and therefore the quantity of limestone required. When levels of pollutants reach toxic levels which impair plant growth and the effectiveness of the BMP, soil replacement may be required (PGDER, 1993).

COSTS

Construction cost estimates for a bioretention area are slightly greater than those for the required landscaping for a new development. Recently-constructed 37.16 square meter (400 square foot) bioretention areas in Prince George's County, MD cost approximately $500. These units are rather small and their cost is low. The cost estimate includes the cost for excavating 0.6 to 1 meters (2 to 3 feet) and vegetating the site with 1 to 2 trees and 3 to 5 shrubs. The estimate does not include the cost for the planting soil, which increases the cost for a bioretention area. Retrofitting a site typically costs more, averaging $6,500 per bioretention area. The higher costs are attributed to the demolition of existing concrete, asphalt, and existing structures and the replacement of fill material with planting soil. The costs of retrofitting a commercial site in Maryland (Kettering Development) with 15 bioretention areas were estimated at $111,600.

The use of bioretention can decrease the cost for storm water conveyance systems at a site. A medical office building in Maryland was able to reduce the required amount of storm drain pipe from 243.8 meters (800 feet) to 70.1 meters (230 feet) with the use of bioretention. The drainage pipe costs were reduced by $24,000, or 50 percent of the total drainage cost for the site (PGDER, 1993). Landscaping costs that would be required at a development regardless of the installation of the bioretention area should also be considered when determining the net cost of the BMP.

The operation and maintenance costs for a bioretention facility will be comparable to those of typical landscaping required for a site. Costs beyond the normal landscaping fees will include the cost for testing the soils and may include costs for a sand bed and planting soil.

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and Designing Urban Best Management Practices. Metropolitan Washington Council of Governments.

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Appendix C. COLLECTOR STREET PLAN

The adopted *Town of Wendell Collector Street Plan* map (November 2006 or later revised edition) is attached here for reference. The Collector Street Plan document is available on the Town's website or in the office of the Planning Department.

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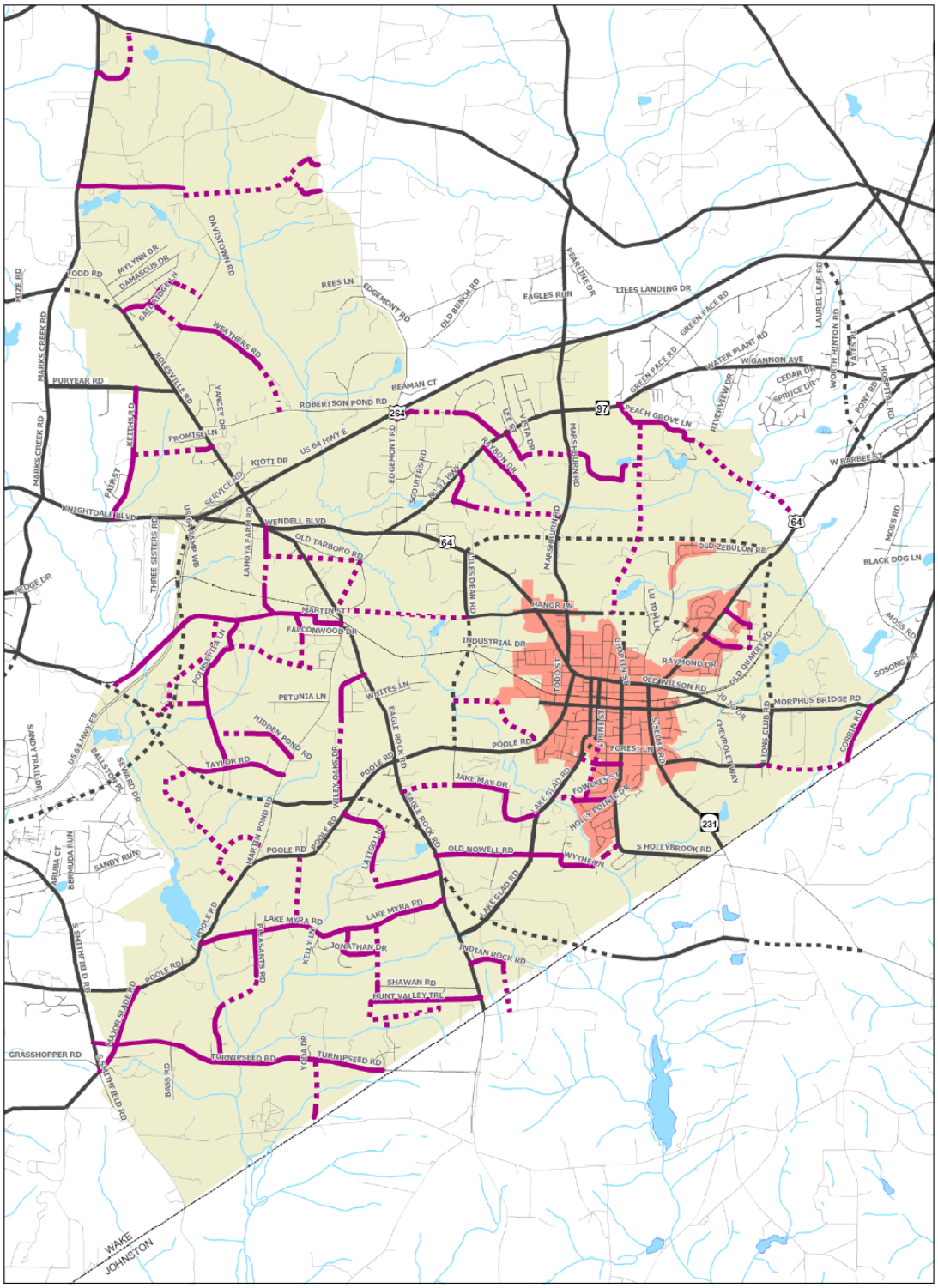

Town of Wendell Collector Street Plan

FIGURE 3.2 - RECOMMENDED CSP

Study Area
Town of Wendell
County Boundary
Bodies of Water
Rivers and Streams
Local Roads
Railroads
CAMPO Thoroughfare Plan
Existing Thoroughfare
Proposed Thoroughfare
Collector Street Plan
Existing Collector
Proposed Collector

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Appendix D. WIRELESS TELECOMMUNICATIONS ORDINANCE

Requirements for Wireless Telecommunications Facilities per the Reference in Chapter 3, Special Use Standards. (See pages that follow.)

WIRELESS TELECOMMUNICATIONS ORDINANCE

ORDINANCE NO.: 0-01-2009

Chapter 35 Wireless Telecommunications Facilities

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Chapter 35 Wireless Telecommunications Facilities

A. Purpose and Legislative Intent

The Telecommunications Act of 1996 affirmed the Town of Wendell's authority concerning the placement, construction and modification of Wireless Telecommunications Facilities. North Carolina General Statutes governing the regulation of Wireless Telecommunication Facilities, §160A, Article 19, Part 3E., provide for the safe and efficient integration of facilities Necessary for the provision of advanced wireless telecommunications services throughout the community and to ensure the ready availability of reliable wireless services to the public, government agencies and first responders, with the intention of furthering the public safety and general welfare.

The Town of Wendell finds that Wireless Telecommunications Facilities may pose significant concerns to the health, safety, public welfare, character and environment of the Town and its inhabitants, including but not limited to adjacent and nearby property owners. The Town also recognizes that facilitating the development of wireless service technology can be an economic development asset to the Town and of significant benefit to the Town and its residents. In order to assure that the placement, construction or modification of Wireless Telecommunications Facilities is consistent with the Town's land use policies, the Town is adopting a single, comprehensive, Wireless Telecommunications Facilities application and permitting process. The intent of this Section is to minimize the physical impact of Wireless Telecommunications Facilities on the community, protect the character of the community to the extent reasonably possible, establish a fair and efficient process for review and approval of applications, assure an integrated, comprehensive review of environmental impacts of such facilities, and protect the health, safety and welfare of the Town of Wendell.

B. Severability

1. If any word, phrase, sentence, part, section, subsection, or other portion of this Section or any application thereof to any person or circumstance is declared void, unconstitutional, or invalid for any reason, then such word, phrase, sentence, part, section, subsection, or other portion, or the proscribed Application thereof, shall be severable, and the remaining provisions of this Section, and all applications thereof, not having been declared void, unconstitutional, or invalid, shall remain in full force and effect.

2. Any Special Use Permit issued pursuant to this Section shall be comprehensive and not severable. If part of a permit is deemed or ruled to be invalid or unenforceable in any material respect, by a competent authority, or is overturned by a competent authority, the permit shall be void in total, upon determination by the Town.

C. Definitions

For purposes of this Section, and where not inconsistent with the context of a particular section, the defined terms, phrases, words, abbreviations, and their derivations shall have the

meaning given in this section. When not inconsistent with the context, words in the present tense include the future tense, words used in the plural number include words in the singular number and words in the singular number include the plural number. The word "shall" is always mandatory, and not merely directory.

1. "**Accessory Facility** or **Structure**" means an accessory facility or structure serving or being used in conjunction with Wireless Telecommunications Facilities, and located on the same property or lot as the Wireless Telecommunications Facilities, including but not limited to, utility or transmission equipment storage sheds or cabinets.

2. **"Amend" or "Amended"** means any change in an Application made subsequent to the submission of the Application from that which was originally submitted, regardless of the reason.

3. **"Applicant"** means any Wireless service provider submitting an Application for a Special Use Permit for Wireless Telecommunications Facilities.

4. **"Application"** means all Necessary and required documentation that an Applicant submits in order to receive a Special Use Permit or a Building Permit for Wireless Telecommunications Facilities.

5. **"Antenna"** means a system of electrical conductors that transmit or receive electromagnetic waves or radio frequency or other wireless signals.

6. **"Board"** means the Board of Commissioners.

7. **"Co-location"** means the use of an approved telecommunications structure to support Antenna for the provision of wireless services.

8. **"Commercial Impracticability"** or **"Commercially Impracticable"** means the inability to perform an act on terms that are reasonable in commerce, the cause or occurrence of which could not have been reasonably anticipated or foreseen and that jeopardizes the financial efficacy of the project. The inability to achieve a satisfactory financial return on investment or profit, standing alone and for a single site, shall not deem a situation to be "commercially impracticable" and shall not render an act or the terms of an agreement "commercially impracticable".

9. **Consultant Fee(s)** shall be set by the Board of Commissioners and set forth in the Town's Schedule of Fees.

10. **"Completed Application"** means an Application that contains all Necessary and required information and/or data Necessary to enable an informed decision to be made with respect to an Application.

11. **“DAS”** or **“Distributive Access System”** means a technology using antenna combining technology allowing for multiple carriers or Wireless Service Providers to use the same set of antennas, cabling or fiber optics.

12. **“FAA”** means the Federal Aviation Administration, or its duly designated and authorized successor agency.

13. **“FCC”** means the Federal Communications Commission, or its duly designated and authorized successor agency.

14. **“Height”** means, when referring to a Tower or structure, the distance measured from the pre-existing grade level to the highest point on the Tower or structure, even if said highest point is an Antenna or lightening protection device.

15. **“Maintenance”** means plumbing, electrical or mechanical work that may require a building permit but that does not constitute a Modification to the WTF.

16. **“Modification”** or **“Modify”** means, the addition, removal or change of any of the physical and visually discernable components or aspects of a wireless facility, such as antennas, cabling, equipment shelters, landscaping, fencing, utility feeds, changing the color or materials of any visually discernable components, vehicular access, parking and/or an upgrade or change-out of equipment for better or more modern equipment. Adding a new wireless carrier or service provider to a Telecommunications Tower or Telecommunications Site as a co-location is a modification.

17. **“Necessary”** means what is technologically required for the equipment to function as designed by the manufacturer and that anything less will result in prohibiting or acting in a manner that prohibits the provision of service as intended and described in the narrative of the Application. Necessary does not mean what may be desired or preferred technically.

18. **“NIER”** means Non-Ionizing Electromagnetic Radiation.

19. **“Person”** means any individual, corporation, estate, trust, partnership, joint stock company, association of two (2) or more persons having a joint common interest, or any other entity.

20. **“Personal Wireless Facility**” See definition for ‘Wireless Telecommunications Facilities’.

21. **“Personal Wireless Services”** or **“PWS”** or **“Personal Telecommunications Service”** or **“PTS”** shall have the same meaning as defined and used in the 1996 Telecommunications Act.

22. **"Repairs and Maintenance"** means the replacement or repair of any components of a wireless facility where the replacement is identical to the component being replaced or for any matters that involve the normal repair and maintenance of a wireless facility

without the addition, removal or change of any of the physical or visually discernable components or aspects of a wireless facility that will add to the visible appearance of the facility as originally permitted.

23. **"Special Use Permit"** means the official document or permit by which an Applicant is allowed to file for a building permit to construct and use Wireless Telecommunications Facilities as granted or issued by the Town.

24. "**Stealth"** or **"Stealth Technology"** means a design or treatment that minimizes adverse aesthetic and visual impacts on the land, property, buildings, and other facilities adjacent to, surrounding, and in generally the same area as the requested location of such Wireless Telecommunications Facilities, which shall mean building the least visually and physically intrusive facility that is not technologically or commercially impracticable under the facts and circumstances. Stealth technology includes such technology as DAS or its functional equivalent or camouflage where the tower is disguised to make it less visually obtrusive and not recognizable to the average person as a WTF.

25. **"State"** means the State of North Carolina.

26. **"Telecommunications"** means the transmission and/or reception of audio, video, data, and other information by wire, radio frequency, light, and other electronic or electromagnetic systems.

27. **"Telecommunications Site"** See definition for Wireless Telecommunications Facilities.

28. **"Telecommunications Structure"** means a structure used in the provision of services described in the definition of 'Wireless Telecommunications Facilities'.

29. **"Temporary"** means temporary in relation to all aspects and components of this Ordinance, something intended to, or that does, exist for fewer than ninety (90) days.

30. **"Tower"** means any structure designed primarily to support an antenna for receiving and/or transmitting a wireless signal.

31. "**Wireless Telecommunications Facility** or **Facilities (WTF or WTFs)"** means and includes a **"Telecommunications Site"** and **"Personal Wireless Facility".** It means a structure, facility or location designed, or intended to be used as, or used to support Antennas or other transmitting or receiving devices. This includes without limit, Towers of all types, kinds and structures, including, but not limited to buildings, church steeples, silos, water towers, signs or other structures that can be used as a support structure for Antennas or the functional equivalent of such. It further includes all related facilities and equipment such as cabling, equipment shelters and other structures associated with the Facility. It is a structure and facility intended for transmitting and/or receiving radio, television, cellular, SMR, paging, 911, Personal Communications Services (PCS), commercial satellite services, microwave services and any commercial wireless telecommunication service not licensed by the FCC.

D. Overall Procedure and Desired Outcomes for Approving and Issuing Permits for Wireless Telecommunications Facilities

In order to ensure that the placement, construction, and modification of Wireless Telecommunications Facilities protects the Town's health, safety, public welfare, environmental features, the nature and character of the community and neighborhood and other aspects of the quality of life specifically listed elsewhere in this Section, the Town hereby adopts an overall procedure with respect to the review, approval and issuance of permits for Wireless Telecommunications Facilities for the express purpose of achieving the following outcomes:

1. Requiring a Special Use Permit for any new, co-location or modification of a Wireless Telecommunications Facility as required or otherwise specified in this Section;

2. Implementing an Application process for person(s) seeking approval of Wireless Telecommunications Facilities;

3. Establishing a procedure for examining an application and issuing a Special Use Permit and/or Building Permit for Wireless Telecommunications Facilities that is both fair and consistent;

4. Promoting, and requiring wherever possible, the sharing and/or co-location of Wireless Telecommunications Facilities among service providers;

5. Requiring, promoting and encouraging, wherever possible, the placement, height and quantity of Wireless Telecommunications Facilities in such a manner as to minimize the physical and visual impact on the community, including but not limited to the use of stealth technology.

6. In approving a Wireless Telecommunications Facility, the Town shall find that the facility shall be the most appropriate site in regards to being the least visually intrusive among those available in the Town given the facts and circumstances.

E. Exceptions from a Special Use Permit for Wireless Telecommunications Facilities

1. No Person shall be permitted to site, place, build, construct, modify or prepare any site for the placement or use of a Wireless Telecommunications Facility as of the effective date of this Section without having first obtained a Special Use Permit and building permit for a Wireless Telecommunications Facility as defined in Part D of this Section or an administratively granted authorization (building permit) as defined in Part H of this Section, whichever is applicable. Notwithstanding anything to the contrary in this section, no Special Use Permit shall be required for those non-commercial exceptions noted in Part F, unless deemed in the public interest by the Town.

2. If constructed as required by permit, all legally permitted Wireless Telecommunications Facilities that existed on or before the effective date of this Section shall be allowed to continue as they presently exist, provided however, that they are operating as originally permitted and that any modification of an existing Wireless Telecommunications Facility not permitted under this Section will require the complete facility and any new installation to comply with this Section, as will anything changing the structural load.

3. Any Repair and Maintenance of a Wireless Telecommunications Facility that does not increase the height of the structure, alter the profile, increase the footprint or otherwise exceed the conditions of the Special Use Permit does not require an application for a Special Use Permit but may require a building permit. However, no additional construction or site modification shall be considered to be Repair or Maintenance.

F. Exclusions

The following shall be exempt from this Section:

1. Any facilities expressly exempt from the Town's siting, building and permitting authority.

2. Any reception or transmission devises expressly exempted under the Telecommunications Act of 1996.

3. Facilities used exclusively for private, non-commercial radio and television reception and private citizen's bands, licensed amateur radio and other similar non-commercial Telecommunications.

4. Facilities used exclusively for providing unlicensed spread spectrum technologies, such as IEEE 802.11a, b, g services (e.g. Wi-Fi and Bluetooth) where the facility does not require a new tower or increase the height of the structure being attached to.

G. Special Use Permit Application and Other Requirements for a New Wireless Telecommunications Facility or For Increasing the Footprint, Height, Profile or Number of Co-locations of the Structure to Be Attached To

All Applicants for a Special Use Permit for new Wireless Telecommunications Facilities, including new towers or support structures or that otherwise increases the footprint, height, profile or number of co-locations or any modification of such facility beyond the conditions of an approved Special Use Permit shall comply with the requirements set forth in this Section. The Town Board of Commissioners (Board) is the officially designated agency or body of the Town to whom applications for a Special Use Permit for Wireless Telecommunications Facilities must be made, and that is authorized to review, analyze, evaluate and make decisions with respect to granting or not granting or revoking special use permits for Wireless Telecommunications Facilities. The Board may at its discretion delegate or designate the Town Planning Board or other official agencies or officials of the Town or

outside consultants to accept, review, analyze, evaluate and make recommendations to the Board with respect to the granting or not granting or revoking Special Use Permits for Wireless Telecommunications Facilities. However, outside consultants shall have no authority to make or change policy for the Town.

Placement of Wireless Telecommunications towers and facilities within major subdivisions or within intended service areas with existing or planned medium to high residential density, or areas identified as potential high density areas, must employ stealth or camouflage techniques, such as DAS, or its functional equivalent.

Note: Medium density, high density or potentially high density residential areas shall be defined by planning staff in its discretion.

1. All Applicants shall closely follow the instructions for preparing an Application for a Wireless Telecommunications Facility prior to the submittal of an Application for a Special Use Permit Not closely following the instructions without permission to deviate from such shall result in a tolling of the otherwise required 45 day notification period until the receipt of a complete and properly completed Application. The Applicant shall be notified in writing within 45 days of submission of an Application as to the completeness of the Wireless Telecommunications Facility Application and any deficiencies. An amended Application shall be required to correct any deficiencies.

2. When placing wireless facilities on government-owned property or facilities, only non-commercial wireless carriers and users are exempt from the permitting requirements of this Section.

3. The Town may deny applications not meeting the requirements stated herein or which are otherwise not complete. In the event the Application is denied, the portion of the Wireless Telecommunications Facility Application Fee remaining from the Consultant Fee shall be refunded, but the Special Use Permit Application Fee is not refundable.

4. No Wireless Telecommunications Facilities shall be installed, constructed or modified until the Application is reviewed and approved by the Board, the Special Use Permit has been approved and a Building Permit has been issued.

5. Any and all representations made by the Applicant to the Board on the record during the Application process, whether written or verbal, shall be-deemed to have been relied upon in good faith by the Town. Any verbal representation shall be treated as if it were made in writing.

6. An Application for a Special Use Permit for a Wireless Telecommunications Facility shall be signed on behalf of the Applicant by the person vested with the authority to bind and commit the Applicant to the conditions of the Special Use Permit and the person preparing the same and with knowledge of the contents and representations made therein and attesting to the truth and completeness of the information.

7. The Applicant must provide documentation to verify it has the right to proceed as proposed on the Site. This requires an executed copy of the lease with the landowner or landlord or a signed letter of agency acknowledging authorization. If the applicant owns the site, a copy of the ownership record is required.

8. The Applicant shall include a statement in writing:

a. That the applicant's proposed Wireless Telecommunications Facility shall be maintained in a safe manner, and in compliance with all conditions of the Special Use Permit, without exception, unless specifically granted relief by the Board in writing, as well as all applicable and permissible local codes, ordinances, and regulations, including any and all applicable Town, State and Federal Laws, rules, and regulations; and

b. That the construction of the Wireless Telecommunications Facility is legally permissible, including, but not limited to the fact that the Applicant is authorized to do business in the State.

9. Where a certification is called for in this Section, such certification shall bear the signature and seal of a Professional Engineer licensed in the State.

10. In addition to all other required information as stated in this Section, all applications for the construction or installation of new Wireless Telecommunications Facilities or modification of an existing facility shall contain the information hereinafter set forth prior to the issuance of a Building Permit**.**

Ownership and Management

a. The Name, address and phone number of the person preparing the Application;
b. The Name, address, and phone number of the property owner and the Applicant, including the legal name of the Applicant. If the owner of the structure is different than the applicant, the name and all Necessary contact information shall be provided;
c. The Postal address and tax map parcel number of the property;
d. A copy of the FCC license applicable for the intended use of the Wireless Telecommunications Facilities;
e. Written acknowledgement that any new Telecommunications Tower shall be structurally designed to accommodate a minimum of six antenna arrays and shall be managed so as not to restrict, prevent or prohibit competition among carriers;
f. The Applicant shall disclose in writing any agreement in existence prior to submission of the Application that would limit or preclude the ability of the Applicant to share any new Telecommunications Tower that it constructs;

Zoning and Planning

g. The Zoning District or designation in which the property is situated;

h. The size of the property footprint on which the structure to be built or attached is located, stated both in square feet and lot line dimensions, and a survey showing the location of all lot lines;

i. The location, size and height of all existing and proposed structures on the property on which the structure is located and that is the subject of the Application;

j. A site plan showing the footprint and the type, location and dimensions of access drives, landscaping and buffers, fencing and any other requirements of site plans;

k. Elevations showing the profile or the vertical rendition of the Wireless Telecommunications Facility identifying proposed attachments and all related fixtures, structures, appurtenances and apparatus, including the height above the pre-existing grade, materials, colors and lighting;

l. When considering a modification to an existing Wireless Telecommunications Facility, provide all users and attachments to the Facility, including all related fixtures, structures, appurtenances and apparatus, including height above pre-existing grade, materials, color and lighting;

m. azimuth, size and center line height location of all proposed and existing antennas on the supporting structure;

n. The type and design of the Wireless Telecommunications Facility, the number of antenna arrays proposed and the basis for the calculations of the Wireless Telecommunications Facility's capacity to accommodate the required number of antenna arrays for which the structure must be designed;

o. The applicant shall disclose in writing any agreement in existence prior to submission of the Application that would limit or preclude the ability of the Applicant to share any new Telecommunication Tower that it constructs;

Safety

p. If modifying an existing Wireless Telecommunications Facility:

1) the age of the Facility in years, including the date of the grant of the original permit;
2) a description of the type of tower, e.g. guyed, self-supporting lattice or monopole;
3) , the make, model, type and manufacturer of the Facility and the structural design calculations, certified by a Professional Engineer licensed in the State, proving the Facility's capability to safely accommodate the facilities of the Applicant without change or modification or if any change or modification of the Facility is needed, a detailed narrative explaining what changes are needed, why they are needed and who will be responsible to assure that the changes are made;
4) a copy of the installed foundation design, as well as a geotechnical sub-surface soils investigation, evaluation report and foundation recommendation for the tower site or other structure;
5) For a Tower that is five (5) years old or older, or for a guyed Tower that is three (3) years old or older, a copy of the latest ANSI Report done pursuant to the latest edition of ANSI-EIA/TIA 222F – Annex E for any self-supporting Tower. If an ANSI report has not been done pursuant to the preceding schedule, an ANSI

report shall be done and submitted as part of the Application. No Building Permit shall be issued for any Wireless Facility where the structure being attached to is in need of remediation, unless and until all remediation work needed has been completed or a schedule for the remediation work has been approved by the Town Planning Department;

q. a Structural Report signed by a Professional Engineer licensed to do business in the State and bearing that engineer's currently valid stamp, showing the structural adequacy of the proposed structure to accommodate the proposed Wireless Telecommunications Facility, including any equipment shelter, unless the equipment shelter is located on the lowest floor of a building;

r. If attaching to a structure other than a Tower or where the proposed attachment is within 30 feet of areas to which the public has or could reasonably have or gain access to, documentation shall be provided, including all calculations, proving that the potential exposure to RF Radiation (i.e. NIER or Non-Ion Emitting Radiation), will be in compliance with the most recent Federal Communications Commission regulations governing RF Radiation and exposure thereto, and further denoting the minimum distance from any antennas an individual may safely stand without being exposed to RF radiation in excess of the FCC's permitted standards and any portion(s) of the structure that would be exposed to RF radiation in excess of the FCC's permitted standards . In compliance with the FCC's regulations, in such an instance the RF Radiation from all wireless facilities at that location shall be included in the calculations to show the cumulative effect on any area of the building or structure deemed accessible by the public or workers. Such report or analysis shall be signed and sealed by a Professional Engineer licensed in the State; or

s. In an instance involving a Tower where the new Wireless Facilities will be ten (10) meters or more above ground level and not within 30 feet of areas to which the public has or could reasonably have or gain access to, signed documentation such as the FCC's "Checklist to Determine whether a Facility may be "Categorically Excluded" shall be provided to verify that the Wireless Telecommunication Facility with the proposed installation will be in full compliance with the current FCC's RF Emissions regulations. If not categorically excluded, a complete RF Emissions study is required to enable verification of compliance, including providing all calculations so that such may be verified prior to issuance of a Building Permit;

t. In certain instances, the Town may deem it appropriate to have an RF survey of the facility done after the construction or modification and activation of the Facility, such to be done under the direction of the Town or its designee, and an un-redacted copy of the survey results provided, along with all calculations prior to issuance of a Certificate of Compliance;

u. If any section or portion of the structure to be attached to is not in compliance with the FCC's regulations regarding RF radiation, that section or portion must be barricaded with a suitable barrier to discourage approaching into the area in excess of the FCC's regulations, and be marked off with yellow and black plastic chain and striped warning tape, as well as placing RF Radiation signs as needed and appropriate to warn individuals of the potential danger;

v. A signed statement that the Applicant will expeditiously remedy any physical or RF interference with other telecommunications or wireless devices or services.

11. The applicant will provide a written copy of an analysis, completed by a qualified individual or organization, to determine if the proposed Wireless Telecommunications Facility-is in compliance with Federal Aviation Administration Regulation Part 77 and if it requires lighting. This requirement shall also be for any where the application increases the height of the Wireless Telecommunications Facility. If this analysis determines that an FAA determination is required, then all filings with the FAA, all responses from the FAA and any related correspondence shall be provided with the application.

12. Application for New Wireless Telecommunications Facility versus Co-location

Placement of Wireless Telecommunications towers and Facilities within major subdivisions or within intended service areas with existing or planned medium to high residential density, or areas identified as potential high density areas, must employ stealth or camouflage techniques, such as DAS, or its functional equivalent.

Note: Medium density, high density or potentially high density residential areas shall be defined by planning staff in its discretion.

a. the Applicant shall be required to submit a written report demonstrating its meaningful efforts to secure shared use of existing Wireless Telecommunications Facilities or the use of alternative buildings or other structures within the Town that are at or above the surrounding tree height or the tallest obstruction and are within one (1) mile of the proposed tower. Copies of written requests and responses for shared use shall be provided to the Town in the Application, along with any letters of rejection stating the reason for rejection.

b. Telecommunications Towers shall be prohibited in Residential Districts, Historic Districts or Renaissance Districts, unless the Applicant provides documentation (i.e. clear and convincing evidence) to demonstrate that the Telecommunications Tower is Necessary, that the area cannot be served from outside the District, that no existing or previously approved Wireless Telecommunications Facility can reasonably be used for the antenna placement instead of the construction of a new Wireless Telecommunications Facility or instead of increasing the height of an existing Wireless Telecommunications Facility, and that no alternative Wireless Telecommunications Facility or alternative type of Wireless Telecommunications Facility can be used to provide Wireless Telecommunications Service to the District.

c. In order to better inform the public, in the case of a new Telecommunication Tower, the applicant shall hold a “balloon test” prior to the initial public hearing on the application. The Applicant shall arrange to fly, or raise upon a temporary mast, a minimum of a ten (10) foot in length brightly colored balloon at the maximum height of the proposed new Tower.

d. At least fourteen (14) days prior to the conduct of the balloon test, a sign shall be

erected so as to be clearly visible from the road nearest the proposed site and shall be removed no later than fourteen (14) days after the conduct of the balloon test. The sign shall be at least four feet (4') by eight feet (8') in size and shall be readable from the road by a person with 20/20 vision.

e. Such sign shall be placed off, but as near to, the public right-of-way as is possible.

f. Such sign shall contain the times and date(s) of the balloon test and contact information.

g. The dates, (including a second date, in case of poor visibility or wind in excess of 15 mph on the initial date) times and location of this balloon test shall be advertised by the Applicant seven (7) and fourteen (14) days in advance of the first test date in a newspaper with a general circulation in the Town and as agreed to by the Town. The Applicant shall inform the Town in writing, of the dates and times of the test, at least fourteen (14) days in advance. The balloon shall be flown for at least four (4) consecutive hours between 10:00 am and 2:00 p.m. on the dates chosen. The primary date shall be on a week-end, but the second date, in case of poor visibility on the initial date, may be on a week day. A report with pictures from various locations of the balloon shall be provided with the application.

h. The Applicant shall notify all property owners and residents located within one-thousand five hundred feet (1,500) of the nearest property line of the subject property of the proposed construction of the Tower and Wireless Facility and of the date(s) and time(s) of the balloon test. Such notice shall be provided at least fourteen (14) days prior to the conduct of the balloon test and shall be delivered by first-class mail.

i. The Wireless Telecommunications Facility shall be structurally designed to accommodate at least six (6) Antenna Arrays as regards the load and stress created on the structure, with each array to be sited in such a manner as to provide for flush attachments to the greatest extent possible with the minimum separation required without causing interference. An Intermodulation Study shall be submitted to justify design claims as related to interference. A claim of interference because of a need to have greater than six feet (6') of vertical clearance between facilities, measured from the vertical centerline of one array to the vertical centerline of another, must be proven by technical data showing that there is no technological alternative that would enable the service to be provided that would require less vertical space, and not merely verbal or written assertions. This requirement may be waived, provided that the Applicant, in writing, demonstrates that the provisions of future shared usage of the Wireless Telecommunications Facility is not reasonably feasible if co-location is technically or commercially impractical or impracticable. The Applicant shall provide information Necessary to determine whether co-location is reasonably feasible-based upon:

1) The kind of Wireless Telecommunications Facility site and structure proposed;

2) Available space on existing and approved Wireless Telecommunications Facilities;

j. The owner of a proposed new Wireless Telecommunications Facility, and his/her successors in interest, shall negotiate in good faith for the shared use of the proposed Wireless Telecommunications Facility by other Wireless service providers in the future, and shall:

1) Respond within 60 days to a request for information from a potential shared-use Applicant;
2) Negotiate in good faith concerning future requests for shared use of the new Wireless Telecommunications Facility by other Telecommunications providers;
3) Allow shared use of the new Wireless Telecommunications Facility if another Telecommunications provider agrees in writing to pay reasonable charges. The charges may include, but are not limited to, a Pro rata share of the cost of site selection, planning, project administration, land costs, site design, construction and maintenance financing, return on equity, less depreciation, and all of the costs of adapting the Wireless Telecommunications Facility or equipment to accommodate a shared user without causing electromagnetic interference;
4) Failure to abide by the conditions outlined above may be grounds for revocation of the Special Use Permit.

13. The Applicant shall provide certification with documentation (i.e. structural analysis) including calculations that the Telecommunications Facility-and foundation and attachments, rooftop support structure, water tank structure, or any other supporting structure as proposed to be utilized are designed and will be constructed to meet all local, state and federal structural requirements for loads, including wind and ice loads and including, but not limited to all applicable ANSI (American National Standards Institute) guidelines.

14. All Applications for proposed Wireless Telecommunications Facilities shall contain a demonstration that the Facility-is sited and designed so as to create the least visual intrusiveness reasonably possible given the facts and circumstances involved, and thereby will have the least adverse visual effect on the environment and its character, on existing vegetation, and on the community in the area of the Wireless Telecommunications Facility. The Town expressly reserves the right to require the use of Stealth or Camouflage technology or techniques such as DAS (Distributive Antenna System technology) or its functional equivalent to achieve this goal and such shall be subject to approval by the Board.

15. the Applicant shall furnish a Visual Impact Assessment, which shall include:

a. a computer generated "Zone of Visibility Map" at a minimum of one mile radius from the proposed structure shall be provided to illustrate locations from which the proposed installation may be seen, with and without foliage;

b. Pictorial representations (photo simulations) of "before and after" views from key viewpoints inside of the Town as may be appropriate and required, including but not limited to state highways and other major roads, state and local parks, other public lands, historic districts, preserves and historic sites normally open to the public, and from any other location where the site is visible to a large number of visitors, travelers or residents. Guidance will be provided concerning the appropriate key viewpoints at the pre-application meeting. In addition to photographic simulations to scale showing the visual impact, the applicant shall provide a map showing the locations of where the pictures were taken and the distance(s)of each location from the proposed structure;

c. A written description of the visual impact of the proposed facility, including, as applicable, the tower base, guy wires, fencing and accessory buildings from abutting and adjacent properties and streets as relates to the need for or appropriateness of screening.

16. The Applicant shall demonstrate and provide a description in writing and by drawing how it shall effectively screen from view the base and all related equipment and structures of the proposed Wireless Telecommunications Facility.

17. The Wireless Telecommunications Facility and any and all accessory or associated facilities shall maximize the use of building materials, colors and textures designed to blend with the structure to which it may be affixed and to harmonize with the natural surroundings. This shall include the utilization of stealth or camouflage or concealment technology as may be required by the Town.

18. All utilities at a Wireless Telecommunications Facility site shall be installed underground and in compliance with all Laws, ordinances, rules and regulations of the Town, including specifically, but not limited to, the National Electrical Safety Code and the National Electrical Code where appropriate.

19. At a Wireless Telecommunications Facility site an access road, turn around space for an emergency vehicle and parking shall be provided to assure adequate emergency and service access. Maximum use of existing roads, whether public or private, shall be made to the extent practicable. Road construction shall at all times minimize ground disturbance and the cutting of vegetation. Road grades shall closely follow natural contours to assure minimal visual disturbance and reduce soil erosion.

20. All Wireless Telecommunications Facility shall be constructed, operated, maintained, repaired, provided for removal of, modified or restored in strict compliance with all current applicable technical, safety and safety-related codes adopted by the Town, State, or United States, including but not limited to the most recent editions of the ANSI Code, National Electrical Safety Code and the National Electrical Code, as well as accepted and responsible workmanlike industry practices and recommended practices of the National Association of Tower Erectors. The codes referred to are codes that include, but are not limited to, construction, building, electrical, fire, safety, health, and land use codes. In

the event of a conflict between or among any of the preceding the more stringent shall apply.

21. A holder of a Special Use Permit granted under this Section shall obtain, at its own expense, all permits and licenses required by applicable law, ordinance, rule, regulation or code, and must maintain the same, in full force and effect, for as long as required by the Town or other governmental entity or agency having jurisdiction over the applicant.

22. There shall be a pre-application meeting for all intended applications. The purpose of the pre-application meeting will be to address issues that will help to expedite the review and permitting process and certain issues or concerns the Town may have. A pre-application meeting shall also include a site visit, if there has not been a prior site visit for the requested facility. Costs of the Town's consultants to prepare for and attend the pre-application meeting will be borne by the applicant and paid for out of a Consultant Fee based on the fixed hourly rate to be set in the Town's Fee Schedule applied to the anticipated time customarily required for the review of similar applications.

23. An Applicant shall submit to the Town the number of completed Applications determined to be needed at the pre-application meeting. However, applications will not be transmitted to the Board for consideration until the application is deemed complete.

24. If the proposed site is within two (2) miles of another jurisdiction, written notification of the Application shall be provided to the legislative body of all such adjacent municipalities as applicable and/or requested.

25. The holder of a Special Use Permit shall notify the Town of any intended Modification of a Wireless Telecommunication Facility and shall apply to the Town to modify, relocate or rebuild a Wireless Telecommunications Facility.

26. A Building Permit shall not be issued for construction of the Wireless Telecommunications Facility until there is an Application for a specific carrier that documents that the Facility is Necessary for that carrier to serve the community and that co-location on an existing Telecommunications Structure is not feasible within the applicant's search ring. Collocation on an existing structure is not reasonably feasible if co-location is technically or commercially impractical or impracticable or the owner of the Wireless Telecommunications Facility is unwilling to enter into a contract for such use at fair market value. Sufficient documentation in the form of clear and convincing evidence to support such claims shall be submitted with a Wireless Telecommunications Facility Application for the first carrier to determine whether co-location on existing structures is reasonably feasible and to document the need for a specific height and that less height will serve to prohibit or have the effect of prohibiting the provision of service.

H. Requirements for an Application for the First Antenna to be Attached to an Approved Wireless Telecommunications Structure Within the Parameters of an Approved Special Use Permit

1. The fixed Application fee for review of Wireless Telecommunications Facilities Applications for locating an antenna array on an approved Wireless Telecommunications Facility within the parameters of an approved Special Use Permit shall be as set forth in the Town's Schedule of Fees.

2. An application to increase the parameters or size of an approved Wireless Telecommunications Facility as relates to conditioned height, profile, number of co-locations or footprint shall not qualify for treatment as an attachment to an approved Wireless Telecommunications Facility within the parameters of an approved Special Use Permit under this Section.

3. There shall be no Special Use Permit required for an application to attach the first antenna array on an approved Wireless Telecommunications Facility within the parameters of an approved Special Use Permit, unless for good cause such shall be required by the Board of Commissioners or Planning Director. Instead, approval shall result in issuance of a Building Permit by the appropriate administrative officer.

4. Documentation shall be provided to demonstrate that the Applicant has the legal right to proceed as proposed on the Site, including an executed copy of the lease with the owner of the facility proposed to be attached to, or a letter of agency, showing the right of the Applicant to attach to the structure.

5. A Pre-Application meeting shall be held. Before the Pre-Application meeting, the Applicant shall be provided instructions for completing an Application. Said instructions are to be controlling as regards the form and substance of the issues addressed in the Instructions and must be followed. Prior to the Pre-Application meeting, the Applicant shall prepare and submit a Project Information Form provided by the Town and submit the Consultant fee, but shall not prepare or submit the Application until after the Pre-Application meeting.

6. The Applicant shall include a written statement that:

   a. The Applicant's proposed Wireless Telecommunications Facility shall be maintained in a safe manner, and in compliance with all conditions of all applicable permits and authorizations, without exception, as well as all applicable and permissible local codes, ordinances, and regulations, including any and all applicable Town, State and Federal Laws, rules, and regulations; and

   b. The construction of the Wireless Telecommunications Facilities is legally permissible, including, but not limited to the fact that the Applicant is authorized to do business in the State.

7. An application for the first antenna to be attached to an approved Wireless Telecommunications Facility subsequent to the issuance of the Special Use Permit and prior to issuance of a building permit for construction of the Wireless

Telecommunications Facility shall contain the requirements of the Streamlined Process for Review of Co-locations in section (I) and the following information:

Facility Description and Documentation of the Facility as Necessary

a. A detailed narrative description and explanation of the specific objective(s) for the new Wireless Telecommunications Facility, expressly including and explaining the purpose for the facility, such as coverage and/or capacity, technical requirements, and the identified boundaries of the specific geographic area of intended coverage;

b. Technical documentation that proves the design of the Wireless Telecommunications Facility is what is Necessary to provide type and coverage of the service primarily and essentially within the Town. Such documentation shall include a propagation study of the proposed site and all adjoining planned, proposed or existing sites, that demonstrates a significant gap in coverage and/or, if a capacity issue is involved, to include an analysis of the current and projected usage (traffic studies) using generally accepted industry methods and standards so as to conclusively prove the need for what is proposed. To enable the Town to make its decision as regards to the design of the Wireless Telecommunications Facility, the Town may require the provision of all technical or engineering data and information used by the Applicant that is Necessary to enable an informed decision to be made to assure compliance with the intent of this Section and that is based upon a written record, not to include information that by applicable law or regulation is deemed to be confidential or proprietary;

c. All of the modeling information (i.e. data) inputted into the software used to produce the propagation studies, including, but not limited to any assumptions made, such as ambient tree height, which shall include the completion of the Town's Propagation Study Data Form;

d. A copy of the FCC license applicable for the intended use of the Wireless Telecommunications Facility, as well as a copy of the five (5) and ten (10) year build-out plan required by the FCC;

e. The frequency, modulation and class of service of radio or other transmitting equipment;

f. The maximum transmission power capability of all radios, as designed, if the Applicant is a cellular or functional equivalent carrier, or the maximum transmission power capability, as designed, of all transmission facilities if the Applicant is not a cellular or functional equivalent carrier;

g. The actual intended transmission power stated as the maximum effective radiated power (ERP), both in dBm's and watts;

h. A statement certifying that the Wireless Telecommunications Facility and all attachments thereto are in compliance with the conditions of the approved Special Use Permit.

Ownership and Management

i. The Name, address and phone number of the person preparing the Application;

j. The Name, address, and phone number of the property owner and the Applicant, including the legal name of the Applicant. If the owner of the structure is different than the applicant, the name and all Necessary contact information shall be provided;

k. The Postal address and tax map parcel number of the property;

l. A copy of the FCC license applicable for the intended use of the Wireless Telecommunications Facilities.

I. Streamlined Requirements for an Application to Co-locate on an Existing Telecommunications Facility within the Parameters of an Approved Special Use Permit

1. The fixed Application fee for review of Wireless Telecommunications Facilities Applications for co-locating an antenna array on an existing Wireless Telecommunications Facility shall be as set forth in the Town's Schedule of Fees.

2. An application to increase the parameters of an approved Wireless Telecommunications Facility as relates to conditioned height, profile, number of co-locations or footprint shall not qualify for treatment as an attachment to an existing Tower or other structure under this Section.

3. There shall be no Special Use Permit required for an application to modify or to co-locate an antenna array on an existing and properly permitted Wireless Telecommunications Facility so long as the co-location or modification does not exceed the parameters of the conditions of the approved Special Use Permit, unless for good cause such shall be required by the Board of Commissioners or Planning Director. Instead, approval shall result in issuance of a Building Permit-by the appropriate administrative officer.

4. Documentation shall be provided to demonstrate that the Applicant has the legal right to proceed as proposed on the Site, including an executed copy of the lease with the owner of the facility proposed to be attached to, or a letter of agency, showing the right of the Applicant to attach to the structure.

5. A Pre-Application meeting shall be held**.** Before the Pre-Application meeting, the Applicant shall be provided instructions for completing an Application. Said instructions are to be controlling as regards the form and substance of the issues addressed in the Instructions and must be followed. Prior to the Pre-Application meeting, the Applicant shall prepare and submit the Project Information Form and submit the Consultant fee, but shall not prepare or submit the Application.

6. The Applicant shall include a written statement that:

a. The Applicant's proposed Wireless Telecommunications Facility shall be maintained in a safe manner, and in compliance with all conditions of all applicable permits and authorizations, without exception, as well as all applicable and permissible local codes, ordinances, and regulations, including any and all applicable Town, State and Federal Laws, rules, and regulations; and

b. The construction of the Wireless Telecommunications Facilities is legally permissible, including, but not limited to the fact that the Applicant is authorized to do business in the State.

7. An application for attaching an antenna array under this section shall contain the following information:

Facility Description

a. A detailed narrative description and explanation of the specific objective(s) for the new facility, or the modification of an existing wireless facility, expressly including and explaining the purpose for the facility, such as lack of coverage, and/or capacity, requirements, and the identified boundaries of the specific geographic area of intended coverage;

b. Documentation that the design of the facility is what is Necessary for the design service to serve the community (i.e. that the placement on the Wireless Telecommunications Structure is the lowest available height Necessary and that the design produces the least visual and is designed to operate within the conditions of the approved Special Use Permit as regards to height, profile, type and number of co-locations and footprint);

c. A copy of the FCC license applicable for the intended use of the Wireless Telecommunications Facility, as well as a copy of the five (5) and ten (10) year build-out plan required by the FCC;

d. The frequency, modulation and class of service of radio or other transmitting equipment;

e. The maximum transmission power capability of all radios, as designed, if the Applicant is a cellular or functional equivalent carrier, or the maximum transmission power capability, as designed, of all transmission facilities if the Applicant is not a cellular or functional equivalent carrier;

f. The actual intended transmission power stated as the maximum effective radiated power (ERP), both in dBm's and watts;

g. A statement certifying that the Wireless Telecommunications Facility and all attachments thereto are in compliance with the conditions of the approved Special Use Permit;

<u>Ownership and Management</u>

h. The Name, address and phone number of the person preparing the Application;

i. The Name, address, and phone number of the property owner and the Applicant, including the legal name of the Applicant. If the owner of the structure is different than the applicant, the name and all Necessary contact information shall be provided;

j. The Postal address and tax map parcel number of the property;

k. A copy of the FCC license applicable for the intended use of the Wireless Telecommunications Facilities.

<u>Zoning and Planning</u>

l. The Zoning District or designation in which the property is situated;

m. The size of the property on which the structure to be attached to is located, stated both in square feet and lot line dimensions, and a survey showing the location of all lot lines;

n. The location, size and height of all existing and proposed structures on the property on which the structure is located and that is the subject of the Application;

o. A site plan showing the footprint, location and dimensions of access drives, landscaping and buffers, fencing and any other requirements of site plans.

~~p.~~ Elevations showing the vertical rendition of the Wireless Telecommunications Facility identifying all users, attachments, and all related fixtures, structures, appurtenances and apparatus, including height above pre-existing grade, materials, color and lighting;

q. The azimuth, size and center line height location of all proposed and existing antennae on the supporting structure;

r. The number, type and model of the Antenna(s) proposed, along with a copy of the specification sheet(s) for the antennas;

Safety

s. the age of the tower in years, including the date of the grant of the original permit or authorization for the Tower;

t. a description of the type of tower, e.g. guyed, self-supporting lattice or monopole;

u. the make, model, type and manufacturer of the Telecommunications Structure and the structural design calculations, certified by a Professional Engineer licensed in the State, proving the Structure's capability to safely accommodate the facilities of the Applicant without change or modification, or if any change or modification of the Structure is needed, a detailed narrative explaining what changes are needed, why they are needed and who will be responsible to assure that the changes are made;

v. A copy of the installed foundation design, as well as a geotechnical sub-surface soils investigation, evaluation report and foundation recommendation for the tower site or other structure;

w. For a Tower that is five (5) years old or older, or for a guyed Tower that is three (3) years old or older, a copy of the latest ANSI Report done pursuant to the latest edition of ANSI-EIA/TIA 222F – Annex E for any self-supporting Tower. If an ANSI report has not been done pursuant to the preceding schedule, an ANSI report shall be done and submitted as part of the Application. No Building Permit shall be issued for any Wireless Facility where the structure being attached to is in need of remediation, unless and until all remediation work needed has been completed or a schedule for the remediation work has been approved by the Town Planning Department;

x. a Structural Report signed by a Professional Engineer licensed to do business in the State and bearing that engineer's currently valid stamp, showing the structural adequacy of the Wireless Telecommunications Facility to accommodate the proposed modification or antenna array co-location, including any equipment shelter, unless the equipment shelter is located on the lowest floor of a building;

y. If attaching to a structure other than a Tower or where the proposed attachment is within 30 feet of areas to which the public has or could reasonably have or gain access to, documentation shall be provided, including all calculations, proving that the potential exposure to RF Radiation (i.e. NIER or Non-Ion Emitting Radiation),

will be in compliance with the most recent Federal Communications Commission regulations governing RF Radiation and exposure thereto, and further denoting the minimum distance from any antennas an individual may safely stand without being exposed to RF radiation in excess of the FCC's permitted standards and any portion(s) of the structure that would be exposed to RF radiation in excess of the FCC's permitted standards . In compliance with the FCC's regulations, in such an instance the RF Radiation from all wireless facilities at that location shall be included in the calculations to show the cumulative effect on any area of the building or structure deemed accessible by the public or workers. Such report or analysis shall be signed and sealed by a Professional Engineer licensed in the State; or

z. In an instance involving a Tower where the new Wireless Telecommunications Facility will be ten (10) meters or more above ground level, signed documentation such as the FCC's "Checklist to Determine whether a Facility may be Categorically Excluded" shall be provided to verify that the Wireless Telecommunication Facility with the proposed installation will be in full compliance with the current FCC's RF Emissions regulations. If not categorically excluded, a complete RF Emissions study is required to enable verification of compliance, including providing all calculations so that such may be verified prior to issuance of a Building Permit;

aa. If any section or portion of the structure to be attached to is not in compliance with the FCC's regulations regarding RF radiation, that section or portion must be barricaded with a suitable barrier to discourage approaching into the area in excess of the FCC's regulations, and be marked off with yellow and black striped warning tape or a suitable warning barrier, as well as placing RF Radiation signs as needed and appropriate to warn individuals of the potential danger;

bb. A signed statement that the Applicant will expeditiously remedy any physical or RF interference with other telecommunications or wireless devices or services.

8. To protect the nature and character of the area and create the least visually intrusive impact reasonably possible under the facts and circumstances, any attachment to a building or other structure with a facie, the antennas shall be mounted on the facie, unless it can be proven that such will prohibit or have the effect of prohibiting the provision of service, and all such attachments and exposed cabling shall use camouflage or stealth techniques to match as closely as possible the color and texture of the structure.

9. If attaching to a water tank, in order to maintain the current profile and height, mounting on the top of the tank or the use of a corral shall only be permitted if the Applicant can prove that to locate elsewhere will prohibit or have the effect of prohibiting the provision of service. The provisions of the preceding subsection (9) of this section shall also apply to any attachment to a water tank.

10. The Applicant shall provide a certification by a Professional Engineer licensed in the State, along with documentation (a structural analysis), including calculations, that prove that the Wireless Telecommunications Facility-and its foundation as proposed to be utilized are designed and were constructed to meet all local, Town, State, Federal and ANSI structural requirements for loads, including wind and ice loads and the placement of any equipment on the roof a building after the addition of the proposed new facilities.

11. So as to be the least visually intrusive Wireless Telecommunications Facility reasonably possible given the facts and circumstances involved, and thereby have the least adverse visual effect and create the least intrusive or lowest profile or visual silhouette reasonably possible, unless it can be proven that such would be technologically impracticable, all antennas attached to a tower or other structure shall be flush mounted or as near to flush mounted as is possible without prohibiting or having the effect of prohibiting the provision of service so as minimize the visual profile of the antennas, or prove technically, with hard data and a detailed narrative, that flush mounting can not be used and would serve to prohibit or have the effect of prohibiting the provision of service.

12. Unless it is deemed inappropriate or unnecessary by the Town given the facts and circumstances, the Applicant shall demonstrate and provide in writing and~~/or~~ by drawing how it shall effectively buffer and screen from view the base and all related equipment and structures of the proposed Wireless Telecommunications Facility up to a height of ten (10) feet.

13. The Wireless Telecommunications Facility and any and all accessory or associated facilities shall maximize the use of building materials, colors and textures designed to blend with the structure to which it may be affixed and to harmonize with the natural surroundings. This shall include the utilization of stealth, camouflage or concealment technology as may be required by the Town and as is not impracticable under the facts and circumstances.

14. All utilities installed for a new Wireless Telecommunications Facility shall be installed underground and in compliance with all Laws, ordinances, rules and regulations of the Town, including specifically, but not limited to, the National Electrical Safety Code and the National Electrical Code where appropriate.

15. If deemed Necessary or appropriate, an access road, turn around space and parking shall be provided to assure adequate emergency and service access. Maximum use of existing roads, whether public or private, shall be made to the extent practicable. Road construction shall at all times minimize ground disturbance and the cutting of vegetation. Road grades shall closely follow natural contours to assure minimal visual disturbance and reduce soil erosion and shall comply with any local or State regulations for the construction of roads. If the current access road or turn around space is deemed in disrepair or in need of remedial work to make it serviceable and safe and in compliance with any applicable regulations as determined at a site visit, the Application shall contain a commitment to remedy or restore the road or turn around space so that it is serviceable and safe and in compliance with applicable regulations.

J. Location of Wireless Telecommunications Facilities

1. Applicants for Telecommunications Towers shall locate, site and erect said Wireless Telecommunications Facilities in accordance with the following priorities, in the following order:

a. On existing Wireless Telecommunications Facilities on Town-owned property without increasing the height of the tower or structure.
b. On other existing Wireless Telecommunications Facilities without increasing the height of the tower or structure.
c. On Town-owned properties or facilities.
d. On properties in areas zoned for Business use.
e. On properties in areas zoned for Rural use.
f. On properties in areas zoned for Residential use.
g. On properties in designated Historic Districts.

2. Applicants for all other Wireless Telecommunications facilities (e.g. Distributed Antenna Systems or buildings) shall locate, site and construct said Wireless Telecommunications Facilities in accordance with the following priorities, in order:

a. On existing Town-owned Wireless Telecommunications Facilities without increasing the height of the structure.
b. On existing Wireless Telecommunications Facilities without increasing the height of the structure.
c. On Town-owned properties or facilities.
d. On properties in areas zoned for Business use.
e. On properties in areas zoned for Rural use.
f. On properties in areas zoned for Residential use.
g. On properties in designated Historic Districts.

3. If the proposed site is not proposed for the highest priority listed above, then a detailed explanation and justification must be provided as to why a site of all higher priority designations was not selected. The person seeking such an exception must satisfactorily demonstrate the reason or reasons why such a permit should be granted for the proposed site, and the hardship that would be incurred by the Applicant if the permit were not granted for the Wireless Telecommunications Facility as proposed.

4. An Applicant may not by-pass sites of higher priority by stating the site proposed is the only site leased or selected or because there is an existing lease with a landowner. An Application shall address co-location as an option. If such option is not proposed, the applicant must explain to the reasonable satisfaction of the Town why co-location is technically or commercially impracticable. Agreements between Wireless Telecommunications Facility owners limiting or prohibiting co-location shall not be a valid basis for any claim of commercial impracticability or hardship.

5. Notwithstanding the above, the Town may approve any site located within an area in the above list of priorities, provided that the Town finds that the proposed site is in the best interest of the health, safety and welfare of the Town and its inhabitants and will not have a deleterious effect on the nature and character of the community and neighborhood. Conversely, the Town may direct that the proposed location be changed to another

location that is more in keeping with the goals of this Section and the public interest as determined by the Town.

6. Notwithstanding that a potential site may be situated in an area of highest priority or highest available priority, the Town may disapprove an Application for any of the following reasons:

a. Conflict with safety and safety-related codes and requirements;
b. Conflict with the historic nature or character of a neighborhood or district;
c. The use or construction of Wireless Telecommunications Facilities which is contrary to an already stated purpose of a specific zoning or land use designation;
d. The placement and location of Wireless Telecommunications Facilities which would create an unacceptable risk, or the reasonable probability of such, to residents, the public, employees and agents of the Town, or employees of the service provider or other service providers;
e. The placement and location of a Wireless Telecommunications Facility would result in a conflict with or compromise in or change the nature or character of the surrounding area;
f. Conflicts with the provisions of this Section;
g. Failure to submit a complete Application as required under this Section.

7. Notwithstanding anything to the contrary in this Section, for good cause shown, such as the ability to utilize a shorter or less intrusive facility elsewhere and still accomplish the primary service objective, the Town may require the relocation of a proposed site, including allowing for the fact that relocating the site chosen by the Applicant may require the use of more than one (1) site to provide substantially the same service if the relocation could result in a less intrusive facility or facilities, singly or in combination. The existence of a lease entered into prior to the approval of an application shall not be deemed justification for the requested location.

K. Shared Use of Wireless Telecommunications Facilities Structures

1. The Town requires the co-location of antenna arrays on existing Wireless Telecommunications Facilities as opposed to the construction of a new Wireless Telecommunications Facility or increasing the height, footprint or profile beyond the conditions of the approved Special Use Permit for an existing Wireless Telecommunications Facility, unless such is proven to be technologically impracticable. The Applicant shall submit a comprehensive report inventorying all existing Wireless Telecommunications Facilities and other suitable structures within one (1) mile of the location of any proposed new Wireless Telecommunications Facility, unless the Applicant can show that some other distance is more appropriate and reasonable and demonstrate conclusively why an existing Wireless Telecommunications Facility or other suitable structure cannot be used.

2. An Applicant intending to locate on an existing Wireless Telecommunications Facility shall be required to document the intent of the existing owner to permit its use by the Applicant.

3. Such shared use shall consist only of the minimum Antenna array technologically required to provide service primarily and essentially within the Town, to the extent practicable, unless good cause is shown.

L. Type and Height of Wireless Telecommunications Facilities

1. All new towers shall be of the monopole type, unless such is able to be proven to be technologically impracticable. No new towers of a lattice or guyed type shall be permitted, unless relief is otherwise expressly granted.

2. The Applicant shall submit documentation justifying the total height of any Wireless Telecommunications Facility or Antenna requested and the basis therefore. Documentation in the form of propagation studies must include all backup data used to produce the studies at the requested height and a minimum of ten feet (10') lower height to enable verification of the need for the requested height.

3. For a new Wireless Telecommunications Facility a reduction in the identified size of the identified service area of 10% or less of the predicted service area shall not be deemed justification for exceeding the otherwise maximum allowable height of a Wireless Telecommunications Facility.

4. The maximum permitted total height of a new Wireless Telecommunications Facility shall be one hundred twenty feet (120') above pre-construction ground level, unless it can be proven that such height would prohibit or have the effect of prohibiting the provision of service in the intended service area within the community. The maximum permitted height is not an as-of-right height, but rather the maximum permitted height, absent proof of the technological need for a greater height.

5. For a wireless facility to be located on an existing Wireless Telecommunications Facility, such documentation will be analyzed in the context of the justification of the height needed to provide service primarily and essentially within the Town, to the extent practicable, unless good cause is shown. A reduction in the size of the identified service area of 10% or less of the predicted service area shall not be deemed justification for increasing the height of a facility.

6. Notwithstanding the preceding subsection (4) of this section, Wireless Telecommunications Facilities shall be no taller than the minimum height technologically Necessary to enable the provision of wireless service coverage or capacity as needed within the community (i.e. the Town, and its jurisdiction).

7. Documentation substantiating the height Necessary to provide for the placement of an antennal array to provide wireless service to the community shall be submitted by the

Applicant prior to issuance of a Building Permit for a new Wireless Telecommunications Facility, i.e. tower, but shall not be required prior to the issuance of the Special Use Permit, unless the requested height exceeds the 120 foot maximum height. Such documentation shall be provided with an Application for the first attachment of an antenna array and for any proposed increase in the previously permitted height.

8. Relief from the maximum height for new Wireless Telecommunications Facilities shall only be considered where evidence substantiates a taller height is Necessary for the provision of wireless service to the community, to the exclusion of any alternative option that is not technologically or commercially impracticable, and where denial of a taller height would have the effect of prohibiting the provision of wireless service to the community. Such documentation shall be provided prior to consideration of a Special Use Permit when the requested height exceeds the 120 foot maximum height.

9. Prior to issuing a Building Permit for the co-location of an antenna array on an existing Wireless Telecommunications Facility, an Applicant shall demonstrate that the co-location is located appropriately on the Wireless Telecommunications Facility with the overall goal being to preserve the carrying capacity of the Wireless Telecommunications Facility for future co-locations and to minimize the visual intrusiveness and impact, including the profile of the Wireless Telecommunications Facility.

10. In determining the Necessary height for a Wireless Telecommunications Facility, or the height or placement of a co-location on a Wireless Telecommunications Facility, the signal strengths analyzed shall be the threshold or lowest signal strength at which the customer equipment is designed to function, which may be required to be determined by the manufacturer's published specifications for the customer equipment.

11. As the Town has made the policy decision that more towers of a shorter height is in the public interest, as opposed to fewer taller towers, spacing, or the distance between towers, shall be such that the service may be provided without exceeding the maximum permitted height.

M. Visibility and Noise of Wireless Telecommunications Facilities

1. Wireless Telecommunications Facilities shall not be artificially lighted or marked, except as required by federal regulations.

2. Stealth: All new Wireless Telecommunications Facilities, including but not limited to towers, shall utilize Stealth or Camouflage techniques and technology, unless such can be shown to be either Commercially or Technologically Impracticable.

3. Dual Mode: In order to minimize the number of antenna arrays and thus the visual impact, the Town may require the use of dual mode antennas to be used, including by two different carriers, unless it can be proven that such will not work technologically and that such would have the effect of prohibiting the provision of service in the Town.

4. Wireless Telecommunications Facilities Finish/Color: Structures shall be galvanized and/or painted with a rust-preventive paint of an appropriate color to harmonize with the surroundings and shall be maintained in accordance with the requirements of this Section.

5. Lighting: If lighting is legally required or proposed, the Applicant shall provide a detailed plan for sufficient lighting of as unobtrusive and inoffensive an effect as is permissible under State and Federal regulations. For any Wireless Telecommunications Facility for which lighting is required under the FAA's regulations, or that for any reason has lights attached, all such lighting shall be affixed with technology that enables the light to be seen as intended from the air, but that prevents the ground scatter effect so that it not able to be seen from the ground to a height of at least 12 degrees vertical for a distance of at least 1 mile in a level terrain situation. Such device must be compliant with or not in conflict with FAA regulations. A physical shield may be used, as long as the light is able to be seen from the air, as intended by the FAA.

6. In the event a Wireless Telecommunications Facility that is lighted is modified, at the time of the modification the Town may require that the Tower be retrofitted with the technology set forth in the preceding subsection (5).

7. Flush Mounting: All new or replacement antennas, except omni-directional whip antennas, shall be flush-mounted or as close to flush-mounted as is technologically possible on any Wireless Telecommunications Facility, so long as such does not have the effect of prohibiting the provision of service to the intended service area, alone or in combination with another site(s), unless the Applicant can prove that it is technologically impracticable.

8. Placement on Building – Facie: If attached to a building, all antennas shall be mounted on the facie of the building and camouflaged so as to match the color and, if possible, texture of the building or in a manner so as to make the antennas as visually innocuous and undetectable as is possible given the facts and circumstances involved.

9. All facilities at a Wireless Telecommunications Facility, regardless of the owner of the facilities, shall comply with the Town's Noise Control and Abatement regulations, without exception.

10. As part of the final inspection prior to the grant of the Certificate of Completion, the Applicant shall demonstrate compliance with the Town's Noise Control and Abatement regulations in the presence of a Town representative by running all equipment, including any standby or backup electrical generator. Noise levels in decibels shall be taken at all property lines adjacent to the site using standard and general accepted equipment for determining noise levels.

N. Security of Wireless Telecommunications Facilities

All Wireless Telecommunications Facilities shall be located, fenced or otherwise secured in a manner that prevents unauthorized access. Specifically:

1. All Wireless Telecommunications Facilities, including Antennas, Towers and other supporting structures, such as guy anchor points and wires, shall be made inaccessible to individuals and constructed or shielded in such a manner that they cannot be climbed or collided with; and

2. Transmitters and Telecommunications control points shall be installed in such a manner that they are readily accessible only to persons authorized to operate or service them.

O. Signage

Wireless Telecommunications Facilities shall contain a sign no larger than four (4) square feet in order to provide adequate notification to persons in the immediate area of the presence of RF radiation or to control exposure to RF radiation within a given area. A sign of the same size is also to be installed to contain the name(s) of the owner(s) and operator(s) of the Antenna(s) as well as emergency phone number(s). The sign shall be on the equipment shelter or cabinet of the Applicant and be visible from the access point of the site and must identify the equipment owner of the shelter or cabinet. On tower sites, an FCC registration site, as applicable, is also to be present. The signs shall not be lighted, unless applicable law, rule or regulation requires lighting. No other signage, including advertising, shall be permitted.

P. Setbacks

1. All proposed Telecommunications Towers and any other proposed Wireless Telecommunications Facility attachment structures shall be set back from abutting parcels, recorded rights-of-way and road and street lines by the greater of the following distances: A distance equal to the height of the proposed Tower or other Wireless Telecommunications Facility structure plus ten percent (10%) of the height of the Telecommunications Structure, otherwise known as the Fall Zone, or the existing setback requirement of the underlying zoning district, whichever is greater. Any Accessory structure shall be located within the footprint as approved in the Special Use Permit and so as to comply with the applicable minimum setback requirements for the property on which it is situated. The Fall Zone shall be measured from the nearest portion of the right-of-way of any public road or thoroughfare and any occupied building or domicile. Further, the nearest portion of any access road leading to a wireless Telecommunications facility shall be no less than fifteen (15) feet from the nearest property line.

2. There shall be no development of habitable buildings within the Fall Zone set forth in the preceding subsection (1).

Q. Retention of Expert Assistance Cost to be Borne by Applicant

1. The Town may hire any consultant and/or expert necessary to assist the Town in reviewing and evaluating the Application, including the construction and modification of the site, once permitted, and any site inspections.

2. To prevent the taxpayers from having to bear the cost related to the issue of the regulation of Wireless Telecommunications Facilities, an Applicant shall pay to the Town a Consultant fee based on the fixed hourly rate and the amount to be set forth in the Town's Fee Schedule. The amount of the Fee shall be based on what has been usual and customary in Wendell Town for the review and permitting assistance related to Wireless Telecommunications towers and facilities and shall be based upon the anticipated time customarily required for the review of similar applications to cover all reasonable costs of consultant and expert evaluation and consultation with the Town in connection with the submittal, review and permitting of any Application, and where applicable, any lease negotiation, pre-approval evaluation and including any construction and modification of the site, once permitted. The placement of the initial Consultant Fee with the Town shall precede the pre-application meeting or any work being done as regards to processing an application. The Town will maintain accounting for the expenditure of-all such funds. The Town's consultants/experts shall invoice the Town for all time expended for its services in reviewing the Application, including the construction and modification of the site, once permitted. If at any time during the process this Consultant fee has a balance of less than one-fourth (1/4) of the initial Consultant Fee due to an incomplete Application**,** incorrect information contained in the Application or non-compliance with the requirements of this Section, the Applicant shall immediately, upon notification by the Town, provide a Consultant Fee equivalent to one-half (1/2) of the initial Consultant Fee. Such additional funds shall be deposited with the Town before any further action or consideration is taken on the Application. In the event that the amount paid to the Town is more than the amount of the actual invoicing at the conclusion of the project, the remaining balance shall be promptly refunded to the Applicant subsequent to the issuance of a Certificate of Completion, unless the application is abandoned or withdrawn, in which case there shall be no refund.

3. There shall be four (4) categories of Consultant Fees, such being: i) Lease Negotiations Fee; ii) Application Assistance and Review Fee; iii) Application Amendment Fee; and iv) Public Hearing Fee. Said fees shall be set forth in the Town's published Schedule of Fees and may be adjusted from time to time by the Board of Commissioners.

4. The fixed fee shall be based on the hourly rate of the consultant, which may be adjusted from time to time, multiplied by the number of hours that have been usual and customary in Wendell Town for similar Applications for Wireless Telecommunications Structures and Facilities, which number of hours may also be adjusted from time to time based on experience. The total amount of the funds needed as set forth in subsection (3) of this section may vary with the scope of what is requested (e.g. lease negotiations in addition to any Application Review) and the complexity of the project, the completeness of the Application and other information as may be needed to complete the necessary review, analysis and inspection of any construction or modification.

5. Records of all outside costs associated with the review and permitting process shall be maintained and available for public inspection, in compliance with applicable North Carolina law.

R. Procedural Requirements for a Special Use Permit

1. The procedures established for Special Uses in Article VIII, Sections 1 through 11 of this Ordinance shall apply where wireless telecommunications facilities require a Special Use Permit as required or otherwise specified in this Section.

2. The Town shall schedule the required public hearing once it finds the Application is complete and is not required to set a date if the Application is not complete. The Town, at any stage prior to issuing a Special Use Permit, may require such additional information as it deems Necessary as such relates to the issue of the siting, construction or modification of a Wireless Telecommunications Facility.

3. A Special Use Permit shall be issued for a Wireless Telecommunications Structure upon Board review and approval, but the Building Permit for said Telecommunications Structure shall not be issued until an Applicant has provided substantiating documentation under the section governing the placement of the first antenna array prior to construction of a new Wireless Telecommunications Facility.

S. Action on an Application for a Special Use Permit for Wireless Telecommunications Facilities

1. The Town will undertake a review of an Application pursuant to this Article in a timely fashion, consistent with its responsibilities, and shall act within a reasonable period of time given the relative complexity of the Application and the circumstances, with due regard for the public's interest and need to be involved, and the Applicant's desire for a timely resolution.

2. The Town may refer any Application or part thereof to any advisory or other committee for a non-binding recommendation.

3. After the public hearing and after formally considering the Application, the Town may approve, approve with conditions, or deny a Special Use Permit. Its decision shall be in writing and shall be supported by substantial evidence contained in a written record. The burden of proof for the grant of the permit shall always be upon the Applicant.

4. If the Town approves the Special Use Permit for the Wireless Telecommunications Facility, then the Applicant shall be notified of such approval at the Board Meeting and in writing within 30 calendar days of the Town's action, and the Special use Permit shall be issued within thirty (30) days after such approval. Except for necessary construction plan documents, building permits, and subsequent Certificates of Compliance, once a Special Use Permit has been granted hereunder, no additional site plan or zoning approvals shall be required by the Town for the Wireless Telecommunications Facilities covered by the Special Use Permit. Each modification or co-location of an antenna array shall require the submission of a Wireless Telecommunications Facility Application and Building Permit Application.

5. If the Town denies the Special Use Permit for the Wireless Telecommunications Facilities, then the Applicant shall be notified of such denial at the Board Meeting and in writing within 30 calendar days of the Board's action and shall set forth in writing the reason or reasons for the denial.

T. Extent and Parameters of Special Use Permit for Wireless Telecommunications Facilities

The extent and parameters of a Special Use Permit for Wireless Telecommunications Facilities shall be as follows:

1. Such Special Use Permit shall not be assigned, transferred or conveyed without the express prior written notification to the Town.

2. Following an opportunity to cure and, if not cured within the time frame set forth in the notice of violation, a hearing upon due prior notice to the Applicant, such Special Use Permit may be revoked, canceled, or terminated for a violation of the conditions and provisions of the Special Use Permit, or for a material violation of this Section or other applicable law, rule or regulation. Notice of a violation and of the date, time and place of a hearing shall be provided by registered mail to the last known address of the holder of the Special Use Permit.

U. Application Fee

At the time that a person submits an Application for a Special Use Permit for a new Wireless Telecommunications Facility, such person shall pay a non-refundable application fee set forth in the Town's Fee Schedule as may be amended or changed from time to time.

V. Removal and Performance Security

The Applicant and the owner of record of any proposed Wireless Telecommunications Facilities property site shall, at its cost and expense, be jointly required to execute and file with the Town a bond, or other form of security acceptable to the Town as to type of security and the form and manner of execution, in an amount of at least $75,000.00 for a tower and with such sureties as are deemed sufficient by the Town to assure the faithful performance of the terms and conditions of this Section and conditions of any Special Use Permit issued pursuant to this Section. The full amount of the bond or security shall remain in full force and effect throughout the term of the Special Use Permit and/or until any necessary site restoration is completed to restore the site to a condition comparable to that, which existed prior to the issuance of the original Special Use Permit.

W. Reservation of Authority to Inspect Wireless Telecommunications Facilities

In order to verify that the holder of a Special Use Permit for Wireless Telecommunications Facilities and any and all lessees, renters, and/or licensees of Wireless Telecommunications Facilities, place and construct such facilities, including Towers and Antennas, in accordance with all applicable technical, safety, fire, building, and zoning codes, Laws, ordinances and regulations and other applicable requirements, the Town may inspect all facets of said permit holder's, renter's, lessee's or licensee's placement, construction, modification and maintenance of such facilities, including, but not limited to, Towers, Antennas and buildings or other structures constructed or located on the permitted site.

X. Liability Insurance

1. A holder of a Special Use Permit for Wireless Telecommunications Structures shall secure and at all times maintain public liability insurance for personal injuries, death and property damage, and umbrella insurance coverage, for the duration of the Special Use Permit in amounts as set forth below:

   a. Commercial General Liability covering personal injuries, death and property damage: $1,000,000 per occurrence/$2,000,000 aggregate; and
   b. Automobile Coverage: $1,000,000.00 per occurrence/ $2,000,000 aggregate; and
   c. A $3,000,000 Umbrella coverage; and
   d. Workers Compensation and Disability: Statutory amounts.

2. For a Wireless Telecommunications Facility on Town property, the Commercial General Liability insurance policy shall specifically name the Town and its officers, Boards, employees, committee members, attorneys, agents and consultants as additional insureds.

3. The insurance policies shall be issued by an agent or representative of an insurance company licensed to do business in the State and with a Best's rating of at least A.

4. The insurance policies shall contain an endorsement obligating the insurance company to furnish the Town with at least thirty (30) days prior written notice in advance of the cancellation of the insurance.

5. Renewal or replacement policies or certificates shall be delivered to the Town at least fifteen (15) days before the expiration of the insurance that such policies are to renew or replace.

6. Before construction of a permitted Wireless Telecommunications Facility is initiated, but in no case later than fifteen (15) days prior to the grant of the Building Permit, the holder of the Special Use Permit shall deliver to the Town a copy of each of the policies or certificates representing the insurance in the required amounts.

7. A Certificate of Insurance that states that it is for informational purposes only and does not confer rights upon the Town shall not be deemed to comply with this Section.

Y. Indemnification

1. Any application for Wireless Telecommunication Facilities that is proposed for Town property, pursuant to this Section, shall contain a provision with respect to indemnification. Such provision shall require the applicant, to the extent permitted by the Section, to at all times defend, indemnify, protect, save, hold harmless, and exempt the Town, and its officers, Boards, employees, committee members, attorneys, agents, and consultants from any and all penalties, damages, costs, or charges arising out of any and all claims, suits, demands, causes of action, or award of damages, whether compensatory or punitive, or expenses arising there from, either at law or in equity, which might arise out of, or are caused by, the placement, construction, erection, modification, location, products performance, use, operation, maintenance, repair, installation, replacement, removal, or restoration of said Facility, excepting, however, any portion of such claims, suits, demands, causes of action or award of damages as may be attributable to the negligent or intentional acts or omissions of the Town, or its servants or agents. With respect to the penalties, damages or charges referenced herein, reasonable attorneys' fees, consultants' fees, and expert witness fees are included in those costs that are recoverable by the Town.

2. Notwithstanding the requirements noted in subsection (1) of this section, an indemnification provision will not be required in those instances where the Town itself applies for and secures a Special Use Permit for Wireless Telecommunications Facilities.

Z. Fines

1. In the event of a violation of this Section or any Special Use Permit issued pursuant to this Section, the Town may impose and collect, and the holder of the Special Use Permit for Wireless Telecommunications Facilities shall pay to the Town, fines or penalties as set forth in Article IV, Sections 9 and 10 of this Ordinance.
2. Notwithstanding anything in this Section, the holder of the Special Use Permit for Wireless Telecommunications Facilities may not use the payment of fines, liquidated damages or other penalties, to evade or avoid compliance with this Section or any section of this Ordinance. An attempt to do so shall subject the holder of the Special Use Permit to termination and revocation of the Special Use Permit. The Town may also seek injunctive relief to prevent the continued violation of this Section, without limiting other remedies available to the Town.

AA. Default and/or Revocation

If a Wireless Telecommunications Structure or Facility is repaired, rebuilt, placed, moved, re-located, modified or maintained in a way that is inconsistent or not in compliance with the provisions of this Section or of the Special Use Permit, then the Town shall notify the holder of the Special Use Permit in writing of such violation. A

Permit holder in violation may be considered in default and subject to fines as in Section (Y) and if a violation is not corrected to the satisfaction of the Town in a reasonable period of time the Special Use Permit shall be subject to revocation.

BB. Removal of Wireless Telecommunications Structures and Facilities

1. The owner of any Wireless Telecommunications Facility or wireless facility shall be required to provide a minimum of thirty (30) days written notice to the Town Clerk prior to abandoning any Wireless Telecommunications Facility or wireless facility.

2. Under the following circumstances, the Town may determine that the health, safety, and welfare interests of the Town warrant and require the removal of Wireless Telecommunications Facilities.

   a. Wireless Telecommunications Facilities that have been abandoned (i.e. not used as Wireless Telecommunications Facilities) for a period exceeding ninety consecutive (90) days or a total of one hundred-eighty (180) days in any three hundred-sixty five (365) day period, except for periods caused by force majeure or Acts of God, in which case, repair or removal shall commence within 90 days of abandonment;

   b. Permitted Wireless Telecommunications Structures or Facilities fall into such a state of disrepair that it creates a health or safety hazard;

   c. Wireless Telecommunications Structures or Facilities have been located, constructed, or modified without first obtaining, or in a manner not authorized by, the required Special Use Permit, or any other necessary authorization and the Special Permit may be revoked.

3. If the Town makes such a determination as noted in subsection (1) of this section, then the Town shall notify the holder of the Special Use Permit for the Wireless Telecommunications Facilities within forty-eight (48) hours that said Wireless Telecommunications Facilities are to be removed, the Town may approve an interim temporary use agreement/permit, such as to enable the sale of the Wireless Telecommunications Facilities.

4. The holder of the Special Use Permit, or its successors or assigns, shall dismantle and remove such Wireless Telecommunications Facilities, and all associated structures and facilities, from the site and restore the site to as close to its original condition as is possible, such restoration being limited only by physical or commercial impracticability, within ninety (90) days of receipt of written notice from the Town. However, if the owner of the property upon which the Wireless Telecommunications Facilities are located wishes to retain any access roadway to the Wireless Telecommunications Facilities, the owner may do so with the approval of the Town.

5. If Wireless Telecommunications Facilities are not removed or substantial progress has not been made to remove the Wireless Telecommunications Facilities within ninety (90)

days after the permit holder has received notice, then the Town may order officials or representatives of the Town to remove the Wireless Telecommunications Facilities at the sole expense of the owner or Special Use Permit holder.

6. If, the Town removes, or causes to be removed, Wireless Telecommunications Facilities, and the owner of the Wireless Telecommunications Facilities does not claim and remove it from the site to a lawful location within ten (10) days, then the Town may take steps to declare the Wireless Telecommunications Facilities abandoned, and sell them and their components.

7. Notwithstanding anything in this Section to the contrary, the Town may approve a temporary use permit/agreement for the Wireless Telecommunications Facilities, for no more than ninety (90) days, during which time a suitable plan for removal, conversion, or re-location of the affected Wireless Telecommunications Facilities shall be developed by the holder of the Special Use Permit, subject to the approval of the Town, and an agreement to such plan shall be executed by the holder of the Special Use Permit and the Town. If such a plan is not developed, approved and executed within the ninety (90) day time period, then the Town may take possession of and dispose of the affected Wireless Telecommunications Facilities in the manner provided in this Section and utilize the bond in Section (BB).

CC. Relief

Any Applicant desiring relief, waiver or exemption from any aspect or requirement of this Section may request such at the pre-Application meeting, provided that the relief or exemption is contained in the submitted Application for either a Special Use Permit, or in the case of an existing or previously granted Special Use Permit, a request for modification of its Wireless Telecommunications Facility and/or facilities. Such relief may be temporary or permanent, partial or complete. However, the burden of proving the need for the requested relief, waiver or exemption is solely on the Applicant to prove. The Applicant shall bear all costs of the Town in considering the request and the relief, waiver or exemption. No such relief or exemption shall be approved unless the Applicant demonstrates by clear and convincing evidence that, if granted the relief, waiver or exemption will have no significant affect on the health, safety and welfare of the Town, its residents and other service providers.

DD. Periodic Regulatory Review by the Town

1. The Town may at any time conduct a review and examination of this entire Section.

2. If after such a periodic review and examination of this Section, the Town determines that one or more provisions of this Section should be amended, repealed, revised, clarified, or deleted, and then the Town may take whatever measures are necessary in accordance with applicable Ordinance in order to accomplish the same. It is noted that where warranted, and in the best interests of the Town, the Town may repeal this entire Section at any time.

3. Notwithstanding the provisions of subsections (1) and (2) of this Section, the Town may at any time and in any manner (to the extent permitted by Federal, State, or local law), amend, add, repeal, and/or delete one or more provisions of this Section.

EE. Adherence to State and/or Federal Rules and Regulations

1. To the extent that the holder of a Special Use Permit for a Wireless Telecommunications Facility has not received relief, or is otherwise exempt, from appropriate State and/or Federal agency rules or regulations, then the holder of such a Special Use Permit shall adhere to, and comply with, all applicable rules, regulations, standards, and provisions of any State or Federal agency, including, but not limited to, the FAA and the FCC. Specifically included in this requirement are any rules and regulations regarding height, lighting, security, electrical and RF emission standards.

2. To the extent that applicable rules, regulations, standards, and provisions of any State or Federal agency, including but not limited to, the FAA and the FCC, and specifically including any rules and regulations regarding height, lighting, and security are changed and/or are modified during the duration of a Special Use Permit for Wireless Telecommunications Facilities, then the holder of such a Special Use Permit shall conform the permitted Wireless Telecommunications Facilities to the applicable changed and/or modified rule, regulation, standard, or provision within a maximum of twenty-four (24) months of the effective date of the applicable changed and/or modified rule, regulation, standard, or provision, or sooner as may be required by the issuing entity.

FF. Bi-Annual Meeting:

In order to develop a logical, rational plan of deployment and siting of Wireless Telecommunications Facilities within the Town that provides reasonable coverage within the Town based on the needs of the Town and its residents, while minimizing the number and intrusiveness of the facilities and the most efficient use of Wireless Telecommunications Facilities sites, twice annually within the months of January and June of each calendar year, the Town shall hold a meeting of all carriers and tower companies who have filed applications the previous year or anyone who has expressed an interest in filing an Application to construct a Wireless Telecommunications Facility. The Town shall notify each party of the date, time and place of the meeting no later than thirty (30) days prior to the meeting at the last known address of the party and attendance shall be expected. In order to allow the allocation of the Town's resources to those applications deemed urgent or critical so that they may be permitted and service provided as expeditiously as is reasonably possible, lack of attendance shall be deemed as evidence of a lack of urgency or any critical need for the facility and subject the party not attending to a longer review process than for those attending. Consideration of Applications by those not attending shall be addressed and considered by the Planning Board twice annually, at dates to be established by the Planning Board. Exceptions to this policy may be granted by the Director of Planning based on facts and circumstances deemed sufficient to warrant exception that are shown to be in the interest of the Town and its residents.

GG. Conflict with Other Laws

Where this Section differs or conflicts with other Laws, rules and regulations, unless the right to do so is preempted or prohibited by the Town, State or federal government, this Section shall apply.

HH. Effective Date

This Section shall be effective immediately upon passage, pursuant to applicable legal and procedural requirements.

II. Authority

This Section is enacted pursuant to applicable authority granted by the State and federal government.

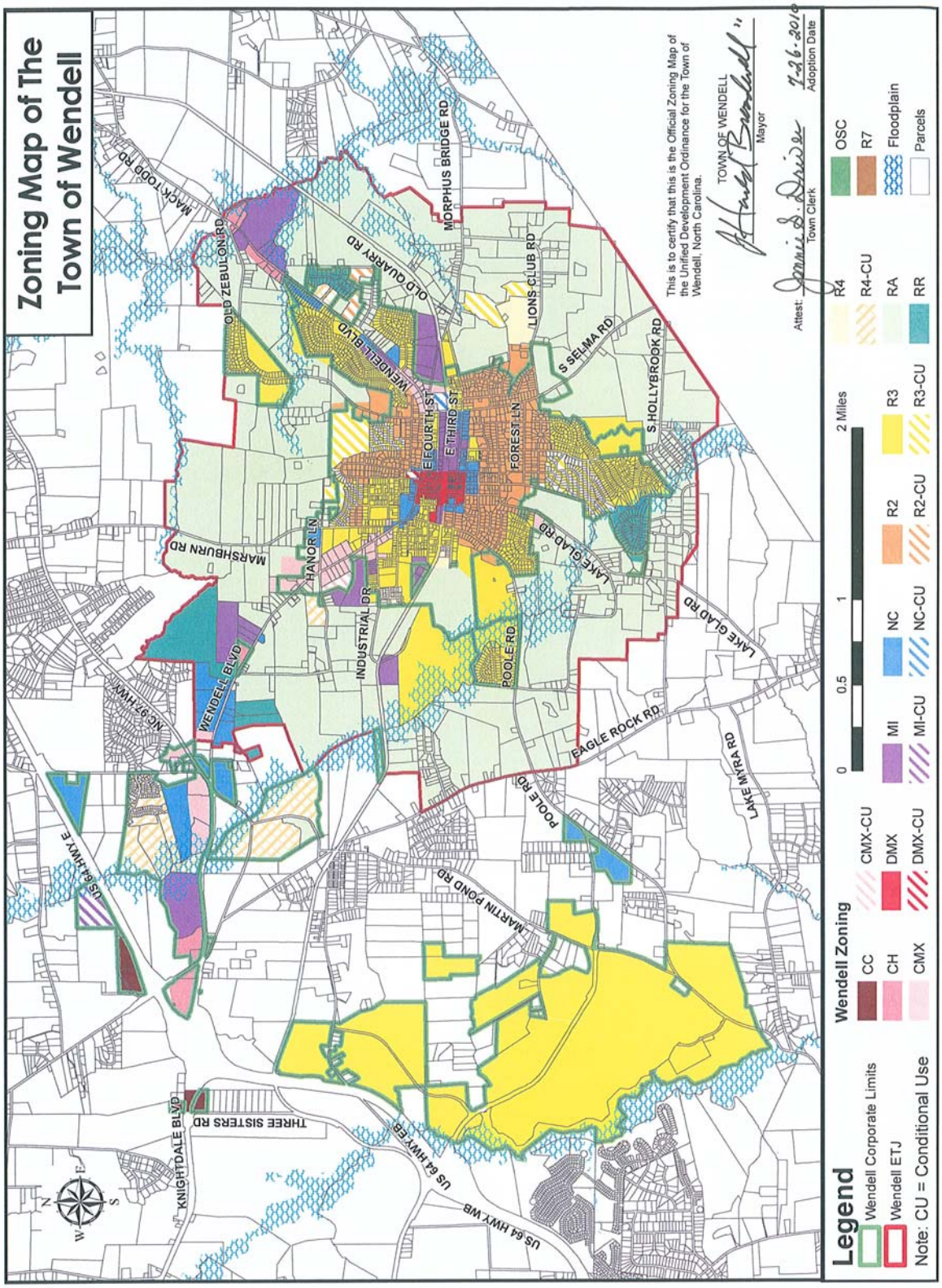
Adopted by the Town of Wendell Board of Commissioners this 23rd day of February, 2009.

_____

_____
J. Harold Broadwell II, Mayor

Attest:

_____

_____
Jonnie S. Driver, Town Clerk

Appendix E. OFFICIAL ZONING MAP